1. Legal Ad

    Documents:

        PB LEGAL AD 10-12-16.PDF

2. Agenda

    Documents:

        PB AGENDA 10-12-16.PDF

3. 58 Fore Street

    3.I. Report And Attachments

        Documents:

            FORE ST. - 58 (REPORT AND ATTACHMENTS).PDF

    3.II. Applicants Submittal

        Documents:

            FORE ST. - 58 (APPLICANTS SUBMITTAL).PDF

    3.III. Plans (1 Of 3)

        Documents:

            FORE ST. - 58 (PLANS) 1 OF 3.PDF

    3.IV. Plans (2 Of 3)

        Documents:

            FORE ST. - 58 (PLANS) 2 OF 3.PDF

    3.V. Plans (3 Of 3)

        Documents:

            FORE ST. - 58 (PLANS) 3 OF 3).PDF

4. 30 Merrill Street

    4.I. Report

        Documents:

            MERRILL ST. - 30 (REPORT).PDF

    4.II. Report Attachments

        Documents:

MERRILL ST. - 30 (REPORT ATTACHMENTS).PDF

4.III. Applicants Submittal

Documents:

MERRILL ST. - 30 (APPLICANTS SUBMTITAL).PDF

4.IV. Plans

Documents:

MERRILL ST. - 30 (PLANS).PDF

4.V. Public Comment

Documents:

MERRILL ST. - 30 (PUBLIC COMMENT).PDF

4.VI. Additional Information

Documents:

MERRILL ST. - 30 (ADDITIONAL PUBLIC COMMENT).PDF

5. 230 Commercial Street

5.I. Report And Attachments

Documents:

COMMERCIAL ST. - 230 (REPORT AND ATTACHMENTS).PDF

5.II. Applicants Submittal

Documents:

COMMERCIAL ST. - 230 (APPLICANTS SUBMITTAL).PDF

5.III. Plans

Documents:

COMMERCIAL ST. - 230 (PLANS).PDF

LEGAL ADVERTISEMENT
PORTLAND PLANNING BOARD MEETING

The Portland Planning Board will hold a meeting on **WEDNESDAY**, October 12, 2016, Council Chambers, 2nd Floor, City Hall, 389 Congress Street. **Public comments will be taken at this meeting.**

Workshop - 4:30- 7:30 p.m. (joint workshop with the Historic Preservation Board)

i. Master Development Plan; 58 Fore Street; CPBS, LLC., Applicant. (estimated time 4:30-7:30 p.m.) The Planning Board and Historic Preservation Board will hold a joint workshop on the proposed Master Development Plan for the redevelopment of the former Portland Company complex at 58 Fore Street. The site has approximately 10 acres, which is located between Fore Street and the eastern Waterfront. The development of the site will be phased and the uses include commercial, hotel, residential, office, retail, restaurant, marina, and public open space. The proposed floor area for the uses is 958,670 sq. ft. and an additional 435,200 sq. ft. of floor area is proposed for structured parking, resulting in a total area of 1,393,879 sq. ft. The proposal is subject to review under the B-6 Eastern Waterfront Mixed Use Zone, the Eastern Waterfront Port Zone, the Shoreland Zone, and the Master Development Plan standards of the site plan ordinance. A portion of the site is within a historic district.

Public Hearing –8:00 p.m. (NOTE CHANGE IN TIME)

i. Level III Site Plan; 7 Unit Residential Building; 30 Merrill Street; Banner Properties, LLC., Applicant. (8:00 – 9:00 p.m. estimated time). The Board will hold a public hearing on a proposal for a new seven unit residential building. The existing two family building will be replaced with a four story 6,580 sq. ft. building with 7 condominiums. Parking for 6 vehicles is proposed behind the building. The site is in the R-6 zone.

ii. Level III Site Plan: Phased mixed use development; 230 Commercial Street; Proprietors of Union Wharf, Applicant. (9:00 p.m. estimated time). The Board will hold a public hearing on the proposed development of 3 buildings over multiple phases, with the Phase 1 building comprising an approximately 18,282 sq. ft. office building on the site of an existing building within the site. Future phases will include restaurant/retail/market spaces within two structures totaling approximately 25, 000 sq. ft. near Commercial Street. The site is located in the Waterfront Central zone (WCZ).

ELIZABETH BOEPPLE, CHAIR - PORTLAND PLANNING BOARD

CITY OF PORTLAND, MAINE
PLANNING BOARD

Elizabeth Boepple, Chair
Sean Dundon, Vice Chair
Carol Morrissette
David Eaton
Kristien Nichols
Maggie Stanley
Lisa Whited

AGENDA
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PUBLIC HEARING – 8:00 p.m. (note change in start time)

1. ROLL CALL AND DECLARATION OF QUORUM
2. COMMUNICATIONS AND REPORTS
3. REPORT OF ATTENDANCE AT THE FOLLOWING MEETING HELD ON SEPTEMBER 27, 2016:

Workshop: Boepple, Dundon, Eaton, Morrissette, Nicholas (5:10 p.m. arrival), Stanley and Whited present.
Public Hearing: All members were present.

4. REPORT OF DECISIONS AT THE MEETING HELD ON SEPTEMBER 27, 2016:

i. Level III Subdivision; Townhouses; 70 Anderson Street (currently 1 East Lancaster Street); Jonathan Culley, representing Redfern Properties, Applicant. Dundon moved and Morrissette seconded a motion to find the proposal meets the conditional use standards to Ensure Workforce Housing. Vote: 7-0. Dundon moved and Morrissette seconded a motion to approve a waiver of aisle widths to allow 20 feet. Vote: 7-0. Dundon moved and Morrissette seconded a motion to waive the percentage of compact spaces to allow 85% as compact spaces. Vote: 7-0. Dundon moved and Morrissette seconded a motion to waive the required trees in parking areas. Vote: 7-0. Dundon moved and Morrissette seconded a motion to waive the street tree requirement to allow 4 trees to be planted on the Housing Authority property, subject to an agreement, or contribute $800 to the street tree fund. Vote: 7-0. Dundon moved and Morrissette seconded a

motion to approve the subdivision ordinance with two (2) conditions of approval. Vote: 7-0. Dundon moved and Morrissette seconded a motion to approve the development review application for the site plan with three (3) conditions of approval.

ii. Amended Level III Site Plan; 415 Cumberland Avenue; M & A Low Country Investments, LLC., Applicant. Dundon moved and Morrissette seconded a motion to grant a waiver of 1 street tree and pay $200 into the street tree fund. Vote: 7-0 Dundon moved and Morrissette seconded a motion to approve the subdivision with two (2) conditions of approval. Vote: 7-0 Dundon moved and Morrissette seconded a motion to approve the site plan with five (5) conditions of approval. Vote: 7-0.

iii. Land Use Code, Solar Energy Generation, Proposed New Division 2 under Article X Alternative Energy, and Amendment to 14-430, City of Portland, Applicant. Dundon moved and Morrissette seconded a motion to find the proposed ordinance is consistent with the comprehensive plan. Vote: 7-0 Dundon moved and Morrissette seconded a motion to recommend to City Council adoption of the amendments. Vote: 7-0

5. NEW BUSINESS

i. Level III Site Plan; 7 Unit Residential Building; 30 Merrill Street; Banner Properties, LLC., Applicant. (8:00 – 9:00 p.m. estimated time). The Board will hold a public hearing on a proposal for a new seven unit residential building. The existing two family building will be replaced with a four story 6,580 sq. ft. building with 7 condominiums. Parking for 6 vehicles is proposed behind the building. The site is in the R-6 zone.

ii. Level III Site Plan: Phased mixed use development; 230 Commercial Street; Proprietors of Union Wharf, Applicant. (9:00 p.m. estimated time). The Board will hold a public hearing on the proposed development of 3 buildings over multiple phases, with the Phase 1 building comprising an approximately 18,282 sq. ft. office building on the site of an existing building within the site. Future phases will include restaurant/retail/market spaces within two structures totaling approximately 25, 000 sq. ft. near Commercial Street. The site is located in the Waterfront Central zone (WCZ).

Memorandum
Planning and Urban Development Department
Planning Division

To:	Elizabeth Boepple, Chair and Members of the Portland Planning Board Scott Benson, Chair, and Members of the Historic Preservation Board
From:	Christine Grimando, Senior Planner
Date:	October 7, 2016
Re:	Master Development Plan; 58 Fore Street CPB2 LLC
Project #:	2016-224 CBL: 018 A001, 018 A002, 018 A003
Meeting Date:	October 12, 2016

I. INTRODUCTION

CPB2 LLC has submitted for review a Master Development Plan (MDP) for the (+/-) 10 acre site at 58 Fore Street known as the Portland Company Complex. The proposed development includes retail, office, residential, hotel, restaurant, function space, a marina, and residential units. The site also contains a linear parcel owned by the Maine Department of Transportation that includes the Maine Rail/Trail corridor and the Eastern Promenade Trail, which will continue to traverse the site. In addition to the 10 acres, the property includes a 13.2 acre submerged land lease, currently containing a marina. There are currently a variety of the uses on the developed site, including storage, office, a marina, event space and the Maine Narrow Gauge Railroad Museum.

The application is being reviewed under the MDP review standards (Section 14-524.a.3.ciii). The project is also subject to review under the B-6 Eastern Waterfront Mixed Use Zone, the Eastern Waterfront Port Zone, the Shoreland Zone, and flood plain standards. The first workshop is a joint workshop with the Historic Preservation Board, and will provide an opportunity to discuss both the Planning Board's and Historic Preservation Board's review process. The workshop will also be an opportunity for a broad overview of the project. Rather than a full review memo detailing staff comments and technical standards, the following serves as an introduction to the project.

This development is being referred to the planning board for compliance with the MDP standards of the land use code. A total of 352 notices were sent to property owners within 500 feet of the site and a legal ad ran in the *Portland Press Herald* on October 3rd and October 4th, 2016.

A Neighborhood Meeting was held on October 4th, 2016 (Invitation in Attachment Q) which was attended by approximately 140 people.

Applicant: CPB2 LLC, c/o Jim Brady

Consultants: David Senus/Mary McCrann, Woodard & Curran; Owen Haskell, Surveyor; Perkins+Will, Architect; Mary Costigan, Bernstein Shur

II. REQUIRED REVIEWS

Waiver Requests	***Applicable Standards***
Flooding Stormwater Standard	Technical Manual, 14.3.7

Review	***Applicable Standards***
Master Development Plan	*14-527.a.3.c*

III. PROJECT DATA

Existing Zoning	B-6 & Eastern Waterfront Port Zone, w/Shoreland & Floodplain overlays. Historic District on a portion of the site.
Existing Use	Mixed use, including full service marina, parking, warehouses, boat storage, a blacksmith facility and office space.
Proposed Use	Mixed use (including commercial, residential, office, marina)
Proposed Development Program	958,679 sf of mixed residential and commercial uses, 435,200 sf parking (736 spaces), and 638 residential units.
Property Size	+/- 10 acres

	Existing	*Proposed*	*Net Change*
Building Footprint	111,822 sf	215,306 sf	103,484
Building Floor Area	167,500 sf	958,679 sf	791,179
Impervious Surface Area	335,000 sf	409,000 sf	74,000
Parking Spaces (on site)	+/-105	736	631
Bicycle Parking Spaces	0	38 racks/78 spaces	78
Estimated Cost of Project	TBD		

IV. SITE CONTEXT

The project is adjacent to Portland Harbor to the southeast and Fore Street to the northwest. The Eastern Promenade is adjacent to the east; bounded by the harbor on the southeast and by Fore Street on the northwest. The property is contiguous with active waterfront uses to the west, bordered by the Ocean Gateway Terminal, and near the Maine State Pier, both serving deep water dependent large vessels, including cruise ships. To the east is the Eastern Promenade. The neighborhood to the immediate north is residential, with Waterville, St. Lawrence and Atlantic Streets perpendicular to the Fore Street-side boundary of the property, and abutted by Munjoy South apartments. Also to the north but immediately west of this residential area is the India Street neighborhood, which contains residential uses and a diverse

mix of commercial uses – Shipyard Brewery, parking garages, the shops of India Street, a Marriot Residence Inn, and the Eastern Cemetery.

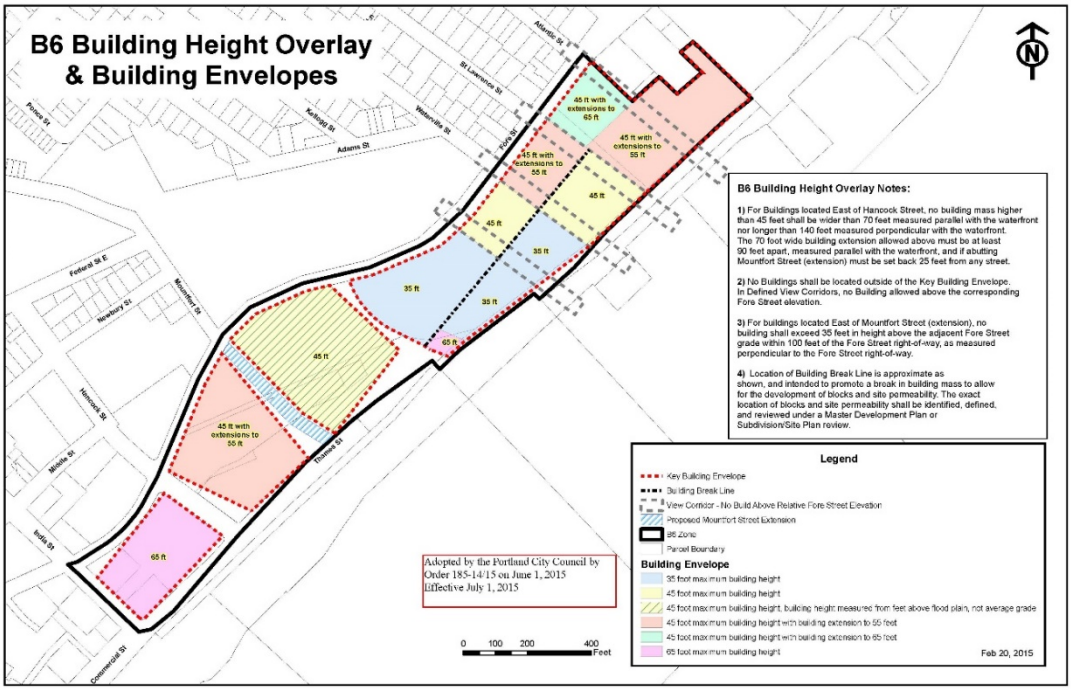


Figure 1, B-6 Building Height Overlay

The majority of the site is located within the B-6 Eastern Waterfront Mixed Zone. The Easter Waterfront Port Zone (EWPZ) has a depth of 75 feet, and encompasses approximately 1,000 feet of waterfront frontage. In addition to the two base zones, there are multiple other overlays on the property - a portion of the site is in the Shoreland Zone; a small area is partially in the A2 flood zone; and the B-6 portion of the site is included in the Building Height Overlay & Building Envelopes map. The property is a local historic district (as shown on Appendix P39). The immediately adjacent zones to 58 Fore Street are the R-6 residential zone to the east and north, ROS (Recreation and Open Space) to the east, B-6 to the west, and EWPZ to the west and south. As mentioned above, a portion of the property is a local historic district and is subject to review under Article X, Historic Preservation, in the City's Land Use Code.

V. EXISTING CONDITIONS

58 Fore Street had been in continuous use since 1846, when it was established as the Portland Company for the manufacture of railroad equipment. An industrial site at its inception, it continued as one into the 20th century, continuing to manufacture steel until 1978. It's now occupied by multiple tenants and uses, including a marina with associated parking and laydown areas, the Narrow Gauge Railroad, office, and storage. A 50' wide strip of Maine Department of

Transportation (MDOT) land that encompasses both the Maine Narrow Gauge Railway and a public, multi-use trail that is an extension of the Eastern Promenade, maintained by Portland Trails and the City of Portland, bisect the site. Two easements run with the MDOT land.

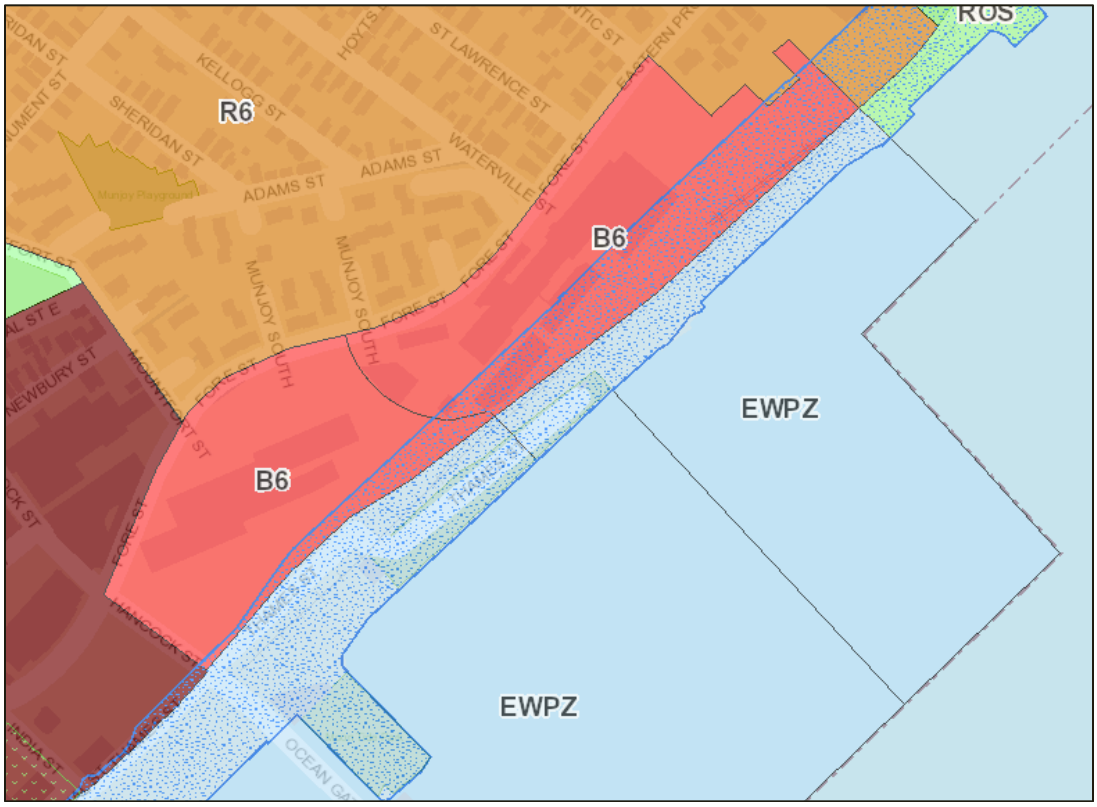


Figure 2, City of Portland Zoning Map Detail

There are significant grade changes across the site, both north to south towards the waterfront and west to east up Fore Street. Retaining walls mark much of the Fore Street edge of the property. Access is currently through a steep Fore Street drive to the west on the site.

The applicant has performed a Phase I environmental assessment of the site in 2013, and will need to meet the requirements of the Maine DEP Voluntary Response Action Program (VRAP) during redevelopment.

VI. PREVIOUS REVIEWS

An application for zoning map and text amendments for this site was submitted in August 2014, with the final changes adopted by the City Council on June 1, 2015. The property was rezoned from the Waterfront Special Use Zone to B-6 and Eastern Waterfront Port Zone, with an accompanying height overlay.

The site was designated a local historic district in February 2016. More on the Historic Preservation process in **IX**, below.

VII. MASTER DEVELOPMENT PLAN PROGRAM

The application proposes a mixed use center that includes a marina, retail, office, restaurant, and residential space. At 10 acres it would constitute a new mixed-use neighborhood for the city. It includes open spaces in the forms of plazas, a public access easement, a waterfront walkway as well as integration of the existing, public mixed-use trail. Buildings include a mixture of repurposed, existing, historic structures and new construction. The application frames the development program into seven blocks, B1-B7. The majority of parking will be enclosed in a common parking pedestal that connects B4, B5, and B6.

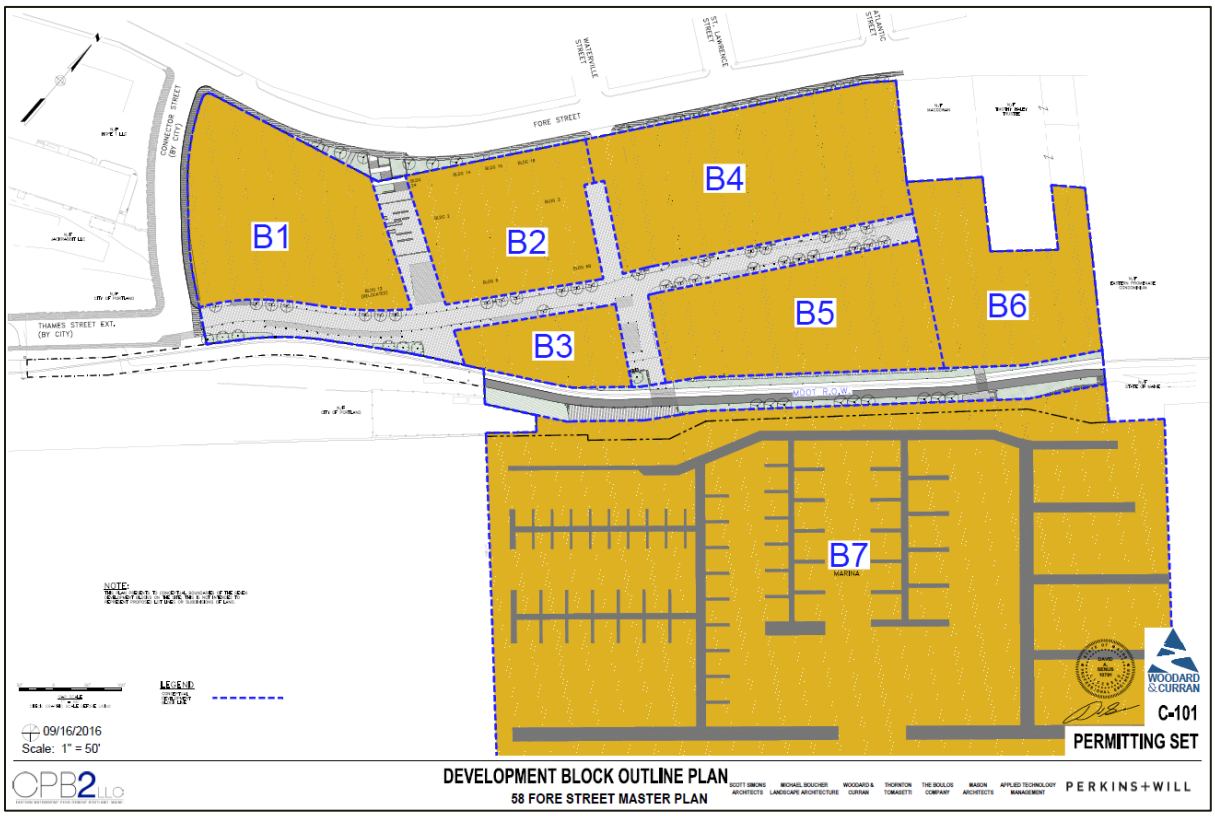


Figure 3, Development Blocks

The development program includes:

- 958,679 sf of mixed residential and commercial uses
- 435,200 sf parking to hold 736 spaces
- 638 residential units

- A marina for 220 slip spaces for seasonal and transient vessels, and a 2,600 sf building for marina facilities.
- Waterfront access that includes the Eastern Promenade Trail as well as a pedestrian walkway that runs for the length of the property. The property connects to the city-owned Amethyst lot, currently being discussed as eventual a newly designed public open space.
- Vehicular access to the site, currently from an access drive from Fore Street, will eventually be from an extension of the public Thames Street to the site, as well as a further extension of the same to Fore Street. A garage entrance to the structured parking is proposed along Fore Street. Pedestrian and bicycle access is from Fore Street, Thames Street extension, as well as via the Eastern Promenade trail.
- The project includes a proposed public access easement that runs from Fore Street to the water, on the southerly boundary of the property. The provision for the easement was made as part of the historic district designation, and final configuration will need to be determined over the course of review.
- The project includes view corridors, in accordance with the B6 Building Height & Building Envelope overlay. The view corridors, which require that no building occur above the grade of Fore Street, are 50 feet wide, and are aligned with Kellog, Waterville, St. Lawrence, and Atlantic Streets.

The application includes a table of detailed specifications for each development block in Appendix C, Project Description.

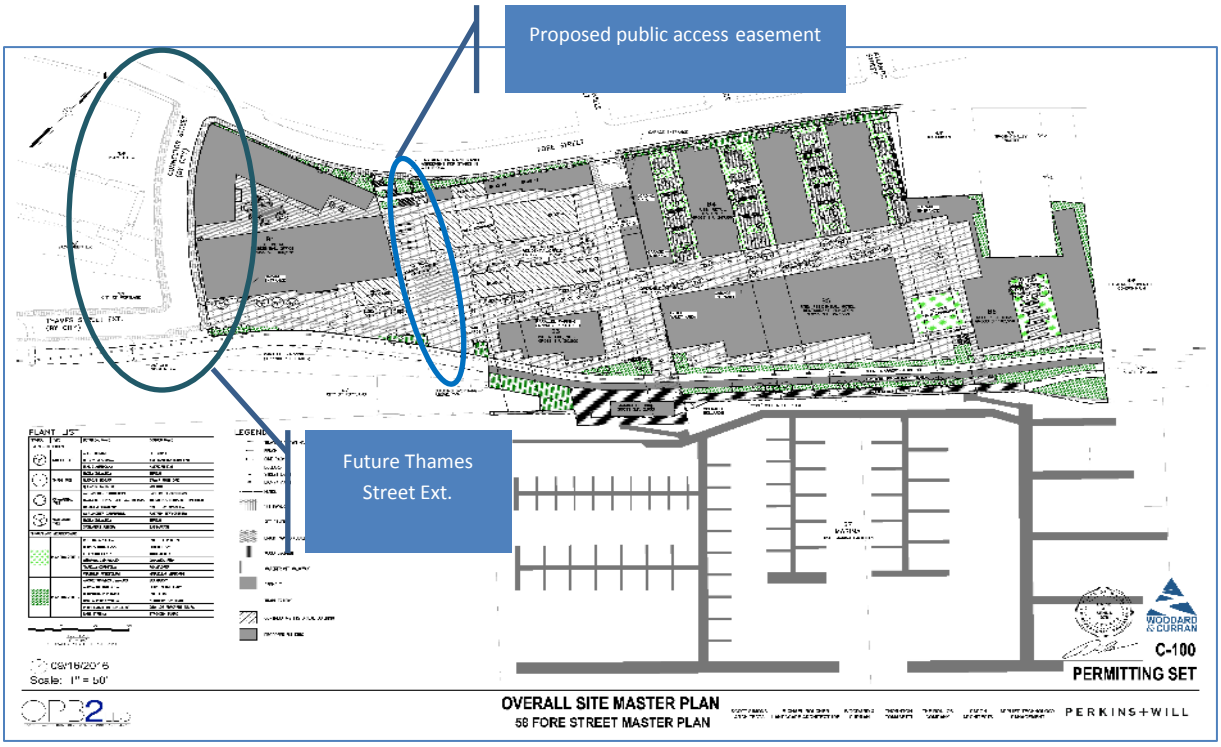


Figure 4, Overall Site Master Plan

VIII. REVIEW CRITERIA

An approved MDP establishes parameters to be adhered to for the full development, including total residential units, types of uses, lot coverage, open space, stormwater management, infrastructure, traffic, parking, site layout and circulation. It is a regulatory option, at the discretion of the applicant, for sites of one acre or more, with the intent of establishing a cohesive program for a site, while allowing a site to be built out over an extended time frame. MDPs may be developed concurrently with site plans and/or subdivisions, or separately. Approval does not constitute an authorization for development, but it does maintain the applicability of regulations in effect at the time of the approval for as long as the MDP approval remains valid (six years, with possible extensions). All Level III site plans, and subdivision plans if applicable, for each phase are required to be in general conformance with the approved MDP.

MDP review criteria (§14-524.a.3.C.III.) includes the site being designed as a cohesive whole in terms of architecture, site layout, landscaping and open space, circulation for pedestrians, bicycles and vehicles, and overall aesthetic identity of the site; consideration of site topography; street connectivity to the surrounding neighborhood; coordination with surrounding land uses and public infrastructure; provisions for appropriately scaled infrastructure to support the service demand of the proposed development; provisions for phasing, if applicable; conformance with Historic Preservation Ordinance standards; conformance with the City's Comprehensive Plan; and, impact on natural resources. The applicant has submitted their own assessment of the submission's compliance with the full standards in Appendix D, Master Development Plan Review. Full staff review of these standards and a full zoning analysis, including review comments from other departments and external third-party reviewers (all actively underway as of this writing), will follow at subsequent workshops. The October 12th workshop will allow for an overview of the project, discussion between the Planning Board and the Historic Preservation Board, as well as questions for the applicant and time for public comment. Subsequent meetings include a site walk and two subsequent workshops that will allow for dedicated focus on specific areas of the application (See Section XI, Next Steps, for dates and primary review areas for each meeting).

The following are highlighted as items that will warrant discussion over the course of the application review, and is not intended to be a comprehensive list or to substitute for review of the MDP review standards.

- Public Easement Option. As part of the Historic District designation, the City Council accepted a public easement option from CPB2 LLC to allow public visual and physical access across the site. The option is for a 50' wide easement, with final location and configuration to be determined over the course of site plan review, with the agreement of the applicant and approval by the Planning Board and Corporation Counsel. This application precedes site plan review, the easement details are not required to be finalized at this stage, but the MDP review offers an opportunity to envision the easement's role (as shown on Appendix P4, Overall Site Master Plan) in the context of the entire site.

- Site Access. Vehicular access to the site will eventually come from an extension of Thames Street, as well as a further extension of the same to Fore Street. A garage entrance to the structured parking is proposed along Fore Street. Pedestrian and bicycle access is from Fore Street, Thames Street extension, as well as via the Eastern Promenade trail. The current access drive continues to serve the site, but will not be suitable to serve the site at build-out. The Thames Street extension to 58 Fore Street will not only provide crucial road access, but will also concurrently bring extensions of subsurface utilities to serve the site.

  A related topic to site access has to do with potential land transfers (see Appendix P11, Land Transfer Proposal Plan) on the western portion of the site. The applicant has had discussions with the City about the land transactions depicted on the plan, but these agreements have not yet been finalized. The timing and configuration of public road extensions and land transactions both impact the final MDP; timing of these items as well as any changes that may occur in their configuration should be taken into account over the course of the review and any discussions of project phasing.

- Project Phasing. The MDP does not require a phasing plan, but some questions of sequence necessarily arise with a project of this scope – access, traffic impacts, stormwater management and infrastructure all would benefit from a discussion of how these are to be best managed and reviewed if the site were to develop incrementally.

- Renderings. Renderings 9, 10 and 11 (Appendices P34, P35, P36) show renderings of the project from Fore Street, with 10 and 11 depicting Fore Street towards Casco Bay. All of these are valuable for the sake of review and discussion, but some additional vantage points from Fore Street towards Casco Bay would be helpful for review of visual impacts and overall project design.



Figure 5, Rendering 10

IX. HISTORIC PRESERVATION

Deb Andrews, Historic Preservation Program Manager, contributed the following overview of the Historic Preservation process to date as well as the Historic Preservation Board's review role in the Master Development Plan process:

In February, following a lengthy designation review process by the Historic Preservation Board and Planning Board, the Portland City Council voted to designate a portion of the 58 Fore Street property as a local historic district subject to the provisions of Portland's historic preservation ordinance. The Portland Company Historic District as approved by the Council ensures the preservation of seven of the sixteen extant Portland Company structures on site. The final boundaries of the district are generally consistent with those recommended by the Planning Board (see Attachment P39) and include an area east of the current entrance yard comprised of both contributing structures and noncontributing structures as well as one additional building (Building 12) on the west side of the entrance yard which is outside the otherwise contiguous district boundaries. (Attachment P39's boundary map shows the final classification assigned to each building in the district.)

Since designation of the district in February, representatives of CPB2 have met with the Historic Preservation Board in two preliminary workshop sessions. The primary purpose of these workshops, held in mid-summer, was to solicit early feedback from the Preservation Board regarding the possibility of relocating Building #12 to another location on the property. The

question of whether the Historic Preservation Board could support relocating the building, and if so, where, needed to be answered in order for the developer to move forward with master planning for the site. In introducing the request, CPB2 explained that leaving Building 12 in its current location was proving problematic for a number of reasons, not the least of which was the fact that the future connector road linking Thames Street Extension to Fore Street was proposed to immediately abut Building 12 and the grade of the connector, by necessity, would be well above the grade of Building 12. This would leave the building is a very compromised context. Also, should Building #1 be demolished as allowed/anticipated, the distance between Building 12 and the core portion of the historic district will be even greater. Left in its current position, with the likelihood of new construction being introduced between it and the other Portland Company structures, the historical relationship of Building 12 to the balance of the district will be lost.

In reviewing the applicant's proposal, the Board was guided by the historic preservation ordinance's Standards for Review of Relocation (Sec. 14-652), which read as follows:

> *In acting upon an application…involving relocation, the historic preservation board and the planning board shall apply the following general standards… :*
> *(a) Whether the historic or urban design character and aesthetic interest of the structure or object contribute to its present setting.*
> *(b) If located within a district, whether there are definite plans for the area to be vacated and what the effect of those plans is on the character of the surrounding area. In such cases, consideration of additional design guidelines for construction to be imposed as a condition of approval is appropriate.*
> *(c) Whether the relocation of the structure or object can be accomplished without significant damage to its physical integrity.*
> *(d) Whether the proposed relocation area is compatible with the cultural, historical or architectural character of the structure or object.*

During discussion of the proposed relocation, the Historic Preservation Board noted that the future spatial relationship of Building 12 to the other Portland Company structures had been significantly impacted by the Council's decision to allow the demolition of Building 1, effectively stranding Building 12 from the balance of the district. Once new construction was introduced to the north, east and south of the building, its historical and architectural relationship to the other remaining Portland Company structure would no longer be evident. The Board ultimately concluded that relocation could be supported in this instance provided a) it is shown the relocation can be accomplished without significant damage to the building, and b) the new location reinforces the historic relationship of Building 12 and the other remaining Portland Company buildings and maintains their general spatial relationship. The Board also stressed that the position of the building in relation to abutting new construction was critical to ensure that Building 12 remained visually prominent from various vantage points. The siting of Building 12 as depicted in the applicant's latest site plan reflects the recommendations of the Historic Preservation Board.

Although the question of Building 12's potential relocation was the main focus of these preliminary workshops, CPB2 and architect Scott Simons took the opportunity to introduce some of the major additions and alterations being considered for the historic core of the property. These included removal of the overhanging dormer on Building 2 and replacement with redesigned dormers; enlargement of ground floor window openings to provide direct access to abutting plaza areas; potential relocation, reinterpretation and/or elimination of some of the elevated bridges; construction of a new elevator core addition on the north side of Building 6, 6B, and other changes. Given the very preliminary nature of the proposed alterations and additions, the Board was not in a position to provide a detailed or definitive response. They did, however, provide general input and direction on the potential additions and alterations, noting that the approach for some elements would likely need modification. The Board did not identify any obvious, insurmountable "red flags" in what was presented. It should be noted that the plans and perspective views submitted for the upcoming joint workshop are the product of additional design development since the Historic Preservation Board's mid-summer workshop sessions. Some aspects of the proposal are being presented for the first time or in more detail than originally presented.

Parameters of Historic Preservation Board's Authority in the Review of Master Development Plans

The historic preservation ordinance does not specifically anticipate or address the review of master development plans for properties within historic districts or properties which include an historic district within their larger boundaries. Accordingly, there is no defined process or role outlined for the Historic Preservation Board's review. Because there is no specific application for alteration or construction before the Historic Preservation Board at this time, the Board will be making no formal decision. It will, however, hold its own detailed workshop on the master plan, followed by a public hearing and determination of general conformance with the standards of the historic preservation ordinance.

Master development plans are addressed in the site plan ordinance and the formal review authority rests with the Planning Board. However, among the review standards master development plans must meet is the following:

> [The property will be] *Developed so as to be in conformance with Portland's Historic Preservation Ordinance standards for … properties within designated historic districts…,, if applicable. When proposed adjacent to or within one hundred (100) feet of … historic districts…, the Master Plan shall be developed so as to be generally compatible with the major character defining elements of the landmark or portion of the district in the immediate vicinity of the proposed development*

The Planning Board will look to the Historic Preservation Board to determine whether this standard is met. Following its own detailed workshop and public hearing on the master plan, the Board will make a determination of the plan's conformance with the standards of the historic preservation ordinance. That determination will be forwarded to the Planning Board. Obviously, the Historic Preservation Board will be limiting its review to those aspects of the overall development that fall within the boundaries of the Portland Company Historic District or

which are located within 100 feet of its boundaries. In its review, the Historic Preservation Board will be considering proposed building alterations, additions, new construction as well as site improvements.

As explained in Christine Grimando's memo, a master development plan (the undertaking of which is strictly elective) outlines a long-term development program (typically for larger sites) which allows for the full build-out of the project to be phased over time. The master plan identifies the long-term infrastructure needs of a full build out, while retaining the flexibility to implement the plan according to future conditions. Master plans, while illustrative of the developer's general vision for the site, are not intended to lock in the finer details of development. Details of individual projects are to be worked out as part of the site plan review process or, in the case of projects within the Portland Company Historic District, as part of the historic preservation review process. In making a recommendation to the Planning Board regarding the master plan's conformance with this review standard, the Historic Preservation Board is in no way limiting the scope or nature of its review over future project proposals. At this preliminary workshop, the Historic Preservation Board will want to focus on the major elements of the overall plan (including proposed circulation plan; treatment of the pedestrian ways; general placement, orientation and massing of proposed new construction, etc.) and evaluate the general consistency of these elements with the visual character of the Portland Company as codified in the Portland Company Historic District Designation Report. With respect to the Plan's representation of new buildings, staff understands that CPB2 is not necessarily proposing the building designs as illustrated. Consulting architects were asked to provide some level of articulation to provide a better sense of scale than simple massing models would convey. That said, members of the Historic Preservation Board are welcome to provide feedback on the form, massing and general design expression of the proposed infill construction and abutting new buildings as currently illustrated.

X. PUBLIC COMMENT

To date two emails offering public comment have been submitted (Attachments 1 and 2) articulating concerns about the implications of the area being susceptible to flooding, parking, scale of the development, and traffic congestion.

XI. NEXT STEPS

- October 18th Planning Board Site Walk. 4:30 PM at 58 Fore Street
- November 9th Planning Board Workshop #2 (primary focus on traffic and engineering review)
- November 16th Historic Preservation Board Workshop
- November 22nd Planning Board Workshop (primary focus on design including architecture, landscaping and open space)
- December 7th Historic Preservation Board Public Hearing and recommendation
- December 13th Planning Board Public Hearing

ATTACHMENTS

PUBLIC COMMENTS

1. Lowell October 3rd
2. Sawin October 4th

APPLICANT'S SUBMITTAL

A. Cover letter, TOC, Application Form
B. Application Fees
C. Project Description
D. Master Development Plan Review
E. Evidence of Right, Title and Interest
F. Evidence of State, Federal Approvals
G. Assessment of Zoning
H. Easements and Other Burdens
I. Waiver Requests
J. Evidence of Financial and Technical Capacity
K. Conceptual Site Plan
L. Stormwater Management
M. Traffic Analysis
N. Utilities Analysis
O. Boundary Survey
P. Site Law Determination Letter
Q. Neighborhood Meeting Invitation
R. Trip Generation – Bay House Supplement

PLANS

P1. Cover Sheet
P2 Existing Conditions Plan
P3 Overall Existing Conditions Plan
P4 Overall Site Master Plan
P5 Concept Dev. Block Plan
P6 Conceptual Grading Plan
P7 Utility Plan 1
P8 Utility Plan 2
P9 Concept. SW Treat. Plan
P10 Vehicle Circulation Plan
P11 Land Transfer Proposal Plan
P12 Boundary Survey
P13 Pedestrian Circulation
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P37 Fore Street Marina
P38 Average Grade Calculations Diagram
P39 Historic District Boundary

Portland Maine Yes. Google's good here.

Christine Grimando <cdg@portlandmaine.gov>

Fwd: portland resident concern

Christine Grimando <cdg@portlandmaine.gov> Thu, Oct 6, 2016 at 2:37 PM
Draft

---------- Forwarded message ----------
From: **Howard Lowell** <holo@shore.net>
Date: Mon, Oct 3, 2016 at 3:38 PM
Subject: portland resident concern
To: jlevine@portlandmaine.gov

10/03/2016

Jeff

I am a resident of Eastern Promenade and saw this week a preliminary design for the major new development on Fore Street near the old locomotive factory. Certainly the site is huge and needs rehabilitation. But the scope of the proposed project is, in my mind, completely out of scale with Portland in general, and the promenade in particular.

· The many buildings will redefine what has been a residential area, with waterfront. It would present as a huge commercial development where even the Portland House, once intimidating, would appear small

· Cars servicing 630 proposed residences, not to mention the businesses – how would they get there without totally clogging Franklin Arterial. And where will they park?

· Congestion will increase through the entire promenade area….now really a quiet jewel with unique natural beauty on the peninsula.

I trust the good sense and objectivity will apply as the review process moves forward. But I plead for concluding the development should allow for progress without deteriorating the quality of life throughout the eastern promenade.

Thanks.

Howard B. Lowell

Dir. Of Marketing

Evergreen Credit Union

PO Box 1038

Portland, ME 04104-1038

(207) 221-5006



Att. 2

label:conversation-action-settings-mailbox-58-fore-st.-portland-co.--58-fore

Mail

Remove label More

COMPOSE

Inbox (288)
Starred
Sent Mail
Drafts (129)
Conversation Action …
Junk Mail (8)
More

Portland Company site

Inbox x Conversation Action Settings/Mailbox/58 Fore St.(Portlar

Martica Sawin <m.sawin@verizon.net>
to me, Maggy, Martica

To: Christine Grimaldo, senior planner, Portland Planning Division
Re: Application 2016-224

A major concern in connection with the proposed construction on the former Portland Company site is th damage resulting from flooding and potential storm surges.

I was in a building located three blocks from the Hudson River during Hurricane Sandy. High waves car basements within 3 blocks from the highway. My building was without power—no water, no electricity, n The excavation for the new Whitney Museum, then under construction, became a lake and the museum building.

The proposed site is in a similar relation to the shorefront, only much closer. The predicted rise in sea le place this site under water even without a storm surge. Hurricanes with the force of Sandy are predicted flood protection in this area and reparation for damages at enormous expense to taxpayers or will the de to the greater New York City area is estimated at $38 billion. As my grandmother used to say, “An ounce



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Att. A

MASTER DEVELOPMENT PLAN & TRAFFIC MOVEMENT PERMIT APPLICATIONS

58 Fore Street
Portland, Maine

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

41 Hutchins Drive, Portland, Maine 04102
Tel. (207) 774-2112 Fax (207) 774-6635

227007.00
CPB2 LLC
September 2016

COMMITMENT & INTEGRITY
DRIVE RESULTS

41 Hutchins Drive
Portland, Maine 04102
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

WOODARD &CURRAN

September 16, 2016

Christine Grimando, Senior Planner
City of Portland Planning Division
389 Congress Street
Portland, ME 04101

Re: 58 Fore Street Redevelopment
Master Development Plan & Traffic Movement Permit Application

Dear Christine:

On behalf of CPB2, LLC, Woodard & Curran is submitting a Master Development Plan and Traffic Movement Permit Application for the proposed redevelopment of the former Portland Company Complex located at 58 Fore Street in Portland, Maine. Woodard & Curran will be acting as the agent for CPB2, LLC for this permit application. The permit documents were prepared in accordance with Chapter 14, Land Use Code of Ordinances of the City of Portland, Maine and meet the applicable sections of the City of Portland Design and Technical Manuals. All submission materials (i.e. application, narrative report and attachments, and drawings, etc.) have been uploaded to the City's E-Plan web-site.

We look forward to working with your office on this project, and would be glad to meet to discuss this application in greater detail. Please do not hesitate to contact me if you have any questions or require additional information.

Sincerely,

WOODARD & CURRAN

David Senus, PE
Project Manager

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1. APPLICATION FORM

Portland, Maine Yes. Life's good here.

Jeff Levine, AICP, Director
Planning & Urban Development Department

Electronic Signature and Fee Payment Confirmation

Notice: Your electronic signature is considered a legal signature per state law.

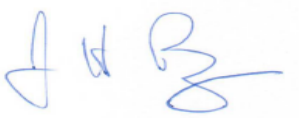
By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a ***legal signature*** per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no Site Plan or Historic Preservation Applications can be reviewed until payment of appropriate application fees are ***paid in full*** to the Inspections Office, City of Portland Maine by method noted below:

☐ Within 24-48 hours, once my complete application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☐ Within 24-48 hours, once my application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☒ I intend to deliver a payment method through the ~~U.S. Postal Service mail~~ a hand delivered check once my application paperwork has been electronically delivered.



Applicant Signature: _____ Date: September 9, 2016

I have provided digital copies and sent them on: _____ Date: _____

NOTE: All electronic paperwork must be delivered to buildinginspections@portlandmaine.gov or by physical means i.e. a thumb drive or CD to the Inspections Office, City Hall, 3rd Floor, Room 315.

Master Development Plan
Development Review Application
Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form to be used for a Master Development Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

Purpose of a Master Development Plan:

- The purpose of a Master Development Plan is to provide for a mix of land uses at designated locations to achieve a land development responsive to the assets of a site. A Master Development Plan is a well-integrated development in terms of land uses, functional activities, and major design elements such as buildings, roads, utilities, drainage systems and open space. The Master Development Plan is deemed appropriate to large scale mixed use projects that are intended to be developed in phases. The Master Development Plan shall be reviewed by the Planning Board and may be reviewed independently or concurrently with review of a Level III site plan application for a phased development.

A Master Development Plan is applicable as follows:

- A Master Development Plan is applicable for a site with one acre or larger in cumulative lot area that is designed as a cohesive and integral development program consisting of multiple buildings and associated site improvements proposed to be built in phases.
- The Master Development Plan option shall not apply in residential zones, except for institutional uses.

Planning Board Decision:

- A Master Development Plan approval shall not be construed as final authorization of the development. An approval shall confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of approval for as long as the Master Development approval remains valid (6 years from date of approval), including permissible extensions if granted (two 2-year extensions may be granted based upon criteria). All Level III site plans for each phase shall be in general conformance with the Master Development Plan.

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: http://me-portland.civicplus.com/DocumentCenter/Home/View/1080
Design Manual: http://me-portland.civicplus.com/DocumentCenter/View/2355
Technical Manual: http://me-portland.civicplus.com/DocumentCenter/View/2356

Planning Division
Fourth Floor, City Hall
389 Congress Street
(207) 874-8719

Office Hours
Monday thru Friday
8:00 a.m. – 4:30 p.m.

Updated: April 23, 2014

PROJECT NAME: 58 Fore Street Master Plan

PROPOSED DEVELOPMENT ADDRESS:

58 Fore Street, Portland, ME

PROJECT DESCRIPTION:

Master Development Plan for the re-development of the former Portland Company Complex.

CHART/BLOCK/LOT: Tax Map 18A, Lots 1, 2, & 3

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: CPB2 LLC, c/o Jim Brady Business Name, if applicable: CPB2, LLC Address: PO Box 7987 City/State : Portland, ME Zip Code: 04112	**Applicant Contact Information** Work # 207-558-3704 Home# Cell # Fax# e-mail: jameshbrady@gmail.com
Owner – (if different from Applicant) N/A Name: Address: City/State : Zip Code:	**Owner Contact Information** Work # Home# Cell # Fax# e-mail:
Agent/ Representative Name: Woodard & Curran, c/o David Senus, PE & c/o Mary McCrann, AICP Address: 41 Hutchins Drive City/State : Portland, ME Zip Code: 04102	**Agent/Representative Contact information** Work # Dave Senus 207-558-3704 Mary McCrann 207-558-3783 Cell # e-mail: dsenus@woodardcurran.com mmccrann@woodardcurran.com
Billing Information SAME AS APPLICANT Name: Address: City/State : Zip Code:	**Billing Information** Work # Cell # Fax# e-mail:

Engineer SAME AS AGENT Name: Address: City/State : Zip Code:	**Engineer Contact Information** Work # Cell # Fax# e-mail:
Surveyor Name: Owen Haskell Address: 390 US Route 1, Unit 10 Falmouth, ME 04105 City/State : Zip Code:	**Surveyor Contact Information** Work # 207-774-0424 Cell # Fax# e-mail:
Architect Name: Perkins + Will Address: 225 Franklin St. Suite 1100 Boston, MA 02110 City/State : Zip Code:	**Architect Contact Information** Work # 617-478-0300 Cell # Fax# e-mail:
Attorney Bernstein Shur Name: Mary Costigan Address: 100 Middle Street City/State : Portland, ME Zip Code: 04101	**Attorney Contact Information** Work # 207-228-7147 Cell # Fax# 207-774-1127 e-mail: mcostigan@bernsteinshur.com

APPLICATION FEES:
Check all reviews that apply. (Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

Master Development Plan (check applicable reviews) _X_ Application Fee ($1,000.00)	The City invoices separately for the following: • Notices ($.75 each) • Legal Ad (% of total Ad) • Planning Review ($40.00 hour) • Legal Review ($75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.

APPLICATION SUBMISSION:

1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan submitted as separate files, with individual file which can be found on the **Electronic Plan and Document Submittal** page of the City's website at http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal

2. **In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.**

The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:

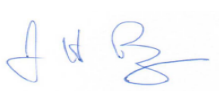
1. **One (1) full size site plans** that must be **folded.**
2. One (1) copy of all written materials or as follows, unless otherwise noted:
   a. Application form that is completed and signed.
   b. Cover letter stating the nature of the project.
   c. All Written Submittals (Sec. 14-525 2. (c), including evidence of right, title and interest.
3. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
5. One (1) set of plans reduced to 11 x 17.

Please refer to the application checklist (attached) for a detailed list of submission requirements.

APPLICANT SIGNATURE:

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Master Development Plan review. It is not a permit to begin construction. An approved Level III site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant:	**Date:**
	September 9, 2016

PROJECT DATA

The following information is required where applicable, in order complete the application.

Total Area of Site	433,000	sq. ft.
Proposed Total Disturbed Area of the Site	433,000	sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland		
Impervious Surface Area		
Impervious Area (Total Existing)	335,000	sq. ft.
Impervious Area (Total Proposed)	409,000	sq. ft.
Building Ground Floor Area and Total Floor Area		
Building Footprint (Total Existing)	111,822	sq. ft.
Building Footprint (Total Proposed)	215,306	sq. ft.
Floor Area (Total Existing)	167,500	sq. ft.
Floor Area (Total Proposed)	958,679	sq. ft.
Zoning		
Existing	B6 & EWPZ w/Shoreland Overlay	
Proposed, if applicable	N/A	
Land Use		
Existing	Warehouse & Parking	
Proposed	Mixed-Use	
Residential, If applicable		
# Residential Units (Total Existing)	None	
# Residential Units (Total Proposed)	638	
# Number of Lots (Total Proposed)	to be determined	
# Affordable Housing Units (Total Proposed)	Compliance with 14-487	
Proposed Bedroom Mix		
# Efficiency Units (Total Proposed)	to be determined	
# One-Bedroom Units (Total Proposed)	to be determined	
# Two-Bedroom Units (Total Proposed)	to be determined	
# Three-Bedroom Units (Total Proposed)	to be determined	
Parking Spaces		
# Parking Spaces (Total Existing)	105 +/-	
# Parking Spaces (Total Proposed)	736 spaces	
# Handicapped Spaces (Total Proposed)	will meet ADA requirements	
Bicycle Parking Spaces		
# Bicycle Spaces (Total Existing)	0 formally designated	
# Bicycle Spaces (Total Proposed)	38 racks (or 76 bike spaces)	
Estimated Cost of Project	to be determined	

MASTER DEVELOPMENT PLAN SUBMISSIONS			
Applicant Checklist	Planner Checklist	# of Copies	**GENERAL WRITTEN SUBMISSIONS CHECKLIST Sec. 14-527 (c) and (e)**
X		1	Completed Application form
X		1	Application fees
X		1	Written description of project
X		1	A written statement and/or plan as to the general impact of the proposed Master Development plan upon the area, relationship to surrounding properties, and measures to create appropriate transitions and access to abutting public properties and neighboring tracts.
X		1	Evidence of right, title and interest
X		1	Evidence of state and/or federal approvals, if applicable
X		1	Written assessment of proposed project's compliance with applicable zoning requirements
X		1	Summary of existing and/or proposed easement, covenants, public or private rights-of-way, or other burdens on the site
X		1	Written requests for waivers from site plan or technical standards, if applicable
X		1	Evidence of financial and technical capacity
X		1	General statements concerning storm water management techniques.
X		1	Traffic Analysis and recommendations prepared by a registered professional engineer, including current traffic counts, existing street capacity, traffic generation projections, and ability to absorb the increased traffic. If Traffic Movement Permit applies, the TMP submissions and review supersede. (Section 14-527 (e) xii)
X		1	Utilities analysis and recommendations prepared by registered professional engineer. (see utility plan below) Analysis shall assess capacity, identify deficiencies and recommend improvements, including timing, funding mechanisms and coordination with City (14-527 (e) xiii
Applicant Checklist	Planner Checklist	# of Copies	**SITE PLAN SUBMISSIONS CHECKLIST Sec. 14-527 (c) and (e)**
X		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
X		1	**Master Development Plan Site Plan including the following: (information provided may be preliminary in nature during preliminary plan phase) – scale not less than 1 inch equaling 50 feet**
X		Neighborhood context map, at a scale not less than 1 inch 100 feet	
X		Approximate boundary lines of existing and proposed lots with areas and dimensions	
X		Plan show north arrow, date, scale, legend, title Master Development Concept Site Plan, followed by project name, applicant, engineer, designer, and/or agents	
X		For residential areas, proposed density, lot configuration, circulation and plot plan	
X		Analysis of natural features of the site, including natural waterways, wetlands, floodplains, topography, soil conditions and other natural features	
X		Analysis of designated view corridors, historic resources, and archeological resources associated with the site	
X		Existing/proposed buildings and other significant structures, building groupings, exterior building elevations and entrances, parking areas and other significant physical features of the site	

X		Context drawings, perspective renderings, photographic montages, or computer generated graphics depicting the proposed development within the surrounding building and environmental context
X		Building elevation drawings shall include: • Illustration of all sides of the structures
		• Views of major entries or prominent building features
		• Illustration of building articulation and elements
		• Building finish composition
		• Pedestrian and streetscape elements of the Master Development Plan
		Digital 3-D model tied to specific location that is submitted as a KML, KMZ, DXF or DWG file on a CD or DVD or such format as approved by the Planning Authority (Sec. 14527 (e)2)
X		Major circulation patterns surrounding and serving the site, existing and proposed street lines, ways, easement and public areas within or next to the site
X		Major landscaping elements, features, open space, and plans for preservation of natural features
X		Analysis of the public safety services needed to support the Master Development Plan
X		Analysis of the anticipated impacts on the public school system to support the Master Development Plan
X		Generalized drainage plan for the site, drainage ways, flows, points of outfall and indicating impacts of development on affected drainage basins. Contour information at not less than 2 ft. intervals and document run-off characteristics
X		Inventory of existing utilities (storm water, sanitary, electrical , fire alarm boxes & lines, gas, water, lighting, curb and gutter and etc.) illustrating locations, sizes, diameters carrying capacity and present load

COMMITMENT & INTEGRITY
DRIVE RESULTS

41 Hutchins Drive
Portland, Maine 04102
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

September 16, 2016

Keith Gautreau
City of Portland Fire Department
380 Congress Street
Portland, Maine 04101

Re: 58 Fore Street Re-development
Master Development Plan Application– Fire Department Review

Dear Keith:

Thank you for coordinating the City of Portland Fire Department's review of the 58 Fore Street Re-development project. Woodard & Curran is filing a Master Development Plan Application with the City of Portland on behalf of CPB2, LLC. The project Site encompasses three parcels of land totaling an area of approximately 9.93 acres located between Fore Street and the waterfront. A plan set showing the proposed development is attached to this application. The set includes site, utility, and grading and drainage plans, as well as architectural and rendered landscaping. As a Master Development Plan, the plans show schematic level build-out of the site, and are not intended to serve as detailed design. Detailed design plans will be developed at a future date, and reviewed under future Site Plan reviews by the City Planning Office and the Portland Fire Department.

The items in the Portland Fire Department Site Review Checklist area addressed as follows:

- Name, address, telephone number of applicant:
  - CPB2, LLC, c/o Jim Brady
  - PO Box 7987, Portland, ME 04112
  - Applicant's Agent – Woodard & Curran, Attention David Senus – 207-558-3704
- Name, address, telephone number of architect:
  - Perkins + Will
  - 225 Franklin Street, Suite 1100, Boston, MA 02110
  - 617-478-0300, Attention Jeff Kim
- Proposed uses of any structures [NFPA and IBC classification]:
  - The proposed building uses have been included in the table below and will include a mix of residential units, office space, retail space, hotel, restaurant, and a full service marina. The NFPA and IBC classification will be determined prior to submission of a Site Plan Application.
- Square footage of all structures [total and per story]:
  - The proposed development block characteristics are indicated in the table below.

Table: Development Block Proposed Characteristics

Development Block	Allowable Height by Zoning	Proposed Use	Current GFA (as of September 2016)	Proposed Parking Areas
B1	35 feet	retail, residential, office	169,278	Structured parking beneath B1
B2	35 – 45 feet	retail, residential, office	72,941	Structured parking beneath B4/B5/B6
B3	35 feet	retail, office	30,800	Structured parking beneath B4/B5/B6
B4	45 - 65 feet	residential, retail	247,860	Structured parking beneath B4/B5/B6
B5	45 – 55 feet	residential, hotel, restaurant, function	247,650	Structured parking beneath B4/B5/B6
B6	45 – 55 feet	residential, B4-B6 connector	187,550	Structured parking beneath B4/B5/B6
B7 – Marina		marina	2,600	Structured parking beneath B4/B5/B6
Subtotal*			**958,679**	
Parking			435,200	
Total Project			**1,393,879**	
***Subtotal Breakdown by Use**				
Total Residential GSF			656,739	
Total Retail GSF			50,273	
Total Office GSF			123,917	
Total Hotel GSF			98,000	
Total Restaurant GSF			3,800	
Total Function GSF			5,800	
Total B4-B6 Connector GSF			17,550	
Total Marina Facilities GSF			2,600	

- Elevations of all structures:
    - Architectural plans showing the elevations of the proposed structures are included in the attached plan set.
- Proposed fire protection of all structures:
    - Internal sprinkler systems will be provided for the proposed buildings.
- Hydrant locations:
    - Existing hydrant locations are indicated on the attached Utility Plan.
- Water main size and location:
    - Water mains within the municipal ROW are noted on the Utility Plan including size and location. Water services into the site are being coordinated with the Portland Water District. Exact size, location and connections will be identified for future Site

Plan application. Existing water mains located in Fore Street and Thames Street are 8 inch and 12 inch respectively.

- Access to all structures [min. 2 sides]:
    - All structures will be accessible on a minimum of two sides.
- A code summary shall be included referencing NFPA 1 and all fire department technical standards:
    - A code summary referencing NFPA 1 and all fire department technical standards will be provided in advance of a Site Plan Application. The building tenant and use has not yet been selected, and the building interior (and associated code references) will depend on the final requirements for the structure.

We appreciate your comments and look forward to discussing this project further. If you have any questions or require additional information, please contact me at any time.

Sincerely,

WOODARD & CURRAN INC.



David Senus, PE
Project Manager

Enclosures: Full Plan Set

Cc: Christine Grimando, Senior Planner, City of Portland Planning Division

2. APPLICATION FEES

A check for the application fee has been included with the submission. The application fee includes:

Master Development Plan: $1,000

Traffic Movement Permit: $1,500

Total Fee: $2,500

2354

CPB2 LLC
P.O. Box 7987
Portland, ME 04112

TD Bank
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EZShield™ Check Fraud Protection for Business

9/12/2016

PAY TO THE ORDER OF City of Portland $ **2,500.00

Two Thousand Five Hundred and 00/100********** DOLLARS

City of Portland
389 Congress St
Portland, ME 04112

MEMO application fees - Master Development Plan and Traf

AUTHORIZED SIGNATURE

Security features. Details on back.

⑈002354⑈ ⑆211274450⑆ 2426991748⑈

CPB2 LLC

2354

City of Portland

9/12/2016

Date	Type	Reference	Original Amt.	Balance Due	Discount	Payment
9/12/2016	Bill	application fees	2,500.00	2,500.00		2,500.00
					Check Amount	2,500.00

TD Bank - Operating- application fees - Master Development Plan and 2,500.00

CITY OF PORTLAND
DEPARTMENT OF PLANNING & URBAN DEVELOPMENT
389 Congress Street
Portland, Maine 04101

INVOICE OF FEES

Application No:	2016-224	**Applicant:**	CPB2 LLC.
Project Name:	Master Plan for 58 Fore Street	**Location:**	58 FORE ST
CBL:	018 A001001	**Development Type:**	Master Development Plan
Invoice Date:	09/13/2016		

Previous Balance	-	Payment Received	+	Current Fees	-	Current Payment	=	Total Due	Payment Due Date
$0.00		$0.00		$2,500.00		$2,500.00		$0.00	On Receipt

Previous Balance **$0.00**

Fee Description	Qty	Fee/Deposit Charge
Traffic Movement Permit	1	$1,500.00
Master Development Plan	1	$1,000.00
		$2,500.00

Total Current Fees:	+	**$2,500.00**
Total Current Payments:	-	**$2,500.00**
Amount Due Now:		**$0.00**

CBL 018 A001001

Bill To: CPB2 LLC.
P.O. Box 7987
Portland, ME 04112

Application No: 2016224
Invoice Date: 09/13/2016
Invoice No: 59776
Total Amt Due: $0.00
Payment Amount: $2,500.00

Payments can be made online at http://me-portland.civicplus.com/314/Planning-Urban-Development, by mail to City of Portland, Planning Division, 4th Floor, 389 Congress Street, Portland ME 04101 or in person.

Pay Your Bill On-line

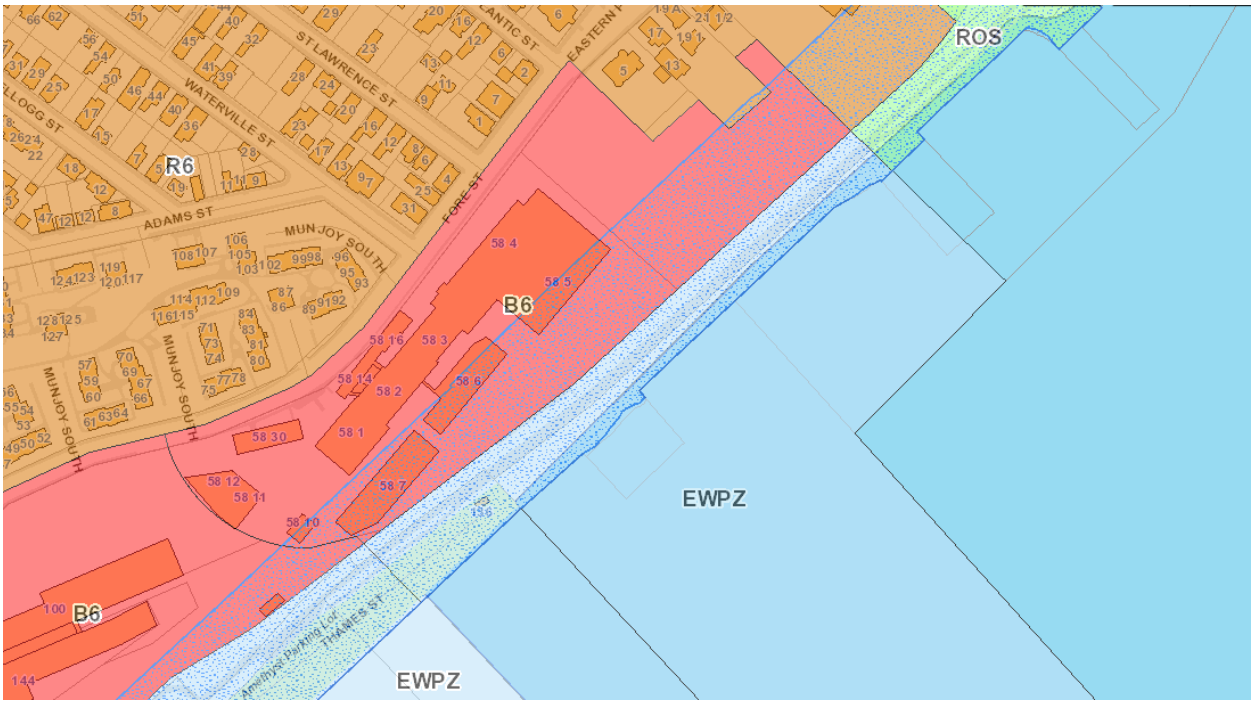
3. PROJECT DESCRIPTION

3.1 INTRODUCTION

This proposal presents a Master Plan for the redevelopment of the former Portland Company Complex located at 58 Fore Street (the "Project Site"). The Project Site encompasses three parcels owned by the Applicant, CPB2 LLC. The parcels are identified as Tax Map 18A, Lots 1, 2, and 3. Lots 1 and 3 have frontage along Fore Street, while Lot 2 is located along the waterfront, separated from Lots 1 and 3 by a linear parcel owned by the Maine Department of Transportation ("MDOT") containing the Maine Rail/Trail corridor and Eastern Promenade Trail. The City of Portland Online Assessor's Database and GIS parcel maps identify Lots 1 and 2 together as approximately 6.92 acres, and Lot 3 as 2.87 acres. A survey completed by Owen Haskell, Inc. in May 2013 identifies the areas of Lots 1 and 2 at 6.04 acres and 1.02 acres respectively, for a total of 7.06 acres, approximately 0.14 acres greater than the City's Assessor's Database. A copy of the survey is provided in Section 15 of this Report for reference. Lot 3 is reported at the same size in the City Assessor Database and on the Owen Haskell survey.

The USGS Location Map attached hereto shows the Project Site situated adjacent to Portland Harbor; bounded by the harbor on the southeast and by Fore Street on the northwest. The majority of the Project Site is located within the B-6 Eastern Waterfront Mixed Zone, some of which is also located within the Shoreland Overlay Zone. The waterfront portion of the Project Site is located within the Eastern Waterfront Port Zone (EWPZ) and Shoreland Overlay Zone. **Figure 1** was taken from the City's online GIS viewer, and shows parcel boundaries and zone boundaries in the vicinity of the Project Site. While **Figure 1** illustrates general boundaries, the City's GIS Zoning map does show the B-6 and EWPZ boundaries further inland than the Council-approved rezoning that occurred in 2015. City Planning staff have acknowledged that the EWPZ boundary has been established at 75' set back from the high water line (sea wall) along the Project Site, as reflected on the Boundary Survey submitted with this Application.

Figure 1: Zone & Parcel Boundaries for 58 Fore Street (City GIS Zoning Map)



3.2 PROJECT PURPOSE AND NEED

The proposed project will redevelop and revitalize the former Portland Company complex into a mixed-use neighborhood to encourage increased year-round use by the greater community. The vision is to redevelop the 10-acre site so it can reach its potential as a revitalized waterfront neighborhood with a vibrant and diverse mix of uses. The Project Site previously served as a pre-Civil War locomotive manufacturing site and components of that past still stand today. Historically significant facades include the Portland Company Vault, the Machine Shop, The Pattern Storehouse and the Blacksmith Shop. The development team has included these historic facades, along with the character and linear orientation of the alleyways between, in the redevelopment planning for the site. The Master Development Planning (MDP) process initiates the formal review for the redevelopment of the Project Site.

The development of the Project Site is a critical piece to Portland's future prosperity for a number of reasons, they include:

- The Project Site is large (+/- 10 acres) and strategically located between Portland's vibrant downtown, its working waterfront, and the beginning of its Eastern Promenade residential neighborhoods. There are few parcels of equivalent potential significance along the East Coast of the United States;
- The Project Site represents a keystone piece in the City's continuing efforts to link its vibrant downtown to the vast potential of its commercial waterfront. Careful development of this area will help the City realize the benefits of its investments in the Ocean Gateway marine terminal facility and related infrastructure;
- The development will help stimulate other investments in the eastern waterfront with the anticipation that investment in the Project Site will result in investment in underdeveloped public and private lands situated between the India Street neighborhood and the Project Site;
- As a whole, this proposed development presents an unparalleled opportunity to grow the City's tax base, add much-needed housing, and create jobs; and
- The development can act as a catalyst for change in this area, improve the quality of life for all Portland residents by facilitating access to the waterfront, adding capacity for events that draw residents and visitors, and enable the City's cruise ship terminal to live up to its name as a truly memorable gateway.

This redevelopment master plan created by CPB2 LLC was informed by the development considerations noted in the Eastern Waterfront Master Plan which include: the historic nature of the 19th century industrial complex; promoting the continuation of boat yard and yacht support services; adaptive reuse and sensitive rehabilitation of historic structures; increasing connections to Commercial Street; promoting shared parking with abutting onsite uses; and expanding recreational boating and active public use of the water.

Guiding design principles identified by CPB2 LLC and used throughout the conceptual development of this project include:

- Enhance public access to the waterfront across the Project Site by fulfilling the Eastern Waterfront Master Plan's vision of moving the Eastern Prom Trail directly to the waterfront, preserving and accentuating key view corridors, and increasing public access through the Project Site from Fore Street to the water's edge.
- Restore and invigorate the historic character of the former Portland Company through restoration and adaptive reuse of contributing structures, as well as the incorporation of the Project Site's history into interpretive design elements of open public spaces at the heart of the development. Incorporate the Project Site's railroad and industrial history into the waterfront open space setting.
- Respond contextually, focusing on the principles set forth in the Eastern Waterfront Master Plan. Design using appropriate scale, height and character with the goal of welcoming the public into the Project Site, and providing the entire community with increased waterfront access.

- Provide much needed housing supply to the City of Portland with exceptionally designed residential units of varying sizes and finishes, both for sale and for rent, creating a vibrant, inclusive, and diverse neighborhood.
- Expand marine-related use on the Project Site, leveraging assets of a world class marina by increasing local transient and seasonal berthing for boaters.
- Provide diverse economic stimulus to the City of Portland by creating a lively, all-season, destination catering to the Portland community, local and national retailers, as well as marina and cruise ship tourism.
- Create an inviting neighborhood including waterfront restaurants, public amenities and activities as well as open public spaces for Portland residents and visitors to enjoy while also stimulating the local economy
- Encourage the development of a waterfront open space on the adjacent City-owned waterfront land by integrating the design of the Project Site's open spaces and historic core open space.

According to a March 2015 report prepared by Planning Decisions for CPB2 LLC, *"The Economic and Fiscal Impact on the Greater Portland Region & Maine of Redevelopment of 58 Fore Street, Portland, ME,"* it was estimated that redeveloping the Project Site could result in the following benefits if it were developed to match a model 10-acre area of the Old Port:

- Addition of approximately $85 million to the City's tax base at its current property tax rate and generate $1.7 million more in annual property tax revenues.
- Generation of direct and indirect construction related spending of over $215 million supporting the full-time equivalent of 1,400 jobs earning wages totaling nearly $68 million. Many of these impacts would flow to Portland businesses and employees.
- Generation of direct and indirect annual operating sales for Maine businesses of over $38 million supporting the full time equivalent of 325 jobs with earnings of approximately $16.5 million. Most of this impact would flow to Portland businesses and employees.
- Generation of additional tax and fee revenue of $6.7 million for municipalities in the Portland region and across the state where workers and vendors connected to this development reside, including the $1.7 million property tax revenue flowing to the City of Portland.
- Generation of additional sales, income, fuel and other tax and fee revenue of $6.9 million for state government from the activities of workers and vendors connected to development of the Project Site.
- Help the City realize the goals of its Eastern Waterfront Master Plan, add to its stock of housing, make full use of the investments it has made along its commercial waterfront, encourage other investments in largely empty land near the Ocean Gateway terminal, and create an iconic and memorable first impression for visitors coming to the City from the sea.

The rationale, design principles and economic impact discussed above for the redevelopment of the Project Site highlight the project's purpose and need.

3.3 EXISTING CONDITIONS

As set forth above, the Project Site includes three tax lots: lots 1 and 3, totaling 8.91 acres, along Fore Street and Lot 2, 1.02 acres along the waterfront, separated from Lots 1 and 3 by a MDOT-owned linear parcel that is approximately 50 feet wide. The ocean frontage on Portland Harbor is approximately 1,000 linear feet. The Eastern Promenade trail and the Maine Narrow Gauge Railroad are located within the MDOT land. There are two 50' easements that cross the strip of MDOT land which provide access to lot 2 as well as a 575,000 square foot (13.2 acre) submerged land lease containing the marina.

The Existing Conditions Plan, included in the drawings attached hereto but bound separately, depicts the existing conditions of the Project Site. The Project Site primarily slopes from north to south towards the waterfront and is currently developed with buildings, pavement, compacted gravel, and vegetated area. A steep grade change exists

along Fore Street. The northeastern corner of the Project Site is a steep, wooded embankment. Retaining walls and buildings have been constructed along much of the boundary with Fore Street to account for the change in grade. A driveway from Fore Street on the western end of the Project Site provides the primary means of access.

Fore Street changes to Eastern Promenade just east of the subject property, and based on data from MDOT's Map Viewer, both streets are classified as major/urban collectors with state aid from the MDOT. India Street and Commercial Street west of India Street are both minor arterials and MDOT state highways. The Thames Street extension of Commercial Street installed as part of the Ocean Gateway project is a local road under City of Portland jurisdiction. Thames Street was constructed to within 400 feet of the Project Site as part of the Ocean Gateway Terminal construction project.

In 2013, the MDOT installed a pavement overlay on Eastern Promenade, starting at the intersection with Atlantic Street, just beyond the Project Site. The portion of Fore Street in front of the Project Site was not repaved. Existing sidewalks on Fore Street are made of concrete. This area of the City is located within the area designated for brick sidewalk. Thames Street currently has brick sidewalk on the southern side of the street, and bituminous sidewalk on the northern side of the street.

A Phase I and a Phase II Environmental Report was completed in September 2007 by Jacobs, Edwards and Kelsey. The results of the survey indicate that the Project Site does not have significant or notable environmental concerns, considering its historical usage. CPB2 performed a Phase I Environmental Assessment as part of its due diligence in June 2013 and will meet the requirements of the Maine DEP Voluntary Response Action Program (VRAP) during redevelopment.

3.4 PROPOSED DEVELOPMENT

The development program consists of seven development "blocks" that have been considered and designed around the vision of creating a mixed use neighborhood with commercial, residential, office, retail, restaurant, marina and public open space uses. Open space includes plazas for pedestrian use between the individual building components as well as a public access easement, view corridors and access to the waterfront via a walkway along the water's edge. (see **Figure 2**). While development of each of the seven blocks may move forward at different times, the entire 10 acres has been conceptualized as a whole.

Figure 2: 58 Fore Street Development Blocks

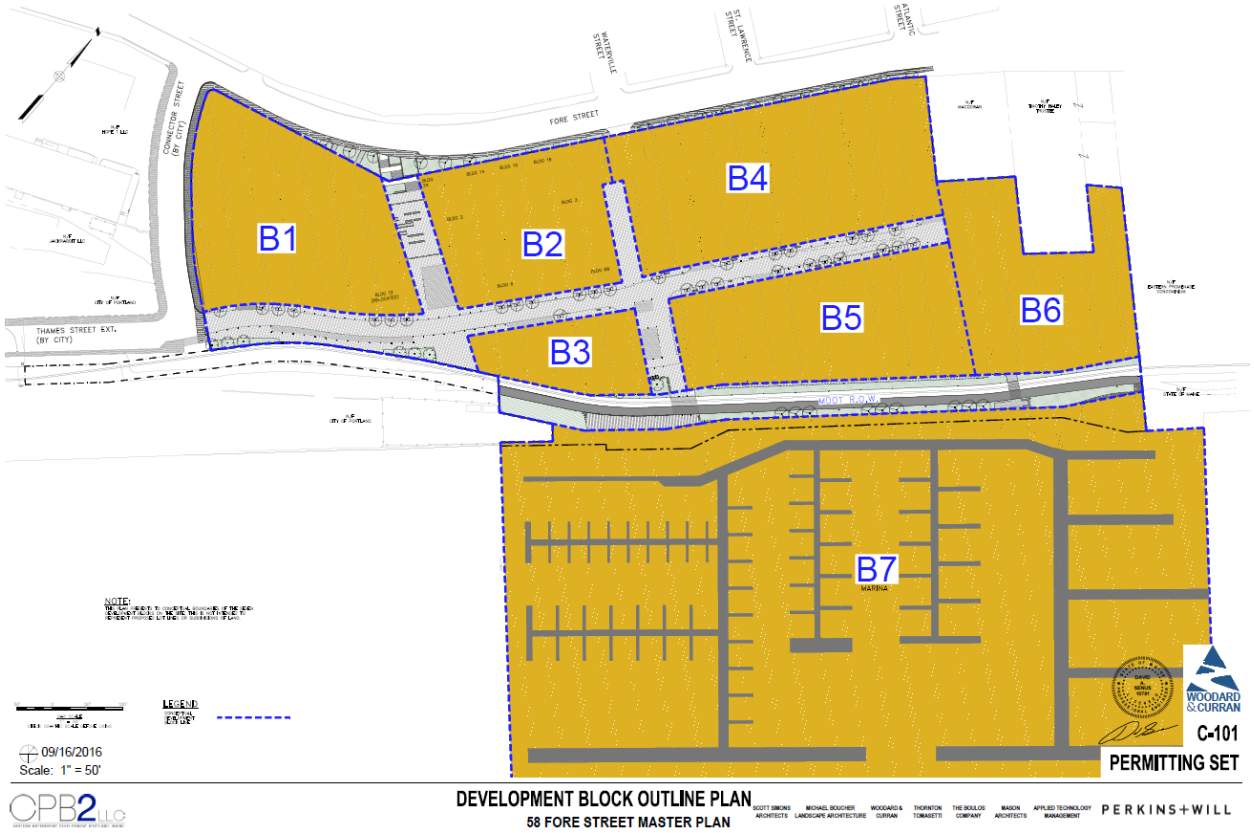


Table 1 includes detailed characteristics about each of the seven development blocks (hereinafter referred to as B1-B7). Parking for the development of B1 will be provided in a garage for the retail, residential and office users. Parking for B2, B3, B4, B5, B6 and B7 will be constructed beneath the base of B4, B5 and B6 as one common pedestal of parking that will serve all uses associated with each development block. It is anticipated that there will be 736 structured parking spaces associated with the entire development project. There will also be 13 additional parallel parking spaces in the interior roadway and spaces for temporary drop off near the marina/hotel. Per City Ordinance, new uses are required to provide bicycle accommodations based on the type of use. This requirement will be met through interior bike parking for the residential units, which will be further designed at the Site Plan level.

Table 1: Development Block Proposed Characteristics

Development Block	Allowable Height by Zoning	Proposed Use	Current GFA (as of September 2016)	Proposed Parking Areas
B1	35 feet	retail, residential, office	169,278	Structured parking beneath B1
B2	35 – 45 feet	retail, residential, office	72,941	Structured parking beneath B4/B5/B6
B3	35 feet	retail, office	30,800	Structured parking beneath B4/B5/B6

Development Block	Allowable Height by Zoning	Proposed Use	Current GFA (as of September 2016)	Proposed Parking Areas
B4	45 - 65 feet	residential, retail	247,860	Structured parking beneath B4/B5/B6
B5	45 – 55 feet	residential, hotel, restaurant, function	247,650	Structured parking beneath B4/B5/B6
B6	45 – 55 feet	residential, B4-B6 connector	187,550	Structured parking beneath B4/B5/B6
B7 – Marina		marina	2,600	Structured parking beneath B4/B5/B6
Subtotal*				**958,679**
Parking				435,200
Total Project				**1,393,879**
***Subtotal Breakdown by Use**				
Total Residential GSF				656,739
Total Retail GSF				50,273
Total Office GSF				123,917
Total Hotel GSF				98,000
Total Restaurant GSF				3,800
Total Function GSF				5,800
Total B4-B6 Connector GSF				17,550
Total Marina Facilities GSF				2,600

3.4.1 Buildings

The proposed development builds off the strength of the historic Portland Company's mid-19th century industrial brick buildings. The rigorous punched window pattern of the buildings in a solid façade has been interpreted into a contemporary architectural expression for the new development. A range of design responses exist to give the development a varied character from the masonry buildings along Fore Street to textured metal, wood and glass residential buildings stepping down the hill and to glassier, transparent buildings along the water's edge.

The existing view corridors extending from Kellogg, Waterville, St Lawrence and Atlantic Streets have helped connect this new development on Portland's waterfront with the street grid from the historic Munjoy Hill neighborhood. To further connect to this important neighborhood, the buildings along Fore Street are two and three story structures in a town house configuration which provide entries directly to units on Fore Street. The architecture of these buildings emulates the scale and massing of the houses from the neighborhood and changes character as one moves from west to east up Fore Street to the Eastern Promenade. The eastern portions of the Project Site are proposed as residential to reflect and support the character of adjacent, existing residential uses. The uses transition to more commercial and public spaces moving west across the Project Site which is consistent with the existing uses and creates a natural and consistent transition to that section of the City.

The proposed development extends Thames Street along the water's edge into the Project Site, defining a vital and vibrant retail district. This district occupies the majority of the historic buildings as well as the base of the new office building, hotel, and waterfront pavilion. Together, this provides for a dynamic destination retail area that builds on the historic character of the Portland Company and integrates its retail with new and more transparent retail on the water's edge.

A key driver to this area of Portland's waterfront is the dynamic 13-acre marina with its boating activities as well as the very active Eastern Promenade Trail with its pedestrian, bicycle, and Maine Narrow Gauge Railroad tourist train that traverses the southern edge of the site. The architecture that fronts this edge is open and transparent on the first two levels and then glassy with balconies terraces and setbacks to articulate the building edges. Metal, glass, wood and masonry materials present a mixture of color tone and texture to this area of the Project Site.

Throughout the Project Site, landscaped courts and hard scape plazas provide active gathering spaces for residents, visitors, retail and yearly celebrations to occur as the Eastern Promenade is integrated into this system. A variety of public access is encouraged throughout the Project Site. On the hill side, housing and planted courtyards step down the hill providing residents active and passive landscaped courts and mews to soften and enliven the architecture and to provide a lush ground plane which serves to maximize the view corridors.

The overall expression of the Project Site, the landscape and the architecture, is to build on the scale and character of the neighborhood and adjacent Old Port while infusing it with a contemporary language that over time will become a part of Portland's rich architectural heritage.

3.4.1.1 Marina (B7)

The proposed plan for the marina associated with the Project Site located at B7 consists of approximately 220 slip spaces (this includes maximum dinghy dock usage for boats moored outside the marina). It is estimated that 140 of the vessels will be seasonal slip users and the other 80 slips would be visiting transient vessels. The marina anticipates a need for 110 parking spaces; 9 will be for employees of the marina. The marina plan calls for repurposing some of the existing marine floating dock and marine floating finger pier infrastructure. New infrastructure will include additional floating dock space, heavy duty floating dock space and four floating wave attenuators. The proposed plan for the marina has been included as an attachment to this section.

3.4.2 Utilities

A utility assessment was prepared for the Project Site in August 2015 which has been included as an attachment to Section 14. The Project Site is currently serviced primarily through utility mains in Fore Street. As part of the construction completed for the Ocean Gateway facility project in 2007, new utility infrastructure was installed in Thames Street. These utilities terminate approximately 400 feet to the west of the Project Site. The City has plans to extend Thames Street and its associated utility infrastructure from its current terminus to the western edge of the Project Site in accordance with the Master Plan for Redevelopment of the Eastern Waterfront. The Project Site will connect to the utility mains within the Thames Street extension, and utilities will be routed through the Project Site primarily within the private site roadway.

3.4.3 Landscaping

The proposed landscape embodies the project's guiding principles, offering an integrated system of spaces and connections that respond to the Project Site's context and support the multiple year-round uses of the new neighborhood. The landscape lends a cohesive identity to the seven development blocks, while allowing for variety and flexibility necessary to create a vibrant, inclusive place. A collection of ground-level and elevated landscapes reflect the distinct character, scale, and programmatic requirements of each block's buildings, while responding to the site's topography and proximity to the waterfront. Pedestrian-oriented and accessible from all directions, this new urban landscape elegantly organizes the rich range of users throughout the site: pedestrians, bicycles, cars, service and emergency vehicles, and the narrow-gauge train. The simple, rational design is supported by a palette of timeless, durable materials that unify the old and the new and contribute to the unique identity of this distinctive new neighborhood in Portland. The landscape consists of the following major elements and features:

- **Streetscape** – The primary street through the property is intended to be shared use, safely accommodating a mixed stream of pedestrian, car, bicycle and service vehicle traffic accessing all the blocks and the marina. The street is curb-less, with driving lanes defined on each side by a shallow break in grade for drainage, street trees, site furnishings, street lights and bollards to define travel lanes for pedestrian safety. Continuous paving unifies the driving lane and sidewalk zones. However, a finer scale and texture of paving demarcates garage and service entrances. Vehicular Turnarounds are provided between B3 and B5 and at the terminus of the street between B5 and B6.
- **Waterfront** – The waterfront zone of this project merges directly with the Eastern Promenade Trail, accommodating pedestrians, cyclists, and the Maine Narrow Gauge Railroad. A generous walkway runs along the seawall for the entire length of the property, connecting seamlessly to existing trails to the east, and the city-owned Amethyst lot to the west. The waterfront walkway widens around the proposed marina building to allow pedestrian circulation and to afford excellent views of Portland Harbor. The waterfront walkway is separated from the bicycle and train routes of the Eastern Promenade Trail by a planted buffer that will create a calmer walking environment, and guide pedestrian crossings of the faster bike and train traffic lanes at demarcated points along the trail. The primary crossing is aligned with the central view corridor and circulation axis between B3 and B5. A second future crossing is proposed on the western side of B3 where the Amethyst lot meets the waterfront. A smaller, private crossing is proposed between the larger yacht dock space and Blocks 5 and 6.
- **B1 Arrival and Courtyard** – Block 1 marks the entry to the property from Thames Street. A plaza unifies the arrival space in front of the proposed office building and the relocated Building 12. Elevated one story above ground level, a central courtyard provides private common exterior lounge space for the inhabitants of the residential building on the northwest side. Loose and varied arrangements of different types of seating accommodate multiple users, and trees provide shade, visual interest, and a sense of nature within this very urban space.
- **B2 Courtyard and Plazas** – The landscape spaces in B2 emphasize openness and flexibility. A grand stair provides access from Fore Street and spans the entire width of the public access easement. Open plazas will exist between Fore Street and the waterfront, accommodating various flows and gatherings of pedestrians, while providing ample seating for visitors to the historic core. An open courtyard between Historic Buildings 2 and 6 offers small groups of trees, seating, and space for outdoor dining.
- **B3 Plazas** – The plaza to the southwest of the B3 building is primarily a transitional space between the upland blocks and the waterfront. This space is envisioned to extend fluidly across the train tracks and bike path to the City-owned land beyond and right up to the water. The plaza on the northwest side between B3 and B5 is an active hub providing access to restaurants, the hotel, marina and waterfront.
- **B4 Terraces** – The terraces between the B4 residential buildings offer inhabitants of the residences a series of connected, elevated spaces to enjoy communally. Accessible from the lobby of each building, the spaces are fully connected by stairways between each level. Together, the terraces offer a range of garden spaces, sun, shade, views, possible small water and fire features, and various seating options.
- **B5/6 Courtyard** – The elevated courtyard between B5 and B6 serves as a drop-off for B6 residents and a vehicular turnaround. An open lawn with seating is provided to the southeast of the turnaround, offering clear views out to the water. A discreet pedestrian connection to the waterfront is located off the eastern corner of the space.
- **B6 Courtyard** – The elevated courtyard at the B6 building offers residents of the buildings a shared outdoor space with plantings, shade, seating, and possible small water features.
- **Materials** – A family of durable, authentic, and environmentally-sound materials unifies the landscape design and helps express the identity of the neighborhood. A palette of simple, modern site furnishings complements the new architecture and accentuates the historic character of the old buildings. A limited palette of stone and/or concrete pavers unifies the ground plane, with the exception of the waterfront walkway and asphalt bike path. Attractive and

well-adapted native plants comprise the plant palette, with more upland species used on the inland blocks, and tougher seashore species in the waterfront zone. Although a common sensibility unifies all of the landscape materials, each block incorporates enough difference and variability to give it a distinctive character and richness.

- **Street Trees –** The Master Development Plan proposes 638 residential units and 130 street trees for the Project Site. The City of Portland requires that all Site Plan Submissions include street trees in numbers and locations as specified in Section 4 of the Technical Manual. Section 4 of the Technical Manual notes the following:

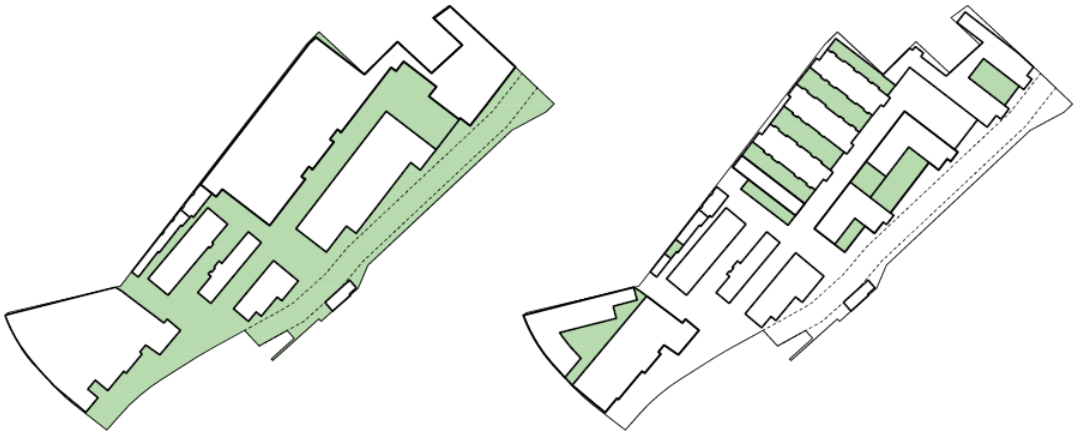
    - Multi-family residential: Multi-family residential developments shall provide a minimum of one tree per unit, planted in the City right of way unless otherwise approved and spaced thirty (30) to forty-five (45) on center.
    - Commercial, Industrial and Institutional Development: Commercial, industrial and institutional developments shall provide street trees thirty (30) to forty-five (45) feet apart on center in the City right of way along all street frontages unless otherwise approved.

  Based on the City's requirements, it would appear that up to 638 street trees would be required at full Master Plan buildout, which is far more than the development can support. During future Site Plan review phases, the developer will work with the City to identify the number of trees to be planted for the particular phase of the development under review, and pay a fee in lieu for the balance of street trees that cannot be planted under that particular Site Plan phase.

- **Open Space -** Approximately 60% of the Project Site is currently proposed as open space and 75% of that open space is proposed to be accessible to the public (see Error! Reference source not found.).

Figure 3: 58 Fore Street Proposed Open Space

PROPERTY TOTAL	**492,330 SF**
OPEN SPACE GROUND LEVEL (PUBLIC)	222,552 SF
GREEN / OCCUPIABLE ROOF TERRACES (PRIVATE)	72,048 SF
TOTAL OPEN SPACE	**294,600 SF**
OPEN SPACE % OF PROPERTY TOTAL	**60%**
PUBLIC OPEN SPACE % OF TOTAL OPEN SPACE	**75%**



OPEN SPACE GROUND LEVEL (PUBLIC) **GREEN / OCCUPIABLE ROOF TERRACES (PRIVATE)**

3.4.4 Stormwater Management

In accordance with Section 5 of the City of Portland Technical Manual, future Level III Site Plans and Subdivisions shall be required to submit a stormwater management plan pursuant to the regulations of Maine DEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding standards. The City of Portland's Ordinances and Standards include specific requirements associated with the applicability of the Chapter 500 standards for redevelopment projects, above and beyond the applicability outlined in the Maine DEP Chapter 500 rules. Acknowledgement of these requirements and the approach to stormwater management is further outlined in Section 12 of this Application.

Stormwater management measures will consist primarily of planted filter boxes, located throughout the development and integrated into the landscaping plan, so that plantings can take advantage of stormwater runoff for watering, while providing a place for stormwater filtration and treatment.

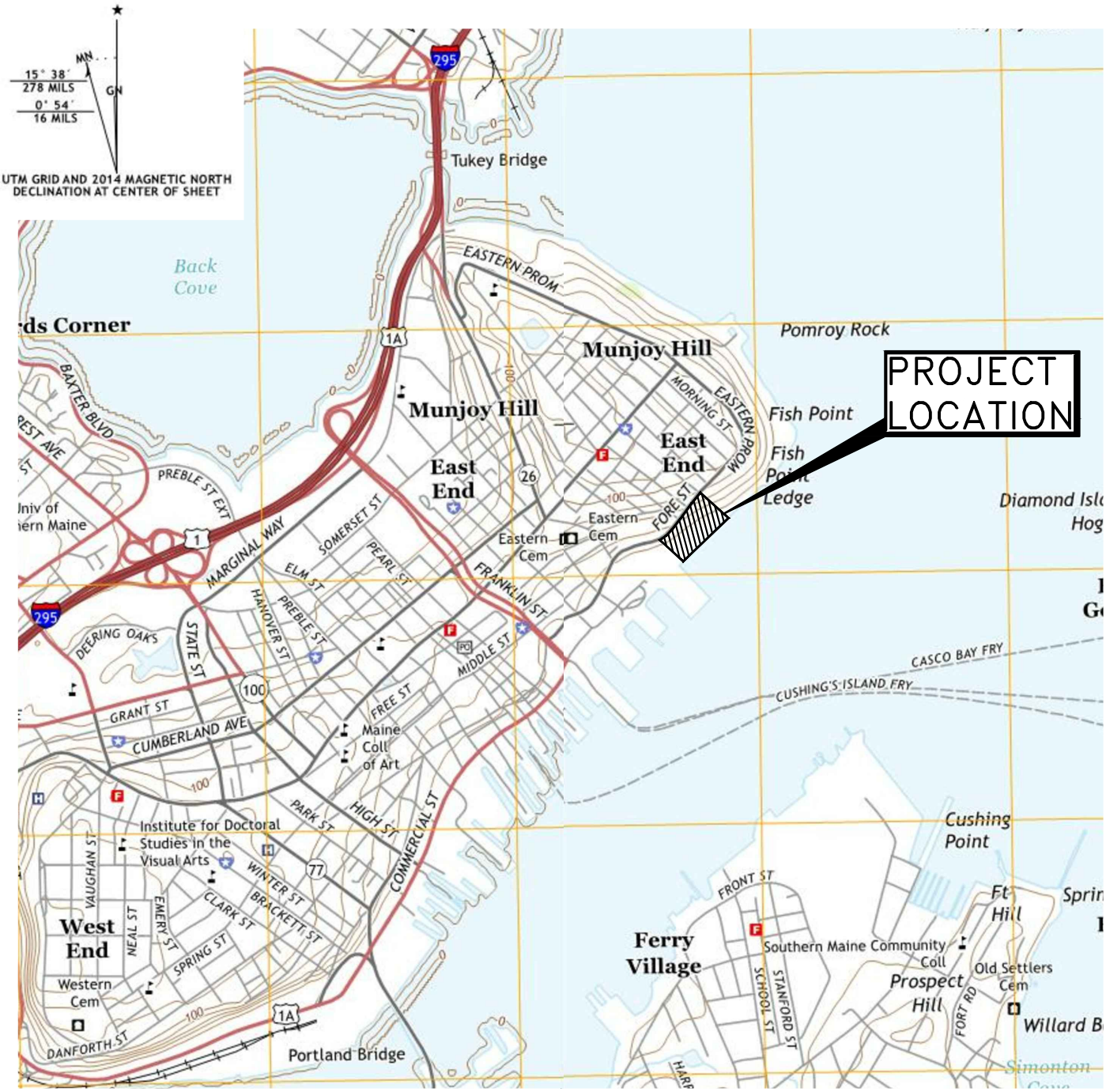
As noted in Section 9 of this Report, we are requesting a waiver from providing additional storage of stormwater for the Flooding Standard, due to the fact that the project will discharge directly into the ocean. Stormwater runoff from the Site will be conveyed exclusively via sheet flow and a piped system. A more detailed discussion of the project's compliance with these standards is provided in Section 12 of this Application.

3.4.5 Geotechnical Conditions

A substantial portion of the Project Site was created by typical 19th century waterfront landfill process. In 2007, the former property owner retained S. W. Cole Engineering Inc. to investigate the characteristics of the site soils as well as the depth of the overburden from the surface down to bedrock. This analysis found that the depth of the overburden ranges from 5 feet to 75 feet below grade with the majority of the borings being less than 25 feet deep to refusal. Suggestions regarding foundation options for new buildings are also included in the S. W. Cole Engineering Report. CPB2 has hired Haley & Aldrich to perform a more comprehensive subsurface exploration program and evaluation of the geotechnical conditions of the site; this process is ongoing at this time and is intended to inform the construction and cost estimating exercises that the CPB2 team is undertaking as part of their master planning efforts.

3.5 ATTACHMENTS

- USGS Location Map



SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2

1000 500 0 METERS 1000 2000

1 0.5 0 1

MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

FEET

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid: Universal Transverse Mercator, Zone 19T
10 000-foot ticks: Maine Coordinate System of 1983 (west zone)

PORTLAND WEST, ME 2014

PORTLAND EAST, ME 2014

WOODARD &CURRAN
41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

USGS LOCATION MAP

DESIGNED BY: N/A	CHECKED BY: DAS
DRAWN BY: BCM	USGS.DWG

CPB2, LLC
PORTLAND, MAINE 04101

58 FORE STREET

JOB NO: 227007.03
DATE: SEPT. 2016
SCALE: 1"=2000'

FIG. 1

4. MASTER DEVELOPMENT PLAN REVIEW §14-527(A)(3)(C)

The 58 Fore Street redevelopment program consists of multiple uses and has been designed in a cohesive and integral manner. Consideration was given to the integration of land uses, functional activities and major design elements such as buildings, roads, utilities, drainage systems and open space.

4.1 DESIGNATED TRACT OF LAND §14-524(A)(3)(C)(III)(A)

The Project Site consists of multiple parcels of contiguous land, totaling more than one acre. The land is approximately 10 acres in size and the parcels are identified as Tax Map 18A, Lots 1, 2, and 3. Lots 1 and 3 have frontage along Fore Street, while Lot 2 is located along the waterfront, separated from Lots 1 and 3 by the MDOT linear parcel.

4.2 DEVELOPED IN A COMPREHENSIVE, DESIGN INTEGRATED MANNER §14-524(A)(3)(C)(III)(B)

CPB2 LLC, site owner and project developer, developed the vision for this project based in part on the Eastern Waterfront Master Plan for the City of Portland. By bringing together a cohesive team of architects, landscape architects, traffic engineers, and civil engineers, the overall intention and focus is on inspiring the design and planning of a master development effort that focuses on a mix of uses with thoughtfully integrated historic components. To illustrate this vision, the development program identifies seven development blocks, each with their own potential future use and outcome, but evaluated and designed together from the very beginning of the redevelopment effort. The redevelopment program for the Project Site was conceived by considering new and redefined uses for these seven separate development blocks. Proposed uses for the development blocks will include residential, office, commercial, retail, hotel, marina and restaurant buildings as well as a plaza type feel for pedestrian use between the individual building components.

4.3 CONSISTENCY WITH THE OBJECTIVES OF THE ORDINANCE §14-524(A)(3)(C)(III)(C)

Section 7 of this application offers a detailed discussion on how the 58 Fore Street redevelopment is consistent with the objectives of the City's ordinance.

4.4 CONSISTENCY WITH THE CITY COMPREHENSIVE PLAN AND APPROVED MASTER PLANS §14-524(A)(3)(C)(III)(D)

The City of Portland's planning efforts to date have provided a solid and informative foundation for the master development planning for the 58 Fore Street redevelopment project. The proposed project is consistent with the plans outlined in this section.

4.4.1 City of Portland Comprehensive Plan (Updated 2005)

The City is currently in the process of updating its Comprehensive Plan. Included within the vision of the City of Portland Comprehensive Plan from 2005 are the following points that the 58 Fore Street redevelopment project embodies.

- "Portland has a vital working waterfront with diverse coastal commerce activities and water dependent uses."
- "Portland retains a small town feel with a built environment that is scaled for people, is pedestrian friendly, and is accessible to the community. Residents value and seek to enhance the safety of the community, the proximity of commercial uses near residences and the walkable nature of the city."
- "Portland has an active and vibrant downtown both day and night due to its interwoven mix of residential, commercial, institutional and cultural land uses."
- "Portland is a city of neighborhoods with a range of residential types such as high density areas on the peninsula…"

- "Portland is a historic maritime city which retains a rich historical character for both commercial and residential neighborhoods, offers a broad spectrum of architecture and distinctive landmarks, and maintains unifying features such as brick buildings and sidewalks, and established and traditional neighborhoods with narrow and interconnected streets."

Future directions for the City of Portland identified in the Comprehensive Plan include:

- "Build upon the historic fabric of Portland's built environment by rehabilitating historic resources and by developing new buildings that respect the scale and character of traditional development patterns. New development shall be pedestrian oriented and accessible."
- "Strive for innovation and bold initiatives that increase the livability and quality of life in Portland."
- "Support a dynamic downtown that embraces the intertwining of uses, including residential, business, retail, institutional, service, and arts and cultural uses."
- "Capitalize on Portland's economic assets and develop a strong economy based upon traditional industries, a strong retail and office center, and emergent opportunities in industry, business and coastal commerce."
- "Create a sustainable community with vital neighborhoods, high quality infrastructure, a strong economy, and a healthy environment while keeping municipal taxes affordable."
- "Preserve and enhance the park system with its trails, active recreation facilities and natural areas."

The Comprehensive Plan does acknowledge a potential public/private build-out scheme for the Eastern Waterfront that includes a portion of this site.

4.4.2 Eastern Waterfront Master Plan (EWMP) (Adopted into the Comprehensive Plan)

The Master Plan for Redevelopment of the Eastern Waterfront (amended September 2006) (EWMP) specifically acknowledges the vacant, underutilized land in the area of the Project Site. The development history of the area where the Project Site is located that was studied for the Master Plan notes that given the location and proximity to water views, urban amenities, vehicular access, port access and integration with the City trail system, significant redevelopment potential exists. Changes such as parking structures, more intensive reuse of historic buildings, replacement of non-historic structures and open space enhancement were all anticipated. The EWMP also contemplates the creation of additional public infrastructure in the means of new roadways to the East of the now existing Thames Street.

Several principles and associated objectives for redevelopment were identified during the Eastern Waterfront Master Planning effort, they include:

- *"Development within the eastern waterfront will be compatible with the surrounding areas, neighborhoods, natural environment and maritime uses."* Objectives associated with this principle that are consistent with the 58 Fore Street redevelopment are the use of compatible architecture, historic preservation and adaptive reuse of contributing historic structures, establishment of a new street and pedestrian network that integrates with the surrounding street and trail network and preservation of significant view corridors to the water and along the waterfront.
- *"Development within the eastern waterfront will create a vital and active mixed use urban area that generates life and use every day of the year and all hours of the day."* Objectives associated with this principle that are consistent with the 58 Fore Street redevelopment are the opportunity for mixed-used non-marine development and activities in locations in ways that are compatible with the use of maritime resources, the increase of the public's use of the water, waterfront and shore through public access and maintaining and enhancing recreational trail access.

- *"Development in the eastern waterfront on piers, bulkheads and on land within 75' of mean high water line, will give priority to compatible water-dependent and maritime uses."* Objectives associated with this principle that are consistent with the 58 Fore Street redevelopment are preserving and encouraging long-term enhancement of emerging and traditional maritime and water dependent uses, utilizing the harbor's deep-water resources to serve deep draft vessels, encouraging small boat berthing where water depth does not permit deep-water berthing, encouraging public physical and visual access to the water where appropriate and allowing non-marine mixed uses when compatible with water dependent and marine uses.
- *"Development in the eastern waterfront will provide a significant benefit to the City and the regional economy."* Objectives associated with this principle that are consistent with the 58 Fore Street redevelopment are encouraging a positive economic return to City government, sustaining and strengthening water-related tourism, enhancing the economic viability of the eastern waterfront's property and facilities, assuring that public investment and development benefit the residents of the greater Portland community, providing adaptable, flexible infrastructure that will allow the City to adjust to future technologies and trends and enhancing multi-model transportation opportunities.

The vision for the redevelopment of 58 Fore Street was built on the foundation of the Eastern Waterfront Master Plan with the intention to deliver the waterfront to the City of Portland with inspiring design and planning focused on mixed uses and architectural styles, public spaces, revitalized historic structures and access to the water along with a continued marina operation.

4.4.3 Design Guidelines for the Eastern Waterfront

The Design Guidelines for the Eastern Waterfront were considered during master development planning of the 58 Fore Street project and will be further considered as components move into site plan review. In general, it was noted that for the Project Site, promoting the continuation of the boat yard and yacht support services, encouraging the adaptive reuse and sensitive rehabilitation of historic structures and increasing connections to Commercial Street and promoting shared parking with abutting uses were key points. For the Master Development Plan, the following components have been considered by the design team:

- **Streets**
    - **Appropriate Street Design** – New streets should be designed to accommodate expected vehicles and pedestrians safely and efficiently while encouraging appropriate speeds. Streets should provide on-street parking along curb lines wherever possible to provide a buffer between pedestrians and moving traffic and to serve the retail, residential and commercial uses in the area.
    - **Sidewalks** - Sidewalks should be provided along both sides of all streets and should be wide enough to accommodate visiting and residential pedestrians comfortably and safely. The pedestrian environment should be further enhanced through the use of fixed street furniture, compatible and consistent lighting, and street trees. Sidewalk cafes, temporary art installations, and seasonal lighting are encouraged along public sidewalks as a means to encourage the year round activity**.**
    - **View Corridors** - Street corridor placement and design should provide for views to and from the water, as well as for permanent installations of public art in key focal point locations.
    - **Railroad Right of Way** - The Commercial Street section drawing includes the Narrow Gauge Railroad adjacent to the Commercial Street corridor. The railroad could add a dynamic intermodal element to Portland's transportation system if integrated with the surrounding streets, sidewalks, trails and private development.
    - **Underground Utilities** - Overhead utilities should be avoided within the Eastern Waterfront**.**

- **Bicycle Safety** - Bicycles are a key mode of transportation in Portland's transportation system as well as providing important recreation and fitness opportunities. Accommodations for bicycle traffic and safety should be designed into new and reconfigured streets and intersections. Bicycle racks should be installed along public sidewalks where appropriate.

- **Buildings/Architecture**
  - **Contextual Design** - New buildings should be designed in response to their context and should be compatible with surrounding neighborhoods. The placement, height, massing, proportion, articulation, and materials of new structures should encourage a vision that supports the idea that the Eastern Waterfront develop into an extension of the surrounding areas while establishing its own identity as a new urban neighborhood.
  - **Pedestrian Environment -** New development should avoid large expanses of blank walls, should provide frequent street level entries, and should provide sidewalk amenities such as street furniture and lighting that encourage year-round pedestrian use.
  - **Primary Entrances and Service Entrances** - Service entrances and loading facilities should be located at the rear or side of structures.
  - **Parking Structures** - Parking structures should be compatible with adjacent uses and architecture.
  - **Historic Structures** - Historically and architecturally significant structures and sites should be inventoried and protected from demolition and carefully rehabilitated in a way that is consistent with their original architectural intent.

- **Open Space and the Public Realm**
  - **Public Open Space and Plazas** - Privately developed open space should contribute to the public realm through enhancement of the pedestrian environment and increased recreation opportunities.

- **Water's Edge**
  - **The Eastern Waterfront…** the function of this area as an intermodal transportation center must be designed into every building and infrastructure element, to facilitate integration and coordination of the various current and potential future modes of transportation.

4.5 BUILDING/IMPROVEMENT LOCATION IN CONSIDERATION OF OPEN SPACE, NATURAL FEATURES, TREE PRESERVATION §14-524(A)(3)(C)(III)(E)

The new buildings have been sited and configured to maximize useable open space and views to the water. The project preserves open view corridors at the ends of existing Munjoy Hill streets, as required, and provides additional open view corridors through B4. The buildings at the waterfront are set back from the EWPZ more than required, providing a sizeable open zone along the harbor. Each block incorporates significant public and/or private open space at ground or elevated levels. The property is a historically developed site, and there are no significant existing trees or other natural features that warrant preservation.

4.6 CONFORMANCE WITH PORTLAND'S HISTORIC PRESERVATION ORDINANCE STANDARDS §14-524(A)(3)(C)(III)(F)

The 58 Fore Street redevelopment project is in conformance with Portland's Historic Preservation Ordinance standards for designated properties within designated historic districts. The proposed development is adjacent to and within 100 feet of the Portland Company Historic District, which was designated by the City Council on February 17, 2016. The district boundary surrounds the historic core of six contributing structures, including Buildings 2, 3, 6, 6B, 16 and 24

and also traces the footprint of Building 12. The project has carefully considered and defined a development program that will be generally compatible with the major character defining elements of the district.

The 58 Fore Street team has designed a dynamic, world-class mixed-use development on the Eastern Waterfront in Portland, at the site of the former Portland Company. The plan envisions a diverse mix of uses including retail, restaurants, commercial offices, residential, and expanded marina. The unique character, history, and qualities of the site make it an especially good location for a development of this type, fully consistent with the vision set forth in the Plan for Redevelopment of the Eastern Waterfront. The blending of well-designed new, modern architecture buildings, in juxtaposition with renovated historic buildings, will create an even more compelling story about the history of the site and how historic buildings like these can be adapted and repurposed for modern day uses.

Building 2: The three floors of Building 2 will be renovated to allow retail, residential and office uses. The exact distribution of uses has not yet been determined, as the market demand for the space is unclear at this time. The goal is to renovate the building while preserving the essential character and qualities that make the building so attractive, such as the red brick exteriors, gabled ends and corbeled brick work, the large, multi-paned windows, the exposed wood floor joists and roof trusses, and the interior columns and brick walls. One design consideration is to remove the cantilevered portions of the existing third floor dormers, which extend out beyond the masonry load bearing wall (as recommended by structural engineers) and reconstruct them to look similar to those shown on the C. Michael Lewis renderings. This would result in the creation of a shed dormer running just inside of gable-to-gable end, similar to many Commercial Street buildings. Another consideration is the dormer on the north side of the building being extended the full length of the building. In one or two sections (i.e. window bays) of the north dormer may have to have Mechanical louvers to hide mechanical equipment for HVAC. Additional considerations are to remove portions of the brick below the first floor windows on the south and north elevations of the building down to the plaza levels to facilitate inside/outside movement for possible café or restaurant tenants, providing use and connections between the existing alleyways and interior spaces.

Building 3: The two floors of Building 3 will be renovated to allow retail, office and residential uses. The exact distribution of uses has not yet been determined, as the market demand for the space is unclear at this time. The goal is to renovate the building while preserving the essential character and qualities that make the building so attractive, such as the red brick exteriors, the large, multi-paned windows, the exposed wood floor joists and roof trusses including the pop up clearstory windows, and the interior columns and brick walls. As discussed with Building 2, one consideration here is to remove portions of the brick below the first floor windows on the south and north side of building down to the plaza level to facilitate inside/outside movement for possible café or restaurant tenants.

Building 6B: This one-story building will be renovated for retail and/or office use. The plan would be to remove the red clad metal addition along the north side of the building, re-establishing the historic width of the alleyway and to add a 1/3 mezzanine level floor inside with shed dormers on both the north and south sides of the roof. In addition, a vertical core of Building 6, which currently juts out into the alley, will provide new entry access and vertical circulation solutions.

Building 12: Building 12's current location has a number of significant challenges going forward because the new "connector road" connecting Fore Street with the Thames Street extension will rise 6 to 8 1/2 feet above the base of Building 12, essentially putting it below grade on the first floor. In addition, this building which is well removed from the rest of the historic core, would potentially be lost at a low elevation within a larger development block (Block #1). We are proposing to stabilize the building so it can be lifted and relocated to another location within Block 1, on a new stable foundation adjacent to the extension of Thames Street on the western edge of the 50' public access easement, which enhances Building 12's proximity to the Portland Company's Historic Core, while still providing some separation from the core buildings. With the building stabilized and relocated, the goal would be to renovate it while preserving the essential character and qualities that make it so attractive, such as the red brick exteriors, the double-hung punched window openings, and the gable end walls and roofline. Dormers may also be a consideration for the future to further

enhance the use of the upper floors. Moving Building 12 was proposed to the Historic Preservation Board in June and August 2016. During the August meeting, a majority of the Historic Preservation Board offered their initial support for the relocation of Building 12 as depicted on the submitted plans for this project.

New buildings are proposed on Block 1 north and west of where Building 12 will be located. Because of the existing grading on that portion of the site, we are proposing building one level of parking under the portion of Block 1 that is north of the proposed location for Building 12. New buildings for offices, residential, or other commercial uses are planned to be built on top of this one level parking deck in accordance with the approved height limitations.

Alley Between Buildings 2/3 and Buildings 24/14/15/16: The goal is to create a lively urban space that creates a strong connection between Building 2 and the others along Fore Street (Buildings 14-16). We envision this space will be accessible to the public from the west end, and that it may turn into a retail corridor for small crafts shops, coffee shops, artist studios, etc.

Buildings 24/14/15/16: The multiple floors of Buildings 24, 14, 15, and 16 will be rebuilt to allow for retail and residential uses. Buildings 14/15 are badly damaged and will likely have to be rebuilt in their entirety. New buildings are being considered on top of the Buildings 14/15/16 footprint, respecting the existing historical alley and building footprints. These buildings will face Fore Street and will follow the approved height limitations. The 50' wide view corridor at the end of Kellogg Street will be maintained as per the approved height limitation guidelines.

Public Access Easement / Public Plaza: In addition to achieving the critically important goals of Historic Preservation on the former Portland Company site, the project strikes a balance with the principles of the Eastern Waterfront Master Plan that focus more broadly on public benefit, including physical and visual public access to the waterfront, enhancement of trail access and increased public use of the waterfront through public access and green space development. The restoration of the original John Poor, Building 2 façade, (c. 1847) the oldest and most architecturally significant building of the former Portland Company, creates a truly iconic focal point for the Historic Core of the site. The removal of Building 1 allows for a public plaza creating pedestrian access across the site from Fore Street to the waterfront. A hardscaped plaza, immediately in front of the western façade of Building 2, would result in the nearly aligned exposures of Building 24, the narrow back alley, Building 2's facade, the larger waterside alley, and then Building 6. This plaza, with its Fore Street termination located strategically at a bend or funneling point on Fore Street, will channel the public into the heart of the complex and will showcase the linear alignment of the Portland Company buildings and alleys. The 58 Fore Street design team believes that this is the most appropriate way to provide the narrative, telling the story of the former Portland Company, through visual connection with the facades of three historic buildings and the two alleys viewed from a beautifully designed public space.

4.7 EFFICIENT LAND USE CONSIDERING TOPOGRAPHY AND SIGNIFICANT NATURAL FEATURES §14-524(A)(3)(C)(III)(G)

Consideration has been given with regard to topography and significant natural features of the Project Site including waterways, wetlands, floodplains, and wildlife. The Project Site is a historically developed site and there are no sensitive wildlife habitats or animals associated with this site. Portland Harbor directly abuts the Project Site and the project has been designed to continue to use this resources as it has been historically used for a marina and yacht support services and public access to the waterfront. The Project Site is also partially within and adjacent to a FEMA flood zone (A2 and V2, respectively). The only portion of the project that will be within either of these zones is the marina building and dock space, which are water dependent uses. The buildings at the waterfront are set back from the EWPZ more than required, providing a sizeable open zone along the harbor.

Existing topography is shown on the Drawings attached to Section 3 of this Report. Proposed topography will be finalized as part of future Site Plan Submissions, but existing drainage patterns will be largely maintained. There are currently three stormwater outfall discharges on the Project Site. Stormwater runoff from the development will be

collected or directed to discrete stormwater treatment systems located throughout the Project Site prior to ultimately discharging to the ocean. A more detailed discussion of the proposed stormwater management plan is provided in Section 12 of this Report. No stormwater runoff from the Project Site is proposed to enter the City's combined sewer system in the future buildout condition.

4.8 EFFICIENT LAND USE DEMONSTRATING COORDINATION OF SITE DEVELOPMENT AND SURROUNDING CONTEXT §14-524(A)(3)(C)(III)(H)

The proposed 58 Fore Street redevelopment project seeks to maximize an efficient use of land while ensuring that the pieces are integrated with each other and the surrounding area in an economically viable development scheme. The land uses proposed are consistent with what the site is currently being used for and the adjacent neighborhood (commercial, residential, retail, office, restaurant, marina).

The redevelopment effort utilizes an integrated design approach with regard to space and connections that are considerate of and responsive to the site's context and will support the year round use of the neighborhood. The seven development blocks were conceptualized to complement the existing landscape while allowing for flexibility and a mix of uses. The neighborhood was designed to be pedestrian oriented and easily accessible by cars, bikes, service and emergency vehicles, as well as the narrow-gauge train.

The architecture for the site specifically builds upon the Portland Company's origins, designated view corridors which help connect the development to the waterfront, the extension of Thames Street which allows for a vibrant retail district, the designated historic district and Portland's waterfront which will also be home to a redeveloped 13-acre marina.

Throughout the site, landscaped courts and hard scape plazas provide active gathering spaces for residents, visitors, retail and yearly celebrations to occur as the Eastern Promenade trail is integrated into this system. A variety of public access is encouraged throughout the site. On the hill side, housing and planted courtyards step down the hill providing residents active and passive landscaped courts and mews to soften and enliven the architecture and to provide a lush ground plane which serves to maximize the view corridors.

A detailed discussion of the how utilities have been considered for the site development and surrounding context is included in **Section 14** of this Report.

4.9 LINKED AND COORDINATED WITH SURROUNDING LAND USES, INFRASTRUCTURE AND OFF-SITE PUBLIC FACILITIES §14-524(A)(3)(C)(III)(I)

The purpose of the proposed project is to create a safe mixed-use development intended to encourage increased year-round use by the greater community, as described throughout this Report. The proposed developed is expected to have minimal impact on the City's public school system and will revitalize the former Portland Company Complex to create opportunities to benefit the local economy and add much-needed housing to improve the quality of life for Portland residents. The project has been designed to complement the adjacent land uses, providing residential condominiums and apartments abutting to the existing residential neighborhoods to the north and east, while blending into a variety of mixed uses on the south and west sides of the project, in line with the vision of the Eastern Waterfront Master Plan. The project interfaces with existing Fore Street, the City's proposed Thames Street extension, and a future proposed City roadway between Thames Street extension and Fore Street in a manner that distributes the project's use of infrastructure. The design focuses on utilizing new infrastructure installed in the Thames corridor, which was intended to serve and facilitate redevelopment along the waterfront, and sized appropriately to accommodate redevelopment of the eastern waterfront.

4.10 DESIGNED WITH STREET SIZING AND INFRASTRUCTURE TO ACCOMMODATE SERVICE DEMAND §14-524(A)(3)(C)(III)(J)

The proposed development has been designed with consideration of the existing street systems, as demonstrated by the Traffic Analysis Report attached to Section 13. The proposed development has also been designed with consideration of utility service needs for the site, as described in Section 14. The existing infrastructure systems have sufficient capacity to accommodate the overall service demands of the proposed development.

4.11 DESIGNED TO CREATE A STREET GRID PATTERN REFLECTING CITY BLOCKS OF THE NEIGHBORHOOD §14-524(A)(3)(C)(III)(K)

The design team gave full consideration for how to set up the larger site for urban block renewal by creating a block network of streets, existing alleyways for all modes of transportation including vehicular, pedestrian and bike. This grid network allows human interaction and connection to the broader site and provides for a block plan promoting both the rehabilitation of the existing historic structures, but also new ground up development. A proposed concept of the site's plan by block showcasing the 6 potential blocks is included with the design drawings (the seventh block being the Marina). Note: the historic core is virtually all contained within Block 2.

The existing view corridors on Kellogg, Waterville, St Lawrence and Atlantic Street have helped connect this new development on Portland's waterfront with the street grid from the historic Munjoy Hill neighborhood. To further connect to this important neighborhood, the buildings along Fore Street are two and three story structures in a town house configuration which provide entries directly to units on Fore Street. The architecture of these buildings emulates the scale and massing of the Munjoy Hill neighborhood. The eastern portions of the site are proposed as residential to reflect and support the character of adjacent, existing residential uses. The uses transition to more commercial and public spaces moving west throughout the site which are more consistent with the existing uses and create a natural and consistent transition with that section of the City. The shared use project roadway serves as a vehicular and pedestrian entry into the core of the site with an alignment that acts as a natural extension of Thames Street. The City's initiative to extend Thames Street and provide a future connection between the end of Thames Street and Fore Street, defining the western edge of the development, is consistent with the City Block pattern envisioned in the Eastern Waterfront Master Plan.

4.12 DESIGNED TO CREATE COHESIVE IDENTITY THROUGH BUILDING SCALE, MASSING, ARTICULATION §14-524(A)(3)(C)(III)(L)

The proposed development builds off the strength of the historic Portland Company's early 19th century industrial brick buildings. The overall expression of the site, the landscape and the architecture, is to build on the scale and character of the neighborhood and adjacent Old Port while infusing it with a contemporary language. In accordance with the height overlay study associated with the Project Site, building massing and scale accommodates the change in topography of the land and provides a transition to the adjacent neighborhood with scale along Fore Street's existing grade consistent with the Munjoy Hill neighborhood. Internal to the site, building massing is broken up by numerous public plazas and a highlighted historic core that articulates both older design features and new architectural styles. Building articulation will be incorporated into the architecture to provide a distinct separation of building form and context.

4.13 INCLUSIVE OF PROVISIONS FOR OWNERSHIP AND MAINTENANCE OF USABLE OPEN SPACE WHERE APPROPRIATE §14-524(A)(3)(C)(III)(M)

Throughout the site, landscaped courtyards and hard scape plazas provide active gathering spaces for residents, visitors, retail and yearly celebrations to occur as the Eastern Promenade is integrated into this system. The developer anticipates going through the Subdivision process in the future where further definition of open space ownership with responsibilities for maintenance and cost will be defined and discussed.

5. EVIDENCE OF RIGHT, TITLE AND INTEREST

The project area is located on parcels identified as Tax Map 18A, Lots 1, 2, and 3, which are owned by the Applicant, CPB2 LLC. The attached deed(s), are provided as evidence of Right, Title, and Interest of the Project Site.

The CPB2 LLC team has been involved in discussions with the City of Portland on potential land transfers on the western portion of the site to allow for site access/connectivity to the City Street network, as well as realignment of the rail/trail corridor. The City of Portland proposes to extend its public roadway system in accordance with the Eastern Waterfront Master Plan to provide access to the site, specifically the Thames Street extension and the connector road between the Thames extension and Fore Street. The extension of these roadways will cross public and private lands, and will require the City and surrounding landowners to negotiate the necessary land transactions to extend these roadways. A portion of the development proposed for B1 is located on property currently owned by Hope 1 LLC. CPB2 LLC intends to address this during the Master Development Plan submission process in harmony with the City's land negotiation efforts.

CPB2 LLC currently has a memorandum of understanding with Maine DOT that acknowledges their ability to relocate Maine DOTs right of way across the site.

5.1 ATTACHMENTS

- Deeds
- Submerged Land Lease
- Memorandum of Understanding – Maine DOT ROW

Doc#: 13675 Bk:31425 Pg: 267

QUITCLAIM DEED WITH COVENANT

Maine Statutory Short Form

KNOW ALL BY THESE PRESENTS, that **THE PORTLAND COMPANY**, a Maine corporation and having a place of business at 58 Fore Street, County of Cumberland, and State of Maine, for consideration paid, grants to **CPB2 LLC**, a Delaware limited liability company, with an address of P.O. Box 7987, Portland, Maine 04112, with **QUITCLAIM COVENANTS,** the land located in Portland, County of Cumberland and State of Maine, and more particularly described in Exhibit "A" attached hereto and made a part hereof.

MAINE REAL ESTATE TAX PAID

IN WITNESS WHEREOF, said THE PORTLAND COMPANY has caused this instrument to be signed and sealed this 1st day of April, 2014.

WITNESS:

THE PORTLAND COMPANY

Phineas Sprague Jr

By: Phineas Sprague, Jr.
Its: President

STATE OF MAINE
COUNTY OF CUMBERLAND

April 1, 2014

Personally appeared the above-named Phineas Sprague, Jr. in his said capacity, and acknowledged the foregoing to be his free act and deed and that of said corporation, The Portland Company, before me.

~~Notary Public~~/Attorney at Law

Drew A. Anderson

Printed Name

EXHIBIT A

TRACT I

A certain lot or parcel of land together with the buildings thereon situated on the southerly side of Fore Street, City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Beginning at a point on the southerly sideline of Fore Street at a railroad spike at the northeasterly corner of land now or formerly of Hope 1 LLC as described in deed Book 22261, Page 50, thence S 87° 34' 45" E along the southerly sideline of said Fore Street 287.74 feet;

Thence, N 53° 19' 30" E along the southerly sideline of said Fore Street 594.45 feet to the northwesterly corner of Tract III, as shown on "ALTA/ACSM Land Title Survey, 58 Fore Street, Portland, Cumberland County, Maine made for CPB2 LLC" by Owen Haskell, Inc. dated May 22, 2013.

Thence, S 33° 29' 33" E along the westerly side of said Tract III 381.17 feet to land now or formerly of the State of Maine as described in deed Book 10924, Page 91;

Thence, S 63° 18' 30" W along land of said State of Maine 255.00 feet;

Thence, S 68° 31' 30" W along land of said State of Maine 442.91 feet to an iron rod found (bent) and land now or formerly of City of Portland as described in deed Book 21951, Page 341;

Thence, N 88° 12' 30" W along land of said City of Portland 137.25 feet to a non-tangent curve to the right;

Thence, following the curve to the right, along land of said City of Portland and land of said Hope 1 LLC, having a radius of 274.33 feet, an arc length of 337.36 feet, a chord bearing of N 38° 35' 30" W, and a chord length of 316.50 feet, to the southerly sideline of Fore Street and the point of beginning containing 6.04 acres.

Basis of bearings: Magnetic 1967.

TRACT II

A certain lot or parcel of land together with the buildings thereon situated southerly of but not adjacent to Fore Street, in the City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Commencing at a point on the southerly line of Tract I, at an iron rod found (bent) at the southeasterly corner of land now or formerly of the City of Portland as described in deed Book 21951, Page 341, on the northerly line of land now or formerly of the State of Maine as described in deed Book 10924, Page 91, as shown on "ALTA/ACSM Land Title Survey, 58 Fore Street, Portland, Cumberland County, Maine made for CPB2 LLC" by Owen Haskell, Inc. dated May 22, 2013.

Thence, N 68° 31' 30" E along the northerly line of land of said State of Maine 215.11 feet;

Thence, S 27° 09' 40" E across land of said State of Maine and along the easterly line of land now or formerly of the City of Portland 50.25 feet to the true point of beginning;

Thence, N 68° 31' 30" E along the southerly sideline of land of said State of Maine 225.10 feet;

Thence, N 63° 18' 30" E along the southerly sideline of land of said State of Maine 690.74 feet;

Thence, S 30° 39' 00" E along land of said State of Maine 56.34 feet;

Thence, S 61° 35' 30" W 27.46 feet;

Thence, S 77° 24' 52" W 94.07 feet;

Thence, S 62° 35' 30" W 475.00 feet;

Thence, S 38° 50' 30" W 60.00 feet;

Thence, S 63° 50' 30" W 120.00 feet;

Thence, N 26° 10' 00" W 8.00 feet;

Thence, S 63° 49' 37" W 150.00 feet to land of said City of Portland;

Thence, N 27° 09' 40" W along land of said City of Portland 74.89 feet to the point of beginning containing 44,274 sq. ft.

Basis of bearings: Magnetic 1967.

ALSO CONVEYING two crossings for vehicular, pedestrian and utility access to and from other land now or formerly of Phineas Sprague to the most immediately above described parcel across the area shown on Exhibit B of Indenture Deed by and between the Maine Department of Transportation and Phineas Sprague, dated August 30, 1993 and recorded in Book 10924, Page 97, as the "Rail-Trail Corridor." Each crossing shall be 50 feet in width over the 50 foot wide "Rail-Trail Corridor" plus turning radii, as necessary, at the entrances to the crossings from the above described parcel of land. Such crossings may be moved from time to time by the Grantee at its expense upon proper notice to and approval by the Maine Department of Transportation, provided that the distance between the centerlines of the two crossings shall never be less than 200 feet; and further provided that in the event of any relocation, any former crossing shall be restored to the condition it would have been in had the crossing not been placed in that location.

TOGETHER WITH any upland including the seawall which immediately adjoin the above described premises.

Received
Recorded Register of Deeds
Apr 03,2014 12:25:29P
Cumberland County
Pamela E. Lovley

TRUSTEES' DEED

Maine Statutory Short Form

KNOW ALL BY THESE PRESENTS THAT **ELIZABETH M. SPRAGUE, ERIC THOMAS SPRAGUE and PHINEAS M. SPRAGUE, as Trustees of THE BUENA VISTA TRUST**, under indenture dated December 20, 2011, with a principal place of business in Cape Elizabeth, Maine, by the power conferred by law, and every other power, for consideration paid, grant to **CPB2 LLC**, a Delaware limited liability company, with a place of business c/o Blue Water Construction, 41 Glendale Place, Gilford, New Hampshire 03249, the land, together with any improvements thereon, situated in the City of Portland, County of Cumberland, State of Maine, described on Exhibit A attached hereto.

MAINE REAL ESTATE TAX PAID

Pursuant to Title 18-B M.R.S. § 1013, we, in our capacities, do hereby certify that (1) we are all of the Trustees of said Trust; (2) the Trust exists as the date of this Agreement; (3) we have power under said Trust to convey any trust asset in our sole discretion and need no consent from any beneficial interests; (4) we are the trustees authorized to execute or otherwise authenticate any and all documents in the exercise of our power; (5) in making this conveyance, we have in all respects acted in pursuance of the authority granted in and by said Trust; and (6) the Trust has not been revoked, modified, amended or terminated in any way that would cause the representations contained in this certificate to be incorrect.

[signatures on next page]

Witness our hands and seals this 19 day of the month of July, 2013.

WITNESS:

THE BUENA VISTA TRUST

_____

By_____
Eric Thomas Sprague, Trustee

_____

By_____
Elizabeth M. Sprague, Trustee

_____

By_____
Phineas M. Sprague, Trustee

STATE OF MAINE
COUNTY OF CUMBERLAND

July __, 2013

Then personally appeared the above named Eric Thomas Sprague, in his said capacity and acknowledged the foregoing instrument to be his free act and deed.

Before me,

_____
Notary Public/Attorney at Law

Witness our hands and seals this 26 day of the month of July, 2013.

WITNESS:

THE BUENA VISTA TRUST

By _____
Eric Thomas Sprague, Trustee

By _____
Elizabeth M. Sprague, Trustee

By _____
Phineas M. Sprague, Trustee

STATE OF MAINE
COUNTY OF CUMBERLAND

July 26, 2013

Then personally appeared the above named Eric Thomas Sprague, in his said capacity and acknowledged the foregoing instrument to be his free act and deed.

Before me,

~~Notary Public~~/Attorney at Law
Drew A. Ardelean

EXHIBIT A

A certain lot or parcel of land together with the buildings thereon situated on the southerly side of Fore Street in the City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Beginning at a point on the southerly sideline of Fore Street at the northeasterly corner of Tract I as shown on "ALTA/ACSM Land Title Survey 58 Fore Street, Portland, Cumberland County, Maine made for CPB2 LLC" dated May 22, 2013 by Owen Haskell, Inc., thence N53°19'30"E along the southerly sideline of said Fore Street 140.00 feet;

Thence, N 61° 01' 30" E along the southerly sideline of said Fore Street 43.36 feet to land now or formerly of Macgowan as described in the Deed recorded in Cumberland County Registry of Deeds in Book 15773, Page 153;

Thence, S 31° 18' 30" E along land of said Macgowan 150.00 feet;

Thence, N 61° 01' 30" E along land of said Macgowan 112.00 feet to land now or formerly of Timothy Haley, Trustee, as described in the Deed recorded in the said Registry of Deeds in Book 24759, Pages 67 & 69;

Thence, S 31° 18' 30" E along land of said Haley 110.28 feet;

Thence, N 63° 18' 30" E along land of said Haley 100.00 feet;

Thence, N 31° 18' 30" W along land of said Haley 95.88 feet;

Thence, N 69° 31' 20" E along land of said Haley 49.73 feet to land now or formerly of Eastern Promenade Condominium;

Thence, S 31° 18' 26" E along land of said Eastern Promenade Condominium 240.48 feet to an iron rod found and to land now or formerly of the State of Maine as described in the Deed recorded in said Registry of Deeds in Book 10924, Page 91;

Thence, S 63° 18' 30" W along land of said State of Maine 430.00 feet to the easterly line of said Tract I;

Thence, N 33° 29 '33" W along said Tract I 381.17 feet to the point of beginning containing 2.87 acres.

The premises are conveyed together with the right of access and egress running from the existing paved driveway over land now or formerly of The Portland Company to the

premises conveyed herein as described in a deed to Elizabeth M. Sprague, Eric Thomas Sprague and Phineas M. Sprague, Trustees of The Buena Vista Trust by Warranty deed of The Portland Company dated December 30, 1012 and recorded in the Cumberland County Registry of Deeds in Book 30265, Page 32.

Meaning and intending to convey and hereby conveying the same premises conveyed to Elizabeth M. Sprague, Eric Thomas Sprague and Phineas M. Sprague, Trustees of The Buena Vista Trust by Warranty Deed of The Portland Company, dated December 30, 2012 and recorded in the Cumberland County Registry of Deeds in Book 30265, Page 32.

S:\P\POCO14\Prentice Purchase\Sale Documents\Deed of Trustees.doc

Received
Recorded Register of Deeds
Jul 29,2013 03:54:21P
Cumberland County
Pamela E. Lovley

Murray, Plumb & Murray

MEMORANDUM

TO: Ed Haddad

FROM: Peter S. Plumb

DATE: December 11, 2007

FILE: POCO-001

RE: The Portland Company - Submerged Lands Lease and Related Matters

---

I. Submerged Lands Lease.

The Portland Company is the current holder (through a series of assignments) of a Submerged Lands Lease (the "Lease") originally entered into between the Maine Department of Transportation and Fish Point Associates, dated October 20, 1978. The Lease was for an original term of ten years, with the first period ending on October 31, 1988. The Lessee has the right to renew the Lease for three successive renewal terms of ten years each. The First Lease Extension was exercised in 1988 and the second was exercised in 1998. In 2008, the final renewal will be exercised so that this Lease will finally expire on October 31, 2018. In the normal course a new lease would be negotiated for the demised premises at that time.

The original lease area included approximately 1,000 feet along the shore front, and extending out 575 feet more or less to the Harbor Commissioner's Line. In November 1983, approximately 450 feet of the western end of the frontage was deleted to

make room for the Bath Iron Works dry dock facility. Simultaneously, the State added 450 feet to the other (easterly) side of the leased area, leaving a total frontage of 1000 feet, extending out to the Harbor's Commissioners Line. This is the area occupied by the marina slips and moorings today.

II. Access Across the Railroad Right of Way and the Upland Parcel to the Ocean Side of the Railroad Right of Way.

In August 1993, the Portland Company's predecessor in title purchased from the Maine Department of Transportation via an "Indenture Deed" the property from the seawall inward to the Railroad Right of Way abutting the submerged lands lease area and, in addition, two 50 foot wide crossings of the 50 foot wide railroad right of way running between the shore and the Portland Company's principal property. These railroad crossings are 50 feet in width and may not be spaced more than 200 feet apart, center to center.

There are a variety of conditions imposed on the use of the railroad crossings, as well as on the land between the railroad right of way and the seawall. Copies of both the Submerged Lands Lease and the Indenture Deed are available through CBRE The Boulos Company, and all interested parties are urged to review them in detail.

END

EXHIBIT A

ALL-STATE LEGAL®

Waterlights from D.O.T

LEASE

AGREEMENT made this 20th day of October , 1978 by and between the MAINE DEPARTMENT OF TRANSPORTATION, hereafter called the Department and FISH POINT ASSOCIATES, a Maine partnership having a place of business in Portland, Maine, hereafter called Lessee.

WHEREAS, the Department is interested in encouraging the development of Marine-related activities in Portland Harbor and the Lessee has indicated a similar interest and intent, and the Department is willing to enter this lease with the Lessee of the premises described below for the purpose of furthering and encouraging the Lessee in this development and providing some protection for the investment which the Lessee will make in its investigation and development of the premises;

NOW, THEREFORE, the parties in consideration of agreement of the other do hereby agree as follows:

ARTICLE I

Leased Premises

The Department leases to the Lessee a certain lot or parcel of land and area of Tidal Waters located in the City of Portland, Cumberland County, Maine on the northwesterly shore of Fore River, so-called, more particularly described in Exhibit A annexed hereto and made part of this lease and hereafter called the "premises".

ARTICLE II

Term And Renewals

This lease shall be for an initial term of 10 years, beginning on November 1, 1978 and ending on October 31, 1988. The Lessee shall have the right to renew the term of this lease for three successive renewal terms of

10 years each, subject to the termination conditions. The first renewal term shall commence on the termination of the initial term and each succeeding renewal term shall commence on the expiration of the preceding term, provided that each right of renewal may be exercised and effected only if this lease is in full force and effect immediately prior to the commencement of the applicable renewal term. Lessee shall separately exercise its options to renew by notifying the Department in writing of such election at least 3 months in advance of the commencement date of the applicable renewal term. All terms and conditions applicable during the initial term shall be applicable during each renewal term except that after the third renewal term there shall be no further renewals of this lease.

ARTICLE III

Rent

The Lessee shall pay to Lessor the following amounts of rent, to wit:

(a) $1,000 per year for the first two years of the initial term of this lease.

(b) $3,000 for the third year of the initial term of this lease.

(c) An amount for each year thereafter during the initial term and any renewal term, equal to $3,000 multiplied by the fraction, the denominator of which shall be the U. S. Bureau of Labor Statistics Consumer Price Index for Boston, Mass., revised wage earners and clerical (or successor) in effect for October 1, 1980 and the mimerator of which shall be said Index as of the lease year in question. In the event that said Index is not published for a month specified above, the Index for the closest preceding month shall be used instead. The annual rent shall in no case be reduced below the sum of $3,000.

Rental payments shall be payable annually, in advance on the first day of November for each lease year. A twelve percent (12%)

annual interest charge shall be assessed on rent more than one (1) month in arrears.

ARTICLE IV

Development Of Premises

The Lessee shall from time to time present to the Department proposals as to portions and stages of its development of a berthing facility and/or other Marine-related facilities to be constructed on the premises, for review and approval by the Department, such approval shall not be unreasonably withheld. On or before November 1, 1980 the Lessee shall submit to the Department the final plan of the Lessee for such development, incorporating the portions previously approved by the Department and including a schedule for construction, to receive final approval by the Department. The final approval of the Department shall be concerned only with the general overall scope of the proposed development and the construction schedule, not any of the design details and such approval shall not be unreasonably withheld provided the intent of Article V, Use Of Premises is satisfied. No construction shall take place on the leased premises until the Lessee has secured approval for such construction from the Department. The Department agrees that it will take action to review and approve all plans as soon as possible after the plan is submitted and in no event, later than thirty (30) days after its submission.

If the Lessee has not substantially completed by November 1, 1981 that portion of the development scheduled for completion by that date, this lease may be terminated at the option of the Department provided that this day may be extended by the Department if the Lessee was unable to meet the schedule deadline due to delays caused by any reason or force beyond the control of the Lessee.

ARTICLE V

Use Of Premises

The premises shall be developed and operated for Marine-related activities and/or facilities available for commercial use including but not limited to, berthing for commercial vessels. The Lessee shall restrict its use to the above described purposes and shall not use or permit the use of the premises for any other purpose unless the express written consent of the Department is first obtained, such consent shall not be unreasonably withheld.

ARTICLE VI

Insurance And Indemnity

The Lessee shall obtain and keep in force at all times during the continuance of this lease, general public liability insurance reasonably satisfactory to the Department against claims for personal injury, death or property damage arising out of or in any way related to, the use and occupancy of the leased premises by Lessee, its agents or invitees. This insurance shall provide a combined limit of at least $1,000,000.00 for personal injury, death and property damage. Evidence of such insurance shall be forwarded to the Department.

The Lessee further agrees to indemnify the Department against all expenses, liabilities and claims of every kind, including reasonable counsel fees, by or on behalf of any person or entity arising out of either (1) failure by Lessee to perform any of the terms or conditions of this Lease, (2) any injury or damage happening on or about the premises due to the negligence of Lessee or (3) any mechanic's lien or security interest filed against the premises.

ARTICLE VII

Assignment And Subletting

The Lessee may assign this lease for security or mortgage its leasehold interest provided that, although approval is not needed for assignments for security or for mortgages of the leasehold interest, the Lessee must give the Department prompt notice of any such assignment or mortgage. The Lessee will not transfer or assign this lease in whole or in part for other than security, nor sub-let any of the leased premises for any purpose without the prior written consent of the Department, such consent shall not be unreasonably withheld. This provision shall not apply to the short-term leasing by the Lessee of individual berths and/or other space in connection with its Marine-related activities.

Whenever an assignment for other than security is approved, the Lessee shall remain primarily liable to the Department for the due performance of all covenants, undertakings and agreements on its part to be performed. A mortgageeor assignee for security will not assume the obligations or liabilities of the Lessee under this lease, provided however, that continued payment of rent shall be a condition precedent to such mortgagee or assignee for security exercising any of the Lessee's rights hereunder. In the event of a default under this lease by the Lessee, the Department agrees that it will at the time of giving the Lessee any notice of default also give any of record mortgagee or assignee for security a copy of the notice of default and said mortgagee or assignee shall have the right to cure such default within the time permitted the Lessee herein.

ARTICLE VIII

Default Of Lessee

In the event of any default by the Lessee in the payment of any rental due hereunder or in the performance of any other term, condition or covenant of this lease to be observed or performed by Lessee for more than thirty (30)

days after written notice of such default shall have been given to Lessee, or if Lessee shall become bankrupt or insolvent, or file any debtor proceeding or have taken against Lessee in any court pursuant to any statute, either of the United States or any state, a petition in bankruptcy or insolvency or for the reorganization or for the appointment of a receiver or trustee of all or a portion of Lessee's property or if Lessee makes an assignment for the benefit of creditors, or petitions for or enters into such an arrangement or if Lessee shall abandon the premises or suffer this lease to be taken under any writ or execution, then the lease shall terminate and the Department in addition to any other rights or remedies it may have, shall have the immediate right of re-entry and may remove all persons and property from the leased premises, and such property may be removed and stored at the cost of and for the account of Lessee, all without service, notice or resort to legal process and without being deemed guilty of trespass or becoming liable for any loss or damage which may be occasioned thereby.

ARTICLE IX

Parties Bound

It is agreed and understood that as part of the consideration for this lease, the Lessee will purchase the real estate near the leased premises presently owned by United Industrial Syndicate, Inc. and being that land as more particularly described in a deed recorded in the Cumberland County Registry of Deeds in Book 2359, Page 233. As further consideration, the Lessee agrees that it will not convey or in any way divest itself of ownership of the above described land during the development stages of this lease or during the first five year period, without the prior written approval of the Department.

All rights and liabilities herein given to, or imposed upon, the respective parties hereto shall extend to and bind the several respective heirs, executors, administrators, successors, and assigns of the respective

parties. No rights, however, shall inure to the benefit of any assignee or Lessee unless the assignment to such assignee has been approved by the Department in writing as provided in Article VII.

ARTICLE X

Taxes

The Lessee agrees to pay all taxes, assessments, or charges which during the term hereof may become a lien or be levied by the State, municipality or other tax-levying body on all personal property of the Lessee, upon all improvements made to the premises by the Lessee in connection with its use and occupancy thereof, and upon the possessory interest of the Lessee in the premises.

ARTICLE XI

Ownership Of Improvements

The personal property and other improvements placed or installed by the Lessee in or on the leased premises shall remain the property of the Lessee and must be removed on or before the expiration of the lease term or its renewals. In the event of expiration or other termination, Lessee shall have ten (10) days, exclusive of Sundays, Saturdays, or Holidays, after such termination, in which to remove its property. All property and other improvements remaining on the premises after the 10 days shall become the property of the Department. If any building or other such improvement which remains on thepremises after the ten days extends onto other property owned by the Lessee, Lessee will make an option available to the Department for the purchase of all property covered by such building or improvement for the fair market value of such property at the time of the termination.

This provision will not apply to any cancellation or termination of the lease which is arranged by agreement between the parties.

ARTICLE XII

Waste, Restriction And Nuisance

During the term of this lease, Lessee shall comply with all applicable laws and ordinances affecting the premises and shall not commit or suffer to be committed, any waste or nuisance on the leased premises.

ARTICLE XIII

Quiet Enjoyment

Upon payment by Lessee of the rent herein provided and observance and performance of all covenants, terms and conditions to be observed and performed by Lessee, Lessee shall peaceably and quietly hold and enjoy the leased premises for the term hereof without hindrance or interruption by the Department or any person or persons lawfully or equitably claiming by, through, or under the Department.

ARTICLE XIV

Waiver

The waiver by either party of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition herein contained. The subsequent acceptance of rent hereunder by the Department shall not be deemed to be a waiver of any preceding breach by Lessee of any term, covenant or condition of this lease, other than the failure of Lessee to pay the particular rental so accepted.

ARTICLE XV

Notices

Any notice, demand, request or other instrument given under this lease shall be delivered in person or sent by Certified Mail, postage prepaid, (a) if to the Department, at the Maine Department of Transportation, Transportation Building, Augusta, Maine 04333, or at such other address as Lessor may designate by written notice, and (b) if to the Lessee, at 58 Fore Street,Portland, Maine 04101, or at such other address as Lessee shall

designate by written notice.

ARTICLE XVI

Miscellaneous

This lease is subject to any and all rights and easements of record and to all terms, conditions, reservations and interests acquired as set forth and described in a Quit-Claim Deed dated November 30, 1973 from Canadian National Railway Company to the State of Maine and recorded in the Cumberland County Registry of Deeds in Book 3490, Page 318. The Lessee agrees to maintain the fencing on the northwesterly boundary of the leased premises as it now exists, or as it by mutual agreement may be relocated.

IN WITNESS WHEREOF, the Department and Lessee have signed this lease as of the day and year first above written.

Witnessed by:

Claire M. Fitzgerald

MAINE DEPARTMENT OF TRANSPORTATION

By [signature]
Its Commissioner

LESSEE:

FISH POINT ASSOCIATES

Kenneth F. Codegan

By [signature]
A Partner

State of Maine
Cumberland, ss.

October 20, 1978

Personally appeared the above named Roger L. Haller, Commissioner of the Department of Transportation of the State of Maine, and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of the State of Maine.

Before me, Aldert Small
Justice of the Peace
~~Notary Public~~

State of Maine
Cumberland, ss.

October 20, 1978

Personally appeared the above-named Phineas Sprague, Jr. A Partner of Fish Point Associates, and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of the partnership.

Before me, Aldert Small
Justice of the Peace
~~Notary Public~~

EXHIBIT A

Leased Premises

Beginning at a point bearing S 46° 46' 11" W four hundred and fifty (450) feet from the most northerly corner of land conveyed to the State of Maine by Canadian National Railway Company by Quit-Claim Deed dated November 30, 1973 and recorded in the Cumberland County Registry of Deeds, Book 3490, Page 318;

Thence N 46° 46' 11" E along land of the Canadian National Railway Company and said line extended a distance of one thousand (1000) feet to a point;

Thence southeasterly at right angles to the hereinbefore described line about five hundred and seventy-five (575) feet to the Harbor Commissioners line in Fore River;

Thence southwesterly along the Harbor Commissioners line one thousand (1000) feet to a point;

Thence northwesterly along a line one thousand (1000) feet southwesterly from and parallel to the second line described herein five hundred and seventy-five (575) feet to the point of beginning.

Reference is hereby made to a Plan of the State of Maine entitled "Department of Transportation, Bureau of Waterways, Portland, Cumberland County" dated July 1974, on file in the office of the Department of Transportation, Bureau of Highways at Augusta (D.O.T. File No. 3-238A).

B. 6157
P. 245

ASSIGNMENT OF LEASE

For valuable consideration FISH POINT ASSOCIATES, a Maine partnership, hereby transfers and conveys to PHINEAS SPRAGUE of Scarborough, Maine, effective October 29, 1981, all its right, title and interest in and to the lease between Fish Point Associates and The Portland Engineering Company ("PEC") dated December 10, 1978, providing for the leasing to PEC of the property of Fish Point Associates on Fore Street in Portland, Maine.

FISH POINT ASSOCIATES

By P. Sprague
A Partner

October 29, 1981

11046

LEASE AMENDMENT

THIS LEASE AMENDMENT made as of this 14th day of November, 1983, by and between the MAINE DEPARTMENT OF TRANSPORTATION, acting by and through its Commissioner, and PHINEAS SPRAGUE, of Scarborough, Maine.

WITNESSETH:

WHEREAS, by Lease dated October 20, 1978 the MAINE DEPARTMENT OF TRANSPORTATION leased a certain lot or parcel of land and area of tidal waters located in Portland, Cumberland County, Maine to FISH POINT ASSOCIATES; and

WHEREAS, a copy said Lease is attached to a Conditional Assignment of Lease by and between FISH POINT ASSOCIATES and RHODE ISLAND HOSPITAL TRUST NATIONAL BANK dated January 11, 1979 and recorded at the Cumberland County Registry of Deeds in Book 4368, Page 119; and

WHEREAS, by Assignment of Lease dated October 29, 1981, a copy of which is attached hereto as Exhibit A, FISH POINT ASSOCIATES assigned its interest in said Lease to PHINEAS SPRAGUE; and

WHEREAS, a portion of the leased premises was conveyed by the State of Maine to the City of Portland by deed dated February 1, 1982 and recorded at said Registry of Deeds in Book 4916, Page 26; and

WHEREAS, the MAINE DEPARTMENT OF TRANSPORTATION and PHINEAS SPRAGUE have agreed to amend the description of the leased Premises as provided herein;

NOW, THEREFORE, IN CONSIDERATION OF ONE DOLLAR ($1.00) and other valuable consideration each to the other given, the receipt of

which is hereby acknowledged, the MAINE DEPARTMENT OF TRANSPORTATION and PHINEAS SPRAGUE hereby agree that the description of the leased premises is amended so that the parcel described on Exhibit B attached hereto is released from the leased premises and the parcel described on Exhibit C attached hereto is included in the leased premises. Except as amended hereby, said Lease remains in full force and effect.

Dated: November 22, 1983

WITNESSETH:

MAINE DEPARTMENT OF TRANSPORTATION

By: George N. Campbell
Its Commissioner George N. Campbell

Laura Leigh Sprague

Phineas Sprague

STATE OF MAINE
~~CUMBERLAND~~ Kennebec, SS. November 22, 1983

PERSONALLY APPEARED the above named George N. Campbell, Commissioner of the MAINE DEPARTMENT OF TRANSPORTATION as aforesaid and acknowledged the foregoing to be his free act and deed in said capacity and the free act and deed of the MAINE DEPARTMENT OF TRANSPORTATION.

Before me,

Notary Public

MY COMMISSION EXPIRES JULY 30, 1988

SEAL

Book 6420 Page 220

STATE OF MAINE
CUMBERLAND, SS.

November 1983

PERSONALLY APPEARED the above-named Phineas Sprague and acknowledged the foregoing instrument to be his free act and deed.

Before me,

Notary Public
Seth Sprague MY COMMISSION EXPIRES MARCH 30, 1985

SEAL

2051.012

BOOK 6428 PAGE 227

EXHIBIT A

ASSIGNMENT OF LEASE

For valuable consideration FISH POINT ASSOCIATES, a Maine partnership ("FPA"), hereby transfers and conveys to PHINEAS SPRAGUE of Scarborough, Maine, effective October 29, 1981, all its right, title and interest in and to the lease between Fish Point Associates and the Maine Department of Transportation ("DOT") dated October 20, 1978, providing for the leasing to FPA by DOT of certain tidal waters located in the City of Portland, Maine.

FISH POINT ASSOCIATES

By _____
A Partner

October 29, 1981

EXHIBIT B

A certain lot or parcel of land located in Portland, Cumberland County, Maine, bounded and described as follows:

Beginning at a point bearing south 46°46'11" west 450 feet from the most northerly corner of land conveyed to the State of Maine by Canadian National Railway Company by Deed dated November 30, 1973 and recorded in Cumberland County Registry of Deeds, Book 3490, page 318; thence southeasterly at right angles to the hereinbefore described line about 575 feet to the Harbor Commissioner's line in the Fore River; thence northeasterly along the Harbor Commissioner's line 450 feet to a point; thence northwesterly along a line parallel to the second line described herein 575 feet to a point at the most northerly corner of land conveyed in the aforementioned deed to the State of Maine by Canadian National Railway Company dated November 30, 1973; thence south 46°46'11" west along land of the Canadian National Railway Company 450 feet to the point of beginning.

Meaning and intending to release and hereby releasing all of that portion of the premises described in a certain Lease from the Maine Department of Transportation to Fish Point Associates dated October 20, 1978, a true copy of said Lease being attached to a certain Conditional Assignment of Lease by and between Fish Point Associates and Rhode Island Hospital Trust National Bank dated January 11, 1979 and recorded at the Cumberland County Registry of Deeds in Book 4368, page 119, which is within the boundaries of that parcel of land which was conveyed by the State of Maine to the City of Portland by Deed dated February 1, 1982 and recorded at the Cumberland County Registry of Deeds in Book 4916, page 26.

EXHIBIT C

A certain lot or parcel of land located in Portland, Cumberland County, Maine, bounded and described as follows:

Beginning at a point on the sea wall located 550 feet Northeasterly from the most Northerly corner of land conveyed to the State of Maine by Canadian National Railway Company by deed dated November 30, 1973 and recorded at the Cumberland County Registry of Deeds in Book 3490, Page 318, which point is also the most Northerly corner of land leased to Fish Point Associates by the Maine Department of Transportation by lease dated October 20, 1978, a copy of which is recorded along with a certain conditional assignment of lease by and between Fish Point Associates and Rhode Island Hospital Trust National Bank dated January 11, 1979 and recorded at said Registry of Deeds in Book 4368, Page 119; thence continuing in a Northeasterly direction along said sea wall, a distance of 450 feet to a point. Thence Southeasterly at right angles to the hereinbefore described line about 575 feet to the Harbor Commissioner's line in the Fore River; thence Southwesterly along the Harbor Commissioner's line 450 feet to a point which is the most Southeasterly corner of the aforementioned premises leased to Fish Point Associates by the Maine Department of Transportation; thence Northwesterly along said leased premises and parallel to the ~~second~~ line described herein 575 feet to the point of beginning.

RECEIVED
1984 APR 18 AM 9:52
RECORDED REGISTRY OF DEEDS
CUMBERLAND COUNTY

James J. Walsh

ALL-STATE LEGAL®
EXHIBIT
B

№ 55156 Bk

INDENTURE DEED

Indenture by and between the MAINE DEPARTMENT OF TRANSPORTATION (hereinafter the "DEPARTMENT") and PHINEAS SPRAGUE, SR., of Scarborough, Maine (hereinafter "SPRAGUE") dated this 30 day of August, 1993.

53156

WHEREAS, the DEPARTMENT is conveying in this instrument certain real property to SPRAGUE, together with certain crossings which will cross land described below as the Rail-Trail Corridor, which land will be owned by the DEPARTMENT.

NOW, THEREFORE, the DEPARTMENT for one dollar and other good and valuable consideration, including the covenants and agreements contained herein, grants to SPRAGUE certain real property, together with any improvements thereon, subject to the covenants and agreements contained herein which SPRAGUE, by acceptance of this Indenture Deed and execution hereof, agrees to be bound on behalf of himself, his heirs, successors, administrators and assigns, more particularly described as follows:

> Certain land (hereinafter the "SPRAGUE FEE PARCEL") located in Portland, Cumberland County, Maine, more particularly described on Exhibit A attached hereto and made a part hereof, together with two crossings (hereinafter the "CROSSINGS") for vehicular, pedestrian and utility access to and from other land of SPRAGUE to the SPRAGUE FEE PARCEL across the area shown on Exhibit B as the "Rail-Trail Corridor." Each crossing shall be fifty (50) feet in width over the fifty (50) foot wide "Rail-Trail Corridor" plus turning radii, as necessary, at the entrances to the CROSSINGS from the SPRAGUE FEE PARCEL. Such CROSSINGS may be moved from time to time by SPRAGUE at his expense upon proper notice to and approval by DEPARTMENT provided that the distance between the centerlines of the two CROSSINGS shall never be less than two hundred (200) feet and further provided that SPRAGUE, upon such relocation, fully restores any former crossing area to the condition it would have been in had the crossing not been placed in that location.

The SPRAGUE FEE PARCEL and the CROSSINGS are hereby conveyed to SPRAGUE and accepted by SPRAGUE subject to the following exceptions, covenants, reservations and agreements which shall be for the benefit of the DEPARTMENT, its successors and assigns, and with which, by acceptance of this Deed, SPRAGUE hereby agrees:

1. SPRAGUE will make no claim or demand against the owner or any operator of the Rail-Trail Corridor for any injury, including injury resulting in death, loss or damage to property suffered or sustained by SPRAGUE, his employees, agents, subcontractors, business invitees, or any other person or corporation which is based upon or arises out of or is connected with the CROSSINGS

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granted herein or anything done or maintained hereunder and hereby waives as against the DEPARTMENT, its operators, subcontractors, agents, servants, lessees or employees, successors and assigns,all such claims and demands.

2. SPRAGUE does hereby and will indemnify and save harmless the DEPARTMENT, its operators, subcontractors, agents, servants, lessees or employees and its successors or assigns:

(a) From and against any and all loss, costs, damages, harm or expenses of any kind, including attorneys' fees suffered or incurred by the DEPARTMENT, its officers, subcontractors, agents, servants, lessees, employees or operators, including injuries, as well as those resulting in death, damage to or destruction of property which are based upon, arise out of or are connected with the grant of the CROSSINGS hereunder or anything done or maintained pursuant to the rights granted or obligations created hereunder, or anything not done or maintained as required hereunder whether caused by the negligence of SPRAGUE, his employees, agents, business invitees, visitors, independent contractors, or otherwise.

3. SPRAGUE understands and agrees that the Rail-Trail Corridor will be used for several purposes including, without limitation, rail transportation and recreation. In the event that (i) the DEPARTMENT, or its operators, subcontractors, successors or assigns installs a railroad in the Rail-Trail Corridor, or (ii) the DEPARTMENT or the City of Portland determines that it is in the interest of public safety, then:

(a) SPRAGUE shall, at his own expense, (i) install fencing or other appropriate barriers along the Rail-Trail Corridor on both the northerly and southerly sides, such fencing or other appropriate barriers to be of a design and material (which may including plantings) approved by the DEPARTMENT and (ii) install the CROSSINGS, including gates and, if required by the DEPARTMENT, active crossing warning devices on both the northerly and the southerly sides of the CROSSINGS area. The purpose of the barriers to be installed by SPRAGUE is to assure that the uses of the Rail-Trail Corridor on the one hand and the adjoining SPRAGUE lands on the other do not interfere with one another and to assure that any crossing of the Rail-Trail Corridor from the SPRAGUE lands is at the designated CROSSINGS. If and when a railroad line is placed in the Rail-Trail Corridor, SPRAGUE shall execute a standard

Crossing Maintenance Agreement of the DEPARTMENT (generic Crossing Maintenance Agreement is appended hereto). Installation of all active crossing warning devices shall be performed under the direction of the DEPARTMENT by its Operator or subcontractors who are acceptable to the DEPARTMENT. Installation of the items listed in this paragraph shall commence and be completed within sixty (60) days, unless material availability so prohibits, after proper notice from the DEPARTMENT to SPRAGUE. All such installation shall be at the expense of SPRAGUE.

(b) SPRAGUE shall, at his own expense, obtain and maintain at all times in a form and with an insurance company satisfactory to the DEPARTMENT, a commercial liability insurance policy with a policy limit of not less than One Million Dollars ($1,000,000.00) inclusive for bodily injury and property damage, which amount or form of the policy may at any time upon receipt by SPRAGUE of a written request to do so from the DEPARTMENT be varied at the expense of SPRAGUE. Such policy shall by its wording or endorsement extend to insure the liabilities herein assumed by SPRAGUE and shall name the DEPARTMENT as an additional insured. Said policy shall provide that fifteen (15) days prior written notice shall be given to the DEPARTMENT in the event that the insured desires to cancel, change or modify such insurance or any part thereof.

4. Neither SPRAGUE nor any of his contractors, sub-contractors, agents or employees shall ever construct, maintain (this provision does not apply to nor prohibit winter snow plowing, snow removal, sanding or salting subject to Paragraph 7 below), repair, replace or remove the CROSSINGS or any addition or extension thereof, without first complying with the following:

(a) SPRAGUE shall give the director of the Rail Transportation Division of the DEPARTMENT (and, in the case of Operators for the right-of-way affected by the CROSSINGS to the principal engineering officer of such Operators) twenty-one (21) days written notice in advance of any proposed construction, relocation, maintenance, repair, replacement or removal work affecting the CROSSINGS (hereinafter "WORK"), enclosing with such notice full plans and specifications for any such WORK (if applicable), including a description of the manner thereof. Each such entry shall be deemed to

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require full project review by the DEPARTMENT and its operators and the presence at each crossing of a flagman, inspector or other personnel of the DEPARTMENT, or its Operators, at the discretion of the DEPARTMENT.

(b) Notwithstanding any other provision hereof, any entry and all WORK shall only occur at such times and subject to such conditions as the DEPARTMENT may from time to time specify and not otherwise.

(c) SPRAGUE shall perform all WORK in good, safe and workmanlike manner and in accordance with all federal, state and local laws, statutes, ordinances and regulations of any description which may apply. SPRAGUE shall furnish the DEPARTMENT and its Operators with copies of any building permits and escrow permits and excavation permits or other similar permits on demand. SPRAGUE shall follow the provisions of any engineering codes applicable to the CROSSINGS to the extent the same shall not be inconsistent with any conditions specified by the DEPARTMENT or its Operators.

5. Notwithstanding any other provisions hereof, SPRAGUE agrees that, in the event the DEPARTMENT, or its Operators, are ever ordered by any governmental authority to provide, install, alter, or improve any form of crossing or vehicular traffic protection at the CROSSINGS or other facilities of any description appurtenant thereof (including, but not limited to flashing lights, automatic gates and other mechanical devices) SPRAGUE shall reimburse the DEPARTMENT and its Operators for the design, construction, installation, maintenance, repair, renewal and removal of the same and for any electricity necessary to operate any mechanical or electrical protection.

6. SPRAGUE shall take all necessary precautions for SPRAGUE's own protection and for the protection of his employees, agents, subcontractors, business invitees, or any other person or corporation and the protection of trains while using the CROSSINGS, having due regard for the operation of trains or locomotives about the CROSSINGS without whistling, ringing of bells or other warning.

7. SPRAGUE shall use the CROSSINGS in such a manner as will not damage the rails, ties or fastenings, and SPRAGUE shall restrict the use of the CROSSINGS to rubber-tired vehicles (upon request by SPRAGUE to and approval from the DEPARTMENT, non rubber-tired equipment may be used). The DEPARTMENT and its Operators further agree that snow plowing, snow removal, sanding and salting by vehicle of the CROSSINGS are not prohibited and are hereby approved by the DEPARTMENT and its Operators provided no plows or

related equipment shall come in direct contact with the rail or ties or appurtenances thereto; plow blades must be kept at least one inch above the crossing surface.

8. Rail movements over the CROSSINGS shall have preference to vehicular and/or pedestrian movements and no claim shall be made against the DEPARTMENT and/or its Operators and no action shall ever be taken by SPRAGUE against the DEPARTMENT or its Operators because of the Operators' equipment blocking passage of vehicles and/or pedestrians over the CROSSINGS. The DEPARTMENT and its Operators agree to use reasonable efforts not to block such passage and any required blockage shall be kept to as short a duration as is possible.

9. SPRAGUE's rights in and to the CROSSINGS conveyed herein shall neither by affected nor lapse as a result of any non-use of either of the CROSSINGS by SPRAGUE from time to time. The parties acknowledge that the CROSSINGS conveyed herein provide access from SPRAGUE's abutting upland property to the SPRAGUE FEE PARCEL and the abutting submerged lands leased to SPRAGUE by the State of Maine (acting by and through the Department of Transportation) pursuant to a Lease dated October 20, 1978, as amended by Amendment dated as of November 1, 1988, and that the CROSSINGS may require relocation from time to time upon prior written notice to and approval from DEPARTMENT by virtue of the changing nature of activities conducted in the area of the leased premises pursuant to said Lease.

10. In the event that SPRAGUE fails to perform in any material respect his obligations under this Agreement within thirty (30) days after receipt of a written notice of breach from the then owner or operator of the Rail-Trail Corridor, or in the event SPRAGUE fails to submit to the DEPARTMENT for approval, a plan satisfying the requirements of the DEPARTMENT for performance of his obligations under this Agreement within thirty (30) days after said notice (and completes the work outlined in the plan within a reasonable period of time after approval by the DEPARTMENT) in the event that the obligations to be performed cannot reasonably be completed within thirty (30) days after said notice, or in the event that the CROSSINGS pose an unreasonable threat to public safety, then the owner of such Rail-Trail Corridor shall have the right to restrict and/or prohibit use of the CROSSINGS (or either of them) until SPRAGUE is in compliance with the provisions hereof.

11. SPRAGUE further agrees that no fences, barriers or other non-marine related structures which would unreasonably interfere with the views of Casco Bay from the Rail-Trail Corridor shall be installed on the SPRAGUE FEE PARCEL or on any wharves which may extend into Casco Bay from the SPRAGUE FEE PARCEL.

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12. The covenants and agreements contained herein are intended to be for the benefit and the burden of the SPRAGUE FEE PARCEL and the CROSSINGS and shall run therewith in perpetuity for the benefit of the owners of the Rail-Trail Corridor and the SPRAGUE FEE PARCEL.

IN WITNESS WHEREOF, the DEPARTMENT and SPRAGUE have executed this Indenture Deed on the day and year first stated.

WITNESS:

MAINE DEPARTMENT OF TRANSPORTATION

By: _____
Dana F. Connors
Its Commissioner

_____
Phineas Sprague, Sr.

STATE OF MAINE
CUMBERLAND, SS.

August 30, 1993

Personally appeared the above-named Dana F. Connors, Commissioner of the Maine Department of Transportation as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act of said Maine Department of Transportation.

Before me,

_____
CATHY McCOLLETT
NOTARY PUBLIC, MAINE
MY COMMISSION EXPIRES JANUARY 29, 1994
Notary Public/~~Attorney-at-Law~~

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22611001.713

SEAL

Revised 8/26/93

EXHIBIT A
(SPRAGUE LOT 3)

№ 55156 Bk 10924 Pg 103

Lot 3 as shown on a certain Plan entitled "Land Title Survey & Subdivision Plan in Portland, Maine, U.S.A.," made for The Trust for Public Land, City of Portland, Maine Department of Transportation, and Canadian National Railway Company dated February 19, 1993, as amended, Sheets 1 through 7, which is recorded in the Cumberland County Registry of Deeds in Plan Book 193, Pages 187 through 193 (the "Plans"), which Lot is more particularly described by metes and bounds as follows:

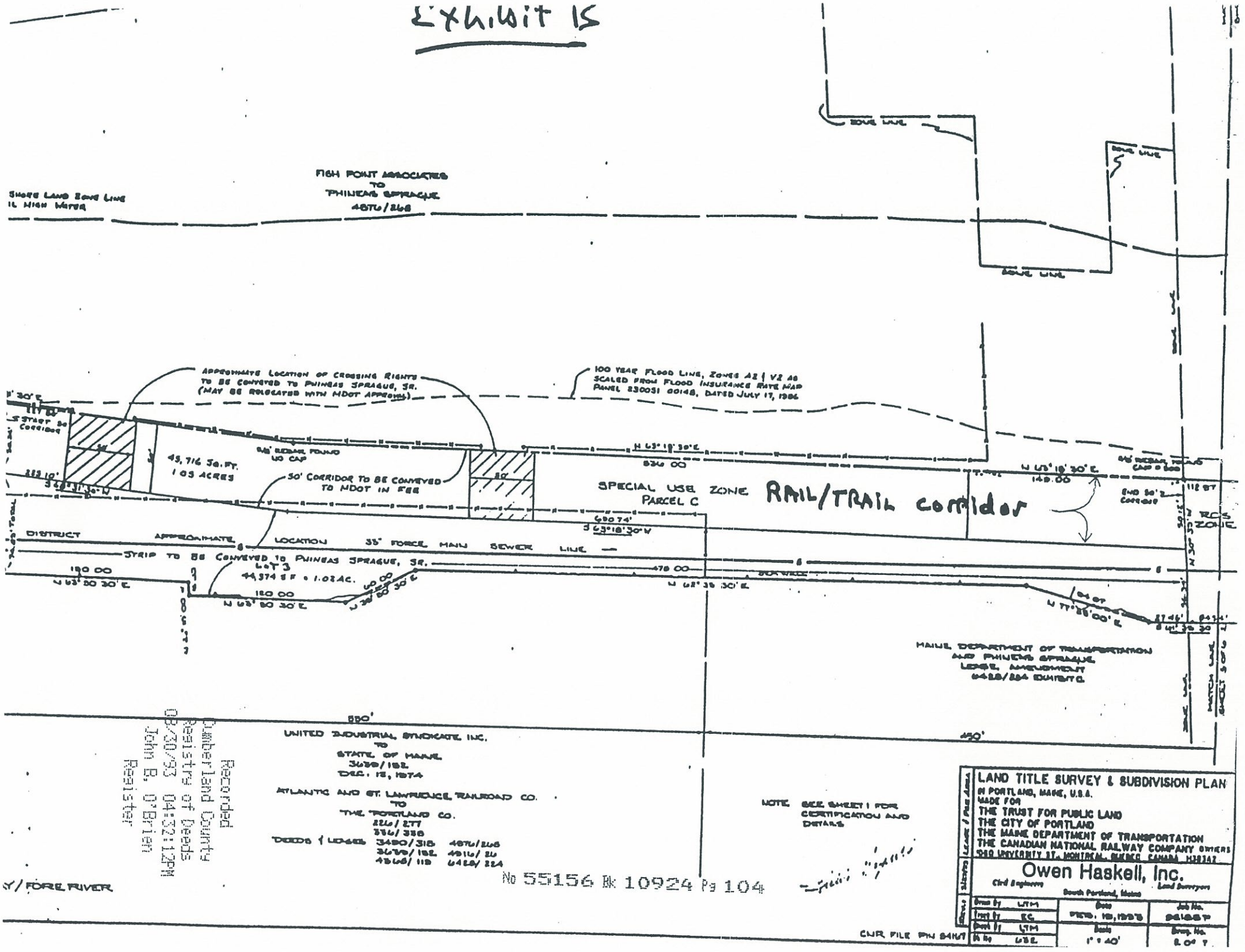
A certain lot or parcel of land in the City of Portland, County of Cumberland, State of Maine with all buildings and improvements thereon, bounded and described as follows:

Beginning at a point located at the northeasterly corner of land leased to Bath Iron Works ("BIW") Corporation (as described in the Memorandum of Pier Lease recorded in said Registry of Deeds in Book 4916, Page 26); thence from said point of beginning N 27° 10' W a distance of 11.44 feet to a point located on the southerly sideline of Parcel C as shown on the Plans (Sheet 2 of 7); thence along said Parcel C N 68° 31' 30" E a distance of 225.10 feet to a point; thence N 63° 18' 30" E a distance of 690.74 feet to a point; thence S 30° 39' E a distance of 56.34 feet to a point; thence S 61° 35' 30" W a distance of 27.46 feet to a point; thence S 77° 25' 00" W a distance of 94.07 feet to a point; thence S 62° 35' 30" W a distance of 475.00 feet to a point; thence S 38° 50' 30" W, a distance of 60.00 feet to a point; thence S 63° 50' 30" W a distance of 120.00 feet to a point; thence N 26° 10' 00" W a distance of 8.00 feet to a point; thence S 63° 50' 30" W a distance of 150.00 feet to a point and land leased to BIW; thence N 27° 10' 00" W along said land leased to BIW a distance of 63.45 feet to the point of beginning.

Together with any upland and intertidal lands including the seawall which immediately adjoin the above-described Premises and lie between the projection of the northeasterly endline of the Premises and the projection of the southwesterly endline of the Premises seaward to the mean low-water line of Casco Bay.

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Exhibit 15



Recorded
Cumberland County
Register of Deeds
08/30/93 04:32:12PM
John B. O'Brien
Register

№ 55156 Bk 10924 Pg 104

NOTE SEE SHEET 1 FOR CERTIFICATION AND DETAILS

LAND TITLE SURVEY & SUBDIVISION PLAN
IN PORTLAND, MAINE, U.S.A.
MADE FOR
THE TRUST FOR PUBLIC LAND
THE CITY OF PORTLAND
THE MAINE DEPARTMENT OF TRANSPORTATION
THE CANADIAN NATIONAL RAILWAY COMPANY OWNERS
1240 UNIVERSITY ST. MONTREAL, QUEBEC CANADA H3B3A7

Owen Haskell, Inc.
Civil Engineers Land Surveyors
South Portland, Maine

Drawn by	LTM	Date	Job No.
Trace by	EC	FEB. 18, 1993	92183P
Check by	LTM	Scale	Drawing No.
Rev No	USE	1" = 40'	2 OF 2

MEMORANDUM OF UNDERSTANDING

THIS MEMORANDUM OF UNDERSTANDING (this "MOU") is entered into this 31st day of March 2015 by and between CPB2 LLC ("CPB2"), a Delaware limited liability company, having a mailing address of P.O. Box 17919, Portland, Maine 04101, and STATE OF MAINE DEPARTMENT OF TRANSPORTATION ("DOT"), having an office at Child Street, 16 State House Station, Augusta, Maine 04333-0016.

WITNESSETH:

WHEREAS, CPB2 is the owner of the property located at 58 Fore Street in Portland, Maine (the "CPB2 Property"), which is depicted on the ALTA survey attached hereto and made a part hereof as Exhibit "A" (the "Survey") and which is commonly known as "The Portland Company Complex;" and

WHEREAS, DOT is the owner of the rail/trail corridor cross-hatched on the Survey (the "DOT Property"), which bisects the CPB2 Property and which is approximately fifty (50) feet wide, consisting of an approximately twenty-six (26) foot wide rail corridor ("Rail Corridor") and an approximately twenty-four (24) foot wide trail corridor ("Trail Corridor"); and

WHEREAS, in connection with the redevelopment of the CPB2 Property, CPB2 would like to create a recreational, public pathway on the portion of CPB2 Property abutting the water to replace the use of the current Trail Corridor; and

WHEREAS, CPB2 and the DOT have been discussing the redevelopment of the CPB2 Property and the creation of a new waterfront recreational, public pathway; and

WHEREAS, CPB2 and the DOT desire to enter into this MOU in order to memorialize their agreements;

NOW, THEREFORE, in consideration of the covenants and agreements hereinafter contained, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, CPB2 and the DOT hereby agree as follows:

1. Upon the request of CPB2, the DOT agrees, subject, to the terms of this MOU, to swap the portion of the DOT Property shown in purple on the Survey (the "DOT Swap Property") for the portion of the CPB2 Property shown in green on the Survey (the "CPB2 Swap Property"). The parties acknowledge that the depiction of the DOT Swap Property and the depiction of the CPB2 Swap Property is not to scale, and represents an illustration of the approximate location of the respective areas. It is the intent of the parties that, upon the completion of the swap, the DOT Property, as reconfigured, will be fifty (50) feet wide and will be located closer to the waterfront, subject to the provisions of clause 1.d below. The parties agree that:

    a. The DOT Property, as reconfigured, shall continue to be used as a rail corridor and a trail corridor;

b. DOT shall grant to CPB2 an easement or easements over the DOT Property, as reconfigured, for pedestrian and vehicular access between the portion of the CPB2 Property, as reconfigured, located on the north side of the DOT Property and the marina and the portion of the CPB2 Property, as reconfigured, located on the south side of the DOT Property. The parties acknowledge that the scope and location of such easements will be informed through the master planning process and the redevelopment of the CPB2 Property, but it is generally agreed that the pedestrians' right to cross the DOT Property, as reconfigured, will not be restricted to specific areas, and that the terms and conditions of such easement or easements shall be reasonably acceptable to both parties;

c. If DOT concludes, through its normal and customary evaluation process, that the fair market values of the properties being swapped are equal, then no consideration shall be exchanged between the parties in connection with the swap. If DOT concludes, through its normal and customary evaluation process, that there is a discrepancy in the values of the properties being swapped, then the parties will work cooperatively to arrive at terms that will allow the swap to go forward;

d. CPB2 will retain a strip of land along the waterfront in order to preserve its right to have a marina, which may be approximately ten (10) to twelve (12) feet wide (the "Waterfront Strip"); the parties acknowledge and agree that the width of the area may be more than 10-12' in various locations to accommodate the variations in the waterfront and will be informed through the master planning process and the discussions with the Planning Department for the City of Portland. The depiction of this area on Exhibit A is not to scale, and represents an illustration of the approximate location of the strip to be retained. The parties will agree upon the exact location of the Waterfront Strip at the time of the swap; and

e. CPB2 will cause the Survey to be revised to reflect the agreed upon location of the DOT Property, as reconfigured, the CPB2 Property, as reconfigured, and the Waterfront Strip.

2. CPB2 may elect, at its sole discretion, to exercise its rights under Paragraph 1 of this MOU by notice given to the DOT at any time on or before the tenth (10^{th}) anniversary of the date of this MOU. If CPB2 exercises such rights, the parties shall enter into a purchase and sale agreement (the "P&S") setting forth the terms and conditions of such swap (the "Swap), the terms and conditions of which shall be consistent with this MOU and with DOT's rights and obligations under Maine and federal law. The parties agree to negotiate such agreement in good faith.

3. In connection with the Swap, CPB2 shall perform, at its sole cost and expense, a geological test of the soils within the existing Rail Corridor and the soils within the proposed relocation of the Rail Corridor (the "Relocated Corridor"). CPB2 shall submit the results of the tests to the DOT for review.

a. If the results of the test show that the density of the soils are substantially the same or that the density of the soils within the Relocated Corridor are better than the density of the soils within the existing Rail Corridor, then such test results shall be deemed to be satisfactory to the DOT and CPB2 shall not be obligated to do any work to the soil within the Relocated Corridor.

b. If the results of the test show that the density of the soils within the Relocated Corridor are worse than the density of the soils within the existing Rail Corridor, then CPB2 agrees, at its sole cost and expense, to do such work as is commercially reasonable to bring the density of the soils within the Relocated Corridor up to the density of the soils within the existing Rail Corridor. Such work shall be a condition precedent to the closing under the terms of the P&S.

4. The parties acknowledge that the DOT and The Trust for the Preservation of Maine Industrial History and Technology (the "Narrow Gauge") have entered into a lease agreement dated October 1, 2009 (the "Narrow Gauge Lease"), pursuant to which the DOT has allowed the Narrow Gauge to install, maintain, repair, replace and operate the railroad tracks for its narrow gauge trains within the existing Rail Corridor. If, as a result of the Swap, the tracks belonging to the Narrow Gauge are not located within the Relocated Corridor, CPB2 agrees to the following:

   a. CPB2 shall relocate, at no expense to the DOT or the Narrow Gauge, the existing narrow gauge railroad tracks so that they are located within the Relocated Corridor or other location reasonably acceptable to the Narrow Gauge and CPB2, or

   b. CPB2 shall enter into an agreement with the Narrow Gauge, pursuant to which CPB2 agrees to permit the Narrow Gauge to continue to maintain, repair, replace and operate the existing narrow gauge railroad tracks in their then location or such other location reasonably acceptable to the Narrow Gauge and CPB2 for the balance of the term of the Narrow Gauge Lease.

5. If it is determined that a Phase I Environmental Site Assessment of the existing Rail Corridor is required in connection with the Swap, CPB2 agrees to obtain, at its sole cost and expense, such Assessment and to submit such Assessment to the DOT for review.

   a. If, as a result of the findings of the Phase I Environmental Assessment, it is determined that a Phase II Environment Site Assessment is required in connection with the Swap, CPB2 agrees to obtain, at its sole cost and expense, such Assessment and to submit such Assessment to the DOT for review.

   b. If it is determined that environmental remediation is required in connection with the existing Rail Corridor, the parties acknowledge that the DOT shall not be required to perform such remediation unless CPB2 agrees to pay for all associated costs or the DOT is otherwise reimbursed for such costs.

6. In addition to the P&S, CPB2 and the DOT agree to perform, execute and deliver, or to cause to be performed, executed and delivered, in connection therewith any and all such further acts, documents, deeds and assurances as may be necessary to consummate the transactions contemplated by the Swap.

7. As a condition to the closing under the terms of the P&S, CPB2 shall obtain the consent of the City of Portland to the relocation of the Trail Corridor and if applicable, CPB2 shall obtain the consent of the Narrow Gauge to the track relocation or to the terms of the agreement, as contemplated by Paragraph 4 above.

8. Each party shall be responsible for payment of their respective fees and expenses incurred in connection with the negotiation and implementation of this MOU, including, without limitation, their respective attorneys' fees and disbursements.

9. All notices given under this MOU shall be in writing and shall be hand delivered, or sent by certified or registered mail, return receipt requested, or sent by nationally recognized overnight delivery service. All notice shall be addressed to the address set forth above for the addressee or to such other address as designated by such addressee by notice to the other party. Any notice given pursuant to this Paragraph 9 shall be deemed given upon receipt by the addressee or upon the date receipt is refused. Supplementing the foregoing, a copy of any notice to CPB2 shall be simultaneously sent, in the same manner as set forth above, to Bernstein Shur, 100 Middle Street, Portland, Maine 04101, to the attention of Richard D. Prentice, Esq.

10. This MOU may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of such counterparts shall constitute one MOU. To facilitate execution of this MOU, the parties may execute and exchange by telephone facsimile or electronically scanned counterparts of the signature pages.

11. If any provision of this MOU is held to be illegal, invalid or unenforceable under present or future laws, such provision shall be fully severable as if such provision had never comprised a part of the MOU; and the remaining provisions of the MOU shall remain in full force and effect and shall not be affected by the illegal, invalid or unenforceable provision or by its severance from this MOU. Furthermore, in lieu of such illegal, invalid or unenforceable provision, there shall be added automatically as part of this MOU a provision as similar in terms to such illegal, invalid or unenforceable provision as may be possible and that is otherwise legal, valid and enforceable.

12. This MOU constitutes the entire understanding between the parties with respect to the scope of the agreements described herein, and all prior or contemporaneous agreements, understandings, representations and statements, oral or written are merged into this MOU. Neither this MOU nor any provision hereof may be waived, modified, amended, discharged or terminated except by an instrument in writing signed by both parties.

13. This MOU shall be binding upon and shall inure to the benefit of CPB2 and the DOT and their respective successors and assigns.

14. This MOU shall be governed by and interpreted in accordance with the laws of the State of Maine.

[END OF DOCUMENT; SIGNATURES ON NEXT PAGE]

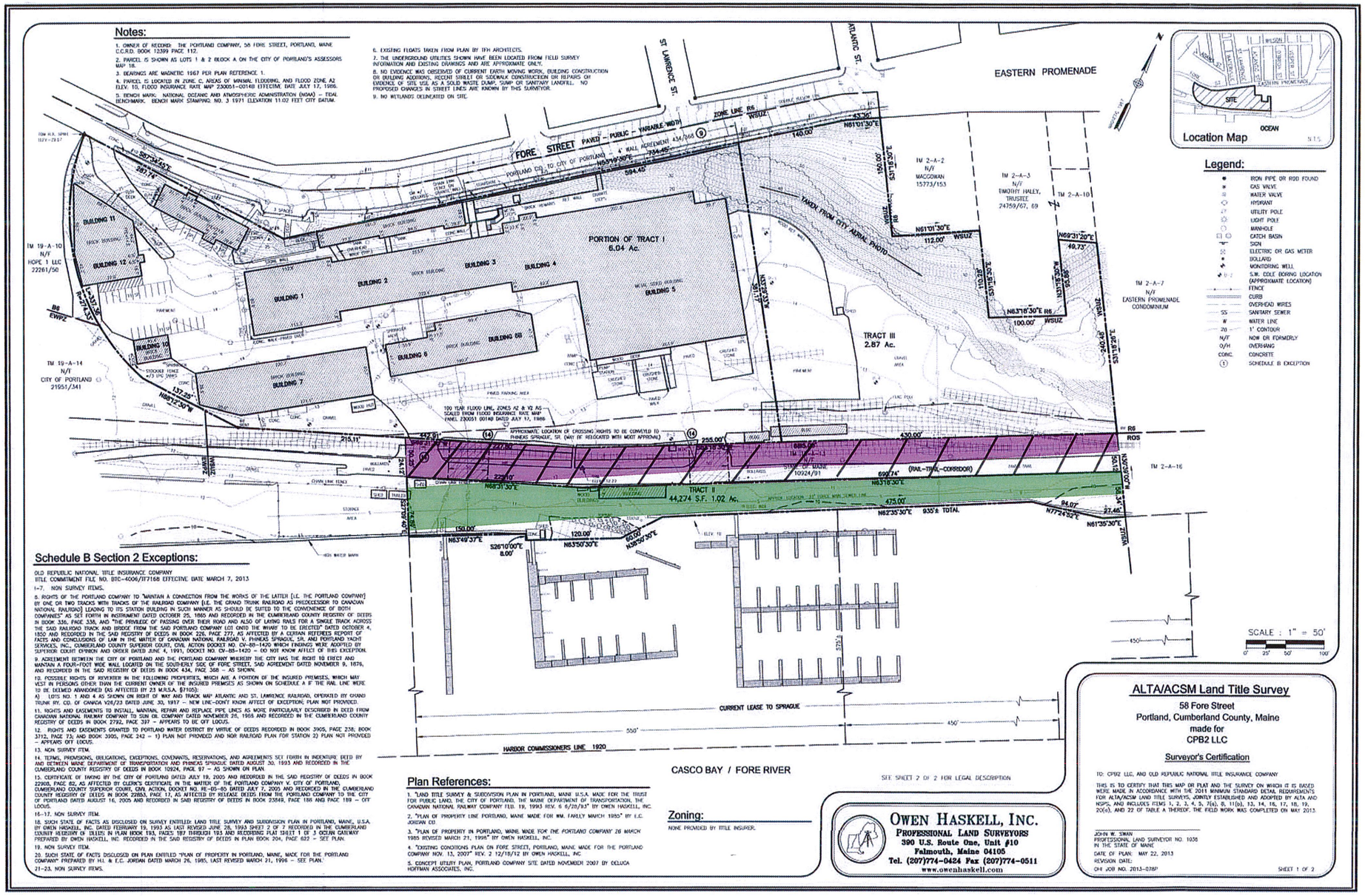
IN WITNESS WHEREOF, this MOU has been duly executed and delivered as of the day and year set forth above.

CPB2 LLC
By: CPB2 Management LLC, Manager

By: _____
Casey W. Prentice
Manager

DEPARTMENT OF TRANSPORTATION

By: _____
David Bernhardt
Its Commissioner


Notes:
1. OWNER OF RECORD: THE PORTLAND COMPANY, 58 FORE STREET, PORTLAND, MAINE C.C.R.D. BOOK 12399 PAGE 112.
2. PARCEL IS SHOWN AS LOTS 1 & 2 BLOCK A ON THE CITY OF PORTLAND'S ASSESSORS MAP 18.
3. BEARINGS ARE MAGNETIC 1967 PER PLAN REFERENCE 1.
4. PARCEL IS LOCATED IN ZONE C, AREAS OF MINIMAL FLOODING, AND FLOOD ZONE A2 ELEV. 10, FLOOD INSURANCE RATE MAP 230051-0014B EFFECTIVE DATE JULY 17, 1986.
5. BENCH MARK: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) — TIDAL BENCH-MARK. BENCH MARK STAMPING: NO. 3 1971 ELEVATION 11.02 FEET CITY DATUM.
6. EXISTING FLOATS TAKEN FROM PLAN BY TFH ARCHITECTS.
7. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS AND ARE APPROXIMATE ONLY.
8. NO EVIDENCE WAS OBSERVED OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS, RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OR EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL. NO PROPOSED CHANGES IN STREET LINES ARE KNOWN BY THIS SURVEYOR.
9. NO WETLANDS DELINEATED ON SITE.
FORE STREET
PAVED — PUBLIC — VARIABLE WIDTH
PORTLAND CO. TO CITY OF PORTLAND — 4' WALL AGREEMENT 434/268
ST. LAWRENCE ST.
ATLANTIC ST.
EASTERN PROMENADE
ZONE LINE R6 W50UZ
PORTION OF TRACT I 6.04 Ac.
TRACT II 44,274 S.F. 1.02 Ac.
TRACT III 2.87 Ac.
BUILDING 1
BUILDING 2
BUILDING 3
BUILDING 4
BUILDING 5
BUILDING 6
BUILDING 6B
BUILDING 7
BUILDING 10
BUILDING 11
BUILDING 12
TAKEN FROM CITY AERIAL PHOTO
TM 19-A-10 N/F HOPE 1 LLC 22261/50
TM 19-A-14 N/F CITY OF PORTLAND 21951/341
TM 2-A-2 N/F MACGOWAN 15773/153
TM 2-A-3 N/F TIMOTHY HALEY, TRUSTEE 24759/67, 69
TM 2-A-10
TM 2-A-7 N/F EASTERN PROMENADE CONDOMINIUM
TM 2-A-16
100 YEAR FLOOD LINE, ZONES A2 & V2 AS SCALED FROM FLOOD INSURANCE RATE MAP PANEL 230051 0014B DATED JULY 17, 1986
APPROXIMATE LOCATION OF CROSSING RIGHTS TO BE CONVEYED TO PHINEAS SPRAGUE, SR. (MAY BE RELOCATED WITH MDOT APPROVAL)
(RAIL-TRAIL-CORRIDOR)
CURRENT LEASE TO SPRAGUE
HARBOR COMMISSIONERS LINE 1920
CASCO BAY / FORE RIVER
SCALE : 1" = 50'
Location Map
N.T.S.
SITE
OCEAN
Legend:
IRON PIPE OR ROD FOUND
GAS VALVE
WATER VALVE
HYDRANT
UTILITY POLE
LIGHT POLE
MANHOLE
CATCH BASIN
SIGN
ELECTRIC OR GAS METER
BOLLARD
MONITORING WELL
S.W. COLE BORING LOCATION (APPROXIMATE LOCATION)
FENCE
CURB
OVERHEAD WIRES
SANITARY SEWER
WATER LINE
1' CONTOUR
N/F NOW OR FORMERLY
O/H OVERHANG
CONC. CONCRETE
SCHEDULE B EXCEPTION
Schedule B Section 2 Exceptions:
OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
TITLE COMMITMENT FILE NO. BTC-4006/117168 EFFECTIVE DATE MARCH 7, 2013
1-7. NON SURVEY ITEMS.
8. RIGHTS OF THE PORTLAND COMPANY TO "MAINTAIN A CONNECTION FROM THE WORKS OF THE LATTER [I.E. THE PORTLAND COMPANY] BY ONE OR TWO TRACKS WITH TRACKS OF THE RAILROAD COMPANY (I.E. THE GRAND TRUNK RAILROAD AS PREDECESSOR TO CANADIAN NATIONAL RAILROAD) LEADING TO ITS STATION BUILDING IN SUCH MANNER AS SHOULD BE SUITED TO THE CONVENIENCE OF BOTH COMPANIES" AS SET FORTH IN INSTRUMENT DATED OCTOBER 25, 1865 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 336, PAGE 338, AND "THE PRIVILEGE OF PASSING OVER THEIR ROAD AND ALSO OF LAYING RAILS FOR A SINGLE TRACK ACROSS THE SAID RAILROAD TRACK AND BRIDGE FROM THE SAID PORTLAND COMPANY LOT ONTO THE WHARF TO BE ERECTED" DATED OCTOBER 4, 1850 AND RECORDED IN THE SAID REGISTRY OF DEEDS IN BOOK 226, PAGE 277, AS AFFECTED BY A CERTAIN REFEREES REPORT OF FACTS AND CONCLUSIONS OF LAW IN THE MATTER OF CANADIAN NATIONAL RAILROAD V. PHINEAS SPRAGUE, SR. AND PORTLAND YACHT SERVICES, INC., CUMBERLAND COUNTY SUPERIOR COURT, CIVIL ACTION DOCKET NO. CV-80-1420 WHICH FINDINGS WERE ADOPTED BY SUPERIOR COURT OPINION AND ORDER DATED JUNE 4, 1991, DOCKET NO. CV-80-1420 – DO NOT KNOW AFFECT OF THIS EXCEPTION.
9. AGREEMENT BETWEEN THE CITY OF PORTLAND AND THE PORTLAND COMPANY WHEREBY THE CITY HAS THE RIGHT TO ERECT AND MAINTAIN A FOUR-FOOT WIDE WALL LOCATED ON THE SOUTHERLY SIDE OF FORE STREET, SAID AGREEMENT DATED NOVEMBER 9, 1876, AND RECORDED IN THE SAID REGISTRY OF DEEDS IN BOOK 434, PAGE 268 – AS SHOWN.
12. POSSIBLE RIGHTS OF REVERTER IN THE FOLLOWING PROPERTIES, WHICH ARE A PORTION OF THE INSURED PREMISES, WHICH MAY VEST IN PERSONS OTHER THAN THE CURRENT OWNER OF THE INSURED PREMISES AS SHOWN ON SCHEDULE A IF THE RAIL LINE WERE TO BE DEEMED ABANDONED (AS AFFECTED BY 23 M.R.S.A. §7105):
A) LOTS NO. 1 AND 4 AS SHOWN ON RIGHT OF WAY AND TRACK MAP ATLANTIC AND ST. LAWRENCE RAILROAD, OPERATED BY GRAND TRUNK RY. CO. OF CANADA V26/23 DATED JUNE 30, 1917 – NEW LINE–DON'T KNOW AFFECT OF EXCEPTION; PLAN NOT PROVIDED.
11. RIGHTS AND EASEMENTS TO INSTALL, MAINTAIN, REPAIR AND REPLACE PIPE LINES AS MORE PARTICULARLY DESCRIBED IN DEED FROM CANADIAN NATIONAL RAILWAY COMPANY TO SUN OIL COMPANY DATED NOVEMBER 26, 1968 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 2792, PAGE 397 – APPEARS TO BE OFF LOCUS.
12. RIGHTS AND EASEMENTS GRANTED TO PORTLAND WATER DISTRICT BY VIRTUE OF DEEDS RECORDED IN BOOK 3905, PAGE 238, BOOK 3712, PAGE 73, AND BOOK 3905, PAGE 242 – 1) PLAN NOT PROVIDED AND NOR RAILROAD PLAN FOR STATION 22 PLAN NOT PROVIDED – APPEARS OFF LOCUS.
13. NON SURVEY ITEM.
14. TERMS, PROVISIONS, OBLIGATIONS, EXCEPTIONS, COVENANTS, RESERVATIONS, AND AGREEMENTS SET FORTH IN INDENTURE DATED BY AND BETWEEN MAINE DEPARTMENT OF TRANSPORTATION AND PHINEAS SPRAGUE DATED AUGUST 30, 1893 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 10924, PAGE 87 – AS SHOWN ON PLAN.
15. CERTIFICATE OF FILING BY THE CITY OF PORTLAND DATED JULY 19, 2005 AND RECORDED IN THE SAID REGISTRY OF DEEDS IN BOOK 22908, PAGE 82, AS AFFECTED BY CLERK'S CERTIFICATE IN THE MATTER OF THE PORTLAND COMPANY V. CITY OF PORTLAND, CUMBERLAND COUNTY SUPERIOR COURT, CIVIL ACTION, DOCKET NO. RE-05-93 DATED JULY 7, 2005 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 22853, PAGE 17, AS AFFECTED BY RELEASE DEEDS FROM THE PORTLAND COMPANY TO THE CITY OF PORTLAND DATED AUGUST 16, 2005 AND RECORDED IN SAID REGISTRY OF DEEDS IN BOOK 23549, PAGE 186 AND PAGE 189 – OFF LOCUS.
16-17. NON SURVEY ITEM.
18. SUCH STATE OF FACTS AS DISCLOSED ON SURVEY ENTITLED: LAND TITLE SURVEY AND SUBDIVISION PLAN IN PORTLAND, MAINE, U.S.A. BY OWEN HASKELL, INC. DATED FEBRUARY 19, 1993 AS LAST REVISED JUNE 28, 1993 SHEET 2 OF 2 RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 193, PAGES 187 THROUGH 193 AND RECORDING PLAT SHEET 1 OF 3 OCEAN GATEWAY PREPARED BY OWEN HASKELL, INC. RECORDED IN THE SAID REGISTRY OF DEEDS IN PLAN BOOK 204, PAGE 632 – SEE PLAN.
19. NON SURVEY ITEM.
20. SUCH STATE OF FACTS DISCLOSED ON PLAN ENTITLED "PLAN OF PROPERTY IN PORTLAND, MAINE, MADE FOR THE PORTLAND COMPANY" PREPARED BY H.L. & E.C. JORDAN DATED MARCH 26, 1985, LAST REVISED MARCH 21, 1996 – SEE PLAN.
21-23. NON SURVEY ITEMS.
Plan References:
1. "LAND TITLE SURVEY & SUBDIVISION PLAN IN PORTLAND, MAINE U.S.A. MADE FOR THE TRUST FOR PUBLIC LAND, THE CITY OF PORTLAND, THE MAINE DEPARTMENT OF TRANSPORTATION, THE CANADIAN NATIONAL RAILWAY COMPANY FEB. 19, 1993 REV. 6 6/28/93" BY OWEN HASKELL, INC.
2. "PLAN OF PROPERTY LINE PORTLAND, MAINE MADE FOR WM. FARLEY MARCH 1950" BY E.C. JORDAN CO.
3. "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR THE PORTLAND COMPANY 28 MARCH 1985 REVISED MARCH 21, 1996" BY OWEN HASKELL, INC.
4. "EXISTING CONDITIONS PLAN ON FORE STREET, PORTLAND, MAINE MADE FOR THE PORTLAND COMPANY NOV. 13, 2007" REV. 2 12/18/12 BY OWEN HASKELL, INC.
5. CONCEPT UTILITY PLAN, PORTLAND COMPANY SITE DATED NOVEMBER 2007 BY DELUCA HOFFMAN ASSOCIATES, INC.
Zoning:
NONE PROVIDED BY TITLE INSURER.
SEE SHEET 2 OF 2 FOR LEGAL DESCRIPTION
OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 U.S. Route One, Unit #10
Falmouth, Maine 04105
Tel. (207)774-0424 Fax (207)774-0511
www.owenhaskell.com
ALTA/ACSM Land Title Survey
58 Fore Street
Portland, Cumberland County, Maine
made for
CPB2 LLC
Surveyor's Certification
TO: CPB2 LLC, AND OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7(a), 8, 11(b), 13, 14, 16, 17, 18, 19, 20(a), AND 22 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MAY 2013.
JOHN W. SIWAN
PROFESSIONAL LAND SURVEYOR NO. 1038
IN THE STATE OF MAINE
DATE OF PLAN: MAY 22, 2013
REVISION DATE:
OHI JOB NO. 2013-078
SHEET 1 OF 2

6. EVIDENCE OF STATE AND/OR FEDERAL APPROVALS

On behalf of CPB2 LLC, Woodard & Curran assessed the regulatory triggers/thresholds for permitting under MaineDEP Site Location of Development (Site Law), and MaineDEP Stormwater Law for the proposed re-development project. It is our understanding that the proposed project should not be subject to Site Location of Development standards since it will result in less than three acres of new Structure area from what was in existence in 1970 (establishment of Site Law), but that because the proposed project will disturb more than one acre of land and result in more than one acre of new impervious area, MaineDEP Stormwater Law applies and a Stormwater Permit will be required. The City of Portland has delegated review for Stormwater Permits, so approval will be obtained as part of the formal Site Plan application, to be submitted at a later date. A letter documenting these determinations was provided to the MaineDEP, which has been attached to this Section for your reference, and the proposed Stormwater Management strategy is described in Section 12 of this Report.

We anticipate that the following State and Federal Permits will be required:

- A Maine Construction General Permit will be required because the proposed project will disturb more than one acre of land.
- A MaineDEP Natural Resources Protection Act Permit-by-Rule (NRPA PBR) for new stormwater outfalls into the Fore River.
- A Category 1 Notification under the Maine General Permit through the Army Corps of Engineers for new stormwater outfalls into the Fore River.
- Development of the Marina will require full permits through MaineDEP and Army Corps of Engineers; it should be noted that the Marina will also require review and approval through the Portland Board of Harbor Commissioners. An application will be submitted to the Harbor Commissioners under separate cover.

No other State or Federal permits will be required.

6.1 ATTACHMENTS

- SLOD Determination Letter & Figure

COMMITMENT & INTEGRITY
DRIVE RESULTS

41 Hutchins Drive
Portland, Maine 04102
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

Via FedEx

September 16, 2016

Alison Sirois, Director of Land Enforcement
Maine Department of Environmental Protection
Southern Maine Regional Office
312 Canco Road
Portland, Maine 04103

Re: 58 Fore Street Re-development
Site Law Determination

Dear Alison:

On behalf of CPB2, LLC, Woodard & Curran is writing to confirm that the Site Location of Development Law (Site Law) does not apply to the proposed re-development of the former Portland Company Complex located at 58 Fore Street in Portland. The proposed project Site encompasses three parcels owned by CPB2, LLC. The parcels are identified as Tax Map 18A, Lots 1, 2, and 3. Lot 2 is located along the waterfront, separated from Lots 1 and 3 by a linear parcel owned by the State of Maine. A survey completed by Owen Haskell, Inc. in May 2013 identifies the areas of Lots 1 and 2 at 6.04 acres and 1.02 acres respectively, and Lot 3 as 2.87 acres for a total of 9.93 acres.

We have assessed the proposed re-development project under Site Law and have determined that it does not meet the definition of "development of state or regional significance that may substantially affect the environment." The property is less than 20 acres and the development is not oil or gas exploration or production activity, an oil terminal facility or an offshore wind power project. Therefore, the only question remaining is whether the development is a structure, i.e. does it contain "buildings, parking lots, roads, paved areas, wharves or areas to be stripped or graded and not to be revegetated that cause a total project to occupy a ground area in excess of 3 acres."

The property at 58 Fore Street was first developed in 1857, as part of the Portland Company. By 1970, the majority of the property was covered by roads, parking lots and buildings. The proposed re-development of the site will reuse many of the buildings and associated facilities existing on January 1, 1970 and therefore is exempted from review under 38 M.R.S. § 488. Accordingly, the Department may not consider the redevelopment of those areas in its determination of whether the proposed development meets the 3-acre threshold.

A 1969 aerial photograph of the Site was found in the records available from the City of Portland Public Works Department Archives Vault. Only approximately 2.83 acres of the 1969 Site was vegetated, such that much of the Site was developed and consisted of "structure" prior to January 1, 1970.

The proposed redevelopment project will result in approximately 2.77 acres of new buildings, parking lots, roads and paved areas. Attached is a Figure that shows the structure area from 1969, the proposed condition, and the resulting new structure area upon future buildout. Since the total proposed new structure area will be less than three acres, the 3-acre structure threshold is not met. Based on these findings, it is our understanding that the proposed project will not be subject to Site Location of Development standards.

Although we understand that the project will not be subject to Site Location of Development standards, substantial review of the project has and will occur by Local, State and Federal regulatory agencies. Specifically, in 2014 and 2015 the property was re-zoned in accordance with a zone change application reviewed by the City of Portland Planning Board and approved by the Portland City Council for consistency with the City's Comprehensive Plan; in 2015 and 2016 the City of Portland Historic Preservation Board recommended and the Portland City Council approved a Historic District designation on portions of the property; the property owner is currently preparing a Master Development Plan to be submitted to and reviewed by the City of Portland Planning Board for consistency with the City's Land Use Code; future development of each building or development blocks on the site will be subject to Site Plan review by the City of Portland Planning Board for consistency with the City's Land Use Code; and redevelopment of the marina and any modifications to the sea wall or stormwater outfalls will be subject to review by the MaineDEP for compliance with the Natural Resources Protection Act and US Army Corps of Engineers for compliance with the Maine General Permit.

It should also be noted that, because the proposed project will disturb more than one acre of land, MaineDEP Stormwater Law applies and a Stormwater Permit will be required. The proposed project will create more than one acre of new impervious area, and will therefore be required to comply with the Basic and General Standards of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Maine Construction General Permit. The City of Portland has delegated review for Chapter 500 Stormwater Permits, so approval will be obtained as part of the formal Site Plan application, to be submitted at a later date. The City of Portland recently adopted changes to their Stormwater Standards that require treatment of redevelopment areas beyond the standards of the Chapter 500 Stormwater Management Rules; as such we anticipate that stormwater quality treatment utilizing technologies acceptable under the General Standards will be provided for a substantial area of the site, a significant improvement over the existing site condition, which has no stormwater treatment systems in place.

Please do not hesitate to contact me if you have any questions or require additional information.

Sincerely,

WOODARD & CURRAN

David Senus, PE
Project Manager

AEA/das

Enclosure(s) Site Law Determination Figure

cc: CPB2 LLC – c/o James Brady, Kevin Costello, Casey Prentice
Barbara Barhydt, Development Review Services Manager, City of Portland Planning Division
Mary E. Costigan, Bernstein Shur

PLAN NOTES:

1. THE PURPOSE OF THESE FIGURES IS TO DETERMINE WHETHER THE PROPOSED PROJECT TRIGGERS THE REGULATORY THRESHOLDS FOR PERMITTING UNDER MAINEDEP SITE LOCATION OF DEVELOPMENT (SITE LAW) BASED ON "STRUCTURE" AREA.

2. "STRUCTURE" IS DEFINED AS BUILDINGS, PARKING LOTS, ROADS, PAVED AREAS, WHARVES OR AREAS TO BE STRIPPED OR GRADED AND NOT TO BE REVEGETATED WHICH CAUSE A TOTAL PROJECT TO OCCUPY A GROUND AREA IN EXCESS OF THREE ACES. FOR THE PURPOSES OF THIS EVALUATION, ANY NON-VEGETATED AREAS ARE ASSUMED TO BE STRUCTURE.

3. THE EFFECTIVE DATE FOR SITE LOCATION OF DEVELOPMENT LAW WAS JANUARY 1, 1970, AND THE "STRUCTURE" THRESHOLD UNDER SITE LAW WAS IMPLEMENTED ON OCTOBER 1, 1975. DEVELOPMENT THAT WAS IN PLACE PRIOR TO 1970 IS CONSIDERED TO BE GRANDFATHERED AND EXEMPT FROM SITE LAW REGULATION, AND ANY STRUCTURE ADDED AFTER THIS DATE IS CONSIDERED "NEW STRUCTURE".



LEGEND

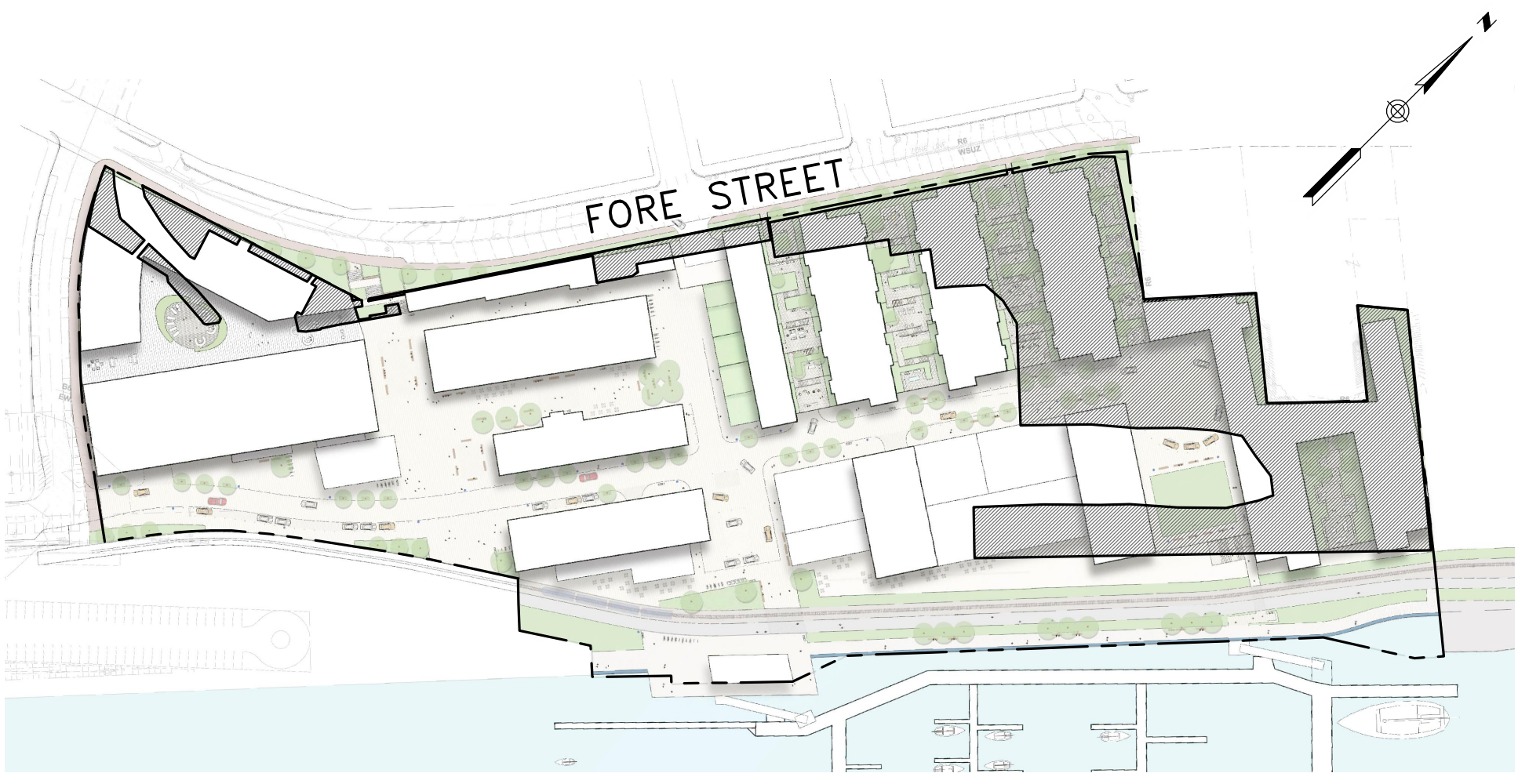
NON-"STRUCTURE" AREA
123,107 S.F. = 2.83 ACRES

150' 0 150' 300'

BAR SCALE
1" = 150'
CHECK GRAPHIC SCALE BEFORE USING

PRE-SITE LAW CONDITIONS - 1969

SCALE: 1"=150'



LEGEND

PROPOSED NEW "STRUCTURE" AREA
(1969 TO FUTURE BUILDOUT)
120,489 S.F. = 2.77 ACRES

150' 0 150' 300'

BAR SCALE
1" = 150'
CHECK GRAPHIC SCALE BEFORE USING

PROPOSED NEW "STRUCTURE" AREA

SCALE: 1"=150'

7. ASSESSMENT OF ZONING - §14-527 (C)(6)

The Project Site is located within the B-6 Eastern Waterfront Mixed Zone, Eastern Waterfront Port Zone, and Shoreland Zone and is subject to the requirements of the City of Portland Code of Ordinances, Chapter 14 Land Use, Division 15.1 (B6), Division 17.5 (EPWZ), Division 26.0 (Shoreland) and Building Height Requirements detailed on the B6 Building Height Overlay & Building Envelope map dated effective on July 1, 2015. A portion of the site is located in a FEMA Flood Zone, as shown by the Flood Insurance Rate Map attached to this Section, and is therefore subject to the City's Flood Plain Management regulations (Division 26.5).

Some of the purposes of the B-6 Eastern Waterfront Mixed Zone, as defined by the Ordinance, are to:

- "Establish a zoning district for the upland portion of the eastern waterfront area that encourages the district to acquire an urban form through development that emphasizes a quality pedestrian experience, promotes public transit and demonstrates exemplary urban design."
- "Promote a range of uses to achieve twenty-four-hour urban vitality and shared use of parking infrastructure as recommended in the Eastern Waterfront Master Plan for redevelopment."

Some of the purposes of the Eastern Waterfront Port Zone, as defined by the Ordinance, are to:

- Nurture deepwater dependent activity within the context of the established waterfront.
- Support and expand Portland's marine industry which requires piers, uplands and circulation consistent with the transportation and use of marine facilities.
- Offer supporting services and activities to provide a safe, convenient and enjoyable travel experience for users of marine passenger facilities which will help foster the growth of Portland's marine passenger industry.
- Foster non-marine uses that complement the marine passenger industry and are compatible with existing and future water dependent uses while providing opportunities for residents and visitors to enjoy the Eastern waterfront.
- Ensure the primary use of the deep-water resources is for the berthing and support of large vessels.
- Design and maintain existing and future pier infrastructure and upland support areas to support a variety of marine uses and to be responsible to future technologies and trends in the marine industry.

Some of the purposes of the Shoreland Zone are, as defined by the Ordinance, are to:

- "Further the maintenance of safe and healthful conditions, prevent and control water pollution, protect fish spawning grounds, aquatic life, bird and other wildlife habitat; protect buildings and lands from flooding and accelerated erosion; protect archaeological and historic resources; protect commercial fishing and maritime industries; protect freshwater and coastal wetlands; control building sites, placement of structures and land uses; conserve shore cover, visual as well as actual points of access to inland and coastal waters and natural beauty, as appropriate in an urbanized environment; and to anticipate and respond to the impact of development in shoreland areas."

Some of the purposes of the Flood Plain Management regulations, as defined by the Ordinance, are to:

- "Reduce future flood risks and losses, protect against financial and human loss resulting from flood disasters, and to control the placement of structures, construction materials, and methods used to minimize potential property damage due to flooding."

One additional zoning requirement is Article IX, Historic Preservation. The purpose of Article IX is to promote the educational, cultural, economic and general welfare of the City of Portland by:

- Creating a mechanism to identify, preserve and enhance distinctive areas, sites, structures and objects that have historic, cultural, architectural and archeological significance;
- Providing a resource of information and expertise to help those interested in rehabilitation or new construction in a district or restoring a landmark;
- Applying design standards in a reasonable and flexible manner to prevent the unnecessary loss of the community's historical features and to ensure compatible new construction and rehabilitation in historic districts while not stifling change and development or forcing modern recreations of historic styles;
- Fostering civic pride in the city's history and development patterns as represented in such distinctive areas, sites, structures and objects;
- Protecting and enhancing neighborhood character;
- Stabilizing and improving the values of designated properties and areas;
- Protecting and enhancing the attractiveness of the city to its home buyers, home owners, residents, tourists, visitors, businesses and shoppers; and
- Fostering and encouraging preservation, restoration and rehabilitation that respects the historic, cultural, architectural and archeological significance of distinctive areas, sites, structures and objects.

CPB2 LLC worked closely with the City of Portland to modify the zoning for 58 Fore Street and changes were adopted by the City Council on June 1, 2015 consistent with recommendations set in the "Master Plan for Redevelopment of the Eastern Waterfront." The extension of the B-6 Eastern Waterfront Mixed Zone and B-6 Building Height Overlay map onto the upland portion of the 58 Fore Street property as well as the Eastern Waterfront Port Zone onto the waterfront portion of the property are critical to the vision set forth by the Eastern Waterfront Master Plan and design guidelines for the Eastern Waterfront. The B-6 zoning was created specifically for the entirety of the Eastern Waterfront and exists on the adjacent properties to the west of 58 Fore Street. This zone change allows for residential development and expanded retail and commercial uses as it encourages this district to acquire a distinctly urban feel through development that emphasizes a quality pedestrian experience and demonstrates exemplary urban design.

This project will help to accomplish all of these intentions and help bring to fruition the vision of the Master Plan for Redevelopment of the Eastern Waterfront by integrating the property and project with the surrounding area and creating a connection between the waterfront and the rest of the neighborhood. The overall project concept is built on City and stakeholder feedback and includes reinvigorating the most historically significant elements of the site, expanding and redeveloping the marina, providing a diverse mix of housing units, and enhancing access to the water's edge. Descriptions of the project's compliance with the relevant sections of the City's Code of Ordinances are provided below.

7.1 PERMITTED USE (§14-269)

Currently, there are 15 buildings on the Site, most of which are interconnected 19th century industrial buildings, originally used by The Portland Company for its foundry operations. Building 5 is a more recently constructed modern single story high bay steel shed building with a small office area. Portland Yacht Services formerly occupied the majority of the leasable space on the 58 Fore Street Property for its full-service boatyard operations and marina. PYS has relocated its operation further down Commercial Street. Additional tenants range from architect firms to non-profits to marine-relates uses. The current marina has 128 slips and 18 transient moorings and can accommodate vessels over 200' long with up to 20' of draft.

The current use of the Site is mixed and the redevelopment project will retain some of existing uses such as office, marina and commercial. All proposed building and site development is located within the B6 and EWPZ.

The B-6 Zone permits the following uses:

- Commercial
  - Professional, business and general offices
  - Restaurants

- Hotels and Inns
- Craft and Specialty Shops
- Retail and Retail Service Establishments
- Theatres
- Banking Services
- Cabinet and Carpentry Shops
- Personal Services
- Business Services
- Offices of Business Trades People
- Miscellaneous Repair Services
- Telecommunication and Broadcast and Receiving Facilities
- Brew Pubs & Microbreweries
- Electronic Data Storage
- Marine Products Wholesale/Retail
- Harbor & Marine Supply Services
- Underground Marine Fuel Storage
- Bakeries, Coffee Roasters, Commercial Kitchens
- Printing Establishments

- Residential
  - Attached Dwellings Including Row Houses, Two Family and Multifamily Dwellings
  - Handicapped Family Units
  - Combined Living/Working Spaces
  - Mixed Use Residential and Commercial Structures
- Public
  - Utility Substations
  - Landscaped Pedestrian Parks/Plazas
  - Pedestrian and Multi-Use Trails

7.2 DIMENSIONAL REQUIREMENTS

The dimensional requirements for the B-6 zone are defined in **Table 2**.

Table 2: B6 Dimensional Requirements

Requirement	Details	Notes
Minimum Lot Size	None	
Minimum Frontage	None	
Yard Dimensions – Minimum Yards in the B6 Zone	**Front Setback** – None (see notes) **Side Setback** - None **Rear Setback** - None	For **Front Setback**, new structures located in the blocks located south of Fore Street and north of Commercial Street and its extension, shall build to the key building envelopes shown on the B6 Building Height Overlay & Building Envelopes map. Buildings located in the easternmost key building envelope, shall not have a maximum front setback, and shall not be required to build to the key building envelope perimeter. Parking structures and the buildings for public transportation facilities may, however, set back beyond the key building envelopes (toward the interior of blocks), but may not occupy the

Requirement	Details	Notes
		land between the key building envelope and the street right of way.
Yard Dimensions – Maximum Building Setback from Street Line	10 feet, except for parking garages, public transportation facilities and as provided with regard to view corridors and key street wall development.	For lots fronting on more than one street, the setback can be increased more than ten (10) feet if all of the following conditions are met: i. The increased setback occurs at the intersection of the streets; ii. The increased setback area is the primary pedestrian entrance to the building; iii. Seventy-five (75) percent of the total building wall length facing the abutting streets shall be setback no greater than ten (10) feet; and iv. All building wall segments, which make up the increased setback shall be included in the calculation of the total building wall length noted in subsection iii.
View Corridors and Key Street Wall Development	See notes.	New structures located in the blocks located south of Fore Street and north of Commercial Street and its extension, shall build to the key building envelopes shown on the B6 Building Height Overlay & Building Envelopes map. Buildings located in the easternmost key building envelope, shall not have a maximum front setback, and shall not be required to build to the key building envelope perimeter. Parking structures and the buildings for public transportation facilities may, however, set back beyond the key building envelopes (toward the interior of blocks), but may not occupy the land between the key building envelope and the street right of way.
Minimum length of building wall required to be located along street frontage of lot	i. 70% of lot street frontage; or ii. 25% of building perimeter, iii. for buildings fronting on two or more streets, the minimum building wall on one street may be decreased so long as the frontage is proportionally increased on other streets in so far that the building wall on the secondary street is not reduced to less than 25 feet.	Except that buildings located in the easternmost key building envelope, as shown on the B6 Building Height Overlay & Building Envelopes map, shall not be subject to this requirement.
Maximum Lot Coverage	100%	
Maximum Building Height	65 Feet	Or as otherwise governed by a Building Height Overlay map (for example, in the Eastern Waterfront).
Minimum Building Height	No new construction of any building shall have less than three (3) floors of habitable space above the average adjacent grade within twenty five (25) feet of any public street.	Except that buildings located in the easternmost key building envelope, as shown on the B6 Building Height Overlay & Building Envelopes map, shall not be subject to a minimum building height. This provision does not apply to parking garages, public transportation facilities, utility substations or additions to or relocation of designated historic structures.

The dimensional requirements for the EWPZ zone are defined in **Table 3**.

Table 3: EWPZ Dimensional Requirements

Requirement	Details	Notes
Minimum Lot Size	None	
Minimum Frontage	None	
Yard Dimensions	Front Setback – None Side Setback – None Rear Setback - None	
Yard Dimensions	Setback from pier line	A minimum setback of twenty five(25) feet from the edge of any pier, wharf or working edge of the hardened shoreline shall be required for any structure, provided that marine offices, as defined in Section 14-301(b)(12), may be located up to five (5) feet from the edge of any pier, wharf or working edge of the hardened shoreline. The setback area may be utilized for water-dependent uses and public uses and activities, subject to the provisions of sections 14-300.1 (no adverse impact) and 14-301.1 (conditional use provisions), and shall not be utilized for restaurant, drinking, or other non water-dependent uses or for off-street parking. The edge of any pier, wharf or bulkhead shall include any attached apron(s).
Maximum impervious surface	100%	
Maximum building height	45 feet (see notes)	• For purposes of this section only, moveable elements such as cranes and gantries, connection devices such as conveyors or bridges, and floating vessels shall not be subject to the space and bulk requirements, but shall be subject to a determination by the Federal Aviation Administration that the location of such equipment will not create a hazard to air traffic. • Rooftop appurtenances may exceed the maximum height limits of forty-five (45) feet providing that their design and placement is either fully screened or integrated into the architecture of the structure on which they sit. • The applicant must provide a determination from the Federal Aviation Administration that structures and equipment in excess of forty-five (45) feet will not exceed the applicable height guidelines for the runway approach and will not create a conclusive evidence that the proposed development will not create a hazard.

7.3 B6 BUILDING HEIGHT OVERLAY & BUILDING ENVELOPE MAP

During the master planning process, appropriate building heights were established that respect view corridors, the historic nature of the site, and site topography, all in compliance with the B-6 Building Height Overlay Map. The B-6

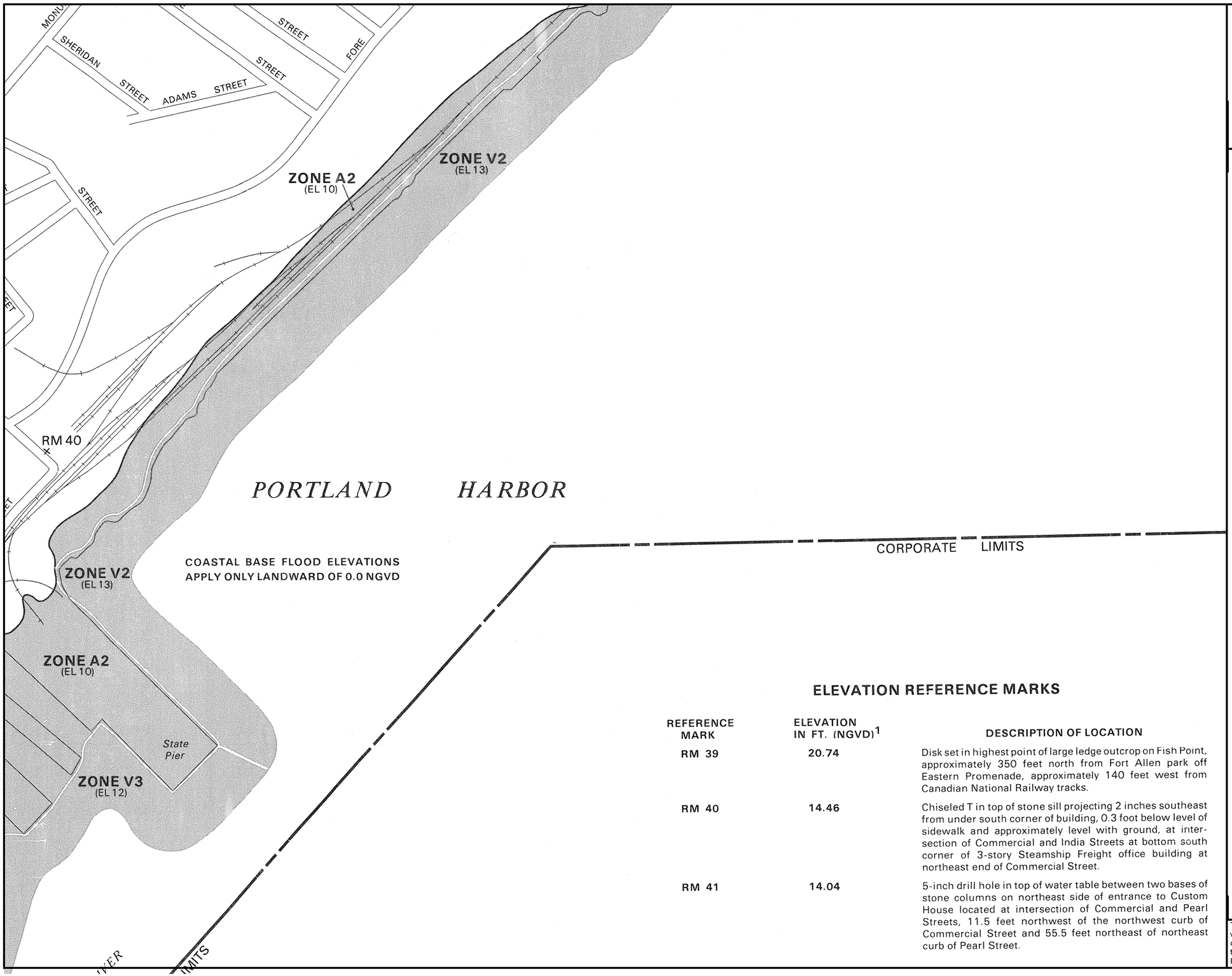
Eastern Waterfront Mixed-Use zone, and accompanying B6 Building Height Overlay Map, were adopted by the City Council on June 1, 2015, consistent with the recommendations set forth by the Master Plan for Redevelopment of the Eastern Waterfront.

CPB2 LLC met with the City of Portland's Planning and Zoning staff at Portland City Hall on February 3, 2014, July 21, 2014 and July 15, 2016 to specifically discuss building heights as they pertain to the planned development project at the 58 Fore Street property and the B6 Building Height Overlay and Building Envelope Map. Memorialized at these meetings was the City's verification that building heights in the B6 are calculated from average grade, unless otherwise noted on the Height Overlay Map. This measurement was also verified through extensive conversations at the Planning Board and Council meetings regarding the B6 Height Overlay Map. Average grade is calculated by averaging the proposed ground surface elevation at the building corners or by averaging the proposed ground surface elevation at some set interval around the perimeter of the proposed building; either method is acceptable at the prerogative of the applicant. City Staff agreed that this has been and is the City's confirmed methodology. Building height for the 58 Fore Street project was calculated in this manner.

CPB2 also confirmed with City staff that regarding pedestal parking forming a continuous foundation for an overall building structure, for the purposes of measuring average grade, a common foundation of parking would be measured as a single overall building structure.

7.4 ATTACHMENTS

- FEMA Flood Insurance Rate Map
- B6 Building Height Overlay & Building Envelopes Map
- Building Height Calculation Plan



APPROXIMATE SCALE

400 0 400 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND, MAINE
CUMBERLAND COUNTY

PANEL 14 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230051 0014 B

EFFECTIVE DATE:
JULY 17, 1986

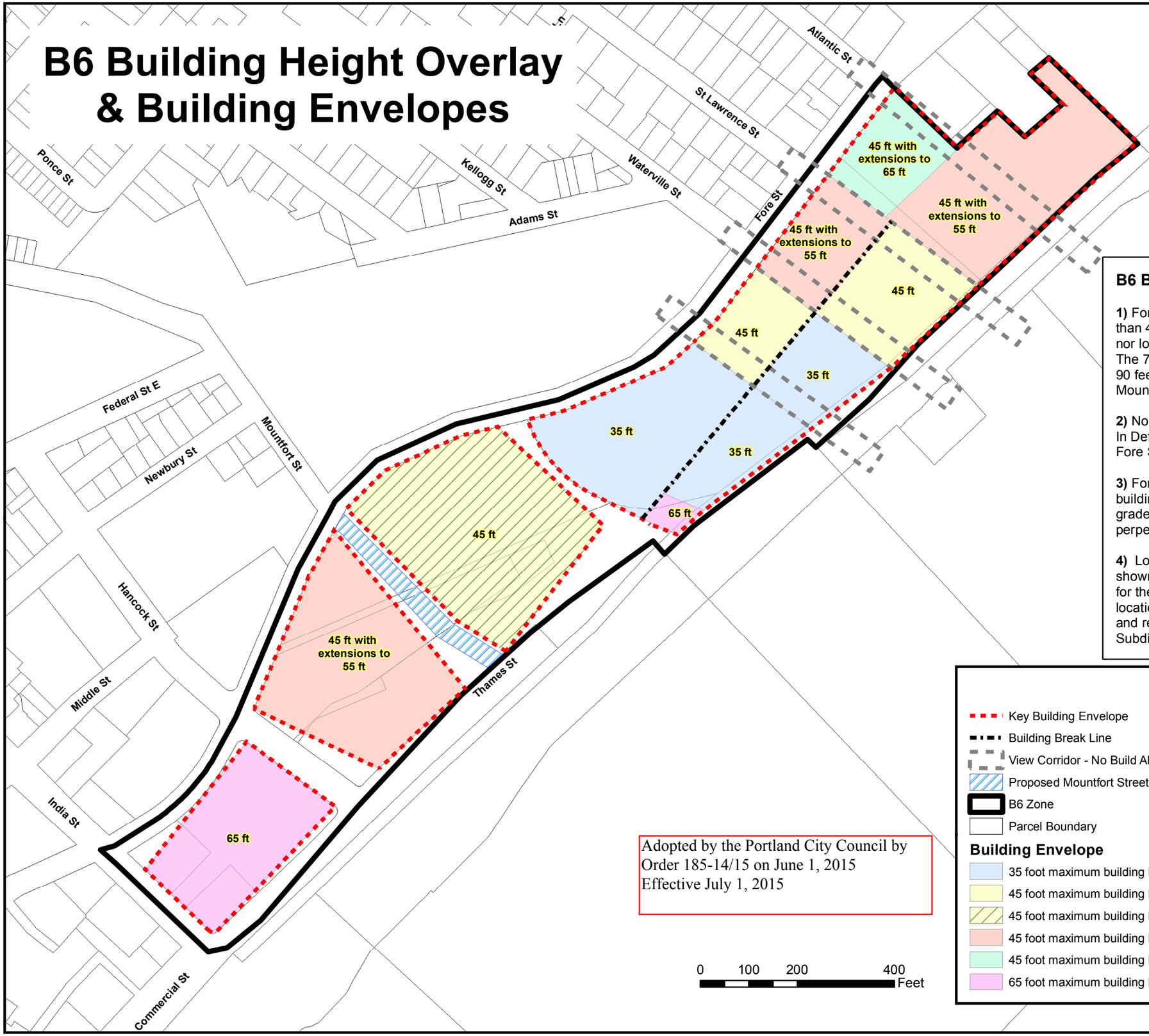
Federal Emergency Management Agency

ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION IN FT. (NGVD)[1]	DESCRIPTION OF LOCATION
RM 39	20.74	Disk set in highest point of large ledge outcrop on Fish Point, approximately 350 feet north from Fort Allen park off Eastern Promenade, approximately 140 feet west from Canadian National Railway tracks.
RM 40	14.46	Chiseled T in top of stone sill projecting 2 inches southeast from under south corner of building, 0.3 foot below level of sidewalk and approximately level with ground, at intersection of Commercial and India Streets at bottom south corner of 3-story Steamship Freight office building at northeast end of Commercial Street.
RM 41	14.04	5-inch drill hole in top of water table between two bases of stone columns on northeast side of entrance to Custom House located at intersection of Commercial and Pearl Streets, 11.5 feet northwest of the northwest curb of Commercial Street and 55.5 feet northeast of northeast curb of Pearl Street.

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

B6 Building Height Overlay & Building Envelopes



B6 Building Height Overlay Notes:

1) For Buildings located East of Hancock Street, no building mass higher than 45 feet shall be wider than 70 feet measured parallel with the waterfront nor longer than 140 feet measured perpendicular with the waterfront. The 70 foot wide building extension allowed above must be at least 90 feet apart, measured parallel with the waterfront, and if abutting Mountfort Street (extension) must be set back 25 feet from any street.

2) No Buildings shall be located outside of the Key Building Envelope. In Defined View Corridors, no Building allowed above the corresponding Fore Street elevation.

3) For buildings located East of Mountfort Street (extension), no building shall exceed 35 feet in height above the adjacent Fore Street grade within 100 feet of the Fore Street right-of-way, as measured perpendicular to the Fore Street right-of-way.

4) Location of Building Break Line is approximate as shown, and intended to promote a break in building mass to allow for the development of blocks and site permeability. The exact location of blocks and site permeability shall be identified, defined, and reviewed under a Master Development Plan or Subdivision/Site Plan review.

Adopted by the Portland City Council by Order 185-14/15 on June 1, 2015
Effective July 1, 2015

0 100 200 400 Feet

Legend

- Key Building Envelope
- Building Break Line
- View Corridor - No Build Above Relative Fore Street Elevation
- Proposed Mountfort Street Extension
- B6 Zone
- Parcel Boundary

Building Envelope

- 35 foot maximum building height
- 45 foot maximum building height
- 45 foot maximum building height, building height measured from feet above flood plain, not average grade
- 45 foot maximum building height with building extension to 55 feet
- 45 foot maximum building height with building extension to 65 feet
- 65 foot maximum building height

Feb 20, 2015

average grade 23.5

average grade 50.1

average grade 13

average grade 11

R6 WSUZ

R6 ROS

09/16/16

Scale: 1" = 50'-0"

HEIGHT CALCULATION DIAGRAM

58 FORE STREET MASTERPLAN

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL

8. EASEMENTS AND OTHER BURDENS §14-527 (C)(7)

A Boundary Survey that shows the site and surrounding parcels is provided in Section 15 of this Report. The following existing easements, public rights of way or other burdens have been identified:

- **MaineDOT Right of Way (ROW)** – The State of Maine owns the 50-foot wide rail-trail-corridor located between tax lots 1 and 3 and tax lot 2 of the Project Site, as shown on the Boundary Survey provided in Section 15 of this Report.
- **MaineDOT Crossing Rights** – The MaineDOT has granted 50-foot wide pedestrian access points across the trail, rail line, and MaineDOT Right of Way to preserve access to the water, as shown on the Boundary Survey provided in Section 15 of this Report; these crossing rights may be relocated/redefined with MaineDOT approval.
- **City Right of Way (ROW) on Fore Street** – There is a City ROW on Fore Street where the proposed development has designed an access stairway into the site. An easement will be required at the top of the Public Access Easement area. The public access easement traverses an area of significant grade change from the existing Fore Street grade to the historic core area of site. The Fore Street ROW is significantly wider in the area of the public access easement, resulting in limited land area on 58 Fore Street property at the top of the proposed stairs. As such, the stairway within this area is proposed to encroach within the Fore Street Right-of-Way, requiring an easement or maintenance agreement to be granted to the 58 Fore Street property to construct and maintain stairs within the City ROW. This concept has been reviewed with City staff and the City staff have been supportive of this approach.
- **Public Access Easement** – There is a proposed public access easement located further to the west of the view corridors (described below). CPB2 LLC has agreed to provide the City with a fifty-foot wide public access easement across the 58 Fore Street property from Fore Street to the waterfront edge of the Project Site. The proposed location of the 50'-wide easement is on and over a portion of the footprint of former Building 1 and extending from Fore Street to the southerly boundary of the property. The description is intended to be general in nature and the final configuration can be determined by CPB2 LLCs discretion with approval of the Planning Board and Corporation Counsel.
- **Retaining Wall** – An access easement to the City of Portland is provided for the 4-foot tall, approximately 353-foot long wall located along Fore Street, as shown on the Boundary Survey provided in Section 15 of this Report.
- **Utilities** – The State of Maine and the Canadian National Railway Company have conveyed perpetual easements to the Portland Water District for utilities located along the southern side of the Site, as shown on the Boundary Survey provided in Section 15 of this Report. The 30-foot wide Canadian National Railway Company easement is associated with the PWD 33-inch diameter sewer force main, and the 50-foot wide State of Maine easement is associated with water and sewer utilities.
- **View Corridors** – The B6 Building Height Overlay & Building Envelope map dated effective on July 1, 2015 requires four individual 50-foot view corridors at Kellogg, Waterville, St. Lawrence and Atlantic Streets be maintained. Within the defined view corridors, no building is allowed above the corresponding Fore Street elevation.

9. WAIVER REQUESTS

A waiver is being requested as described below.

9.1 FLOODING STORMWATER STANDARD

We are requesting a waiver from providing additional storage of stormwater for the Flooding Standard, due to the fact that the project will discharge directly into the ocean. Stormwater runoff from the Site will be conveyed exclusively via sheet flow and a piped system. Further discussion of stormwater management is included in Section 12 of this Report.

10. EVIDENCE OF FINANCIAL & TECHNICAL CAPACITY - §14-527(C)(9)

10.1 FINANCIAL CAPACITY

The Master Development Plan for 58 Fore Street presents a multi-hundred million dollar project to be built-out over the coming decade. Individual components of the project may be financed through CPB2 LLC or other development entities as the redevelopment efforts progress. The planning and design efforts associated with permitting this Master Development Plan have been financed by CPB2 LLC. Additional information on financing will be presented for review as the redevelopment vision progresses into individual Site Plans Applications submitted to the City for each development block. The attached letter indicates CPB2 LLC, has adequate financial capacity to plan and permit this Master Development Plan.

10.2 TECHNICAL CAPACITY

The redevelopment team consists of Portland based developer CPB2 LLC, and a group of three qualified, experienced managers. CPB2 LLC has a clear vision of redeveloping 58 Fore Street to reach its full potential and fulfill the goals set forth by the Eastern Waterfront Master Plan. Its management team includes Jim Brady, Casey Prentice and Kevin Costello. The CPB2 partners have completed several projects which include similar qualities and challenges posed by the 58 Fore Street redevelopment project. The CPB2 team brings together a balance of experience which includes mixed use development, historic redevelopment, architecture and design, maritime development, acquisition and business management, financing and visioning/public input experience. With their experience, they offer a thoughtful vision for bringing additional housing, economic stimulus and job growth to the City of Portland. Some of their individual development related projects include:

- Press Hotel – a LEED-certified boutique hotel with a historic history (former headquarters of the Portland Press Herald) - Portland, ME
- EVO – a restaurant adjacent to the Hyatt Place Hotel – Portland, ME
- ** 280 Fore Street – 70,000 Class A office/retail building at the corner of Franklin and Fore Streets – Portland, ME
- ** Hilton Garden Inn – hotel located in a historic district – Portsmouth, NH
- ** CIEE – 60,000 square foot office/condo building located on Fore Street – Portland, ME
- ** 50 Sewall Street – 40,000 square foot LEED-certified medical office building - Portland, ME
- Excelsior & Des Bains-Lido – multi-project development that included the rehabilitation of two historic assets in Venice, Italy
- Chebeague Island Inn – renovations of a 21-room historic inn and ocean side golf course – Chebeague Island, ME

Note: ** Indicates Jim Brady while in his role as President of Olympia Development.

The design team includes the following professionals:

- Architect – Perkins + Will, Boston, MA
- Civil Engineer & Permitting Professional – Woodard & Curran, Portland, ME
- Local Architect/Historic – Scott Simons Architects, Portland, ME
- Landscape Architect – Michael Boucher Landscape Architecture, Freeport, ME
- Traffic Engineer – Gorrill Palmer, South Portland, ME

- Sustainability Consultant – Thornton Tomasetti, Portland, ME
- Geotechnical Engineer – Haley & Aldrich, Portland, ME
- Surveyor – Owen-Haskell, Falmouth, ME
- Marina Designer – Applied Technologies Management (ATM), Charleston, SC

10.3 ATTACHMENTS

- Financial Capacity Letter

HFF
Holliday Fenoglio Fowler, L.P.

September 14, 2016

Ms. Christine Grimando, AICP
Senior Planner
Planning & Urban Development Department
389 Congress Street 4th Floor
Portland, ME 04101

Re: 58 Fore Street Redevelopment by CPB2 LLC / Master Development Plan Financing

Dear Ms. Grimando,

It's my pleasure to provide this memorandum confirming HFF's relationship with the CPB2 LLC and its managing partners Jim Brady, Casey Prentice and Kevin Costello. HFF believes that CPB2 LLC and its management possess the relevant experience to master plan, design, and coordinate a multi-phased development plan of the scope and importance that the 58 Fore Street redevelopment represents to Portland. The managing partners have proven their development expertise with numerous successful Portland projects.

CPB2 LLC possesses relationships with capital partners, banks, and financial institutions demonstrating the financial capacity necessary to obtain project financing for a master planned waterfront development. In our role as financial intermediary for the project, HFF will work with CPB2 to arrange the appropriate capitalization for each phase of the development.

HFF is one of the largest and most successful commercial real estate capital intermediaries in the country. We incorporate capital markets knowledge with local real estate expertise to successfully complete a broad spectrum of real estate transactions, regardless of size or complexity. HFF looks forward to working with CPB2 LLC on the financing aspects of the project as it moves forward from the Master Development Plan submission to phased vertical developments.

HFF's unique knowledge, broad capital markets relationships and national platform enable the firm to be in the position to arrange financing for a wide range of commercial real estate projects and we're proud of our history of performance spanning more than 30 years.

Thank you and best regards,

Anthony Cutone
Managing Director

11. CONCEPTUAL SITE PLAN §14-527 (E)

The existing Project Site is fully developed and there are no known areas of significant natural features, including unusual natural areas, rare or endangered botanical features, areas of significant wildlife habitats, or wetland areas located within or adjacent to the Project Site. Portions of the project are located within a Historic District and will impact historic resources.

11.1 GENERAL IMPACT OF PROPOSED MASTER DEVELOPMENT PLAN UPON THE AREA §14-527(E)(1)

A neighborhood context map has been prepared at a scale not less than one (1) inch equals one hundred (100) feet and provides a graphic description of the neighborhood where 58 Fore Street lies. The map includes roads, utilities and other public facilities, major existing buildings and structures and is attached to this Section.

The Project Site has historically been a developed part of the City of Portland and the site has always been bordered by the Munjoy Hill/East End neighborhood and Portland Harbor.



Portland Company circa 1938

There are a variety of residential, office, hotel, commercial and retail uses currently within the vicinity of the Project Site. The redevelopment of the former Portland Company complex offers an opportunity to fully realize the potential of this site in accordance with the Eastern Waterfront Master Plan and market forces. The underlying tone of the project is for it to be a neighborhood that is within the context of the surrounding area and aligns with City Zoning requirements. The most important elements of the project are protecting public access to the waterfront, preserving the historic nature of the site, enhancing waterfront uses and ensuring the development is in line with pedestrian access.

The eastern portions of the site are proposed as residential to reflect and support the character of adjacent, existing residential uses. The uses transition to more commercial and public spaces moving west throughout the site which are consistent with the existing uses and create a natural and consistent transition with that section of the City. The waterfront zone of this project merges directly with the Eastern Promenade Trail, accommodating pedestrians, cyclists, and the Maine Narrow Gauge Railroad. A generous walkway runs along the seawall for the entire length of the property,

connecting seamlessly to existing trails to the east, and the city-owned Amethyst lot to the west. The waterfront walkway widens around the proposed marina building to allow pedestrian circulation and to afford excellent views of Portland Harbor. The waterfront walkway is separated from the bicycle and train routes of the Eastern Promenade Trail by a planted buffer that will create a calmer walking environment, and guide pedestrian crossings of the faster bike and train traffic lanes at demarcated points along the trail. The primary crossing is aligned with the central view corridor and circulation axis between B3 and B5. A second future crossing is proposed on the western side of B3 where the Amethyst lot meets the waterfront. A smaller, private crossing is proposed between the larger yacht dock space and Blocks 5 and 6.

11.2 CONCEPTUAL SITE PLAN - §14-527 (E)(2)

11.2.1 Approximate Boundary Lines - §14-527 (e)(2)(i)

The approximate boundary lines of existing lots and proposed blocks within and immediately adjacent to the Master Development Plan, are included in the drawings provided as an attachment to **Section 3** of this Report.

11.2.2 Natural Features of the Site - §14-527 (e)(2)(ii)

The drawings attached to Section 3 of this Report show the natural features of the Project Site (waterways, wetlands, floodplains, topography, soil conditions, etc.). These natural features have been considered in the design of the proposed development. Portland Harbor directly abuts the property and the proposed development will continue to utilize this resources as it has been historically used for a marina and yacht support services and public access to the waterfront. The property is also partially within and adjacent to a FEMA flood zone (A2 and V2, respectively). The only portion of the project that will be within either of these zones is the marina building and dock space, which are water dependent uses. The buildings at the waterfront are set back from the EWPZ more than required, providing a sizeable open zone along the harbor.

The project area is a historically developed site, and there are no known areas of significant natural features, including unusual natural areas, rare or endangered botanical features, areas of significant wildlife habitats within or adjacent to the Project Site that warrant preservation.

11.2.3 Analysis of Designated View Corridors, Historic Resources and Archeological Resources §14-527 (e)(2)(iii)

The 58 Fore Street project was conceived and designed with view corridors and historic resources in mind (there are no archeological resources associate with the site).

11.2.3.1 Designated View Corridors

The B6 Building Height Overlay & Building Envelope map dated effective on July 1, 2015 requires view corridors. This project proposes to maintain four individual 50-foot view corridors at Kellogg, Waterville, St. Lawrence and Atlantic Streets (200 feet in total). There is also a proposed public access easement further to the west of the view corridors. Within the defined view corridors, no building is allowed above the corresponding Fore Street elevation. The project envisions that the public access easement will provide an opportunity for neighbors and the public to walk directly down to the waterfront from Munjoy Hill and Fore Street – something that has been limited in the past.

11.2.3.2 Historic Resources

On October 27, 2015, the Planning Board recommended to the City Council that a portion of the Portland Company building complex be designated a local historic district subject to Portland's historic preservation ordinance; the City Council designated the Portland Company Historic District on February 17, 2016.

Figure **4** shows the building numbering of the existing buildings on the Project Site. A map of the district boundaries is shown in **Figure 5.** A Historic Preservation Application for Certificate of Appropriateness was submitted on July 26, 2016; a copy of the application is attached to this Section for reference.

Figure 4: Existing Buildings – 58 Fore Street

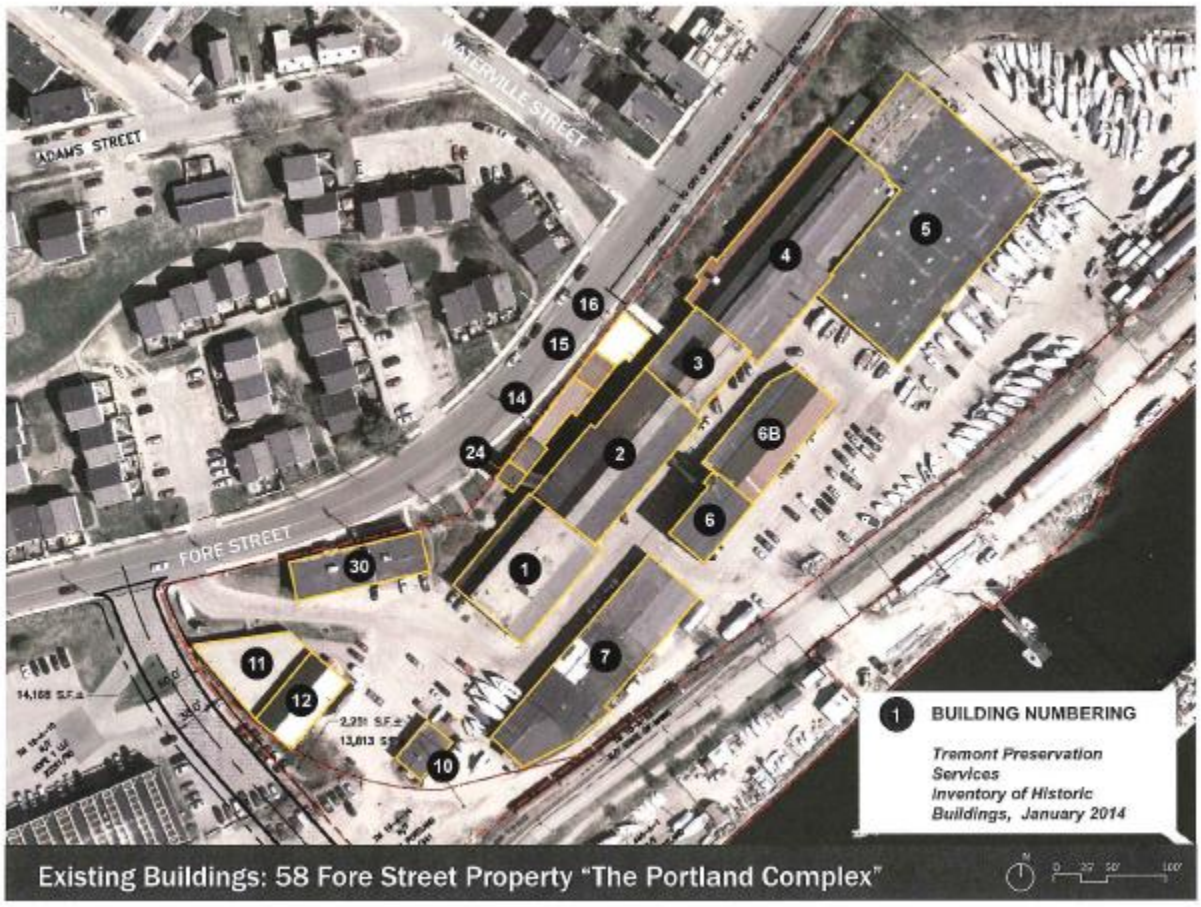
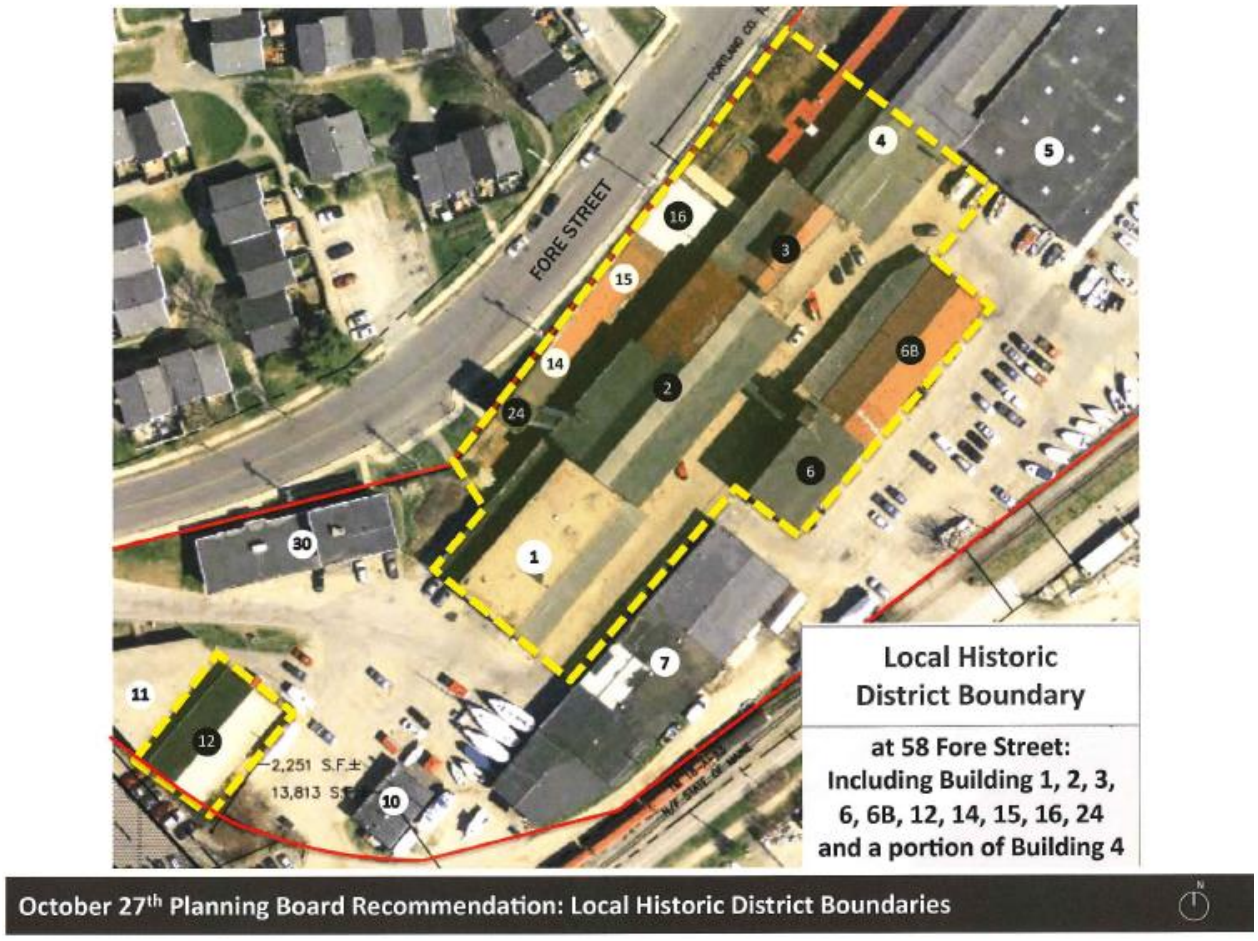


Figure 5: 58 Fore Street – Local Historic District Boundary



11.2.4 Existing/Proposed Buildings, Other Significant Structures, Building Groupings, Exterior Building Elevations and Entrances, Parking Areas, Other Significant Physical Site Features §14-527 (e)(2)(iv)

Existing buildings on the Project Site are shown and numbered on
Figure **4**. Also existing at the site is a marina operation and this use is anticipated to remain on site. For development purposes, the site has been divided into seven development blocks. The redevelopment program for the site was conceived by considering new and redefined uses for these seven separate development blocks. Proposed uses for the development blocks will include residential, office, commercial, retail, hotel, marina and restaurant buildings as well as a plaza type feel for pedestrian use between the individual building components.

Within the historic core, there will be pavement in various textures to foster the pedestrian experience and public plaza environment. A brick inlay within the paving will depict the footprint of Building 1 across the public access easement adjacent to Building 2. Rail tracks currently extending into Building 1 will be incorporated, as well, to memorialize the footprint and purpose of Building 1. Continuous stone or other modular paving is envisioned throughout the site.

One significant physical feature is the site grade which is 12' along the 1,000 feet of waterfront and goes from 30 to 50 to 70 to 88 feet along Fore Street. The vision is to utilize this grade differential by constructing pedestal parking beneath

the building footprints of B4, B5 and B6. There will also be a one level pedestal of parking built underneath the building for B1. On the Thames Street side, this parking will be framed by drive entry, retail and building entry areas, thus screening the parking behind. This pedestal of parking will be buried into the grade of Fore Street and not be exposed at that level. In total, there will be four ways to get in and out of the garage parking areas – three will be directly on site and one is proposed to be along Fore Street into B4.

Vehicular access to the site will primarily stem from the Thames Extension (abutting Commercial Street) and in the future, a newly constructed roadway that will be perpendicular to Fore Street and the Thames Extension, adjacent to B1. Vehicles entering the site will have the opportunity to park within structured parking, limited on street parking will be available. The access point for B6 will be along a slightly sloped ramp to be constructed on top of the pedestal parking and running parallel between B4 and B5. This ramp will end in front of B6 and a turnaround will be provided for vehicles to exit the area. The City of Portland Fire Department was consulted with regard to Fire Truck access and it was confirmed that this proposed approach will be able to accommodate their vehicles.

Pedestrian access will be available to users from Thames and Fore Streets, the staircase being proposed along Fore Street and utilizing the public access easement to bring visitors into the site, all the way down to the waterfront, the pedestrian path along the waterfront (which will be maintained by Maine DOT and Portland Trails) and a proposed extending walkway along the water. Access points will cross the bike/pedestrian path as well as the rail line.

Other notable site features include the property's prominent location adjacent to Portland Harbor as well as a Maine DOT easement, rail line and bike/pedestrian path that currently bisects the property. The redevelopment plan does include modifying these features and bringing them closer to the water which will bring users closer to the water's edge and provide for a more continuous development program, consistent with the EWMP. During the planning phase of this project, meetings were held with Portland Trails, the City of Portland and Maine DOT regarding these modifications.

See also Section 4.6 for a more detailed explanation of the proposed changes and renovation to the buildings in the Historic Core.

11.2.5 Context Drawings – Context Drawings, Renderings, Photo Montage or Computer Generated Graphics §14-527 (e)(2)(v)

Architectural plans and renderings depicting the proposed development within the surrounding building and environmental context are included with this submittal.

11.2.6 Major Circulation Patterns, Existing and Proposed Lines of Streets, Ways, Easements and Public Areas §14-527 (e)(2)(vi)

The major circulation patterns surrounding and serving the Site will be driven by the extension of Thames Street across the Site; the primary 50-foot pedestrian access easement from Fore Street; a central corridor at ground level providing direct access to the waterfront; and the pedestrian, bicycle, and train paths along the waterfront. Existing and proposed lines of streets, ways, easements, and public areas are shown on the drawings attached to **Section 3** of this Report. The Thames Street extension is intended to be shared use, safely accommodating a mixed stream of bike/pedestrian, car, and service vehicle traffic accessing all the blocks and the marina. Vehicular turnarounds are provided between B3 and B5 and at the terminus of the street between B5 and B6. Circulation will also occur throughout the historic core, all the way around Buildings 2, 3, 6 and 6A.

The waterfront section of the Site will continue to accommodate pedestrian, bicycle, and train movement and is fully continuous with the Eastern Promenade Trail. The proposed Site will also continue to provide direct access to the waterfront, as it does in the existing condition. Much of the Site's outdoor space will be public area; the street, the waterfront corridors, the outdoor space around the historic buildings, and the entire waterfront zone will all be open and accessible to the public. Approximately 60% of the entire property is currently proposed as open space and 75% of

that proposed open space is proposed as accessible to the public. Easements are described in Section 8 of this Report.

11.2.7 Major Landscaping Elements, Features, Open Space and Plans for Preserving Natural Features §14-527 (e)(2)(vii)

Proposed plans for major landscaping elements, features, and open space are described in **Section 3.4.3** of this Report. The drawings attached to **Section 3** of this Report show the natural features of the Project Site. These natural features have been considered in the design of the proposed development. Portland Harbor directly abuts the Project Site and the proposed development will preserve and enhance public access to this resource. The property is also partially within and adjacent to a FEMA flood zone (A2 and V2, respectively). The only portion of the project that will be within either of these zones is the marina building and dock space, which are water dependent uses. The buildings at the waterfront are set back from the EWPZ more than required, providing a sizeable open zone along the harbor.

The project area is a historically developed site, and there are no known areas of significant natural features, including unusual natural areas, rare or endangered botanical features, areas of significant wildlife habitats within or adjacent to the Project Site that warrant preservation.

11.2.8 Public Safety Services §14-527 (e)(2)(viii)

Public safety services will be needed to support the overall master plan for the Project Site both during design, construction and when the build out/occupancy is complete. The design of the new buildings will benefit any emergency response activity in that they will be full covered by modern, code compliant sprinkler systems. Each building will also have all of the code required smoke, fire and carbon monoxide detectors.

In July 2016, an informal meeting was held with Captain Keith Gautreau (Assistant Chief, Portland Fire Department) and Michael White (City of Portland, Life Safety Plans Reviewer) to review plans for the development. There will be continued communication as plans develop. Minutes from this meeting have been included as an attachment.

11.2.9 School System Impacts §14-527 (e)(2)(ix)

The proposed developed is expected to have minimal impact on the City's public school system. The master plan does include a component of residential development that will be a mix of studio, one bedroom, two-bedroom and three-bedroom apartment and condo units that may include school age occupants. However, we anticipate that the City of Portland school system will be able to accommodate the total number of school age children who may reside in the proposed units. The site's primary circulation drive has been designed to accommodate bus access if needed. Based on the Portland School Department's current districting, should school age children reside within the development, they would likely attend the East End School and King Middle School or Lyman Moore Middle School.

11.2.10 Stormwater/Drainage Plan §14-527 (e)(2)(x)

A review of the 2013 Owen Haskell, Inc. survey indicates that there are currently three stormwater outfall discharges on the Site; however, portions of the site's stormwater runoff may discharge to the combined sewer system. The City of Portland is working to reduce the number of combined sewer overflows occurring in the City, and any separation of sanitary sewer from stormwater flow will help with this initiative. In early 2013, the City's Combined Sewer Overflow Long Term Control Plan Tier III Update was completed; one of the geographic areas evaluated in this report was the Portland Harbor. The 58 Fore Street area was identified as part of the India Street CSO-shed; however, the report did not give any specific recommendations for management of stormwater in this area. A targeted area for green infrastructure and sewer separation was identified within the report, southwest of the proposed development area.

The Ocean Gateway construction project created separate stormwater and sanitary sewer systems installed to the end of Thames Street. The stormwater discharges to an outfall constructed as part of the project. Prior to discharge at this

new outfall, stormwater is directed through a stormwater treatment unit designed to meet water quality standards established at that time. A 2006 evaluation of this stormwater system identified the maximum drainage area and acceptable flows that could discharge to the outfall's stormwater treatment system; stormwater flows from 58 Fore Street cannot be handled by the Ocean Gateway outfall's permitted stormwater treatment system.

The proposed drainage plan and stormwater management techniques are described in Section 12 of this Report.

11.2.11 Master Development Plan Boundaries §14-527 (e)(2)(xi)

The drawings attached to Section 3 of this Report show the Master Development Plan boundaries for the Project Site.

11.2.12 Traffic Analysis §14-527 (e)(2)(xii)

Please refer to Section 13 of this Report.

11.2.13 Utilities Analysis §14-527 (e)(2)(xiii)

Please refer to Section 14 of this Report.

11.3 ATTACHMENTS

- Neighborhood Context Map
- Historic Preservation Application for Certificate of Appropriateness
- 58 Fore Street Development Block 2: Historic Core Package
- July 18, 2016 – Fire Prevention Meeting Minutes



\\wc\shares\Projects\227007 CPB2 - Portland Co Complex Redev\vlp\Drawings\03 Master Development Planning\Figures\227007.03 NCM.dwg

41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

NEIGHBORHOOD CONTEXT MAP

DESIGNED BY: N/A
DRAWN BY: BCM
CHECKED BY: DAS
227007.03 NCM.dwg

CPB2, LLC
PORTLAND, MAINE 04102

58 FORE STREET

JOB NO: 227007.03
DATE: SEPT. 2016
SCALE: 1"=200'

FIG. 2

Date: JULY 26, 2016

HISTORIC PRESERVATION
APPLICATION FOR CERTIFICATE OF APPROPRIATENESS

Pursuant to review under the City of Portland's Historic Preservation Ordinance (Chapter 14, Article IX of the Portland City Code), application is hereby made for a Certificate of Appropriateness for the following work on the specified historic property:

PROJECT ADDRESS:

58 FORE STREET, PORTLAND, ME 04101

CHART/BLOCK/LOT: 018 A001 (for staff use only)

PROJECT DESCRIPTION: Describe below each major component of your project. Describe how the proposed work will impact existing architectural features and/or building materials. If more space is needed, continue on a separate page. Attach drawings, photographs and/or specifications as necessary to fully illustrate your project—see following page for suggested attachments.

SEE ATTACHED CPB2 NARRATIVE DATED JULY 25, 2016

CONTACT INFORMATION:

APPLICANT
Name: CPB2 LLC
Address: P.O. BOX 7987
PORTLAND, ME
Zip Code: 04112
Work #: 207.358.1994
Cell #: 207.653.9990
Fax #:
Home:
E-mail: JAMESHBRADY@GMAIL.COM

PROPERTY OWNER
Name: CPB2 LLC
Address: P.O. BOX 7987
PORTLAND, ME
Zip Code: 04112
Work #: 207.358.1994
Cell #: 207.653.9990
Fax #:
Home:
E-mail: JAMESHBRADY@GMAIL.COM

BILLING ADDRESS
Name: SCOTT SIMONS ARCHITECTS
Address: 75 YORK STREET
PORTLAND, ME
Zip: 04101
Work #: 207.772.4656
Cell #:
Fax #: 207.828.4656
Home:
E-mail:

ARCHITECT
Name: SCOTT SIMONS ARCHITECTS
Address: 75 YORK STREET
PORTLAND, ME
Zip: 04101
Work #: 207.772.4656
Cell #:
Fax #: 207.828.4656
Home:
E-mail: SCOTT@SIMONSARCHITECTS.COM
AUSTIN@SIMONSARCHITECTS.COM

CONTRACTOR
Name: NOT YET DETERMINED
Address:
Zip Code:
Work #:
Cell #:
Fax #:
Home:
E-mail:

JNB

Applicant's Signature

Owner's Signature (if different)

Historic Preservation Application Fee Schedule:

• **Administrative Review** (for minor or standard alterations)	$65.00
• **HP Board Review**	$125.00
• **HP Board Review for major projects** involving new construction or building addition exceeding 1000 sq. ft. or comprehensive rehabilitation/redesign of existing structures	$750.00
• **After-the-fact Review** (for work commenced without advance approval)	$1000.00
• **Sign Review** for signs in historic districts	$75.00

Noticing/Advertisements for Historic Preservation Board Review*

• Legal Advertisement:	Percent of total bill
• Notices:	.75 cents each

(notices are sent to neighbors prior to any workshop or public hearing meetings)

* You will be billed separately for these costs.

Activities Requiring Approval in Historic Districts

If your property is located within a historic district or is an individually designated historic structure, it is necessary to receive approval before proceeding with any exterior alteration, construction activity or site improvement that will be visible from a public way. Following is a list of activities requiring review. **Please check all those activities that apply to your proposed project.**

Alterations and Repair

- ☑ Window and door replacement, including storms/screens
- ☑ Removal and/or replacement of architectural detailing (for example porch spindles and columns, railings, window moldings, and cornices)
- ☐ Porch replacement or construction of new porches
- ☑ Installation or replacement of siding
- ☑ Masonry work, including repointing, sandblasting, chemical cleaning, painting where the masonry has never been painted, or conversely, removal of paint where the masonry historically has been painted
- ☑ Installation or replacement of either roofing or gutters when they are a significant and integral feature of the structure
- ☑ Alteration of accessory structures such as garages

Additions and New Construction

- ☑ New Construction
- ☑ Building additions, including rooftop additions, dormers or decks
- ☑ Construction of accessory structures
- ☑ Installation of exterior access stairs or fire escapes
- ☐ Installation of antennas and satellite receiving dishes
- ☐ Installation of solar collectors
- ☑ Rooftop mechanicals

Signage and Exterior Utilities

- ☑ Installation or alteration of any exterior sign, awning, or related lighting
- ☑ Exterior lighting where proposed in conjunction with commercial and institutional signage or awnings
- ☑ Exterior utilities, including mechanical, plumbing, and electrical, where placed on or near clearly visible facades

Site Alterations

- ☑ Installation or modification of site features other than vegetation, including fencing, retaining walls, driveways, paving, and re-grading

Moving and Demolition

- ☑ Moving of structures or objects on the same site or to another site
- ☑ Any demolition or relocation of a landmark contributing and/or contributing structure within a district

Note: Your project may also require a building permit. Please call Building Inspections (874-8703) to make this determination.

ATTACHMENTS

To supplement your application, please submit the following items, *as applicable to your project.*
Keep in mind that the information you provide the Historic Preservation Board and staff is the only description they will have of your project or design. Therefore, it should precisely illustrate the proposed alteration(s).

__✓__ Exterior photographs (required for all applications.) Include general streetscape view, view of entire building & close-ups of affected area.

_____ Sketches or elevation drawings at a minimum 1/4" scale. Please label relevant dimensions. All plans shall be submitted in 11" x 17" format except for major projects, where 22" x 34" plans are requested. Applicants for major projects should submit one (1) 11" x 17" copy for scanning purposes.

_____ Details or wall sections, where applicable.

_____ Floor plans, where applicable.

__✓__ Site plan showing relative location of adjoining structures.

_____ Catalog cuts or product information (e.g. proposed windows, doors, lighting fixtures, fencing)

_____ Materials - list all visible exterior materials. Samples are helpful.

_____ Other(explain) SITE MASTER PLAN MATERIAL

If you have any questions or need assistance in completing this form, please contact Historic Preservation staff: Deb Andrews (874-8726, dga@portlandmaine.gov or Rob Wiener (756-8023), rwiener@portlandmaine.gov)

Please return this form, application fee (see attached fee schedule), and related materials to:

Historic Preservation Program
Department of Planning and Urban Development
Portland City Hall, 4th Floor
389 Congress Street
Portland, ME 04101

Standards for Review of Alterations to Historic Buildings

In considering an application for a Certificate of Appropriateness involving alterations, the Historic Preservation Board and Staff the following review standards, as provided in the City's historic preservation ordinance:

(1) Every reasonable effort shall be made to provide a compatible use for the property which requires minimal alteration to the character-defining features of the structure, object or site and its environment or to use a property for its originally intended purpose.

(2) The distinguishing original qualities or character of a structure, object or site and its environment shall not be destroyed. The removal or alteration of any historic material or distinctive architectural features should be avoided when possible.

(3) All sites, structures and objects shall be recognized as products of their own time, place and use. Alterations that have no historical basis or create a false sense of historical development such as adding conjectural features or elements from other properties shall be discouraged.

(4) Changes which may have taken place in the course of time are evidence of the history and development of a structure, object or site and its environment. Changes that have acquired significance in their own right, shall not be destroyed.

(5) Distinctive features, finishes, and construction techniques or examples of skilled craftsmanship which characterize a structure, object or site shall be treated with sensitivity.

(6) Deteriorated historic features shall be repaired rather than replaced wherever feasible. Where the severity of deterioration requires replacement of a distinctive feature, the new feature should match the feature being replaced in composition, design, texture and other visual qualities and, where possible, materials. Repair or replacement of missing historic features should be based on accurate duplications of features, substantiated by documentary, physical or pictorial evidence rather than on conjectural designs or the availability of different architectural elements from other structures or objects.

(7) The surface cleaning of structures and objects, if appropriate, shall be undertaken with the gentlest means possible. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be undertaken.

(8) Every reasonable effort shall be made to protect and preserve significant archeological resources affected by or adjacent to any project. If resources must be disturbed, mitigation measures shall be undertaken.

(9) Contemporary design for alterations and additions to existing properties shall not be discouraged when such alterations and additions do not destroy significant cultural, historical, architectural or archeological materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the size, scale, color, material and character of the property, neighborhood or environment.

(10) Wherever possible, new additions or alterations to structures and objects shall be undertaken in such a manner that, if such additions or alterations were to be removed in the future, the essential form and integrity of the historic property would be unimpaired.

CASH ONLY IF ALL CheckLock™ SECURITY FEATURES LISTED ON BACK INDICATE NO TAMPERING OR COPYING

Scott Simons Architects LLC
75 York Street
Portland, ME 04101
(207) 772-4656

Bath Savings Institution
BRUNSWICK, ME 04011
52-7444/2112

14156

7/26/2016

PAY TO THE ORDER OF City of Portland $ **125.00

One Hundred Twenty-Five and 00/100********** DOLLARS

PROTECTED AGAINST FRAUD

City of Portland
389 Congress Street
Portland, Maine 04101

MEMO HP application

⑈014156⑈ ⑆211274467⑆ 050 1045 4⑈

Scott Simons Architects 14156

City of Portland 7/26/2016

Date	Type	Reference	Original Amt.	Balance Due	Discount	Payment
7/26/2016	Bill		125.00	125.00		125.00
					Check Amount	125.00

Bath Checking	HP application	125.00

CITY OF PORTLAND

DEPARTMENT OF PLANNING & URBAN DEVELOPMENT

389 Congress Street
Portland, Maine 04101

INVOICE OF FEES

Application No: 2016-180 **Applicant:** CPB2 LLC
Project Name: Preliminary Development Program **Location:** 58- FORE ST
CBL: 018 A001001 **Development Type:** Historic Preservation Project
Invoice Date: 07/27/2016

Previous Balance	-	Payment Received	+	Current Fees	-	Current Payment	=	Total Due	Payment Due Date
$0.00		$0.00		$125.00		$125.00		$0.00	On Receipt

Previous Balance **$0.00**

Fee Description	Qty	Fee/Deposit Charge
HP Minor Board Review	1	$125.00
		$125.00

Total Current Fees: + **$125.00**
Total Current Payments: - **$125.00**
Amount Due Now: **$0.00**

CBL 018 A001001
Bill To: CPB2 LLC
PO BOX 7987
PORTLAND, ME 04112

Application No: 2016180
Invoice Date: 07/27/2016
Invoice No: 59037
Total Amt Due: $0.00
Payment Amount: $125.00

Make checks payable to the ***City of Portland,*** ATTN: Inspections, 3rd Floor, 389 Congress Street, Portland, ME 04101.

Pay On-Line at http://portlandmaine.gov/550/Inspections

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

July 25, 2016

RE: Portland Company, Historic District

The primary purpose of the Historic Preservation ("HP") Board workshop is to review and seek guidance from the HP Board regarding the challenges of the location of Building #12, the former Pattern Storehouse Addition.

HISTORY

On February 17, 2016, the Council designated two specific Historic District boundaries within the Portland Company district. One of those boundaries encircled the existing footprint of Building #12, by itself, and separate from the historic core which included 6 additional contributing structures, including buildings 2, 3, 6, 6B, 16 & 24.

The Pattern Storehouse Addition, according to Sutherland Conservation & Consulting:

"Construction Date: 1895
The Patter Storehouse Addition was built immediately adjacent to the original storehouse (Bldg #11), built a decade earlier, using the same materials and technology…"

The Pattern Storehouse Addition, being built adjacent to, actually shares the same common wall with the earlier Building 11, which has been determined to not be a contributing structure due to structural integrity.

CONTEXT

The Eastern Waterfront Master Plan, adopted 2004, contemplates additional public infrastructure in the means of new roadways to the East (extension of Commercial St – now called Thames St) as well as 3-4 connector roads connecting Thames St up to Fore St. During the Ocean gateway project, the first of these new connector roads was constructed, stepping up the slight grade at that location for the Hancock St extension. Additional connector roads were envisioned to the East with the furthest East being a Street immediately adjacent to the Portland Company Western property boundary. Building 12 sits on this Western most property boundary.

The grade changes at this specific location are best seen in the profile image prepared by Woodard & Curran (Civil Engineers), for the City of Portland, dated

February 26, 2016. Here the significant grade from the finished floor elevation of Building #12 of 12.83 and 13.08 (Approx. 13.0') up to the nearby connection at Fore Street at elevation 29.0' create a challenging situation for Building #12 once the new connector road is constructed. As shown in this profile section, the new roadway would bury a large portion of the first floor of Building #12. The northwest corner of Building 12 would be 8.47' below the roadway, and the southwest corner would be 5.87' below the plane of the new roadway. In essence this would "bury" much of the first floor of this building, in the new grade required for the roadway. The result of this roadway intervention would be the uncomfortable relationship of Building 12 to its new surroundings on the west side.

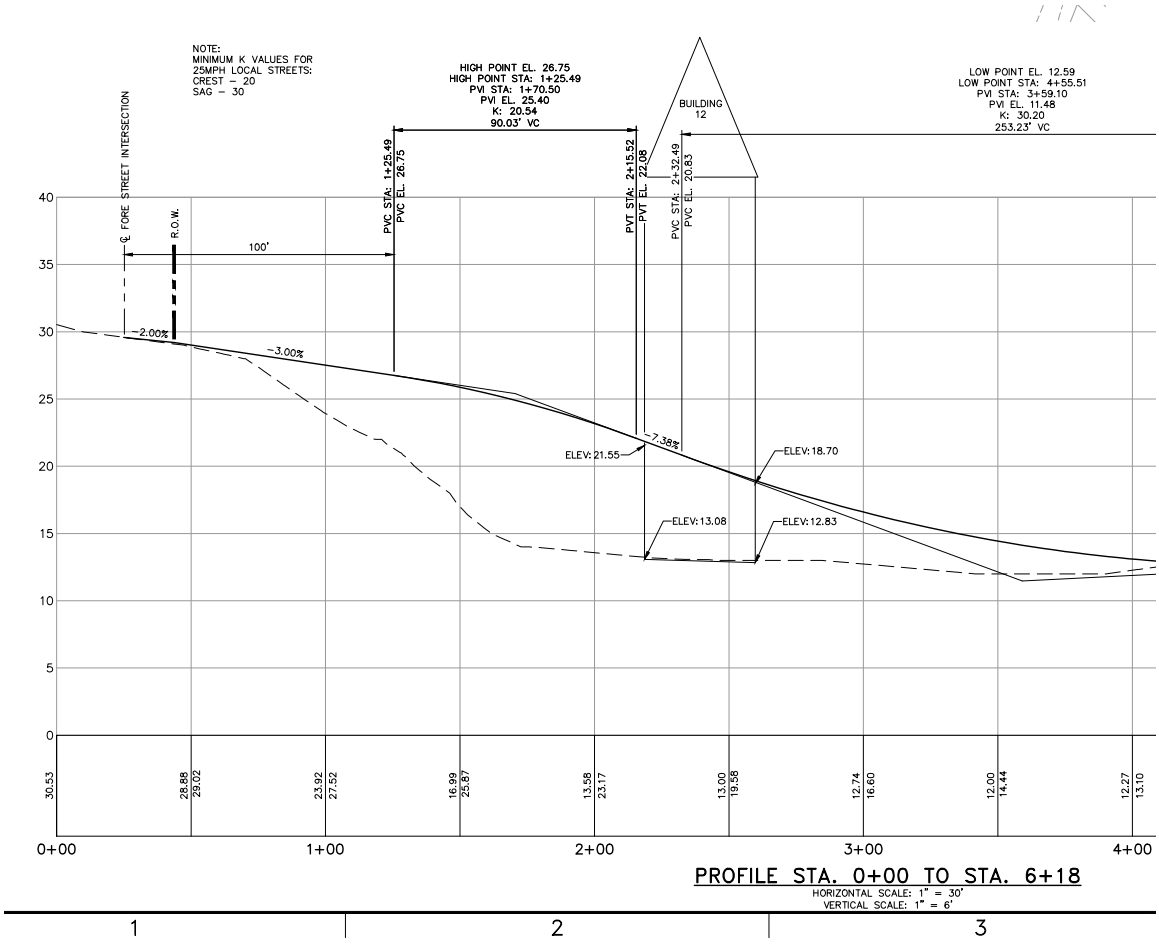


Figure 1-1: Section at Building #12 and proposed new connector road.

On the other three sides of Building 12, CPB2 proposes to develop Parcel 1 with a mixture of commercial and residential buildings, and structured parking below. The layout and efficiency of these buildings is important to the success of the

development. To keep the majority of parking off the streets and surface areas of the overall development, CPB2 proposes to build a one level parking structure under Parcel 1. This parking structure will enclose approximately the lower 10' of Building 12 on three sides, again further compromising the relationship of Building 12 to its original site and the other buildings in the Historic Core. Essential the lower floor of the building will be concealed by the roadway on the west and the garage on the other three sides.
A four-story building, with one level of retail on the ground floor along Thames Street (and parking under the back portions of the ground floor) and three floor levels above, will be built along the south edge of the Parcel 1 site. A three-story building will be built on top of the parking structure along the north side, following approximately the line of Fore Street. These proposed developments will enclose Building 12, removing it visually from the context of the Historic Core buildings to the east.

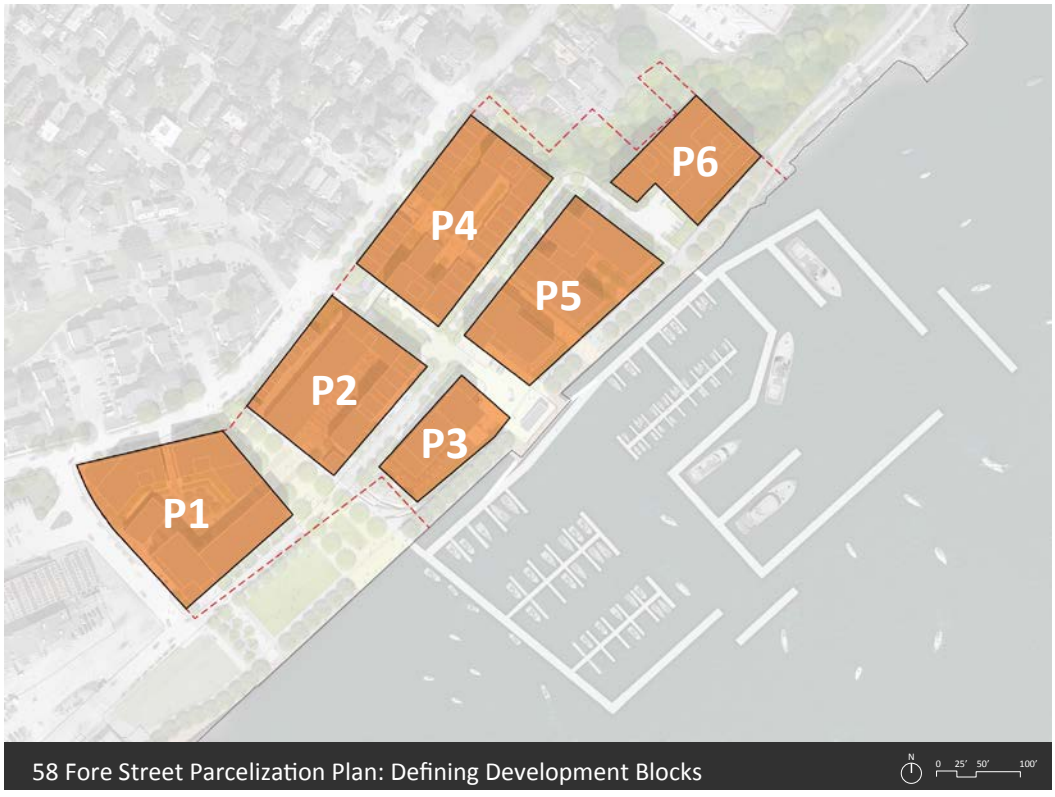


Figure 1-2: Concept Parcel Plan for Portland Company site, for reference

While seeking to resolve the challenging design conditions with the current location of Building 12, the design team have considered a number of possible alternate locations to better suit and integrate Building 12 to the larger historic

core located to the East. In consideration of this, the team has reviewed Land Use code, Chapter 14, section 652, regarding *Standards for review of relocation.*

Chapter 14-562. Standards for review of relocation.

In acting upon an application for a certificate of appropriateness involving relocation, the historic preservation board and the planning board shall apply the following general standards and any design guidelines in the ordinance designating the landmark or district:

(a) Whether the historic or urban design character in a static interest of the structure or object contribute to its present setting

(b) If located with in a district, whether there are definite of plans for the area to be vacated and what the effect of those plans is on the character of the surrounding area. In such cases, consideration of additional design guidelines for construction to be imposed as a condition of approval is appropriate.

(c) Whether the relocation of the structure or object can be accomplished without significant damage to its physical integrity.

(d) Whether the proposed relocation area is compatible with the cultural historical or architectural character of the structure or object.

Considering the proposed 50' Public access easement option CPB2 has offered to the City of Portland, located West of Building #2, this creates a break from the historic core, yet provides for a visual connection and relationship to the large complex to the East, included the six additional contributing structures of the Portland Company historic district. Upon looking at potential relocation alternatives, the design team reviewed relocation at the SW corner of Parcel 1 Discuss the proposed relocation, adjacent to the proposed public 50' easement – how that holds Building 12 away from the core 9as it always was since it was the pattern storage and was kept away for fire protection. Also want to highlight he alignment with the Portland Company historic core buildings (linear nature of the complex). Also discuss situating Building 12 proud of the new construction proposed at Parcel 1 along the easement access, to allow for better visual identification. Highlight the three primary viewpoints:

- Upon vehicular and/or pedestrian movement Eastward on Thames St – visually connecting to the West façade (one with Portland Company painted on brick)
- From Fore St, as approaching the proposed 50' public access easement
- From the waterfront and Portland trails

We look forward to a open discussion regarding a possible relocation of Building #12, to create a unique a special historic district benefiting the public, both visitors and residents to this area of the city.

Sincerely,

For CPB2, LLC

Jim Brady, Co-Manager
CPB2 Management, LLC

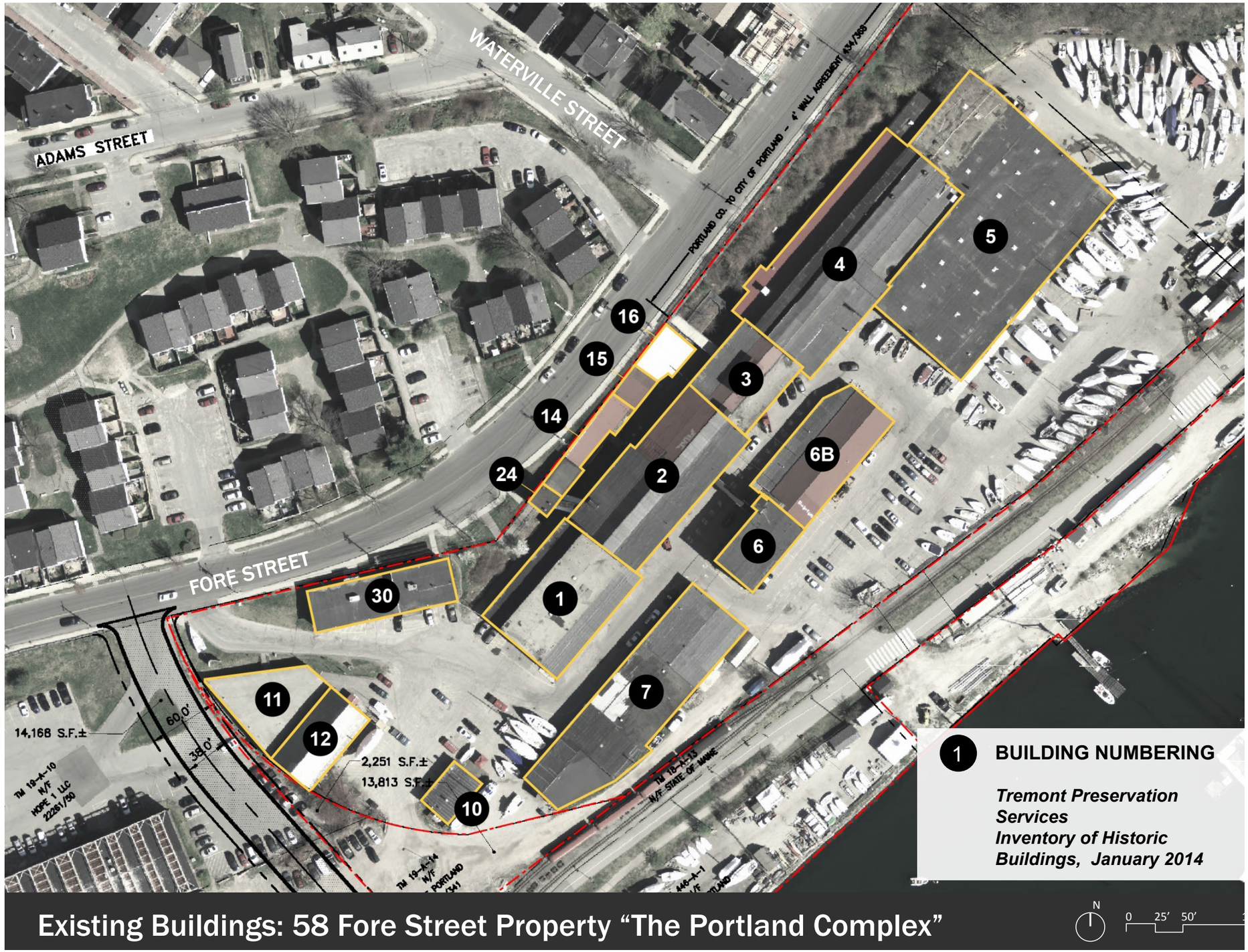
scott simons architects
designed for human potential

58 Fore Street

Development Block 2: Historic Core

EXISTING AERIAL VIEW





Existing Buildings: 58 Fore Street Property "The Portland Complex"

BUILDINGS 2 + 3: EXISTING GROUND FLOOR CONDITIONS





BUILDINGS 2 + 3: EXISTING SECOND FLOOR CONDITIONS





BUILDINGS 2, 24, 14, 15, 16: EXISTING CONDITIONS





BUILDINGS 2, 3: EXISTING CONDITIONS





BUILDINGS 6, 6B: EXISTING CONDITIONS



BUILDINGS 24, TOWER: EXISTING CONDITIONS

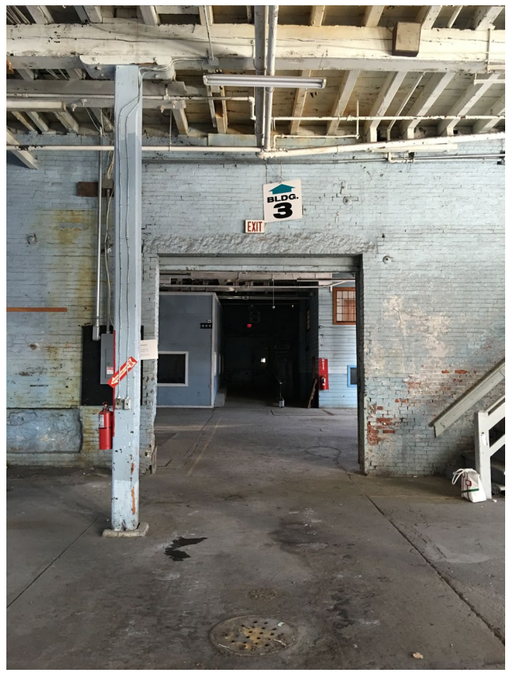




BUILDING 12: EXISTING CONDITIONS

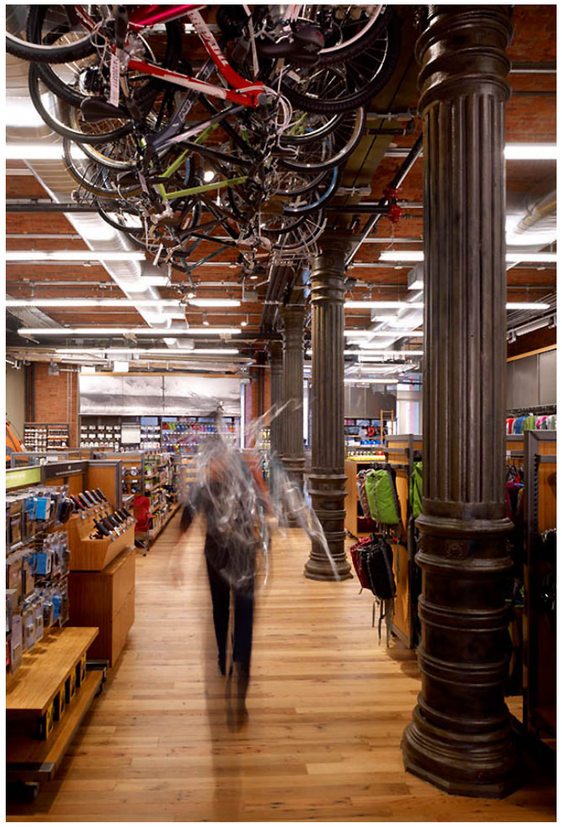








EXISTING GROUND FLOOR

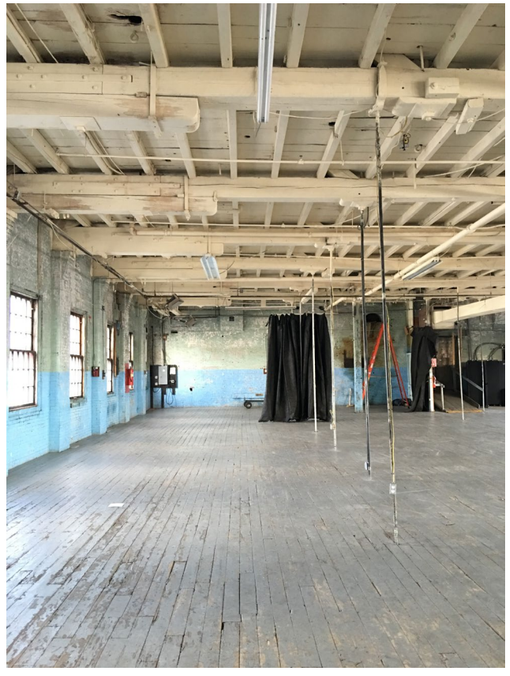








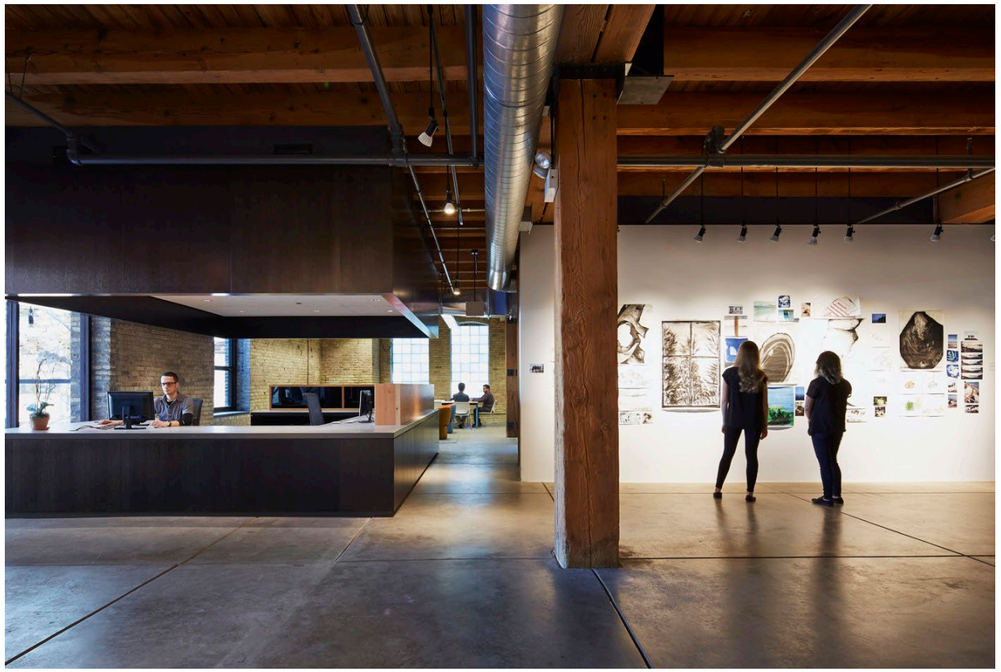
PRECEDENT IMAGES + CONCEPTS: COMMERCIAL TENANT



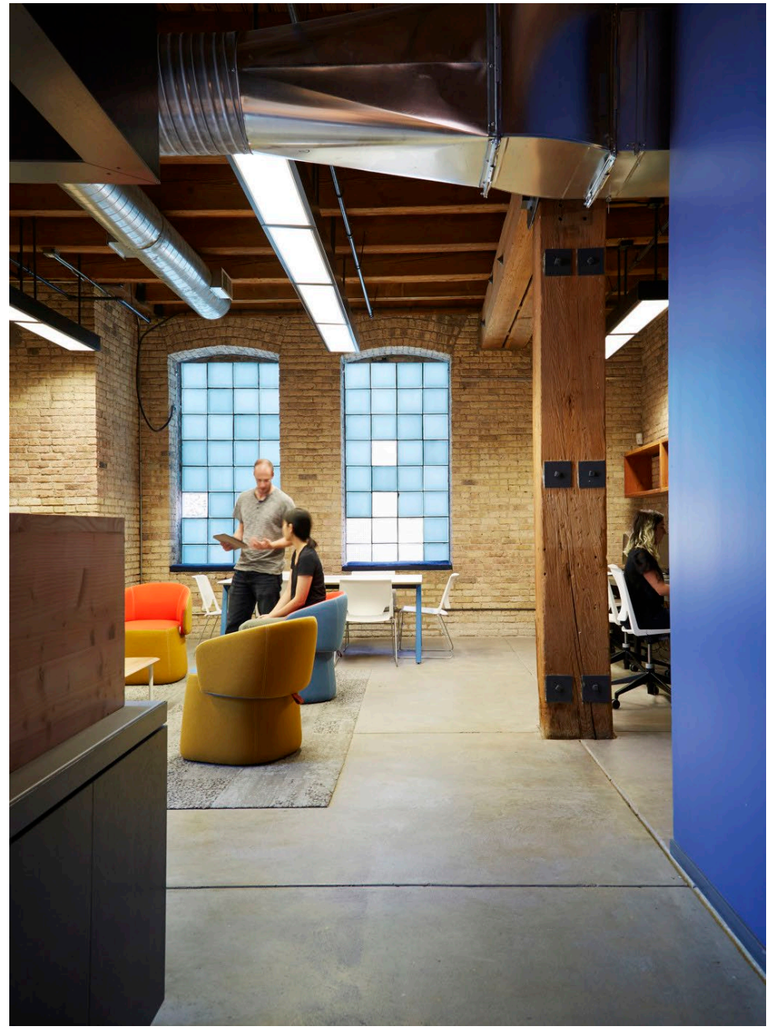


EXISTING 2ND FLOOR



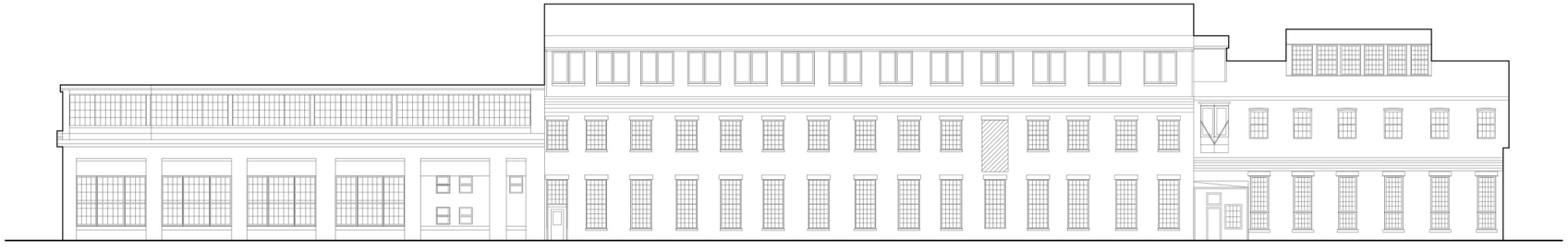


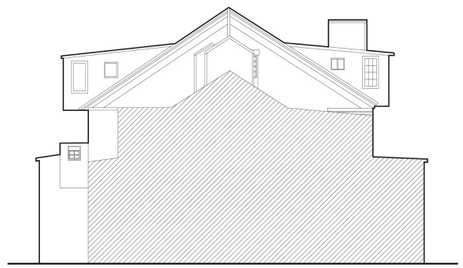
PRECEDENT IMAGES + CONCEPTS: OFFICE TENANT

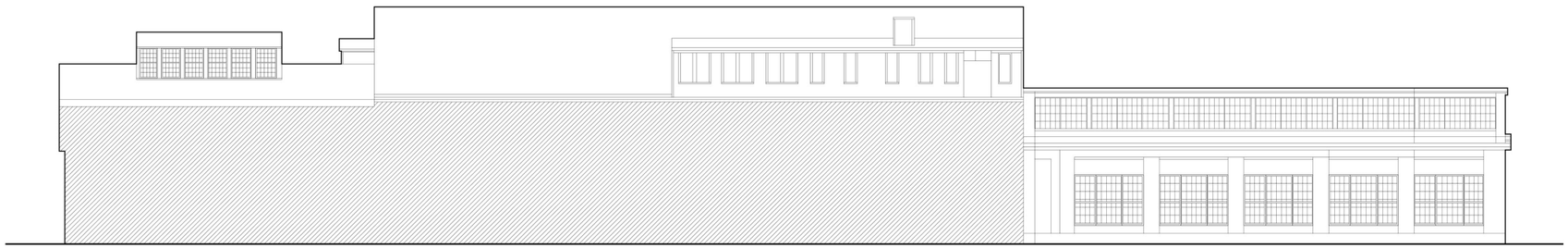


BUILDINGS 2 + 3 EXISTING ELEVATIONS





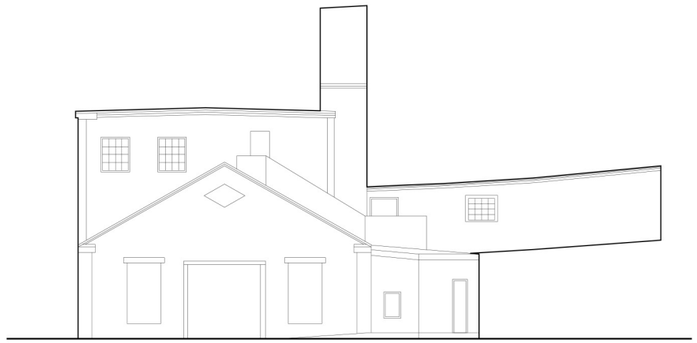




BUILDINGS 6 + 6B EXISTING ELEVATIONS

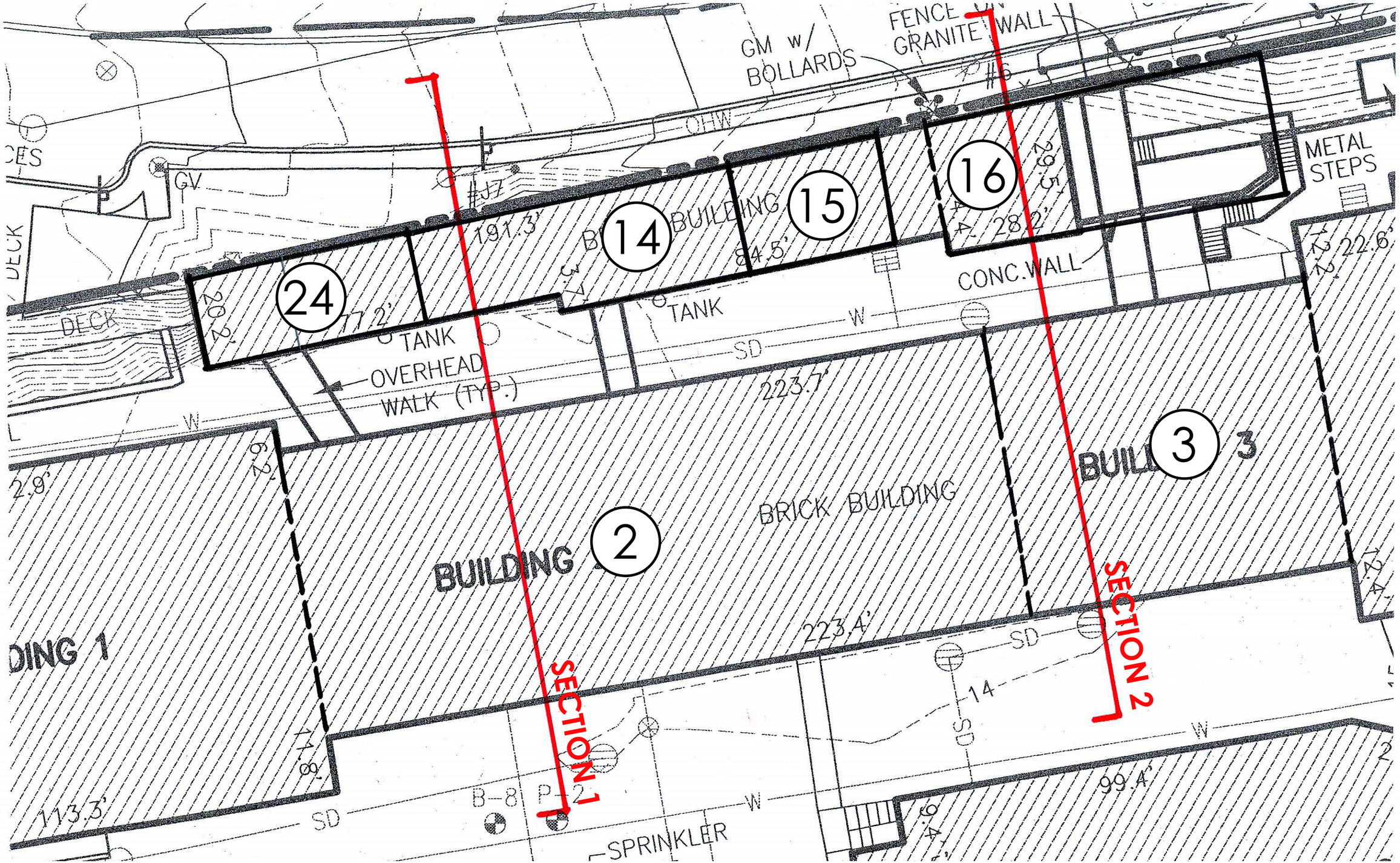




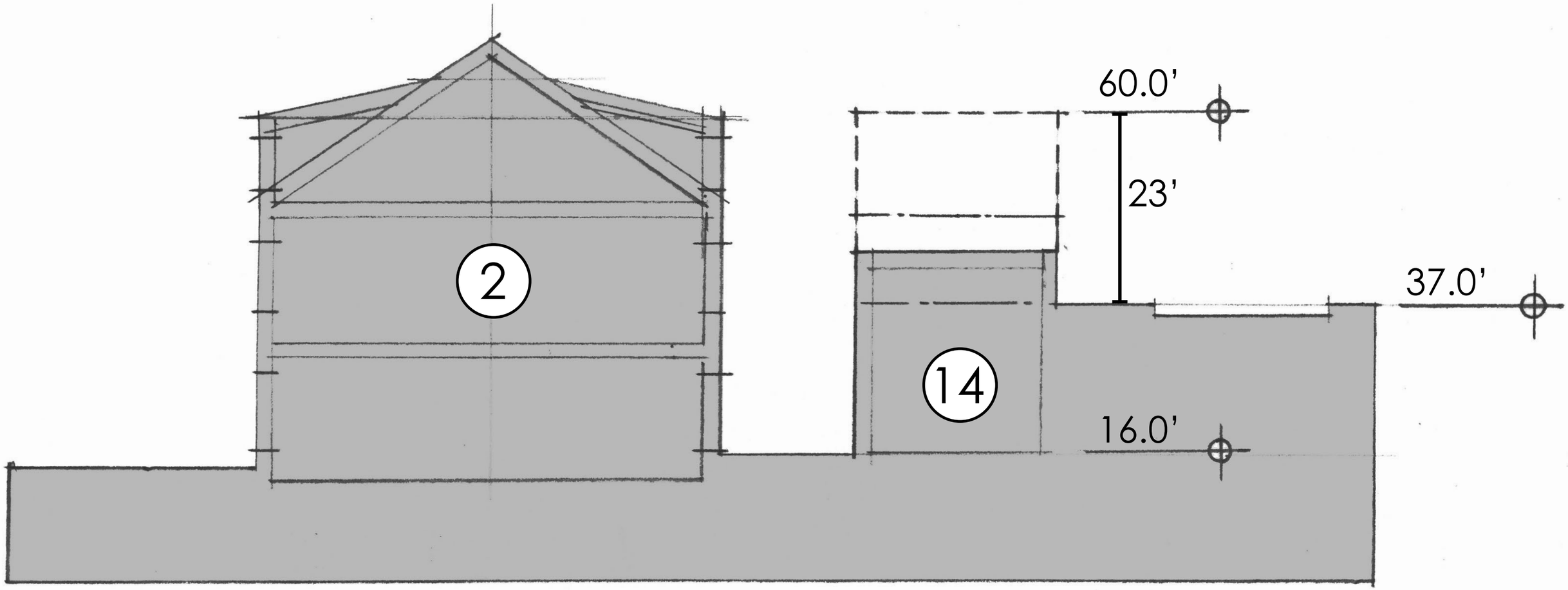




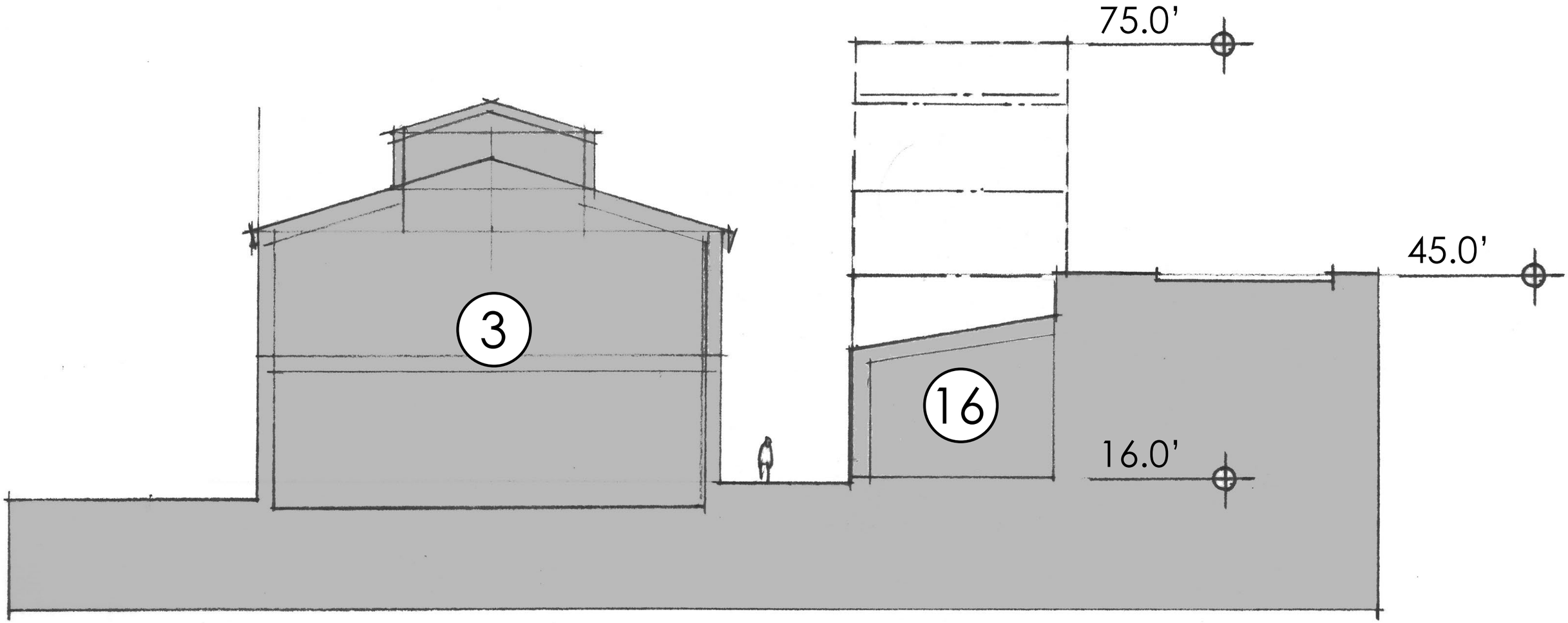
BUILDING SECTIONS



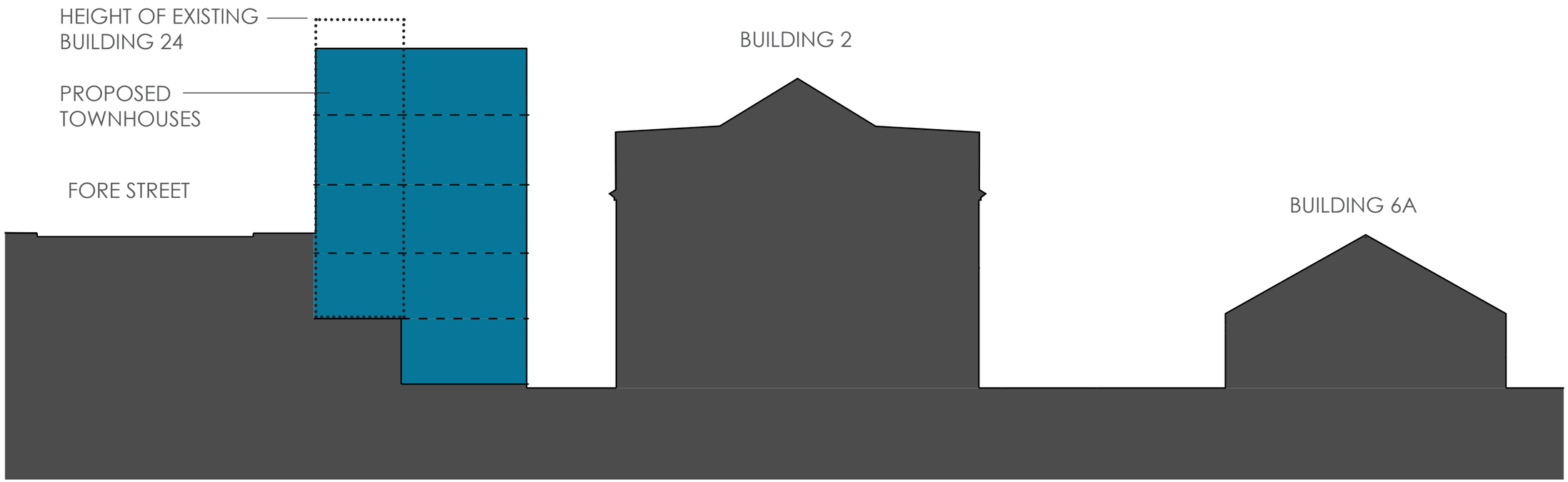
PROPOSED: SECTION 1



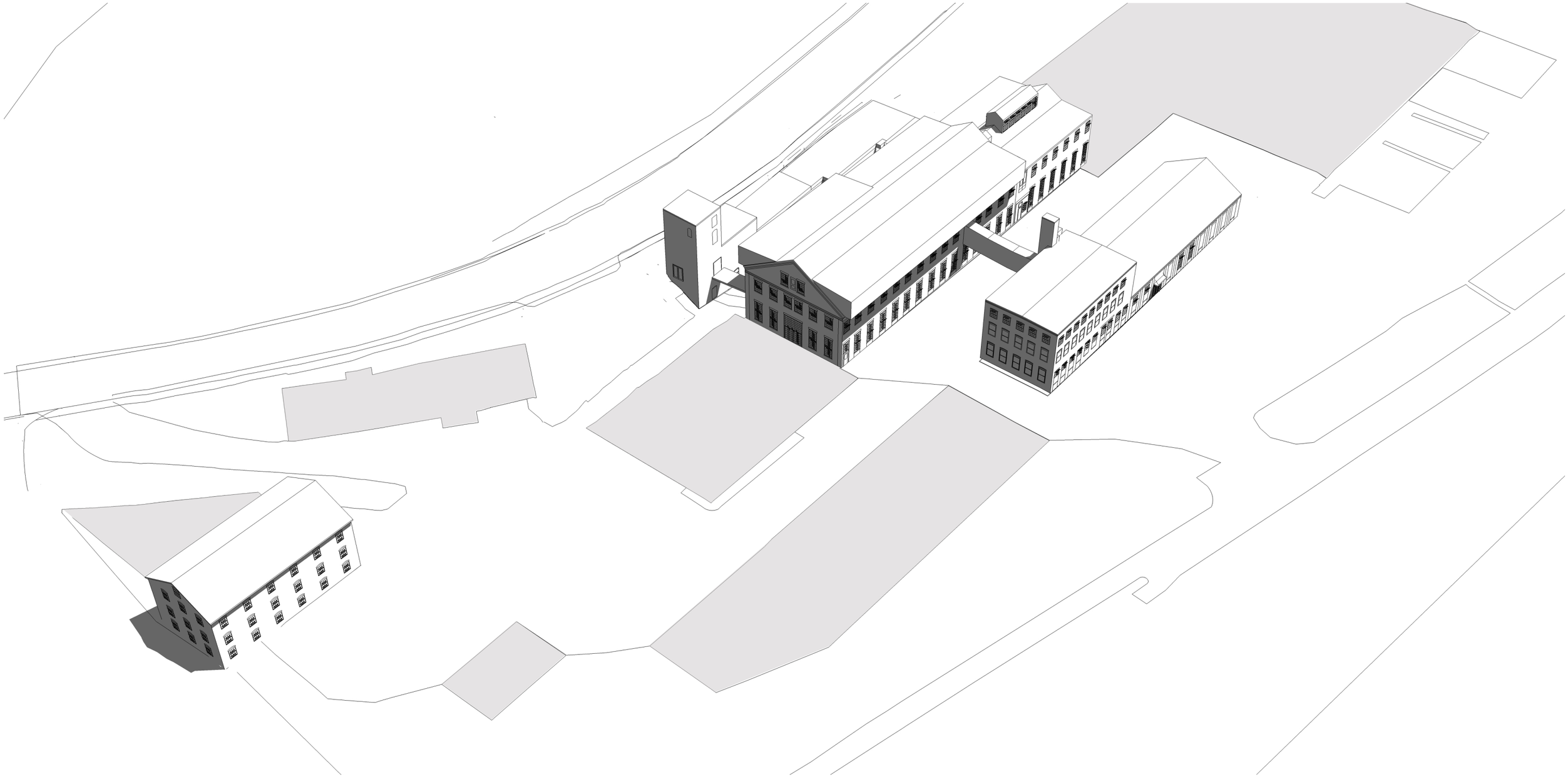
PROPOSED: SECTION 2



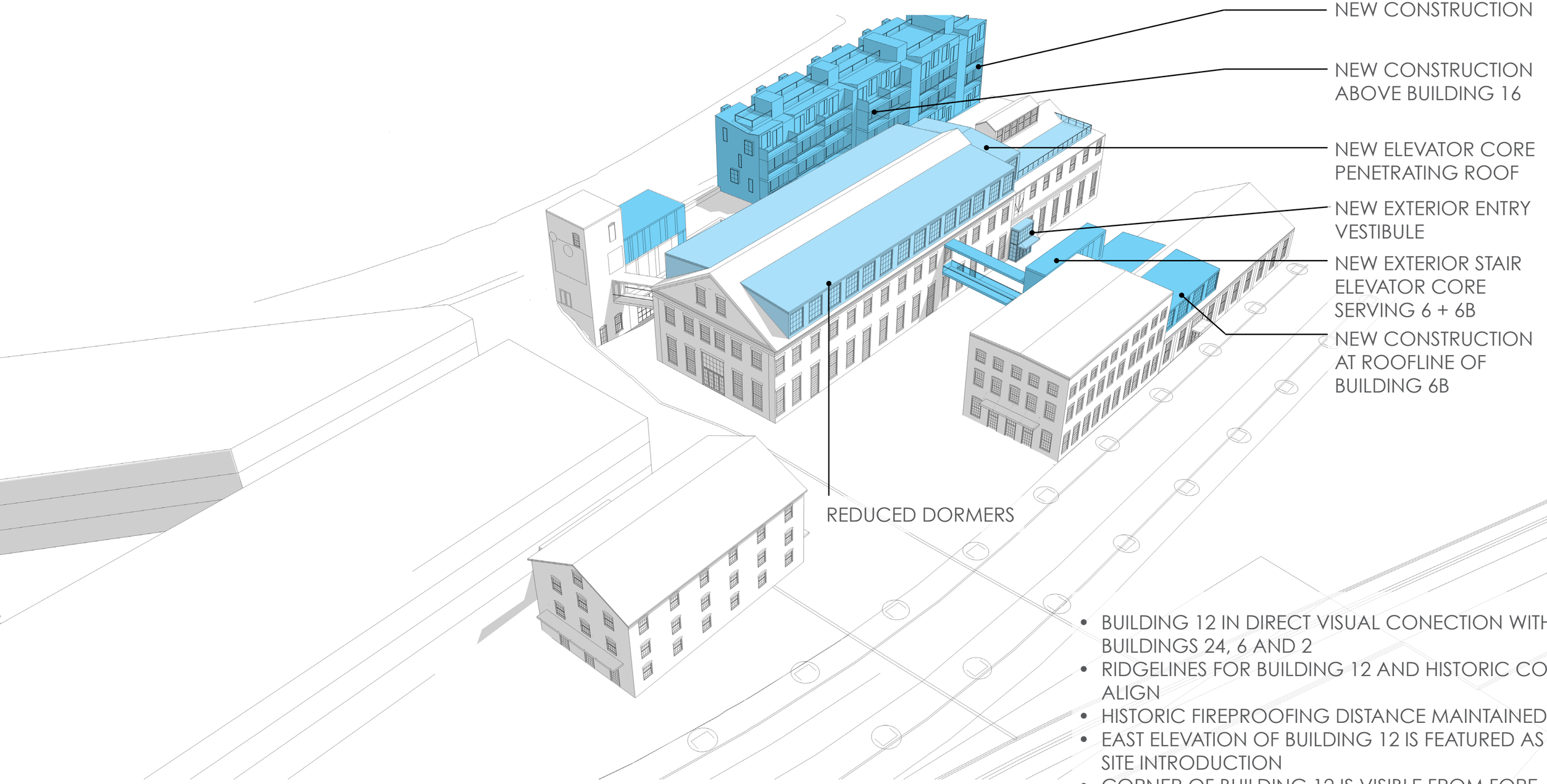
PROPOSED SITE SECTION: DEVELOPMENT BLOCK 2



EXISTING BUILDINGS TO REMAIN

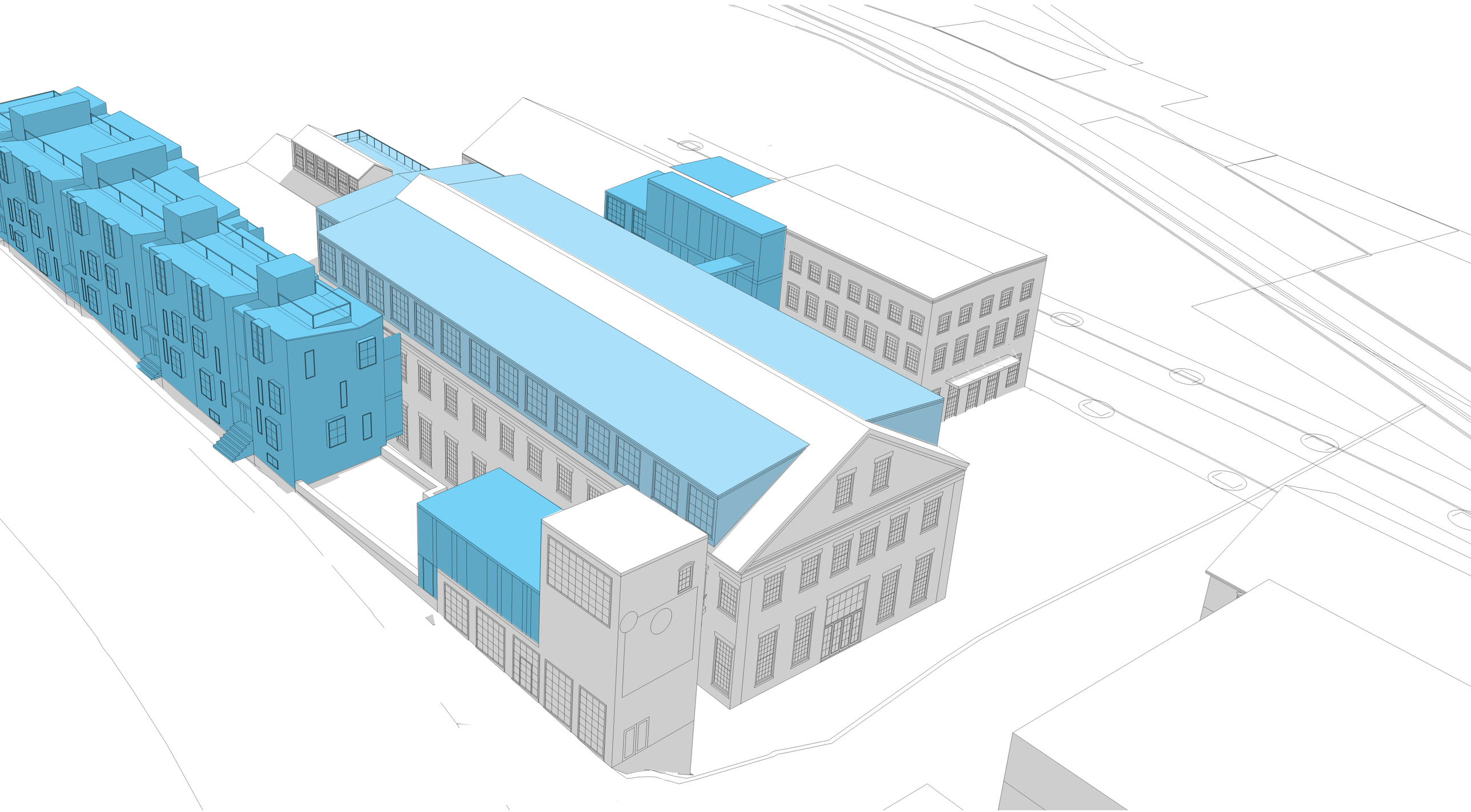


PROPOSED DEVELOPMENT

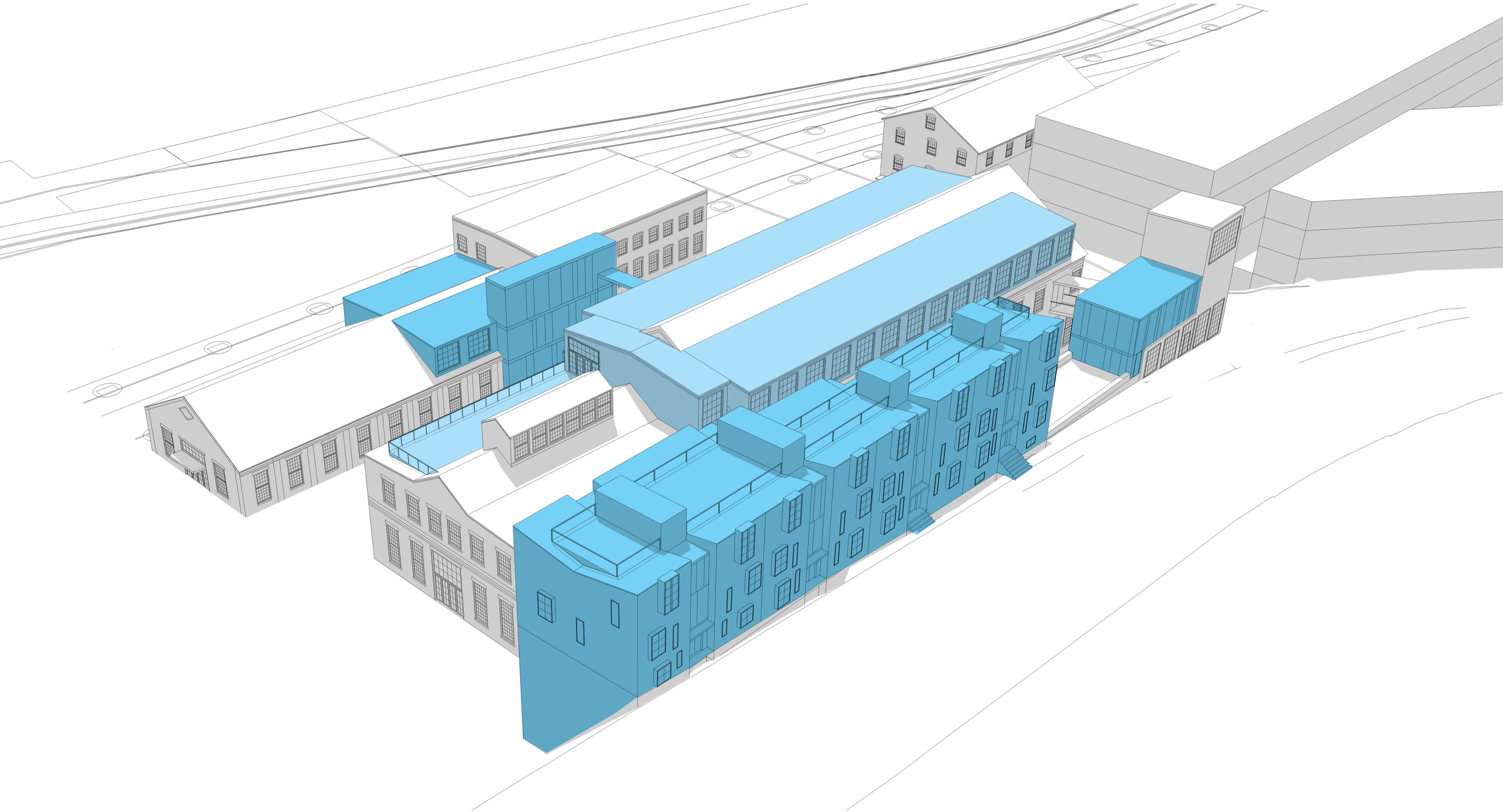


- BUILDING 12 IN DIRECT VISUAL CONECTION WITH BUILDINGS 24, 6 AND 2
- RIDGELINES FOR BUILDING 12 AND HISTORIC CORE ALIGN
- HISTORIC FIREPROOFING DISTANCE MAINTAINED
- EAST ELEVATION OF BUILDING 12 IS FEATURED AS A SITE INTRODUCTION
- CORNER OF BUILDING 12 IS VISIBLE FROM FORE STREET

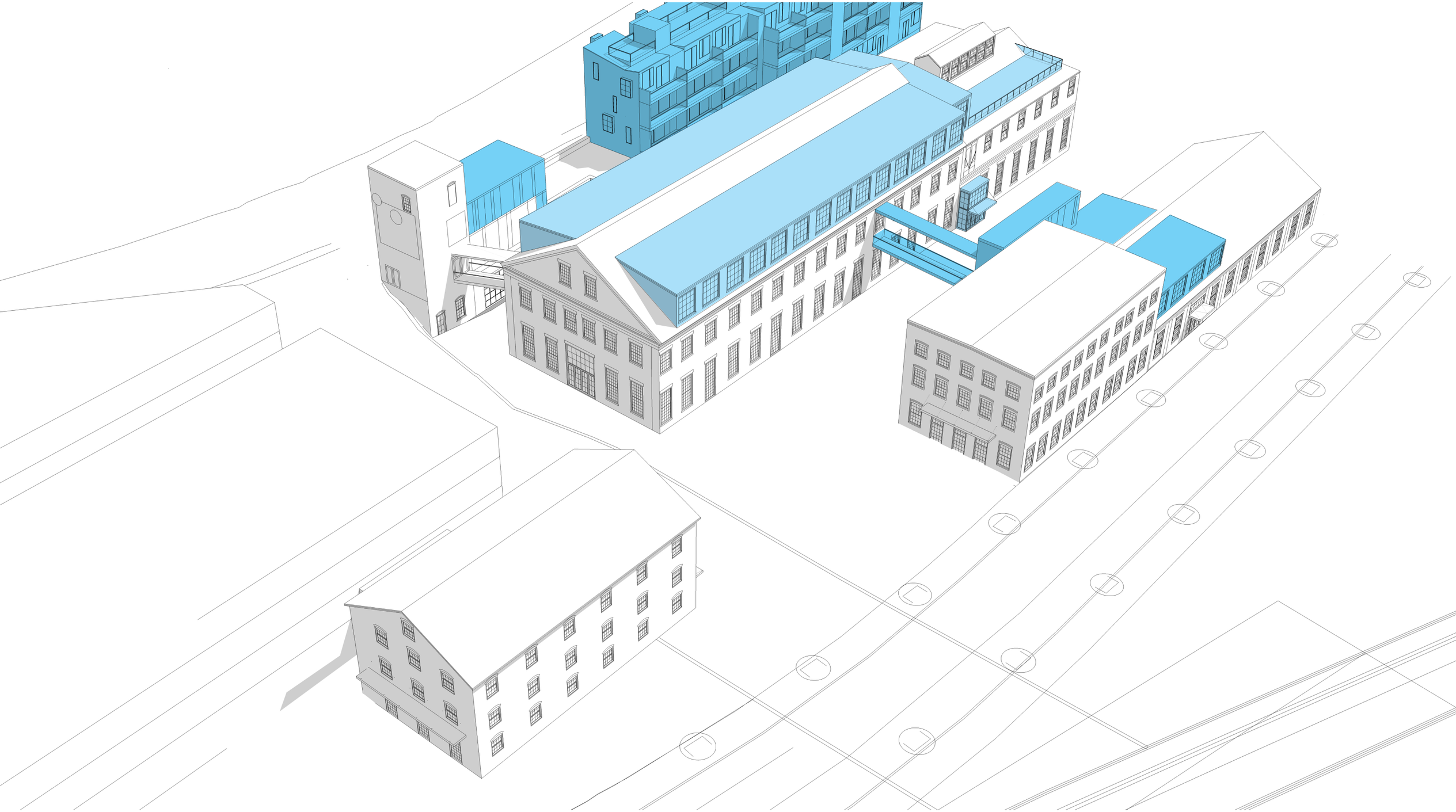
DEVELOPMENT BLOCK 2: HISTORIC CORE



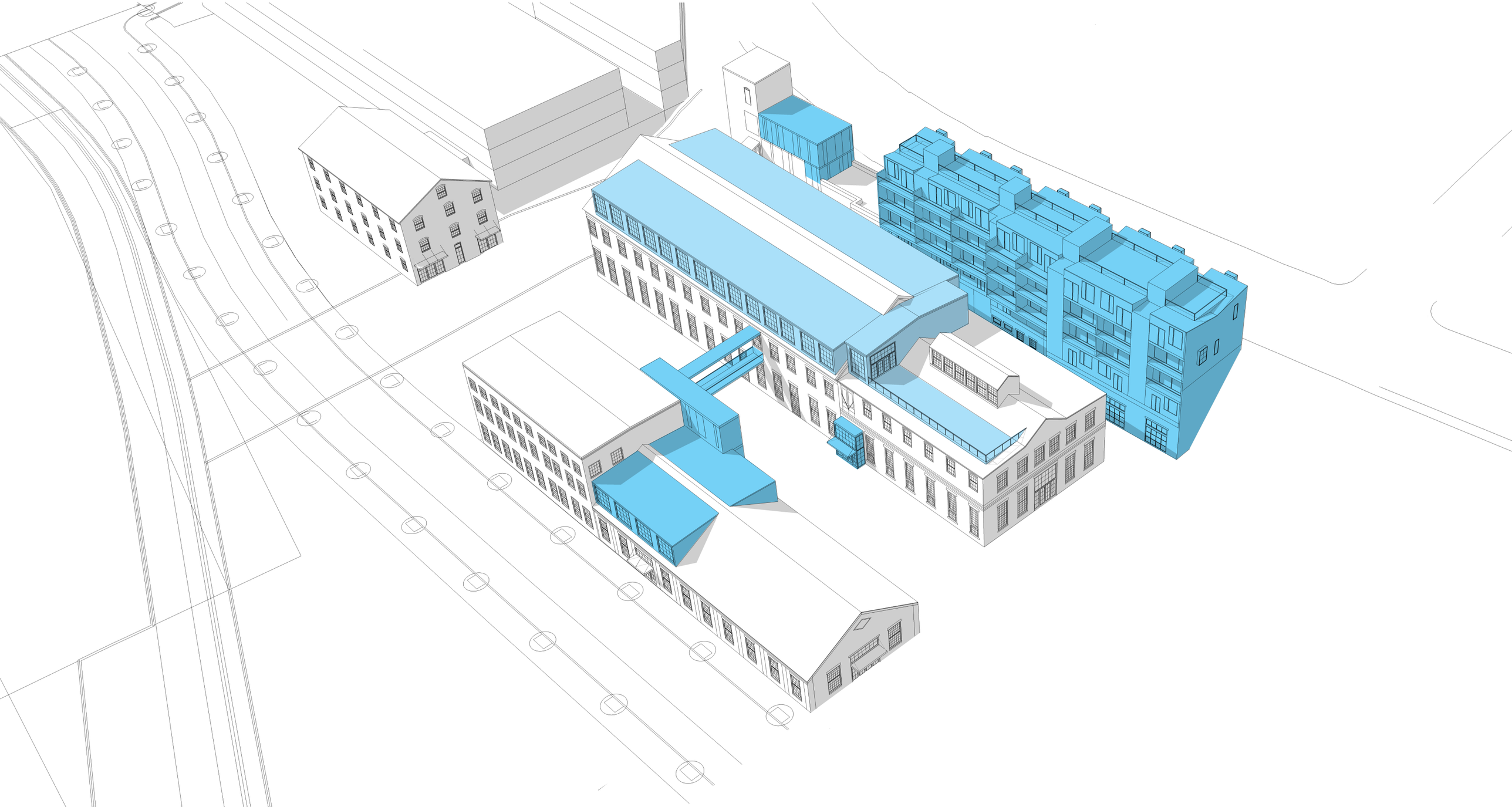
DEVELOPMENT BLOCK 2: HISTORIC CORE



DEVELOPMENT BLOCK 2: HISTORIC CORE



DEVELOPMENT BLOCK 2: HISTORIC CORE



VIEW FROM THAMES STREET EXTENSION

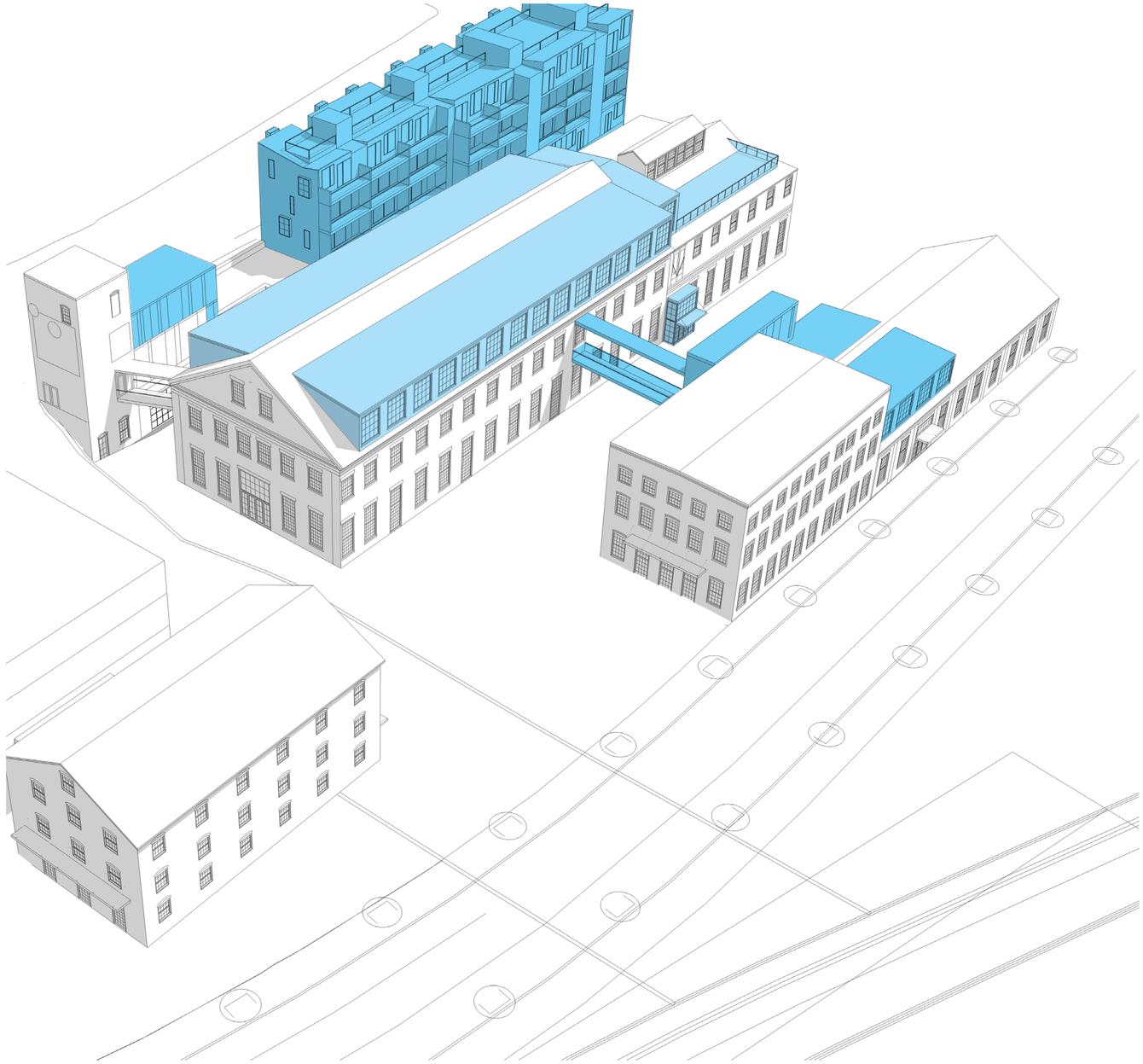


PROPOSED DEVELOPMENT

58 Fore Street Calculations

Historic Core Buildings + Additions

Building 2		
9,400 SF x 3 floors	28,200 GSF	(existing)
Building 3		
4,800 SF x 2 floors	9,600 GSF	(existing)
Building 3: East Expansion		
1,195 SF x 3 floors	3,585 GSF	(new)
Building 6B: Mezzanine		
1,600 SF x 1 floors	1,600 GSF	(existing)
Building 12		
3,580 SF x 3 floors	10,740 GSF	(existing)
Building 13		
750 SF x 1 floors	750 GSF	(existing)
750 SF x 2 floors	1,500 GSF	(new)
Total	2,250 GSF	
Building 14		
1,062 SF x 1 floors	1,062 GSF	(existing)
Building 15		
1,294 SF x 2 floors	2,588 GSF	(existing)
1,294 SF x 3 floors	3,882 GSF	(new)
Total	6,470 GSF	
Building 16		
1,492 SF x 2 floors	2,984 GSF	(existing)
1,492 SF x 3 floors	4,476 GSF	(new)
Total	7,460 GSF	
Building 16: East Expansion		
2,570 SF x 4 floors	10,280 GSF	(new)
(ground floor unusable b/c retaining wall)		
Building 16: East Expansion Under View Easement		
1,750 SF x 2 floors	3,500 GSF	(new)
(ground floor unusable b/c retaining wall)		
Building 24		
425 SF x 4 floors	1,700 GSF	(existing)
All Buildings	59,224 GSF	(existing
	27,223 GSF	(new)
TOTAL GSF	**86,447 GSF**	

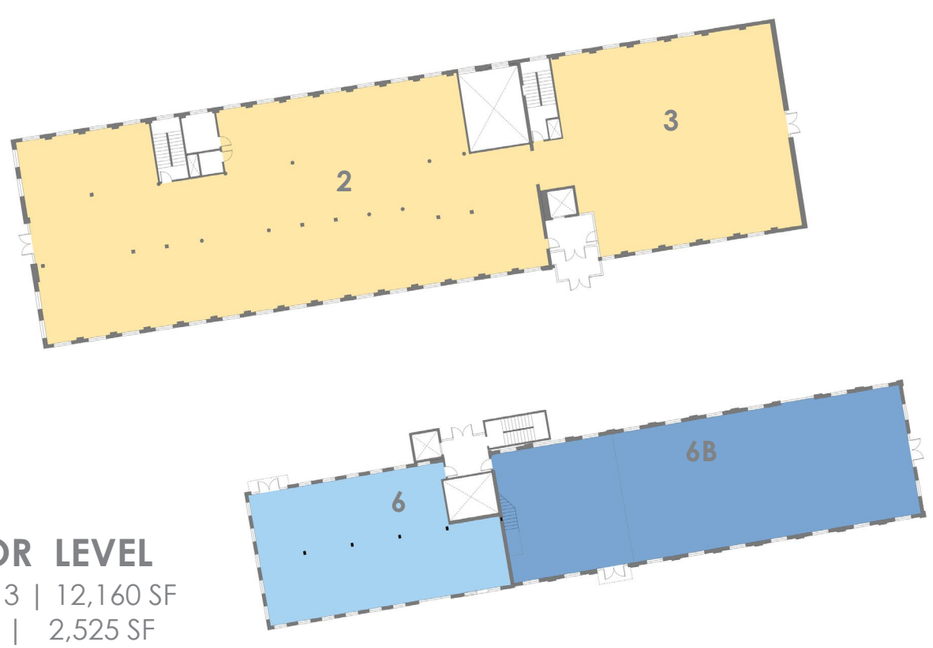


PROPOSED FLOOR PLANS



SECOND FLOOR LEVEL

BUILDING 2 & 3 | 12,518 SF
BUILDING 6 | 2,525 SF
BUILDING 6B | 1,275 SF



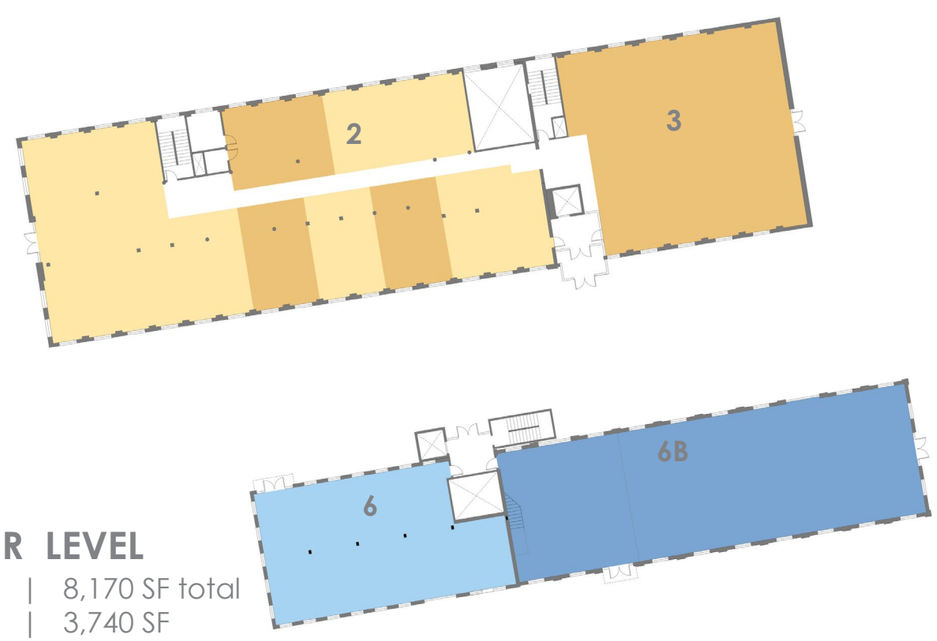
FIRST FLOOR LEVEL

BUILDING 2 & 3 | 12,160 SF
BUILDING 6 | 2,525 SF
BUILDING 6B | 4,561 SF



SECOND FLOOR LEVEL

BUILDING 2 | 8,389 SF
BUILDING 3 | 4,028 SF
BUILDING 6 | 2,525 SF
BUILDING 6B | 1,275 SF



FIRST FLOOR LEVEL

BUILDING 2 | 8,170 SF total
BUILDING 3 | 3,740 SF
BUILDING 6 | 2,525 SF
BUILDING 6B | 4,561 SF

BUILDING 2: PROPOSED WEST ELEVATION



BUILDINGS 2 +3: PROPOSED SOUTH ELEVATION



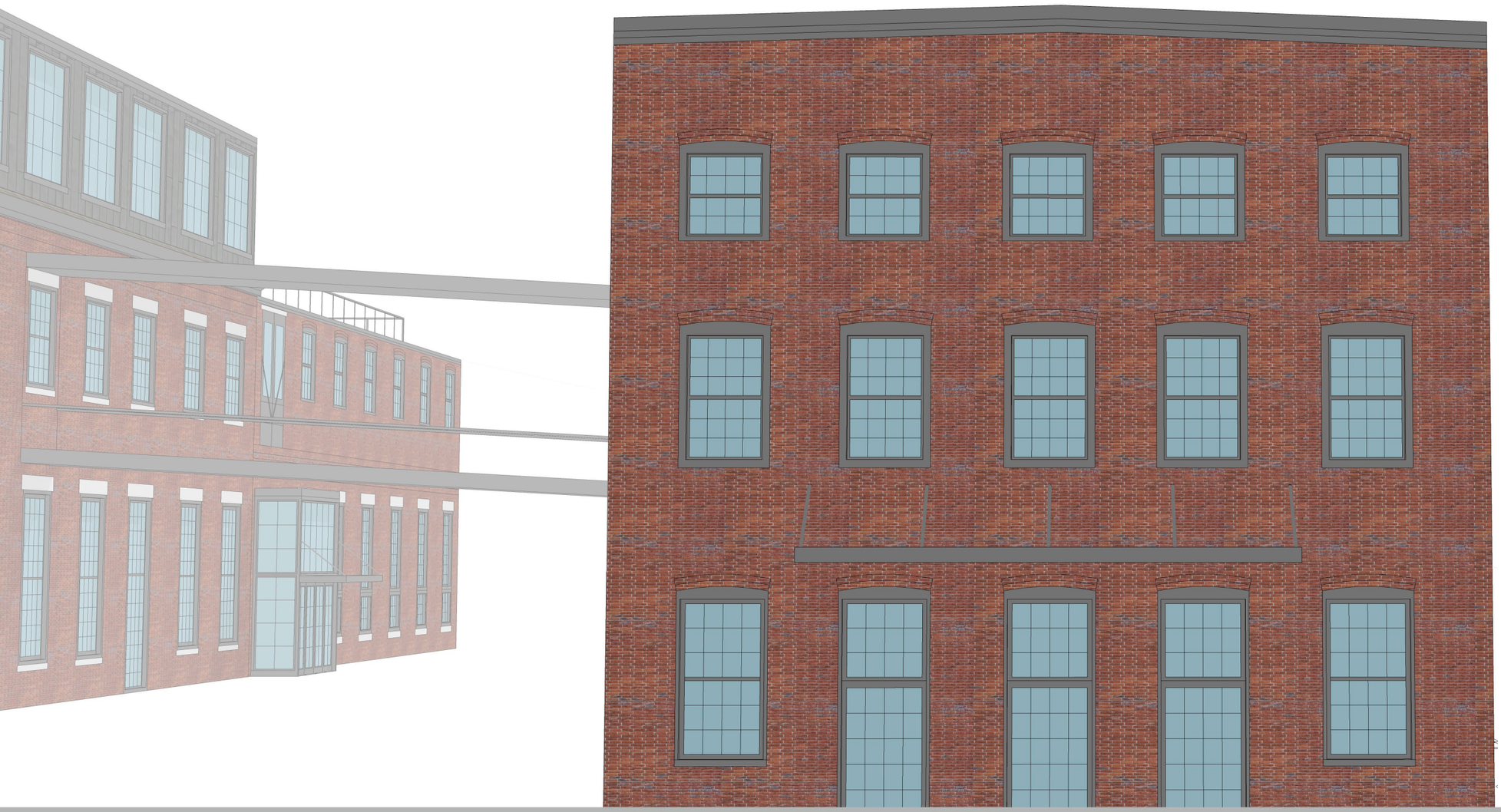
BUILDINGS 2 +3: PROPOSED NORTH ELEVATION



BUILDING 3: PROPOSED EAST ELEVATION



BUILDING 6: PROPOSED WEST ELEVATION



BUILDINGS 6 +6B: PROPOSED SOUTH ELEVATION



BUILDINGS 6 +6B: PROPOSED NORTH ELEVATION



BUILDING 6B: PROPOSED EAST ELEVATION



RENDERING LOOKING NORTH



RENDERING LOOKING WEST



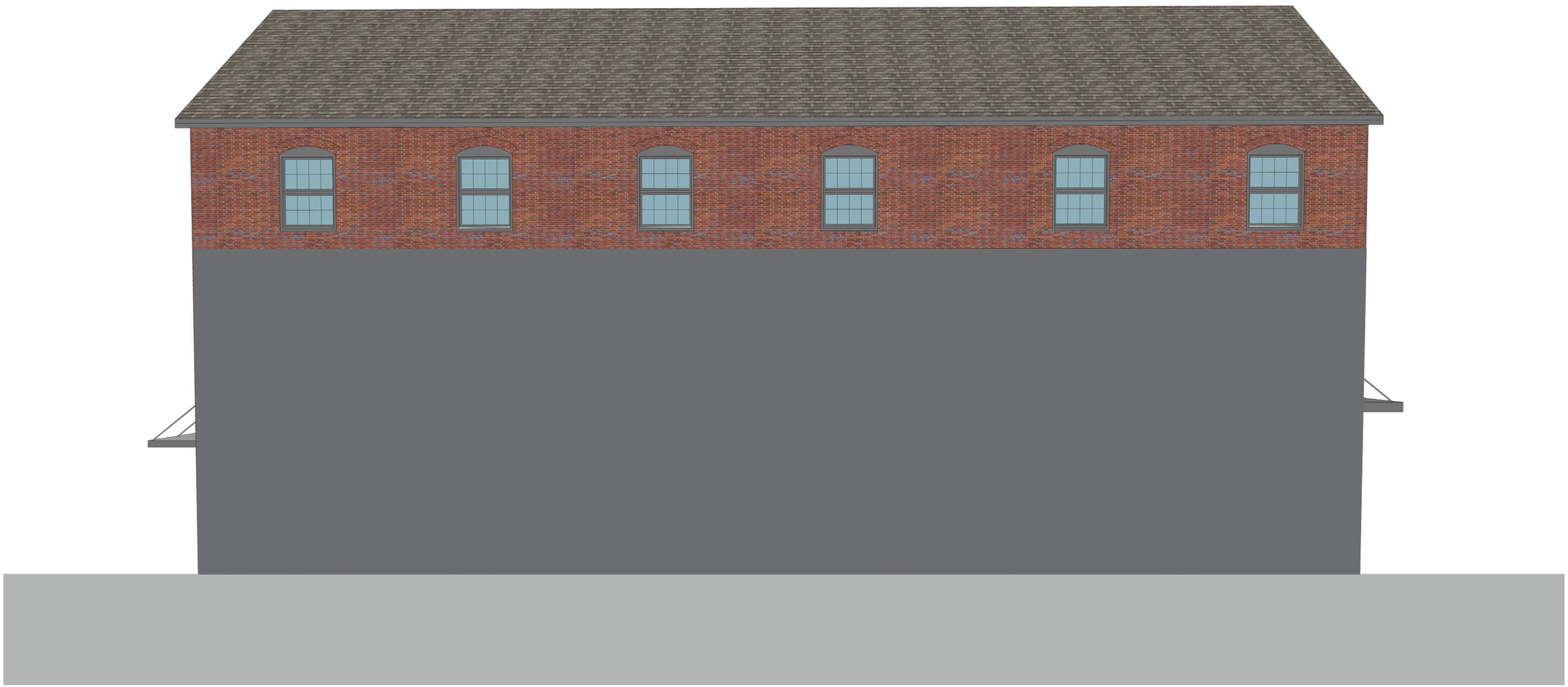
RENDERING LOOKING TOWARD BUILDING 12



BUILDING 12: EXISTING SOUTH ELEVATION



BUILDING 12: EXISTING NORTH ELEVATION



*NOTE: ACTUAL VIEW WILL BE OBSTRUCTED
BY ADJACENT BUILDING AND CONNECTOR

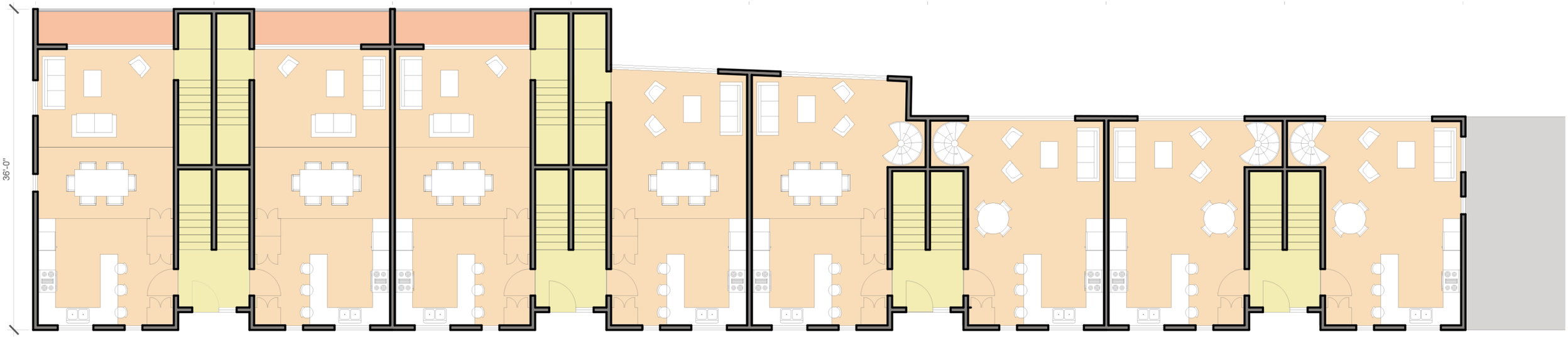
BUILDING 12: PROPOSED EAST ELEVATION



BUILDING 12: PROPOSED WEST ELEVATION



PROPOSED TOWNHOUSE FLOOR PLANS



TOWNHOUSE: PROPOSED NORTH ELEVATION



TOWNHOUSE: PROPOSED SOUTH ELEVATION



RENDERING LOOKING EAST



scott simons architects
designed for human potential

75 York Street

Portland, Maine 04101

phone 207 772 4656
fax 207 828 4656
www.simonsarchitects.com

58 FORE STREET - Meeting Minutes

date/time:	Monday afternoon, July 18, 2016, 2:00 pm			
project:	58 Fore Street, 2016-0200			
location:	Conference Room of Scott Simons Architects			
attendees:	Captain Keith Gautreau	KG	Assistant Chief, Portland Fire Department	PFD
	Michael White	MW	City of Portland, Life Safety Plans Reviewer	PFD
	Jim Brady	JB	58 Fore Street	CPB2
	David Senus	DS	Woodard & Curran	W&C
	Lauren Swett	LS	Woodard & Curran	W&C
	Ryan Kanteras	RK	Scott Simons Architects	SSA
	Scott Simons	SS	Scott Simons Architects	SSA
	Austin Smith	AS	Scott Simons Architects	SSA
prepared by:	Austin Smith	AS	Scott Simons Architects	SSA
CC	Casey Prentice	CP	58 Fore Street	CPB2
	Kevin Castello	KC	58 Fore Street	CPB2
meeting title:	Site Plan Review, 58 Fore Street			

item:	action:	description:
01.01		Progress plans shared with Keith Gautreau and Michael White including site plans and modeling of building masses with the understanding that the review was informal. Thames Street extension and connection to Fore Street noted.
01.02		East of the Thames Street intersection, the proposed east west corridor would be a private way positioned between Parcels 4 & 5. The corridor ends on the westernmost Parcel 6. A 90 ft turning radius is provided (100 ft clear) Width between building faces of Parcel 4 & 5 to be 45 ft. Between Parcels 4 & 5 a low grade ramp will raise the road level to approx. 10 ft above grade. A parking level will be below the access corridor and the turnaround. Capt. Gautreau's comments included: A. If no curbing defines roadway, if is preferable for fire apparatus access. B. No objections to access corridor above parking deck. The corridor deck must be able to support both a ladder truck and a fully loaded engine. The structure will be substantial and could possibly be more similar to bridge construction.
01.03		Capt. Gautreau noted that fire truck access is preferred on a minimum of two sides of each building. Fore Street, the EW corridor and the pedestrian trail could provide coverage for most of the site. For the pedestrian trail to serve as access, width and bearing would have to be considered. Parcel 6 because of its position on the east boundary, could not be accessed from two

sides. In a case such as this, an additional level of fire protection could be added to make the design work.

01.04 Parking garage below Parcel 4 reviewed. Multiple access and egress points to the garage were encouraged.

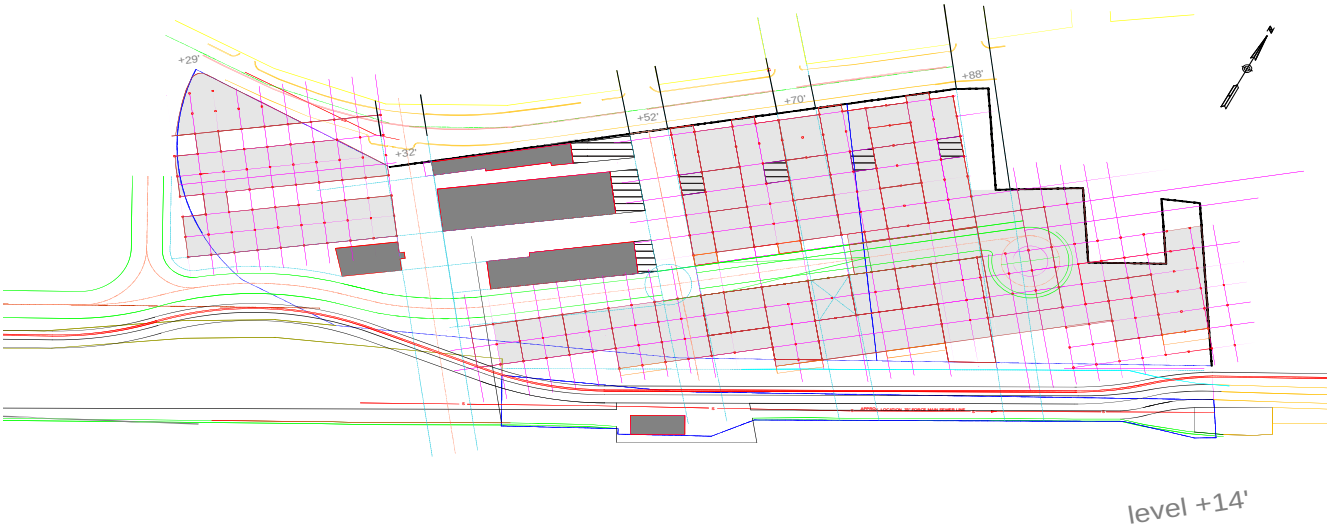
01.05 No concern over water pressure for the site as it is at the base of Munjoy Hill. Site to connect to water lines at multiple points.

01.06 Ladder access to Parcel 4 reviewed. Capt. Gautreau confirmed the definition of a High-Rise Building: NFPA 3.3.36.7 High Rise Building. A building where the floor of an occupiable story is greater than 75 ft. above the lowest level of the fire department vehicle access.

Capt. Gautreau pointed out that high rise construction can become very costly. Measure such as fire proofing of structure and positive air pressure in fire stairs can be very expensive. As a result there are current examples in Portland of developers building to 2 feet below the allowable limit.

01.07 Fire stair cores briefly reviewed in building 2, 3, 6 & 6B of the historic core.

01.08 Capt. Gautreau suggested that as plans develop, Michael White and Capt. David Petruccelli be consulted in planning.



12. STORMWATER MANAGEMENT

As discussed in Section 6 of this Report, Woodard & Curran assessed the regulatory triggers/thresholds for permitting under MaineDEP Site Location of Development (Site Law) and MaineDEP Stormwater Law for the proposed re-development project. It is our understanding that the proposed project should not be subject to Site Location of Development standards since it will result in less than three acres of new Structure area from what was in existence in 1970 (establishment of Site Law), but that because the proposed project will disturb more than one acre of land and result in more than one acre of new impervious area, MaineDEP Stormwater Law applies and a Stormwater Permit will be required. The City of Portland has delegated review for Stormwater Permits, so approval will be obtained as part of the formal Site Plan application, to be submitted at a later date. A letter documenting these determinations was provided to the MaineDEP, which is attached to Section 6 for your reference

Section 5 of the City of Portland Technical Manual requires submission of a stormwater management plan pursuant to the regulations of Maine DEP Chapter 500 Stormwater Management Rules, including Basic, General and Flooding standards. The following section discusses stormwater management relative to the Basic, General and Flooding Standards.

12.1 BASIC STANDARD (SOIL EROSION AND SEDIMENTATION CONTROL)

This standard addresses soil erosion and sedimentation control, inspection and maintenance, and good housekeeping practices during construction. Site plans, details, and erosion and sediment control notes demonstrating compliance with the Basic Standard will be provided as part of future Site Plan Applications, when additional design detail will allow for the identification of the necessary controls.

12.2 GENERAL STANDARD (WATER QUALITY)

The General Standard requires that stormwater quality treatment be provided for no less than 95% of new impervious area and no less than 80% of new developed area. In accordance with Section 5.II.D. of the City of Portland Technical Manual, all projects not subject to requirements of an existing Site Law or Stormwater Management Law Permit that include redevelopment of non-roof impervious area greater than 5,000 square-feet and are subject to City of Portland review, shall provide stormwater quality treatment in accordance with the General Standards for no less than 50% of the redeveloped impervious area. The runoff from any upgradient area must be either directed away from the stormwater treatment measure or that measure must be sized to treat the runoff from the upgradient area.

Table 4 and **Table 5** summarize the project areas and identify the requirements for the project to comply with the City's stormwater quality treatment standards.

Table 4: 58 Fore Street Project Area Summary

Total Existing Developed Area (Proposed Re-Developed Area)	9.66 Acres
Total Proposed Developed Area	11.30 Acres
Net Change Developed Area (Total New Developed Area)	1.64 Acres
Total Proposed Impervious Area	10.75 Acres
Total Re-Developed Impervious Area	8.57 Acres
Total New Impervious Area	2.18 Acres

Table 5: 58 Fore Street Stormwater Quality Treatment Compliance

Required Treatment of New Impervious Area (95%)	2.07 Acres
Required Treatment of New Developed Area (80%)	1.31 Acres
Required Treatment of Redeveloped Impervious Area	4.29 Acres
Total Impervious Area Required to be Treated	6.36 Acres

A Conceptual Stormwater Management Areas Plan is included in the drawings attached to Section 3 of this Report, which shows the conceptual water quality treatment areas and drainage infrastructure. This Plan shows the proposed stormwater treatment zones, which have been delineated based on proposed grading and topography, in addition to possible locations of stormwater treatment systems. As shown by this figure, stormwater runoff from the Site will be collected and treated in compliance with the City's requirements.

Proposed stormwater management measures for compliance with the General Standard will consist of Best Management Practices (BMPs), such as tree box filters, subsurface proprietary treatment systems (i.e. StormFilter, Jellyfish), rain gardens, or subsurface filtration systems. These BMPs will be designed according to the most recent MaineDEP Stormwater BMP guidance; design calculations will be submitted as part of future Site Plan submissions. Additional Low Impact Development (LID) measures, such as rainwater reuse systems, green roofs, and roof dripline filters, may also be incorporated for stormwater credits as part of the detailed Site Plan submission. Building elements will be designed in an environmentally sensitive and sustainable manner, so as to provide stormwater quality improvements to the extent possible.

12.3 FLOODING STANDARD (WATER QUANTITY)

As noted in Section 9 of this Report, we are requesting a waiver from providing additional storage of stormwater for the Flooding Standard, due to the fact that the project will discharge directly into the ocean. Stormwater runoff from the Site will be conveyed exclusively to the ocean via a direct discharge piped system located on the project property, or via sheet flow for areas directly adjacent to the sea wall.

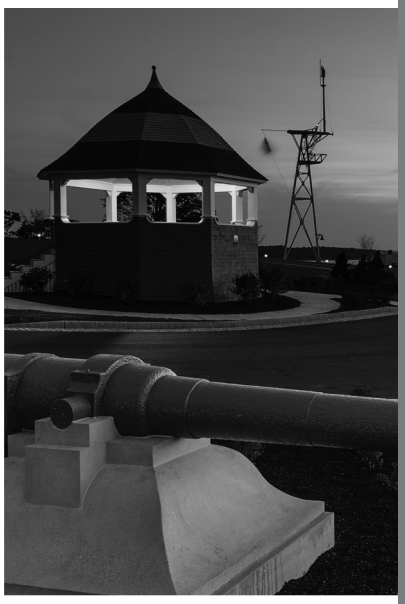
13. TRAFFIC ANALYSIS

Gorrill Palmer has prepared a traffic impact analysis for the proposed 58 Fore Street project, a Traffic Movement Permit application and a Transportation Demand Management Plan. A Traffic Study Pre-Scoping meeting was held with City of Portland staff on July 27, 2016 at City Hall. The full traffic analysis and parking summary report has been provided as an attachment to this Section, in addition to a copy of the Traffic Movement Permit Application.

13.1 ATTACHMENTS

- Traffic Impact Study
- Traffic Movement Permit Application
- Site Parking Demand Memo for 58 Fore Street Mixed Use Development

Relationships.
Responsiveness.
Results.









Section 7
Traffic Impact Study
58 Fore Street
Redevelopment
Portland, Maine

PREPARED FOR:

CPB2
PO Box 7987
Portland, ME 04112

September 2016

SUBMITTED BY:

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
So. Portland, ME 04106
207.772.2515

Traffic Impact Study
58 Fore Street Development
Portland, Maine
September 2016

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II.	Existing Traffic Volumes	2
III.	Other Development in the Vicinity of the Site	3
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Appendix

A Location Map
Turning Movement Diagrams
Other Development Figure

B ITE Trip Generation Calculations
NCHRP Spreadsheets
Commute Data Maps
Site Parking Demand Memo
Marina Trip Generation Calculations

C Capacity Analysis Results

D Node Map
Crash Report
Collision Diagrams

I. Introduction

This study examines the impact of the redevelopment of the historic Portland Company at 58 Fore Street on Portland's Eastern Waterfront. The development is proposed to be a total of 958,679 sf of building area and is separated into seven Development Blocks (B1-B7) with varying uses. The following table summarizes the proposed site uses by Development Block:

Proposed Site Use Summary

Development Block	Use	Size
B1		
	Retail	7,878 SF
	Residential	91 Dwelling Units
	Office	79,000 SF
B2		
	Retail	26,895 SF
	Residential	19 Dwelling Units
	Office	25,617 SF
B3		
	Retail	11,500 SF
	Office	19,300 SF
B4		
	Residential	275 Dwelling Units
	Retail	4,000 SF
B5		
	Residential	108 Dwelling Units
	Hotel	132 Rooms
	Restaurant	3,800 SF
	Function Space	5,800 SF
B6		
	Residential (Condos)	131 Dwelling Units
	Residential (Apartments)	14 Dwelling Units
B7		
	Marina Facilities	2,600 SF, 220 Slips

The new marina facilities on B7 are proposed to be three times the size of the existing marina. It will be a new, modern facility with 220 slips proposed; 140 for seasonal boaters and 80 for transient vessels. The facility will service residents of Portland (including Islanders commuting to work on the Portland Peninsula), residents of the 58 Fore Street site, and transient boaters.

There are three proposed accesses to the site; Thames Street Extension into the site, a full movement driveway onto Fore Street across from Waterville Street primarily for residential units, and a new public road connecting Fore Street to Thames Street Extension. The attached Figure 1 (Appendix A) shows the location of the site.

II. Existing Traffic Volumes

Morning and afternoon turning movement counts were completed from 7:30 AM to 9:30 AM and from 4:00 PM to 6:00 PM at the following locations and dates:

- Franklin Street / Middle Street – August 10, 2016 (PM) and August 17, 2016 (AM)
- Franklin Street / Fore Street – August 10, 2016 (PM) and August 17, 2016 (AM)
- Franklin Street / Commercial Street – August 10, 2016 (PM) and August 17, 2016 (AM)
- Cumberland Avenue / Washington Street – August 16, 2016 (AM and PM)
- Congress Street / Mountfort Street / Washington Street – August 16, 2016 (AM and PM)
- Congress Street / India Street – August 16, 2016 (AM and PM)
- Fore Street / Mountfort Street – August 11, 2016 (AM and PM)
- Fore Street / Existing Site Driveways – August 11, 2016 (AM and PM)
- Fore Street / Waterville Street – August 11, 2016 (AM and PM)

The dates, times, and locations of the counts were approved by the City prior to the counts.

Additionally, as part of a different study, GP had completed morning and afternoon turning movement counts at the following locations:

- India Street / Fore Street
- India Street / Commercial Street
- Fore Street / Hancock Street

These counts were collected on October 7, 2015 from 7:00 AM to 8:30 AM and from 4:00 PM to 6:00 PM. The date, times, and locations of the counts were approved by the City prior to the counts.

The AM and PM peak hour volumes of the counts at all 12 locations are shown on the attached Figure 2 (Appendix A).

III. Other Development in the Vicinity of the Site

Approved projects that are not yet opened as well as projects for which applications have been filed are required to be included in the predevelopment volumes for this project. Based on conversations with City Staff the following projects have been included in the background traffic for this project:

- A – 158 Fore Street: 180 room hotel
- B – 1 India Street: office and bank
- C – 185 Fore Street: 4,085 sf of office or retail and 8 residential units
- D – 16 Middle Street: 5,305 sf of retail and 39,526 sf of office
- E – 113 Newbury Street: 39 condominium units (Seaport Lofts)
- F – 48 Hancock Street: 2 residential units
- G – 49 Hancock Street: 2 residential units
- H – 62 India Street: 5,409 sf of retail and 29 condominium units
- I – 169 Newbury Street: 24 condominium units
- J – 273 Congress Street: 2,290 sf of retail and 10 residential units
- K – 31 Fore Street: 4 condominium units

The locations, sizes, and uses of these developments are shown on the attached Other Development Figure in Appendix A. The forecast traffic from these projects within the study area is shown on the attached Figure 4 in Appendix A.

IV. Predevelopment Traffic Volumes

Traffic volumes are typically seasonally adjusted to approximate the 30th highest hour of the year using the weekly group mean factors published by MaineDOT. This seasonal adjustment increases the volumes to those that may be experienced during peak summer months. Since August is a peak summer month, no seasonal adjustment needs to be applied to the counts collected in August 2016. However, October is not a peak summer month, so the three locations counted for another study in October 2015 needed to be adjusted. This seasonal adjustment resulted in an increase of 3.4%.

In addition to seasonally adjusting the traffic volumes, they are also increased by a yearly growth to approximate the build out year of the project. The proposed project is anticipated to be completed and occupied in 2027. MaineDOT traffic counts in the area show a decrease in traffic volumes in the past six years. To be conservative, an annual growth of 0.5% per year was utilized. This is the same growth used for the recently completed Franklin Street Study. The seasonally and annually adjusted volumes are shown on the attached Figure 3 in Appendix A.

The annually and seasonally adjusted traffic volumes have been combined with the approved other development ahead of this project in the approval process to yield the 2027 Predevelopment Design Hour Volumes (DHV) shown on the attached Figure 5 in Appendix A.

V. Trip Generation

The trip generation for the site was calculated separately for Development Blocks 1-6 (B1-B6) and for Development Block 7 (B7), then combined to yield the total site trip generation. This is due to the unique nature of the marina on B7. The following is a summary of the methods, assumptions, and results of the trip generation calculations for the site.

Development Blocks 1-6

The Institute of Transportation Engineers' publication, *Trip Generation*, Seventh Edition, was used to forecast the traffic to be generated by B1-B6. The Ninth Edition is available, but has not yet been accepted by the MaineDOT. Since this project will generate greater than 200 trip ends in a peak hour, a MaineDOT Traffic Movement Permit (TMP) will be required. The permit process can be administered by the City since they have delegated review authority.

The following table summarizes the trip generation for B1-B6.

Development Blocks 1-6 ITE Trip Generation Summary

Development Block	Land Use Code	Size	AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total
B1								
	814 – Specialty Retail	7,878 sf	4	2	6	9	12	21
	220 – Apartment	91 Units	9	37	46	36	20	56
	710 – General Office	79,000 sf	140	15	155	22	127	149
B2								
	814 – Specialty Retail	26,895 sf	12	8	20	33	40	73
	220 – Apartment	19 Units	2	8	10	8	4	12
	710 – General Office	25,617 sf	57	6	63	9	52	61
B3								
	814 – Specialty Retail	11,500 sf	5	4	9	14	17	31
	710 – General Office	19,300 sf	45	5	50	7	41	48
B4								
	220 – Apartment	275 Units	28	112	140	111	60	171
	814 – Specialty Retail	4,000 sf	2	1	3	5	6	11

Development Block	Land Use Code	Size	AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total
B5								
	220 – Apartment	108 Units	7	41	48	36	20	56
	310 – Hotel	132 Rooms	44	30	74	43	35	78
	932 – High Turnover Sit-Down Restaurant	3,800 sf	22	22	44	25	16	41
	Function Space*	5,800 sf	0	0	0	0	0	0
B6								
	230 – Residential Condominium / Townhouse	131 Units	9	49	58	44	24	68
	220 – Apartment	14 Units	1	6	7	6	3	9
Development Blocks 1-6			**387**	**346**	**733**	**408**	**477**	**885**

*It was assumed that the function space would be ancillary to the other uses in the Development Block and would not generate additional traffic.

Due to the variety of uses and the site's location within a downtown area, two reductions can be applied to refine the trip generation for B1-B6. These reductions are summarized as follows:

Shared Use Adjustment

Due to the close proximity of the mixed uses and the sharing of people between uses, simply adding the trip generation of each use as if they were isolated would result in an overestimate of trip generation. To estimate the traffic that will visit more than one destination without leaving the site, GP utilized the National Cooperative Highway Research Program (NCHRP) 684 Internal Trip Capture Estimation Tool. The NCHRP 684 spreadsheet uses the ITE forecast trip generation for each type of land use (office, retail, restaurant, residential, hotel, and other) and estimates the trips that will travel between two uses without leaving the site (spreadsheets provided in Appendix B). This yields an internal trip capture percentage, which is the percentage of trip ends that will travel between two uses. The following tables summarize the AM and PM peak hour internal trip capture percentages respectively:

AM Peak Hour NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends*		
	Entering	Exiting	Entering	Exiting	Entering	Exiting	Total
Office	242	26	10%	46%	23	12	35
Retail	23	15	57%	47%	13	7	20
Restaurant	22	22	55%	50%	12	11	23
Residential	56	253	4%	5%	2	12	14
Hotel	44	30	2%	30%	1	9	10
Total	**387**	**346**	**12%**	**14%**	**51**	**51**	**102**

*These values are taken directly from the NCHRP spreadsheets (Appendix B), which may not match exact calculations due to rounding in the spreadsheet.

PM Peak Hour NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends*		
	Entering	Exiting	Entering	Exiting	Entering	Exiting	Total
Office	38	220	18%	5%	7	10	17
Retail	61	75	31%	44%	19	33	52
Restaurant	25	16	52%	69%	13	11	24
Residential	241	131	11%	15%	27	19	46
Hotel	43	35	21%	6%	9	2	11
Total	**408**	**477**	**18%**	**15%**	**75**	**75**	**150**

*These values are taken directly from the NCHRP spreadsheets (Appendix B), which may not match exact calculations due to rounding in the spreadsheet.

Other Modes of Transportation Reduction

It can be expected for a site in a downtown area that other modes of transportation will be used to go to and from the site. These other modes could include things such as transit, bicycle, or walking. This site is adjacent to an existing bus route, as well as located on a pedestrian and bicycle path, so full use of other modes of transportation are readily available. The other modes reduction for B1-B6 is based on information from the 2009-2013 American Community Survey (ACS) Five-Year Estimate by Census Tract for the City of Portland. Rick Harbison, Planner and GIS Specialist for the Greater Portland Council of Governments, used this data to create maps (Appendix B) that show the estimated percentage of workers living in each Portland Census Tract that use each mode of transportation to travel to work. The site is located on the east side of Census Tract 3, which is a predominantly commercial area. Census Tracts 2 and 5 border the site and consist of primarily residential areas. Since the site is proposed to have a significant number of residential units as well as commercial space, the data from the combination of the three tracts is expected to be more representative of the actual conditions on the site than the data from the

individual tracts. The reduction was calculated by dividing the estimated number of people walking, bicycling, and taking the bus to work in the three Census Tracts by the estimated total number of working people in the same three Census Tracts. This calculation yields a reduction of 35.8%, which appears reasonable for this area. The detailed calculation is described in the "Site Parking Demand" memo included in Appendix B.

The Census data is based on residents of the Census Tracts commuting to work, so it is applicable to the residential units, office space, and retail uses on the site, but not necessarily the proposed restaurant and hotel. The restaurants and hotel were further researched to find studies that included information on other modes of transportation for restaurants and hotels. The studies found indicated that 40%-65% of restaurant customers may be using alternative modes of transportation. Since the studies were not specific to Portland, Maine, the local data is expected to be closer to actual conditions that would be seen at the 58 Fore Street development, so the 35.8% reduction was applied to the restaurants. There was limited data available for hotels, so a conservative reduction of 10% was used for the hotel. The studies are discussed in more detail in the "Site Parking Demand" memo in Appendix C. The following table summarizes the other modes of transportation reduction for the site trip generation:

Other Modes of Transportation Reduction Summary

Trip Generation	AM Peak Hour			PM Peak Hour		
	Entering	Exiting	Total	Entering	Exiting	Total
B1-B6 Trip Generation	387	346	733	408	477	885
Hotel Trip Generation	44	30	74	43	35	78
B1-B6 Trip Generation w/o Hotel	343	316	659	365	442	807
Other Modes Reduction (35.8% of B1-B6 Trip Generation w/o Hotel)	123	113	236	131	158	289
Hotel Other Modes Reduction (10% of Hotel Trip Generation)	4	3	7	4	4	8
Total Other Modes Reduction	**127**	**116**	**243**	**135**	**162**	**297**

Development Block 7 (Marina)

Although the ITE does have a Marina category, the number of studies (2) is limited. Therefore, the trip generation for B7 was not determined using the ITE trip generation rates. Since a marina is such a unique facility, the trip generation was forecast based on the characteristics of this specific 220 slip marina. Applied Technology & Management (ATM), experts in marine and coastal engineering, provided the following information and assumptions:

- Peak weekday usage of the marina is forecast to be approximately 10% of the slips, but possibly greater since Maine's peak boating season is shorter than other less seasonal areas
- Approximately 36% of daily users are forecast to be transient boaters (80 transient boater slips out of 220 total slips)
- 10% of daily users who are not transient boaters are on-site residents
- 90% of daily users who are not transient boaters are off-site Portland residents
- 30% of off-site Portland residents are Islanders commuting to and from the Peninsula
- 9 marina employees
- 4 mega-yacht slips

Based on the information from ATM, the following assumptions were made:

- Peak weekday usage will be 15% of the slips (33 slips). This is higher than the 10% identified by ATM and increased to 15% to account for the short season
- Transient boaters will not have a car on site since they arrive and depart using their boat, so they will not generate trip ends
- On-site residents will not enter or exit the site to visit the marina, so they will not generate any trip ends
- Each slip used by an off-site Portland resident who is not an islander will generate one trip end in during the AM peak hour and one trip end out during the PM peak hour
- Each slip used by an Islander commuting to work will generate one trip end out during the AM peak hour and one trip end in during the PM peak hour
- Each employee will generate one trip end in during the AM peak hour and one trip end out during the PM peak hour
- Each mega-yacht slip would be visited by a provisioning vehicle during both peak hours and the provisioning vehicles would enter and exit the site during the peak hour

Based on these assumptions, the forecast weekday peak hour trip generation for the marina is as follows:

- AM Peak Hour: 36 trip ends (26 in / 10 out)
- PM Peak Hour: 36 trip ends (10 in / 26 out)

The detailed trip generation calculations are attached in Appendix B.

Two reductions (shared use and other modes) were applied to the trip generation for B1-B6; however those reductions were not applied to the marina trip generation, as described in more detail as follows:

Shared Use

Although it is possible for marina visitors to eat at the restaurants or visit the shops on site, to be conservative it was assumed that the marina would be a primary destination and would have very few shared trips with the other uses.

Other Modes

Additionally, there is a possibility that marina users would use alternative modes of transportation to get to or from the site, but to be conservative we assumed that visitors would use cars and not another mode of transportation.

Total Site Trip Generation

The following table summarizes the adjusted site trip generation starting with the ITE trip generation and subtracting the shared use reduction as well as the other modes of transportation reduction and lastly adding the marina trip generation:

Adjusted Trip Generation Summary

Trip Generation	AM Peak Hour			PM Peak Hour		
	Entering	Exiting	Total	Entering	Exiting	Total
B1-B6 ITE Subtotal	387	346	733	408	477	885
Shared Use Adjustment	-51	-51	-102	-75	-75	-150
Other Modes Adjustment	-127	-116	-243	-135	-162	-297
B1-B6 Total	**209**	**179**	**388**	**198**	**240**	**438**
B7 Trip Generation	26	10	36	10	26	36
Site Total	**235**	**189**	**424**	**208**	**266**	**474**

As shown in the table, the proposed development is forecast to generate 424 trip ends during the AM weekday peak hour and 474 trip ends during the PM weekday

peak hour. To be conservative, this trip generation does not include any credit for existing on-site uses. This level of trip generation does require a MaineDOT Traffic Movement Permit because it is over 99 trip ends during the peak hour. The Traffic Movement Permit Application can be reviewed and issued by the City since they have delegated review authority.

VI. Trip Composition and Assignment

GP has assumed that all trips are primary in nature and made for the sole purpose of going to and from the site. The trip assignment has been based on the proposed accesses to the site, the site uses, and the traffic counts completed at the study area intersections. The study area was determined based on conversations with the City. The trip assignment has been separated into Residential and Non-Residential trip distributions. The trip assignments are categorized into Residential, Non-Residential, and Marina. The residential trip assignment assumes that the residents of the site know the neighborhood better than the non-residential site visitors, which would lead residents to use side streets more frequently, while the non-residents would use more major roads and posted routes. The marina trip assignment is assumed to follow the non-residential trip distribution. The trip distribution and assignment is shown on the attached Figures 6-11 in Appendix A.

VII. Postdevelopment Traffic Volumes

The predevelopment traffic volumes shown on Figure 5 have been combined with the total forecast traffic for the development shown on Figure 11 to yield the 2027 Postdevelopment DHV shown on the attached Figure 12 (Appendix A).

VIII. Capacity Analysis

GP completed capacity analyses for the study area intersections using the Synchro/SimTraffic computer analysis software. Level of service rankings are similar to the academic ranking system where an 'A' is very good with little control delay and an 'F' represents very poor conditions. At an intersection if the level of service falls below a 'D', an evaluation should be made to determine if mitigation is warranted.

The following tables summarize the relationship between the control delay and level of service:

Level of Service for Unsignalized Intersections and Roundabouts

Level of Service	Control Delay per Vehicle (sec)
A	Less than 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	Greater than 50.0

Level of Service for Signalized Intersections

Level of Service	Control Delay per Vehicle (sec)
A	Less than 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	Greater than 80.0

The capacity analyses were completed for two scenarios; first with the existing roadway geometry and the second with the approved proposed Franklin Street improvements. The City and MaineDOT approved the proposed Franklin Street design based on a study done by Gorrill Palmer. The City is responsible for implementing the proposed design and sections of Franklin Street are currently in the process of final design. The approved Franklin Street improvements in the 58 Fore Street study area include new intersection geometry and updated signal timing at the intersections of Franklin Street with Fore Street and Franklin Street with Middle Street, and the construction of a single lane roundabout at the intersection of Franklin Street with Commercial Street. The Synchro/SimTraffic software was also used to analyze the proposed roundabout. The following table is a summary of the capacity analysis results. The detailed analyses are attached in Appendix C.

Level of Service Summary

Approach	Existing Geometry				Proposed Franklin Street			
	2027 AM		2027 PM		2027 AM		2027 PM	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Franklin / Middle (S)								
Franklin SE	B	B	C	E	A	B	B	D
Franklin NW	B	B	B	C	A	A	B	B
Middle NE	B	B	C	C	C	C	B	C
Middle SW	B	B	B	B	C	C	B	B
Overall	B	B	C	D	B	B	B	C

Approach	Existing Geometry				Proposed Franklin Street			
	2027 AM		2027 PM		2027 AM		2027 PM	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Franklin / Fore (S)								
Franklin SE	B	B	C	C	B	B	B	B
Franklin NW	B	B	B	C	B	B	B	B
Fore NE	B	B	B	C	B	B	C	E
Fore SW	B	B	C	C	B	B	B	C
Overall	B	B	B	C	B	B	B	C
Franklin / Commercial (S) – Existing, (R) – Proposed								
Franklin EB	B	B	B	B	A	A	A	A
Maine State Pier WB	C	C	D	D	A	A	A	A
Commercial NB	B	B	B	B	A	A	A	A
Commercial SB	C	C	C	C	A	A	A	A
Overall	B	B	C	C	A	A	A	A
Commercial / Thames / India (U)								
Commercial EB	A	A	A	A	A	A	A	A
Thames WB	A	A	A	A	A	A	A	A
India SE	A	A	A	A	A	A	A	A
India / Fore (U)								
Fore EB	A	A	A	B	A	B	B	B
Fore WB	A	B	A	B	A	B	A	B
India SE	A	B	A	B	A	B	A	B
India NW	A	A	A	A	A	A	A	A
Hancock / Fore (U)								
Fore NB	A	A	A	A	A	A	A	A
Fore SB	A	A	A	A	A	A	A	A
Hancock SE	A	A	A	A	A	A	A	A
Hancock NW	A	A	A	A	A	A	A	A
Mountfort / Fore (U)								
Fore NE	A	A	A	A	A	A	A	A
Fore SW	A	A	A	A	A	A	A	A
Mountfort SE	A	A	A	A	A	A	A	A
Existing Driveways / Fore (U)								
Fore EB	A	N/A	A	N/A	A	N/A	A	N/A
Fore WB	A	N/A	A	N/A	A	N/A	A	N/A
100 Fore St NB	A	N/A	A	N/A	A	N/A	A	N/A
58 Fore St NW	A	N/A	A	N/A	A	N/A	A	N/A
Proposed New Road / Fore (U)								
Fore EB	N/A	A	N/A	A	N/A	A	N/A	A
Fore WB	N/A	A	N/A	A	N/A	A	N/A	A
Proposed Road NB	N/A	A	N/A	A	N/A	A	N/A	A
Proposed New Road / Thames (U)								
Thames NE	N/A	A	N/A	A	N/A	A	N/A	A
Thames SW	N/A	A	N/A	A	N/A	A	N/A	A
Proposed Road SB	N/A	A	N/A	A	N/A	A	N/A	A

Approach	Existing Geometry				Proposed Franklin Street			
	2027 AM		2027 PM		2027 AM		2027 PM	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Waterville / Fore (U)								
Fore NE	A	A	A	A	A	A	A	A
Fore SW	A	A	A	A	A	A	A	A
Waterville SE	A	A	A	A	A	A	A	A
Site Driveway NW	N/A	A	N/A	A	N/A	A	N/A	A
Congress / India (S)								
Congress NE	B	B	C	C	B	B	C	C
Congress SW	A	A	B	B	A	A	B	B
India NW	B	B	D	C	B	B	D	C
Overall	B	B	C	C	A	B	C	C
Washington / Congress / Mountfort (S)								
Congress NE	A	A	C	B	A	A	B	B
Congress SW	B	B	C	B	B	C	C	B
Mountfort NB	B	B	C	B	C	B	C	B
Washington SB	A	A	B	B	A	A	B	B
Overall	B	B	C	B	A	B	B	B
Cumberland / Washington (S)								
Cumberland NE	B	B	B	B	B	B	B	B
Cumberland SW	B	B	B	B	B	B	B	B
Washington NB	B	B	B	B	B	B	B	B
Washington SB	A	B	D	C	B	B	D	C
Overall	A	B	C	B	B	B	C	B

*(S) = Signalized, (U) = Unsignalized, (R) = Roundabout

As shown in the table, the study area intersections are forecast to operate at or above level of service 'D' after the development is completed, with the exception of the Fore Street eastbound approach of the intersection of Franklin Street with Fore Street and the Franklin Street southbound approach of the intersection of Franklin Street with Middle Street. These approaches are forecast to operate at a level of service 'E' during the 2027 Postdevelopment PM peak hour. It may be improved with adjustments to the intersection timing; however since the intersection is part of the proposed Franklin Street improvements, changes to the timing were not made for this analysis. Any adjustments to intersection timing would need to consider the platooning of Franklin Street traffic. It should be noted that at the intersections of India Street with Congress Street, Congress Street with Mountfort Street and Washington Avenue, and Washington Avenue with Cumberland Avenue the levels of service are forecast to increase after the development is completed. This increase is due to updated signal timing for those three intersections in the postdevelopment conditions. Please note that the existing timing and phasing of the two intersections of India Street with Congress Street and Congress Street with Mountfort Street / Washington Avenue include an exclusive pedestrian phase. This phase was not included in the analysis, but

if actuated, will cause the intersections to operate at a lower level of service. This is common in a downtown area where signals include an exclusive pedestrian phase.

Although the capacity analysis shows that the study area intersections are forecast to operate at acceptable levels of service with the existing geometry, it should be noted that observations of the Franklin Street intersections identified that during the PM peak hour queueing on northbound Franklin Street was significant. This queuing resulted in inefficiencies in the upstream intersections such that they operated at very low levels of service.

IX. Sight Line Evaluation

Both the City of Portland and MaineDOT have guidelines for sight distances. The City's sight distance criteria is the same as MaineDOT. The basic sight line standards are as follows.

Standards for Sight Distance

Posted Speed (mph)	MaineDOT Required (ft)	City of Portland Required
25	200	200
30	250	250
35	305	305
40	360	360
45	425	425

MaineDOT and the City measure sight distance using the same methodology. GP has evaluated the available sight lines in accordance with MaineDOT / City standards.

The evaluation method is as follows:

Driveway observation point:	10 feet off edge of travel way
Height of eye at driveway:	3 ½ feet above ground
Height of approaching vehicle:	4 ¼ feet above ground

Speed limits on Fore Street are posted 25 mph, which requires a MaineDOT and City sight distance of 200 feet.

GP measured the sight distance at the proposed site accesses on Fore Street. The following table summarizes the measured sight distances:

Sight Distance Summary

	Posted Speed (mph)	Looking Left (ft)	Looking Right (ft)	MaineDOT Required (ft)	City Required (ft)
Driveway onto Fore	25 mph	300+	300+	200	200
Proposed Road onto Fore	25 mph	250	300+	200	200

As shown in the table, the sight distances exceed MaineDOT and City requirements. It should be noted that the sight distances exiting the proposed site driveway onto Fore Street assume the removal or relocation of on-street parking spaces on either side of the site driveway within the sight triangle. Additionally, the sight distance looking left from the proposed road onto Fore Street could be improved by relocating the Hamilton Marine sign further from the edge of the road.

X. Crash Data

GP obtained the crash data (attached in Appendix D) from MaineDOT for the period of 2013-2015, the most recent period available at the time this study was prepared. In order to evaluate whether a location has a crash problem, MaineDOT uses two criteria to define a High Crash Location (HCL). Both criteria must be met in order to be classified as an HCL.

1. A critical rate factor of 1.00 or more for a three-year period. (A Critical Rate Factor {CRF} compares the actual crash rate to the rate for similar intersections in the state. A CRF of less than 1.00 indicates a rate of less than average) **and**:

2. A minimum of eight crashes over the same three-year period

Based on the crash data provided by MaineDOT there are two high crash locations within the study area; one at the intersection of Franklin Street with Middle Street, and one on Fore Street from its intersection with India Street to its intersection with Mountfort Street. It should be noted that there were two locations that did not meet the HCL criteria, but were close. The intersection of India Street with Fore Street has a CRF of 1.60 and experienced seven collisions during the most recent three-year period and Cumberland Avenue from Boyd Street to Locust Street has a CRF of 4.13 and experienced seven collisions over the most recent three-year period. The intersection of India Street with Fore Street was previously identified as an HCL based on 2012-2014 crash data, but there were fewer crashes during the 2013-2015 period, so it no longer meets both HCL criteria.

To better evaluate the high crash locations and identify correctable crash patterns, the police reports for these locations were requested from MaineDOT and collision diagrams were created (attached in Appendix D). The two locations are described in more detail as follows:

Franklin Street / Middle Street

The intersection of Franklin Street with Middle Street has a CRF of 1.08 and experienced 20 crashes over the most recent three-year period. It is a four legged signalized intersection. Based on a review of the collision diagram all 20 collisions involved vehicles turning left from Franklin Street onto Middle Street colliding with vehicles traveling in the opposite direction of Franklin Street. This occurs in both the Franklin Street northbound and southbound directions, but 16 of the collisions involved southbound left-turning vehicles and northbound through vehicles. Of those 16 collisions, six occurred because the left-turning vehicle could not see the northbound through vehicle due to a snowbank in the median blocking the sight distance. Increased winter maintenance, specifically snow removal, could improve the sight distance at the intersection during winter months, providing left-turning vehicles with a clear view of oncoming traffic.

Fore Street from India Street to Mountfort Street

This section of Fore Street has a CRF of 2.12 and experienced nine crashes over the most recent three-year period, seven of which occurred at the intersection of Fore Street with Hancock Street. The intersection of Fore Street with Hancock Street is stop controlled with stop signs on Hancock Street and free flowing traffic on Fore Street. Based on a review of the collision diagram there does not appear to be a clear and correctable crash pattern. Most collisions at the intersection of Hancock Street with Fore Street were caused by a driver failing to yield the right of way.

XI. Existing Pedestrian, Bicycle, and Transit Infrastructure

One of the benefits of being located in a downtown area is that there is a complete network of sidewalks in the vicinity of the site. The Eastern Promenade Trail runs through the 58 Fore Street development. This pedestrian and bicycle trail connects the site to a 70-mile trail network. Fore Street has sidewalks on both sides that extend west into Downtown Portland and east toward the Eastern Promenade. The sidewalks are in adequate condition, however there are utility poles and sign posts on the south side of Fore Street are located within the sidewalk, which decreases the sidewalk width. As part of the 58 Fore Street development, the sidewalk on Fore

Street in front of the site will be rebuilt. It is recommended that any new sidewalks be constructed to meet ADA requirements.

The site is located within a 3-8 minute walk to several METRO bus stops. It is also approximately a five minute walk from the Ocean Gateway Pier and approximately a ten minute walk from the Maine State Pier, where the Casco Bay Lines Ferry Terminal is located. These bus stops and piers have a continuous network of sidewalks connecting them to the site.

Overall, the existing pedestrian, bicycle, and transit infrastructure is adequate.

XII. Conclusions and Recommendations

The following is a summary of the conclusions and recommendations based on the information and analyses presented in this study:

1. The proposed mixed use development is forecast to generate 424 trip ends during the weekday AM peak hour and 474 trip ends during the weekday PM peak hour. This level of trip generation requires a MaineDOT traffic movement permit. The Traffic Movement Permit Application can be reviewed and the permit issued by the City since they have delegated review authority.

2. The capacity analyses show that the study area intersections are forecast to operate at acceptable levels of service for almost all scenarios once the development is completed and occupied. The exception is the eastbound Fore Street approach of the intersection of Fore Street with Franklin Street and the southbound Franklin Street approach of the intersection of Middle Street with Franklin Street, which are forecast to operate at a level of service 'E' during the 2027 PM Postdevelopment condition. However, a slight change in timing at the intersections may improve the level of service.

3. The sight distances exceed MaineDOT and City requirements at the proposed new road connecting Fore Street to Thames Street Extension and at the proposed site driveway onto Fore Street, provided on-street parking within the sight triangle on either side of the proposed driveway is removed or relocated.

4. The crash data shows that there are two high crash locations in the study area. Based on a review of the collision diagrams there is no clear correctable crash pattern on Fore Street from India Street to Mountfort Street, but there is a crash pattern of left turning vehicle colliding with through vehicles at the

intersection of Middle Street with Franklin Street. The traffic from this development is not anticipated to significantly impact this crash pattern.

5. The existing pedestrian, bicycle, and transit infrastructure is adequate, except the utility poles and signs located within the sidewalks along the south side of Fore Street, which is proposed to be rebuilt as part of this project. The site is surrounded by a continuous sidewalk network, located within a 3-8 minute walk from METRO bus stops and a 5-10 minute walk from the two closest piers, and the Eastern Promenade bicycle and pedestrian trail runs through the site.

Appendix A

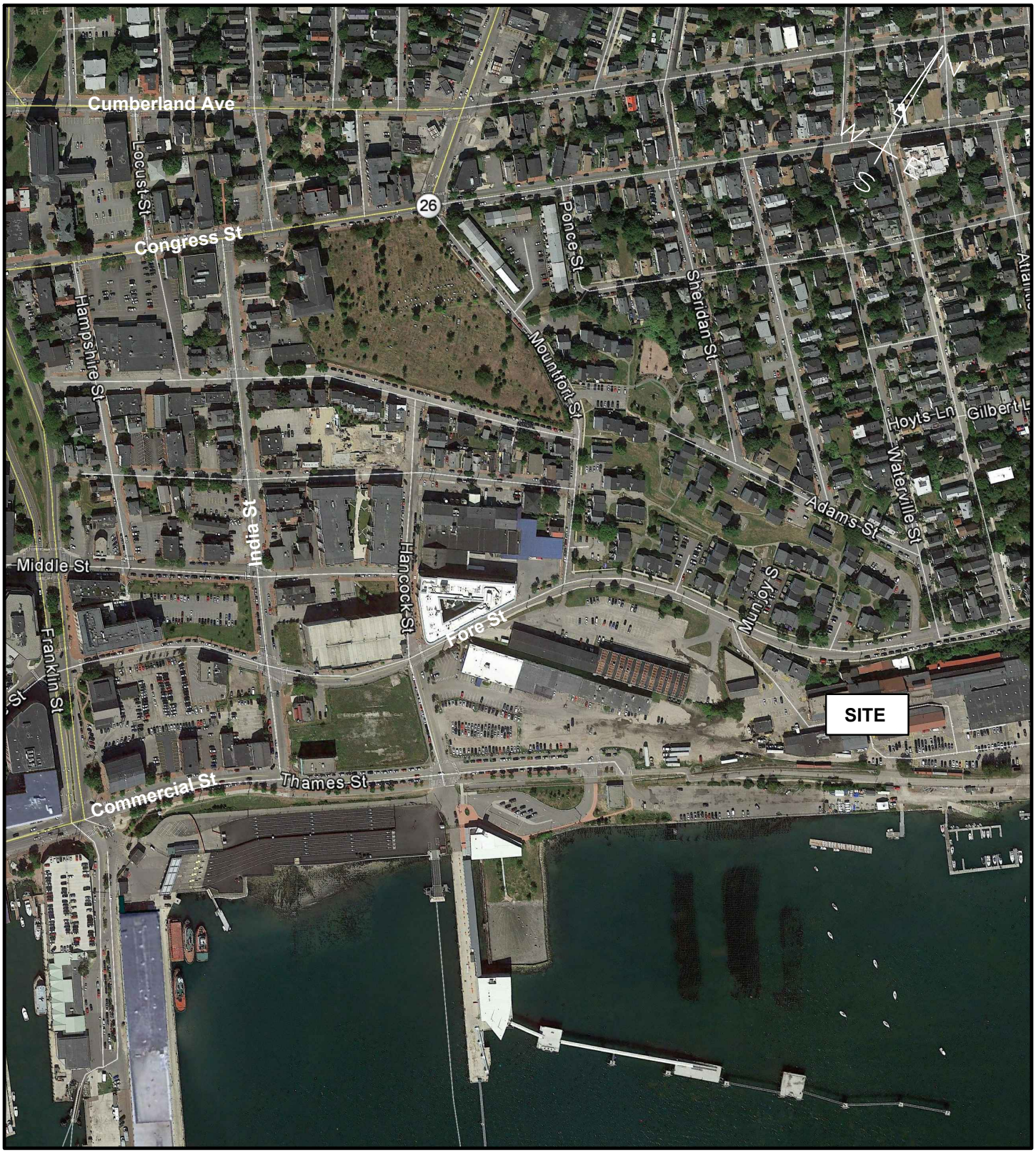
Location Map

Turning Movement Diagrams

Other Development Figure

Location Map

Figure No. 1



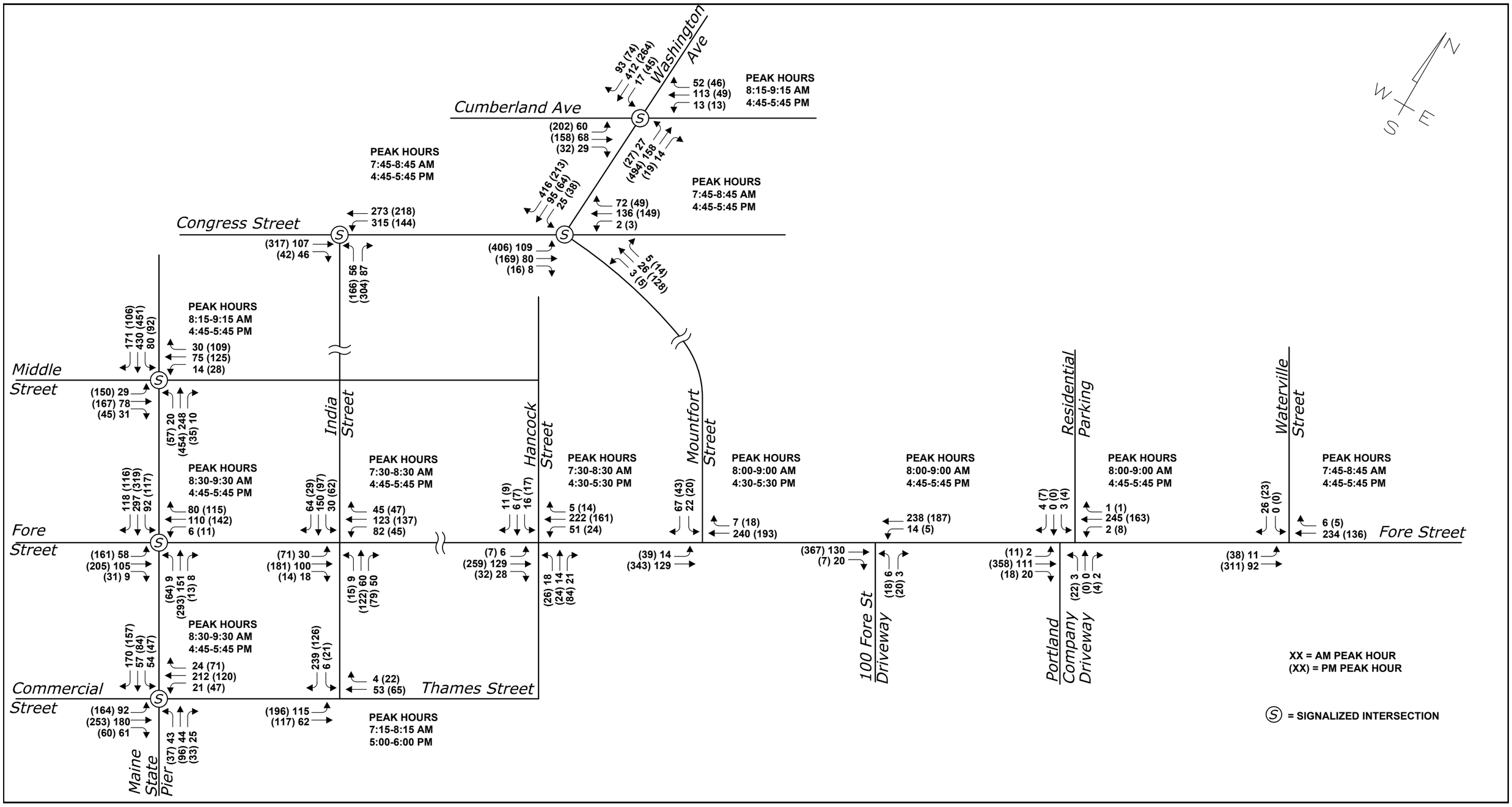
58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

Design:	ET	Scale:	NONE
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Checked:	RED	File Name:	3138-TRAFF.dwg

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Raw Volumes

Figure No. 2



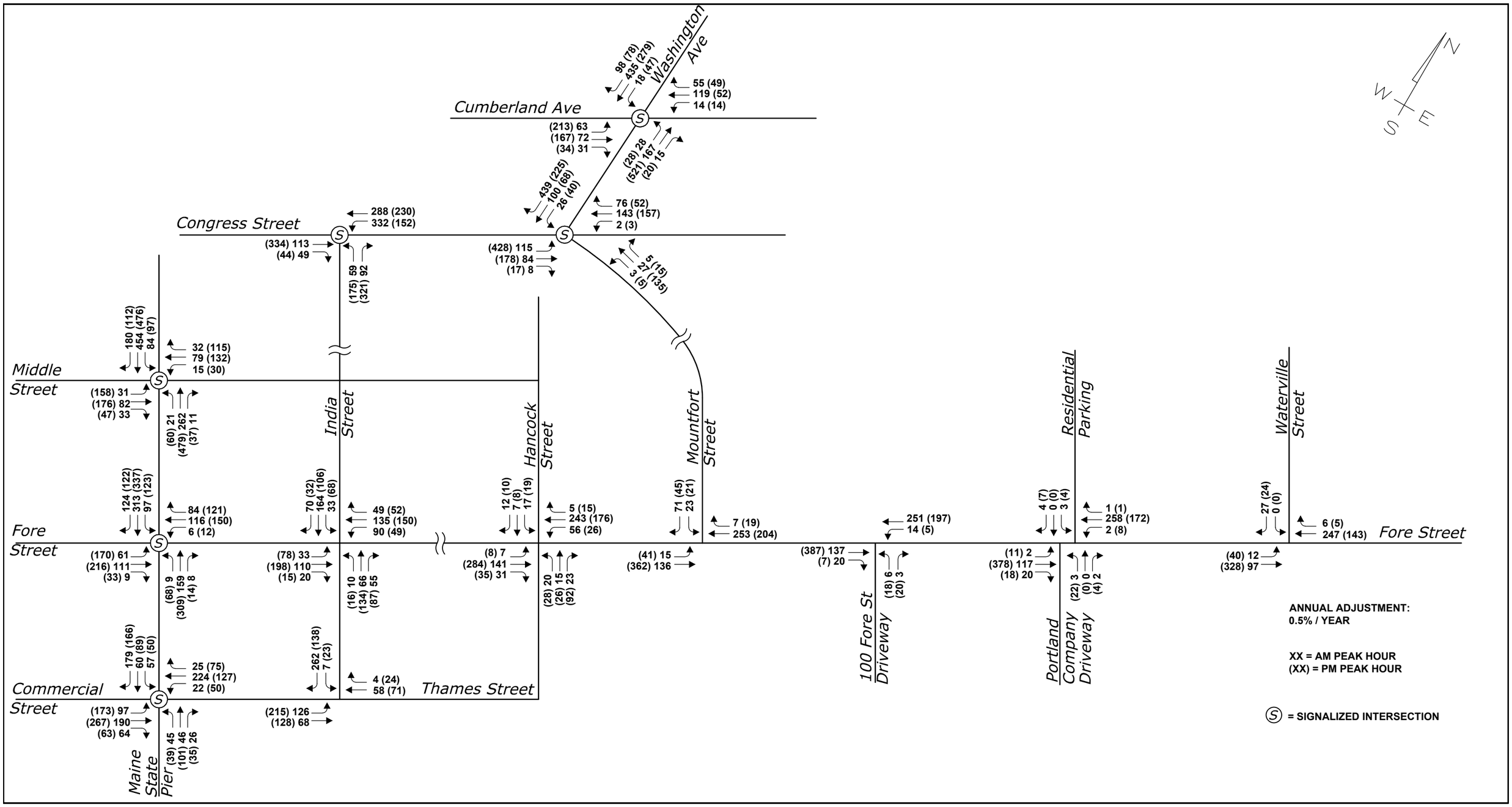
58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

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Scale: NONE
Date: AUGUST 2016
File Name: 3138-TRAFF.dwg

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2027 Adjusted Volumes

Figure No. 3



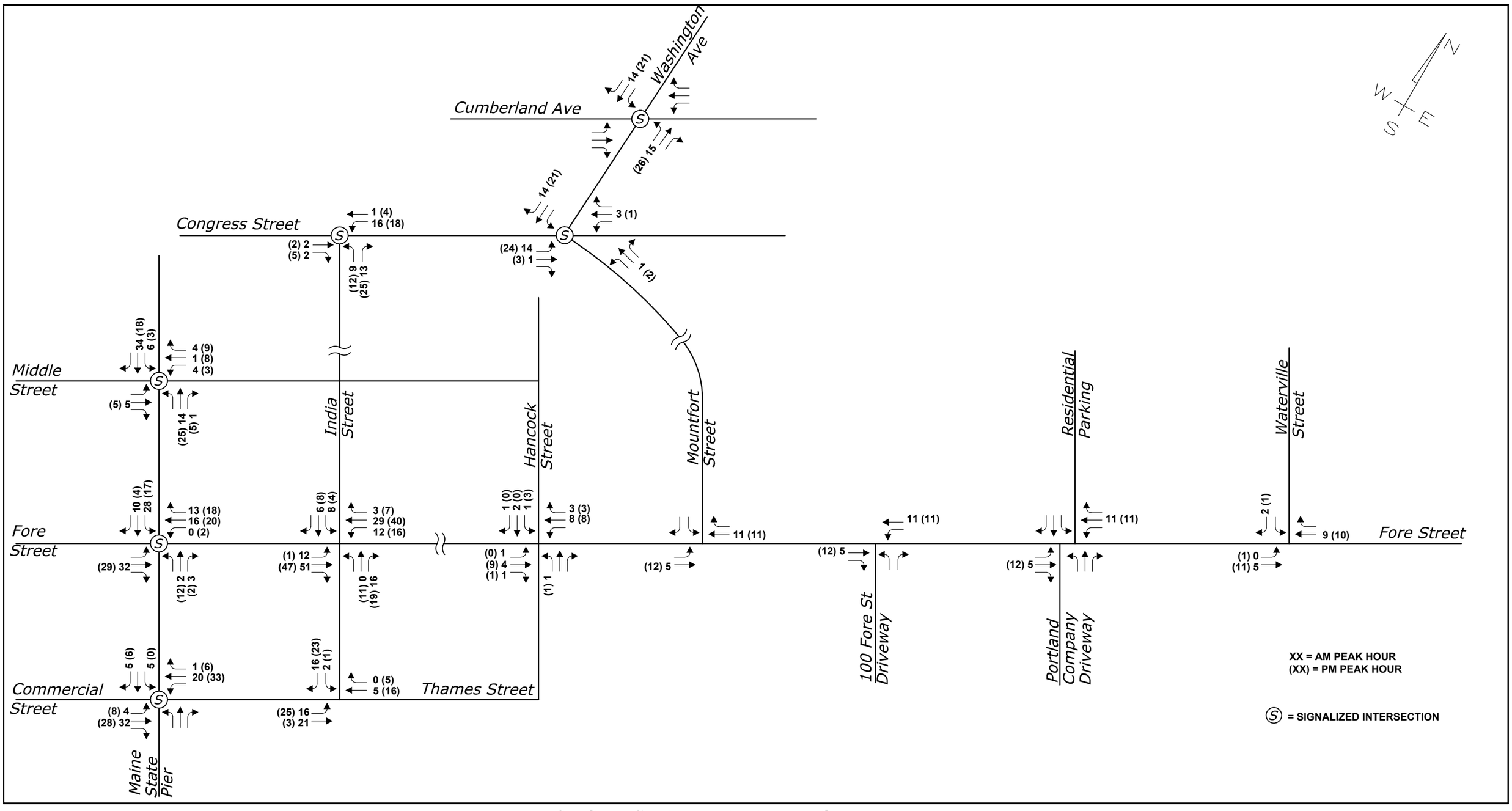
58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

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Date: AUGUST 2016
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Other Development

Figure No. 4



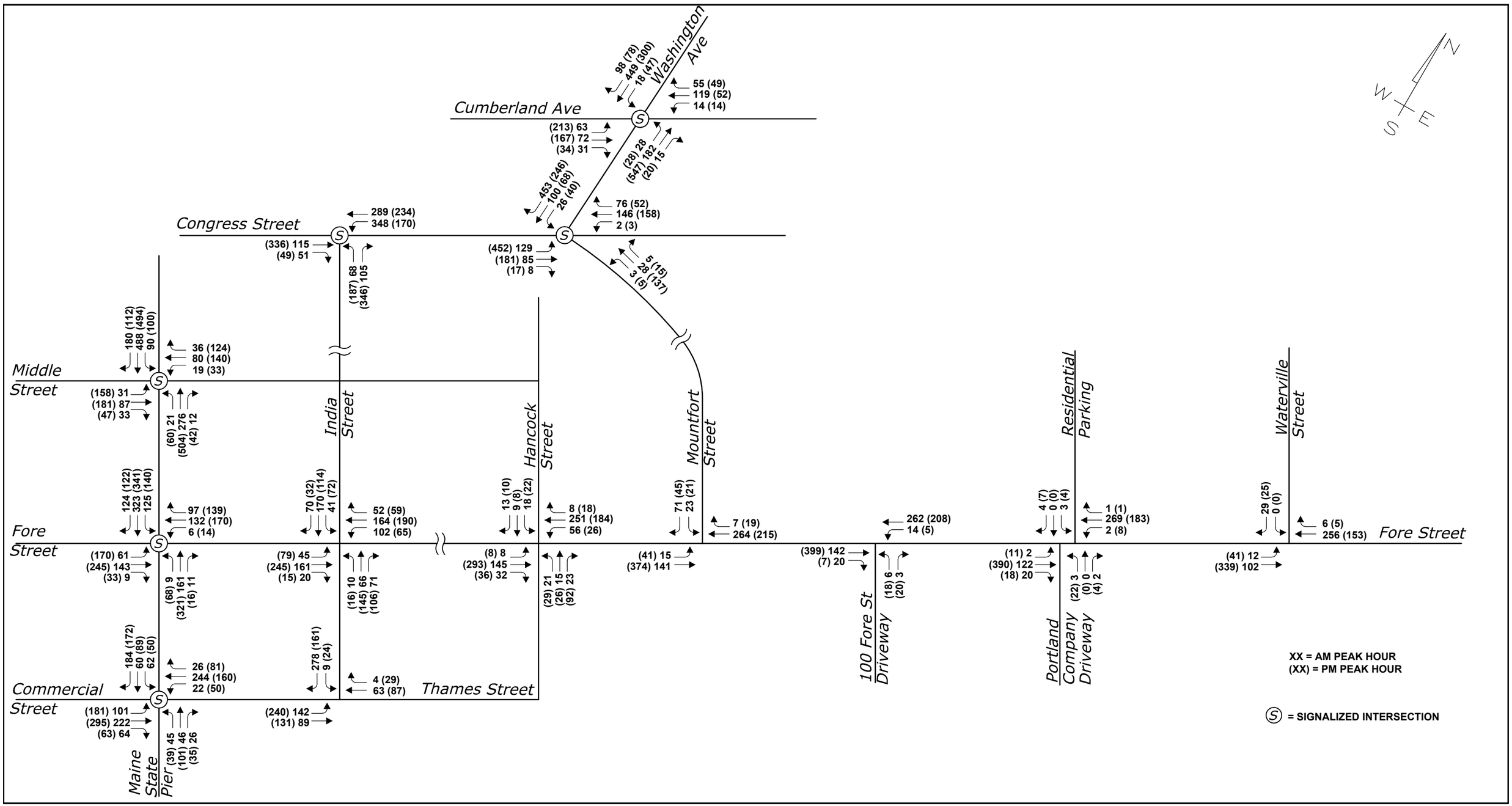
58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

Design: ET
Draft: LAN
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Date: AUGUST 2016
File Name: 3138-TRAFF.dwg

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2027 Predevelopment DHV

Figure No. 5



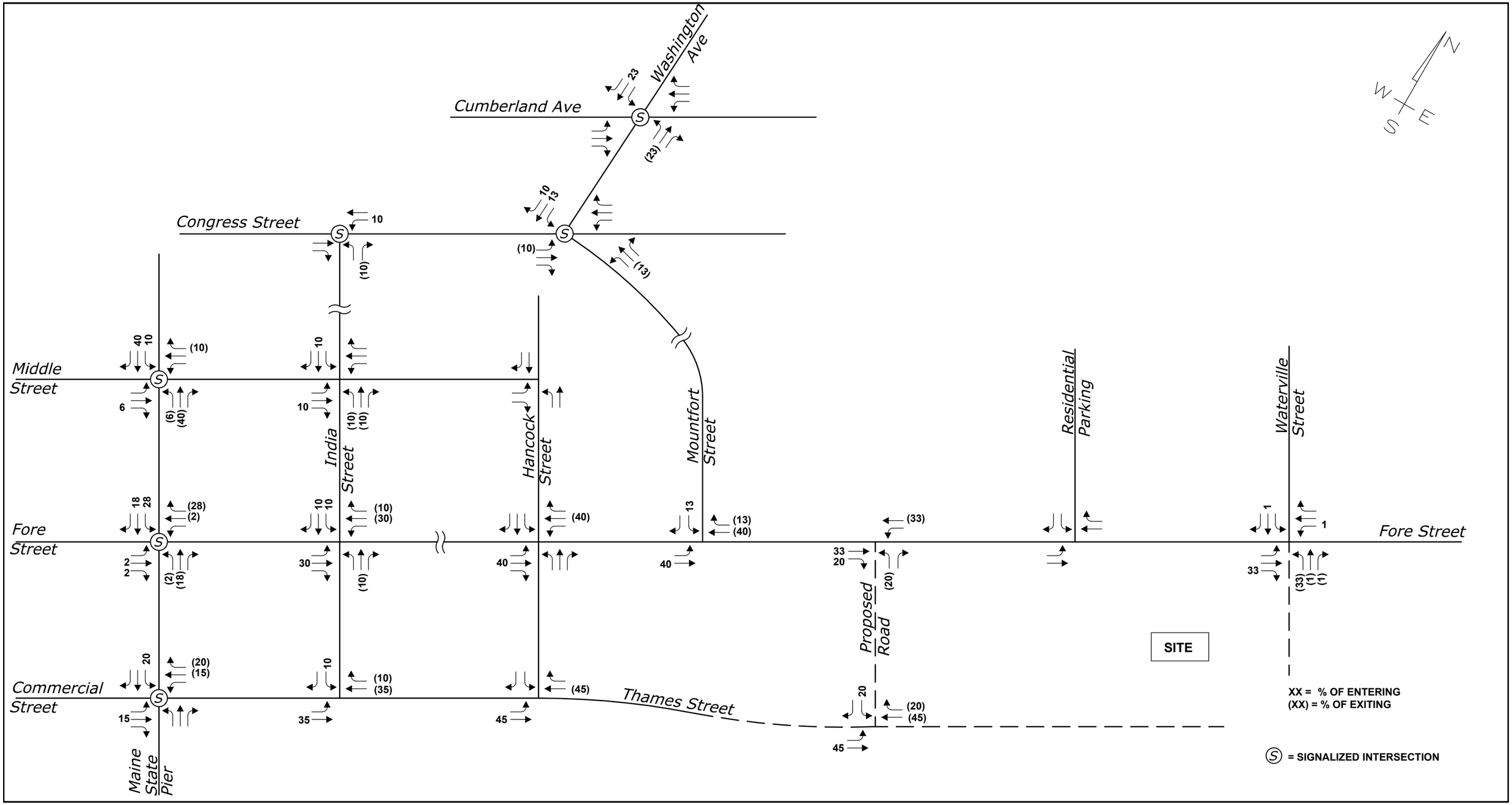
58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

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Scale: NONE
Date: AUGUST 2016
File Name: 3138-TRAFF.dwg

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Residential Trip Distribution

Figure No. 6



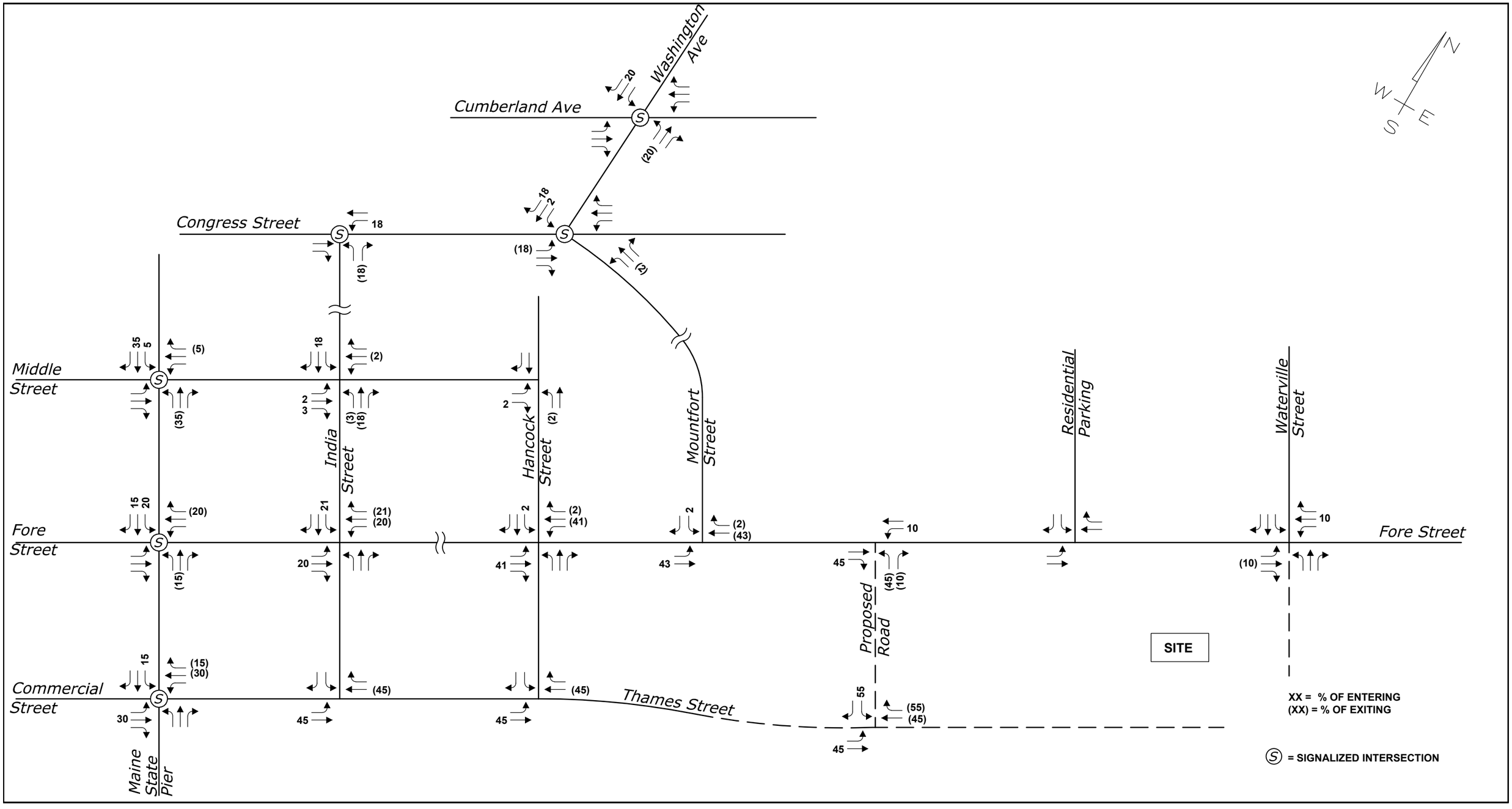
58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

Design: ET
Draft: LAN
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Scale: NONE
Date: AUGUST 2016
File Name: 3138-TRAFF.dwg

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Non-Residential Trip Distribution

Figure No. 7



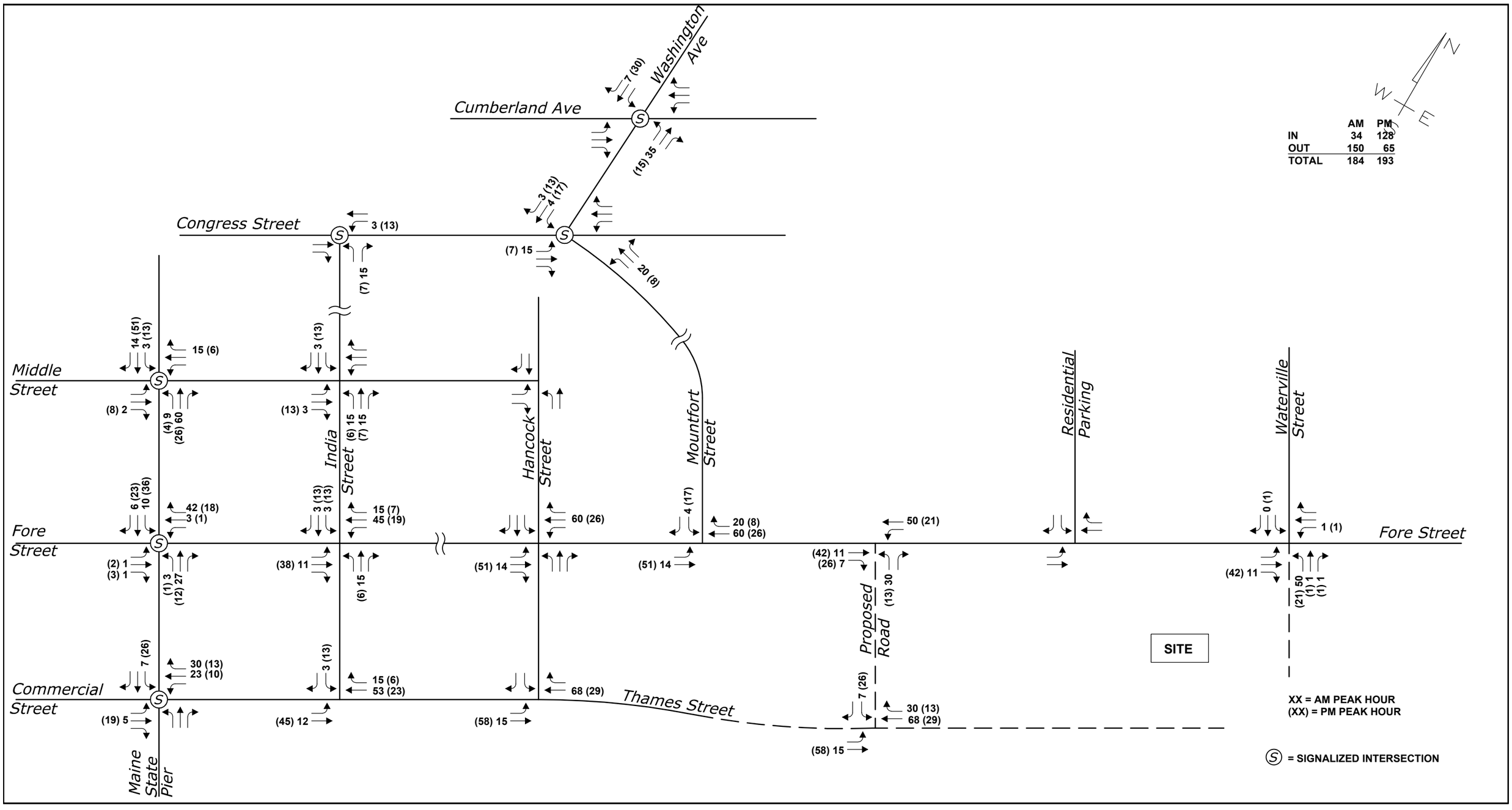
58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

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Draft: LAN Date: AUGUST 2016
Checked: RED File Name: 3138-TRAFF.dwg

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Residential Trip Assignment

Figure No. 8



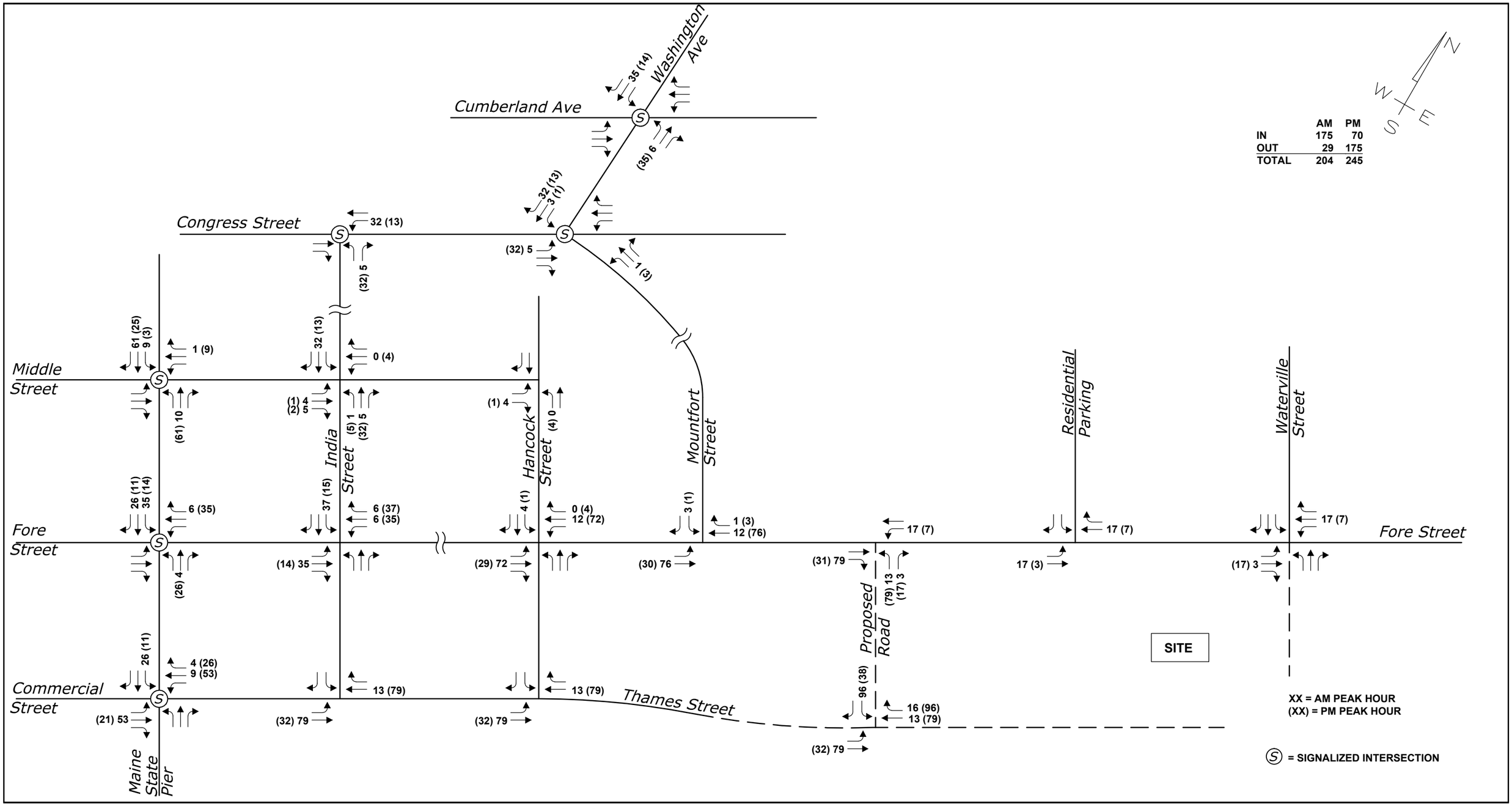
58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

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Date: AUGUST 2016
File Name: 3138-TRAFF.dwg

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Non-Residential Trip Assignment

Figure No. 9



	AM	PM
IN	175	70
OUT	29	175
TOTAL	204	245

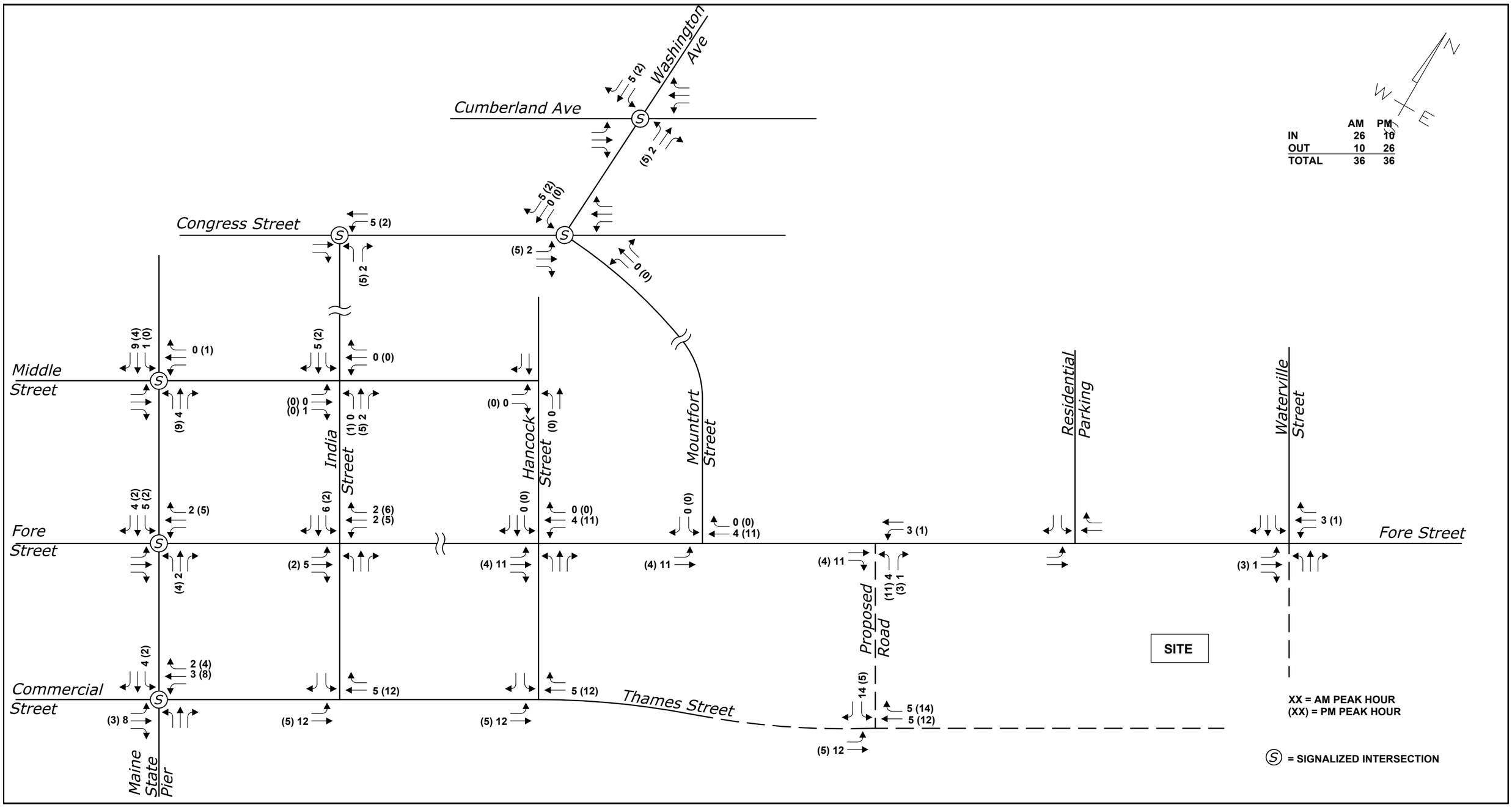
58 FORE STREET REDEVELOPMENT
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Design: ET
Draft: LAN
Checked: RED
Scale: NONE
Date: AUGUST 2016
File Name: 3138-TRAFF.dwg

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Marina Trip Assignment

Figure No. 10



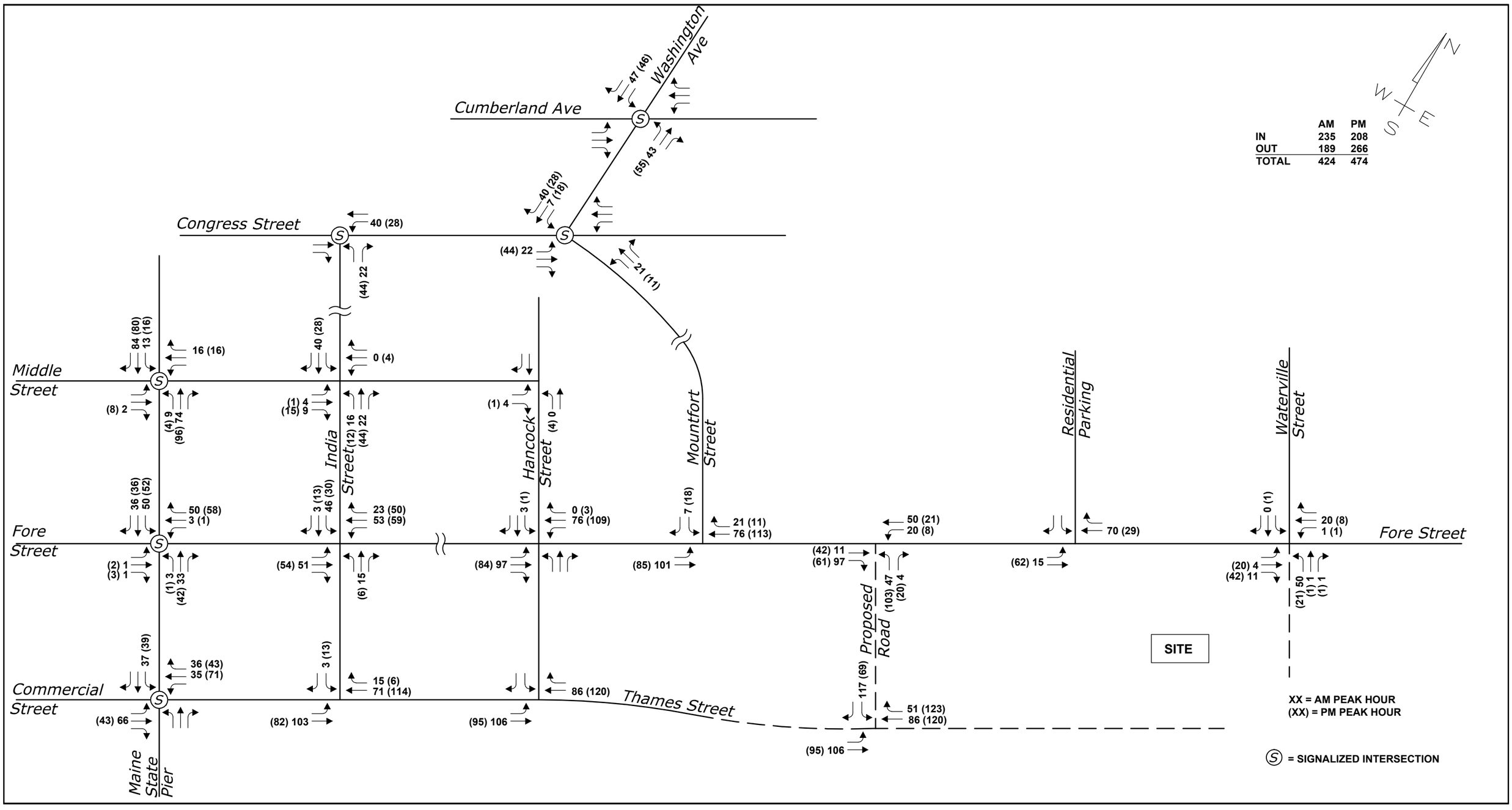
58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

Design: ET
Draft: LAN
Checked: RED
Scale: NONE
Date: AUGUST 2016
File Name: 3138-TRAFF.dwg

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Total Trip Assignment

Figure No. 11



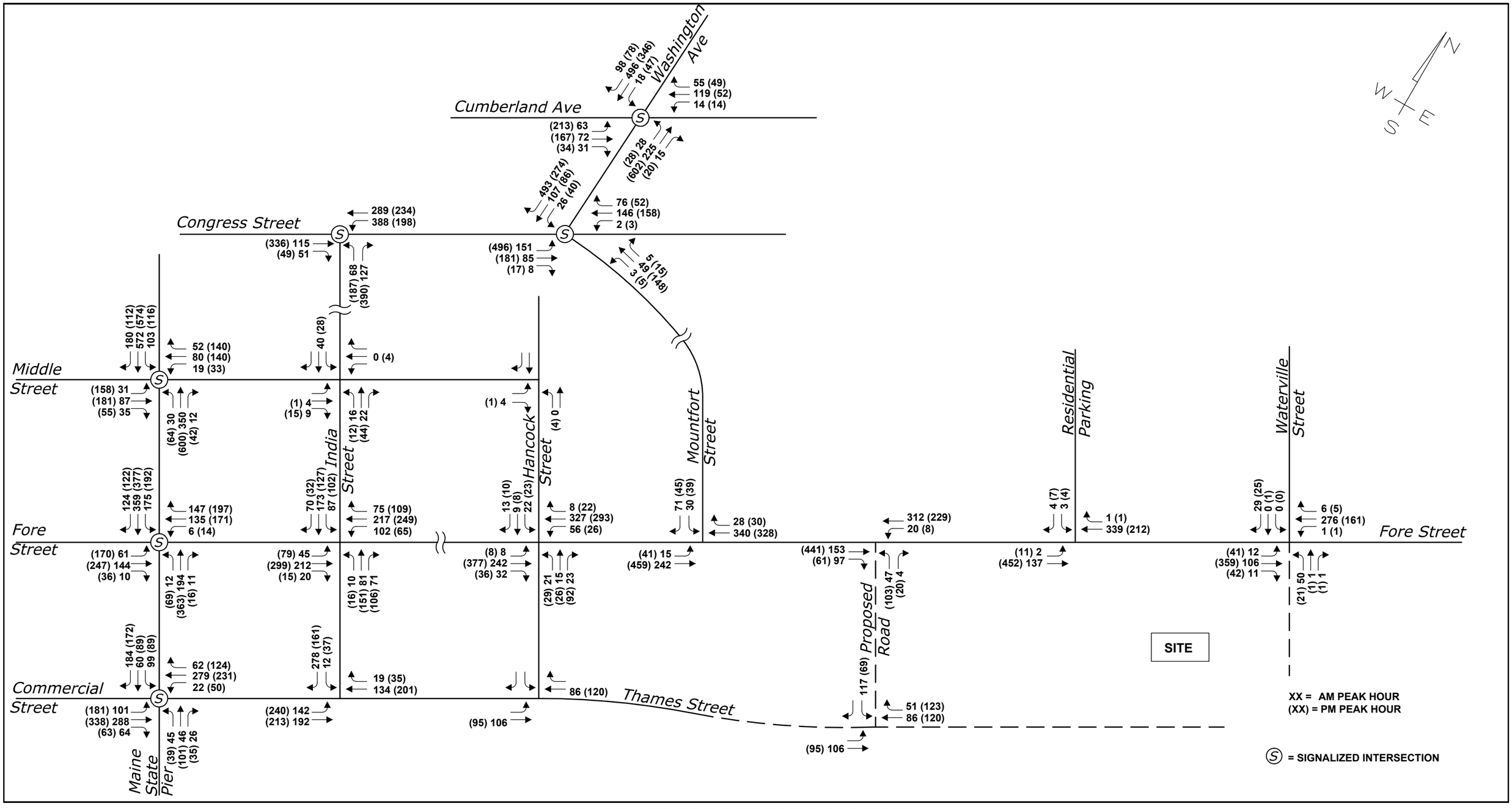
58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

Design: ET Scale: NONE
Draft: LAN Date: AUGUST 2016
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Figure No. 12



58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

Design: ET
Draft: LAN
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Scale: NONE
Date: AUGUST 2016
File Name: 3138-TRAFF.dwg

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Other Development



PORTLAND COMPANY
PORTLAND, MAINE

Design:	EAT	Scale:	NONE
Draft:	LAN	Date:	JULY 2016
Checked:	RED	File Name:	3138-Aerial.dwg

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Appendix B

ITE Trip Generation Calculations

NCHRP Spreadsheets

Commute Data Maps

Site Parking Demand Memo

Marina Trip Generation Calculations

58 Fore Street Trip Generation Summary
Portland, Maine
September 2, 2016

Development Block	Use	Land Use Code	Size	Units		AM Trip Generation	% In AM	% Out AM	AM Trips In	AM Trips Out	PM Trip Generation	% In PM	% Out PM	PM Trips In	PM Trips Out
B1															
	Retail	814 - Specialty Retail	7,878	SF		6	60%	40%	4	2	21	45%	55%	9	12
	Residential	220 - Apartment	91	Dwelling Units		46	20%	80%	9	37	56	65%	35%	36	20
	Office	710 - General Office Building	79,000	SF		155	90%	10%	140	15	149	15%	85%	22	127
					B1 Total:	**207**	**74%**	**26%**	**153**	**54**	**226**	**30%**	**70%**	**67**	**159**
B2															
	Retail	814 - Specialty Retail	26,895	SF		20	60%	40%	12	8	73	45%	55%	33	40
	Residential	220 - Apartment	19	Dwelling Units		10	20%	80%	2	8	12	65%	35%	8	4
	Office	710 - General Office Building	25,617	SF		63	90%	10%	57	6	61	15%	85%	9	52
					B2 Total:	**93**	**76%**	**24%**	**71**	**22**	**146**	**34%**	**66%**	**50**	**96**
B3															
	Retail	814 - Specialty Retail	11,500	SF		9	60%	40%	5	4	31	45%	55%	14	17
	Office	710 - General Office Building	19,300	SF		50	90%	10%	45	5	48	15%	85%	7	41
					B3 Total:	**59**	**85%**	**15%**	**50**	**9**	**79**	**27%**	**73%**	**21**	**58**
B4															
	Residential	220 - Apartment	275	Dwelling Units		140	20%	80%	28	112	171	65%	35%	111	60
	Retail	814 - Specialty Retail	4,000	SF		3	60%	40%	2	1	11	45%	55%	5	6
					B4 Total:	**143**	**21%**	**79%**	**30**	**113**	**182**	**64%**	**36%**	**116**	**66**
B5															
	Residential	230 - Residential Condominium/Townhouse	108	Dwelling Units		48	15%	85%	7	41	56	65%	35%	36	20
	Hotel	310 - Hotel	132	Rooms		74	60%	40%	44	30	78	55%	45%	43	35
	Restaurant	932 - High Turnover (Sit Down) Restaurant	3,800	SF		44	50%	50%	22	22	41	60%	40%	25	16
					B5 Total:	**166**	**44%**	**56%**	**73**	**93**	**175**	**59%**	**41%**	**104**	**71**
B6															
	Residential	230 - Residential Condominium/Townhouse	131	Dwelling Units		58	15%	85%	9	49	68	65%	35%	44	24
	Residential	220 - Apartment	14	Dwelling Units		7	20%	80%	1	6	9	65%	35%	6	3
					B6 Total:	**65**	**15%**	**85%**	**10**	**55**	**77**	**65%**	**35%**	**50**	**27**
B7															
	Marina Facilities	N/A	2,600	SF		36	72%	28%	26	10	36	28%	72%	10	26
					B7 Total:	36	72%	28%	26	10	36	28%	72%	10	26
					Site Total:	**769**	**54%**	**46%**	**413**	**356**	**921**	**45%**	**55%**	**418**	**503**

		AM Trip Generation	% In AM	% Out AM	AM Trips In	AM Trips Out	PM Trip Generation	% In PM	% Out PM	PM Trips In	PM Trips Out
	B1-B6 Subtotal:	733	53%	47%	387	346	885	46%	54%	408	477
	NCHRP 684 Reduction:	102	12%	14%	51	51	150	18%	15%	75	75
35.8%	Other Modes Reduction:	236	35.8%	35.8%	123	113	289	35.8%	35.8%	131	158
10%	Hotel Other Modes Reduction:	7	57%	43%	4	3	8	50%	50%	4	4
	B1-B6 Total:	**388**	**54%**	**46%**	**209**	**179**	**438**	**45%**	**55%**	**198**	**240**
	Marina Total	36	72%	28%	26	10	36	28%	72%	10	26
	Site Total	**424**	**55%**	**45%**	**235**	**189**	**474**	**44%**	**56%**	**208**	**266**

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	58 Fore Street	**Organization:**	Gorrill Palmer
Project Location:	Portland, Maine	**Performed By:**	ET
Scenario Description:	Max Build Out	**Date:**	2-Sep
Analysis Year:	2016	**Checked By:**	RED
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710	123,917	SF	268	242	26
Retail	814	50,273	SF	38	23	15
Restaurant	932	3,800	SF	44	22	22
Cinema/Entertainment		-	SF	0	0	0
Residential	220/230	638	Units	309	56	253
Hotel	310	132	Rooms	74	44	30
All Other Land Uses[2]	N/A	2,600	SF	36	26	10
Total				769	413	356

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	5	0	0	0
Retail	4		2	0	1	0
Restaurant	7	2		0	1	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	3	4	0		0
Hotel	7	1	1	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	769	413	356
Internal Capture Percentage	13%	12%	14%
External Vehicle-Trips[3]	667	362	305
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	10%	46%
Retail	57%	47%
Restaurant	55%	50%
Cinema/Entertainment	N/A	N/A
Residential	4%	5%
Hotel	2%	30%

[1]Land Use Codes (LUCs) from *Trip Generation Manual* , published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute

Project Name:	58 Fore Street
Analysis Period:	**Scenario 1 - AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	242	242	1.00	26	26
Retail	1.00	23	23	1.00	15	15
Restaurant	1.00	22	22	1.00	22	22
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	56	56	1.00	253	253
Hotel	1.00	44	44	1.00	30	30

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	16	0	0	0
Retail	4		2	0	2	0
Restaurant	7	3		0	1	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	3	51	0		0
Hotel	23	4	3	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	5	0	0	0
Retail	10		11	0	1	0
Restaurant	34	2		0	3	2
Cinema/Entertainment	0	0	0		0	0
Residential	7	4	4	0		0
Hotel	7	1	1	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	23	219	242	219	0	0
Retail	13	10	23	10	0	0
Restaurant	12	10	22	10	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	2	54	56	54	0	0
Hotel	1	43	44	43	0	0
All Other Land Uses[3]	0	26	26	26	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	12	14	26	14	0	0
Retail	7	8	15	8	0	0
Restaurant	11	11	22	11	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	12	241	253	241	0	0
Hotel	9	21	30	21	0	0
All Other Land Uses[3]	0	10	10	10	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	58 Fore Street	**Organization:**	Gorrill Palmer
Project Location:	Portland, Maine	**Performed By:**	ET
Scenario Description:	Max Build Out	**Date:**	2-Sep
Analysis Year:	2016	**Checked By:**	RED
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710	123,917	SF	258	38	220
Retail	814	50,273	SF	136	61	75
Restaurant	932	3,800	SF	41	25	16
Cinema/Entertainment		-	SF	0	0	0
Residential	220/230	638	Units	372	241	131
Hotel	310	132	Rooms	78	43	35
All Other Land Uses[2]	N/A	2,600	SF	36	10	26
Total				921	418	503

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		5	1	0	4	0
Retail	2		7	0	20	4
Restaurant	0	7		0	3	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	6	4	0		4
Hotel	0	1	1	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	921	418	503
Internal Capture Percentage	16%	18%	15%
External Vehicle-Trips[3]	771	343	428
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	18%	5%
Retail	31%	44%
Restaurant	52%	69%
Cinema/Entertainment	N/A	N/A
Residential	11%	15%
Hotel	21%	6%

[1]Land Use Codes (LUCs) from *Trip Generation Manual* , published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute

Project Name:	58 Fore Street
Analysis Period:	**Scenario 1 - PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	38	38	1.00	220	220
Retail	1.00	61	61	1.00	75	75
Restaurant	1.00	25	25	1.00	16	16
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	241	241	1.00	131	131
Hotel	1.00	43	43	1.00	35	35

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		44	9	0	4	0
Retail	2		22	3	20	4
Restaurant	0	7		1	3	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	55	28	0		4
Hotel	0	6	24	0	1	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		5	1	0	10	0
Retail	12		7	0	111	7
Restaurant	11	31		0	39	31
Cinema/Entertainment	2	2	1		10	0
Residential	22	6	4	0		5
Hotel	0	1	1	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	7	31	38	31	0	0
Retail	19	42	61	42	0	0
Restaurant	13	12	25	12	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	27	214	241	214	0	0
Hotel	9	34	43	34	0	0
All Other Land Uses[3]	0	10	10	10	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	10	210	220	210	0	0
Retail	33	42	75	42	0	0
Restaurant	11	5	16	5	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	19	112	131	112	0	0
Hotel	2	33	35	33	0	0
All Other Land Uses[3]	0	26	26	26	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

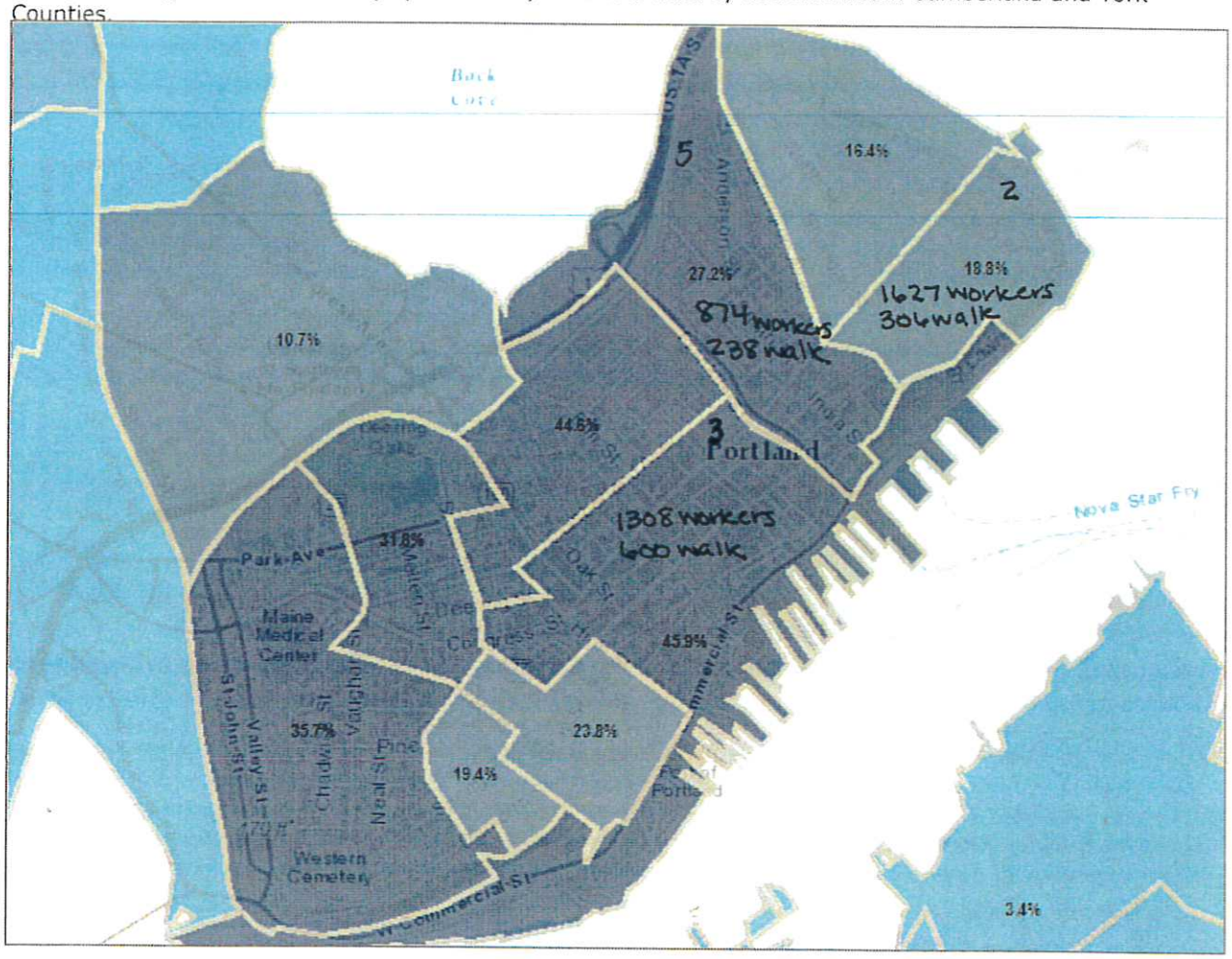
[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Southern Maine Commute Data (ACS 2009-2013, 5-Yr Est. by Census Tract)

Walked

A map showing ACS 2009-2013 (5-yr estimate) commute data by census tract in Cumberland and York Counties.



Esri, HERE, DeLorme, INCREMENT P, USGS, METI/NASA, EPA, USDA

3809 Workers
1144 Walk

30.0% walk

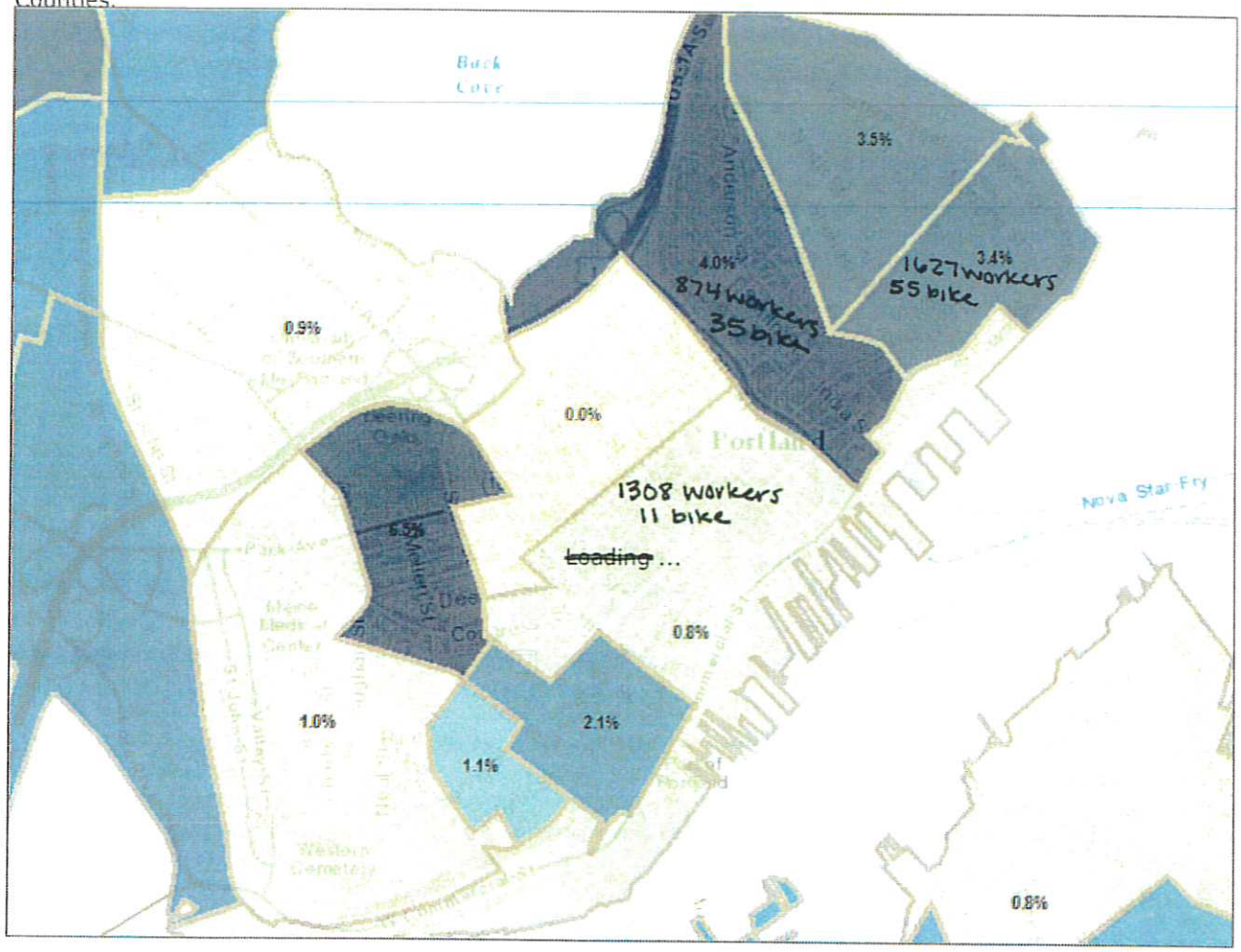
Walk/Bike/Transit

30.0 + 2.7 + 3.1 = 35.8%

Southern Maine Commute Data (ACS 2009-2013, 5-Yr Est. by Census Tract)

Biked

A map showing ACS 2009-2013 (5-yr estimate) commute data by census tract in Cumberland and York Counties.



Esri, HERE, DeLorme, INCREMENT P, USGS, METI/NASA, EPA, USDA

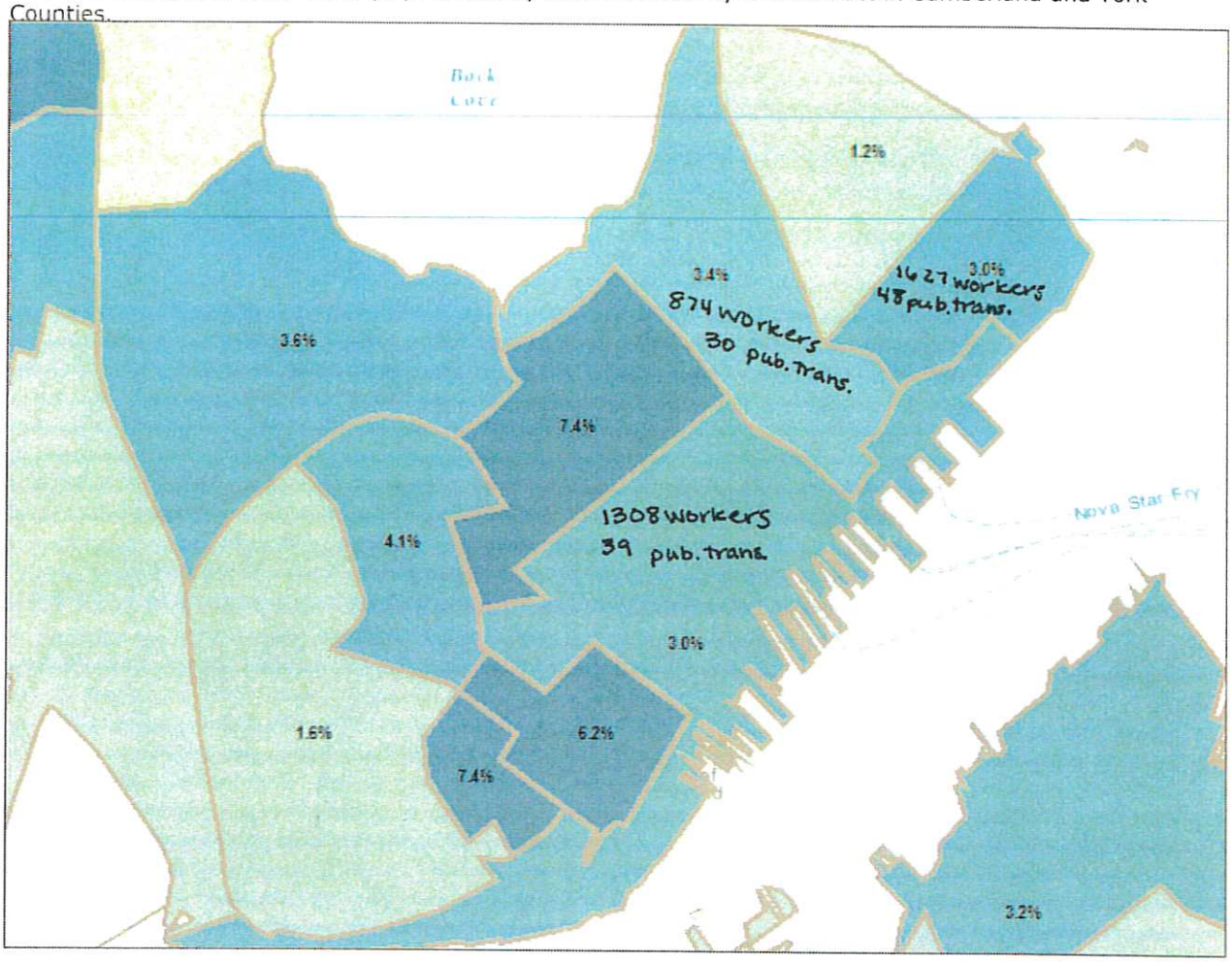
3809 Workers
101 Bike

2.7% Bike

Southern Maine Commute Data (ACS 2009-2013, 5-Yr Est. by Census Tract)

Public Transportation

A map showing ACS 2009-2013 (5-yr estimate) commute data by census tract in Cumberland and York Counties.



Esri, HERE, DeLorme, INCREMENT P, USGS, METI/NASA, EPA, USDA

3809 Workers
117 Public Transportation

3.1% Public Transportation

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Site Parking Demand
58 Fore Street Mixed Use Development
Portland, Maine
JN 3138

Date: September 16, 2016
Subject: Site Parking Demand
58 Fore Street Mixed Use Development
To: David Senus, Mary McCrann, Jim Brady, Kevin Costello, Casey Prentice
From: Randy Dunton and Emily Tynes, Gorrill Palmer (JN 3138)

The following is a summary of the estimated parking demand for the proposed mixed use development at 58 Fore Street. The following table summarizes the sizes and uses of the proposed development used to calculate the parking demand:

Proposed Site Summary

Development Block	Use	Size
B1		
	Retail	7,878 SF
	Residential	91 Dwelling Units
	Office	79,000 SF
B2		
	Retail	26,895 SF
	Residential	19 Dwelling Units
	Office	25,617 SF
B3		
	Retail	11,500 SF
	Office	19,300 SF
B4		
	Residential	275 Dwelling Units
	Retail	4,000 SF
B5		
	Residential	108 Dwelling Units
	Hotel	132 Rooms
	Restaurant	3,800 SF
	Function	5,800 SF
B6		
	Residential (Condos)	131 Dwelling Units
	Residential (Apartments)	14 Dwelling Units
B7		
	Marina Facilities	2,600 SF, 220 Slips

It should be noted that the retail portions of the proposed site will be multiple smaller shops, not large retail stores.

Parking Demand Calculation Methodologies

The parking demand has been determined using two methodologies: using the City Ordinance requirements and based on a shared parking demand. The following summarizes the methodologies in more detail:

City Ordinance Parking Demand

The Ordinance requirement methodology involves calculating the peak parking demand for each use using the City of Portland Code of Ordinances. This method assumes each use is isolated and then adds the individual demands to determine the parking demand for the site. The supporting calculations for this method are attached. This method results in an overestimate because the peak demands for each use are not expected to occur at the same time. For example, offices require more spaces during the day while employees are in the office, and residential buildings would require more spaces later at night when residents are home from work.

The City Ordinance Ch. 14, Art III, Div. 20, Sec. 14-332.2 (c) states, "where construction is proposed of new structures having a total floor area in excess of fifty thousand (50,000) square feet, the planning board shall establish the parking requirement for such structures. The parking requirement shall be determined based upon a parking analysis submitted by the applicant and upon the recommendation of the city transportation engineer." Since this mixed use development is approximately 958,679 sf of building floor area, it meets the criteria. Therefore, the site parking demand was determined based on the following methodology.

Shared Parking Plan

The shared parking plan methodology is based on a combination of City Ordinance parking demand, the ITE Parking Generation Manual (4th Edition), and published data / engineering judgement and it reflects that the demand for different uses will peak during different times of day. Since different uses do not peak at the same times, parking spaces can be shared between uses. To determine the shared parking demand, the total parking demand was calculated for each use, then distributed throughout the day based on the type of use. This is the same methodology used for the recent Thompson's Point project. The supporting calculations are attached. With a shared parking plan it is recommended that shared parking language be included in the leases, to ensure tenants understand the shared parking.

Parking Demand Reductions

Given the mixed use of the site as well as its downtown location, the following two parking demand reductions were applied to the shared parking spaces:

Shared Use Reduction

When evaluating a mixed use development with complementary uses such as this, the overall parking demand can be reduced due to the expectation that there will be some cross use between the individual facilities. For instance, it can be assumed that some of the people living in the apartments would also be those that visit the retail. Gorrill Palmer (GP) used the NCHRP 684 Internal Trip Capture Estimation Tool to calculate the reduction that can be applied to the trip generation. This calculated an internal trip capture of 14% for the AM peak hour and 17% for the PM peak hour. It can be assumed that parking demand can be reduced proportionally to the reduction in trip generation. To be conservative, GP used a shared use reduction of 14% throughout the day to estimate the parking demand. The following table summarizes the shared use reduction:

Shared Use Reduction Summary

Proposed	Ordinance	Shared Parking
B1-B6 Peak Parking Demand	919	690
Shared Use Reduction (14%)	-129	-97

Other Modes Reduction

The overall parking demand for a development in a downtown area can also be reduced due to the expectation that some people going to or from the site would use other modes of transportation such as transit, bicycle, or walking. The site is adjacent to an existing bus route as well as located on a bicycle and pedestrian path. The other modes reduction is based on information from the 2009-2013 American Community Survey (ACS) Five-Year Estimate by Census Tract. Based on this information Rick Harbison, Planner and GIS Specialist for the Greater Portland Council of Governments, created maps using GIS data that illustrate the estimated percentage of workers living in each Portland Census Tract that use each mode of transportation to commute to work. The site is located on the east side of Census Tract 3, which is a predominantly commercial area. Census Tracts 2 and 5 border the site and consist of primarily residential areas. Since the site is proposed to have a significant number of residential units as well as commercial space, the data from the combination of the three tracts is expected to be more representative of the actual conditions on the site than the data from the individual tracts. This reduction was calculated by dividing the estimated number of people walking, bicycling, and taking the bus to work in the three Census Tracts by the estimated total number

of working people in the same three Census Tracts. This calculation yields a 35.8% use of non-vehicular modes of transportation.

The GPCOG data is based on residents of the Census Tracts commuting to work, so it is applicable to the residential units, office space, and retail uses on the site. It was not clear if the 35.8% reduction would also be applicable to the restaurants and hotel, even though there are hotels and restaurants located within the boundaries of the three Census Tracts. GP searched for studies that included information on other modes of transportation for restaurants and hotels and found two sources that had information that could be compared to the other modes of transportation calculated using the Portland Census data. The following is a more detailed description of the relevant information found in the two studies:

The first study is *Contextual Influences on Trip Generation* (found in the United States Department of Transportation National Transportation Library online database or at the following link: http://ntl.bts.gov/lib/46000/46600/46699/CITG_FinalReport_Draft_10022012.pdf), a study for the Oregon Transportation Research and Education Consortium (OTREC) that compared the ITE predicted trip generation to the actual trip generation of 79 locations in Portland, Oregon, 39 of which were high turnover sit-down restaurants. The study also included surveying the visitors of those sites to determine what mode of transportation the visitors used. The results of the study are divided into different types of areas, ranging from central business district, which is considered the most urban area, to suburban areas, which is considered the least urban type of area surveyed. This study surveyed 12 restaurants in the central business district area and found that 35% of the patrons arrived to the sites using a car, while the remaining 65% walked, biked, or used transit (table attached). This result is higher than the 35.8% use of other modes calculated using the GPCOG information. Because the data is for Portland, Oregon it may not be appropriate to use as a reduction, but it does indicate that in an urban area a large portion of site traffic can be expected to use transit, bike, or walk.

The second source that included restaurant information is the National Cooperative Highway Research Program (NCHRP) Report 758, *Trip Generation Rates for Transportation Impact Analyses of Infill Developments*. This study used information from the Household Travel Survey (HTS) for the San Francisco Bay area and Metropolitan Washington D.C. and counted data and surveys at specific sites in those areas. The Washington D.C. HTS data for restaurants shows that approximately 40.3% of residents use transit, walk, or bicycle to and from high-turnover sit-down restaurants (table attached). The study only included one site that was counted and surveyed, so the HTS data could not be verified, however like the Portland, Oregon study, it is higher than the other modes reduction calculated using the GPCOG Census information. Like the Portland, Oregon study, this data indicates that in an urban area a large portion of site traffic can be expected to use transit, bike, or walk.

Based on these two additional sources that contain information specific to restaurant uses, GP determined that the other modes reduction of 35.8% calculated from the GPCOG Census

information that is based on the existing transit system can be applied to the restaurant parking demand. Although the other two studies showed higher percentages of people using alternative modes of transportation to go to or from restaurants, since they are not specific to Portland, Maine, the local data is expected to be closer to the actual conditions that would be seen at the 58 Fore Street development.

The two studies discussed above included information about restaurants, but did not have any data for hotels. Based on our research there is limited information available about modes of transportation used at hotels. It can be assumed for the 58 Fore Street site that hotel employees may take the bus, bike, or walk to get to and from work and some hotel guests may arrive by boat using the marina. To be conservative, GP only used an "other modes of transportation" reduction of 10% for the hotel.

The following table summarizes the other modes of transportation reduction for the site:

Other Modes of Transportation Reduction Summary

Proposed	Ordinance	Shared Parking
B1-B6 Peak Parking Demand w/o Hotel	886	677
Hotel Peak Parking Demand	33	13
Other Modes Reduction (35.8% of B1-B6 Demand w/o Hotel)	-317	-242
Hotel Other Modes Reduction (10% of Hotel Demand)	-3	-1
Total Other Modes Reduction	**-320**	**-243**

Marina Parking Demand

The City Ordinance does not include a parking requirement for marina facilities. The parking demand for the proposed marina is based on information from Applied Technology & Management (ATM). The new marina is proposed to have 220 slips that will service off-site Portland residents, on-site Portland residents, and transient boaters. ATM provided a range of parking rates from one space for every two slips to one space for every four slips. ITE has limited marina parking information available, however the ATM parking rates appear to be consistent with the ITE data. To be conservative, GP used a requirement of one parking space for every two slips. ATM expects peak usage of the marina to be 10% of the slips, but possibly higher since Maine has a shorter boating season. To be conservative, GP assumed that the peak demand would be 15% of the slips. ATM also stated that there would be approximately 9 employees at this marina, therefore GP included an additional 5% to include spaces for employees, giving a total peak demand estimation of 20% of the slips. Because of the nature of a marina use, the two parking demand reductions that were applied to the rest of the site were not applied to the

marina parking demand. Although it is possible that marina users visit other uses on site or use alternative modes of transportation to get to the site, to be conservative the reductions were not applied.

Dedicated Parking Spaces

Often in large developments, a portion of parking spaces are dedicated to a specific use. For example, residential units may have spaces assigned to each unit or a group of spaces may be reserved for use by only an office. These dedicated spaces would not be shared by any other site uses. The number of dedicated parking spaces is added to the number of shared parking spaces to determine the total site demand. On this site, there are 298 dedicated parking spaces proposed. These spaces include; half of the residential units in B1, all the residential units in B5, and all the residential units in B6. The two parking demand reductions that were applied to the rest of the site were not applied to the dedicated parking spaces, since the spaces will not be shared and will be provided for the peak demand regardless of the expected use of transit, bicycles, or walking.

Parking Demand Summary

The following table summarizes the overall parking demand for the site, including the reductions, based on both the Ordinance and the Shared Parking demand methodologies:

Parking Demand Summary

Proposed	Ordinance	Shared Parking
B1-B6 Shared Parking Demand	919	690
Shared Use Reduction	-129	-97
Other Mode Reduction	-320	-243
B1-B6 Total Shared Parking Demand	**470**	**350**
B7 (Marina) Parking Demand	110	22
B1-B7 Total Parking Demand	**580**	**372**
B1-B7 Dedicated Parking	298	298
Net Parking Demand	**878**	**670**

As shown in the table, the proposed parking demand, including reductions, based on the Ordinance and isolated uses is forecast to be 878 spaces and the parking demand based on shared parking is 670 spaces. The parking demand based on the City Ordinance is higher than the shared parking demand because it assumes all uses will require their peak parking demand concurrently whereas the shared parking demand considers the different uses peaking at different times of day.

It should be noted that a parking facility can be considered full when it is approximately 85% occupied. This is because a driver may not see empty parking spaces when the lot is almost completely occupied, especially in a larger parking area. **To ensure the peak parking demand is satisfied, the recommended number of spaces is 736 (372 spaces / 0.85 + 298 spaces).** This assumes that shared spaces are generally available to all users. The increase is not applied to the dedicated parking spaces because it is assumed that they will be visible and easy for the designated users to find.

The marina may also have additional parking needs, such as temporary parking spaces for visitors to drop off passengers or supplies near their boat before parking their vehicle and for fueling trucks and provisional vehicles that service the mega-yachts. These other parking spaces should be considered in addition to the estimated peak parking demand for the visitors and employees.

Bicycle Parking

Per City Ordinance, new uses are required to provide bicycle accommodations based on the type of use. Residential structures are required to provide 2 bicycle spaces for every 5 dwelling units. Non-residential structures are required to provide 2 bicycle parking spaces for every 10 vehicle parking spaces for the first 100 required spaces, plus one bicycle parking space for every 20 required vehicle parking spaces over the 100 vehicle parking spaces. The following table shows the required bicycle parking for the Ordinance vehicle parking demand and the Shared Parking demand:

Bicycle Parking Summary

	Ordinance	Shared Parking
Parking Variable	409 Spaces, 638 Units	322 Spaces, 638 Units
Residential Bicycle Spaces	256	256
Non-Residential Bicycle Spaces	36	31
Total	**292**	**287**

As shown in the table, the site will require 287-292 bicycle parking spaces to meet the City Ordinance Requirements for bicycle accommodations. The Transportation Demand Management (TDM) plan will outline a more detailed approach to incorporating bicycle parking on site.

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JOB 3138-58 Fore Street Redevelopment
SHEET NO. _____ OF _____
CALCULATED BY ET DATE 8/26/16
CHECKED BY _____ DATE _____
SCALE _____

Marina Trip Generation

Info from ATM:
- 220 slips → 140 seasonal users, 80 transient boaters
- Daily usage peaks around 10%, maybe more
- 10% of daily non-transient users are on-site residents
- 90% of daily non-transient users are offsite residents
- 30% of off site residents are Islanders commuting to the Peninsula
- 9 marina employees
- 4 mega-yacht slips

Assumptions:
- 15% of slips is peak daily usage to be conservative (33 slips)
- 36% are transient boaters (80/220 = 36% → 12 slips)
- 21 non-transient slips used during peak (33 slips - 12 slips)
- 2 on-site residents used slips during peak (21 × 0.10 = 2.1)
- 19 off-site residents use slips during peak (21 × 0.90 = 18.9)
- 6 Islanders commuting to Peninsula (19 × 0.30 = 5.7)
- 1 provisioning vehicle per mega-yacht slip (conservative)
- Transient boaters = 0 trip ends
- on-site residents = 0 trip ends
- off-site residents = 1 AM trip end, 1 PM trip end
  - Islanders leave during AM and return during PM
  - other off-site enter during AM and exit during PM
- Employees enter during AM and exit during PM
- Provisioning vehicles enter and exit during the peak hour (conservative)

AM Peak Hour
- 9 employees in
- 6 islanders out
- 13 seasonal in
- 4 provisional veh. in
- 4 provisional veh. out

36 trip ends (26 in / 10 out)

PM Peak Hour
- 9 employees out
- 6 Islanders in
- 13 seasonal out
- 4 provisional veh in
- 4 provisional veh out

36 trip ends (10 in / 26 out)

Appendix C
Capacity Analysis Results

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	4372	4255	4290	4256	4352	4303
Vehs Exited	4367	4259	4271	4246	4370	4301
Starting Vehs	80	85	67	76	91	75
Ending Vehs	85	81	86	86	73	78
Denied Entry Before	1	1	1	2	0	0
Denied Entry After	1	2	0	0	1	0
Travel Distance (mi)	1199	1181	1177	1180	1198	1187
Travel Time (hr)	78.5	76.6	77.1	76.8	79.0	77.6
Total Delay (hr)	33.5	32.1	32.9	32.1	33.8	32.9
Total Stops	5922	5903	5875	5873	6020	5918
Fuel Used (gal)	62.4	61.7	61.0	61.6	62.4	61.8

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	4372	4255	4290	4256	4352	4303
Vehs Exited	4367	4259	4271	4246	4370	4301
Starting Vehs	80	85	67	76	91	75
Ending Vehs	85	81	86	86	73	78
Denied Entry Before	1	1	1	2	0	0
Denied Entry After	1	2	0	0	1	0
Travel Distance (mi)	1199	1181	1177	1180	1198	1187
Travel Time (hr)	78.5	76.6	77.1	76.8	79.0	77.6
Total Delay (hr)	33.5	32.1	32.9	32.1	33.8	32.9
Total Stops	5922	5903	5875	5873	6020	5918
Fuel Used (gal)	62.4	61.7	61.0	61.6	62.4	61.8

1: Thames St & India St Performance by approach

Approach	EB	WB	SE	All
Denied Del/Veh (s)	0.0	0.2	0.1	0.1
Total Del/Veh (s)	6.4	7.2	5.3	5.9
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.3	0.0	0.1
Total Del/Veh (s)	6.8	8.0	8.4	6.1	7.5
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	2.3	1.1	5.8	6.2	2.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	5.6	0.5	0.5	1.4
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: 100 Fore St & Existing Driveways & Fore Performance by approach

Approach	EB	WB	NB	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	1.8	0.0
Total Del/Veh (s)	0.6	0.5	5.7	3.8	0.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

6: Fore & Waterville St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.2	0.1
Total Del/Veh (s)	3.0	0.4	0.2	0.5
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

7: Congress St Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.2	0.2	0.2	0.2
Total Del/Veh (s)	13.5	15.8	8.1	10.4
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.3	0.1
Total Del/Veh (s)	15.7	9.1	5.8	16.5	10.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.5	1.7	0.2	0.5
Total Del/Veh (s)	10.2	9.0	11.8	10.9	9.9
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial & Franklin Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	2.6	1.3	0.0	0.7
Total Del/Veh (s)	16.5	32.1	16.5	20.2	19.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

38: Fore & Franklin/Franklin St. Performance by approach

Approach	NB	SE	NW	SW	All
Denied Del/Veh (s)	2.8	0.1	0.0	0.0	0.5
Total Del/Veh (s)	11.8	16.0	19.2	17.3	16.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St./Middle St & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.3	0.0	0.2	1.3	0.3
Total Del/Veh (s)	14.9	16.9	15.3	14.1	15.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	26.3
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: Thames St & India St

Movement	EB	EB	WB	SE
Directions Served	L	T	TR	LR
Maximum Queue (ft)	61	65	54	137
Average Queue (ft)	40	35	30	68
95th Queue (ft)	59	56	49	116
Link Distance (ft)		495	636	243
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	35			
Storage Blk Time (%)	9	6		
Queuing Penalty (veh)	8	9		

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	72	119	113	73
Average Queue (ft)	35	53	54	35
95th Queue (ft)	62	94	89	59
Link Distance (ft)	527	351	328	243
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	22	54	45	61
Average Queue (ft)	2	9	19	24
95th Queue (ft)	14	37	37	49
Link Distance (ft)	351	421	224	227
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	76	34
Average Queue (ft)	29	2
95th Queue (ft)	56	16
Link Distance (ft)	1097	421
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: 100 Fore St & Existing Driveways & Fore

Movement	EB	WB	NB	NW	NW
Directions Served	TR>	<LT	LR	L	R
Maximum Queue (ft)	4	38	59	30	30
Average Queue (ft)	0	4	11	4	3
95th Queue (ft)	3	22	42	20	20
Link Distance (ft)	386	549	182	230	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					25
Storage Blk Time (%)				0	0
Queuing Penalty (veh)				0	0

Intersection: 6: Fore & Waterville St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	44	30
Average Queue (ft)	20	2
95th Queue (ft)	43	13
Link Distance (ft)	739	549
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Congress St

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	151	151	94	237
Average Queue (ft)	74	73	76	86
95th Queue (ft)	121	129	108	178
Link Distance (ft)	629	351		542
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			9	3
Queuing Penalty (veh)			27	11

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	52	180	139	103	77	195
Average Queue (ft)	17	57	71	38	15	89
95th Queue (ft)	45	130	139	79	49	161
Link Distance (ft)	1097	196		542		386
Upstream Blk Time (%)		0				
Queuing Penalty (veh)		1				
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		0	2	1	0	
Queuing Penalty (veh)		1	2	1	0	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	154	251	74	92	120
Average Queue (ft)	64	112	24	37	58
95th Queue (ft)	129	198	52	75	98
Link Distance (ft)	196	557		310	297
Upstream Blk Time (%)	0				
Queuing Penalty (veh)	1				
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			0	1	
Queuing Penalty (veh)			0	0	

Intersection: 11: Commercial & Franklin

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	LT	R
Maximum Queue (ft)	113	96	177	58	145	62	140	175	93	220	126
Average Queue (ft)	38	32	66	29	54	24	59	70	29	119	20
95th Queue (ft)	87	75	140	60	122	60	111	135	72	190	72
Link Distance (ft)		306	306		265			299	299	495	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			25		25	160				150
Storage Blk Time (%)				28	27	17		0		3	
Queuing Penalty (veh)				20	19	15		0		1	

Intersection: 38: Fore & Franklin/Franklin St.

Movement	NB	NB	SE	SE	NW	NW	SW
Directions Served	L	R>	LT	TR	LT	TR	<LR
Maximum Queue (ft)	80	95	195	246	82	79	166
Average Queue (ft)	21	50	96	113	31	24	88
95th Queue (ft)	58	89	175	204	65	63	146
Link Distance (ft)	195		247	247	306	306	527
Upstream Blk Time (%)				0			
Queuing Penalty (veh)				1			
Storage Bay Dist (ft)		75					
Storage Blk Time (%)	0	4					
Queuing Penalty (veh)	0	2					

Intersection: 43: Middle St./Middle St & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	SW	SW
Directions Served	LT	TR	LT	TR	LTR	LT	R
Maximum Queue (ft)	212	242	128	165	109	106	68
Average Queue (ft)	100	128	60	69	56	37	19
95th Queue (ft)	179	219	108	131	103	80	53
Link Distance (ft)	450	450	247	247	546	292	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							50
Storage Blk Time (%)						6	1
Queuing Penalty (veh)						2	1

Network Summary

Network wide Queuing Penalty: 122

Intersection: 7: Congress St

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	10.0	30.0	25.0	45.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	None	None	None
Avg. Green (s)	10.8	12.4	11.0	23.8
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	22	28	30	13
Cycles @ Minimum (%)	4	20	29	18
Cycles Maxed Out (%)	49	0	1	3
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	20.0	20.0	15.0	44.0	15.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	17.0	11.5	10.8	35.1	10.8
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	17	15	33	23	33
Cycles @ Minimum (%)	9	1	23	1	23
Cycles Maxed Out (%)	41	7	10	16	10
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	25.0	25.0	25.0	25.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	12.3	19.2	12.3	19.2
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	11	3	11	3
Cycles @ Minimum (%)	1	1	1	1
Cycles Maxed Out (%)	1	36	1	36
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 11: Commercial & Franklin

Phase	2	4	5	6	8
Movement(s) Served	NBT	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	46.0	19.0	16.0	24.0	7.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0
Recall	None	None	None	None	None
Avg. Green (s)	34.4	12.3	11.1	19.0	8.7
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	11	16	13	6	20
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	7	13	17	37	56
Cycles with Peds (%)	26	2	0	24	9

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 38: Fore & Franklin/Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NBL	SETL	SWL
Maximum Green (s)	34.0	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	None	None	None	None
Avg. Green (s)	21.9	22.1	21.7	22.3
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	34	10	12	18
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	7	3	9	3
Cycles with Peds (%)	3	58	23	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 43: Middle St./Middle St & Franklin St. /Franklin St.

Phase	2	3	6
Movement(s) Served	SETL	NESW	NWTL
Maximum Green (s)	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0
Recall	None	None	None
Avg. Green (s)	24.9	19.0	25.5
g/C Ratio	-0.01	-0.01	-0.01
Cycles Skipped (%)	4	10	22
Cycles @ Minimum (%)	0	0	0
Cycles Maxed Out (%)	29	0	25
Cycles with Peds (%)	0	31	4

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	4874	4799	4748	4773	4684	4775
Vehs Exited	4869	4789	4746	4770	4669	4768
Starting Vehs	101	83	103	94	83	84
Ending Vehs	106	93	105	97	98	92
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	1	1	0	0	2	0
Travel Distance (mi)	1506	1506	1499	1479	1446	1487
Travel Time (hr)	97.7	97.3	96.4	95.7	92.3	95.8
Total Delay (hr)	42.0	41.6	40.9	40.9	38.7	40.8
Total Stops	7144	7171	7082	7039	6829	7054
Fuel Used (gal)	76.3	76.2	75.4	75.2	72.4	75.1

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	4874	4799	4748	4773	4684	4775
Vehs Exited	4869	4789	4746	4770	4669	4768
Starting Vehs	101	83	103	94	83	84
Ending Vehs	106	93	105	97	98	92
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	1	1	0	0	2	0
Travel Distance (mi)	1506	1506	1499	1479	1446	1487
Travel Time (hr)	97.7	97.3	96.4	95.7	92.3	95.8
Total Delay (hr)	42.0	41.6	40.9	40.9	38.7	40.8
Total Stops	7144	7171	7082	7039	6829	7054
Fuel Used (gal)	76.3	76.2	75.4	75.2	72.4	75.1

1: Thames St & India St Performance by approach

Approach	EB	WB	SE	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.0
Total Del/Veh (s)	7.7	7.4	5.5	6.8
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.1	0.4	0.0	0.1
Total Del/Veh (s)	8.4	10.6	10.3	7.1	9.5
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	2.5	1.4	8.4	7.5	2.6
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	6.8	0.6	0.8	1.7
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: Proposed New Road & Fore Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.7	0.8	6.2	1.2
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

6: Fore & Site Driveway/Waterville St Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.2	0.1
Total Del/Veh (s)	3.3	6.1	0.5	0.3	1.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

7: Congress St & India St Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.2	0.2	0.2	0.2
Total Del/Veh (s)	13.4	15.8	9.5	11.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.3	0.1
Total Del/Veh (s)	16.9	9.5	6.2	17.1	10.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.5	1.7	0.3	0.5
Total Del/Veh (s)	12.9	11.8	12.7	11.0	12.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial & Franklin Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	2.5	1.1	0.0	0.6
Total Del/Veh (s)	17.2	33.3	16.7	21.2	19.5
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

23: Thames St/Site Access & Proposed New Road Performance by approach

Approach	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.0
Total Del/Veh (s)	5.3	2.8	0.5	2.7
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

38: Fore & Franklin/Franklin St. Performance by approach

Approach	NB	SE	NW	SW	All
Denied Del/Veh (s)	2.8	0.1	0.0	0.0	0.5
Total Del/Veh (s)	13.7	17.5	18.1	18.5	17.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St./Middle St & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.4	0.0	0.2	1.7	0.4
Total Del/Veh (s)	16.7	16.0	16.8	14.5	16.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	29.6
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: Thames St & India St

Movement	EB	EB	WB	SE
Directions Served	L	T	TR	LR
Maximum Queue (ft)	63	98	59	150
Average Queue (ft)	44	47	37	68
95th Queue (ft)	63	77	55	112
Link Distance (ft)		495	1144	243
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	35			
Storage Blk Time (%)	10	13		
Queuing Penalty (veh)	19	18		

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	114	178	140	82
Average Queue (ft)	46	71	68	39
95th Queue (ft)	87	133	113	65
Link Distance (ft)	528	351	343	243
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	37	67	48	68
Average Queue (ft)	3	13	18	27
95th Queue (ft)	19	45	39	52
Link Distance (ft)	351	421	224	227
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE	SW
Directions Served	LR	LT	TR
Maximum Queue (ft)	95	64	4
Average Queue (ft)	35	7	0
95th Queue (ft)	69	37	3
Link Distance (ft)	1097	421	398
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Proposed New Road & Fore

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	62	60
Average Queue (ft)	5	27
95th Queue (ft)	30	49
Link Distance (ft)	555	328
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Fore & Site Driveway/Waterville St

Movement	SE	NW	NE
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	39	51	29
Average Queue (ft)	21	26	2
95th Queue (ft)	43	47	16
Link Distance (ft)	739	228	555
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Congress St & India St

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	169	156	94	284
Average Queue (ft)	81	76	82	103
95th Queue (ft)	137	131	107	219
Link Distance (ft)	611	350		542
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			14	4
Queuing Penalty (veh)			40	16

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	88	186	140	137	95	177
Average Queue (ft)	30	68	78	43	20	83
95th Queue (ft)	65	146	149	95	64	144
Link Distance (ft)	1097	196		542		386
Upstream Blk Time (%)		0				
Queuing Penalty (veh)		1				
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		0	3	1	0	
Queuing Penalty (veh)		1	4	1	0	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	202	305	68	100	136
Average Queue (ft)	81	138	25	39	63
95th Queue (ft)	166	250	53	79	108
Link Distance (ft)	196	815		310	297
Upstream Blk Time (%)	1				
Queuing Penalty (veh)	3				
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			0	1	
Queuing Penalty (veh)			0	1	

Intersection: 11: Commercial & Franklin

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	LT	R
Maximum Queue (ft)	128	119	179	55	158	67	162	212	88	259	154
Average Queue (ft)	53	35	69	26	47	23	64	87	27	127	43
95th Queue (ft)	108	86	136	56	113	60	123	161	65	216	116
Link Distance (ft)		308	308		265			296	296	495	
Upstream Blk Time (%)								0			
Queuing Penalty (veh)								0			
Storage Bay Dist (ft)	200			25		25	160				150
Storage Blk Time (%)				23	27	17	0	1		5	0
Queuing Penalty (veh)				17	19	15	0	1		3	0

Intersection: 23: Thames St/Site Access & Proposed New Road

Movement	SB	NE
Directions Served	LR	LT
Maximum Queue (ft)	57	6
Average Queue (ft)	31	0
95th Queue (ft)	47	4
Link Distance (ft)	328	1144
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 38: Fore & Franklin/Franklin St.

Movement	NB	NB	SE	SE	NW	NW	SW
Directions Served	L	R>	LT	TR	LT	TR	<LR
Maximum Queue (ft)	124	96	244	236	98	96	228
Average Queue (ft)	24	51	138	109	36	27	112
95th Queue (ft)	74	91	232	202	75	71	185
Link Distance (ft)	254		247	247	308	308	528
Upstream Blk Time (%)			0	0			
Queuing Penalty (veh)			1	0			
Storage Bay Dist (ft)		75					
Storage Blk Time (%)	0	4					
Queuing Penalty (veh)	0	2					

Intersection: 43: Middle St./Middle St & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	SW	SW
Directions Served	LT	TR	LT	TR	LTR	LT	R
Maximum Queue (ft)	276	244	162	196	148	135	70
Average Queue (ft)	136	124	68	81	61	42	26
95th Queue (ft)	226	211	131	152	115	93	63
Link Distance (ft)	492	492	247	247	546	292	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							50
Storage Blk Time (%)						8	1
Queuing Penalty (veh)						4	1

Network Summary

Network wide Queuing Penalty: 169

Intersection: 7: Congress St & India St

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	10.0	30.0	25.0	45.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	None	None	None
Avg. Green (s)	10.7	12.5	11.4	23.4
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	21	29	26	13
Cycles @ Minimum (%)	4	19	30	17
Cycles Maxed Out (%)	54	0	0	3
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	20.0	20.0	15.0	44.0	15.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	17.3	11.3	11.6	32.9	11.6
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	18	12	26	16	26
Cycles @ Minimum (%)	8	1	18	0	18
Cycles Maxed Out (%)	46	8	20	16	20
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	25.0	25.0	25.0	25.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	12.9	20.5	12.9	20.5
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	11	1	11	1
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	2	51	2	51
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 11: Commercial & Franklin

Phase	2	4	5	6	8
Movement(s) Served	NBT	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	46.0	19.0	16.0	24.0	7.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0
Recall	None	None	None	None	None
Avg. Green (s)	34.2	13.9	11.5	20.1	8.9
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	8	10	19	4	21
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	10	20	21	46	56
Cycles with Peds (%)	27	6	0	29	12

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 38: Fore & Franklin/Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NBL	SETL	SWL
Maximum Green (s)	34.0	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	None	None	None	None
Avg. Green (s)	25.0	24.2	24.9	23.9
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	23	8	5	8
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	21	7	23	7
Cycles with Peds (%)	5	64	25	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 43: Middle St./Middle St & Franklin St. /Franklin St.

Phase	2	3	6
Movement(s) Served	SETL	NESW	NWTL
Maximum Green (s)	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0
Recall	None	None	None
Avg. Green (s)	27.2	20.3	27.7
g/C Ratio	-0.01	-0.01	-0.01
Cycles Skipped (%)	2	6	16
Cycles @ Minimum (%)	0	0	0
Cycles Maxed Out (%)	42	0	38
Cycles with Peds (%)	0	34	5

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	5799	5806	5781	5983	5683	5815
Vehs Exited	5724	5781	5802	5961	5709	5793
Starting Vehs	119	93	154	124	147	118
Ending Vehs	194	118	133	146	121	135
Denied Entry Before	1	2	0	1	2	0
Denied Entry After	2	2	1	0	1	1
Travel Distance (mi)	1832	1815	1830	1867	1801	1829
Travel Time (hr)	144.5	133.1	129.5	138.7	125.4	134.2
Total Delay (hr)	76.9	66.0	61.9	69.8	58.8	66.7
Total Stops	8918	8862	8600	9035	8563	8790
Fuel Used (gal)	96.2	93.5	92.7	97.3	91.3	94.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	5799	5806	5781	5983	5683	5815
Vehs Exited	5724	5781	5802	5961	5709	5793
Starting Vehs	119	93	154	124	147	118
Ending Vehs	194	118	133	146	121	135
Denied Entry Before	1	2	0	1	2	0
Denied Entry After	2	2	1	0	1	1
Travel Distance (mi)	1832	1815	1830	1867	1801	1829
Travel Time (hr)	144.5	133.1	129.5	138.7	125.4	134.2
Total Delay (hr)	76.9	66.0	61.9	69.8	58.8	66.7
Total Stops	8918	8862	8600	9035	8563	8790
Fuel Used (gal)	96.2	93.5	92.7	97.3	91.3	94.2

1: India St & Thames St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.0
Total Del/Veh (s)	5.2	8.8	6.6	7.4
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.1	0.2	0.0	0.1
Total Del/Veh (s)	9.2	8.8	8.9	8.7	8.9
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	2.6	0.9	6.5	6.0	2.9
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	4.8	1.1	0.6	1.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: 100 Fore St & Existing Driveways & Fore Performance by approach

Approach	EB	WB	NB	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.8	0.1
Total Del/Veh (s)	0.6	0.7	7.6	8.8	1.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

6: Fore & Waterville St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.2	0.0
Total Del/Veh (s)	2.8	0.8	0.2	0.7
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

7: Congress St & India St Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.6	0.4	0.0	0.4
Total Del/Veh (s)	36.8	22.0	13.9	25.6
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.2	0.1
Total Del/Veh (s)	32.1	11.5	23.6	28.4	22.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	0.3	2.2	0.2	0.7
Total Del/Veh (s)	18.0	35.7	14.3	11.1	21.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial/Commercial St & Franklin Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	4.9	1.5	0.2	1.2
Total Del/Veh (s)	17.1	45.1	18.8	22.5	22.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	1	0	1

38: Fore & Franklin/Franklin St. Performance by approach

Approach	NB	SE	NW	SW	All
Denied Del/Veh (s)	2.7	0.1	0.0	0.1	0.7
Total Del/Veh (s)	16.0	20.2	19.5	20.6	19.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St. & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	1.0	0.0	0.4	1.9	0.7
Total Del/Veh (s)	25.5	18.6	22.2	12.2	20.8
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	1.1
Total Del/Veh (s)	39.4
Denied Entry Before	0
Denied Entry After	1

Intersection: 1: India St & Thames St

Movement	SE	NE	NE	SW
Directions Served	LR	L	T	TR
Maximum Queue (ft)	70	62	119	68
Average Queue (ft)	34	51	53	36
95th Queue (ft)	53	66	93	56
Link Distance (ft)	230		495	666
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		35		
Storage Blk Time (%)		18	9	
Queuing Penalty (veh)		24	21	

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	119	110	116	105
Average Queue (ft)	53	49	47	54
95th Queue (ft)	92	85	84	90
Link Distance (ft)	516	340	273	230
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	22	47	36	92
Average Queue (ft)	1	6	16	41
95th Queue (ft)	10	26	35	73
Link Distance (ft)	340	418	194	210
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	52	58
Average Queue (ft)	19	10
95th Queue (ft)	41	39
Link Distance (ft)	1093	418
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: 100 Fore St & Existing Driveways & Fore

Movement	EB	WB	NB	NW	NW
Directions Served	TR>	<LT	LR	L	R
Maximum Queue (ft)	4	52	57	40	32
Average Queue (ft)	0	7	23	16	5
95th Queue (ft)	3	30	49	42	25
Link Distance (ft)	394	536	232	256	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					25
Storage Blk Time (%)				4	1
Queuing Penalty (veh)				0	0

Intersection: 6: Fore & Waterville St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	44	49
Average Queue (ft)	19	5
95th Queue (ft)	42	27
Link Distance (ft)	792	536
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Congress St & India St

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	630	291	94	208
Average Queue (ft)	263	156	68	86
95th Queue (ft)	517	256	106	162
Link Distance (ft)	1066	318		534
Upstream Blk Time (%)	1	0		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			7	9
Queuing Penalty (veh)			16	15

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	210	164	134	518	100	221
Average Queue (ft)	84	47	43	205	70	98
95th Queue (ft)	167	114	107	470	132	174
Link Distance (ft)	1093	199		534		330
Upstream Blk Time (%)		0		2		0
Queuing Penalty (veh)		0		12		0
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		1	1	28	1	
Queuing Penalty (veh)		2	1	55	4	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	219	524	104	168	87
Average Queue (ft)	176	197	66	78	40
95th Queue (ft)	255	409	111	143	73
Link Distance (ft)	199	1555		234	264
Upstream Blk Time (%)	12				
Queuing Penalty (veh)	76				
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			4	4	
Queuing Penalty (veh)			9	8	

Intersection: 11: Commercial/Commercial St & Franklin

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	LT	R
Maximum Queue (ft)	77	102	168	58	155	57	183	267	44	225	175
Average Queue (ft)	30	49	62	28	91	34	100	93	14	95	37
95th Queue (ft)	68	96	128	63	154	66	168	191	33	175	92
Link Distance (ft)		308	308		133			300	300	495	
Upstream Blk Time (%)					9			0			
Queuing Penalty (veh)					0			0			
Storage Bay Dist (ft)	200			25		25	160				150
Storage Blk Time (%)				19	56	24	2	1		3	0
Queuing Penalty (veh)				25	41	33	5	2		2	0

Intersection: 38: Fore & Franklin/Franklin St.

Movement	NB	NB	SE	SE	NW	NW	SW
Directions Served	L	R>	LT	TR	LT	TR	<LR
Maximum Queue (ft)	206	100	254	219	152	135	245
Average Queue (ft)	86	80	127	113	65	43	122
95th Queue (ft)	186	115	216	204	129	107	211
Link Distance (ft)	193		240	240	308	308	516
Upstream Blk Time (%)	1		0	0			
Queuing Penalty (veh)	0		1	1			
Storage Bay Dist (ft)		75					
Storage Blk Time (%)	3	13					
Queuing Penalty (veh)	9	22					

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	SW	SW
Directions Served	LT	TR	LT	TR	LTR	LT	R
Maximum Queue (ft)	297	280	179	205	256	159	75
Average Queue (ft)	167	127	102	115	145	61	40
95th Queue (ft)	292	239	165	185	226	122	81
Link Distance (ft)	309	309	240	240	546	468	
Upstream Blk Time (%)	3	1		0			
Queuing Penalty (veh)	0	0		0			
Storage Bay Dist (ft)							50
Storage Blk Time (%)						16	1
Queuing Penalty (veh)						19	3

Network Summary

Network wide Queuing Penalty: 408

Intersection: 7: Congress St & India St

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	10.0	30.0	25.0	45.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	None	None	None
Avg. Green (s)	7.7	19.2	23.0	28.7
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	22	0	0	0
Cycles @ Minimum (%)	0	2	0	9
Cycles Maxed Out (%)	21	11	71	3
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	20.0	20.0	15.0	44.0	15.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	18.9	13.4	13.1	35.8	13.1
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	3	11	7	5	7
Cycles @ Minimum (%)	3	0	9	0	9
Cycles Maxed Out (%)	79	20	45	21	45
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	25.0	25.0	25.0	25.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	17.6	24.4	17.6	24.4
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	18	86	18	86
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 11: Commercial/Commercial St & Franklin

Phase	2	4	5	6	8
Movement(s) Served	NBT	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	46.0	19.0	16.0	24.0	7.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0
Recall	None	None	None	None	None
Avg. Green (s)	40.4	13.6	13.1	22.4	9.2
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	2	4	2	2	4
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	30	22	39	73	84
Cycles with Peds (%)	77	9	0	69	13

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 38: Fore & Franklin/Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NBL	SETL	SWL
Maximum Green (s)	34.0	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	None	None	None	None
Avg. Green (s)	28.4	28.9	28.0	29.4
g/C Ratio	-0.01	NA	NA	-0.01
Cycles Skipped (%)	6	0	0	10
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	35	35	35	33
Cycles with Peds (%)	12	88	47	0

Controller Summary
Average Cycle Length (s): NA
Number of Complete Cycles : 0

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Phase	2	3	6
Movement(s) Served	SETL	NESW	NWTL
Maximum Green (s)	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0
Recall	None	None	None
Avg. Green (s)	31.3	30.7	31.0
g/C Ratio	NA	NA	NA
Cycles Skipped (%)	0	0	0
Cycles @ Minimum (%)	0	0	0
Cycles Maxed Out (%)	65	40	65
Cycles with Peds (%)	2	58	8

Controller Summary
Average Cycle Length (s): NA
Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	6344	6450	6482	6344	6358	6401
Vehs Exited	6326	6421	6460	6304	6341	6372
Starting Vehs	157	135	150	170	143	145
Ending Vehs	175	164	172	210	160	170
Denied Entry Before	2	0	0	2	2	0
Denied Entry After	2	2	2	0	1	0
Travel Distance (mi)	2556	2590	2597	2537	2544	2565
Travel Time (hr)	163.8	178.3	177.9	180.2	181.9	176.4
Total Delay (hr)	73.6	86.9	86.2	90.6	91.8	85.9
Total Stops	10222	10745	10612	10555	10705	10570
Fuel Used (gal)	119.4	123.5	124.1	123.2	123.3	122.7

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	6344	6450	6482	6344	6358	6401
Vehs Exited	6326	6421	6460	6304	6341	6372
Starting Vehs	157	135	150	170	143	145
Ending Vehs	175	164	172	210	160	170
Denied Entry Before	2	0	0	2	2	0
Denied Entry After	2	2	2	0	1	0
Travel Distance (mi)	2556	2590	2597	2537	2544	2565
Travel Time (hr)	163.8	178.3	177.9	180.2	181.9	176.4
Total Delay (hr)	73.6	86.9	86.2	90.6	91.8	85.9
Total Stops	10222	10745	10612	10555	10705	10570
Fuel Used (gal)	119.4	123.5	124.1	123.2	123.3	122.7

1: India St & Thames St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.1
Total Del/Veh (s)	5.6	9.6	8.1	8.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.1	0.3	0.0	0.1
Total Del/Veh (s)	12.9	12.2	11.2	9.3	11.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	2.8	1.0	8.0	8.0	3.1
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	7.6	1.1	0.8	1.7
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: Proposed New Road & Fore Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.9	0.6	9.1	2.0
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

6: Fore & Site Driveway/Waterville St Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.2	0.1
Total Del/Veh (s)	2.5	6.8	1.2	0.2	1.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

7: Congress St & India St Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.5	0.4	0.0	0.3
Total Del/Veh (s)	29.0	28.3	14.5	24.2
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.3	0.1
Total Del/Veh (s)	19.7	10.7	17.2	16.5	15.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.4	2.2	0.2	0.7
Total Del/Veh (s)	12.5	32.7	15.8	12.0	18.9
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial/Commercial St & Franklin Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	1.9	1.4	0.2	0.8
Total Del/Veh (s)	19.2	44.1	18.6	23.5	22.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

18: Thames St/Site Access & Proposed New Road Performance by approach

Approach	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.1
Total Del/Veh (s)	5.2	2.8	1.0	2.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

38: Fore & Franklin/Franklin St. Performance by approach

Approach	NB	SE	NW	SW	All
Denied Del/Veh (s)	2.6	0.2	0.0	0.5	0.8
Total Del/Veh (s)	20.5	25.0	20.5	25.1	23.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St. & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.3	0.0	0.5	2.0	0.5
Total Del/Veh (s)	72.8	20.4	26.4	13.7	39.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	46.4
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: India St & Thames St

Movement	SE	NE	NE	SW
Directions Served	LR	L	T	TR
Maximum Queue (ft)	67	70	131	88
Average Queue (ft)	36	53	60	47
95th Queue (ft)	55	68	108	71
Link Distance (ft)	230		495	1115
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		35		
Storage Blk Time (%)		19	16	
Queuing Penalty (veh)		40	38	

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	158	175	132	118
Average Queue (ft)	77	77	60	56
95th Queue (ft)	138	138	107	93
Link Distance (ft)	515	340	312	230
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	25	50	42	112
Average Queue (ft)	2	8	19	42
95th Queue (ft)	16	32	41	79
Link Distance (ft)	340	418	194	210
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	70	74
Average Queue (ft)	27	16
95th Queue (ft)	55	53
Link Distance (ft)	1093	418
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Proposed New Road & Fore

Movement	WB	NB	NB
Directions Served	LT	L	R
Maximum Queue (ft)	39	79	49
Average Queue (ft)	5	32	17
95th Queue (ft)	24	60	49
Link Distance (ft)	532	339	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			25
Storage Blk Time (%)		19	2
Queuing Penalty (veh)		4	3

Intersection: 6: Fore & Site Driveway/Waterville St

Movement	SE	NW	NE
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	40	40	56
Average Queue (ft)	18	17	6
95th Queue (ft)	41	41	34
Link Distance (ft)	792	375	532
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Congress St & India St

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	481	360	94	202
Average Queue (ft)	236	172	73	90
95th Queue (ft)	427	300	107	173
Link Distance (ft)	1063	578		534
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			11	8
Queuing Penalty (veh)			25	16

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	156	139	136	456	100	133
Average Queue (ft)	66	49	49	165	69	76
95th Queue (ft)	125	104	112	386	128	119
Link Distance (ft)	1093	199		534		330
Upstream Blk Time (%)		0		2		
Queuing Penalty (veh)		0		11		
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		0	0	22	1	
Queuing Penalty (veh)		1	0	44	4	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	224	643	104	186	96
Average Queue (ft)	147	205	67	72	40
95th Queue (ft)	232	472	110	139	78
Link Distance (ft)	199	1237		234	264
Upstream Blk Time (%)	5			0	
Queuing Penalty (veh)	37			0	
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			6	2	
Queuing Penalty (veh)			12	5	

Intersection: 11: Commercial/Commercial St & Franklin

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	R	LT	R
Maximum Queue (ft)	121	117	152	59	186	55	182	270	46	299	175
Average Queue (ft)	50	51	58	27	89	29	97	105	15	140	57
95th Queue (ft)	97	101	115	62	161	63	161	204	34	247	143
Link Distance (ft)		310	310		368			606	606	495	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			25		25	160				150
Storage Blk Time (%)				22	52	23	2	1		6	0
Queuing Penalty (veh)				31	38	32	7	2		8	0

Intersection: 18: Thames St/Site Access & Proposed New Road

Movement	SB
Directions Served	LR
Maximum Queue (ft)	42
Average Queue (ft)	26
95th Queue (ft)	43
Link Distance (ft)	339
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 38: Fore & Franklin/Franklin St.

Movement	NB	NB	SE	SE	NW	NW	SW
Directions Served	L	R>	LT	TR	LT	TR	<LR
Maximum Queue (ft)	285	100	263	247	153	137	306
Average Queue (ft)	105	85	167	122	72	56	151
95th Queue (ft)	227	118	272	226	135	119	262
Link Distance (ft)	522		240	240	310	310	515
Upstream Blk Time (%)			4	0			
Queuing Penalty (veh)			14	1			
Storage Bay Dist (ft)		75					
Storage Blk Time (%)	7	17					
Queuing Penalty (veh)	19	29					

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	SW	SW
Directions Served	LT	TR	LT	TR	LTR	LT	R
Maximum Queue (ft)	764	736	236	238	320	207	75
Average Queue (ft)	385	328	125	137	157	75	52
95th Queue (ft)	767	728	202	215	269	154	91
Link Distance (ft)	1345	1345	240	240	543	468	
Upstream Blk Time (%)			0	1			
Queuing Penalty (veh)			2	2			
Storage Bay Dist (ft)							50
Storage Blk Time (%)						18	3
Queuing Penalty (veh)						25	6

Network Summary

Network wide Queuing Penalty: 455

Intersection: 7: Congress St & India St

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	4.0	17.0	24.0	26.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	None	None	None
Avg. Green (s)	4.4	15.7	21.8	23.1
g/C Ratio	-0.01	-0.01	NA	NA
Cycles Skipped (%)	17	3	0	0
Cycles @ Minimum (%)	80	3	2	3
Cycles Maxed Out (%)	83	64	68	51
Cycles with Peds (%)	0	0	0	0

Controller Summary
Average Cycle Length (s): NA
Number of Complete Cycles : 0

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	10.0	19.0	9.0	33.0	9.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	10.3	11.9	9.0	24.8	9.0
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	6	23	14	10	14
Cycles @ Minimum (%)	87	0	11	0	11
Cycles Maxed Out (%)	94	9	73	16	73
Cycles with Peds (%)	0	0	0	0	0

Controller Summary
Average Cycle Length (s): NA
Number of Complete Cycles : 0

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	11.0	21.0	11.0	21.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	10.7	20.3	10.7	20.3
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	83	84	83	84
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 11: Commercial/Commercial St & Franklin

Phase	2	4	5	6	8
Movement(s) Served	NBT	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	46.0	19.0	16.0	24.0	7.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0
Recall	None	None	None	None	None
Avg. Green (s)	43.0	13.6	13.1	23.7	9.2
g/C Ratio	NA	-0.01	-0.01	NA	-0.01
Cycles Skipped (%)	0	2	2	0	5
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	40	19	41	84	81
Cycles with Peds (%)	79	5	0	75	14

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 38: Fore & Franklin/Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NBL	SETL	SWL
Maximum Green (s)	34.0	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	None	None	None	None
Avg. Green (s)	31.1	31.2	31.0	31.6
g/C Ratio	-0.01	NA	NA	-0.01
Cycles Skipped (%)	2	0	0	4
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	63	52	63	53
Cycles with Peds (%)	6	96	50	0

Controller Summary
Average Cycle Length (s): NA
Number of Complete Cycles : 0

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Phase	2	3	6
Movement(s) Served	SETL	NESW	NWTL
Maximum Green (s)	34.0	34.0	34.0
Minimum Green (s)	4.0	4.0	4.0
Recall	None	None	None
Avg. Green (s)	33.6	31.8	33.4
g/C Ratio	NA	NA	NA
Cycles Skipped (%)	0	0	0
Cycles @ Minimum (%)	0	0	0
Cycles Maxed Out (%)	93	50	91
Cycles with Peds (%)	0	63	7

Controller Summary
Average Cycle Length (s): NA
Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	4306	4311	4350	4310	4320	4314
Vehs Exited	4326	4293	4361	4319	4335	4325
Starting Vehs	98	59	93	83	77	75
Ending Vehs	78	77	82	74	62	68
Denied Entry Before	0	1	0	0	2	0
Denied Entry After	2	0	0	0	1	0
Travel Distance (mi)	1221	1211	1209	1207	1223	1214
Travel Time (hr)	74.9	74.9	75.4	74.2	74.4	74.8
Total Delay (hr)	25.5	26.0	26.4	25.4	24.9	25.7
Total Stops	5307	5221	5247	5132	5159	5209
Fuel Used (gal)	56.0	56.3	56.5	56.0	56.2	56.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	4306	4311	4350	4310	4320	4314
Vehs Exited	4326	4293	4361	4319	4335	4325
Starting Vehs	98	59	93	83	77	75
Ending Vehs	78	77	82	74	62	68
Denied Entry Before	0	1	0	0	2	0
Denied Entry After	2	0	0	0	1	0
Travel Distance (mi)	1221	1211	1209	1207	1223	1214
Travel Time (hr)	74.9	74.9	75.4	74.2	74.4	74.8
Total Delay (hr)	25.5	26.0	26.4	25.4	24.9	25.7
Total Stops	5307	5221	5247	5132	5159	5209
Fuel Used (gal)	56.0	56.3	56.5	56.0	56.2	56.2

1: Thames St & India St Performance by approach

Approach	EB	WB	SE	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.0
Total Del/Veh (s)	4.9	7.1	4.9	5.1
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.3	0.0	0.1
Total Del/Veh (s)	7.7	8.2	8.1	6.1	7.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	2.4	1.2	6.2	5.6	2.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	5.4	0.6	0.5	1.5
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: Existing Driveways & Fore Performance by approach

Approach	EB	WB	NB	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	2.7	0.0
Total Del/Veh (s)	0.6	0.5	7.0	5.6	0.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

6: Fore & Waterville St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.2	0.1
Total Del/Veh (s)	2.9	0.5	0.3	0.5
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

7: Congress St & India Street Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.2	0.2	0.2	0.2
Total Del/Veh (s)	13.5	13.8	7.0	9.4
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.2	0.1
Total Del/Veh (s)	22.7	8.4	5.5	15.4	9.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	0.5	1.7	0.2	0.6
Total Del/Veh (s)	12.1	10.2	12.7	10.8	11.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial & Franklin/Maine State Pier Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.2	0.4	0.0	0.1
Total Del/Veh (s)	4.9	2.9	3.7	3.0	3.8
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

38: Franklin/Franklin St. & Fore Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.0	0.3	0.3	0.2
Total Del/Veh (s)	18.4	17.8	19.5	13.5	16.1
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St. & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	1.2	0.1	1.0	0.7	0.8
Total Del/Veh (s)	9.2	5.8	22.8	22.0	11.1
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.6
Total Del/Veh (s)	20.4
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: Thames St & India St

Movement	EB	EB	WB	SE
Directions Served	L	T	TR	LR
Maximum Queue (ft)	61	58	46	125
Average Queue (ft)	37	32	27	59
95th Queue (ft)	54	48	47	98
Link Distance (ft)		456	600	222
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	35			
Storage Blk Time (%)	9	6		
Queuing Penalty (veh)	8	9		

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	86	105	112	76
Average Queue (ft)	33	50	55	36
95th Queue (ft)	67	87	90	59
Link Distance (ft)	522	343	214	222
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	23	55	38	70
Average Queue (ft)	1	9	19	25
95th Queue (ft)	10	34	38	54
Link Distance (ft)	343	416	197	162
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE	SW
Directions Served	LR	LT	TR
Maximum Queue (ft)	70	57	13
Average Queue (ft)	28	4	0
95th Queue (ft)	56	28	6
Link Distance (ft)	1091	416	383
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Existing Driveways & Fore

Movement	WB	NB	NW	NW
Directions Served	<LT	LR	L	R
Maximum Queue (ft)	39	56	21	34
Average Queue (ft)	3	9	2	4
95th Queue (ft)	21	36	13	20
Link Distance (ft)	552	180	299	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				25
Storage Blk Time (%)			0	0
Queuing Penalty (veh)			0	0

Intersection: 6: Fore & Waterville St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	38	34
Average Queue (ft)	16	4
95th Queue (ft)	40	20
Link Distance (ft)	545	552
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Congress St & India Street

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	139	173	119	193
Average Queue (ft)	72	70	77	69
95th Queue (ft)	119	127	124	145
Link Distance (ft)	383	255		540
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			7	3
Queuing Penalty (veh)			20	11

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	66	179	140	121	70	151
Average Queue (ft)	19	51	70	35	16	84
95th Queue (ft)	53	114	135	77	51	138
Link Distance (ft)	1091	208		540		279
Upstream Blk Time (%)		0				
Queuing Penalty (veh)		0				
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		0	2	1	0	
Queuing Penalty (veh)		0	2	1	0	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	213	274	76	112	120
Average Queue (ft)	69	120	27	44	60
95th Queue (ft)	152	215	58	84	104
Link Distance (ft)	208	707		313	242
Upstream Blk Time (%)	1				
Queuing Penalty (veh)	2				
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			0	1	
Queuing Penalty (veh)			0	0	

Intersection: 11: Commercial & Franklin/Maine State Pier

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	124	73	128	58
Average Queue (ft)	48	27	33	24
95th Queue (ft)	103	66	84	53
Link Distance (ft)	312	108	714	456
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 38: Franklin/Franklin St. & Fore

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	95	123	39	159	51	206	124	254
Average Queue (ft)	36	58	4	85	9	75	58	130
95th Queue (ft)	73	104	23	148	35	152	126	234
Link Distance (ft)	230	230		522		312		239
Upstream Blk Time (%)								1
Queuing Penalty (veh)								4
Storage Bay Dist (ft)			100		90		75	
Storage Blk Time (%)				7		7	3	18
Queuing Penalty (veh)				0		1	12	23

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	NE	SW	SW
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	149	346	62	166	57	115	76	136
Average Queue (ft)	40	152	17	59	18	53	19	55
95th Queue (ft)	111	268	49	128	47	98	56	103
Link Distance (ft)		442		239		551		477
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)	100		40		125		50	
Storage Blk Time (%)	0	11	2	8		0	6	15
Queuing Penalty (veh)	0	10	5	2		0	7	3

Network Summary

Network wide Queuing Penalty: 119

Intersection: 7: Congress St & India Street

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	10.0	30.0	25.0	45.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	None	None	None
Avg. Green (s)	10.3	12.5	10.4	23.1
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	26	26	33	15
Cycles @ Minimum (%)	4	19	32	19
Cycles Maxed Out (%)	47	0	0	2
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	20.0	20.0	15.0	44.0	15.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	17.1	11.3	10.6	33.8	10.6
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	20	17	30	22	30
Cycles @ Minimum (%)	8	0	23	0	23
Cycles Maxed Out (%)	42	8	10	15	10
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	25.0	25.0	25.0	25.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	12.8	19.7	12.8	19.7
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	9	1	9	1
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	2	41	2	41
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 38: Franklin/Franklin St. & Fore

Phase	2	3	4	6	7	8
Movement(s) Served	SBTL	EBL	WBT	NBTL	WBL	EBT
Maximum Green (s)	24.0	6.0	25.0	24.0	5.0	26.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Recall	C-Min	None	None	None	None	None
Avg. Green (s)	28.2	7.8	17.0	24.5	7.6	22.5
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	5	35	5	18	94	2
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	95	12	13	49	0	33
Cycles with Peds (%)	46	0	64	23	0	88

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NETL	SETL	SWTL
Maximum Green (s)	43.0	17.0	42.5	17.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	Min	None	C-Max	None
Avg. Green (s)	47.1	12.9	46.6	12.9
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	20	100	20
Cycles with Peds (%)	6	41	0	0

Controller Summary
Average Cycle Length (s): NA
Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	4749	4847	4810	4847	4789	4807
Vehs Exited	4751	4857	4819	4877	4808	4820
Starting Vehs	90	83	102	115	93	89
Ending Vehs	88	73	93	85	74	73
Denied Entry Before	0	2	2	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	1491	1548	1524	1535	1519	1524
Travel Time (hr)	93.2	96.2	95.6	98.6	94.4	95.6
Total Delay (hr)	33.4	34.3	34.6	36.8	33.4	34.5
Total Stops	6391	6645	6659	6589	6412	6537
Fuel Used (gal)	68.4	71.0	69.9	71.1	69.3	69.9

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	4749	4847	4810	4847	4789	4807
Vehs Exited	4751	4857	4819	4877	4808	4820
Starting Vehs	90	83	102	115	93	89
Ending Vehs	88	73	93	85	74	73
Denied Entry Before	0	2	2	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	1491	1548	1524	1535	1519	1524
Travel Time (hr)	93.2	96.2	95.6	98.6	94.4	95.6
Total Delay (hr)	33.4	34.3	34.6	36.8	33.4	34.5
Total Stops	6391	6645	6659	6589	6412	6537
Fuel Used (gal)	68.4	71.0	69.9	71.1	69.3	69.9

1: Thames St & India St Performance by approach

Approach	EB	WB	SE	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.0
Total Del/Veh (s)	6.2	7.5	5.3	6.1
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.1	0.3	0.0	0.1
Total Del/Veh (s)	10.1	11.4	10.2	7.0	10.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.1	0.0
Total Del/Veh (s)	2.5	1.4	8.5	6.8	2.5
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	7.2	0.7	0.8	1.8
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: Proposed New Road & Fore Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.8	0.6	6.6	1.2
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

6: Fore & Site Driveway/Waterville St Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.3	0.2
Total Del/Veh (s)	2.7	5.3	0.5	0.3	1.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

7: Congress St & India St Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.2	0.2	0.2	0.2
Total Del/Veh (s)	14.2	14.3	9.3	11.0
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.6	0.2
Total Del/Veh (s)	17.8	9.4	7.6	21.1	11.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.5	0.6	1.6	0.2	0.6
Total Del/Veh (s)	15.9	11.3	13.0	12.0	12.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial & Franklin/Maine State Pier Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.2	0.4	0.0	0.2
Total Del/Veh (s)	5.8	3.3	4.2	3.5	4.4
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

23: Thames St/Site Access & Proposed New Road Performance by approach

Approach	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.0
Total Del/Veh (s)	5.1	3.0	0.2	2.7
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

38: Franklin/Franklin St. & Fore Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.0	0.0	0.4	0.2
Total Del/Veh (s)	18.1	19.7	16.8	17.8	18.1
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St. & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	1.5	0.1	1.0	0.7	1.0
Total Del/Veh (s)	12.8	6.6	21.9	20.5	12.7
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	24.6
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: Thames St & India St

Movement	EB	EB	WB	SE
Directions Served	L	T	TR	LR
Maximum Queue (ft)	66	67	68	134
Average Queue (ft)	38	39	40	62
95th Queue (ft)	58	59	59	107
Link Distance (ft)		456	1088	222
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	35			
Storage Blk Time (%)	9	13		
Queuing Penalty (veh)	17	19		

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	128	186	157	78
Average Queue (ft)	45	73	71	38
95th Queue (ft)	96	143	123	61
Link Distance (ft)	522	343	214	222
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	34	67	60	72
Average Queue (ft)	2	12	20	29
95th Queue (ft)	16	43	47	57
Link Distance (ft)	343	416	197	162
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	92	61
Average Queue (ft)	36	6
95th Queue (ft)	71	32
Link Distance (ft)	1091	416
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Proposed New Road & Fore

Movement	WB	NB	NB
Directions Served	LT	L	R
Maximum Queue (ft)	28	53	35
Average Queue (ft)	3	23	3
95th Queue (ft)	18	45	18
Link Distance (ft)	545	347	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			25
Storage Blk Time (%)		7	0
Queuing Penalty (veh)		0	0

Intersection: 6: Fore & Site Driveway/Waterville St

Movement	SE	NW	NE	SW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	30	50	22	6
Average Queue (ft)	17	25	1	0
95th Queue (ft)	39	49	12	4
Link Distance (ft)	545	135	545	269
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Congress St & India St

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	149	159	119	234
Average Queue (ft)	79	65	92	89
95th Queue (ft)	135	120	131	189
Link Distance (ft)	383	632		540
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			14	4
Queuing Penalty (veh)			39	15

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	83	216	140	153	97	230
Average Queue (ft)	31	64	79	46	19	96
95th Queue (ft)	66	150	148	118	62	183
Link Distance (ft)	1091	208		540		279
Upstream Blk Time (%)		0				1
Queuing Penalty (veh)		1				0
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		1	3	3	0	
Queuing Penalty (veh)		3	4	3	0	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	219	281	67	109	128
Average Queue (ft)	90	134	27	41	60
95th Queue (ft)	186	242	57	80	102
Link Distance (ft)	208	719		313	242
Upstream Blk Time (%)	3				
Queuing Penalty (veh)	8				
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			0	1	
Queuing Penalty (veh)			0	0	

Intersection: 11: Commercial & Franklin/Maine State Pier

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	158	97	125	65
Average Queue (ft)	62	30	43	29
95th Queue (ft)	127	71	99	60
Link Distance (ft)	312	108	714	456
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 23: Thames St/Site Access & Proposed New Road

Movement	SB
Directions Served	LR
Maximum Queue (ft)	69
Average Queue (ft)	30
95th Queue (ft)	51
Link Distance (ft)	347
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 38: Franklin/Franklin St. & Fore

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	86	134	56	240	58	205	124	261
Average Queue (ft)	40	59	6	109	9	77	87	168
95th Queue (ft)	74	114	32	187	36	147	151	281
Link Distance (ft)	230	230		522		312		239
Upstream Blk Time (%)								3
Queuing Penalty (veh)								20
Storage Bay Dist (ft)			100		90		75	
Storage Blk Time (%)				13		6	9	25
Queuing Penalty (veh)				1		1	44	44

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	NE	SW	SW
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	149	491	89	184	55	145	92	144
Average Queue (ft)	47	195	25	74	20	56	22	55
95th Queue (ft)	122	368	63	154	50	110	70	108
Link Distance (ft)		517		239		508		477
Upstream Blk Time (%)		1		0				
Queuing Penalty (veh)		0		0				
Storage Bay Dist (ft)	100		40		125		50	
Storage Blk Time (%)	0	18	3	11		1	6	14
Queuing Penalty (veh)	0	18	11	3		0	8	3

Network Summary

Network wide Queuing Penalty: 264

Intersection: 7: Congress St & India St

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	10.0	30.0	25.0	45.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	Min	Min	None
Avg. Green (s)	9.0	11.0	11.2	23.6
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	9	0	0	0
Cycles @ Minimum (%)	0	40	40	6
Cycles Maxed Out (%)	53	0	0	0
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	20.0	20.0	15.0	44.0	15.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	17.7	11.5	11.3	34.0	11.3
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	15	15	24	16	24
Cycles @ Minimum (%)	7	0	17	0	17
Cycles Maxed Out (%)	51	10	16	15	16
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	25.0	25.0	25.0	25.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	12.6	21.5	12.6	21.5
g/C Ratio	-0.01	NA	-0.01	NA
Cycles Skipped (%)	3	0	3	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	1	57	1	57
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 38: Franklin/Franklin St. & Fore

Phase	2	3	4	6	7	8
Movement(s) Served	SBTL	EBL	WBT	NBTL	WBL	EBT
Maximum Green (s)	24.0	6.0	25.0	24.0	5.0	26.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Recall	C-Min	None	None	None	None	None
Avg. Green (s)	28.3	7.2	18.9	26.8	6.6	25.9
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	2	27	2	9	92	2
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	98	22	24	70	4	50
Cycles with Peds (%)	50	0	69	29	0	91

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NETL	SETL	SWTL
Maximum Green (s)	43.0	17.0	42.5	17.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	Min	None	C-Max	None
Avg. Green (s)	46.9	13.2	46.4	13.2
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	22	100	22
Cycles with Peds (%)	4	43	0	0

Controller Summary
Average Cycle Length (s): NA
Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	5963	5923	5791	5819	5881	5882
Vehs Exited	5930	5908	5822	5820	5894	5875
Starting Vehs	120	107	128	124	146	117
Ending Vehs	153	122	97	123	133	121
Denied Entry Before	0	0	0	0	2	0
Denied Entry After	2	1	0	2	1	0
Travel Distance (mi)	1877	1890	1857	1855	1884	1873
Travel Time (hr)	138.8	129.3	126.8	131.2	130.4	131.3
Total Delay (hr)	63.1	53.3	51.8	56.3	54.2	55.7
Total Stops	8193	8117	8171	7843	8375	8143
Fuel Used (gal)	88.9	87.1	85.5	86.5	87.5	87.1

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	5963	5923	5791	5819	5881	5882
Vehs Exited	5930	5908	5822	5820	5894	5875
Starting Vehs	120	107	128	124	146	117
Ending Vehs	153	122	97	123	133	121
Denied Entry Before	0	0	0	0	2	0
Denied Entry After	2	1	0	2	1	0
Travel Distance (mi)	1877	1890	1857	1855	1884	1873
Travel Time (hr)	138.8	129.3	126.8	131.2	130.4	131.3
Total Delay (hr)	63.1	53.3	51.8	56.3	54.2	55.7
Total Stops	8193	8117	8171	7843	8375	8143
Fuel Used (gal)	88.9	87.1	85.5	86.5	87.5	87.1

1: India St & Thames St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.0
Total Del/Veh (s)	5.1	6.7	6.7	6.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.1	0.3	0.0	0.1
Total Del/Veh (s)	11.3	9.2	8.4	8.0	9.5
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	2.6	1.0	6.5	6.2	2.8
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	4.8	0.9	0.6	1.2
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: 100 Fore St & Existing Driveways & Fore Performance by approach

Approach	EB	WB	NB	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.8	0.1
Total Del/Veh (s)	0.6	0.5	6.8	8.9	1.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

6: Fore & Waterville St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.2	0.0
Total Del/Veh (s)	2.3	0.9	0.2	0.8
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

7: Congress St & India St Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.8	0.4	0.0	0.5
Total Del/Veh (s)	40.7	24.4	13.6	27.5
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.2	0.1
Total Del/Veh (s)	24.3	10.8	18.7	23.4	18.1
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	1.8	2.2	0.2	1.1
Total Del/Veh (s)	16.2	41.0	13.9	11.2	21.8
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial & Franklin/Maine State Pier Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.2	0.5	0.1	0.2
Total Del/Veh (s)	3.7	3.9	4.7	4.1	4.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

38: Franklin/Franklin St. & Fore Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	1.5	0.1	0.1	0.2	0.5
Total Del/Veh (s)	30.0	17.2	12.9	13.2	18.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St. & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	1.2	0.1	1.8	0.7	0.9
Total Del/Veh (s)	17.2	12.6	19.0	12.0	15.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	1.0
Total Del/Veh (s)	32.5
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: India St & Thames St

Movement	SE	NE	NE	SW
Directions Served	LR	L	T	TR
Maximum Queue (ft)	58	66	88	55
Average Queue (ft)	33	43	40	35
95th Queue (ft)	48	63	68	53
Link Distance (ft)	225		455	750
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		35		
Storage Blk Time (%)		17	8	
Queuing Penalty (veh)		22	20	

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	154	106	116	103
Average Queue (ft)	55	47	54	50
95th Queue (ft)	112	85	96	82
Link Distance (ft)	527	335	167	225
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	39	51	44	90
Average Queue (ft)	2	8	20	41
95th Queue (ft)	16	34	39	72
Link Distance (ft)	335	421	286	217
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	60	56
Average Queue (ft)	22	10
95th Queue (ft)	42	37
Link Distance (ft)	1093	421
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: 100 Fore St & Existing Driveways & Fore

Movement	WB	NB	NW	NW
Directions Served	<LT	LR	L	R
Maximum Queue (ft)	35	55	36	38
Average Queue (ft)	4	22	15	6
95th Queue (ft)	22	46	38	27
Link Distance (ft)	539	299	247	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				25
Storage Blk Time (%)			5	1
Queuing Penalty (veh)			0	0

Intersection: 6: Fore & Waterville St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	35	48
Average Queue (ft)	17	5
95th Queue (ft)	39	28
Link Distance (ft)	662	539
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Congress St & India St

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	586	320	119	239
Average Queue (ft)	280	170	70	82
95th Queue (ft)	543	281	116	173
Link Distance (ft)	836	467		533
Upstream Blk Time (%)	2	0		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			10	7
Queuing Penalty (veh)			23	12

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	145	130	125	510	100	196
Average Queue (ft)	71	41	39	183	71	97
95th Queue (ft)	124	93	102	412	132	162
Link Distance (ft)	1093	194		533		396
Upstream Blk Time (%)		0		1		
Queuing Penalty (veh)		0		6		
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		0	0	24	1	
Queuing Penalty (veh)		1	0	48	6	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	216	522	104	169	90
Average Queue (ft)	172	206	64	68	40
95th Queue (ft)	246	517	107	131	74
Link Distance (ft)	194	915		255	233
Upstream Blk Time (%)	9	2		0	
Queuing Penalty (veh)	61	0		0	
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			5	3	
Queuing Penalty (veh)			9	6	

Intersection: 11: Commercial & Franklin/Maine State Pier

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	100	93	151	84
Average Queue (ft)	37	36	52	34
95th Queue (ft)	79	74	110	65
Link Distance (ft)	309	108	714	455
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 38: Franklin/Franklin St. & Fore

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	244	225	65	169	118	155	124	248
Average Queue (ft)	104	97	12	96	41	81	60	103
95th Queue (ft)	206	182	43	155	85	135	121	195
Link Distance (ft)	231	231		527		309		248
Upstream Blk Time (%)	5	3						0
Queuing Penalty (veh)	0	0						2
Storage Bay Dist (ft)			100		90		75	
Storage Blk Time (%)				10	1	5	3	11
Queuing Penalty (veh)				1	4	3	16	16

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	NE	SW	SW
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	149	324	89	253	151	202	80	142
Average Queue (ft)	64	164	46	128	68	70	22	72
95th Queue (ft)	133	265	89	218	122	139	57	118
Link Distance (ft)		689		248		543		409
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				1				
Storage Bay Dist (ft)	100		40		125		50	
Storage Blk Time (%)	3	19	13	31	2	0	2	18
Queuing Penalty (veh)	21	19	70	19	6	1	5	6

Network Summary

Network wide Queuing Penalty: 404

Intersection: 7: Congress St & India St

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	10.0	30.0	25.0	45.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	None	None	None
Avg. Green (s)	8.0	19.7	23.5	30.4
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	16	0	0	0
Cycles @ Minimum (%)	0	4	2	5
Cycles Maxed Out (%)	27	14	79	4
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	20.0	20.0	15.0	44.0	15.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	19.1	13.3	12.8	36.0	12.8
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	4	10	9	6	9
Cycles @ Minimum (%)	1	0	12	0	12
Cycles Maxed Out (%)	75	16	41	19	41
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	25.0	25.0	25.0	25.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	17.4	24.0	17.4	24.0
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	18	78	18	78
Cycles with Peds (%)	0	0	0	0

Controller Summary
Average Cycle Length (s): NA
Number of Complete Cycles : 0

Intersection: 38: Franklin/Franklin St. & Fore

Phase	2	4	6	8
Movement(s) Served	SBTL	WBTL	NBTL	EBTL
Maximum Green (s)	20.0	15.0	20.0	15.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	None	None	C-Min	None
Avg. Green (s)	20.3	14.9	20.3	15.0
g/C Ratio	-0.01	-0.01	NA	NA
Cycles Skipped (%)	4	5	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	80	94	100	97
Cycles with Peds (%)	37	53	24	80

Controller Summary
Average Cycle Length (s): NA
Number of Complete Cycles : 0

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NETL	SETL	SWTL
Maximum Green (s)	21.0	14.0	20.5	14.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	C-Min	None	None	None
Avg. Green (s)	21.5	13.5	21.0	13.5
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	75	88	75
Cycles with Peds (%)	4	28	0	0

Controller Summary
Average Cycle Length (s): NA
Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	6346	6356	6213	6484	6385	6358
Vehs Exited	6344	6342	6269	6440	6388	6357
Starting Vehs	180	166	204	167	166	172
Ending Vehs	182	180	148	211	163	172
Denied Entry Before	0	2	0	0	0	0
Denied Entry After	1	0	0	2	2	0
Travel Distance (mi)	2972	2968	2969	3002	3012	2985
Travel Time (hr)	196.1	178.5	180.7	197.5	182.1	187.0
Total Delay (hr)	77.8	60.4	62.5	77.9	62.5	68.2
Total Stops	9728	9465	9205	10181	9531	9626
Fuel Used (gal)	126.8	122.1	122.5	128.2	124.5	124.8

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	6346	6356	6213	6484	6385	6358
Vehs Exited	6344	6342	6269	6440	6388	6357
Starting Vehs	180	166	204	167	166	172
Ending Vehs	182	180	148	211	163	172
Denied Entry Before	0	2	0	0	0	0
Denied Entry After	1	0	0	2	2	0
Travel Distance (mi)	2972	2968	2969	3002	3012	2985
Travel Time (hr)	196.1	178.5	180.7	197.5	182.1	187.0
Total Delay (hr)	77.8	60.4	62.5	77.9	62.5	68.2
Total Stops	9728	9465	9205	10181	9531	9626
Fuel Used (gal)	126.8	122.1	122.5	128.2	124.5	124.8

1: India St & Thames St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.1	0.1	0.1
Total Del/Veh (s)	5.6	7.7	8.0	7.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

2: India St & Fore Performance by approach

Approach	EB	WB	SE	NW	All
Denied Del/Veh (s)	0.0	0.1	0.3	0.0	0.1
Total Del/Veh (s)	14.1	12.7	11.0	9.4	12.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

3: Fore & Hancock St Performance by approach

Approach	NB	SB	SE	NW	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	2.8	1.0	7.4	7.8	3.0
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

4: Fore & Mountfort St Performance by approach

Approach	SE	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	6.9	1.0	0.7	1.5
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

5: Proposed New Road & Fore Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.9	0.6	8.4	1.9
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

6: Fore & Site Driveway/Waterville St Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.2	0.1
Total Del/Veh (s)	2.5	7.1	1.1	0.2	1.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

7: Congress St & India St Performance by approach

Approach	NW	NE	SW	All
Denied Del/Veh (s)	0.5	0.4	0.0	0.3
Total Del/Veh (s)	34.5	27.5	14.5	26.3
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

8: Congress St & Mountfort St/Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.2	0.0
Total Del/Veh (s)	18.0	10.4	14.9	15.7	14.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

9: Cumberland St & Washington Performance by approach

Approach	NB	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.4	2.2	0.2	0.7
Total Del/Veh (s)	10.9	21.9	15.6	12.5	15.2
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

11: Commercial & Franklin/Maine State Pier Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.2	0.5	0.0	0.2
Total Del/Veh (s)	4.1	3.7	5.2	4.8	4.6
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

18: Thames St/Site Access & Proposed New Road Performance by approach

Approach	SB	NE	SW	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.1
Total Del/Veh (s)	5.2	2.8	0.8	2.2
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

38: Franklin/Franklin St. & Fore Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.1	0.2	0.2	0.2
Total Del/Veh (s)	62.5	20.6	15.3	15.3	27.3
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

43: Middle St. & Franklin St. /Franklin St. Performance by approach

Approach	SE	NW	NE	SW	All
Denied Del/Veh (s)	0.8	0.0	1.8	0.7	0.7
Total Del/Veh (s)	36.2	15.3	20.5	13.4	23.6
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	37.0
Denied Entry Before	0
Denied Entry After	0

Intersection: 1: India St & Thames St

Movement	SE	NE	NE	SW
Directions Served	LR	L	T	TR
Maximum Queue (ft)	63	62	116	80
Average Queue (ft)	35	47	49	46
95th Queue (ft)	52	64	87	68
Link Distance (ft)	225		455	1072
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		35		
Storage Blk Time (%)		18	15	
Queuing Penalty (veh)		38	36	

Intersection: 2: India St & Fore

Movement	EB	WB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	204	170	120	110
Average Queue (ft)	72	76	59	55
95th Queue (ft)	141	133	100	94
Link Distance (ft)	523	335	263	225
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Fore & Hancock St

Movement	NB	SB	SE	NW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	33	47	47	105
Average Queue (ft)	3	8	18	46
95th Queue (ft)	18	33	41	80
Link Distance (ft)	335	421	286	217
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Fore & Mountfort St

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	76	66
Average Queue (ft)	27	14
95th Queue (ft)	54	46
Link Distance (ft)	1093	421
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Proposed New Road & Fore

Movement	WB	NB	NB
Directions Served	LT	L	R
Maximum Queue (ft)	34	72	49
Average Queue (ft)	3	33	20
95th Queue (ft)	20	57	52
Link Distance (ft)	534	347	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			25
Storage Blk Time (%)		18	3
Queuing Penalty (veh)		4	3

Intersection: 6: Fore & Site Driveway/Waterville St

Movement	SE	NW	NE	SW
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	31	40	35	6
Average Queue (ft)	16	18	4	0
95th Queue (ft)	39	43	21	4
Link Distance (ft)	662	308	534	324
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Congress St & India St

Movement	NW	NE	SW	SW
Directions Served	LR	TR	L	T
Maximum Queue (ft)	580	370	120	216
Average Queue (ft)	261	173	79	90
95th Queue (ft)	567	311	123	174
Link Distance (ft)	1092	574		532
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)			70	
Storage Blk Time (%)			12	8
Queuing Penalty (veh)			27	16

Intersection: 8: Congress St & Mountfort St/Washington

Movement	NB	SB	SB	NE	NE	SW
Directions Served	LTR	LT	R	L	TR	LTR
Maximum Queue (ft)	144	119	129	429	100	146
Average Queue (ft)	65	43	51	158	74	79
95th Queue (ft)	115	91	110	350	130	129
Link Distance (ft)	1093	194		532		396
Upstream Blk Time (%)				1		
Queuing Penalty (veh)				4		
Storage Bay Dist (ft)			115		75	
Storage Blk Time (%)		0	0	21	1	
Queuing Penalty (veh)		0	1	41	4	

Intersection: 9: Cumberland St & Washington

Movement	NB	SB	NE	NE	SW
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	213	399	104	184	92
Average Queue (ft)	133	155	66	70	42
95th Queue (ft)	218	317	106	136	78
Link Distance (ft)	194	1247		255	233
Upstream Blk Time (%)	3				
Queuing Penalty (veh)	24				
Storage Bay Dist (ft)			80		
Storage Blk Time (%)			6	2	
Queuing Penalty (veh)			11	5	

Intersection: 11: Commercial & Franklin/Maine State Pier

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	107	92	170	100
Average Queue (ft)	46	36	60	41
95th Queue (ft)	88	73	127	77
Link Distance (ft)	311	108	714	455
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 18: Thames St/Site Access & Proposed New Road

Movement	SB
Directions Served	LR
Maximum Queue (ft)	50
Average Queue (ft)	23
95th Queue (ft)	40
Link Distance (ft)	347
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 38: Franklin/Franklin St. & Fore

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	426	292	129	238	132	216	124	254
Average Queue (ft)	209	97	17	125	45	97	82	114
95th Queue (ft)	498	200	70	216	99	176	135	224
Link Distance (ft)	1273	1273		523		311		248
Upstream Blk Time (%)						0		1
Queuing Penalty (veh)						0		4
Storage Bay Dist (ft)			100		90		75	
Storage Blk Time (%)				17	2	7	10	13
Queuing Penalty (veh)				2	7	5	52	24

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Movement	SE	SE	NW	NW	NE	NE	SW	SW
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	150	791	89	262	150	172	99	167
Average Queue (ft)	98	299	49	148	76	75	23	82
95th Queue (ft)	177	646	95	251	129	136	65	136
Link Distance (ft)		2418		248		545		409
Upstream Blk Time (%)				1				
Queuing Penalty (veh)				9				
Storage Bay Dist (ft)	100		40		125		50	
Storage Blk Time (%)	8	31	19	34	3	1	2	24
Queuing Penalty (veh)	57	36	119	22	7	2	7	8

Network Summary

Network wide Queuing Penalty: 574

Intersection: 7: Congress St & India St

Phase	1	2	3	6
Movement(s) Served	SWL	NET	NWL	SWTL
Maximum Green (s)	4.0	17.0	24.0	26.0
Minimum Green (s)	4.0	8.0	8.0	15.0
Recall	None	None	None	None
Avg. Green (s)	4.2	15.6	21.7	23.2
g/C Ratio	-0.01	-0.01	NA	NA
Cycles Skipped (%)	17	2	0	0
Cycles @ Minimum (%)	82	3	2	5
Cycles Maxed Out (%)	83	61	66	52
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 8: Congress St & Mountfort St/Washington

Phase	1	2	4	6	8
Movement(s) Served	NEL	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	10.0	19.0	9.0	33.0	9.0
Minimum Green (s)	10.0	5.0	8.0	5.0	8.0
Recall	None	None	None	None	None
Avg. Green (s)	10.4	11.7	8.9	24.9	8.9
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	6	21	15	10	15
Cycles @ Minimum (%)	87	0	12	0	12
Cycles Maxed Out (%)	94	9	69	15	69
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 9: Cumberland St & Washington

Phase	2	4	6	8
Movement(s) Served	SWTL	NBTL	NETL	SBTL
Maximum Green (s)	11.0	21.0	11.0	21.0
Minimum Green (s)	5.0	5.0	5.0	5.0
Recall	None	None	None	None
Avg. Green (s)	10.8	20.3	10.8	20.3
g/C Ratio	-0.01	NA	-0.01	NA
Cycles Skipped (%)	1	0	1	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	84	82	84	82
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 38: Franklin/Franklin St. & Fore

Phase	2	4	6	8
Movement(s) Served	SBTL	WBTL	NBTL	EBTL
Maximum Green (s)	20.0	15.0	20.0	15.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	None	None	C-Min	None
Avg. Green (s)	20.4	15.0	20.1	15.0
g/C Ratio	-0.01	-0.01	NA	NA
Cycles Skipped (%)	3	4	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	91	95	100	99
Cycles with Peds (%)	35	51	16	78

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 43: Middle St. & Franklin St. /Franklin St.

Phase	2	4	6	8
Movement(s) Served	NWTL	NETL	SETL	SWTL
Maximum Green (s)	21.0	14.0	20.5	14.0
Minimum Green (s)	4.0	4.0	4.0	4.0
Recall	C-Min	None	None	None
Avg. Green (s)	21.6	13.6	21.1	13.6
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	82	96	82
Cycles with Peds (%)	4	29	0	0

Controller Summary
Average Cycle Length (s): NA
Number of Complete Cycles : 0

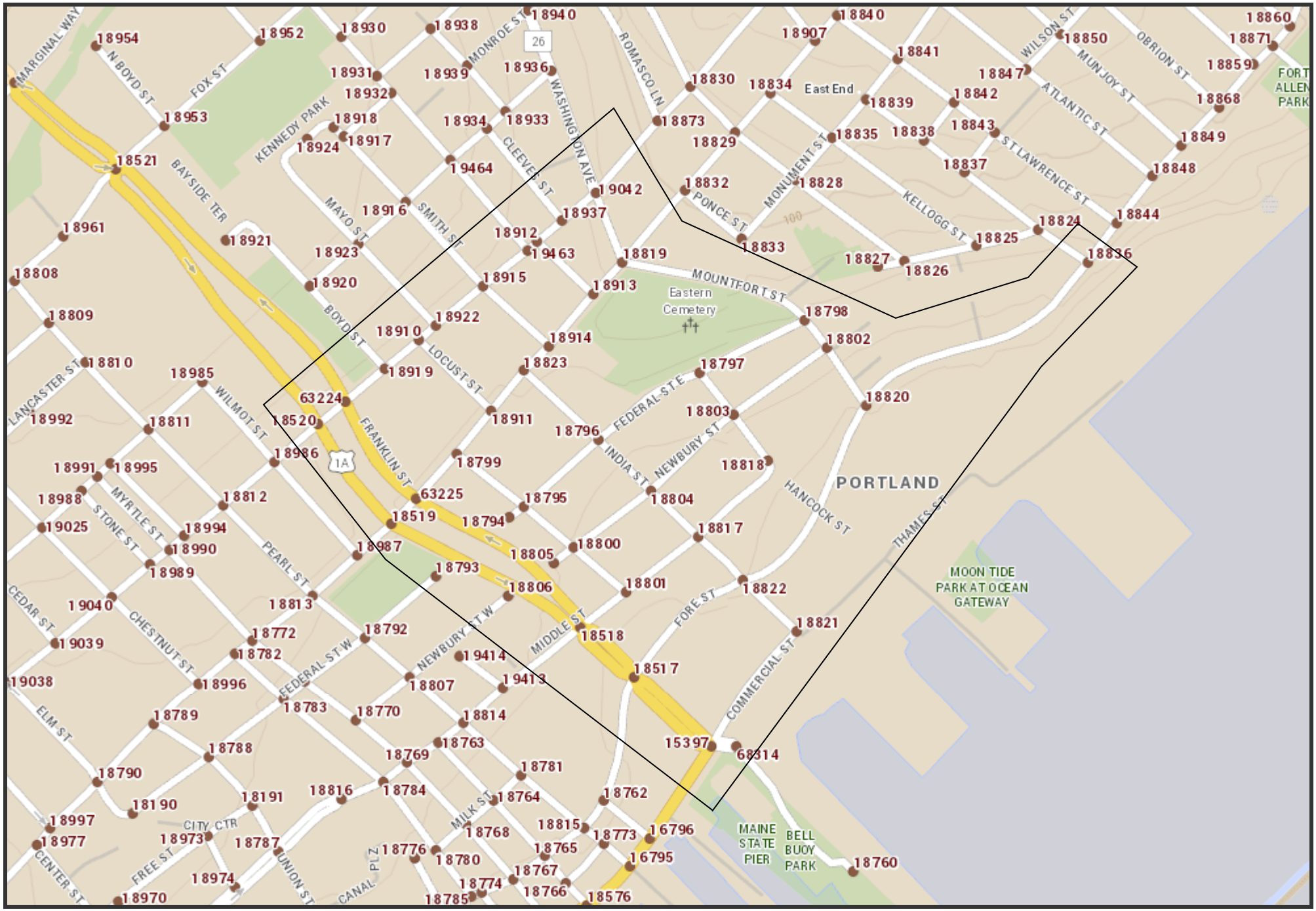
Appendix D

Node Map

Crash Report

Collision Diagrams

NODE MAP



The Maine Department of Transportation provides this publication for information only. Reliance upon this information is at user risk. It is subject to revision and may be incomplete depending upon changing conditions. The Department assumes no liability if injuries or damages result from this information. This map is not intended to support emergency dispatch.

0.15 Miles

1 inch = 0.13 miles

Date: 8/23/2016
Time: 9:58:43 AM

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☑ Section Detail ☑ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☑ 1320 Summary

REPORT DESCRIPTION

Franklin St area in Portland

REPORT PARAMETERS

Year 2013, Start Month 1 through Year 2015 End Month: 12

Route: 0561238	Start Node: 18520	Start Offset: 0	☐ Exclude First Node
	End Node: 19042	End Offset: 0	☐ Exclude Last Node
Route: 0560160	Start Node: 18819	Start Offset: 0	☑ Exclude First Node
	End Node: 18519	End Offset: 0	☑ Exclude Last Node
Route: 0561110	Start Node: 18794	Start Offset: 0	☐ Exclude First Node
	End Node: 18798	End Offset: 0	☑ Exclude Last Node
Route: 0560531	Start Node: 18805	Start Offset: 0	☐ Exclude First Node
	End Node: 18802	End Offset: 0	☑ Exclude Last Node
Route: 0560505	Start Node: 18518	Start Offset: 0	☑ Exclude First Node
	End Node: 18818	End Offset: 0	☐ Exclude Last Node
Route: 0560286	Start Node: 18836	Start Offset: 0	☐ Exclude First Node
	End Node: 18517	End Offset: 0	☑ Exclude Last Node
Route: 0561001	Start Node: 15397	Start Offset: 0	☐ Exclude First Node
	End Node: 18821	End Offset: 0	☐ Exclude Last Node
Route: 0001A	Start Node: 15397	Start Offset: 0	☑ Exclude First Node
	End Node: 63225	End Offset: 0	☑ Exclude Last Node
Route: 0001A	Start Node: 63225	Start Offset: 0	☑ Exclude First Node
	End Node: 63224	End Offset: 0	☑ Exclude Last Node
Route: 001AS	Start Node: 18520	Start Offset: 0	☑ Exclude First Node
	End Node: 18518	End Offset: 0	☑ Exclude Last Node

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☑ Section Detail ☑ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☑ 1320 Summary

REPORT DESCRIPTION

Franklin St area in Portland

REPORT PARAMETERS

Year 2013, Start Month 1 through Year 2015 End Month: 12

Route: 001AS	Start Node: 18518	Start Offset: 0	☑ Exclude First Node
	End Node: 18517	End Offset: 0	☑ Exclude Last Node
Route: 001AS	Start Node: 18517	Start Offset: 0	☑ Exclude First Node
	End Node: 15397	End Offset: 0	☑ Exclude Last Node
Route: 0561002	Start Node: 18819	Start Offset: 0	☐ Exclude First Node
	End Node: 19042	End Offset: 0	☑ Exclude Last Node
Route: 0560524	Start Node: 18819	Start Offset: 0	☑ Exclude First Node
	End Node: 18820	End Offset: 0	☑ Exclude Last Node
Route: 0560510	Start Node: 18912	Start Offset: 0	☑ Exclude First Node
	End Node: 18913	End Offset: 0	☑ Exclude Last Node
Route: 0560666	Start Node: 18914	Start Offset: 0	☑ Exclude First Node
	End Node: 18915	End Offset: 0	☑ Exclude Last Node
Route: 0560451	Start Node: 18910	Start Offset: 0	☑ Exclude First Node
	End Node: 18911	End Offset: 0	☑ Exclude Last Node
Route: 0560342	Start Node: 18795	Start Offset: 0	☑ Exclude First Node
	End Node: 18799	End Offset: 0	☑ Exclude Last Node
Route: 0560342	Start Node: 18800	Start Offset: 0	☑ Exclude First Node
	End Node: 18795	End Offset: 0	☑ Exclude Last Node
Route: 0560342	Start Node: 18801	Start Offset: 0	☑ Exclude First Node
	End Node: 18800	End Offset: 0	☑ Exclude Last Node

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☑ Section Detail ☑ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☑ 1320 Summary

REPORT DESCRIPTION

Franklin St area in Portland

REPORT PARAMETERS

Year 2013, Start Month 1 through Year 2015 End Month: 12

Route: 0561000	Start Node: 18822	Start Offset: 0	☑ Exclude First Node
	End Node: 18821	End Offset: 0	☑ Exclude Last Node
Route: 0561000	Start Node: 18817	Start Offset: 0	☑ Exclude First Node
	End Node: 18822	End Offset: 0	☑ Exclude Last Node
Route: 0561000	Start Node: 18804	Start Offset: 0	☑ Exclude First Node
	End Node: 18817	End Offset: 0	☑ Exclude Last Node
Route: 0561000	Start Node: 18796	Start Offset: 0	☑ Exclude First Node
	End Node: 18804	End Offset: 0	☑ Exclude Last Node
Route: 0561000	Start Node: 18823	Start Offset: 0	☑ Exclude First Node
	End Node: 18796	End Offset: 0	☑ Exclude Last Node
Route: 0560344	Start Node: 18803	Start Offset: 0	☑ Exclude First Node
	End Node: 18818	End Offset: 0	☑ Exclude Last Node
Route: 0560344	Start Node: 18797	Start Offset: 0	☑ Exclude First Node
	End Node: 18803	End Offset: 0	☑ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
18520	0561238 - 0.77	Int of CUMBERLAND AV FRANKLIN ST	9	18	0	0	1	2	15	16.7	7.178	0.84	1.10	0.00
												Statewide Crash Rate:	0.67	
63224	0561238 - 0.80	Int of CUMBERLAND AV FRANKLIN ST	9	13	0	0	1	4	8	38.5	6.653	0.65	1.12	0.00
												Statewide Crash Rate:	0.67	
18919	0561238 - 0.84	Int of BOYD ST CUMBERLAND AV	2	2	0	0	0	0	2	0.0	2.692	0.25	0.44	0.00
												Statewide Crash Rate:	0.15	
18910	0561238 - 0.87	Int of CUMBERLAND AV, LOCUST ST	2	2	0	0	0	0	2	0.0	2.636	0.25	0.44	0.00
												Statewide Crash Rate:	0.15	
18922	0561238 - 0.89	Int of CUMBERLAND AV MAYO ST	2	1	0	0	0	0	1	0.0	2.475	0.13	0.45	0.00
												Statewide Crash Rate:	0.15	
18915	0561238 - 0.94	Int of CUMBERLAND AV, SMITH ST	2	2	0	0	0	0	2	0.0	2.450	0.27	0.45	0.00
												Statewide Crash Rate:	0.15	
19463	0561238 - 0.98	Int of ANDERSON ST CUMBERLAND AV	2	2	0	0	0	0	2	0.0	2.195	0.30	0.46	0.00
												Statewide Crash Rate:	0.15	
18912	0561238 - 0.99	Int of CUMBERLAND AV, MONTGOMERY ST	2	0	0	0	0	0	0	0.0	2.043	0.00	0.47	0.00
												Statewide Crash Rate:	0.15	
18937	0561238 - 1.01	Int of CLEEVE ST CUMBERLAND AV	2	0	0	0	0	0	0	0.0	2.011	0.00	0.47	0.00
												Statewide Crash Rate:	0.15	
19042	0561238 - 1.04	Int of CUMBERLAND AV WASHINGTON AV	9	10	0	0	1	1	8	20.0	4.911	0.68	1.19	0.00
												Statewide Crash Rate:	0.67	
18913	0560160 - 0.55	Int of CONGRESS ST MONTGOMERY ST	2	0	0	0	0	0	0	0.0	3.833	0.00	0.40	0.00
												Statewide Crash Rate:	0.15	
18914	0560160 - 0.60	Int of CONGRESS ST SMITH ST	2	4	0	0	1	0	3	25.0	3.932	0.34	0.40	0.00
												Statewide Crash Rate:	0.15	
18823	0560160 - 0.63	Int of CONGRESS ST INDIA ST	9	7	0	0	1	3	3	57.1	4.581	0.51	1.20	0.00
												Statewide Crash Rate:	0.67	
18911	0560160 - 0.67	Int of CONGRESS ST LOCUST ST	2	0	0	0	0	0	0	0.0	2.943	0.00	0.43	0.00
												Statewide Crash Rate:	0.15	
18799	0560160 - 0.71	Int of CONGRESS ST HAMPSHIRE ST	2	0	0	0	0	0	0	0.0	3.235	0.00	0.42	0.00
												Statewide Crash Rate:	0.15	
63225	0560160 - 0.76	Int of CONGRESS ST FRANKLIN ST	9	12	0	1	0	4	7	41.7	5.974	0.67	1.14	0.00
												Statewide Crash Rate:	0.67	
18794	0561110 - 0	End of FEDERAL ST E	2	0	0	0	0	0	0	0.0	0.007	0.00	-17.21	0.00
												Statewide Crash Rate:	0.14	
18795	0561110 - 0.02	Int of FEDERAL ST E HAMPSHIRE ST	2	0	0	0	0	0	0	0.0	0.274	0.00	0.59	0.00
												Statewide Crash Rate:	0.14	
18796	0561110 - 0.10	Int of FEDERAL ST E INDIA ST	2	1	0	0	0	0	1	0.0	2.510	0.13	0.45	0.00
												Statewide Crash Rate:	0.15	
18797	0561110 - 0.20	Int of FEDERAL ST E HANCOCK ST	2	0	0	0	0	0	0	0.0	0.154	0.00	0.48	0.00
												Statewide Crash Rate:	0.14	
18805	0560531 - 0	End of NEWBURY ST	2	0	0	0	0	0	0	0.0	0.006	0.00	-20.36	0.00
												Statewide Crash Rate:	0.14	
18800	0560531 - 0.03	Int of HAMPSHIRE ST NEWBURY ST	2	0	0	0	0	0	0	0.0	0.296	0.00	0.60	0.00
												Statewide Crash Rate:	0.14	

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
18804	0560531 - 0.11	Int of INDIA ST NEWBURY ST	2	2	0	0	0	0	2	0.0	2.235	0.30	0.46	0.00
											Statewide Crash Rate:	0.15		
18803	0560531 - 0.19	Int of HANCOCK ST NEWBURY ST	2	1	0	0	0	0	1	0.0	0.249	1.34	0.59	2.28
											Statewide Crash Rate:	0.14		
18801	0560505 - 0.33	0509221 POR,MIDDLE,HAMPSHIRE ST	2	1	0	0	0	0	1	0.0	0.968	0.34	0.53	0.00
											Statewide Crash Rate:	0.14		
18817	0560505 - 0.39	Int of INDIA ST MIDDLE ST	2	4	0	0	1	2	1	75.0	2.212	0.60	0.46	1.30
											Statewide Crash Rate:	0.15		
18818	0560505 - 0.47	0509238 POR,HANCOCK,MIDDLE ST.	2	0	0	0	0	0	0	0.0	0.272	0.00	0.59	0.00
											Statewide Crash Rate:	0.14		
18836	0560286 - 0.08	Int of FORE ST WATERVILLE ST	2	0	0	0	0	0	0	0.0	1.748	0.00	0.44	0.00
											Statewide Crash Rate:	0.13		
18820	0560286 - 0.28	Int of FORE ST, MOUNTFORT ST	2	1	0	0	1	0	0	100.0	1.976	0.17	0.43	0.00
											Statewide Crash Rate:	0.13		
18822	0560286 - 0.45	Int of FORE ST INDIA ST	2	7	0	0	0	3	4	42.9	3.565	0.65	0.41	1.60
											Statewide Crash Rate:	0.15		
15397	0561001 - 0	Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER	9	8	0	0	0	3	5	37.5	4.896	0.54	1.19	0.00
											Statewide Crash Rate:	0.67		
18821	0561001 - 0.11	Int of COMMERCIAL ST INDIA ST	2	0	0	0	0	0	0	0.0	2.210	0.00	0.46	0.00
											Statewide Crash Rate:	0.15		
18517	0001A - 11.88	Int of FORE ST FRANKLIN ST	9	8	0	0	1	3	4	50.0	3.590	0.74	1.27	0.00
											Statewide Crash Rate:	0.67		
18518	0001A - 11.94	Int of FRANKLIN ST MIDDLE ST	9	20	0	0	1	5	14	30.0	5.287	1.26	1.17	1.08
											Statewide Crash Rate:	0.67		
18519	001AS - 1.91	Int of CONGRESS ST, FRANKLIN ST	9	11	0	1	1	2	7	36.4	7.631	0.48	1.09	0.00
											Statewide Crash Rate:	0.67		
18819	0561002 - 0	Int of CONGRESS ST, MOUNTFORT ST, WASHINGTON AV	9	11	0	0	1	0	10	9.1	4.593	0.80	1.20	0.00
											Statewide Crash Rate:	0.67		
18798	0560524 - 0.14	Int of FEDERAL ST E MOUNTFORT ST	2	2	0	0	0	0	2	0.0	0.513	1.30	0.59	2.19
											Statewide Crash Rate:	0.14		
18802	0560524 - 0.17	Int of MOUNTFORT ST NEWBURY ST	2	0	0	0	0	0	0	0.0	0.449	0.00	0.60	0.00
											Statewide Crash Rate:	0.14		
Study Years:	3.00	NODE TOTALS:		150	0	2	11	32	105	30.0	105.383	0.47	0.51	0.92

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18520	63224	3118814	0 - 0.03	0561238 - 0.77	0.03	2	1	0	0	0	0	1	0.0	0.00107	312.57	683.74	0.00
Int of CUMBERLAND AV FRANKLIN ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
63224	18919	3115972	0 - 0.04	0561238 - 0.80	0.04	2	3	0	0	0	0	3	0.0	0.00106	940.32	684.19	1.37
Int of CUMBERLAND AV FRANKLIN ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18910	18919	3129300	0 - 0.03	0561238 - 0.84	0.03	2	7	0	0	0	2	5	28.6	0.00077	3047.62	737.95	4.13
Int of CUMBERLAND AV, LOCUST ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18910	18922	3118713	0 - 0.02	0561238 - 0.87	0.02	2	1	0	0	0	0	1	0.0	0.00049	678.28	804.41	0.00
Int of CUMBERLAND AV, LOCUST ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18915	18922	3117967	0 - 0.05	0561238 - 0.89	0.05	2	5	0	0	0	0	5	0.0	0.00120	1394.48	665.03	2.10
Int of CUMBERLAND AV, SMITH ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18915	19463	3131702	0 - 0.04	0561238 - 0.94	0.04	2	0	0	0	0	0	0	0.0	0.00088	0.00	715.17	0.00
Int of CUMBERLAND AV, SMITH ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18912	19463	194577	0 - 0.01	0561238 - 0.98	0.01	2	0	0	0	0	0	0	0.0	0.00021	0.00	850.21	0.00
Int of CUMBERLAND AV, MONTGOMERY ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18912	18937	3130202	0 - 0.02	0561238 - 0.99	0.02	2	1	0	0	0	0	1	0.0	0.00040	835.08	829.57	1.01
Int of CUMBERLAND AV, MONTGOMERY ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18937	19042	3131703	0 - 0.03	0561238 - 1.01	0.03	2	3	0	0	0	0	3	0.0	0.00059	1686.50	777.77	2.17
Int of CLEEVE ST CUMBERLAND AV				RD INV 05 61238											Statewide Crash Rate: 198.45		
18819	18913	3131697	0 - 0.03	0560160 - 0.52	0.03	2	1	0	0	0	0	1	0.0	0.00111	300.18	677.09	0.00
Int of CONGRESS ST, MOUNTFORT ST, WASHINGTON AV				RD INV 05 60160											Statewide Crash Rate: 198.45		
18913	18914	194578	0 - 0.05	0560160 - 0.55	0.05	2	4	0	0	0	1	2	33.3	0.00189	706.78	592.48	1.19
Int of CONGRESS ST MONTGOMERY ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18823	18914	3118711	0 - 0.03	0560160 - 0.60	0.03	2	1	0	0	0	0	1	0.0	0.00117	284.21	668.12	0.00
Int of CONGRESS ST INDIA ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18823	18911	3120757	0 - 0.04	0560160 - 0.63	0.04	2	4	0	0	1	2	1	75.0	0.00116	1150.76	670.11	1.72
Int of CONGRESS ST INDIA ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18799	18911	3123999	0 - 0.04	0560160 - 0.67	0.04	2	2	0	0	0	0	2	0.0	0.00120	557.40	664.91	0.00
Int of CONGRESS ST HAMPSHIRE ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
63225	18799	3115974	0 - 0.05	0560160 - 0.71	0.05	2	1	0	0	0	1	0	100.0	0.00174	191.54	604.90	0.00
Int of CONGRESS ST FRANKLIN ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18519	63225	3115973	0 - 0.03	0560160 - 0.76	0.03	2	0	0	0	0	0	0	0.0	0.00128	0.00	654.44	0.00
Int of CONGRESS ST, FRANKLIN ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18794	18795	194384	0 - 0.02	0561110 - 0	0.02	2	0	0	0	0	0	0	0.0	0.00000	0.00	-	0.00
End of FEDERAL ST E				RD INV 05 61110											Statewide Crash Rate: 384.19	42194.82	
18795	18796	194385	0 - 0.08	0561110 - 0.02	0.08	2	1	0	0	0	0	1	0.0	0.00024	1372.06	1568.43	0.00
Int of FEDERAL ST E HAMPSHIRE ST				RD INV 05 61110											Statewide Crash Rate: 384.19		
18796	18797	194388	0 - 0.10	0561110 - 0.10	0.10	2	1	0	0	0	0	1	0.0	0.00011	2936.47	1652.05	1.78
Int of FEDERAL ST E INDIA ST				RD INV 05 61110											Statewide Crash Rate: 384.19		
18797	18798	194391	0 - 0.10	0561110 - 0.20	0.10	2	1	0	0	0	0	0	0.0	0.00006	5930.14	1307.34	4.54
Int of FEDERAL ST E HANCOCK ST				RD INV 05 61110											Statewide Crash Rate: 384.19		

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18800	18805	194398	0 - 0.03	0560531 - 0	0.03	2	0	0	0	0	0	0	0.0	0.00000	0.00	-	0.00
Int of HAMPSHIRE ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19	30403.77	
18800	18804	194397	0 - 0.08	0560531 - 0.03	0.08	2	4	0	0	0	0	4	0.0	0.00008	15800.03	1582.54	9.98
Int of HAMPSHIRE ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19		
18803	18804	194402	0 - 0.08	0560531 - 0.11	0.08	2	1	0	0	0	0	1	0.0	0.00011	3119.00	1644.54	1.90
Int of HANCOCK ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19		
18802	18803	194400	0 - 0.08	0560531 - 0.19	0.08	2	1	0	0	0	0	1	0.0	0.00006	5212.57	1423.30	3.66
Int of MOUNTFORT ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19		
18518	18801	194025	0 - 0.06	0560505 - 0.27	0.06	2	2	0	0	0	1	1	50.0	0.00075	885.18	1225.13	0.00
Int of FRANKLIN ST MIDDLE ST				RD INV 05 60505											Statewide Crash Rate: 384.19		
18801	18817	194399	0 - 0.06	0560505 - 0.33	0.06	2	3	0	0	1	0	2	33.3	0.00017	5854.12	1638.94	3.57
0509221 POR,MIDDLE,HAMPSHIRE ST				RD INV 05 60505											Statewide Crash Rate: 384.19		
18817	18818	194423	0 - 0.08	0560505 - 0.39	0.08	2	0	0	0	0	0	0	0.0	0.00032	0.00	1495.09	0.00
Int of INDIA ST MIDDLE ST				RD INV 05 60505											Statewide Crash Rate: 384.19		
18820	18836	3131698	0 - 0.20	0560286 - 0.08	0.20	2	5	0	0	2	0	3	40.0	0.00336	495.47	433.67	1.14
Int of FORE ST, MOUNTFORT ST				RD INV 05 60286											Statewide Crash Rate: 159.43		
18820	18822	3106815	0 - 0.17	0560286 - 0.28	0.17	2	9	0	0	1	1	7	22.2	0.00323	929.24	438.31	2.12
Int of FORE ST, MOUNTFORT ST				RD INV 05 60286											Statewide Crash Rate: 159.43		
18517	18822	3106667	0 - 0.11	0560286 - 0.45	0.11	2	2	0	0	0	0	2	0.0	0.00155	429.61	528.74	0.00
Int of FORE ST FRANKLIN ST				RD INV 05 60286											Statewide Crash Rate: 159.43		
15397	18821	3106035	0 - 0.11	0561001 - 0	0.11	2	3	0	0	0	0	2	0.0	0.00260	385.13	545.43	0.00
Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER				RD INV 05 61001											Statewide Crash Rate: 198.45		
15397	18517	3123025	0 - 0.08	0001A - 11.80	0.08	2	1	0	0	0	1	0	100.0	0.00076	439.06	739.30	0.00
Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER				US 1A											Statewide Crash Rate: 198.45		
18517	18518	3118954	0 - 0.06	0001A - 11.88	0.06	2	0	0	0	0	0	0	0.0	0.00078	0.00	734.26	0.00
Int of FORE ST FRANKLIN ST				US 1A											Statewide Crash Rate: 198.45		
18518	63225	3121455	0 - 0.16	0001A - 11.94	0.16	2	0	0	0	0	0	0	0.0	0.00337	0.00	509.80	0.00
Int of FRANKLIN ST MIDDLE ST				US 1A											Statewide Crash Rate: 198.45		
63225	63224	2566764	0 - 0.09	0001A - 12.10	0.09	2	2	0	0	0	1	1	50.0	0.00319	208.87	517.08	0.00
Int of CONGRESS ST FRANKLIN ST				US 1A											Statewide Crash Rate: 198.45		
18519	18520	3106670	0 - 0.09	001AS - 1.82	0.09	2	3	0	0	0	0	3	0.0	0.00326	306.28	514.07	0.00
Int of CONGRESS ST, FRANKLIN ST				US 1AS											Statewide Crash Rate: 198.45		
18518	18519	3106668	0 - 0.16	001AS - 1.91	0.16	2	1	0	0	1	0	0	100.0	0.00358	93.20	502.19	0.00
Int of FRANKLIN ST MIDDLE ST				US 1AS											Statewide Crash Rate: 198.45		
18517	18518	3118912	0 - 0.06	001AS - 2.07	0.06	2	2	0	0	1	0	1	50.0	0.00078	853.42	734.71	1.16
Int of FORE ST FRANKLIN ST				US 1AS											Statewide Crash Rate: 198.45		
15397	18517	3100256	0 - 0.08	001AS - 2.13	0.08	2	1	0	0	0	0	1	0.0	0.00107	312.58	683.74	0.00
Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER				US 1AS											Statewide Crash Rate: 198.45		

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18819	19042	3106814	0 - 0.06	0561002 - 0	0.06	2	4	0	0	0	0	4	0.0	0.00174	764.28	604.53	1.26
Int of CONGRESS ST, MOUNTFORT ST, WASHINGTON AV				RD INV 05 61002											Statewide Crash Rate: 198.45		
18798	18819	194394	0 - 0.14	0560524 - 0	0.14	2	1	0	0	0	0	1	0.0	0.00073	455.85	1234.29	0.00
Int of FEDERAL ST E MOUNTFORT ST				RD INV 05 60524											Statewide Crash Rate: 384.19		
18798	18802	194393	0 - 0.03	0560524 - 0.14	0.03	2	0	0	0	0	0	0	0.0	0.00013	0.00	1658.64	0.00
Int of FEDERAL ST E MOUNTFORT ST				RD INV 05 60524											Statewide Crash Rate: 384.19		
18802	18820	194401	0 - 0.05	0560524 - 0.17	0.05	2	6	0	0	0	0	5	0.0	0.00019	10807.60	1626.49	6.64
Int of MOUNTFORT ST NEWBURY ST				RD INV 05 60524											Statewide Crash Rate: 384.19		
18912	18913	194575	0 - 0.05	0560510 - 0	0.05	2	0	0	0	0	0	0	0.0	0.00005	0.00	1109.01	0.00
Int of CUMBERLAND AV, MONTGOMERY ST				RD INV 05 60510											Statewide Crash Rate: 384.19		
18914	18915	194579	0 - 0.06	0560666 - 0	0.06	2	1	0	0	0	1	0	100.0	0.00011	3074.89	1646.59	1.87
Int of CONGRESS ST SMITH ST				RD INV 05 60666											Statewide Crash Rate: 384.19		
18910	18911	194572	0 - 0.07	0560451 - 0	0.07	2	3	0	0	0	0	3	0.0	0.00009	10902.21	1610.95	6.77
Int of CUMBERLAND AV, LOCUST ST				RD INV 05 60451											Statewide Crash Rate: 384.19		
18795	18799	194386	0 - 0.06	0560342 - 0.10	0.06	2	0	0	0	0	0	0	0.0	0.00007	0.00	1482.15	0.00
Int of FEDERAL ST E HAMPSHIRE ST				RD INV 05 60342											Statewide Crash Rate: 384.19		
18795	18800	194387	0 - 0.05	0560342 - 0.05	0.05	2	1	0	0	0	0	1	0.0	0.00012	2805.66	1655.82	1.69
Int of FEDERAL ST E HAMPSHIRE ST				RD INV 05 60342											Statewide Crash Rate: 384.19		
18800	18801	194396	0 - 0.05	0560342 - 0	0.05	2	0	0	0	0	0	0	0.0	0.00010	0.00	1630.72	0.00
Int of HAMPSHIRE ST NEWBURY ST				RD INV 05 60342											Statewide Crash Rate: 384.19		
18821	18822	3106816	0 - 0.06	0561000 - 0.23	0.06	2	0	0	0	0	0	0	0.0	0.00124	0.00	659.57	0.00
Int of COMMERCIAL ST INDIA ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18817	18822	3106813	0 - 0.05	0561000 - 0.18	0.05	2	1	0	0	0	0	1	0.0	0.00088	378.86	715.36	0.00
Int of INDIA ST MIDDLE ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18804	18817	3122291	0 - 0.05	0561000 - 0.13	0.05	2	3	0	0	1	0	1	50.0	0.00099	1008.74	695.75	1.45
Int of INDIA ST NEWBURY ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18796	18804	3130049	0 - 0.05	0561000 - 0.08	0.05	2	3	0	0	0	0	3	0.0	0.00112	889.95	675.15	1.32
Int of FEDERAL ST E INDIA ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18796	18823	3106811	0 - 0.08	0561000 - 0	0.08	2	2	0	0	0	0	2	0.0	0.00189	353.64	592.58	0.00
Int of FEDERAL ST E INDIA ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18803	18818	194403	0 - 0.05	0560344 - 0.04	0.05	2	0	0	0	0	0	0	0.0	0.00007	0.00	1518.66	0.00
Int of HANCOCK ST NEWBURY ST				RD INV 05 60344											Statewide Crash Rate: 384.19		
18797	18803	194392	0 - 0.04	0560344 - 0	0.04	2	0	0	0	0	0	0	0.0	0.00006	0.00	1288.27	0.00
Int of FEDERAL ST E HANCOCK ST				RD INV 05 60344											Statewide Crash Rate: 384.19		
Study Years: 3.00				Section Totals:	3.68		102	0	0	8	11	78	18.6	0.05523	615.59	292.48	2.10
				Grand Totals:	3.68		252	0	2	19	43	183	25.4	0.05523	1520.87	412.47	3.69

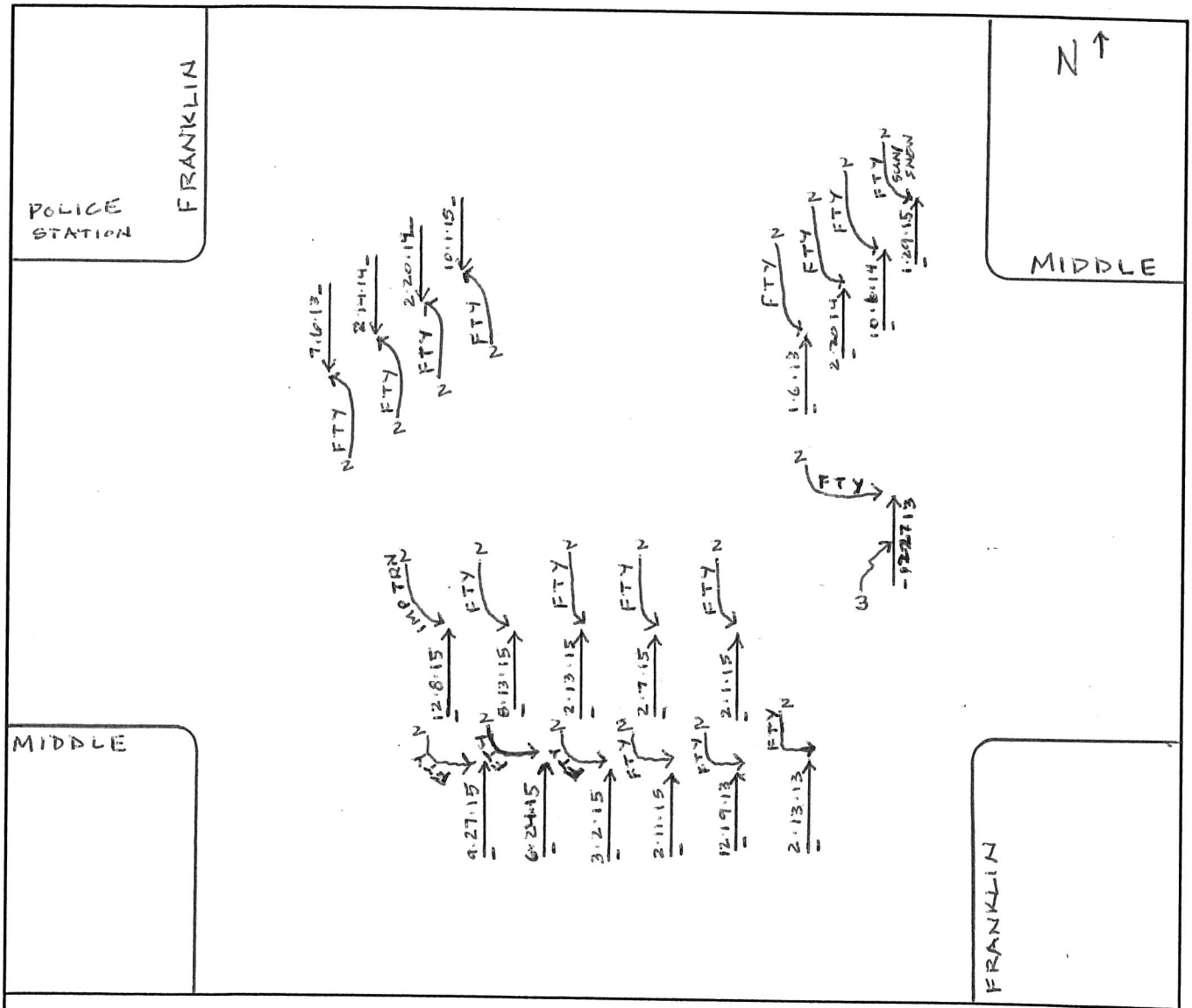
COLLISION DIAGRAM

SHEET 1 OF 2

LOCATION Intersection of Franklin & Middle Streets

TOWN Portland, Maine NODE NO(S) 18518

YEARS REVIEWED 2013 - 2015 DATE PREPARED 08.29.2016



CRITICAL RATE FACTOR _____ EQUIV. PROP. DAMAGE ACC/YEAR _____ ACC/MEV _____

LIGHT
1. DAWN (MORNING) 2. DAYLIGHT 3. DUSK (EVENING)
4. DARK (ST. LIGHTS ON) 5. DARK (NO ST. LIGHTS) 6. DARK (ST. LIGHTS OFF)
7. OTHER

ROAD SURFACE
1. DRY 2. WET 3. SNOW/SLUSH-SANDED
4. ICE/PACKED SNOW-SANDED 5. MUDDY 6. DEBRIS
7. OILY 8. SNOW/SLUSH-NOT SANDED 9. ICE-PKD. SNOW-NOT SANDED
10. OTHER

APPARENT CONTRIBUTING FACTORS - HUMAN
1. NO IMPROPER ACTION 2. FAIL TO YLD. RIGHT OF WAY 3. ILLEGAL UNSAFE SPEED
4. FOLLOW TOO CLOSE 5. DISREGARD TRAFFIC CONTROL DEVICE
6. DRIVING LEFT OF CENTER-NO PASSING 7. IMPROPER PASS-OVERTAKING
8. IMP. UNSAFE LANE CHANGE 9. IMP. PARKING START/STOP 10. IMPROPER TURN
11. UNSAFE BACKING 12. NO SIGNAL OR IMP. SIGNAL 13. IMPEDING TRAFFIC
14. DRIVER INATTENTION-DISTRACTION 15. DRIVER INEXPERIENCE
16. PEDEST. VIOLATION ERROR 17. PHYSICAL IMPAIRMENT 18. VISION OBSCURED-WINDSHIELD GLASS
19. VISION OBSCURED-SUN/HEADLIGHTS
20. OTHER VISION OBSCUREMENT 30. OTHER HUMAN VIOLATION FACTOR
31. HIT AND RUN 51. UNKNOWN

- VEHICULAR
41. DEFECTIVE BRAKES 42. DEFECTIVE TIRE/FAILURE 43. DEFECTIVE LIGHTS
44. DEFECTIVE SUSPENSION 45. DEFECTIVE STEERING 50. OTHER VEHICLE DEFECT
OR FACTOR 51. UNKNOWN

SYMBOLS

ANGLE, BACKING, FIXED OBJECT, HEAD ON, OVERTURN, PARKED VEHICLE
PEDESTRIAN (P), REAR END, SIDE SWIPE, TURNING MOVE, CHANGE LANE, OUT OF CONTROL
FATAL ACCIDENT, VEHICLE (MOVING), BICYCLE (B), ANIMAL (A), SLED (S)

WEATHER
C = CLEAR
F = FOG
R = RAIN
SL = SLEET
S = SNOW
CL = CLOUDY
XW = CROSS WINDS

INJURIES
K = FATAL
A = INCAPACITATING
B = NON-INCAPACITATING
C = POSSIBLE INJURY

S:\SHEETS\COLLISION DIAGRAM.DWG

COLLISION DIAGRAM

SHEET 2 OF 2

LOCATION Intersection of Franklin & Middle Streets

TOWN Portland, ME NODE NO(S) 18518

YEARS REVIEWED 2013 - 2015 DATE PREPARED 08·29·2016

REPORT NO.	DATE	TIME	INJURIES K	A	B	C	LIGHT	ROAD SURFACE	ACF	OTHER
00076	01·06·13	08:55	-	-	-	1	1	2	2	
000535	02·13·13	06:41	-	-	-	-	1	2	2	
001912	07·06·13	13:08	-	-	-	-	1	1	2	
003722	12·19·13	19:47	-	-	-	-	4	2	2	
003801	12·27·13	08:55	-	-	-	-	2	3	2	
000570	02·14·14	07:56	-	-	-	1	2	3	2	
000702	02·20·14	12:46	-	-	-	-	2	2	2	
000703	02·20·14	12:50	-	-	-	-	2	2	2	
002950	10·06·14	18:10	-	-	-	-	2	1	2	
000362	01·29·15	07:48	-	-	-	1	2	3	2/19	
000442	02·01·15	16:15	-	-	-	1	2	3	2	
000617	02·07·15	14:49	-	-	-	-	2	2	2	
000724	02·11·15	13:04	-	-	-	-	2	2	2	
000769	02·13·15	08:22	-	-	-	-	2	2	2	
001020	03·02·15	14:59	-	-	-	-	2	1	2	
002165	06·24·15	09:30	-	-	-	1	2	1	2	
002716	08·13·15	08:15	-	-	-	-	2	1	2	
003242	09·27·15	10:32	-	-	1	-	2	1	2	
003298	10·01·15	08:45	-	-	-	-	2	1	2	
004095	12·08·15	10:31	-	-	-	-	2	1	10	

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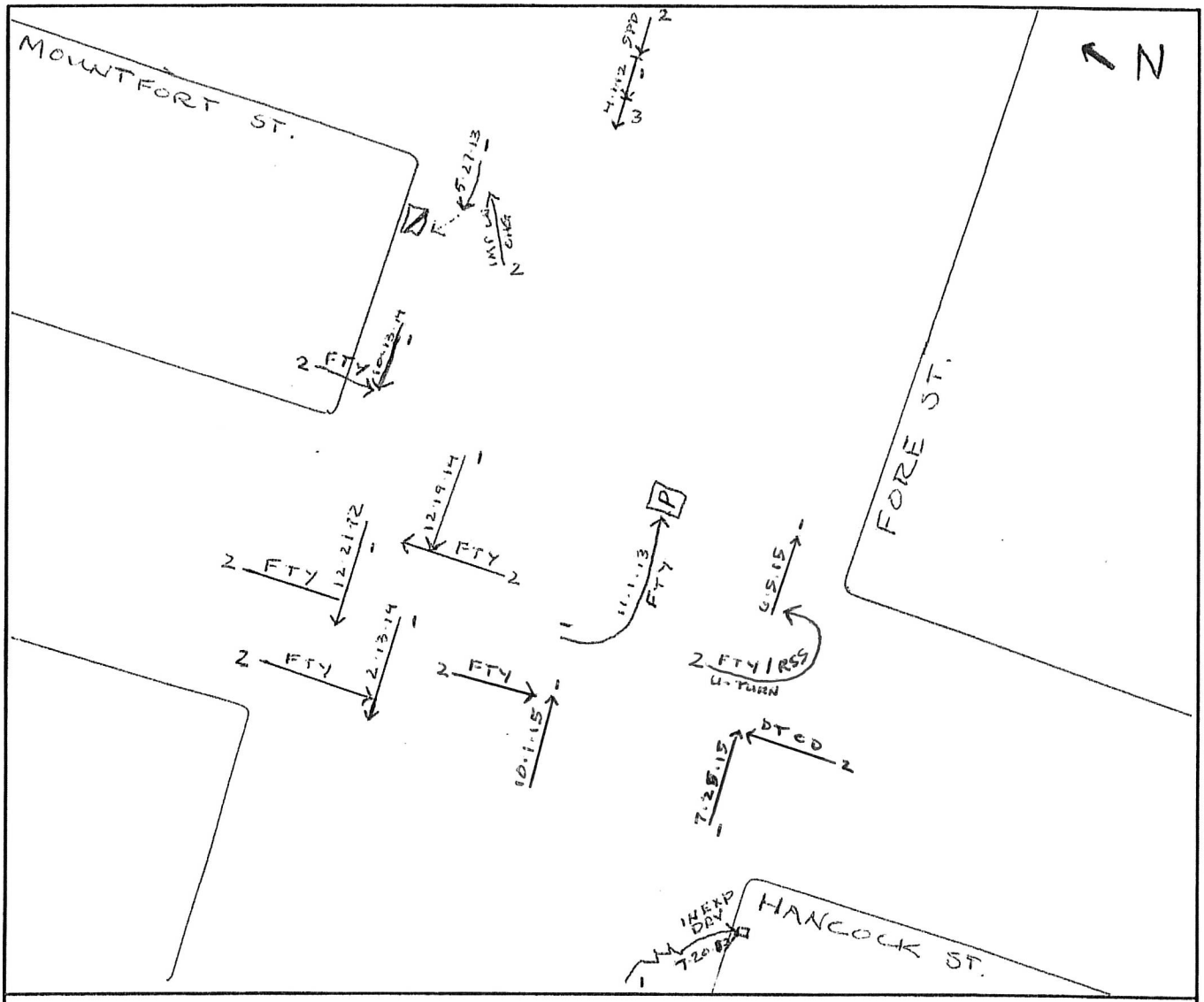
COLLISION DIAGRAM

SHEET 1 OF 2

LOCATION Intersection of Fore Street & Hancock Street

TOWN Portland, Maine NODE NO(S) 18820 to 18822

YEARS REVIEWED 2012 - 2015 DATE PREPARED 08.29.2016



CRITICAL RATE FACTOR _____ EQUIV. PROP. DAMAGE ACC/YEAR _____ ACC/MEV _____

LIGHT

1. DAWN (MORNING) 2. DAYLIGHT 3. DUSK (EVENING)
4. DARK (ST. LIGHTS ON) 5. DARK (NO ST. LIGHTS) 6. DARK (ST. LIGHTS OFF)
7. OTHER

ROAD SURFACE

1. DRY 2. WET 3. SNOW/SLUSH-SANDED
4. ICE/PACKED SNOW-SANDED 5. MUDDY 6. DEBRIS
7. OILY 8. SNOW/SLUSH-NOT SANDED 9. ICE-PKD. SNOW-NOT SANDED
10. OTHER

APPARENT CONTRIBUTING FACTORS - HUMAN

1. NO IMPROPER ACTION 2. FAIL TO YLD. RIGHT OF WAY 3. ILLEGAL UNSAFE SPEED
4. FOLLOW TOO CLOSE 5. DISREGARD TRAFFIC CONTROL DEVICE
6. DRIVING LEFT OF CENTER-NO PASSING 7. IMPROPER PASS-OVERTAKING
8. IMP. UNSAFE LANE CHANGE 9. IMP. PARKING START/STOP 10. IMPROPER TURN
11. UNSAFE BACKING 12. NO SIGNAL OR IMP. SIGNAL 13. IMPEDING TRAFFIC
14. DRIVER INATTENTION-DISTRACTION 15. DRIVER INEXPERIENCE
16. PEDEST. VIOLATION ERROR 17. PHYSICAL IMPAIRMENT 18. VISION OBSCURED-WINDSHIELD GLASS 19. VISION OBSCURED-SUN/HEADLIGHTS
20. OTHER VISION OBSCUREMENT 30. OTHER HUMAN VIOLATION FACTOR
31. HIT AND RUN 51. UNKNOWN

- VEHICULAR

41. DEFECTIVE BRAKES 42. DEFECTIVE TIRE/FAILURE 43. DEFECTIVE LIGHTS
44. DEFECTIVE SUSPENSION OR FACTOR 45. DEFECTIVE STEERING 50. OTHER VEHICLE DEFECT
51. UNKNOWN

SYMBOLS

ANGLE, BACKING, FIXED OBJECT, HEAD ON, OVERTURN, PARKED VEHICLE, PEDESTRIAN, REAR END, SIDE SWIPE, TURNING MOVE, CHANGE LANE, OUT OF CONTROL, FATAL ACCIDENT, VEHICLE (MOVING), BICYCLE (B), ANIMAL (A), SLED (S)

WEATHER

C = CLEAR F = FOG R = RAIN
SL = SLEET S = SNOW CL = CLOUDY
XW = CROSS WINDS

INJURIES

K = FATAL B = NON-INCAPACITATING
A = INCAPACITATING C = POSSIBLE INJURY

S:/SHEETS/COLLISION DIAGRAM.DWG

COLLISION DIAGRAM

SHEET 2 OF 2

LOCATION Intersection of Fore Street & Hancock Street

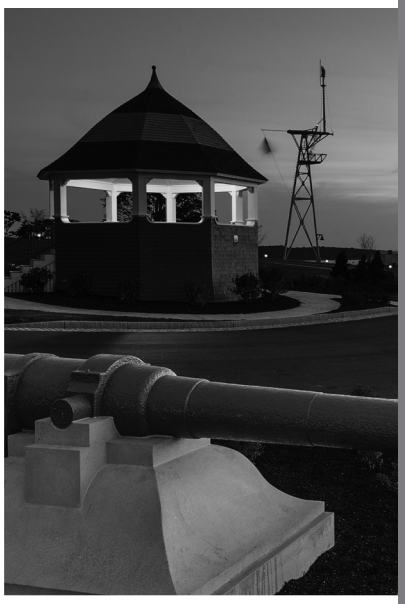
TOWN Portland NODE NO(S) 18820 to 18822

YEARS REVIEWED 2012 - 2015 DATE PREPARED 08.29.2016

REPORT NO.	DATE	TIME	INJURIES K	A	B	C	LIGHT	ROAD SURFACE	ACF	OTHER
00781	04.01.12	02:55	-	-	-	1	4	1	3	
003253	12.21.12	16:53	-	-	-	2	4	2	2	
001534	05.27.13	12:40	-	-	-	1	2	1	8	
002062	07.20.13	10:29	-	-	-	-	2	1	15	Student Driver
003090	11.01.13	15:30	-	1	-	-	2	1	2	
000550	02.18.14	10:03	-	-	-	-	2	2	2	
003007	10.13.14	10:09	-	-	-	-	2	1	2	
003756	12.19.14	15:09	-	-	-	-	2	1	2	
001962	06.05.15	10:35	-	-	-	-	2	1	2/5	U-Turn
002518	07.25.15	17:59	-	-	-	-	2	1	5	
003289	10.01.15	13:11	-	-	-	-	2	2	2	

S:/SHEETS/COLLISION DIAGRAM.DWG

Relationships.
Responsiveness.
Results.









Traffic Permit Application Request for Scoping Meeting 58 Fore Street Redevelopment Portland, Maine

PREPARED FOR:
CPB2
PO Box 7987
Portland, ME 04112

September 2016

SUBMITTED BY:
Gorrill Palmer
707 Sable Oaks Drive
Suite 30
So. Portland, ME 04106
207.772.2515

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

September 16, 2016

Ms. Christine Grimando
City of Portland Planning Division
389 Congress Street, 4th Floor
Portland, Maine 04101

RE: Application for Traffic Movement Permit
58 Fore Street Redevelopment
Portland, Maine

Dear Ms. Grimando,

Gorrill Palmer (GP) has been retained by CPB2 LLC to prepare this Traffic Movement Permit Application for the proposed 58 Fore Street redevelopment project located at the site of the Portland Company in Portland, Maine.

We have attached the following information in support of this application:

- Sections 1-6
- Signed application form
- Notice of intent to file
- List of abutters (under separate cover)
- $1,500 application fee (under separate cover)

Section 7 (Traffic Impact Study) of the application is also being submitted under separate cover. Please contact our office with any questions regarding this application.

Sincerely,

Gorrill Palmer

Randy Dunton, PE, PTOE
Project Manager

Copy: Jim Brady, CPB2 Management LLC
David Senus, Woodard & Curran
Timothy Soucie, MaineDOT Region 1 Traffic Engineer

Department of Transportation
Traffic Engineering Division
16 State House Station
Augusta, Maine 04333
Telephone: 207-287-3775

FOR MDOT USE 12/99
ID#_____

Total Fees:_____
Date Received: _____

****

PERMIT APPLICATION – TRAFFIC
TRAFFIC MOVEMENT PERMIT, 23 M.R.S.A. §704-A

Please type or print:

This application is for (check all that apply): Traffic 100-200 PCE's ☐
Traffic 200 + PCE's ☒

Name of Applicant: **CPB2 LLC Attn: Mr. James Brady**

Address: PO Box 7987 Portland, ME 04112 Telephone: (207) 558-3704

Name of local contact or agent: **Randy Dunton – Gorrill Palmer**

Address: **707 Sable Oaks Drive, Suite 30, South Portland, ME 04106**

Telephone: **(207) 772-2515**

Name and type of development: 58 Fore Street mixed use development. Total of approximately 960,000 sf of building area consisting of office space, hotel, residential units, retail, restaurant space, and a marina.

Location of development including road, street, or nearest route number: **The site is located at 58 Fore Street at the Portland Company site on the Portland Waterfront.**

City/~~Town/Plantation~~: **Portland** County: **Cumberland** Tax Maps: **018** Lots: **A001, A003**

Do you want a consolidated review with DEP pursuant to 23 M.R.S.A. § 704-A (7)? **No**

Was this development started prior to obtaining a traffic permit? **No**

Is the project located in an area designated as a growth area (as defined in M.R.S.A. title 30-A, chapter 187)?
Yes X No _____

Is this project located within a compact area of an urban compact municipality? Yes X No _____

Is this development or any portion of the site currently subject to state or municipal enforcement action?

None Known

Existing DEP or MDOT permit number (if applicable): Delegated review is to the City

Name(s) DOT staff person(s) contacted concerning this application **None**

Name(s) of DOT staff person(s) present at the scoping meeting for 200+ applicants:

N/A

Department of Transportation
Traffic Engineering Division
16 State House Station
Augusta, Maine 04333
Telephone: 207-287-3775

FOR MDOT USE 12/99
ID#_____

Total Fees:_____
Date Received: _____

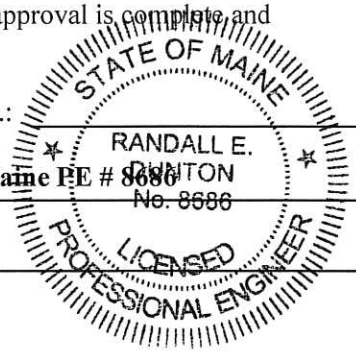
CERTIFICATION

This person responsible for preparing this application and/or attaching pertinent site and traffic information hereto, by signing below, certifies that the applicant for traffic approval is complete and accurate to the best of his/her knowledge.

Signature: _____ Re/Cert/Lic No.: _____

Name (print): **Randall E. Dunton** Engineer: **Maine PE # 8686**

Date: 9/12/16 Other: _____



If the signature below is not the applicant's signature, attach letter of agent authorization signed by applicant.

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

_____ 9/9/16

Signature of applicant Date

Form C 7/97

NOTICE OF INTENT TO FILE

Please take notice that:

CPB2 LLC (Attn: Mr. James Brady)
PO Box 7987
Portland, ME 04112

is intending to file a MaineDOT Traffic Permit application with the City of Portland (Delegated Review Authority) pursuant to the provisions of 23 M.R.S.A. §704 – A on or about September 16, 2016.

This application is for:

The development of the 58 Fore Street in Portland, Maine. The proposed development is to include 123,917 sf of office space, 50,273 sf of retail, 3,800 sf of restaurant, 638 residential units, a 132 room hotel, and a 2,600 marina with 220 slips. The project is forecast to generate 424 and 474 AM and PM weekday peak hour trip ends respectively. The project is expected to open in 2027.

At the following location:

The site is located at 58 Fore Street, at the site of the historic Portland Company.

A request for a public hearing must be received by the City, in writing no later than 20 days after the application is found by the department to be complete and is accepted for processing. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the Department of Transportation's office in Scarborough (Region 1) during normal working hours. A copy of the application may also be seen at the municipal offices in Portland, Maine.

Written public comments may be sent to the following address: Attention Christine Grimando, Planning Division, 389 Congress Street, Portland, Maine 04101.

Randall Dunton, P.E., PTOE
Gorrill-Palmer Consulting Engineers, Inc.

STATE OF MAINE
RANDALL E. DUNTON
No. 8686
LICENSED PROFESSIONAL ENGINEER

Sept 15, 2016

Section 1
Site and Traffic Information

1.A. Site Description and Site Plan

The site is located at 58 Fore Street, at the site of the historic Portland Company along Portland's Eastern Waterfront. The site is identified on City Tax Map 18, Lots A001 and A003. A proposed site plan is included in Attachment 1A.

1.B. Existing and Proposed Site Uses

The existing site has several buildings that were part of the Portland Company site. The proposed mixed-use project consists of a total of 958,679 sf of building area divided into seven Development Blocks (B1-B7) with varying uses. The following table summarizes the proposed site uses by Development Block:

Proposed Site Summary

Development Block	Use	Size
B1		
	Retail	7,878 SF
	Residential	91 Dwelling Units
	Office	79,000 SF
B2		
	Retail	26,895 SF
	Residential	19 Dwelling Units
	Office	25,617 SF
B3		
	Retail	11,500 SF
	Office	19,300 SF
B4		
	Residential	275 Dwelling Units
	Retail	4,000 SF
B5		
	Residential	108 Dwelling Units
	Hotel	132 Rooms
	Restaurant	3,800 SF
	Function Space	5,800 SF
B6		
	Residential (Condos)	131 Dwelling Units
	Residential (Apartments)	14 Dwelling Units
B7		
	Marina Facilities	2,600 SF, 220 Slips

The new marina facilities on B7 are proposed to be three times the size of the existing marina. It will be a new, modern facility with 220 slips proposed; 140 for seasonal boaters and 80 for transient vessels. The facility will service residents of Portland (including Islanders commuting to work on the Portland Peninsula), residents of the 58 Fore Street site, and transient boaters.

Vehicular access to the site will be via Thames Street Extension into the site, a full movement driveway onto Fore Street across from Waterville Street, primarily for residential units, and a new public road connecting Fore Street to Thames Street Extension. On-site parking will be provided with a below grade parking garage and on-street parking through the site.

1.C. Site Vicinity and Boundaries

The site is bordered by Fore Street, the Portland Waterfront, a small residential area to the northeast, and a commercial area to the southwest. A site location map showing the development area is included in Attachment 1B.

1.D. Proposed Uses in the Vicinity of the Proposed Development

Approved projects that are not yet opened as well as projects for which applications have been filed are required to be included in the predevelopment volumes for this project. Based on conversations with City Staff, traffic from the following developments should be included in the background traffic:

- A – 158 Fore Street: 180 room hotel
- B – 1 India Street: office and bank
- C – 185 Fore Street: 4,085 sf of office or retail and 8 residential units
- D – 16 Middle Street: 5,305 sf of retail and 39,526 of office
- E – 113 Newbury Street: 39 condominium units
- F – 48 Hancock Street: 2 residential units
- G – 49 Hancock Street: 2 residential units
- H – 62 India Street: 5,409 sf of retail and 29 condominium units
- I – 169 Newbury Street: 24 condominium units
- J – 273 Congress Street: 2,290 sf of retail and 10 condominium units
- K – 31 Fore Street: 4 condominium units

The locations, sizes, and uses of these developments are shown on the attached Other Development Figure (Attachment 1C).

I.E. Trip Generation

The trip generation for the site was calculated separately for Development Blocks 1-6 (B1-B6) and for Development Block 7 (B7), then combined to yield the total site trip generation. This is due to the unique nature of the marina on B7. The following is a summary of the methods, assumptions, and results of the trip generation calculations for the site.

Development Blocks 1-6

The Institute of Transportation Engineers' publication, *Trip Generation*, Seventh Edition, was used to forecast the traffic to be generated by B1-B6. The Ninth Edition is available, but has not yet been accepted by the MaineDOT. The following table summarizes the trip generation for B1-B6.

Development Blocks 1-6 ITE Trip Generation Summary

Development Block	LUC	Size	AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total
B1								
	814 – Specialty Retail	7,878 SF	4	2	6	9	12	21
	220 – Apartment	91 Units	9	37	46	36	20	56
	710 – General Office	79,000 SF	140	15	155	22	127	149
B2								
	814 – Specialty Retail	26,895 SF	12	8	20	33	40	73
	220 – Apartment	19 Units	2	8	10	8	4	12
	710 – General Office	25,617 SF	57	6	63	9	52	61
B3								
	814 – Specialty Retail	11,500 SF	5	4	9	14	17	31
	710 – General Office	19,300 SF	45	5	50	7	41	48
B4								
	220 – Apartment	275 Units	28	112	140	111	60	171
	814 – Specialty Retail	4,000 SF	2	1	3	5	6	11
B5								
	230 – Residential Condominium / Townhouse	108 Units	7	41	48	36	20	56
	310 – Hotel	132 Rooms	44	30	74	43	35	78
	932 – High Turnover Sit-Down Restaurant	3,800 SF	22	22	44	25	16	41
	Function Space*	5,800 SF	0	0	0	0	0	0
B6								
	230 – Residential Condominium / Townhouse	131 Units	9	49	58	44	24	68
	220 - Apartment	14 Units	1	6	7	6	3	9
Total Development Blocks 1-6			**387**	**346**	**387**	**346**	**733**	**408**

*It was assumed that the function space would be ancillary to the other uses in the Development Block and would not generate additional traffic.

Due to the variety of uses and the site's location within a downtown area, two reductions can be applied to refine the trip generation for B1-B6. These reductions are summarized as follows:

Shared Use Adjustment

Due to the close proximity of the mixed uses and the sharing of people between uses, simply adding the trip generation of each use as if they were isolated would result in an overestimate of trip generation. To estimate the traffic that will visit more than one destination without leaving the site, GP utilized the National Cooperative Highway Research Program (NCHRP) 684 Internal Trip Capture Estimation Tool. The NCHRP 684 spreadsheet uses the ITE forecast trip generation for each type of land use (office, retail, restaurant, residential, hotel, and other) and estimates the trips that will travel between two uses without leaving the site. This yields an internal trip capture percentage, which is the percentage of trip ends that will travel between two uses. The following tables summarize the AM and PM peak hour internal trip capture percentages respectively.

AM Peak Hour NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends		
	Enter	Exit	Enter	Exit	Enter	Exit	Total
Office	242	26	10%	46%	23	12	35
Retail	23	15	57%	47%	13	7	20
Restaurant	22	22	55%	50%	12	11	23
Residential	56	253	4%	5%	2	12	14
Hotel	44	30	2%	30%	1	9	10
Total	387	346	13%	15%	51	51	102

*These values are taken directly from the NCHRP spreadsheets (Attachment 1D), which may not match exact calculations due to rounding in the spreadsheet.

PM Peak Hour NCHRP 684 Internal Trip Capture

Land Use	ITE Trip Generation		Internal Capture %		Internal Capture Trip Ends		
	Enter	Exit	Enter	Exit	Enter	Exit	Total
Office	38	220	18%	5%	7	10	17
Retail	61	75	31%	44%	19	33	52
Restaurant	25	16	52%	69%	13	11	24
Residential	241	131	11%	15%	27	19	46
Hotel	43	35	21%	6%	9	2	11
Total	408	477	18%	16%	75	75	150

*These values are taken directly from the NCHRP spreadsheets (Attachment 1D), which may not match exact calculations due to rounding in the spreadsheet.

As shown in the tables, the NCHRP 684 Internal Trip Capture Estimation Tool results in a reduction of 102 trip ends during the AM peak hour and 150 trip ends during the PM peak hour.

Other Modes of Transportation Reduction

It can be expected for a site in a downtown area that other modes of transportation will be used to go to and from the site. These other modes could include things such as transit, bicycle, or walking. This site is adjacent to an existing bus route, as well as located on a pedestrian and bicycle path. The other modes reduction for B1-B6 is based on information from the 2009-2013 American Community Survey (ACS) Five-Year Estimate by Census Tract for the City of Portland. Rick Harbison, Planner and GIS Specialist for the Greater Portland Council of Governments, used this data to create maps (Attachment 1D) that show the estimated percentage of workers living in each Portland Census Tract that use each mode of transportation to travel to work. The site is located on the east side of Census Tract 3, which is a predominantly commercial area. Census Tracts 2 and 5 border the site and consist of primarily residential areas. Since the site is proposed to have a significant number of residential units as well as commercial space, the data from the combination of the three tracts is expected to be more representative of the actual conditions on the site than the data from the individual tracts. The reduction was calculated by dividing the estimated number of people walking, bicycling, and taking the bus to work in the three Census Tracts by the estimated total number of working people in the same three Census Tracts. This calculation yields a reduction of 35.8%, which appears reasonable for this area. The detailed calculation is described in the "Site Parking Demand" memo included in Attachment 1D.

The Census data is based on residents of the Census Tracts commuting to work, so it is applicable to the residential units, office space, and retail uses on the site, but not necessarily the proposed restaurant and hotel. The restaurants and hotel were further researched to find studies that included information on other modes of transportation for restaurants and hotels. The studies found indicated that 40%-65% of restaurant customers may be using alternative modes of transportation. Since the studies were not specific to Portland, Maine, the local data is expected to be closer to actual conditions that would be seen at the 58 Fore Street development, so the 35.8% reduction was applied to the restaurants. There was limited data available for hotels, so a conservative reduction of 10% was used for the hotel. The studies are discussed in more detail in the "Site Parking Demand" memo in Attachment 1D. The following table summarizes the other modes of transportation reduction for the site trip generation:

Other Modes of Transportation Reduction Summary

Trip Generation	AM Peak Hour			PM Peak Hour		
	Entering	Exiting	Total	Entering	Exiting	Total
B1-B6 Trip Generation	387	346	733	408	477	885
Hotel Trip Generation	44	30	74	43	35	78
B1-B6 Trip Generation w/o Hotel	343	316	659	365	442	807
Other Modes Reduction (35.8% of B1-B6 Trip Generation w/o Hotel)	123	113	236	131	158	289
Hotel Other Modes Reduction (10% of Hotel Trip Generation)	4	3	7	4	4	8
Total Other Modes Reduction	**127**	**116**	**243**	**135**	**162**	**297**

Development Block 7 (Marina)

Although the ITE does have a Marina category, the number of studies (2) is limited. Therefore, the trip generation for B7 was not determined using the ITE trip generation rates. Since a marina is such a unique facility, the trip generation was forecast based on the characteristics of this specific 220 slip marina. Applied Technology & Management (ATM), experts in marine and coastal engineering, provided the following information and assumptions:

- Peak weekday usage of the marina is approximately 10% of the slips, but possibly more since Maine's peak boating season is shorter than other areas
- Approximately 36% of daily users are transient boaters (80 transient boater slips out of 220 total slips)
- 10% of daily users who are not transient boaters are on-site residents
- 90% of daily users who are not transient boaters are off-site Portland residents
- 30% of off-site Portland residents are Islanders commuting to and from the Peninsula
- 9 marina employees
- 4 mega-yacht slips

Based on the information from ATM, the following assumptions were made:

- Peak weekday usage will be 15% of the slips (33 slips) to be conservative
- Transient boaters will not have a car on site since they arrive and depart using their boat, so they will not generate trip ends
- On-site residents will not enter or exit the site to visit the marina, so they will not generate any trip ends
- Each slip used by an off-site Portland resident who is not an islander will generate one trip end in during the AM peak hour and one trip end out during the PM peak hour
- Each slip used by an Islander commuting to work will generate one trip end out during the AM peak hour and one trip end in during the PM peak hour
- Each employee will generate one trip end in during the AM peak hour and one trip end out during the PM peak hour
- Each mega-yacht slip would be visited by a provisioning vehicle during both peak hour and the provisioning vehicles would enter and exit the site during the peak hour

Based on these assumptions, the forecast weekday peak hour trip generation for the marina is as follows:

- AM Peak Hour: 36 trip ends (26 in / 10 out)
- PM Peak Hour: 36 trip ends (10 in / 26 out)

The detailed trip generation calculations are in Attachment 1D.

Two reductions were applied to the trip generation for B1-B6, however those reductions were not applied to the marina trip generation. Although it is possible for marina visitors to eat at the restaurant or visit the shops on the site, to be conservative it was assumed that the marina would be a primary destination and would have very few shared trips. Additionally, there is a possibility that marina users would use alternative modes of transportation to get to or from the site, but it is more conservative to assume that most visitors would use cars and not another mode of transportation.

Total Site Trip Generation

The following table summarizes the adjusted site trip generation starting with the ITE trip generation and subtracting the shared use reduction as well as the other modes of transportation reduction and lastly adding the marina trip generation:

Adjusted Trip Generation Summary

Trip Generation	AM Peak Hour			PM Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
B1-B6 ITE Subtotal	387	346	733	408	477	885
Shared Use Adjustment	-51	-51	-102	-75	-75	-150
Other Modes Adjustment	-127	-116	-243	-135	-162	-297
B1-B6 Total	**209**	**179**	**388**	**198**	**240**	**438**
B7 Trip Generation	26	10	36	10	26	36
Site Total	**235**	**189**	**424**	**208**	**266**	**474**

As shown in the table, the proposed development is forecast to generate 424 trip ends during the AM weekday peak hour and 474 trip ends during the PM weekday peak hour. To be conservative, this trip generation does not include any credit for existing on-site uses. This level of trip generation does require a MaineDOT Traffic Movement Permit because it is over 99 trip ends during the peak hour. The Traffic Movement Permit Application can be reviewed and issued by the City since they have delegated review authority.

A trip end is defined as a trip into or out of the site; thus a round trip is equal to two trip ends. Since the forecast traffic exceeds 99 trip ends during a peak hour, a Traffic Movement Permit is required. The Traffic Movement Permit Application can be reviewed and issued by the City since they have delegated review authority. A copy of the trip generation calculations are included in Attachment 1D.

1.F. Trip Distribution

Based on ITE's *Trip Generation*, the NCHRP 684 Internal Capture, the other modes reduction, and the marina information the following trip distribution is anticipated:

- AM Peak Hour Adjacent Street: 235 in / 189 out
- PM Peak Hour Adjacent Street: 208 in / 266 out

1.G. Trip Composition and Assignment

GP has assumed that all trips are primary in nature and made for the sole purpose of going to and from the site. The trip assignment has been based on the proposed driveway locations, the site uses, and the traffic counts completed at the study area intersections. The trip assignment has been separated into Residential and Non-Residential trip distributions. The trip assignments are categorized into Residential, Non-Residential, and Marina. The residential trip assignment assumes that the residents of the site know the neighborhood better than the non-residential site visitors, which would lead residents to use side streets more frequently, while the non-residents would use more major roads

and posted routes. The marina trip assignment is assumed to follow the non-residential trip distribution. The trip distribution and assignment is shown on the attached Figures 6-11 in Attachment 1B.

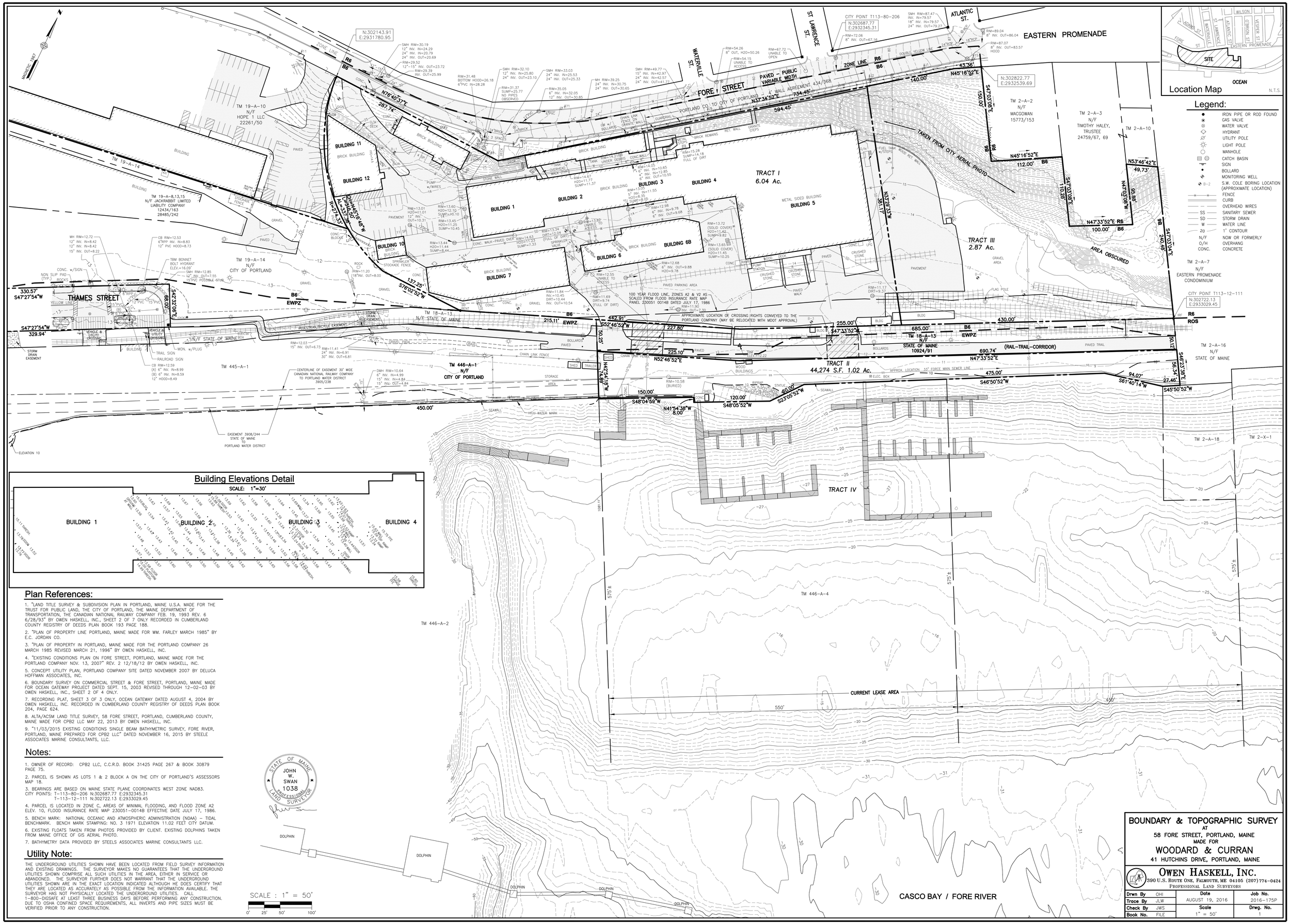
1.H. Attachments

Attachment 1A – Site Survey, Proposed Site Plan
Attachment 1B – Site Location Map, Trip Assignment Diagrams
Attachment 1C – Other Development Map
Attachment 1D – ITE Trip Generation Calculations, NCHRP 684 Spreadsheets, Commute Data Maps, *Site Parking Demand* Memo, Marina Trip Generation Calculations

Attachment 1A

Site Survey

Proposed Site Plan



Legend:

- IRON PIPE OR ROD FOUND
- GAS VALVE
- WATER VALVE
- HYDRANT
- UTILITY POLE
- LIGHT POLE
- MANHOLE
- CATCH BASIN
- SIGN
- BOLLARD
- MONITORING WELL
- B-2 S.W. COLE BORING LOCATION (APPROXIMATE LOCATION)
- FENCE
- CURB
- OVERHEAD WIRES
- SS SANITARY SEWER
- SD STORM DRAIN
- W WATER LINE
- 20 1' CONTOUR
- N/F NOW OR FORMERLY
- O/H OVERHANG
- CONC. CONCRETE

Building Elevations Detail

SCALE: 1"=30'

Plan References:

1. "LAND TITLE SURVEY & SUBDIVISION PLAN IN PORTLAND, MAINE U.S.A. MADE FOR THE TRUST FOR PUBLIC LAND, THE CITY OF PORTLAND, THE MAINE DEPARTMENT OF TRANSPORTATION, THE CANADIAN NATIONAL RAILWAY COMPANY FEB. 19, 1993 REV. 6 6/28/93" BY OWEN HASKELL, INC., SHEET 2 OF 7 ONLY RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 193 PAGE 188.
2. "PLAN OF PROPERTY LINE PORTLAND, MAINE MADE FOR WM. FARLEY MARCH 1985" BY E.C. JORDAN CO.
3. "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR THE PORTLAND COMPANY 26 MARCH 1985 REVISED MARCH 21, 1996" BY OWEN HASKELL, INC.
4. "EXISTING CONDITIONS PLAN ON FORE STREET, PORTLAND, MAINE MADE FOR THE PORTLAND COMPANY NOV. 13, 2007" REV. 2 12/18/12 BY OWEN HASKELL, INC.
5. CONCEPT UTILITY PLAN, PORTLAND COMPANY SITE DATED NOVEMBER 2007 BY DELUCA HOFFMAN ASSOCIATES, INC.
6. BOUNDARY SURVEY ON COMMERCIAL STREET & FORE STREET, PORTLAND, MAINE MADE FOR OCEAN GATEWAY PROJECT DATED SEPT. 15, 2003 REVISED THROUGH 12-02-03 BY OWEN HASKELL, INC., SHEET 2 OF 4 ONLY.
7. RECORDING PLAT, SHEET 3 OF 3 ONLY, OCEAN GATEWAY DATED AUGUST 4, 2004 BY OWEN HASKELL, INC. RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 204, PAGE 624.
8. ALTA/ACSM LAND TITLE SURVEY, 58 FORE STREET, PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR CPB2 LLC MAY 22, 2013 BY OWEN HASKELL, INC.
9. "11/03/2015 EXISTING CONDITIONS SINGLE BEAM BATHYMETRIC SURVEY, FORE RIVER, PORTLAND, MAINE PREPARED FOR CPB2 LLC" DATED NOVEMBER 16, 2015 BY STEELE ASSOCIATES MARINE CONSULTANTS, LLC.

Notes:

1. OWNER OF RECORD: CPB2 LLC, C.C.R.D. BOOK 31425 PAGE 267 & BOOK 30879 PAGE 75.
2. PARCEL IS SHOWN AS LOTS 1 & 2 BLOCK A ON THE CITY OF PORTLAND'S ASSESSORS MAP 18.
3. BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATES WEST ZONE NAD83. CITY POINTS: T-113-80-206 N:302687.77 E:2932345.31 T-113-12-111 N:302722.13 E:2933029.45
4. PARCEL IS LOCATED IN ZONE C, AREAS OF MINIMAL FLOODING, AND FLOOD ZONE A2 ELEV. 10, FLOOD INSURANCE RATE MAP 230051-0014B EFFECTIVE DATE JULY 17, 1986.
5. BENCH MARK: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) – TIDAL BENCHMARK. BENCH MARK STAMPING: NO. 3 1971 ELEVATION 11.02 FEET CITY DATUM.
6. EXISTING FLOATS TAKEN FROM PHOTOS PROVIDED BY CLIENT. EXISTING DOLPHINS TAKEN FROM MAINE OFFICE OF GIS AERIAL PHOTO.
7. BATHYMETRY DATA PROVIDED BY STEELS ASSOCIATES MARINE CONSULTANTS LLC.

Utility Note:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-800-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

STATE OF MAINE
JOHN W. SWAN
1038
PROFESSIONAL LAND SURVEYOR

SCALE : 1" = 50'
0' 25' 50' 100'

BOUNDARY & TOPOGRAPHIC SURVEY

AT

58 FORE STREET, PORTLAND, MAINE

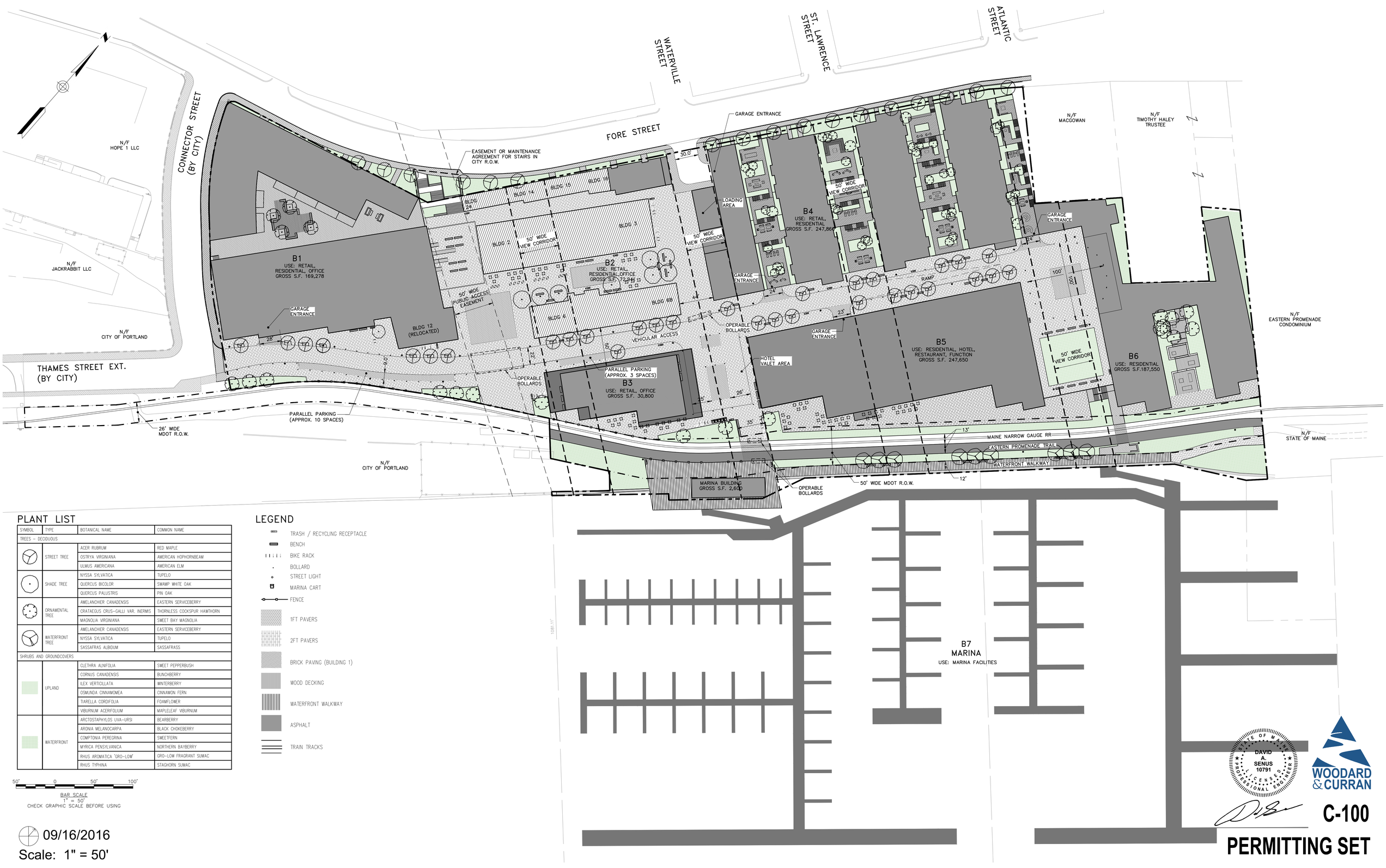
MADE FOR

WOODARD & CURRAN

41 HUTCHINS DRIVE, PORTLAND, MAINE

OWEN HASKELL, INC.
390 U.S. ROUTE ONE, FALMOUTH, ME 04105 (207) 774-0424
PROFESSIONAL LAND SURVEYORS

Drwn By	OHI	Date	Job No.
Trace By	JLW	AUGUST 19, 2016	2016-175P
Check By	JWS	Scale	Drwg. No.
Book No.	FILE	1" = 50'	1



PLANT LIST

SYMBOL	TYPE	BOTANICAL NAME	COMMON NAME
TREES – DECIDUOUS			
	STREET TREE	ACER RUBRUM	RED MAPLE
		OSTRYA VIRGINIANA	AMERICAN HOPHORNBEAM
		ULMUS AMERICANA	AMERICAN ELM
	SHADE TREE	NYSSA SYLVATICA	TUPELO
		QUERCUS BICOLOR	SWAMP WHITE OAK
		QUERCUS PALUSTRIS	PIN OAK
	ORNAMENTAL TREE	AMELANCHIER CANADENSIS	EASTERN SERVICEBERRY
		CRATAEGUS CRUS–GALLI VAR. INERMIS	THORNLESS COCKSPUR HAWTHORN
		MAGNOLIA VIRGINIANA	SWEET BAY MAGNOLIA
	WATERFRONT TREE	AMELANCHIER CANADENSIS	EASTERN SERVICEBERRY
		NYSSA SYLVATICA	TUPELO
		SASSAFRAS ALBIDUM	SASSAFRASS
SHRUBS AND GROUNDCOVERS			
	UPLAND	CLETHRA ALNIFOLIA	SWEET PEPPERBUSH
		CORNUS CANADENSIS	BUNCHBERRY
		ILEX VERTICILLATA	WINTERBERRY
		OSMUNDA CINNAMOMEA	CINNAMON FERN
		TIARELLA CORDIFOLIA	FOAMFLOWER
		VIBURNUM ACERIFOLIUM	MAPLELEAF VIBURNUM
	WATERFRONT	ARCTOSTAPHYLOS UVA–URSI	BEARBERRY
		ARONIA MELANOCARPA	BLACK CHOKEBERRY
		COMPTONIA PEREGRINA	SWEETFERN
		MYRICA PENSYLVANICA	NORTHERN BAYBERRY
		RHUS AROMATICA 'GRO–LOW'	GRO–LOW FRAGRANT SUMAC
		RHUS TYPHINA	STAGHORN SUMAC

LEGEND

- TRASH / RECYCLING RECEPTACLE
- BENCH
- BIKE RACK
- BOLLARD
- STREET LIGHT
- MARINA CART
- FENCE
- 1FT PAVERS
- 2FT PAVERS
- BRICK PAVING (BUILDING 1)
- WOOD DECKING
- WATERFRONT WALKWAY
- ASPHALT
- TRAIN TRACKS

50' 0 50' 100'

BAR SCALE
1" = 50'
CHECK GRAPHIC SCALE BEFORE USING

09/16/2016
Scale: 1" = 50'

STATE OF MAINE
DAVID
A.
SENUS
10791
LICENSED
PROFESSIONAL ENGINEER

WOODARD & CURRAN

C-100

PERMITTING SET

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

OVERALL SITE MASTER PLAN
58 FORE STREET MASTER PLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL

Attachment 1C

Other Development Map

Other Development



PORTLAND COMPANY
PORTLAND, MAINE

Design:	EAT	Scale:	NONE
Draft:	LAN	Date:	JULY 2016
Checked:	RED	File Name:	3138-Aerial.dwg

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Attachment 1D

Trip Generation Calculations
NCHRP 684 Spreadsheets
Commute Data Maps
Site Parking Demand Memo
Marina Trip Generation Calculations

58 Fore Street Trip Generation Summary
Portland, Maine
September 2, 2016

Development Block	Use	Land Use Code	Size	Units		AM Trip Generation	% In AM	% Out AM	AM Trips In	AM Trips Out	PM Trip Generation	% In PM	% Out PM	PM Trips In	PM Trips Out
B1															
	Retail	814 - Specialty Retail	7,878	SF		6	60%	40%	4	2	21	45%	55%	9	12
	Residential	220 - Apartment	91	Dwelling Units		46	20%	80%	9	37	56	65%	35%	36	20
	Office	710 - General Office Building	79,000	SF		155	90%	10%	140	15	149	15%	85%	22	127
					B1 Total:	**207**	**74%**	**26%**	**153**	**54**	**226**	**30%**	**70%**	**67**	**159**
B2															
	Retail	814 - Specialty Retail	26,895	SF		20	60%	40%	12	8	73	45%	55%	33	40
	Residential	220 - Apartment	19	Dwelling Units		10	20%	80%	2	8	12	65%	35%	8	4
	Office	710 - General Office Building	25,617	SF		63	90%	10%	57	6	61	15%	85%	9	52
					B2 Total:	**93**	**76%**	**24%**	**71**	**22**	**146**	**34%**	**66%**	**50**	**96**
B3															
	Retail	814 - Specialty Retail	11,500	SF		9	60%	40%	5	4	31	45%	55%	14	17
	Office	710 - General Office Building	19,300	SF		50	90%	10%	45	5	48	15%	85%	7	41
					B3 Total:	**59**	**85%**	**15%**	**50**	**9**	**79**	**27%**	**73%**	**21**	**58**
B4															
	Residential	220 - Apartment	275	Dwelling Units		140	20%	80%	28	112	171	65%	35%	111	60
	Retail	814 - Specialty Retail	4,000	SF		3	60%	40%	2	1	11	45%	55%	5	6
					B4 Total:	**143**	**21%**	**79%**	**30**	**113**	**182**	**64%**	**36%**	**116**	**66**
B5															
	Residential	230 - Residential Condominium/Townhouse	108	Dwelling Units		48	15%	85%	7	41	56	65%	35%	36	20
	Hotel	310 - Hotel	132	Rooms		74	60%	40%	44	30	78	55%	45%	43	35
	Restaurant	932 - High Turnover (Sit Down) Restaurant	3,800	SF		44	50%	50%	22	22	41	60%	40%	25	16
					B5 Total:	**166**	**44%**	**56%**	**73**	**93**	**175**	**59%**	**41%**	**104**	**71**
B6															
	Residential	230 - Residential Condominium/Townhouse	131	Dwelling Units		58	15%	85%	9	49	68	65%	35%	44	24
	Residential	220 - Apartment	14	Dwelling Units		7	20%	80%	1	6	9	65%	35%	6	3
					B6 Total:	**65**	**15%**	**85%**	**10**	**55**	**77**	**65%**	**35%**	**50**	**27**
B7															
	Marina Facilities	N/A	2,600	SF		36	72%	28%	26	10	36	28%	72%	10	26
					B7 Total:	36	72%	28%	26	10	36	28%	72%	10	26
					Site Total:	**769**	**54%**	**46%**	**413**	**356**	**921**	**45%**	**55%**	**418**	**503**

		AM Trip Generation	% In AM	% Out AM	AM Trips In	AM Trips Out	PM Trip Generation	% In PM	% Out PM	PM Trips In	PM Trips Out
	B1-B6 Subtotal:	733	53%	47%	387	346	885	46%	54%	408	477
	NCHRP 684 Reduction:	102	12%	14%	51	51	150	18%	15%	75	75
35.8%	Other Modes Reduction:	236	35.8%	35.8%	123	113	289	35.8%	35.8%	131	158
10%	Hotel Other Modes Reduction:	7	57%	43%	4	3	8	50%	50%	4	4
	B1-B6 Total:	**388**	**54%**	**46%**	**209**	**179**	**438**	**45%**	**55%**	**198**	**240**
	Marina Total	36	72%	28%	26	10	36	28%	72%	10	26
	Site Total	**424**	**55%**	**45%**	**235**	**189**	**474**	**44%**	**56%**	**208**	**266**

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	58 Fore Street	**Organization:**	Gorrill Palmer
Project Location:	Portland, Maine	**Performed By:**	ET
Scenario Description:	Max Build Out	**Date:**	2-Sep
Analysis Year:	2016	**Checked By:**	RED
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710	123,917	SF	268	242	26
Retail	814	50,273	SF	38	23	15
Restaurant	932	3,800	SF	44	22	22
Cinema/Entertainment		-	SF	0	0	0
Residential	220/230	638	Units	309	56	253
Hotel	310	132	Rooms	74	44	30
All Other Land Uses[2]	N/A	2,600	SF	36	26	10
Total				769	413	356

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	5	0	0	0
Retail	4		2	0	1	0
Restaurant	7	2		0	1	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	3	4	0		0
Hotel	7	1	1	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	769	413	356
Internal Capture Percentage	13%	12%	14%
External Vehicle-Trips[3]	667	362	305
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	10%	46%
Retail	57%	47%
Restaurant	55%	50%
Cinema/Entertainment	N/A	N/A
Residential	4%	5%
Hotel	2%	30%

[1]Land Use Codes (LUCs) from *Trip Generation Manual* , published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute

Project Name:	58 Fore Street
Analysis Period:	**Scenario 1 - AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	242	242	1.00	26	26
Retail	1.00	23	23	1.00	15	15
Restaurant	1.00	22	22	1.00	22	22
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	56	56	1.00	253	253
Hotel	1.00	44	44	1.00	30	30

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	16	0	0	0
Retail	4		2	0	2	0
Restaurant	7	3		0	1	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	3	51	0		0
Hotel	23	4	3	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	5	0	0	0
Retail	10		11	0	1	0
Restaurant	34	2		0	3	2
Cinema/Entertainment	0	0	0		0	0
Residential	7	4	4	0		0
Hotel	7	1	1	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	23	219	242	219	0	0
Retail	13	10	23	10	0	0
Restaurant	12	10	22	10	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	2	54	56	54	0	0
Hotel	1	43	44	43	0	0
All Other Land Uses[3]	0	26	26	26	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	12	14	26	14	0	0
Retail	7	8	15	8	0	0
Restaurant	11	11	22	11	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	12	241	253	241	0	0
Hotel	9	21	30	21	0	0
All Other Land Uses[3]	0	10	10	10	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	58 Fore Street	**Organization:**	Gorrill Palmer
Project Location:	Portland, Maine	**Performed By:**	ET
Scenario Description:	Max Build Out	**Date:**	2-Sep
Analysis Year:	2016	**Checked By:**	RED
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710	123,917	SF	258	38	220
Retail	814	50,273	SF	136	61	75
Restaurant	932	3,800	SF	41	25	16
Cinema/Entertainment		-	SF	0	0	0
Residential	220/230	638	Units	372	241	131
Hotel	310	132	Rooms	78	43	35
All Other Land Uses[2]	N/A	2,600	SF	36	10	26
Total				921	418	503

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		5	1	0	4	0
Retail	2		7	0	20	4
Restaurant	0	7		0	3	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	6	4	0		4
Hotel	0	1	1	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	921	418	503
Internal Capture Percentage	16%	18%	15%
External Vehicle-Trips[3]	771	343	428
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	18%	5%
Retail	31%	44%
Restaurant	52%	69%
Cinema/Entertainment	N/A	N/A
Residential	11%	15%
Hotel	21%	6%

[1]Land Use Codes (LUCs) from *Trip Generation Manual* , published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute

Project Name:	58 Fore Street
Analysis Period:	**Scenario 1 - PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	38	38	1.00	220	220
Retail	1.00	61	61	1.00	75	75
Restaurant	1.00	25	25	1.00	16	16
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	241	241	1.00	131	131
Hotel	1.00	43	43	1.00	35	35

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		44	9	0	4	0
Retail	2		22	3	20	4
Restaurant	0	7		1	3	1
Cinema/Entertainment	0	0	0		0	0
Residential	5	55	28	0		4
Hotel	0	6	24	0	1	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		5	1	0	10	0
Retail	12		7	0	111	7
Restaurant	11	31		0	39	31
Cinema/Entertainment	2	2	1		10	0
Residential	22	6	4	0		5
Hotel	0	1	1	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	7	31	38	31	0	0
Retail	19	42	61	42	0	0
Restaurant	13	12	25	12	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	27	214	241	214	0	0
Hotel	9	34	43	34	0	0
All Other Land Uses[3]	0	10	10	10	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	10	210	220	210	0	0
Retail	33	42	75	42	0	0
Restaurant	11	5	16	5	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	19	112	131	112	0	0
Hotel	2	33	35	33	0	0
All Other Land Uses[3]	0	26	26	26	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

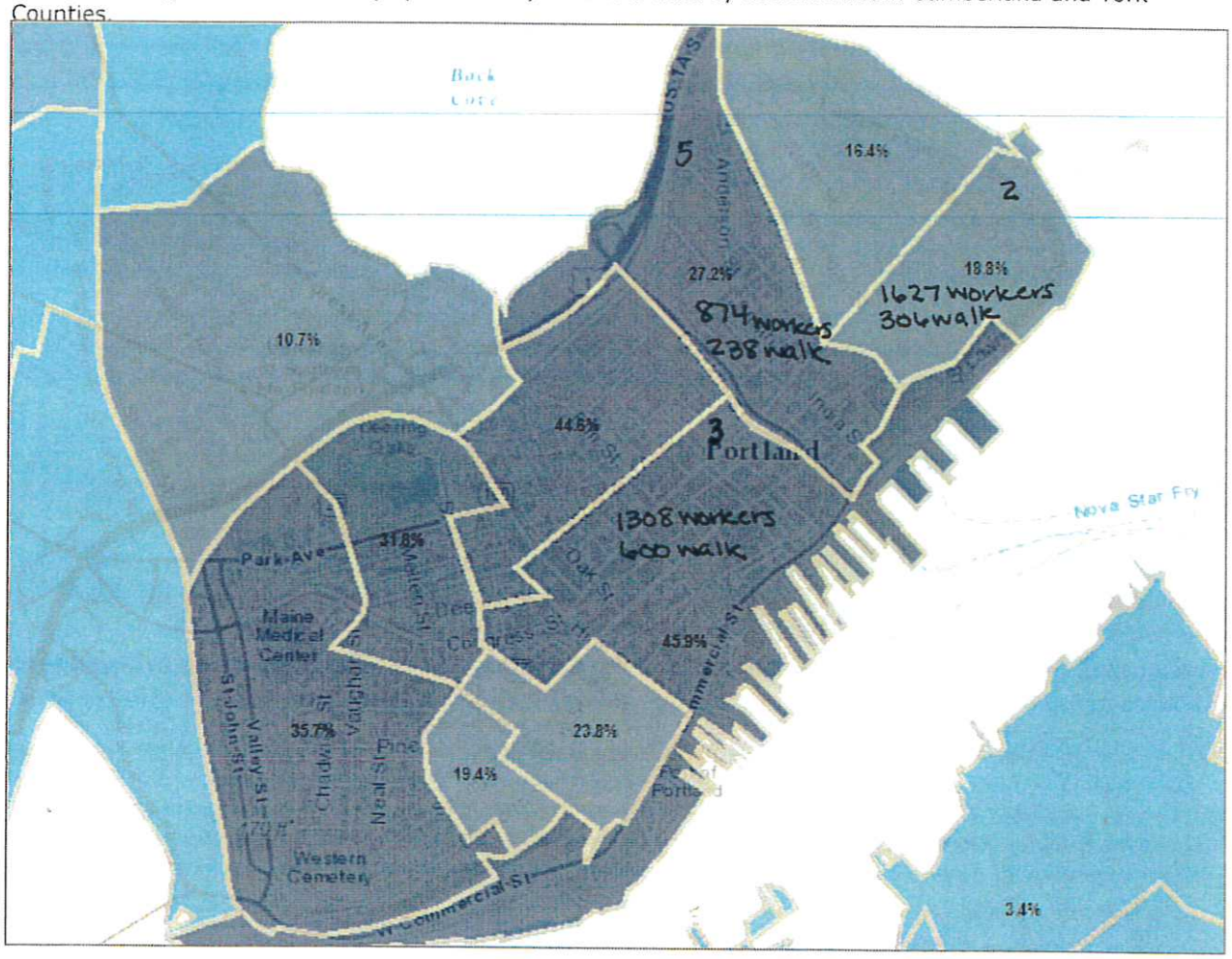
[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Southern Maine Commute Data (ACS 2009-2013, 5-Yr Est. by Census Tract)

Walked

A map showing ACS 2009-2013 (5-yr estimate) commute data by census tract in Cumberland and York Counties.



Esri, HERE, DeLorme, INCREMENT P, USGS, METI/NASA, EPA, USDA

3809 Workers
1144 Walk

30.0% walk

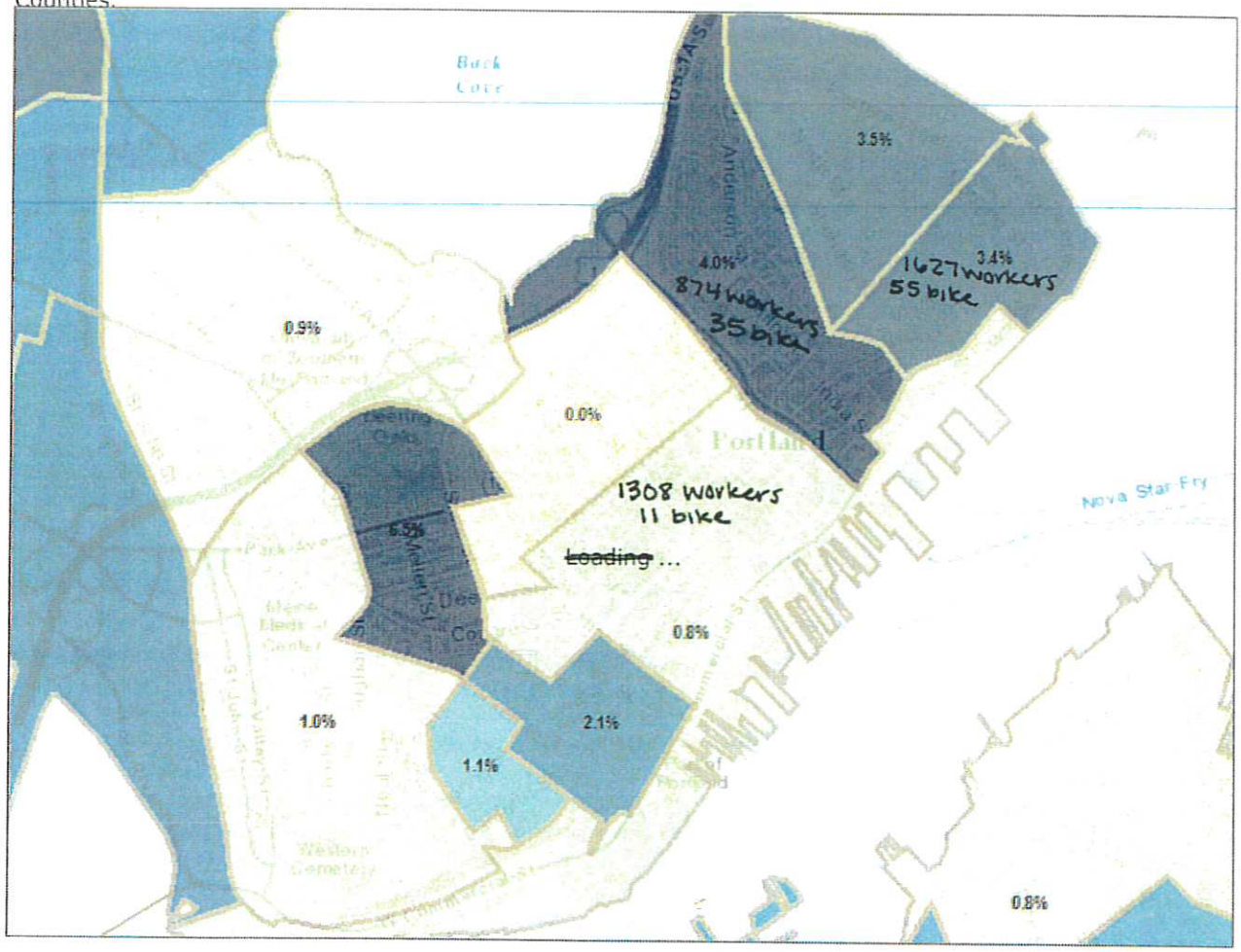
Walk/Bike/Transit

30.0 + 2.7 + 3.1 = 35.8%

Southern Maine Commute Data (ACS 2009-2013, 5-Yr Est. by Census Tract)

Biked

A map showing ACS 2009-2013 (5-yr estimate) commute data by census tract in Cumberland and York Counties.



Esri, HERE, DeLorme, INCREMENT P, USGS, METI/NASA, EPA, USDA

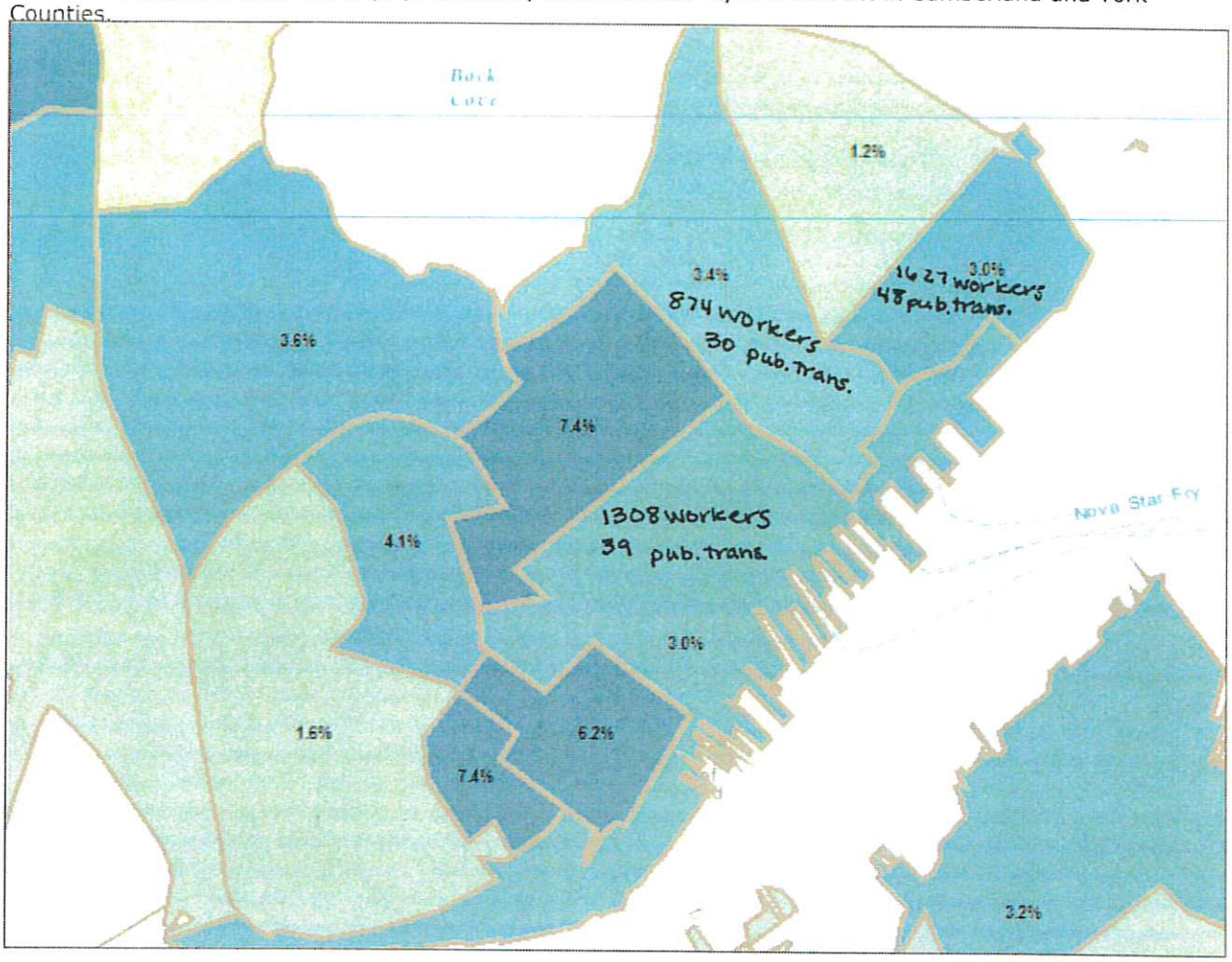
3809 Workers
101 Bike

2.7% Bike

Southern Maine Commute Data (ACS 2009-2013, 5-Yr Est. by Census Tract)

Public Transportation

A map showing ACS 2009-2013 (5-yr estimate) commute data by census tract in Cumberland and York Counties.



Esri, HERE, DeLorme, INCREMENT P, USGS, METI/NASA, EPA, USDA

3809 Workers
117 Public Transportation

3.1% Public Transportation

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

Site Parking Demand
58 Fore Street Mixed Use Development
Portland, Maine
JN 3138

Date: September 16, 2016
Subject: Site Parking Demand
58 Fore Street Mixed Use Development
To: David Senus, Mary McCrann, Jim Brady, Kevin Costello, Casey Prentice
From: Randy Dunton and Emily Tynes, Gorrill Palmer (JN 3138)

The following is a summary of the estimated parking demand for the proposed mixed use development at 58 Fore Street. The following table summarizes the sizes and uses of the proposed development used to calculate the parking demand:

Proposed Site Summary

Development Block	Use	Size
B1		
	Retail	7,878 SF
	Residential	91 Dwelling Units
	Office	79,000 SF
B2		
	Retail	26,895 SF
	Residential	19 Dwelling Units
	Office	25,617 SF
B3		
	Retail	11,500 SF
	Office	19,300 SF
B4		
	Residential	275 Dwelling Units
	Retail	4,000 SF
B5		
	Residential	108 Dwelling Units
	Hotel	132 Rooms
	Restaurant	3,800 SF
	Function	5,800 SF
B6		
	Residential (Condos)	131 Dwelling Units
	Residential (Apartments)	14 Dwelling Units
B7		
	Marina Facilities	2,600 SF, 220 Slips

It should be noted that the retail portions of the proposed site will be multiple smaller shops, not large retail stores.

Parking Demand Calculation Methodologies

The parking demand has been determined using two methodologies: using the City Ordinance requirements and based on a shared parking demand. The following summarizes the methodologies in more detail:

City Ordinance Parking Demand

The Ordinance requirement methodology involves calculating the peak parking demand for each use using the City of Portland Code of Ordinances. This method assumes each use is isolated and then adds the individual demands to determine the parking demand for the site. The supporting calculations for this method are attached. This method results in an overestimate because the peak demands for each use are not expected to occur at the same time. For example, offices require more spaces during the day while employees are in the office, and residential buildings would require more spaces later at night when residents are home from work.

The City Ordinance Ch. 14, Art III, Div. 20, Sec. 14-332.2 (c) states, "where construction is proposed of new structures having a total floor area in excess of fifty thousand (50,000) square feet, the planning board shall establish the parking requirement for such structures. The parking requirement shall be determined based upon a parking analysis submitted by the applicant and upon the recommendation of the city transportation engineer." Since this mixed use development is approximately 958,679 sf of building floor area, it meets the criteria. Therefore, the site parking demand was determined based on the following methodology.

Shared Parking Plan

The shared parking plan methodology is based on a combination of City Ordinance parking demand, the ITE Parking Generation Manual (4th Edition), and published data / engineering judgement and it reflects that the demand for different uses will peak during different times of day. Since different uses do not peak at the same times, parking spaces can be shared between uses. To determine the shared parking demand, the total parking demand was calculated for each use, then distributed throughout the day based on the type of use. This is the same methodology used for the recent Thompson's Point project. The supporting calculations are attached. With a shared parking plan it is recommended that shared parking language be included in the leases, to ensure tenants understand the shared parking.

Parking Demand Reductions

Given the mixed use of the site as well as its downtown location, the following two parking demand reductions were applied to the shared parking spaces:

Shared Use Reduction

When evaluating a mixed use development with complementary uses such as this, the overall parking demand can be reduced due to the expectation that there will be some cross use between the individual facilities. For instance, it can be assumed that some of the people living in the apartments would also be those that visit the retail. Gorrill Palmer (GP) used the NCHRP 684 Internal Trip Capture Estimation Tool to calculate the reduction that can be applied to the trip generation. This calculated an internal trip capture of 14% for the AM peak hour and 17% for the PM peak hour. It can be assumed that parking demand can be reduced proportionally to the reduction in trip generation. To be conservative, GP used a shared use reduction of 14% throughout the day to estimate the parking demand. The following table summarizes the shared use reduction:

Shared Use Reduction Summary

Proposed	Ordinance	Shared Parking
B1-B6 Peak Parking Demand	919	690
Shared Use Reduction (14%)	-129	-97

Other Modes Reduction

The overall parking demand for a development in a downtown area can also be reduced due to the expectation that some people going to or from the site would use other modes of transportation such as transit, bicycle, or walking. The site is adjacent to an existing bus route as well as located on a bicycle and pedestrian path. The other modes reduction is based on information from the 2009-2013 American Community Survey (ACS) Five-Year Estimate by Census Tract. Based on this information Rick Harbison, Planner and GIS Specialist for the Greater Portland Council of Governments, created maps using GIS data that illustrate the estimated percentage of workers living in each Portland Census Tract that use each mode of transportation to commute to work. The site is located on the east side of Census Tract 3, which is a predominantly commercial area. Census Tracts 2 and 5 border the site and consist of primarily residential areas. Since the site is proposed to have a significant number of residential units as well as commercial space, the data from the combination of the three tracts is expected to be more representative of the actual conditions on the site than the data from the individual tracts. This reduction was calculated by dividing the estimated number of people walking, bicycling, and taking the bus to work in the three Census Tracts by the estimated total number

of working people in the same three Census Tracts. This calculation yields a 35.8% use of non-vehicular modes of transportation.

The GPCOG data is based on residents of the Census Tracts commuting to work, so it is applicable to the residential units, office space, and retail uses on the site. It was not clear if the 35.8% reduction would also be applicable to the restaurants and hotel, even though there are hotels and restaurants located within the boundaries of the three Census Tracts. GP searched for studies that included information on other modes of transportation for restaurants and hotels and found two sources that had information that could be compared to the other modes of transportation calculated using the Portland Census data. The following is a more detailed description of the relevant information found in the two studies:

The first study is *Contextual Influences on Trip Generation* (found in the United States Department of Transportation National Transportation Library online database or at the following link: http://ntl.bts.gov/lib/46000/46600/46699/CITG_FinalReport_Draft_10022012.pdf), a study for the Oregon Transportation Research and Education Consortium (OTREC) that compared the ITE predicted trip generation to the actual trip generation of 79 locations in Portland, Oregon, 39 of which were high turnover sit-down restaurants. The study also included surveying the visitors of those sites to determine what mode of transportation the visitors used. The results of the study are divided into different types of areas, ranging from central business district, which is considered the most urban area, to suburban areas, which is considered the least urban type of area surveyed. This study surveyed 12 restaurants in the central business district area and found that 35% of the patrons arrived to the sites using a car, while the remaining 65% walked, biked, or used transit (table attached). This result is higher than the 35.8% use of other modes calculated using the GPCOG information. Because the data is for Portland, Oregon it may not be appropriate to use as a reduction, but it does indicate that in an urban area a large portion of site traffic can be expected to use transit, bike, or walk.

The second source that included restaurant information is the National Cooperative Highway Research Program (NCHRP) Report 758, *Trip Generation Rates for Transportation Impact Analyses of Infill Developments*. This study used information from the Household Travel Survey (HTS) for the San Francisco Bay area and Metropolitan Washington D.C. and counted data and surveys at specific sites in those areas. The Washington D.C. HTS data for restaurants shows that approximately 40.3% of residents use transit, walk, or bicycle to and from high-turnover sit-down restaurants (table attached). The study only included one site that was counted and surveyed, so the HTS data could not be verified, however like the Portland, Oregon study, it is higher than the other modes reduction calculated using the GPCOG Census information. Like the Portland, Oregon study, this data indicates that in an urban area a large portion of site traffic can be expected to use transit, bike, or walk.

Based on these two additional sources that contain information specific to restaurant uses, GP determined that the other modes reduction of 35.8% calculated from the GPCOG Census

information that is based on the existing transit system can be applied to the restaurant parking demand. Although the other two studies showed higher percentages of people using alternative modes of transportation to go to or from restaurants, since they are not specific to Portland, Maine, the local data is expected to be closer to the actual conditions that would be seen at the 58 Fore Street development.

The two studies discussed above included information about restaurants, but did not have any data for hotels. Based on our research there is limited information available about modes of transportation used at hotels. It can be assumed for the 58 Fore Street site that hotel employees may take the bus, bike, or walk to get to and from work and some hotel guests may arrive by boat using the marina. To be conservative, GP only used an "other modes of transportation" reduction of 10% for the hotel.

The following table summarizes the other modes of transportation reduction for the site:

Other Modes of Transportation Reduction Summary

Proposed	Ordinance	Shared Parking
B1-B6 Peak Parking Demand w/o Hotel	886	677
Hotel Peak Parking Demand	33	13
Other Modes Reduction (35.8% of B1-B6 Demand w/o Hotel)	-317	-242
Hotel Other Modes Reduction (10% of Hotel Demand)	-3	-1
Total Other Modes Reduction	**-320**	**-243**

Marina Parking Demand

The City Ordinance does not include a parking requirement for marina facilities. The parking demand for the proposed marina is based on information from Applied Technology & Management (ATM). The new marina is proposed to have 220 slips that will service off-site Portland residents, on-site Portland residents, and transient boaters. ATM provided a range of parking rates from one space for every two slips to one space for every four slips. ITE has limited marina parking information available, however the ATM parking rates appear to be consistent with the ITE data. To be conservative, GP used a requirement of one parking space for every two slips. ATM expects peak usage of the marina to be 10% of the slips, but possibly higher since Maine has a shorter boating season. To be conservative, GP assumed that the peak demand would be 15% of the slips. ATM also stated that there would be approximately 9 employees at this marina, therefore GP included an additional 5% to include spaces for employees, giving a total peak demand estimation of 20% of the slips. Because of the nature of a marina use, the two parking demand reductions that were applied to the rest of the site were not applied to the

marina parking demand. Although it is possible that marina users visit other uses on site or use alternative modes of transportation to get to the site, to be conservative the reductions were not applied.

Dedicated Parking Spaces

Often in large developments, a portion of parking spaces are dedicated to a specific use. For example, residential units may have spaces assigned to each unit or a group of spaces may be reserved for use by only an office. These dedicated spaces would not be shared by any other site uses. The number of dedicated parking spaces is added to the number of shared parking spaces to determine the total site demand. On this site, there are 298 dedicated parking spaces proposed. These spaces include; half of the residential units in B1, all the residential units in B5, and all the residential units in B6. The two parking demand reductions that were applied to the rest of the site were not applied to the dedicated parking spaces, since the spaces will not be shared and will be provided for the peak demand regardless of the expected use of transit, bicycles, or walking.

Parking Demand Summary

The following table summarizes the overall parking demand for the site, including the reductions, based on both the Ordinance and the Shared Parking demand methodologies:

Parking Demand Summary

Proposed	Ordinance	Shared Parking
B1-B6 Shared Parking Demand	919	690
Shared Use Reduction	-129	-97
Other Mode Reduction	-320	-243
B1-B6 Total Shared Parking Demand	**470**	**350**
B7 (Marina) Parking Demand	110	22
B1-B7 Total Parking Demand	**580**	**372**
B1-B7 Dedicated Parking	298	298
Net Parking Demand	**878**	**670**

As shown in the table, the proposed parking demand, including reductions, based on the Ordinance and isolated uses is forecast to be 878 spaces and the parking demand based on shared parking is 670 spaces. The parking demand based on the City Ordinance is higher than the shared parking demand because it assumes all uses will require their peak parking demand concurrently whereas the shared parking demand considers the different uses peaking at different times of day.

It should be noted that a parking facility can be considered full when it is approximately 85% occupied. This is because a driver may not see empty parking spaces when the lot is almost completely occupied, especially in a larger parking area. **To ensure the peak parking demand is satisfied, the recommended number of spaces is 736 (372 spaces / 0.85 + 298 spaces).** This assumes that shared spaces are generally available to all users. The increase is not applied to the dedicated parking spaces because it is assumed that they will be visible and easy for the designated users to find.

The marina may also have additional parking needs, such as temporary parking spaces for visitors to drop off passengers or supplies near their boat before parking their vehicle and for fueling trucks and provisional vehicles that service the mega-yachts. These other parking spaces should be considered in addition to the estimated peak parking demand for the visitors and employees.

Bicycle Parking

Per City Ordinance, new uses are required to provide bicycle accommodations based on the type of use. Residential structures are required to provide 2 bicycle spaces for every 5 dwelling units. Non-residential structures are required to provide 2 bicycle parking spaces for every 10 vehicle parking spaces for the first 100 required spaces, plus one bicycle parking space for every 20 required vehicle parking spaces over the 100 vehicle parking spaces. The following table shows the required bicycle parking for the Ordinance vehicle parking demand and the Shared Parking demand:

Bicycle Parking Summary

	Ordinance	Shared Parking
Parking Variable	409 Spaces, 638 Units	322 Spaces, 638 Units
Residential Bicycle Spaces	256	256
Non-Residential Bicycle Spaces	36	31
Total	**292**	**287**

As shown in the table, the site will require 287-292 bicycle parking spaces to meet the City Ordinance Requirements for bicycle accommodations. The Transportation Demand Management (TDM) plan will outline a more detailed approach to incorporating bicycle parking on site.

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JOB 3138-58 Fore Street Redevelopment
SHEET NO. _____ OF _____
CALCULATED BY ET DATE 8/26/16
CHECKED BY _____ DATE _____
SCALE _____

Marina Trip Generation

Info from ATM:
- 220 slips → 140 seasonal users, 80 transient boaters
- Daily usage peaks around 10%, maybe more
- 10% of daily non-transient users are on-site residents
- 90% of daily non-transient users are offsite residents
- 30% of off site residents are Islanders commuting to the Peninsula
- 9 marina employees
- 4 mega-yacht slips

Assumptions:
- 15% of slips is peak daily usage to be conservative (33 slips)
- 36% are transient boaters (80/220 = 36% → 12 slips)
- 21 non-transient slips used during peak (33 slips - 12 slips)
- 2 on-site residents used slips during peak (21 × 0.10 = 2.1)
- 19 off-site residents use slips during peak (21 × 0.90 = 18.9)
- 6 Islanders commuting to Peninsula (19 × 0.30 = 5.7)
- 1 provisioning vehicle per mega-yacht slip (conservative)
- Transient boaters = 0 trip ends
- on-site residents = 0 trip ends
- off-site residents = 1 AM trip end, 1 PM trip end
  - Islanders leave during AM and return during PM
  - other off-site enter during AM and exit during PM
- Employees enter during AM and exit during PM
- Provisioning vehicles enter and exit during the peak hour (conservative)

AM Peak Hour
- 9 employees in
- 6 islanders out
- 13 seasonal in
- 4 provisional veh. in
- 4 provisional veh. out

36 trip ends (26 in / 10 out)

PM Peak Hour
- 9 employees out
- 6 Islanders in
- 13 seasonal out
- 4 provisional veh in
- 4 provisional veh out

36 trip ends (10 in / 26 out)

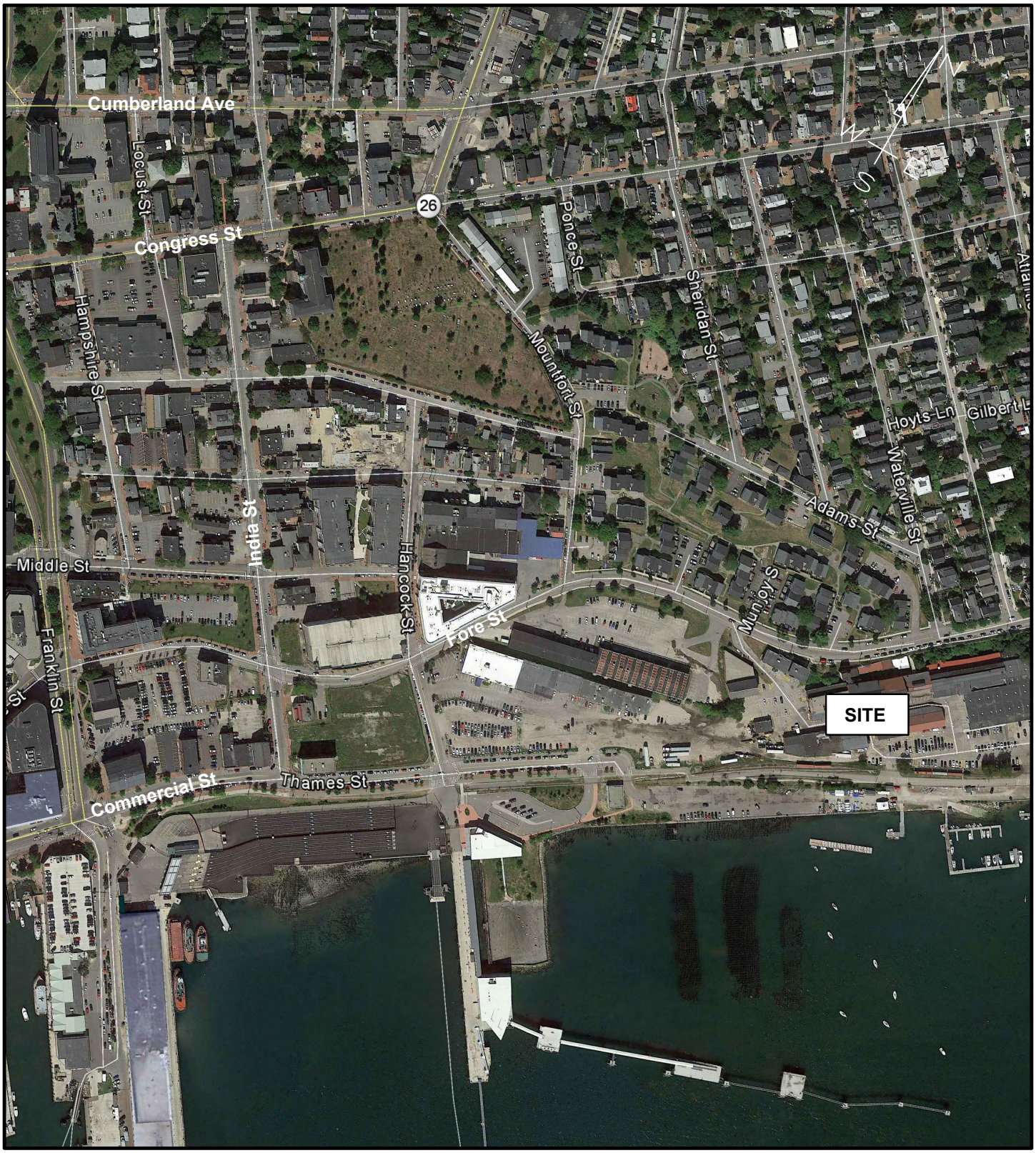
Attachment 1B

Site Location Map

Trip Assignment Diagrams

Location Map

Figure No. 1



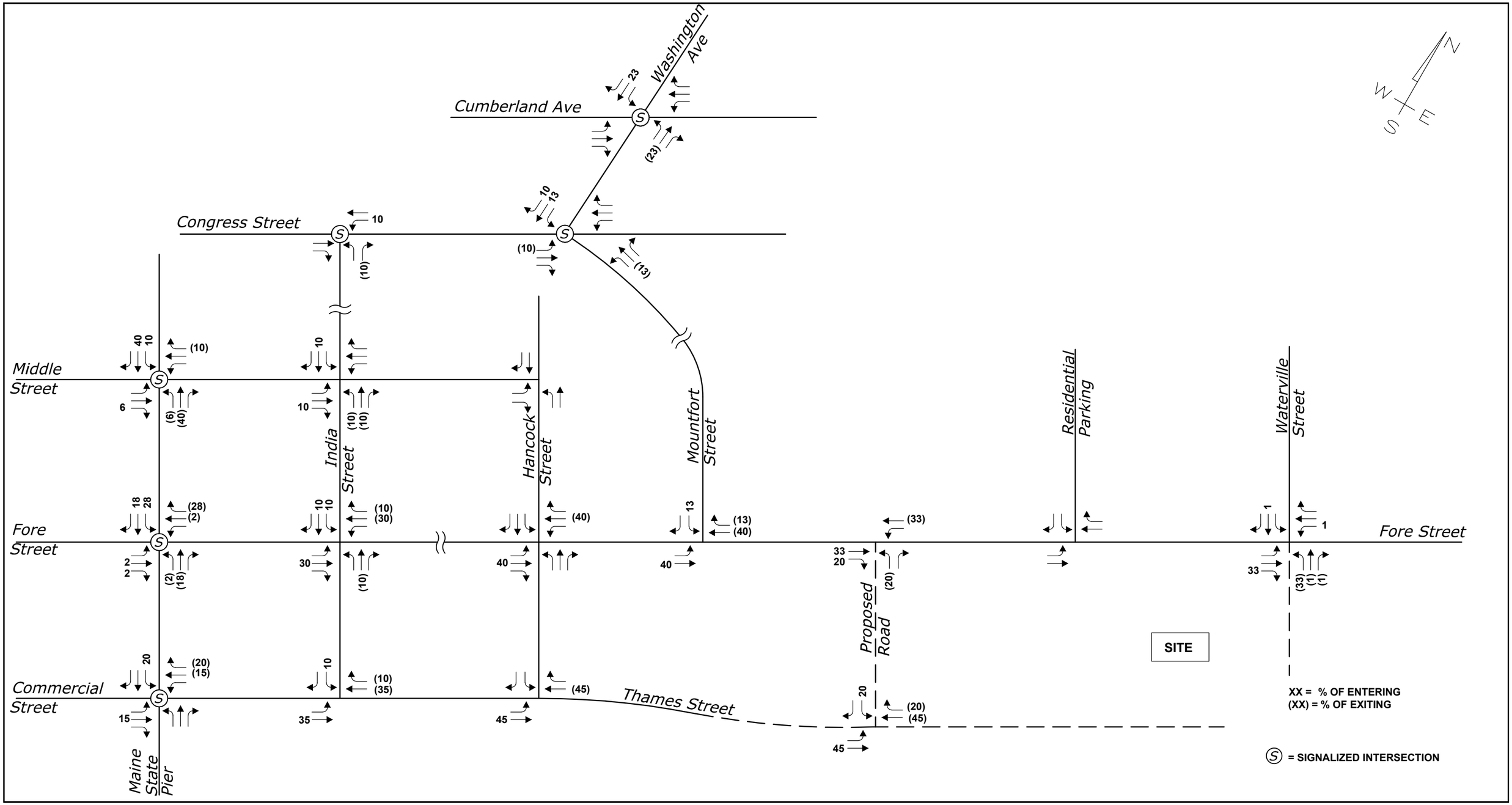
58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

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Residential Trip Distribution

Figure No. 6



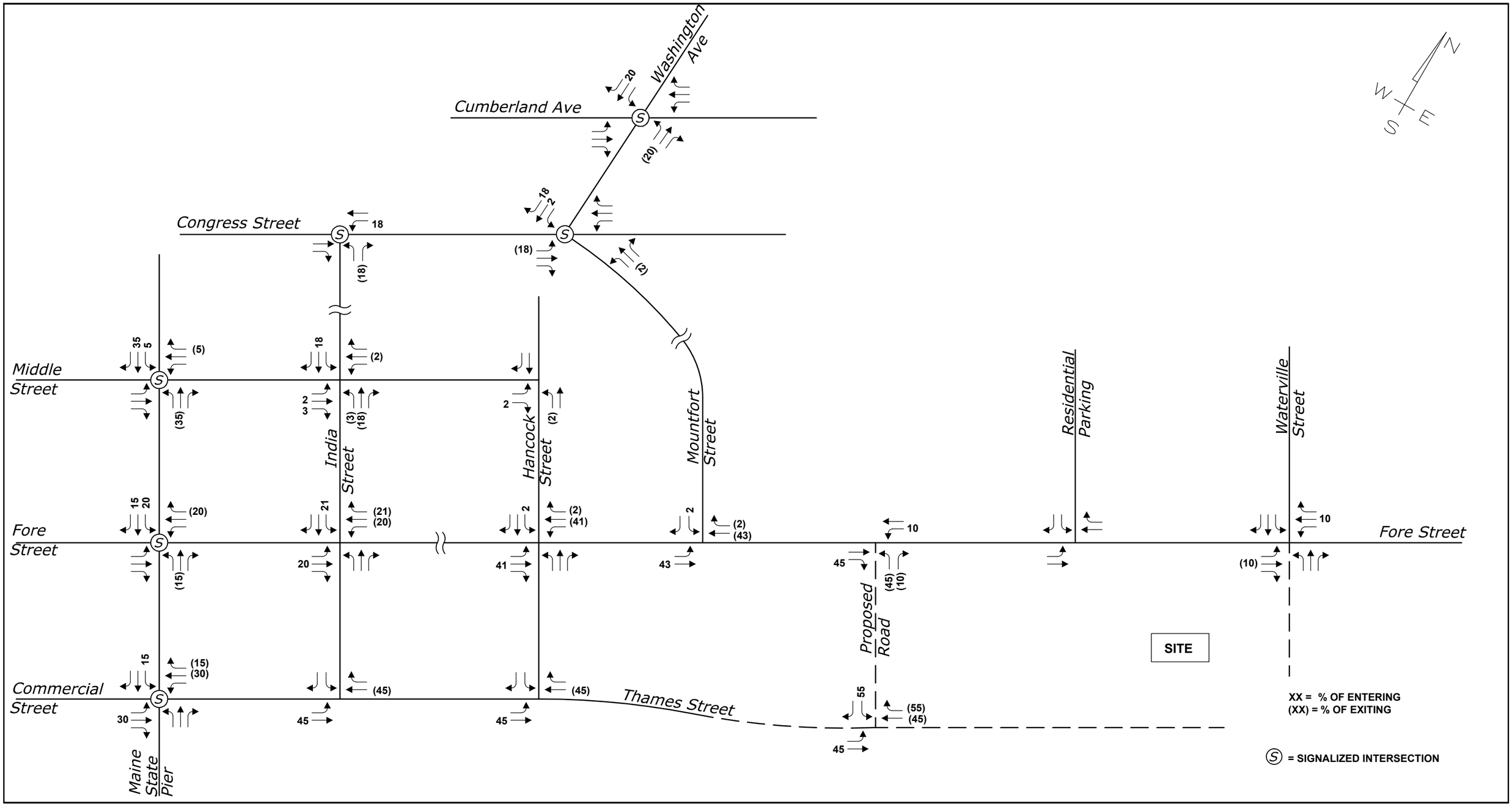
58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

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Non-Residential Trip Distribution

Figure No. 7



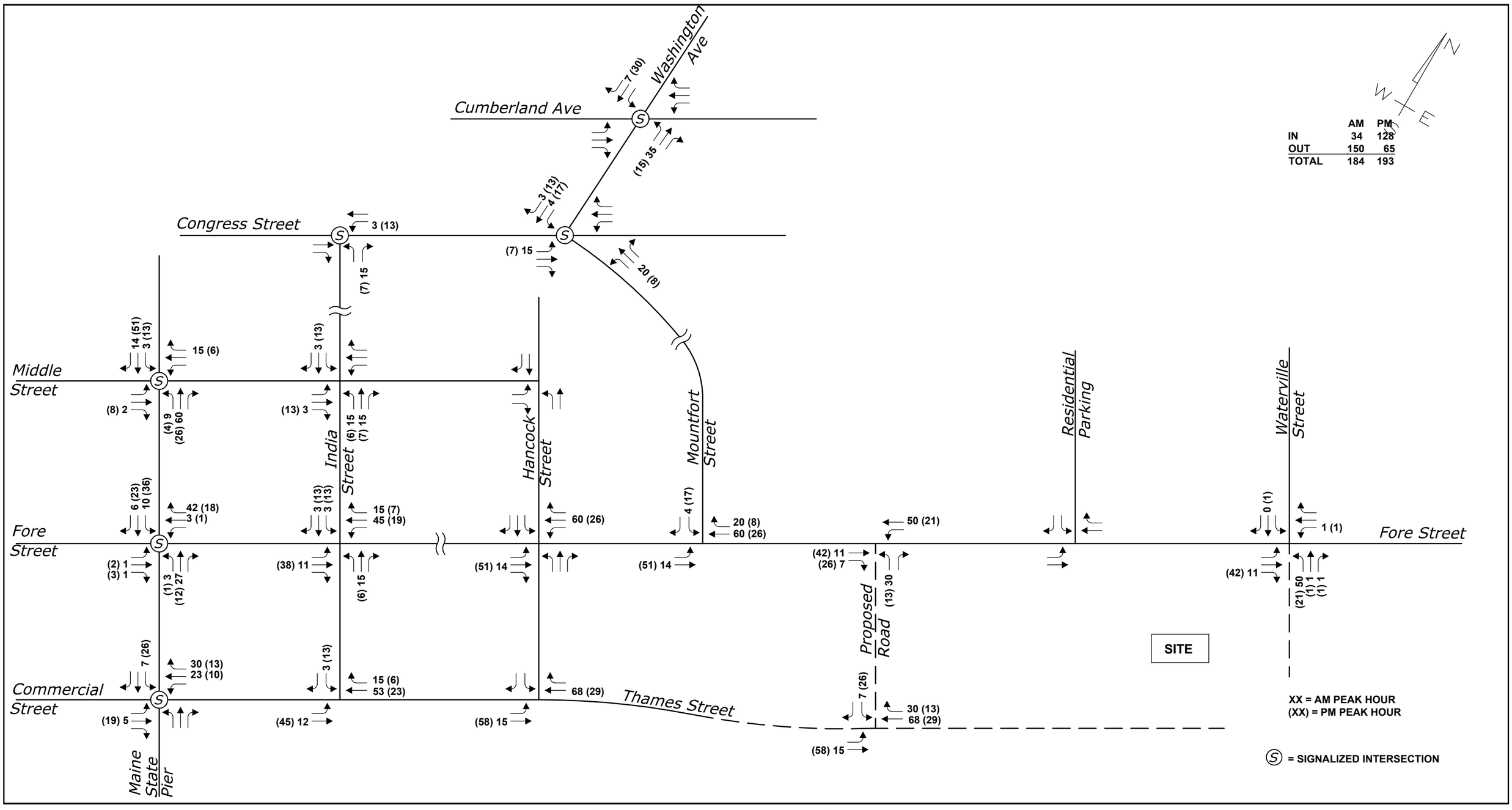
58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

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Date: AUGUST 2016
File Name: 3138-TRAFF.dwg

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Residential Trip Assignment

Figure No. 8



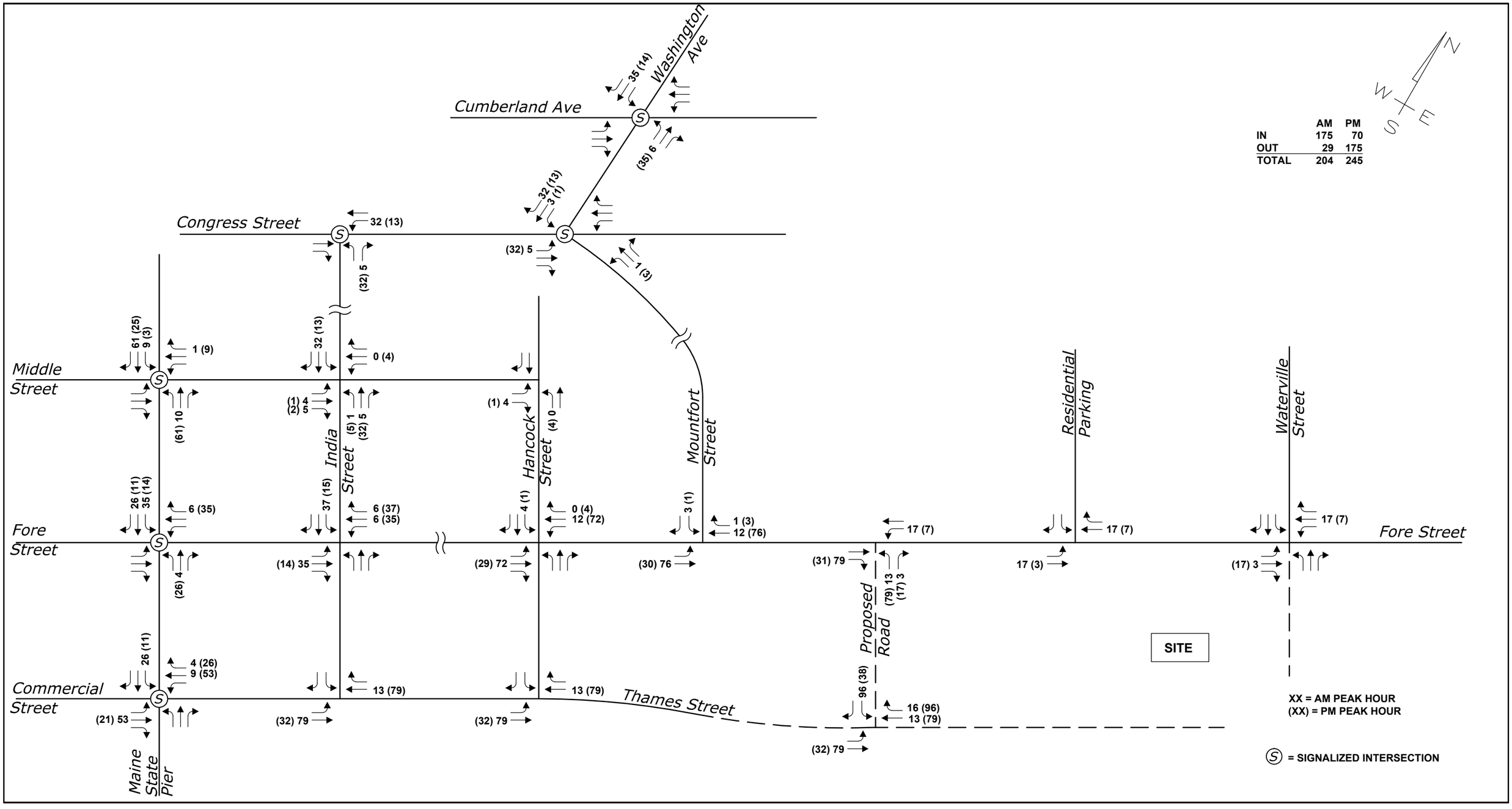
58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

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Scale: NONE
Date: AUGUST 2016
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Non-Residential Trip Assignment

Figure No. 9



	AM	PM
IN	175	70
OUT	29	175
TOTAL	204	245

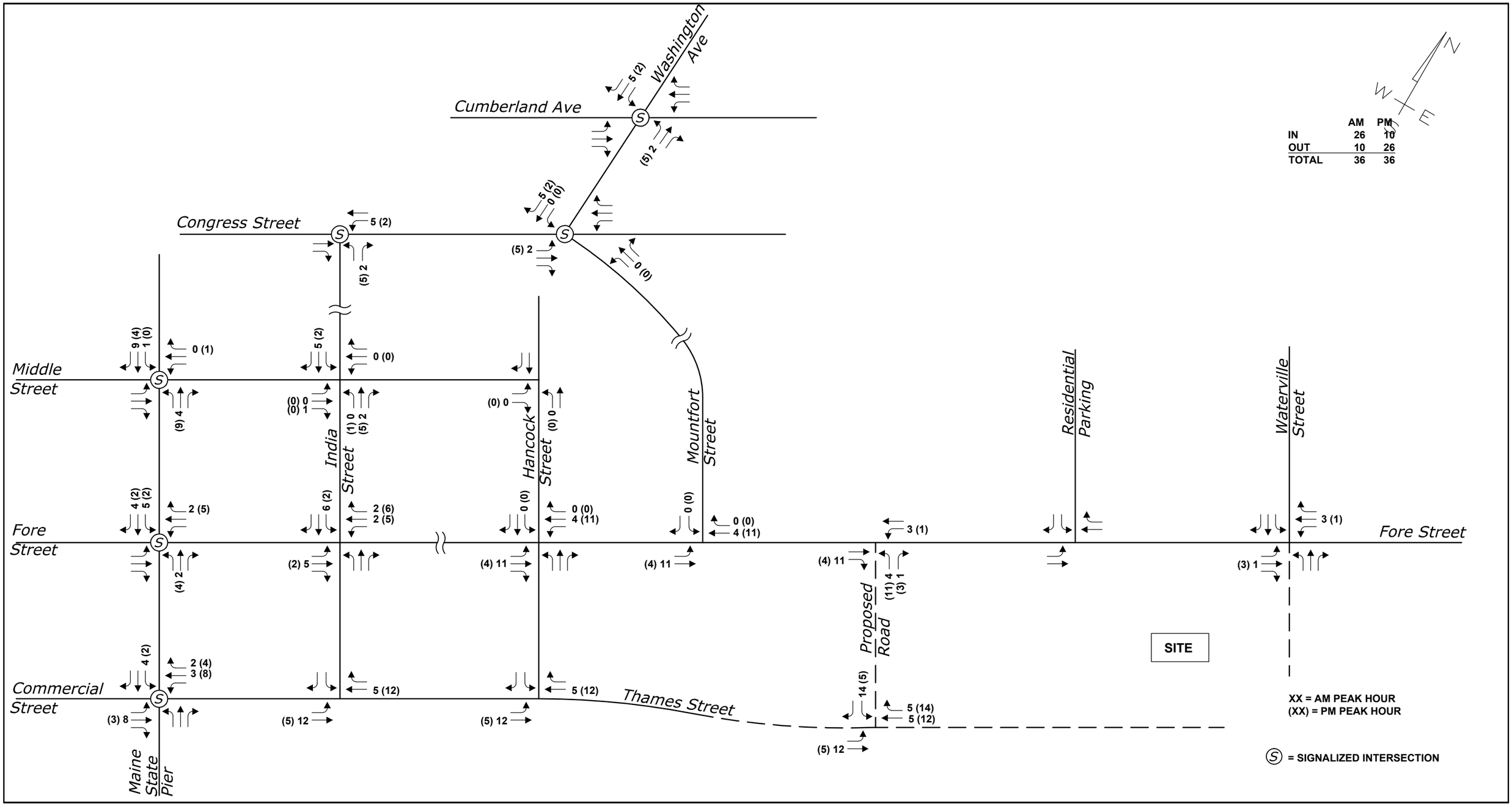
58 FORE STREET REDEVELOPMENT
PORTLAND, MAINE

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Draft: LAN
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Scale: NONE
Date: AUGUST 2016
File Name: 3138-TRAFF.dwg

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Marina Trip Assignment

Figure No. 10



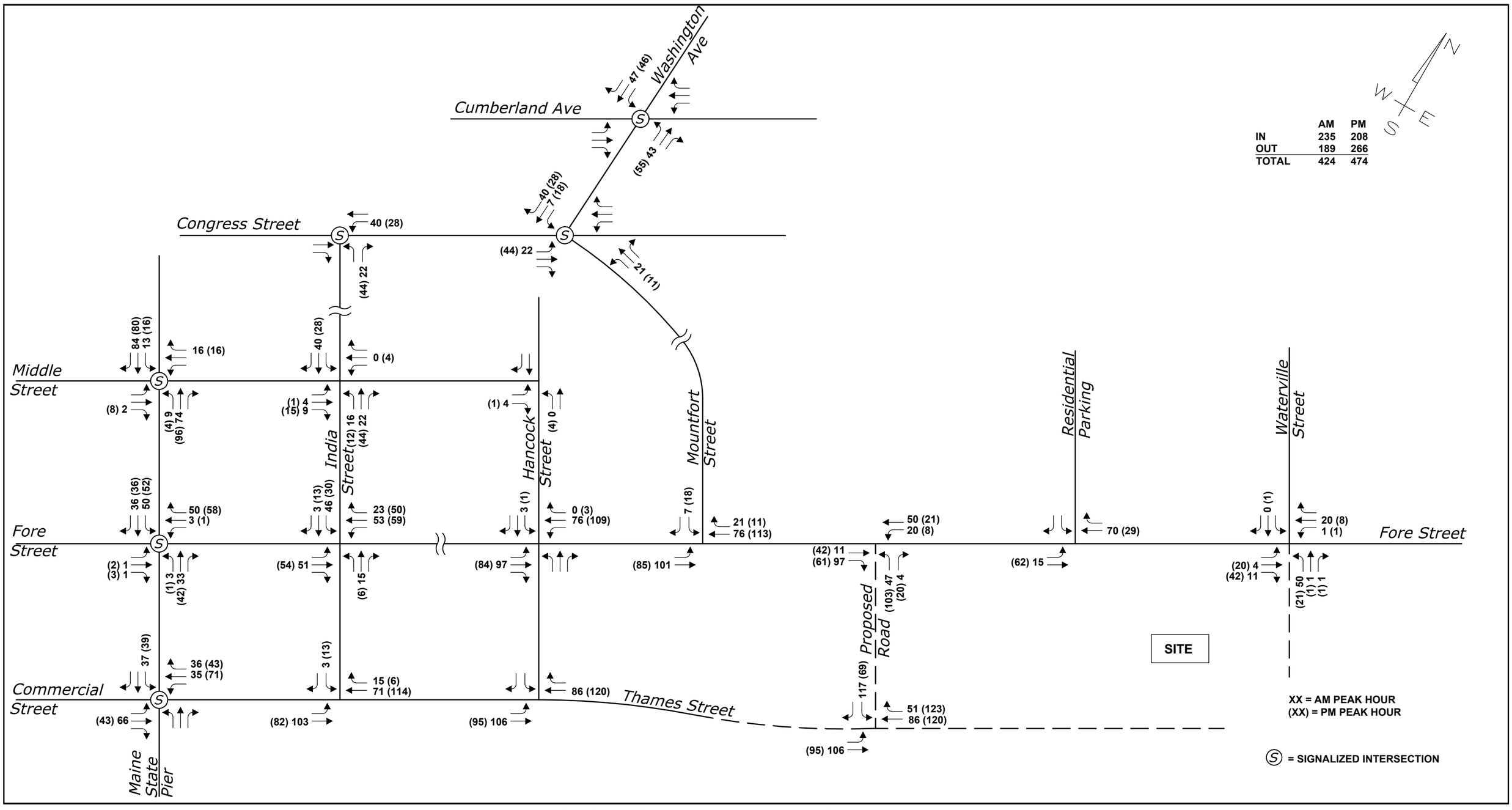
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Draft: LAN Date: AUGUST 2016
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Total Trip Assignment

Figure No. 11



58 FORE STREET REDEVELOPMENT
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Section 2
Traffic Crashes

2.A. Crash Summary Data

Gorrill Palmer obtained the crash data from MaineDOT for the period of 2013-2015, the most recent period available (Attachment 2A).

In order to evaluate whether a location has a crash problem, MaineDOT uses two criteria to define a High Crash Location (HCL). Both criteria must be met in order to be classified as an HCL.

1. A critical rate factor of 1.00 or more for a three-year period. (A Critical Rate Factor {CRF} compares the actual crash rate to the rate for similar intersections in the state. A CRF of less than 1.00 indicates a rate of less than average) **and**:
2. A minimum of eight crashes over the same three-year period.

Based on the crash data provided by MaineDOT, there are two high crash locations within the study area; one at the intersection of Franklin Street with Middle Street, and one on Fore Street from its intersection with India Street to its intersection with Mountfort Street. It should be noted that there were also two locations that did not meet the HCL criteria, but were close. The intersection of India Street with Fore Street has a CRF of 1.60 and experienced seven collisions during the most recent-three year period and Cumberland Avenue from Boyd Street to Locust Street has a CRF of 4.13 and experienced seven collisions over the most recent three-year period. The intersection of India Street with Fore Street was previously identified as an HCL based on 2012-2014 crash data, but it experienced fewer crashes during the 2013-2015 period, so it no longer meets both HCL criteria.

To better evaluate the high crash locations and identify correctable crash patterns, the police reports for these locations were provided by MaineDOT and used to create collision diagrams, included as an attachment to this section. The two locations are described in more detail as follows:

Franklin Street / Middle Street

The intersection of Franklin Street with Middle Street has a CRF of 1.08 and experienced 20 crashes during the most recent three-year period. It is a signalized four leg intersection with a median separating the northbound and southbound Franklin Street traffic. Based on a review of the collision diagram, all 20 of the collisions involved vehicles turning left from Franklin Street onto Middle Street colliding with through traffic on Franklin Street in the opposite direction. This type of collision occurred with both Franklin Street

northbound and southbound left-turning traffic, but 16 of the 20 collisions occurred with southbound left-turning vehicles colliding with northbound through vehicles. Of those 16 collisions, six occurred because the left-turning vehicles could not see the northbound through vehicle due to a snowbank in the median blocking sight distance. Increased winter maintenance, specifically snow removal, could increase the sight distance at the intersection during the winter months and provide left-turning vehicles with a clearer view of oncoming traffic.

Fore Street from India Street to Hancock Street

This section of Fore Street has a CRF of 2.12 and experienced nine collisions during the most recent three-year period, seven of which occurred at the intersection of Fore Street with Hancock Street. The intersection of Fore Street with Hancock Street is stop controlled, with stop signs on Hancock Street and free flowing traffic on Fore Street. Based on a review of the collision diagram there does not appear to be a clear and correctable crash pattern. Most of the collisions at the intersection of Hancock Street and Fore Street were caused by a driver failing to yield the right of way.

2.B. Attachments

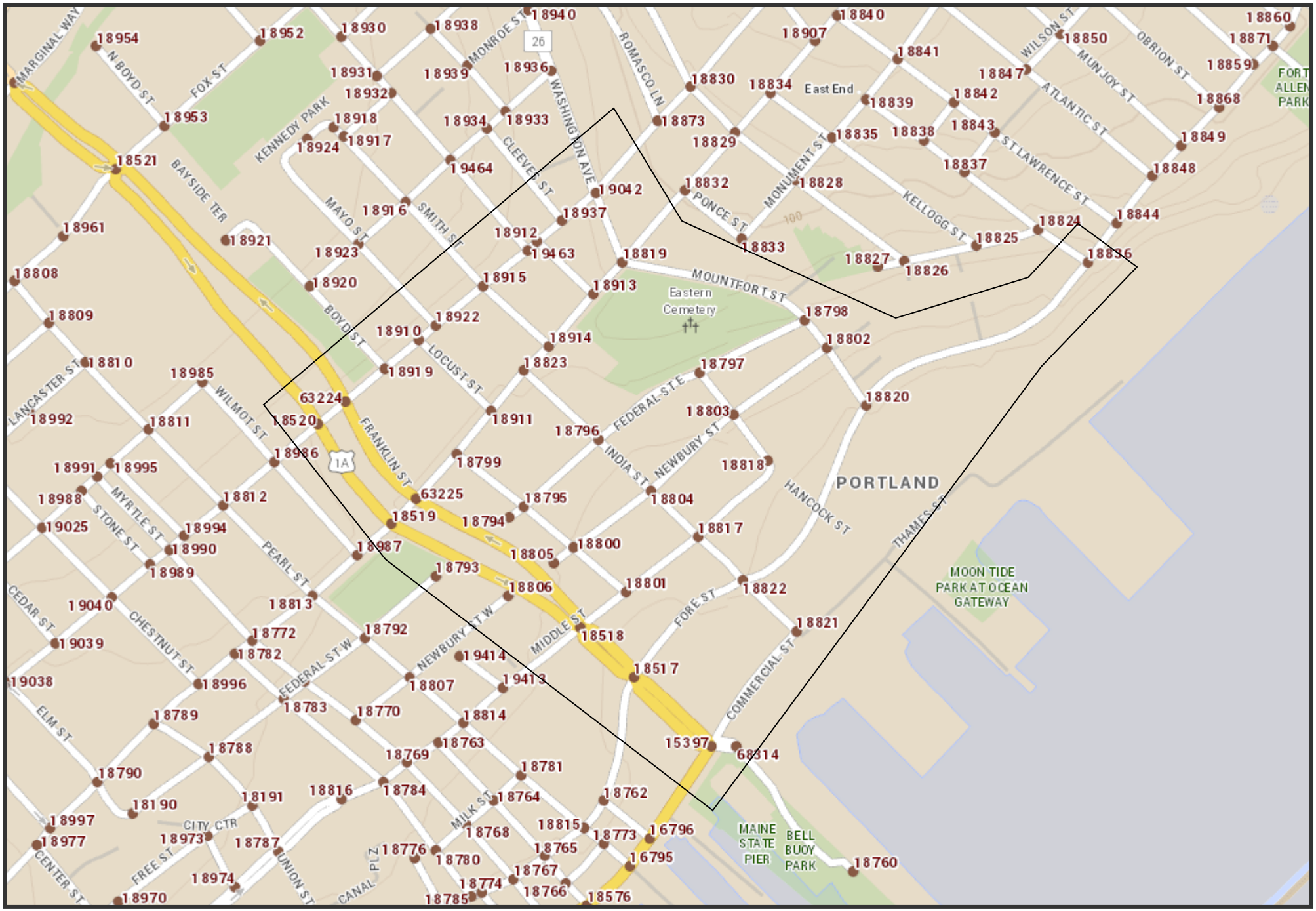
Attachment 2A – Crash Report, Collision Diagrams

Attachment 2A

Crash History

Collision Diagrams

NODE MAP



The Maine Department of Transportation provides this publication for information only. Reliance upon this information is at user risk. It is subject to revision and may be incomplete depending upon changing conditions. The Department assumes no liability if injuries or damages result from this information. This map is not intended to support emergency dispatch.

0.15 Miles

1 inch = 0.13 miles

Date: 8/23/2016
Time: 9:58:43 AM

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☑ Section Detail ☑ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☑ 1320 Summary

REPORT DESCRIPTION

Franklin St area in Portland

REPORT PARAMETERS

Year 2013, Start Month 1 through Year 2015 End Month: 12

Route: 0561238	Start Node: 18520	Start Offset: 0	☐ Exclude First Node
	End Node: 19042	End Offset: 0	☐ Exclude Last Node
Route: 0560160	Start Node: 18819	Start Offset: 0	☑ Exclude First Node
	End Node: 18519	End Offset: 0	☑ Exclude Last Node
Route: 0561110	Start Node: 18794	Start Offset: 0	☐ Exclude First Node
	End Node: 18798	End Offset: 0	☑ Exclude Last Node
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Route: 0560286	Start Node: 18836	Start Offset: 0	☐ Exclude First Node
	End Node: 18517	End Offset: 0	☑ Exclude Last Node
Route: 0561001	Start Node: 15397	Start Offset: 0	☐ Exclude First Node
	End Node: 18821	End Offset: 0	☐ Exclude Last Node
Route: 0001A	Start Node: 15397	Start Offset: 0	☑ Exclude First Node
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Route: 0001A	Start Node: 63225	Start Offset: 0	☑ Exclude First Node
	End Node: 63224	End Offset: 0	☑ Exclude Last Node
Route: 001AS	Start Node: 18520	Start Offset: 0	☑ Exclude First Node
	End Node: 18518	End Offset: 0	☑ Exclude Last Node

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☑ Section Detail ☑ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☑ 1320 Summary

REPORT DESCRIPTION

Franklin St area in Portland

REPORT PARAMETERS

Year 2013, Start Month 1 through Year 2015 End Month: 12

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	End Node: 18517	End Offset: 0	☑ Exclude Last Node
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Route: 0560524	Start Node: 18819	Start Offset: 0	☑ Exclude First Node
	End Node: 18820	End Offset: 0	☑ Exclude Last Node
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	End Node: 18915	End Offset: 0	☑ Exclude Last Node
Route: 0560451	Start Node: 18910	Start Offset: 0	☑ Exclude First Node
	End Node: 18911	End Offset: 0	☑ Exclude Last Node
Route: 0560342	Start Node: 18795	Start Offset: 0	☑ Exclude First Node
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	End Node: 18800	End Offset: 0	☑ Exclude Last Node

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☑ Section Detail ☑ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☑ 1320 Summary

REPORT DESCRIPTION

Franklin St area in Portland

REPORT PARAMETERS

Year 2013, Start Month 1 through Year 2015 End Month: 12

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	End Node: 18821	End Offset: 0	☑ Exclude Last Node
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	End Node: 18803	End Offset: 0	☑ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
18520	0561238 - 0.77	Int of CUMBERLAND AV FRANKLIN ST	9	18	0	0	1	2	15	16.7	7.178	0.84	1.10	0.00
												Statewide Crash Rate:	0.67	
63224	0561238 - 0.80	Int of CUMBERLAND AV FRANKLIN ST	9	13	0	0	1	4	8	38.5	6.653	0.65	1.12	0.00
												Statewide Crash Rate:	0.67	
18919	0561238 - 0.84	Int of BOYD ST CUMBERLAND AV	2	2	0	0	0	0	2	0.0	2.692	0.25	0.44	0.00
												Statewide Crash Rate:	0.15	
18910	0561238 - 0.87	Int of CUMBERLAND AV, LOCUST ST	2	2	0	0	0	0	2	0.0	2.636	0.25	0.44	0.00
												Statewide Crash Rate:	0.15	
18922	0561238 - 0.89	Int of CUMBERLAND AV MAYO ST	2	1	0	0	0	0	1	0.0	2.475	0.13	0.45	0.00
												Statewide Crash Rate:	0.15	
18915	0561238 - 0.94	Int of CUMBERLAND AV, SMITH ST	2	2	0	0	0	0	2	0.0	2.450	0.27	0.45	0.00
												Statewide Crash Rate:	0.15	
19463	0561238 - 0.98	Int of ANDERSON ST CUMBERLAND AV	2	2	0	0	0	0	2	0.0	2.195	0.30	0.46	0.00
												Statewide Crash Rate:	0.15	
18912	0561238 - 0.99	Int of CUMBERLAND AV, MONTGOMERY ST	2	0	0	0	0	0	0	0.0	2.043	0.00	0.47	0.00
												Statewide Crash Rate:	0.15	
18937	0561238 - 1.01	Int of CLEEVE ST CUMBERLAND AV	2	0	0	0	0	0	0	0.0	2.011	0.00	0.47	0.00
												Statewide Crash Rate:	0.15	
19042	0561238 - 1.04	Int of CUMBERLAND AV WASHINGTON AV	9	10	0	0	1	1	8	20.0	4.911	0.68	1.19	0.00
												Statewide Crash Rate:	0.67	
18913	0560160 - 0.55	Int of CONGRESS ST MONTGOMERY ST	2	0	0	0	0	0	0	0.0	3.833	0.00	0.40	0.00
												Statewide Crash Rate:	0.15	
18914	0560160 - 0.60	Int of CONGRESS ST SMITH ST	2	4	0	0	1	0	3	25.0	3.932	0.34	0.40	0.00
												Statewide Crash Rate:	0.15	
18823	0560160 - 0.63	Int of CONGRESS ST INDIA ST	9	7	0	0	1	3	3	57.1	4.581	0.51	1.20	0.00
												Statewide Crash Rate:	0.67	
18911	0560160 - 0.67	Int of CONGRESS ST LOCUST ST	2	0	0	0	0	0	0	0.0	2.943	0.00	0.43	0.00
												Statewide Crash Rate:	0.15	
18799	0560160 - 0.71	Int of CONGRESS ST HAMPSHIRE ST	2	0	0	0	0	0	0	0.0	3.235	0.00	0.42	0.00
												Statewide Crash Rate:	0.15	
63225	0560160 - 0.76	Int of CONGRESS ST FRANKLIN ST	9	12	0	1	0	4	7	41.7	5.974	0.67	1.14	0.00
												Statewide Crash Rate:	0.67	
18794	0561110 - 0	End of FEDERAL ST E	2	0	0	0	0	0	0	0.0	0.007	0.00	-17.21	0.00
												Statewide Crash Rate:	0.14	
18795	0561110 - 0.02	Int of FEDERAL ST E HAMPSHIRE ST	2	0	0	0	0	0	0	0.0	0.274	0.00	0.59	0.00
												Statewide Crash Rate:	0.14	
18796	0561110 - 0.10	Int of FEDERAL ST E INDIA ST	2	1	0	0	0	0	1	0.0	2.510	0.13	0.45	0.00
												Statewide Crash Rate:	0.15	
18797	0561110 - 0.20	Int of FEDERAL ST E HANCOCK ST	2	0	0	0	0	0	0	0.0	0.154	0.00	0.48	0.00
												Statewide Crash Rate:	0.14	
18805	0560531 - 0	End of NEWBURY ST	2	0	0	0	0	0	0	0.0	0.006	0.00	-20.36	0.00
												Statewide Crash Rate:	0.14	
18800	0560531 - 0.03	Int of HAMPSHIRE ST NEWBURY ST	2	0	0	0	0	0	0	0.0	0.296	0.00	0.60	0.00
												Statewide Crash Rate:	0.14	

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
18804	0560531 - 0.11	Int of INDIA ST NEWBURY ST	2	2	0	0	0	0	2	0.0	2.235	0.30	0.46	0.00
											Statewide Crash Rate:	0.15		
18803	0560531 - 0.19	Int of HANCOCK ST NEWBURY ST	2	1	0	0	0	0	1	0.0	0.249	1.34	0.59	2.28
											Statewide Crash Rate:	0.14		
18801	0560505 - 0.33	0509221 POR,MIDDLE,HAMPSHIRE ST	2	1	0	0	0	0	1	0.0	0.968	0.34	0.53	0.00
											Statewide Crash Rate:	0.14		
18817	0560505 - 0.39	Int of INDIA ST MIDDLE ST	2	4	0	0	1	2	1	75.0	2.212	0.60	0.46	1.30
											Statewide Crash Rate:	0.15		
18818	0560505 - 0.47	0509238 POR,HANCOCK,MIDDLE ST.	2	0	0	0	0	0	0	0.0	0.272	0.00	0.59	0.00
											Statewide Crash Rate:	0.14		
18836	0560286 - 0.08	Int of FORE ST WATERVILLE ST	2	0	0	0	0	0	0	0.0	1.748	0.00	0.44	0.00
											Statewide Crash Rate:	0.13		
18820	0560286 - 0.28	Int of FORE ST, MOUNTFORT ST	2	1	0	0	1	0	0	100.0	1.976	0.17	0.43	0.00
											Statewide Crash Rate:	0.13		
18822	0560286 - 0.45	Int of FORE ST INDIA ST	2	7	0	0	0	3	4	42.9	3.565	0.65	0.41	1.60
											Statewide Crash Rate:	0.15		
15397	0561001 - 0	Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER	9	8	0	0	0	3	5	37.5	4.896	0.54	1.19	0.00
											Statewide Crash Rate:	0.67		
18821	0561001 - 0.11	Int of COMMERCIAL ST INDIA ST	2	0	0	0	0	0	0	0.0	2.210	0.00	0.46	0.00
											Statewide Crash Rate:	0.15		
18517	0001A - 11.88	Int of FORE ST FRANKLIN ST	9	8	0	0	1	3	4	50.0	3.590	0.74	1.27	0.00
											Statewide Crash Rate:	0.67		
18518	0001A - 11.94	Int of FRANKLIN ST MIDDLE ST	9	20	0	0	1	5	14	30.0	5.287	1.26	1.17	1.08
											Statewide Crash Rate:	0.67		
18519	001AS - 1.91	Int of CONGRESS ST, FRANKLIN ST	9	11	0	1	1	2	7	36.4	7.631	0.48	1.09	0.00
											Statewide Crash Rate:	0.67		
18819	0561002 - 0	Int of CONGRESS ST, MOUNTFORT ST, WASHINGTON AV	9	11	0	0	1	0	10	9.1	4.593	0.80	1.20	0.00
											Statewide Crash Rate:	0.67		
18798	0560524 - 0.14	Int of FEDERAL ST E MOUNTFORT ST	2	2	0	0	0	0	2	0.0	0.513	1.30	0.59	2.19
											Statewide Crash Rate:	0.14		
18802	0560524 - 0.17	Int of MOUNTFORT ST NEWBURY ST	2	0	0	0	0	0	0	0.0	0.449	0.00	0.60	0.00
											Statewide Crash Rate:	0.14		
Study Years:	3.00	NODE TOTALS:		150	0	2	11	32	105	30.0	105.383	0.47	0.51	0.92

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18520	63224	3118814	0 - 0.03	0561238 - 0.77	0.03	2	1	0	0	0	0	1	0.0	0.00107	312.57	683.74	0.00
Int of CUMBERLAND AV FRANKLIN ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
63224	18919	3115972	0 - 0.04	0561238 - 0.80	0.04	2	3	0	0	0	0	3	0.0	0.00106	940.32	684.19	1.37
Int of CUMBERLAND AV FRANKLIN ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18910	18919	3129300	0 - 0.03	0561238 - 0.84	0.03	2	7	0	0	0	2	5	28.6	0.00077	3047.62	737.95	4.13
Int of CUMBERLAND AV, LOCUST ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18910	18922	3118713	0 - 0.02	0561238 - 0.87	0.02	2	1	0	0	0	0	1	0.0	0.00049	678.28	804.41	0.00
Int of CUMBERLAND AV, LOCUST ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18915	18922	3117967	0 - 0.05	0561238 - 0.89	0.05	2	5	0	0	0	0	5	0.0	0.00120	1394.48	665.03	2.10
Int of CUMBERLAND AV, SMITH ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18915	19463	3131702	0 - 0.04	0561238 - 0.94	0.04	2	0	0	0	0	0	0	0.0	0.00088	0.00	715.17	0.00
Int of CUMBERLAND AV, SMITH ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18912	19463	194577	0 - 0.01	0561238 - 0.98	0.01	2	0	0	0	0	0	0	0.0	0.00021	0.00	850.21	0.00
Int of CUMBERLAND AV, MONTGOMERY ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18912	18937	3130202	0 - 0.02	0561238 - 0.99	0.02	2	1	0	0	0	0	1	0.0	0.00040	835.08	829.57	1.01
Int of CUMBERLAND AV, MONTGOMERY ST				RD INV 05 61238											Statewide Crash Rate: 198.45		
18937	19042	3131703	0 - 0.03	0561238 - 1.01	0.03	2	3	0	0	0	0	3	0.0	0.00059	1686.50	777.77	2.17
Int of CLEEVE ST CUMBERLAND AV				RD INV 05 61238											Statewide Crash Rate: 198.45		
18819	18913	3131697	0 - 0.03	0560160 - 0.52	0.03	2	1	0	0	0	0	1	0.0	0.00111	300.18	677.09	0.00
Int of CONGRESS ST, MOUNTFORT ST, WASHINGTON AV				RD INV 05 60160											Statewide Crash Rate: 198.45		
18913	18914	194578	0 - 0.05	0560160 - 0.55	0.05	2	4	0	0	0	1	2	33.3	0.00189	706.78	592.48	1.19
Int of CONGRESS ST MONTGOMERY ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18823	18914	3118711	0 - 0.03	0560160 - 0.60	0.03	2	1	0	0	0	0	1	0.0	0.00117	284.21	668.12	0.00
Int of CONGRESS ST INDIA ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18823	18911	3120757	0 - 0.04	0560160 - 0.63	0.04	2	4	0	0	1	2	1	75.0	0.00116	1150.76	670.11	1.72
Int of CONGRESS ST INDIA ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18799	18911	3123999	0 - 0.04	0560160 - 0.67	0.04	2	2	0	0	0	0	2	0.0	0.00120	557.40	664.91	0.00
Int of CONGRESS ST HAMPSHIRE ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
63225	18799	3115974	0 - 0.05	0560160 - 0.71	0.05	2	1	0	0	0	1	0	100.0	0.00174	191.54	604.90	0.00
Int of CONGRESS ST FRANKLIN ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18519	63225	3115973	0 - 0.03	0560160 - 0.76	0.03	2	0	0	0	0	0	0	0.0	0.00128	0.00	654.44	0.00
Int of CONGRESS ST, FRANKLIN ST				RD INV 05 60160											Statewide Crash Rate: 198.45		
18794	18795	194384	0 - 0.02	0561110 - 0	0.02	2	0	0	0	0	0	0	0.0	0.00000	0.00	-	0.00
End of FEDERAL ST E				RD INV 05 61110											Statewide Crash Rate: 384.19	42194.82	
18795	18796	194385	0 - 0.08	0561110 - 0.02	0.08	2	1	0	0	0	0	1	0.0	0.00024	1372.06	1568.43	0.00
Int of FEDERAL ST E HAMPSHIRE ST				RD INV 05 61110											Statewide Crash Rate: 384.19		
18796	18797	194388	0 - 0.10	0561110 - 0.10	0.10	2	1	0	0	0	0	1	0.0	0.00011	2936.47	1652.05	1.78
Int of FEDERAL ST E INDIA ST				RD INV 05 61110											Statewide Crash Rate: 384.19		
18797	18798	194391	0 - 0.10	0561110 - 0.20	0.10	2	1	0	0	0	0	0	0.0	0.00006	5930.14	1307.34	4.54
Int of FEDERAL ST E HANCOCK ST				RD INV 05 61110											Statewide Crash Rate: 384.19		

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18800	18805	194398	0 - 0.03	0560531 - 0	0.03	2	0	0	0	0	0	0	0.0	0.00000	0.00	-	0.00
Int of HAMPSHIRE ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19	30403.77	
18800	18804	194397	0 - 0.08	0560531 - 0.03	0.08	2	4	0	0	0	0	4	0.0	0.00008	15800.03	1582.54	9.98
Int of HAMPSHIRE ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19		
18803	18804	194402	0 - 0.08	0560531 - 0.11	0.08	2	1	0	0	0	0	1	0.0	0.00011	3119.00	1644.54	1.90
Int of HANCOCK ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19		
18802	18803	194400	0 - 0.08	0560531 - 0.19	0.08	2	1	0	0	0	0	1	0.0	0.00006	5212.57	1423.30	3.66
Int of MOUNTFORT ST NEWBURY ST				RD INV 05 60531											Statewide Crash Rate: 384.19		
18518	18801	194025	0 - 0.06	0560505 - 0.27	0.06	2	2	0	0	0	1	1	50.0	0.00075	885.18	1225.13	0.00
Int of FRANKLIN ST MIDDLE ST				RD INV 05 60505											Statewide Crash Rate: 384.19		
18801	18817	194399	0 - 0.06	0560505 - 0.33	0.06	2	3	0	0	1	0	2	33.3	0.00017	5854.12	1638.94	3.57
0509221 POR,MIDDLE,HAMPSHIRE ST				RD INV 05 60505											Statewide Crash Rate: 384.19		
18817	18818	194423	0 - 0.08	0560505 - 0.39	0.08	2	0	0	0	0	0	0	0.0	0.00032	0.00	1495.09	0.00
Int of INDIA ST MIDDLE ST				RD INV 05 60505											Statewide Crash Rate: 384.19		
18820	18836	3131698	0 - 0.20	0560286 - 0.08	0.20	2	5	0	0	2	0	3	40.0	0.00336	495.47	433.67	1.14
Int of FORE ST, MOUNTFORT ST				RD INV 05 60286											Statewide Crash Rate: 159.43		
18820	18822	3106815	0 - 0.17	0560286 - 0.28	0.17	2	9	0	0	1	1	7	22.2	0.00323	929.24	438.31	2.12
Int of FORE ST, MOUNTFORT ST				RD INV 05 60286											Statewide Crash Rate: 159.43		
18517	18822	3106667	0 - 0.11	0560286 - 0.45	0.11	2	2	0	0	0	0	2	0.0	0.00155	429.61	528.74	0.00
Int of FORE ST FRANKLIN ST				RD INV 05 60286											Statewide Crash Rate: 159.43		
15397	18821	3106035	0 - 0.11	0561001 - 0	0.11	2	3	0	0	0	0	2	0.0	0.00260	385.13	545.43	0.00
Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER				RD INV 05 61001											Statewide Crash Rate: 198.45		
15397	18517	3123025	0 - 0.08	0001A - 11.80	0.08	2	1	0	0	0	1	0	100.0	0.00076	439.06	739.30	0.00
Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER				US 1A											Statewide Crash Rate: 198.45		
18517	18518	3118954	0 - 0.06	0001A - 11.88	0.06	2	0	0	0	0	0	0	0.0	0.00078	0.00	734.26	0.00
Int of FORE ST FRANKLIN ST				US 1A											Statewide Crash Rate: 198.45		
18518	63225	3121455	0 - 0.16	0001A - 11.94	0.16	2	0	0	0	0	0	0	0.0	0.00337	0.00	509.80	0.00
Int of FRANKLIN ST MIDDLE ST				US 1A											Statewide Crash Rate: 198.45		
63225	63224	2566764	0 - 0.09	0001A - 12.10	0.09	2	2	0	0	0	1	1	50.0	0.00319	208.87	517.08	0.00
Int of CONGRESS ST FRANKLIN ST				US 1A											Statewide Crash Rate: 198.45		
18519	18520	3106670	0 - 0.09	001AS - 1.82	0.09	2	3	0	0	0	0	3	0.0	0.00326	306.28	514.07	0.00
Int of CONGRESS ST, FRANKLIN ST				US 1AS											Statewide Crash Rate: 198.45		
18518	18519	3106668	0 - 0.16	001AS - 1.91	0.16	2	1	0	0	1	0	0	100.0	0.00358	93.20	502.19	0.00
Int of FRANKLIN ST MIDDLE ST				US 1AS											Statewide Crash Rate: 198.45		
18517	18518	3118912	0 - 0.06	001AS - 2.07	0.06	2	2	0	0	1	0	1	50.0	0.00078	853.42	734.71	1.16
Int of FORE ST FRANKLIN ST				US 1AS											Statewide Crash Rate: 198.45		
15397	18517	3100256	0 - 0.08	001AS - 2.13	0.08	2	1	0	0	0	0	1	0.0	0.00107	312.58	683.74	0.00
Int of COMMERCIAL ST FRANKLIN ST MAINE STATE PIER				US 1AS											Statewide Crash Rate: 198.45		

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18819	19042	3106814	0 - 0.06	0561002 - 0	0.06	2	4	0	0	0	0	4	0.0	0.00174	764.28	604.53	1.26
Int of CONGRESS ST, MOUNTFORT ST, WASHINGTON AV				RD INV 05 61002											Statewide Crash Rate: 198.45		
18798	18819	194394	0 - 0.14	0560524 - 0	0.14	2	1	0	0	0	0	1	0.0	0.00073	455.85	1234.29	0.00
Int of FEDERAL ST E MOUNTFORT ST				RD INV 05 60524											Statewide Crash Rate: 384.19		
18798	18802	194393	0 - 0.03	0560524 - 0.14	0.03	2	0	0	0	0	0	0	0.0	0.00013	0.00	1658.64	0.00
Int of FEDERAL ST E MOUNTFORT ST				RD INV 05 60524											Statewide Crash Rate: 384.19		
18802	18820	194401	0 - 0.05	0560524 - 0.17	0.05	2	6	0	0	0	0	5	0.0	0.00019	10807.60	1626.49	6.64
Int of MOUNTFORT ST NEWBURY ST				RD INV 05 60524											Statewide Crash Rate: 384.19		
18912	18913	194575	0 - 0.05	0560510 - 0	0.05	2	0	0	0	0	0	0	0.0	0.00005	0.00	1109.01	0.00
Int of CUMBERLAND AV, MONTGOMERY ST				RD INV 05 60510											Statewide Crash Rate: 384.19		
18914	18915	194579	0 - 0.06	0560666 - 0	0.06	2	1	0	0	0	1	0	100.0	0.00011	3074.89	1646.59	1.87
Int of CONGRESS ST SMITH ST				RD INV 05 60666											Statewide Crash Rate: 384.19		
18910	18911	194572	0 - 0.07	0560451 - 0	0.07	2	3	0	0	0	0	3	0.0	0.00009	10902.21	1610.95	6.77
Int of CUMBERLAND AV, LOCUST ST				RD INV 05 60451											Statewide Crash Rate: 384.19		
18795	18799	194386	0 - 0.06	0560342 - 0.10	0.06	2	0	0	0	0	0	0	0.0	0.00007	0.00	1482.15	0.00
Int of FEDERAL ST E HAMPSHIRE ST				RD INV 05 60342											Statewide Crash Rate: 384.19		
18795	18800	194387	0 - 0.05	0560342 - 0.05	0.05	2	1	0	0	0	0	1	0.0	0.00012	2805.66	1655.82	1.69
Int of FEDERAL ST E HAMPSHIRE ST				RD INV 05 60342											Statewide Crash Rate: 384.19		
18800	18801	194396	0 - 0.05	0560342 - 0	0.05	2	0	0	0	0	0	0	0.0	0.00010	0.00	1630.72	0.00
Int of HAMPSHIRE ST NEWBURY ST				RD INV 05 60342											Statewide Crash Rate: 384.19		
18821	18822	3106816	0 - 0.06	0561000 - 0.23	0.06	2	0	0	0	0	0	0	0.0	0.00124	0.00	659.57	0.00
Int of COMMERCIAL ST INDIA ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18817	18822	3106813	0 - 0.05	0561000 - 0.18	0.05	2	1	0	0	0	0	1	0.0	0.00088	378.86	715.36	0.00
Int of INDIA ST MIDDLE ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18804	18817	3122291	0 - 0.05	0561000 - 0.13	0.05	2	3	0	0	1	0	1	50.0	0.00099	1008.74	695.75	1.45
Int of INDIA ST NEWBURY ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18796	18804	3130049	0 - 0.05	0561000 - 0.08	0.05	2	3	0	0	0	0	3	0.0	0.00112	889.95	675.15	1.32
Int of FEDERAL ST E INDIA ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18796	18823	3106811	0 - 0.08	0561000 - 0	0.08	2	2	0	0	0	0	2	0.0	0.00189	353.64	592.58	0.00
Int of FEDERAL ST E INDIA ST				RD INV 05 61000											Statewide Crash Rate: 198.45		
18803	18818	194403	0 - 0.05	0560344 - 0.04	0.05	2	0	0	0	0	0	0	0.0	0.00007	0.00	1518.66	0.00
Int of HANCOCK ST NEWBURY ST				RD INV 05 60344											Statewide Crash Rate: 384.19		
18797	18803	194392	0 - 0.04	0560344 - 0	0.04	2	0	0	0	0	0	0	0.0	0.00006	0.00	1288.27	0.00
Int of FEDERAL ST E HANCOCK ST				RD INV 05 60344											Statewide Crash Rate: 384.19		
Study Years: 3.00				Section Totals:	3.68		102	0	0	8	11	78	18.6	0.05523	615.59	292.48	2.10
				Grand Totals:	3.68		252	0	2	19	43	183	25.4	0.05523	1520.87	412.47	3.69

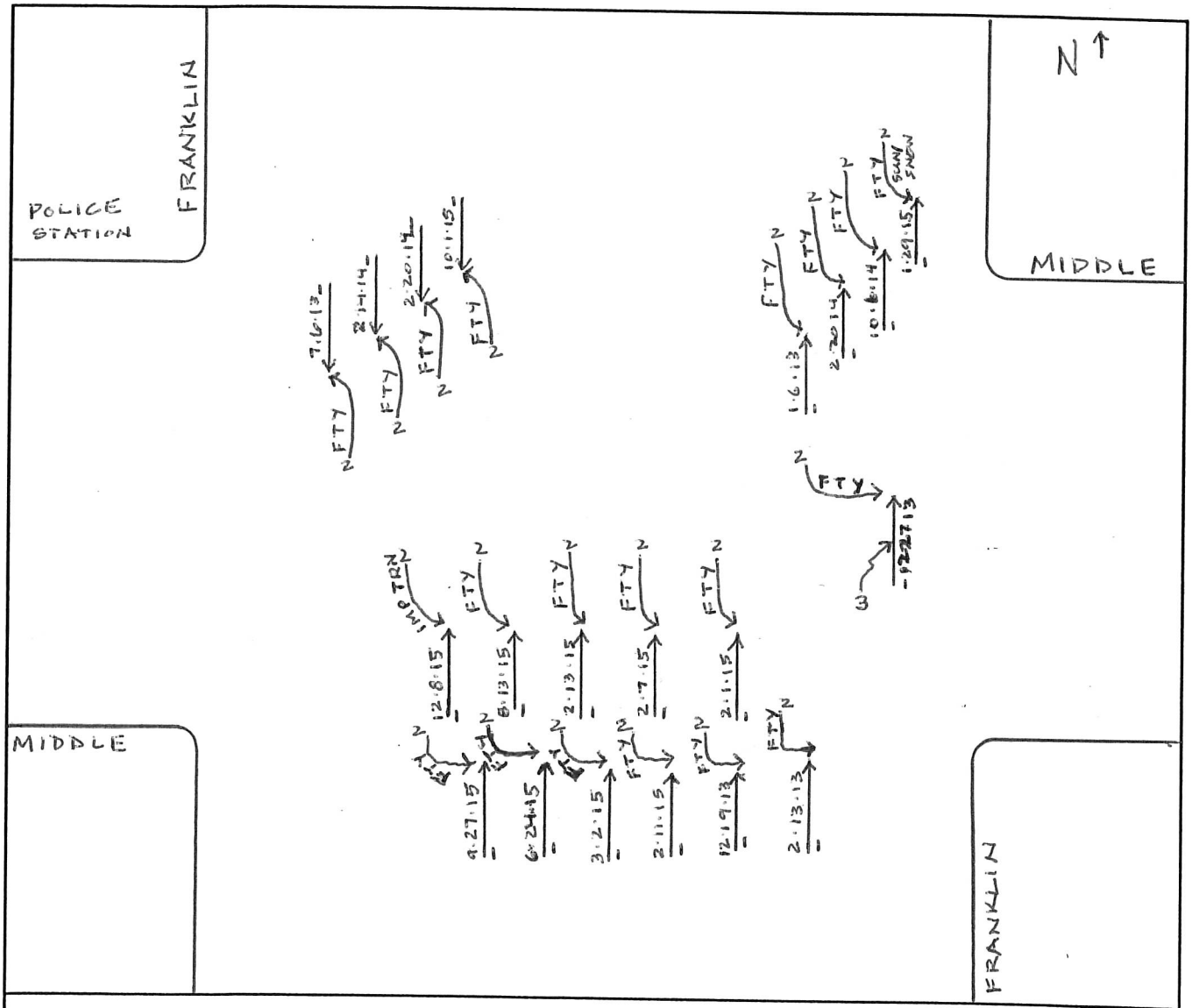
COLLISION DIAGRAM

SHEET 1 OF 2

LOCATION Intersection of Franklin & Middle Streets

TOWN Portland, Maine NODE NO(S) 18518

YEARS REVIEWED 2013 - 2015 DATE PREPARED 08.29.2016



CRITICAL RATE FACTOR _____ EQUIV. PROP. DAMAGE ACC/YEAR _____ ACC/MEV _____

LIGHT
1. DAWN (MORNING) 2. DAYLIGHT 3. DUSK (EVENING)
4. DARK (ST. LIGHTS ON) 5. DARK (NO ST. LIGHTS) 6. DARK (ST. LIGHTS OFF)
7. OTHER

ROAD SURFACE
1. DRY 2. WET 3. SNOW/SLUSH-SANDED
4. ICE/PACKED SNOW-SANDED 5. MUDDY 6. DEBRIS
7. OILY 8. SNOW/SLUSH-NOT SANDED 9. ICE-PKD. SNOW-NOT SANDED
10. OTHER

APPARENT CONTRIBUTING FACTORS - HUMAN
1. NO IMPROPER ACTION 2. FAIL TO YLD. RIGHT OF WAY 3. ILLEGAL UNSAFE SPEED
4. FOLLOW TOO CLOSE 5. DISREGARD TRAFFIC CONTROL DEVICE
6. DRIVING LEFT OF CENTER-NO PASSING 7. IMPROPER PASS-OVERTAKING
8. IMP. UNSAFE LANE CHANGE 9. IMP. PARKING START/STOP 10. IMPROPER TURN
11. UNSAFE BACKING 12. NO SIGNAL OR IMP. SIGNAL 13. IMPEDING TRAFFIC
14. DRIVER INATTENTION-DISTRACTION 15. DRIVER INEXPERIENCE
16. PEDEST. VIOLATION ERROR 17. PHYSICAL IMPAIRMENT 18. VISION OBSCURED-WINDSHIELD GLASS
19. VISION OBSCURED-SUN/HEADLIGHTS
20. OTHER VISION OBSCUREMENT 30. OTHER HUMAN VIOLATION FACTOR
31. HIT AND RUN 51. UNKNOWN

- VEHICULAR
41. DEFECTIVE BRAKES 42. DEFECTIVE TIRE/FAILURE 43. DEFECTIVE LIGHTS
44. DEFECTIVE SUSPENSION 45. DEFECTIVE STEERING 50. OTHER VEHICLE DEFECT
OR FACTOR 51. UNKNOWN

SYMBOLS

ANGLE, BACKING, FIXED OBJECT, HEAD ON, OVERTURN, PARKED VEHICLE
PEDESTRIAN (P), REAR END, SIDE SWIPE, TURNING MOVE, CHANGE LANE, OUT OF CONTROL
FATAL ACCIDENT, VEHICLE (MOVING), BICYCLE (B), ANIMAL (A), SLED (S)

WEATHER
C = CLEAR
F = FOG
R = RAIN
SL = SLEET
S = SNOW
CL = CLOUDY
XW = CROSS WINDS

INJURIES
K = FATAL
A = INCAPACITATING
B = NON-INCAPACITATING
C = POSSIBLE INJURY

S:\SHEETS\COLLISION DIAGRAM.DWG

COLLISION DIAGRAM

SHEET 2 OF 2

LOCATION Intersection of Franklin & Middle Streets

TOWN Portland, ME NODE NO(S) 18518

YEARS REVIEWED 2013 - 2015 DATE PREPARED 08·29·2016

REPORT NO.	DATE	TIME	INJURIES K	A	B	C	LIGHT	ROAD SURFACE	ACF	OTHER
00076	01·06·13	08:55	-	-	-	1	1	2	2	
000535	02·13·13	06:41	-	-	-	-	1	2	2	
001912	07·06·13	13:08	-	-	-	-	1	1	2	
003722	12·19·13	19:47	-	-	-	-	4	2	2	
003801	12·27·13	08:55	-	-	-	-	2	3	2	
000570	02·14·14	07:56	-	-	-	1	2	3	2	
000702	02·20·14	12:46	-	-	-	-	2	2	2	
000703	02·20·14	12:50	-	-	-	-	2	2	2	
002950	10·06·14	18:10	-	-	-	-	2	1	2	
000362	01·29·15	07:48	-	-	-	1	2	3	2/19	
000442	02·01·15	16:15	-	-	-	1	2	3	2	
000617	02·07·15	14:49	-	-	-	-	2	2	2	
000724	02·11·15	13:04	-	-	-	-	2	2	2	
000769	02·13·15	08:22	-	-	-	-	2	2	2	
001020	03·02·15	14:59	-	-	-	-	2	1	2	
002165	06·24·15	09:30	-	-	-	1	2	1	2	
002716	08·13·15	08:15	-	-	-	-	2	1	2	
003242	09·27·15	10:32	-	-	1	-	2	1	2	
003298	10·01·15	08:45	-	-	-	-	2	1	2	
004095	12·08·15	10:31	-	-	-	-	2	1	10	

S:/SHEETS/COLLISION DIAGRAM.DWG

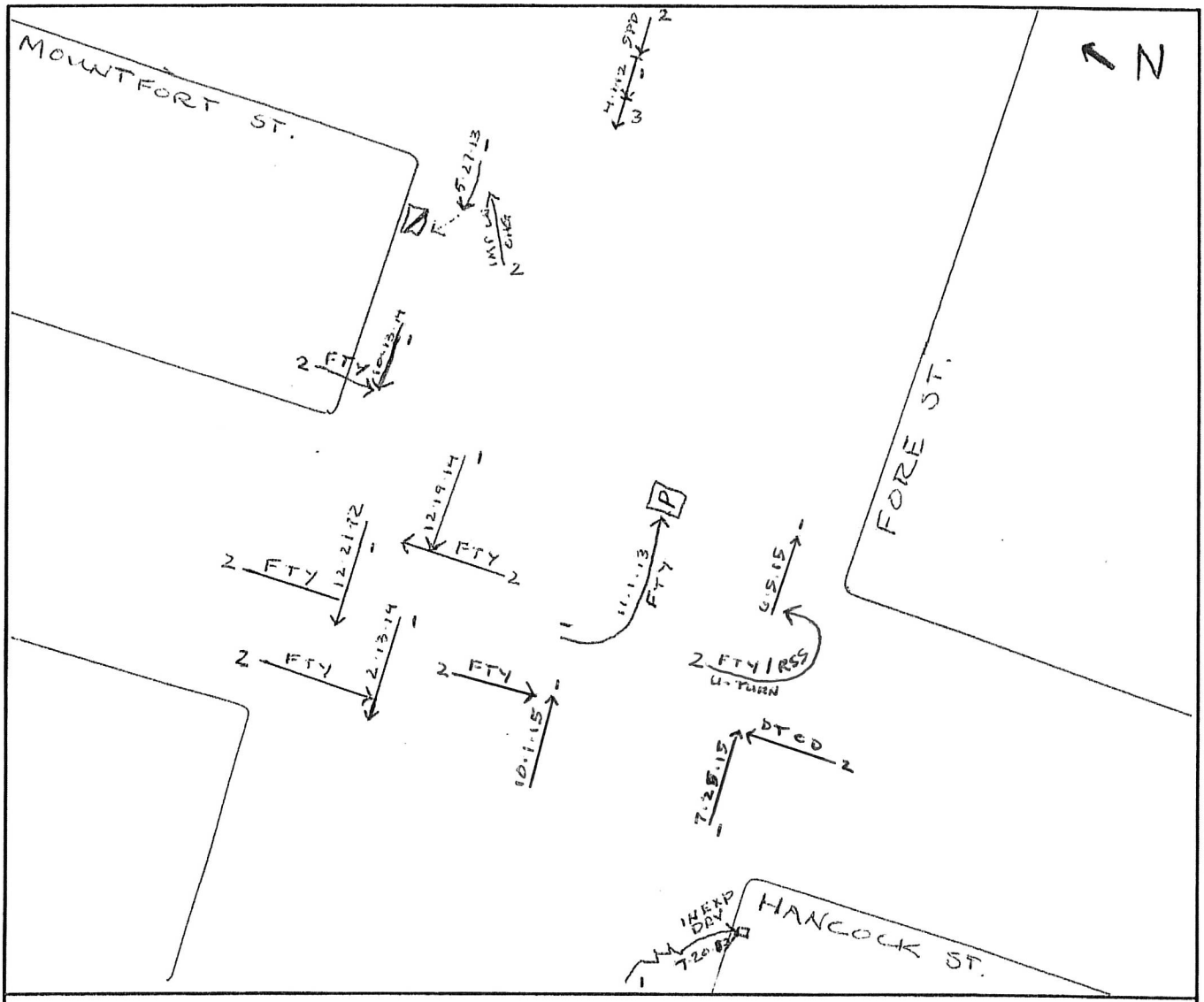
COLLISION DIAGRAM

SHEET 1 OF 2

LOCATION Intersection of Fore Street & Hancock Street

TOWN Portland, Maine NODE NO(S) 18820 to 18822

YEARS REVIEWED 2012 - 2015 DATE PREPARED 08.29.2016



CRITICAL RATE FACTOR _____ EQUIV. PROP. DAMAGE ACC/YEAR _____ ACC/MEV _____

LIGHT

1. DAWN (MORNING) 2. DAYLIGHT 3. DUSK (EVENING)
4. DARK (ST. LIGHTS ON) 5. DARK (NO ST. LIGHTS) 6. DARK (ST. LIGHTS OFF)
7. OTHER

ROAD SURFACE

1. DRY 2. WET 3. SNOW/SLUSH-SANDED
4. ICE/PACKED SNOW-SANDED 5. MUDDY 6. DEBRIS
7. OILY 8. SNOW/SLUSH-NOT SANDED 9. ICE-PKD. SNOW-NOT SANDED
10. OTHER

APPARENT CONTRIBUTING FACTORS - HUMAN

1. NO IMPROPER ACTION 2. FAIL TO YLD. RIGHT OF WAY 3. ILLEGAL UNSAFE SPEED
4. FOLLOW TOO CLOSE 5. DISREGARD TRAFFIC CONTROL DEVICE
6. DRIVING LEFT OF CENTER-NO PASSING 7. IMPROPER PASS-OVERTAKING
8. IMP. UNSAFE LANE CHANGE 9. IMP. PARKING START/STOP 10. IMPROPER TURN
11. UNSAFE BACKING 12. NO SIGNAL OR IMP. SIGNAL 13. IMPEDING TRAFFIC
14. DRIVER INATTENTION-DISTRACTION 15. DRIVER INEXPERIENCE
16. PEDEST. VIOLATION ERROR 17. PHYSICAL IMPAIRMENT 18. VISION OBSCURED-WINDSHIELD GLASS 19. VISION OBSCURED-SUN/HEADLIGHTS
20. OTHER VISION OBSCUREMENT 30. OTHER HUMAN VIOLATION FACTOR
31. HIT AND RUN 51. UNKNOWN

- VEHICULAR

41. DEFECTIVE BRAKES 42. DEFECTIVE TIRE/FAILURE 43. DEFECTIVE LIGHTS
44. DEFECTIVE SUSPENSION OR FACTOR 45. DEFECTIVE STEERING 50. OTHER VEHICLE DEFECT
51. UNKNOWN

SYMBOLS

ANGLE, BACKING, FIXED OBJECT, HEAD ON, OVERTURN, PARKED VEHICLE, PEDESTRIAN, REAR END, SIDE SWIPE, TURNING MOVE, CHANGE LANE, OUT OF CONTROL, FATAL ACCIDENT, VEHICLE (MOVING), BICYCLE (B), ANIMAL (A), SLED (S)

WEATHER

C = CLEAR F = FOG R = RAIN
SL = SLEET S = SNOW CL = CLOUDY
XW = CROSS WINDS

INJURIES

K = FATAL B = NON-INCAPACITATING
A = INCAPACITATING C = POSSIBLE INJURY

S:/SHEETS/COLLISION DIAGRAM.DWG

COLLISION DIAGRAM

SHEET 2 OF 2

LOCATION Intersection of Fore Street & Hancock Street

TOWN Portland NODE NO(S) 18820 to 18822

YEARS REVIEWED 2012 - 2015 DATE PREPARED 08.29.2016

REPORT NO.	DATE	TIME	INJURIES K	A	B	C	LIGHT	ROAD SURFACE	ACF	OTHER
00781	04.01.12	02:55	-	-	-	1	4	1	3	
003253	12.21.12	16:53	-	-	-	2	4	2	2	
001534	05.27.13	12:40	-	-	-	1	2	1	8	
002062	07.20.13	10:29	-	-	-	-	2	1	15	Student Driver
003090	11.01.13	15:30	-	1	-	-	2	1	2	
000550	02.18.14	10:03	-	-	-	-	2	2	2	
003007	10.13.14	10:09	-	-	-	-	2	1	2	
003756	12.19.14	15:09	-	-	-	-	2	1	2	
001962	06.05.15	10:35	-	-	-	-	2	1	2/5	U-Turn
002518	07.25.15	17:59	-	-	-	-	2	1	5	
003289	10.01.15	13:11	-	-	-	-	2	2	2	

S:/SHEETS/COLLISION DIAGRAM.DWG

Section 3
Development Entrances and Exits

3.A. Entrance and Exit Locations

Vehicular access to the site is via a full movement site driveway onto Fore Street primarily for the residential units, Thames Street Extension for the non-residential site uses and a proposed new public road connecting Fore Street to Thames Street Extension.

3.B. Plan View

Attachment 1A of Section 1 shows the proposed site plan.

- Frontage Road(s) – Fore Street
- Posted Speed Limit – 25 mph
- Sight Lines – The posted speed limit on Fore Street is 25 mph, which requires a MaineDOT and City available sight distance of 200 feet. The measured available sight distance exiting the site accesses exceeds 200 feet looking left and right from the proposed road connecting Fore Street to Thames Street Extension. The sight distance looking left from the proposed road onto Fore Street could be improved by relocating the Hamilton Marine sign further from the edge of the road. The proposed site driveway across from Waterville Street exceeds the sight distance requirements in both directions, provided that on-street parking spaces within the site triangle on either side of the driveway are removed.

Section 4
Title, Right or Interest

4.A. Evidence of Title, Right, or Interest

A copy of the Deeds are included in Attachment 4A

4.B. Attachments

Attachment 4A – July 2013 Deed, April 2014 Deed

Attachment 4A

July 2013 Deed

April 2014 Deed

TRUSTEES' DEED

Maine Statutory Short Form

KNOW ALL BY THESE PRESENTS THAT **ELIZABETH M. SPRAGUE, ERIC THOMAS SPRAGUE and PHINEAS M. SPRAGUE, as Trustees of THE BUENA VISTA TRUST**, under indenture dated December 20, 2011, with a principal place of business in Cape Elizabeth, Maine, by the power conferred by law, and every other power, for consideration paid, grant to **CPB2 LLC**, a Delaware limited liability company, with a place of business c/o Blue Water Construction, 41 Glendale Place, Gilford, New Hampshire 03249, the land, together with any improvements thereon, situated in the City of Portland, County of Cumberland, State of Maine, described on Exhibit A attached hereto.

MAINE REAL ESTATE TAX PAID

Pursuant to Title 18-B M.R.S. § 1013, we, in our capacities, do hereby certify that (1) we are all of the Trustees of said Trust; (2) the Trust exists as the date of this Agreement; (3) we have power under said Trust to convey any trust asset in our sole discretion and need no consent from any beneficial interests; (4) we are the trustees authorized to execute or otherwise authenticate any and all documents in the exercise of our power; (5) in making this conveyance, we have in all respects acted in pursuance of the authority granted in and by said Trust; and (6) the Trust has not been revoked, modified, amended or terminated in any way that would cause the representations contained in this certificate to be incorrect.

[signatures on next page]

Witness our hands and seals this 19 day of the month of July, 2013.

WITNESS:

THE BUENA VISTA TRUST

_____

By_____
Eric Thomas Sprague, Trustee

_____

By_____
Elizabeth M. Sprague, Trustee

_____

By_____
Phineas M. Sprague, Trustee

STATE OF MAINE
COUNTY OF CUMBERLAND

July __, 2013

Then personally appeared the above named Eric Thomas Sprague, in his said capacity and acknowledged the foregoing instrument to be his free act and deed.

Before me,

_____
Notary Public/Attorney at Law

Witness our hands and seals this 26 day of the month of July, 2013.

WITNESS:

THE BUENA VISTA TRUST

By _____
Eric Thomas Sprague, Trustee

By _____
Elizabeth M. Sprague, Trustee

By _____
Phineas M. Sprague, Trustee

STATE OF MAINE
COUNTY OF CUMBERLAND

July 26, 2013

Then personally appeared the above named Eric Thomas Sprague, in his said capacity and acknowledged the foregoing instrument to be his free act and deed.

Before me,

~~Notary Public~~/Attorney at Law
Drew A. Ardelean

EXHIBIT A

A certain lot or parcel of land together with the buildings thereon situated on the southerly side of Fore Street in the City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Beginning at a point on the southerly sideline of Fore Street at the northeasterly corner of Tract I as shown on "ALTA/ACSM Land Title Survey 58 Fore Street, Portland, Cumberland County, Maine made for CPB2 LLC" dated May 22, 2013 by Owen Haskell, Inc., thence N53°19'30"E along the southerly sideline of said Fore Street 140.00 feet;

Thence, N 61° 01' 30" E along the southerly sideline of said Fore Street 43.36 feet to land now or formerly of Macgowan as described in the Deed recorded in Cumberland County Registry of Deeds in Book 15773, Page 153;

Thence, S 31° 18' 30" E along land of said Macgowan 150.00 feet;

Thence, N 61° 01' 30" E along land of said Macgowan 112.00 feet to land now or formerly of Timothy Haley, Trustee, as described in the Deed recorded in the said Registry of Deeds in Book 24759, Pages 67 & 69;

Thence, S 31° 18' 30" E along land of said Haley 110.28 feet;

Thence, N 63° 18' 30" E along land of said Haley 100.00 feet;

Thence, N 31° 18' 30" W along land of said Haley 95.88 feet;

Thence, N 69° 31' 20" E along land of said Haley 49.73 feet to land now or formerly of Eastern Promenade Condominium;

Thence, S 31° 18' 26" E along land of said Eastern Promenade Condominium 240.48 feet to an iron rod found and to land now or formerly of the State of Maine as described in the Deed recorded in said Registry of Deeds in Book 10924, Page 91;

Thence, S 63° 18' 30" W along land of said State of Maine 430.00 feet to the easterly line of said Tract I;

Thence, N 33° 29 '33" W along said Tract I 381.17 feet to the point of beginning containing 2.87 acres.

The premises are conveyed together with the right of access and egress running from the existing paved driveway over land now or formerly of The Portland Company to the

premises conveyed herein as described in a deed to Elizabeth M. Sprague, Eric Thomas Sprague and Phineas M. Sprague, Trustees of The Buena Vista Trust by Warranty deed of The Portland Company dated December 30, 1012 and recorded in the Cumberland County Registry of Deeds in Book 30265, Page 32.

Meaning and intending to convey and hereby conveying the same premises conveyed to Elizabeth M. Sprague, Eric Thomas Sprague and Phineas M. Sprague, Trustees of The Buena Vista Trust by Warranty Deed of The Portland Company, dated December 30, 2012 and recorded in the Cumberland County Registry of Deeds in Book 30265, Page 32.

S:\P\POCO14\Prentice Purchase\Sale Documents\Deed of Trustees.doc

Received
Recorded Register of Deeds
Jul 29,2013 03:54:21P
Cumberland County
Pamela E. Lovley

Doc#: 13675 Bk:31425 Pg: 267

QUITCLAIM DEED WITH COVENANT

Maine Statutory Short Form

KNOW ALL BY THESE PRESENTS, that **THE PORTLAND COMPANY**, a Maine corporation and having a place of business at 58 Fore Street, County of Cumberland, and State of Maine, for consideration paid, grants to **CPB2 LLC**, a Delaware limited liability company, with an address of P.O. Box 7987, Portland, Maine 04112, with **QUITCLAIM COVENANTS,** the land located in Portland, County of Cumberland and State of Maine, and more particularly described in Exhibit "A" attached hereto and made a part hereof.

MAINE REAL ESTATE TAX PAID

IN WITNESS WHEREOF, said THE PORTLAND COMPANY has caused this instrument to be signed and sealed this 1st day of April, 2014.

WITNESS:

THE PORTLAND COMPANY

Phineas Sprague Jr

By: Phineas Sprague, Jr.
Its: President

STATE OF MAINE
COUNTY OF CUMBERLAND

April 1, 2014

Personally appeared the above-named Phineas Sprague, Jr. in his said capacity, and acknowledged the foregoing to be his free act and deed and that of said corporation, The Portland Company, before me.

~~Notary Public~~/Attorney at Law

Drew A. Anderson

Printed Name

EXHIBIT A

TRACT I

A certain lot or parcel of land together with the buildings thereon situated on the southerly side of Fore Street, City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Beginning at a point on the southerly sideline of Fore Street at a railroad spike at the northeasterly corner of land now or formerly of Hope 1 LLC as described in deed Book 22261, Page 50, thence S 87° 34' 45" E along the southerly sideline of said Fore Street 287.74 feet;

Thence, N 53° 19' 30" E along the southerly sideline of said Fore Street 594.45 feet to the northwesterly corner of Tract III, as shown on "ALTA/ACSM Land Title Survey, 58 Fore Street, Portland, Cumberland County, Maine made for CPB2 LLC" by Owen Haskell, Inc. dated May 22, 2013.

Thence, S 33° 29' 33" E along the westerly side of said Tract III 381.17 feet to land now or formerly of the State of Maine as described in deed Book 10924, Page 91;

Thence, S 63° 18' 30" W along land of said State of Maine 255.00 feet;

Thence, S 68° 31' 30" W along land of said State of Maine 442.91 feet to an iron rod found (bent) and land now or formerly of City of Portland as described in deed Book 21951, Page 341;

Thence, N 88° 12' 30" W along land of said City of Portland 137.25 feet to a non-tangent curve to the right;

Thence, following the curve to the right, along land of said City of Portland and land of said Hope 1 LLC, having a radius of 274.33 feet, an arc length of 337.36 feet, a chord bearing of N 38° 35' 30" W, and a chord length of 316.50 feet, to the southerly sideline of Fore Street and the point of beginning containing 6.04 acres.

Basis of bearings: Magnetic 1967.

TRACT II

A certain lot or parcel of land together with the buildings thereon situated southerly of but not adjacent to Fore Street, in the City of Portland, County of Cumberland and State of Maine bounded and described as follows:

Commencing at a point on the southerly line of Tract I, at an iron rod found (bent) at the southeasterly corner of land now or formerly of the City of Portland as described in deed Book 21951, Page 341, on the northerly line of land now or formerly of the State of Maine as described in deed Book 10924, Page 91, as shown on "ALTA/ACSM Land Title Survey, 58 Fore Street, Portland, Cumberland County, Maine made for CPB2 LLC" by Owen Haskell, Inc. dated May 22, 2013.

Thence, N 68° 31' 30" E along the northerly line of land of said State of Maine 215.11 feet;

Thence, S 27° 09' 40" E across land of said State of Maine and along the easterly line of land now or formerly of the City of Portland 50.25 feet to the true point of beginning;

Thence, N 68° 31' 30" E along the southerly sideline of land of said State of Maine 225.10 feet;

Thence, N 63° 18' 30" E along the southerly sideline of land of said State of Maine 690.74 feet;

Thence, S 30° 39' 00" E along land of said State of Maine 56.34 feet;

Thence, S 61° 35' 30" W 27.46 feet;

Thence, S 77° 24' 52" W 94.07 feet;

Thence, S 62° 35' 30" W 475.00 feet;

Thence, S 38° 50' 30" W 60.00 feet;

Thence, S 63° 50' 30" W 120.00 feet;

Thence, N 26° 10' 00" W 8.00 feet;

Thence, S 63° 49' 37" W 150.00 feet to land of said City of Portland;

Thence, N 27° 09' 40" W along land of said City of Portland 74.89 feet to the point of beginning containing 44,274 sq. ft.

Basis of bearings: Magnetic 1967.

ALSO CONVEYING two crossings for vehicular, pedestrian and utility access to and from other land now or formerly of Phineas Sprague to the most immediately above described parcel across the area shown on Exhibit B of Indenture Deed by and between the Maine Department of Transportation and Phineas Sprague, dated August 30, 1993 and recorded in Book 10924, Page 97, as the "Rail-Trail Corridor." Each crossing shall be 50 feet in width over the 50 foot wide "Rail-Trail Corridor" plus turning radii, as necessary, at the entrances to the crossings from the above described parcel of land. Such crossings may be moved from time to time by the Grantee at its expense upon proper notice to and approval by the Maine Department of Transportation, provided that the distance between the centerlines of the two crossings shall never be less than 200 feet; and further provided that in the event of any relocation, any former crossing shall be restored to the condition it would have been in had the crossing not been placed in that location.

TOGETHER WITH any upland including the seawall which immediately adjoin the above described premises.

Received
Recorded Register of Deeds
Apr 03,2014 12:25:29P
Cumberland County
Pamela E. Lovley

Section 5
Public or Private Rights-of-Way

5.A. Public or Private Rights-of-Way

The site will have three accesses; Thames Street Extension into the site, a full movement driveway onto Fore Street across from Waterville Street, and a new public road that connects Fore Street to Thames Street Extension.

Section 6
Schedule

6.A. Schedule

The proposed project is anticipated to be completed and occupied by 2027.

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

Site Parking Demand
58 Fore Street Mixed Use Development
Portland, Maine
JN 3138

Date: September 16, 2016
Subject: Site Parking Demand
58 Fore Street Mixed Use Development
To: David Senus, Mary McCrann, Jim Brady, Kevin Costello, Casey Prentice
From: Randy Dunton and Emily Tynes, Gorrill Palmer (JN 3138)

The following is a summary of the estimated parking demand for the proposed mixed use development at 58 Fore Street. The following table summarizes the sizes and uses of the proposed development used to calculate the parking demand:

Proposed Site Summary

Development Block	Use	Size
B1		
	Retail	7,878 SF
	Residential	91 Dwelling Units
	Office	79,000 SF
B2		
	Retail	26,895 SF
	Residential	19 Dwelling Units
	Office	25,617 SF
B3		
	Retail	11,500 SF
	Office	19,300 SF
B4		
	Residential	275 Dwelling Units
	Retail	4,000 SF
B5		
	Residential	108 Dwelling Units
	Hotel	132 Rooms
	Restaurant	3,800 SF
	Function	5,800 SF
B6		
	Residential (Condos)	131 Dwelling Units
	Residential (Apartments)	14 Dwelling Units
B7		
	Marina Facilities	2,600 SF, 220 Slips

It should be noted that the retail portions of the proposed site will be multiple smaller shops, not large retail stores.

Parking Demand Calculation Methodologies

The parking demand has been determined using two methodologies: using the City Ordinance requirements and based on a shared parking demand. The following summarizes the methodologies in more detail:

City Ordinance Parking Demand

The Ordinance requirement methodology involves calculating the peak parking demand for each use using the City of Portland Code of Ordinances. This method assumes each use is isolated and then adds the individual demands to determine the parking demand for the site. The supporting calculations for this method are attached. This method results in an overestimate because the peak demands for each use are not expected to occur at the same time. For example, offices require more spaces during the day while employees are in the office, and residential buildings would require more spaces later at night when residents are home from work.

The City Ordinance Ch. 14, Art III, Div. 20, Sec. 14-332.2 (c) states, "where construction is proposed of new structures having a total floor area in excess of fifty thousand (50,000) square feet, the planning board shall establish the parking requirement for such structures. The parking requirement shall be determined based upon a parking analysis submitted by the applicant and upon the recommendation of the city transportation engineer." Since this mixed use development is approximately 958,679 sf of building floor area, it meets the criteria. Therefore, the site parking demand was determined based on the following methodology.

Shared Parking Plan

The shared parking plan methodology is based on a combination of City Ordinance parking demand, the ITE Parking Generation Manual (4th Edition), and published data / engineering judgement and it reflects that the demand for different uses will peak during different times of day. Since different uses do not peak at the same times, parking spaces can be shared between uses. To determine the shared parking demand, the total parking demand was calculated for each use, then distributed throughout the day based on the type of use. This is the same methodology used for the recent Thompson's Point project. The supporting calculations are attached. With a shared parking plan it is recommended that shared parking language be included in the leases, to ensure tenants understand the shared parking.

Parking Demand Reductions

Given the mixed use of the site as well as its downtown location, the following two parking demand reductions were applied to the shared parking spaces:

Shared Use Reduction

When evaluating a mixed use development with complementary uses such as this, the overall parking demand can be reduced due to the expectation that there will be some cross use between the individual facilities. For instance, it can be assumed that some of the people living in the apartments would also be those that visit the retail. Gorrill Palmer (GP) used the NCHRP 684 Internal Trip Capture Estimation Tool to calculate the reduction that can be applied to the trip generation. This calculated an internal trip capture of 14% for the AM peak hour and 17% for the PM peak hour. It can be assumed that parking demand can be reduced proportionally to the reduction in trip generation. To be conservative, GP used a shared use reduction of 14% throughout the day to estimate the parking demand. The following table summarizes the shared use reduction:

Shared Use Reduction Summary

Proposed	Ordinance	Shared Parking
B1-B6 Peak Parking Demand	919	690
Shared Use Reduction (14%)	-129	-97

Other Modes Reduction

The overall parking demand for a development in a downtown area can also be reduced due to the expectation that some people going to or from the site would use other modes of transportation such as transit, bicycle, or walking. The site is adjacent to an existing bus route as well as located on a bicycle and pedestrian path. The other modes reduction is based on information from the 2009-2013 American Community Survey (ACS) Five-Year Estimate by Census Tract. Based on this information Rick Harbison, Planner and GIS Specialist for the Greater Portland Council of Governments, created maps using GIS data that illustrate the estimated percentage of workers living in each Portland Census Tract that use each mode of transportation to commute to work. The site is located on the east side of Census Tract 3, which is a predominantly commercial area. Census Tracts 2 and 5 border the site and consist of primarily residential areas. Since the site is proposed to have a significant number of residential units as well as commercial space, the data from the combination of the three tracts is expected to be more representative of the actual conditions on the site than the data from the individual tracts. This reduction was calculated by dividing the estimated number of people walking, bicycling, and taking the bus to work in the three Census Tracts by the estimated total number

of working people in the same three Census Tracts. This calculation yields a 35.8% use of non-vehicular modes of transportation.

The GPCOG data is based on residents of the Census Tracts commuting to work, so it is applicable to the residential units, office space, and retail uses on the site. It was not clear if the 35.8% reduction would also be applicable to the restaurants and hotel, even though there are hotels and restaurants located within the boundaries of the three Census Tracts. GP searched for studies that included information on other modes of transportation for restaurants and hotels and found two sources that had information that could be compared to the other modes of transportation calculated using the Portland Census data. The following is a more detailed description of the relevant information found in the two studies:

The first study is *Contextual Influences on Trip Generation* (found in the United States Department of Transportation National Transportation Library online database or at the following link: http://ntl.bts.gov/lib/46000/46600/46699/CITG_FinalReport_Draft_10022012.pdf), a study for the Oregon Transportation Research and Education Consortium (OTREC) that compared the ITE predicted trip generation to the actual trip generation of 79 locations in Portland, Oregon, 39 of which were high turnover sit-down restaurants. The study also included surveying the visitors of those sites to determine what mode of transportation the visitors used. The results of the study are divided into different types of areas, ranging from central business district, which is considered the most urban area, to suburban areas, which is considered the least urban type of area surveyed. This study surveyed 12 restaurants in the central business district area and found that 35% of the patrons arrived to the sites using a car, while the remaining 65% walked, biked, or used transit (table attached). This result is higher than the 35.8% use of other modes calculated using the GPCOG information. Because the data is for Portland, Oregon it may not be appropriate to use as a reduction, but it does indicate that in an urban area a large portion of site traffic can be expected to use transit, bike, or walk.

The second source that included restaurant information is the National Cooperative Highway Research Program (NCHRP) Report 758, *Trip Generation Rates for Transportation Impact Analyses of Infill Developments*. This study used information from the Household Travel Survey (HTS) for the San Francisco Bay area and Metropolitan Washington D.C. and counted data and surveys at specific sites in those areas. The Washington D.C. HTS data for restaurants shows that approximately 40.3% of residents use transit, walk, or bicycle to and from high-turnover sit-down restaurants (table attached). The study only included one site that was counted and surveyed, so the HTS data could not be verified, however like the Portland, Oregon study, it is higher than the other modes reduction calculated using the GPCOG Census information. Like the Portland, Oregon study, this data indicates that in an urban area a large portion of site traffic can be expected to use transit, bike, or walk.

Based on these two additional sources that contain information specific to restaurant uses, GP determined that the other modes reduction of 35.8% calculated from the GPCOG Census

information that is based on the existing transit system can be applied to the restaurant parking demand. Although the other two studies showed higher percentages of people using alternative modes of transportation to go to or from restaurants, since they are not specific to Portland, Maine, the local data is expected to be closer to the actual conditions that would be seen at the 58 Fore Street development.

The two studies discussed above included information about restaurants, but did not have any data for hotels. Based on our research there is limited information available about modes of transportation used at hotels. It can be assumed for the 58 Fore Street site that hotel employees may take the bus, bike, or walk to get to and from work and some hotel guests may arrive by boat using the marina. To be conservative, GP only used an "other modes of transportation" reduction of 10% for the hotel.

The following table summarizes the other modes of transportation reduction for the site:

Other Modes of Transportation Reduction Summary

Proposed	Ordinance	Shared Parking
B1-B6 Peak Parking Demand w/o Hotel	886	677
Hotel Peak Parking Demand	33	13
Other Modes Reduction (35.8% of B1-B6 Demand w/o Hotel)	-317	-242
Hotel Other Modes Reduction (10% of Hotel Demand)	-3	-1
Total Other Modes Reduction	**-320**	**-243**

Marina Parking Demand

The City Ordinance does not include a parking requirement for marina facilities. The parking demand for the proposed marina is based on information from Applied Technology & Management (ATM). The new marina is proposed to have 220 slips that will service off-site Portland residents, on-site Portland residents, and transient boaters. ATM provided a range of parking rates from one space for every two slips to one space for every four slips. ITE has limited marina parking information available, however the ATM parking rates appear to be consistent with the ITE data. To be conservative, GP used a requirement of one parking space for every two slips. ATM expects peak usage of the marina to be 10% of the slips, but possibly higher since Maine has a shorter boating season. To be conservative, GP assumed that the peak demand would be 15% of the slips. ATM also stated that there would be approximately 9 employees at this marina, therefore GP included an additional 5% to include spaces for employees, giving a total peak demand estimation of 20% of the slips. Because of the nature of a marina use, the two parking demand reductions that were applied to the rest of the site were not applied to the

marina parking demand. Although it is possible that marina users visit other uses on site or use alternative modes of transportation to get to the site, to be conservative the reductions were not applied.

Dedicated Parking Spaces

Often in large developments, a portion of parking spaces are dedicated to a specific use. For example, residential units may have spaces assigned to each unit or a group of spaces may be reserved for use by only an office. These dedicated spaces would not be shared by any other site uses. The number of dedicated parking spaces is added to the number of shared parking spaces to determine the total site demand. On this site, there are 298 dedicated parking spaces proposed. These spaces include; half of the residential units in B1, all the residential units in B5, and all the residential units in B6. The two parking demand reductions that were applied to the rest of the site were not applied to the dedicated parking spaces, since the spaces will not be shared and will be provided for the peak demand regardless of the expected use of transit, bicycles, or walking.

Parking Demand Summary

The following table summarizes the overall parking demand for the site, including the reductions, based on both the Ordinance and the Shared Parking demand methodologies:

Parking Demand Summary

Proposed	Ordinance	Shared Parking
B1-B6 Shared Parking Demand	919	690
Shared Use Reduction	-129	-97
Other Mode Reduction	-320	-243
B1-B6 Total Shared Parking Demand	**470**	**350**
B7 (Marina) Parking Demand	110	22
B1-B7 Total Parking Demand	**580**	**372**
B1-B7 Dedicated Parking	298	298
Net Parking Demand	**878**	**670**

As shown in the table, the proposed parking demand, including reductions, based on the Ordinance and isolated uses is forecast to be 878 spaces and the parking demand based on shared parking is 670 spaces. The parking demand based on the City Ordinance is higher than the shared parking demand because it assumes all uses will require their peak parking demand concurrently whereas the shared parking demand considers the different uses peaking at different times of day.

It should be noted that a parking facility can be considered full when it is approximately 85% occupied. This is because a driver may not see empty parking spaces when the lot is almost completely occupied, especially in a larger parking area. **To ensure the peak parking demand is satisfied, the recommended number of spaces is 736 (372 spaces / 0.85 + 298 spaces).** This assumes that shared spaces are generally available to all users. The increase is not applied to the dedicated parking spaces because it is assumed that they will be visible and easy for the designated users to find.

The marina may also have additional parking needs, such as temporary parking spaces for visitors to drop off passengers or supplies near their boat before parking their vehicle and for fueling trucks and provisional vehicles that service the mega-yachts. These other parking spaces should be considered in addition to the estimated peak parking demand for the visitors and employees.

Bicycle Parking

Per City Ordinance, new uses are required to provide bicycle accommodations based on the type of use. Residential structures are required to provide 2 bicycle spaces for every 5 dwelling units. Non-residential structures are required to provide 2 bicycle parking spaces for every 10 vehicle parking spaces for the first 100 required spaces, plus one bicycle parking space for every 20 required vehicle parking spaces over the 100 vehicle parking spaces. The following table shows the required bicycle parking for the Ordinance vehicle parking demand and the Shared Parking demand:

Bicycle Parking Summary

	Ordinance	Shared Parking
Parking Variable	409 Spaces, 638 Units	322 Spaces, 638 Units
Residential Bicycle Spaces	256	256
Non-Residential Bicycle Spaces	36	31
Total	**292**	**287**

As shown in the table, the site will require 287-292 bicycle parking spaces to meet the City Ordinance Requirements for bicycle accommodations. The Transportation Demand Management (TDM) plan will outline a more detailed approach to incorporating bicycle parking on site.

09-02-16 Ordinance Parking Estimate

Building Letter	P1	P1	P1	P1	P1	P1	P1	P2	P2	P2	P2	P2	P2	P2	P3	P3	P3	P3	P3	P4	P4	P4	P4	P4	P5	P5	P5	P5	P5	P5	P5	P6	P6	P6	P6	P6	P1-P6	P7	P7	
	Specialty Retail	Specialty Retail	Residential	Residential	Office	Office	Total	Specialty Retail	Specialty Retail	Residential	Residential	Office	Office	Total	Specialty Retail	Specialty Retail	Office	Office	Total	Residential	Residential	Specialty Retail	Specialty Retail	Total	Residential	Residential	Hotel	Hotel	Restaurant	Restaurant	Total	Residential	Residential	Residential	Residential	Total	Total	Marina (1)	Marina (1)	**Total**
PGR	200	1 / 200 sf over 2,000 sf	1	1 per Unit	400	1 / 400 sf		200	1 / 200 sf over 2,000 sf	1.00	1 per Unit	400	1 / 400 sf		200	1 / 200 sf over 2,000 sf	400	1 / 400 sf		1	1 per Unit	200	1 / 200 sf over 2,000 sf		1	1 per Unit	1/4	1 per 4 guests	1/150			1	1 per Unit	1	1 per Unit			1/2	1 per 2 slips	
Monthly Adjustment		1		1		1		1.00	1.00	1.00	1	1.00	1		1			1		1	1		1.00		1	1		1	1.0	1			1		1					
SQF or Unit	7,878	7,878 sf	91	91 Units	79,000	79,000 sf		26,895	26,895 sf	19	19 Units	25,617	25,617 sf		11,500	11,500 sf	19,300	19,300 sf		275	275 Units	4,000	4,000 sf		108	108 Units	132	132 rooms	3,800	3,800 sf		131	131 Units	14	14 Units			220	220 slips	
Max Demand	1.000	29	1.00	91	1.00	198	318	1.000	124	1.00	19	1.00	64	208	1.000	48	1.00	48	96	1.00	275	1.000	10	285	1.00	108	1.00	33	1.00	25	166	1.00	131	1.00	14	145	1217	1.00	110	1327
Dedicated Spaces	0.000	0	0.50	45	0.00	0	45	0.000	0	0.00	0	0.00	0	0	0.000	0	0.00	0	0	0.00	0	0.000	0	0	1.00	108	0.00	0	0.00	0	108	1.00	131	1.00	14	145	298	0.00	0	298
Demand w/oDedicated		29		46		198	272		124		19		64	208		48		48	96		275		10	285		0		33		25	58		0		0	0	919		110	1029

(1) The marina parking demand is based on information from ATM. They suggest the peak demand is 10% (possibly higher) of the total number of slips. We used a peak demand of 20% to include 15% of slips (33 slips) and the marina employees. The peak slip usage includes on-site residents and transient boaters that would not require marina parking, as well as the off-site residents that would require parking. It is assumed that most of the off-site slip users arrive at the site during the peak hour, which is reflected in the shared use factors.

09-02-16 Parking Estimate Marina Shared

| | 45 Dedicated Spaces | | |

~~[illegible]~~
Portland State Univ. Study

Table 3-5. Percent Mode Shares by Area Type and Land Use

Area Type & Land Use	Automobile Mode Share	Walk Mode Share	Bicycle Mode Share	Transit Mode Share
Convenience	58%	27%	7%	6%
Central Business District	34%	49%	10%	10%
Urban Core	52%	31%	9%	6%
Regional Centers	60%	26%	7%	5%
Suburban Town Centers	70%	18%	3%	7%
Suburban Areas	72%	14%	8%	3%
High-turnover Restaurant	63%	22%	8%	6%
Central Business District	35%	42%	7%	16%
Urban Core	65%	20%	13%	2%
Regional Centers	70%	24%	6%	1%
Suburban Town Centers	85%	6%	1%	6%
Suburban Areas	86%	5%	0%	8%
Drinking Place	43%	27%	22%	7%
Central Business District	26%	40%	19%	15%
Urban Core	46%	20%	25%	8%
Regional Centers	52%	30%	18%	1%
Suburban Town Centers*	N/A	N/A	N/A	N/A
Suburban Areas*	N/A	N/A	N/A	N/A
Overall	58%	25%	9%	7%
Central Business District	34%	43%	9%	14%
Urban Core	57%	23%	15%	5%
Regional Centers	61%	26%	10%	3%
Suburban Town Centers	79%	11%	2%	7%
Suburban Areas	78%	10%	5%	5%

*Drinking places were not surveyed in suburban area types

Figure 3-2 shows the resulting automobile mode share for all establishments surveyed in a spatial context. As shown, automobile mode shares are generally lower in establishments closer to the city center. There is variation in automobile mode share in the inner east side of Portland where area type varies between Urban Center and Neighborhood/Regional Center. For a more detailed map of mode shares of survey establishments, see Appendix D.

NCHRP 758

Case study sites were identified using the guidelines presented in Chapter 4, and data were collected consistent with the procedures for deriving the adjustment factors using the minimum data collection variant. Data collected at the case study sites included:

- Vehicle counts at driveways of parking facilities exclusive to the site,
- Vehicle occupancy,
- Person trips entering and exiting the site's building,
- Observation of mode of access, and
- General observation of site conditions and surrounding context.

With empirical data available, the research team was able to compare predicted and surveyed results of the household travel survey method. A secondary objective of the data collection was to refine the data collection protocol for the proxy site method.

5.3.2 Summary of Findings

The following sections contain brief overviews of the results of applying the household travel survey method to the four land use categories used to develop the example adjustment factors from the HTS data presented in Chapter 4.

5.4 Derived Adjustment Factors

Table 5.1 presents the methodology-derived adjustment factors (mode share and vehicle occupancy) for the GU/UC context zones by land use category and proximity to transit. The research team reviewed these findings for reasonableness. The MWCOG has not published a report summarizing the findings of their HTS, so the research team could not compare its findings on mode share and vehicle occupancy with mode-share cross-references to land use, trip purpose, or context prepared by MWCOG.

Table 5.1. Mode share and vehicle occupancy adjustment factors for Washington, D.C.

Infill Adjustment Factors for GU/UC Contexts	Within Walking Distance Of:			
	High-Frequency Bus Stop		Rail Station	
	a.m.	p.m.	a.m.	p.m.
Residential Case Study Sites (ITE LUC 220)				
Transit	27.3%	24.0%	32.5%	27.7%
Walk/bicycle	11.3%	13.4%	12.9%	15.8%
Vehicle occupancy	1.27	1.32	1.30	1.34
General Office Case Study Sites (ITE LUC 710)				
Transit	33.4%	31.0%	38.8%	35.6%
Walk/bicycle	9.8%	10.4%	11.9%	12.5%
Vehicle occupancy	1.13	1.16	1.15	1.17
Retail/Shopping Center Case Study Sites (ITE LUC 820)				
Transit	15.4%	13.5%	19.7%	16.5%
Walk/bicycle	29.6%	19.0%	35.4%	22.8%
Vehicle occupancy	1.20	1.36	1.16	1.36
Restaurant Case Study Sites (ITE LUC 932)				
Transit	10.4%	13.8%	12.2%	16.1%
Walk/bicycle	29.9%	17.6%	38.8%	22.4%
Vehicle occupancy	1.36	1.71	1.35	1.69

Source:
Mode share and vehicle occupancy adjustment factors were extracted from linked trip data records developed from the 2004 MWCOG HTS.

5.4.1 Residential Land Use Category

The results in Table 5.2 show that the method results in substantially higher peak hour trip generation at the three residential infill case study sites when compared to the actual trips. The results range from a factor of two to as high as nearly three and a half times the actual trips. The research team expected that the method would overpredict or underpredict, but did not expect the large differences shown in Table 5.2.

The three residential test sites generate low volumes of traffic, so the percentage difference between the predicted and actual trips can be misleadingly large. For example, the Columbia Uptown residential test site was determined to generate 13 vehicle trips in the a.m. peak hour, while the method predicts the a.m. peak hour to be 25 trips. The absolute difference of 12 trips remains a small number, but the percentage difference of 92% appears large.

The research team considered that magnitude of the difference between predicted and actual vehicle trips might be an anomaly or magnification of error related to the small number of actual trips. But because all of the residential sites had low actual vehicle trips, the research team was unable to confirm a magnification of error.

When compared to trips estimated using ITE trip generation rates, the method predicts about one-third to one-half fewer trips at all three study sites, as the research team expected. The difference between the predicted and ITE trip

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14. UTILITIES ANALYSIS

A Utility Assessment was prepared in August 2015 for the Project Site, which included a review of existing utilities and possible future services, site access, and development considerations. The Assessment considered projects in various stages of planning, permitting, and construction within the vicinity of the Project Site at that time. This Utility Assessment has been attached to this Section for reference. Assessed utilities include water, sanitary sewer, stormwater, natural gas, and communications/power.

The Project Site is currently serviced primarily through utility mains in Fore Street. As part of the Ocean Gateway facility project completed in 2007, new utility infrastructure was installed in Thames Street, an extension of Commercial Street. These utilities terminate approximately 400 feet west of the 58 Fore Street property, and were designed by the City and MaineDOT with consideration for redevelopment of the adjacent public and privately owned properties along the eastern waterfront. The 58 Fore Street redevelopment project proposes to connection to these existing utilities by routing service mains through the project roadway from the City's Thames Street extension. The proposed Utility Plan is included in the drawings attached to Section 3.

The proposed development has been coordinated with the various utilities, as described below. A description of the proposed stormwater management plan is provided in Section 12 of this Report.

14.1 PLAN FOR INFRASTRUCTURE IMPROVEMENTS (TIMING, FUNDING, CITY COORDINATION)

The project team has been conducting ongoing coordination efforts with the various utilities to discuss service connection locations, ability to serve, and estimated costs of the proposed utility work. In addition to ongoing communications, the following meetings were held:

- Meeting with CMP on July 27, 2016 at the Project Site,
- Meeting with Unitil on August 5, 2016 at the Project Site, and
- Meeting with Portland Water District on September 15, 2016 at the PWD office.

Formal letters requesting confirmation of capacity to serve have also been distributed, as summarized below.

14.2 CAPACITY TO SERVE

Letters have been distributed to the local utilities requesting confirmation of capacity to serve the proposed development, including water, sanitary sewer, natural gas, and electricity. Copies of these letters, in addition to the City of Portland Wastewater Capacity Application and sewer demand calculations, are attached to this Section. Responses will be forwarded to the City upon receipt. The documents attached to this Section summarize the existing utilities, the proposed methods of connection, and the proposed uses/estimated demands.

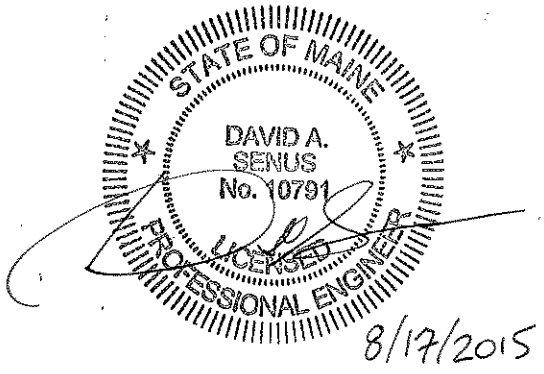
It should be noted that the estimated utility demands may change as the design progresses and that changes will be coordinated as part of future permit submissions.

14.3 ATTACHMENTS

- 58 Fore Street Utility Assessment, dated August, 2015
- Ability to Serve Requests to Utilities
- Portland Wastewater Capacity Application

WOODARD &CURRAN

58 Fore Street – Utility Assessment



227007
CPB2
August 2015

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

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1. INTRODUCTION

In December 2007, DeLuca Hoffman Associates, Inc. performed a review of the site layout and utilities on the property located at 58 Fore Street in Portland. This Report documents our desktop assessment of site utilities and serves as an update of the information contained within that 2007 document.

1.1 SITE OVERVIEW

The property at 58 Fore Street remains largely unchanged since 2007. The site is split between three parcels identified as Lots 1, 2, and 3 on Map 18 of the City of Portland Tax Maps. Lots 1 and 3 have frontage along Fore Street, while Lot 2 is located along the waterfront, separated from Lots 1 and 3 by a linear parcel containing the railroad owned by the State of Maine. The City of Portland Online Assessor's Database and GIS parcel maps identify Lots 1 and 2 together as approximately 6.92 acres, and Lot 3 as 2.87 acres. A survey completed by Owen Haskell, Inc. in May 2013 identifies the areas of Lots 1 and 2 at 6.04 acres and 1.02 acres respectively, for a total of 7.06 acres, approximately 0.14 acres greater than the City's Assessor's Database. A copy of the survey is attached in Appendix A for reference. Lot 3 is reported at the same size in the City Assessor Database and on the Owen Haskell survey. The property is located in the City's Eastern Waterfront Mixed Zone, referred to as the B6 zone, and Eastern Waterfront Port Zone (EWPZ), and is also partly within the Shoreland Overlay Zone. The following figure was taken from the City's online GIS viewer, and shows parcel boundaries and zone boundaries in the vicinity of the 58 Fore Street property.

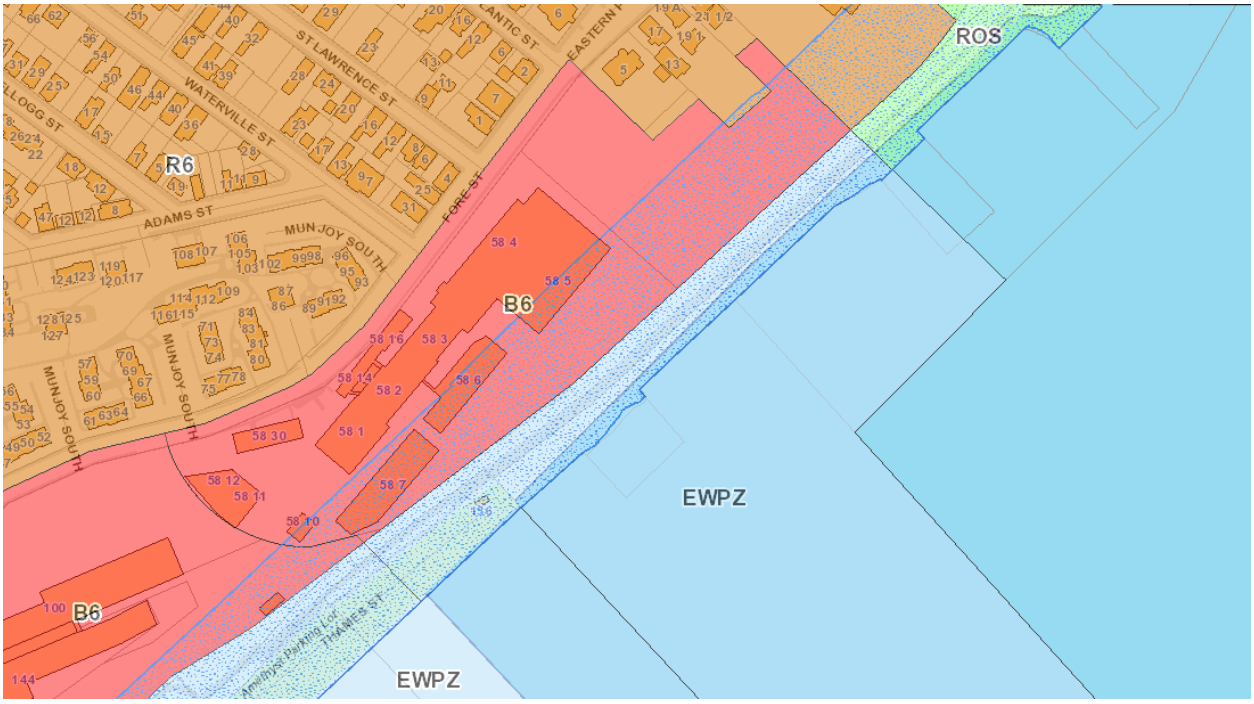


Figure 1-1 City of Portland Zoning Map

The site primarily slopes from west to east towards the waterfront. A steep grade change exists along Fore Street. The northeastern corner of the property is a steep, wooded embankment. Retaining walls and buildings have been constructed along much of the boundary with Fore Street to account for the change in grade. A driveway from Fore Street on the western end of the property provides the primary means of site access. The property is also connected to Hancock Street and Thames Street by gravel parking lots and driveways located on adjacent parcels to the west.

1.2 AREA DEVELOPMENT

Redevelopment in the eastern waterfront area of Portland, near the 58 Fore Street property, has intensified over the last 5 to 10 years. Future projects and redevelopment will require utilization of municipal, quasi-municipal and privately owned utility infrastructure and roadways in the vicinity of the 58 Fore Street property, and therefor appropriate consideration of capacity is necessary.

1.2.1 Completed Projects

The City-owned Ocean Gateway facility construction project with international ferry accommodations on Pier 2 Berth 1 was completed in 2008, and construction of the facility's cruise ship accommodations on Pier 2 Berth 2 was completed in 2011. The Ocean Gateway project included the construction of roadway extensions in the vicinity of the subject property, as well as construction of accompanying utility infrastructure (water, wastewater, storm drains, natural gas, electric and telecommunications). The Ocean Gateway facility is currently used as an event center, and as a berth for large cruise ships. Renewed use of the terminal for regular international ferry service to Nova Scotia is planned to restart in May 2014.

The roughly 750-space privately-owned Ocean Gateway parking garage was constructed in 2008 at the northwest corner of the Fore and Hancock street intersection. In the last several years, a roughly 180-key Marriott Residence Inn was completed on the northeast corner of the Fore and Hancock street intersection and in 2012, a roughly 120-key Hampton Inn with ground-floor restaurant and residential condominiums was completed at northeast corner of the intersection of Fore and Franklin Streets, at the former Jordan's Meats site. Phase one of a two phase project referred to as the "The Bay House" is nearing completion on the east side of the block formed by Hancock, Newbury, Middle and India Street. Phase I of the project includes two buildings containing 84 residential condominium units and street level commercial space.

Although within the City's Old Port District and further from the development with less potential impact, two hotel projects are under construction and nearing completion. The Hyatt Place hotel consists of 123-keys and is located on the corner of Fore Street and Union Street. The Courtyard by Marriott hotel consists of 131-keys and 14 residences and is located on the corner of Commercial Street and Maple Street.

1.2.2 Projects in Planning/Permitting/Construction

There are a number of projects in various stages of planning, permitting, and construction within the vicinity of the 58 Fore Street property. The Watermark at Ocean Gateway, proposed by Intercontinental Real Estate and local developers, obtained all permits to construct a significant mixed-use development on a 1-acre parcel bounded by Fore Street, Hancock Street, and Thames Street, however construction was never started. Permits for the project lapsed and the site has, or is currently under an Option Agreement - Purchase and Sale.

Small open parcels abut the Ocean Gateway parking garage to the north and west. These parcels could be anticipated to see future infill development (office buildings), although no development proposals have recently been submitted to the City Planning office.

Adjacent to the recently constructed Hampton Inn, on the remaining undeveloped acreage of the former Jordan's Meats site, there is additional Planning Board approved five-story mixed-use building consisting of retail space, office space, and residential condominium units.

The "Seaport Lofts", otherwise known as "The Bay House Phase II", has received Planning Board approval for a 39 unit residential building located on the east side of the block formed by Hancock, Newbury, Federal and India Street; construction is ongoing.

The "Newbury Lofts" project was approved by the City Planning Board in the fall of 2012, and proposes 24 residential units and commercial space at the block bounded by Hampshire, Federal, and Newbury Streets and Franklin Arterial. Timeframe for construction is unknown at this time.

A recently submitted project currently under review by Planning Staff and the City Planning Board is on Munjoy Hill, a four-story mixed-use building proposed at the corner of Congress Street and St. Lawrence Street. The building is anticipated to include up to 12 residential units and ground floor commercial space.

2. UTILITY REVIEW

The property at 58 Fore Street is currently serviced primarily through utility mains in Fore Street. As part of the construction completed for the Ocean Gateway facility project, new utility infrastructure was installed in Thames Street, an extension of Commercial Street as well as Hancock Street. These utilities terminate approximately 400 feet from the property at 58 Fore Street, and could likely be extended to provide service to the property. Two plans showing existing utility infrastructure in the vicinity of the property are included in Appendix B. Figure 1 in Appendix B shows existing utility infrastructure outside of the subject property, compiled from survey data and information obtained from various utilities. Figure 2 in Appendix B shows existing utility infrastructure within the 58 Fore Street property, as identified by the 2013 survey by Owen Haskell.

2.1 WATER

The property is currently serviced by the Portland Water District (PWD) from an 8-inch cast iron water main located in Fore Street. The PWD Infrastructure Map, included in Appendix C for reference, shows the existing waterline in Fore Street, and identifies that it was installed in 1901 and 1902. The Map also shows the locations of the water services that enter the 58 Fore Street property.

Water service record cards have been provided for the four services that enter the property at two locations, and are included in Appendix C. Service 7462 is an 8-inch cast iron fire water service located on the eastern end of the property. The service card indicates that the service was installed in 1922. Services 90A, 90B, and 90C are all located at the western end of the property, and include two fire services (6-inch and 4-inch cast iron), and a domestic water service (1 ½-inch, material not specified). The age of these services are not identified on the PWD service record cards. Retirement or maintenance of any of the existing services will be the responsibility of the property owner.

The survey completed by Owen Haskell, Inc. in May 2013 indicates that there is a system of "private" buried water lines located throughout the 58 Fore Street property. This network of piping appears to deliver domestic and fire water to buildings and hydrants located throughout the property. There are no known PWD easements on the site, and we can therefore assume that the water infrastructure on the site is a private system that is the responsibility of the owner.

With the Ocean Gateway project completed in 2008, new utility lines, including a 12-inch water main, were installed to the end of Thames Street. The new water main could be extended towards the 58 Fore Street property, providing a service connection alternative to the 100-year old Fore Street water main.

We did not pressure test, leak test or evaluate the integrity of the "private" water services on the site; upon development of the Master Plan, we would recommend completing this work as necessary, to assess the condition of the infrastructure for future use or replacement as part of the redevelopment of the property. As part of that effort, coordination with PWD would be required to determine the best option for providing adequate pressure and capacity to the site, whether that includes reusing existing infrastructure on site, existing or new services from Fore Street, Thames Street, or a combination thereof. The system may require connections to both (looped system) to satisfy pressure and capacity needs.

2.2 SANITARY SEWER

The property's existing sewer service discharges to the City's gravity sewer in Fore Street. The existing public sewer in Fore Street increases in size from 18 to 24 to 36 inches, from east to west in front of the 58 Fore Street property. The Portland Sewer System Infiltration-Inflow Analysis maps (I&I maps) for the area show the pipe sizes, as well as information on pipe materials and ages. The 18-inch pipe is identified as brick, with no age; the 24-inch pipe is identified as vitrified clay pipe installed in 1935; and no material or age information is provided for the 36-inch pipe.

A service card obtained from the City of Portland archives located at the Public Services Department indicates that a 4-inch sewer service was installed to one of the buildings located at 58 Fore Street in 1984. A review of the sewer

service card and the 2013 Owen Haskell survey indicates that a 15-inch brick sewer extends into the 58 Fore Street property from the sewer manhole on Fore Street (located at the transition from the 24" sewer to the 36" sewer main). The survey does not identify any sewer piping internal to the property. The survey does identify a pump station located on the property and the 2007 DeLuca Hoffman Site Overview and Utility report identified that this pump station is privately owned, and pumps the property's sanitary sewer back to the Fore Street sewer. Additional confirmation of the sanitary sewer pipes identified on the survey is required to confirm the locations of the internal building sewer connections, and whether they will be impacted under the redevelopment Master Plan. It is recommended that CCTV inspections, test pits, and leak testing be completed to evaluate the condition of the existing sewer pipes internal to the site to determine if any of the internal sewer infrastructure may be reused. We also did not evaluate the condition of the existing "private" pump station, pressure test the "private" pump station forcemain, or leak test or evaluate the integrity of the "private" sanitary sewer services on the site. Upon development of the Master Development Plan, we would recommend completing this work to assess the condition of the infrastructure for future use or replacement as part of the redevelopment of the property.

The Fore Street sewer is a combined sewer system that connects to sewers on India Street to the India Street Pump Station, and through the Combined Sewer Overflow (CSO) 23. This CSO overflows into Portland Harbor during high combined flow events caused by rainfall. Both the India Street CSO and Pump Station are owned and operated by the Portland Water District. The India Street Pump Station conveys combined sewage through a 33-inch forcemain to the East End Wastewater Treatment Facility, which is also owned and operated by the Portland Water District.

The 33-inch sewer pressure forcemain from the India Street Pump Station to the East End Wastewater Treatment Facility runs through the portion of the 58 Fore Street property in close proximity to the Eastern Promenade Trail, identified on the City of Portland Assessor's maps as Lot 2. An easement is not identified on the Owen Haskell Survey, however there are two deeds from 1976 which identify the existence of an easement for the sewer forcemain; one deed specifically identifies a 30' easement (15' on either side of the pipe) for a portion of the length of the forcemain, while the second deed references a plan maintained at the Portland Water District. A copy of a plan obtained from PWD is included in Appendix C. This prestressed concrete cylinder pipe carries up to 40 Million Gallons per Day (MGD) of combined sewage and is identified here for the purpose of understanding how the redevelopment Master Plan may be impacted by the location of the forcemain, and the need to maintain an accessible easement; we recommend coordination with Portland Water District as it relates to potential or perceived impacts to the forcemain, and working through the establishment of an easement, if necessary.

A new 12-inch sanitary sewer line was installed at the eastern end of Thames Street as part of the Ocean Gateway project. This sewer line increases to 15 inches in diameter further to the west on Thames Street, and connects directly into the 51-inch brick sewer that is located in India Street. Prior to construction, the brick sewer was CCTV-inspected in 2006, and was found to be in acceptable condition. The brick sewer connects through the India Street CSO structure to the India Street Pump Station. We completed a preliminary review of site grades and the elevation of the sewer installed in Thames Street, which indicate that a gravity flow connection to that Thames Street sewer may be possible, eliminating the need for a private pump station on the 58 Fore Street property.

2.3 STORMWATER

As identified in the previous section, the 58 Fore Street property is currently connected to a combined sanitary/stormwater system in Fore Street. The City of Portland is working to reduce the number of combined sewer overflows occurring in the City, and any separation of sanitary sewer from stormwater flow will help with this initiative. In early 2013, the City's Combined Sewer Overflow Long Term Control Plan Tier III Update was completed; one of the geographic areas evaluated in this report was the Portland Harbor. The 58 Fore Street area was identified as part of the India Street CSO-shed; however the report did not give any specific recommendations for management of stormwater in this area. A targeted area for green infrastructure and sewer separation was identified within the report, southwest of the proposed development area.

The Ocean Gateway construction project created separate stormwater and sanitary sewer systems installed to the end of Thames Street. The stormwater discharges to an outfall constructed as part of the project. Prior to discharge at this new outfall, stormwater is directed through a stormwater treatment unit designed to meet water quality standards established at that time. A 2006 evaluation of this stormwater system identified the maximum drainage area and acceptable flows that could discharge to the outfall's stormwater treatment system; stormwater flows from 58 Fore Street cannot be handled by the Ocean Gateway outfall's permitted stormwater treatment system.

A review of the 2013 Owen Haskell, Inc. survey indicates that there are currently three stormwater outfall discharges on the site; however, portions of the site's stormwater runoff may discharge to the combined sewer system. A complete separation of the 58 Fore Street property's stormwater runoff from its sanitary sewer discharge, combined with quality treatment of the site's stormwater would help to further the City's plans for reducing combined sewer overflows and improving water quality. Based on our experience, we anticipate separation of storm and sanitary sewer at the subject property will be the minimum acceptable measure to the City during the local permitting process. Any new impervious or developed area on the site will require the design and installation of water quality treatment measures in accordance with the City's Technical Standards. State permits, as applicable, may require water quality treatment measures for all redeveloped area with a change of use.

Additionally, the City of Portland is currently exploring the option of implementing a stormwater utility to provide equity between sewer rate payers and stormwater generators by assessing a fee based on the area of impervious surface on a property, with credits provided for certain stormwater improvements. As the stormwater utility fee structure is implemented, it is anticipated that the current PWD-assessed sewer rates would lower in response to this new source of revenue. A stormwater utility would provide an incentive for including water quality improvement systems and increased pervious surface on new development projects. Site planning and design should take into consideration the potential for a stormwater utility fee and associated credits, incorporating appropriate pervious surfaces into the site development plan and evaluating the capital cost of stormwater management systems against potential future fees and credits, as stormwater utility information becomes more available.

New development at 58 Fore Street will require the reconfiguration of the site's storm drain piping, including new inlets and roof drain connections. Depending on the proposed drainage configuration and level to which green infrastructure (including quantity and quality treatment) is incorporated on the property, the existing outfalls on the property may be adequately sized, or require upgrades.

Alternately, a new outfall into Portland Harbor could be created to discharge stormwater from a new collection and treatment system on the property. The construction of a new outfall, or the modification of an existing one would require a permit from the Maine Department of Environmental Protection.

2.4 NATURAL GAS

Natural gas service in the City of Portland is currently provided by Unitil. The 58 Fore Street property is serviced by a natural gas main in Fore Street. A significant number of new projects and conversions of existing properties to natural gas have occurred over the last several years, primarily due to the competitive pricing of natural gas. We understand from local developers that during the winter of 2012/2013, demand for natural gas was high and natural gas service, specifically pressure, was not consistent on the peninsula; this reportedly resulted in heating system malfunctions and outages throughout the downtown.

The existing gas main in Fore Street adjacent to the 58 Fore Street property is a 6" coated steel pipe that was installed in the late 1960s. Unitil has indicated that this is a medium pressure gas main, and that capacity has not been an issue in this area. The property currently has a regulator that sends low pressure services to various locations within the site. Once a preliminary plan for development has been established, Unitil will help to generate an appropriate layout for services and meters within the site.

Unitil has stated that the ideal connection point for natural gas service for new development on the property will likely be from Fore Street; however, a new 6-inch plastic gas main was installed to the end of Thames Street in 2006 as

part of the Ocean Gateway project. As the plan for development progresses, possible connection to this gas main location can be further evaluated.

2.5 COMMUNICATIONS/POWER

The 58 Fore Street property is currently serviced by Central Maine Power (CMP) for electrical service and Fairpoint Communications and Time Warner Cable for communication services. The power and communication services to the buildings on the property originate from overhead utility lines on Fore Street.

CMP has indicated that the three-phase 470V electrical service that serves the property has the capacity to supply the power needs of a future development project at the site. Fairpoint Communications has also stated that they have the capacity to provide communications services for a future development project at the site. The existing property has copper communication services, but fiber optic lines are located in the vicinity of the property and could be used to provide high speed communications service.

Time Warner Cable also has both coaxial and fiber optic lines on the existing poles on Fore Street in front of the 58 Fore Street property, with two service drops for the existing buildings located along Fore Street. Currently they are not providing services to buildings located further away from Fore Street, towards the southeastern side of the site, and Time Warner Cable indicated that a new conduit system internal to the site would be required to extend service further into the site. This would be the case for all power and communications utilities.

Oxford Networks is a third communications service provider with fiber optic cable installed in the area. They have existing fiber optic lines on Fore Street between the intersections with Mountfort Street and Waterville Street, along approximately half of the property's frontage.

All power and communications providers have stated that additional project program/design information will be required for them to calculate their detailed service requirements and costs, and that they are all willing to work with the developer as the project moves forward.

The City of Portland's Technical Manual includes a detail for standard utility locations in City streets. This detail calls for underground electrical and communications lines. New lines installed for future development would need to be installed underground. The City of Portland has also set a precedent with large development projects in the City, requiring that existing overhead lines along a project's roadway frontage be removed and reinstalled underground. Development on the subject property will likely require relocating the existing Fore Street overhead electric and communications lines below ground, along with providing underground service to the site from Fore Street and/or Thames Street. The construction of Thames Street as part of the Ocean Gateway project included installation of underground conduit to allow for future underground electrical and communication services in the area.

2.6 FUTURE SERVICES

City Planning documents have contemplated the extension of Thames Street and associated utilities. Figure 1 shows this extension of Thames Street, including an extension of gas, sewer, water, electric, and communications infrastructure, to the 58 Fore Street property. While this extension may provide an ideal location for future service connections to the property for some utilities, other utilities may better serve the site from their existing location in Fore Street. The location of services will depend greatly on the layout and phasing of the proposed development and the extent that existing buildings and infrastructure will be maintained. As design development progresses, all utility companies will need to be engaged to determine the best locations for designing service connections.

3. SITE ACCESS

3.1 EXISTING AND PROPOSED ACCESS

Main access to the property is by way of a driveway from Fore Street at the western end of the property. The access route extends through the site with driveways and parking areas in between buildings. Gravel driveways and parking areas on the adjacent property to the west connect to 58 Fore Street and provide a secondary means of access, as do gravel and paved ways along the waterfront that connect back to Thames Street. A State of Maine-owned railroad line and the Eastern Promenade trail run along the property, separating the inland parcels (Map 18 Lots 1 and 3) from the waterfront edge (Map 18 Lot 2).

Fore Street changes to Eastern Promenade just east of the subject property, and based on data from the Maine Department of Transportation's (MDOT) Map Viewer, both streets are classified as major/urban collectors with state aid from the MDOT. India Street and Commercial Street west of India Street are both minor arterials and MDOT state highways. The Thames Street extension of Commercial Street installed as part of the Ocean Gateway project is a local road under City of Portland jurisdiction.

An extension of Thames Street to the east (and the potential connection up to Fore Street between the subject property and the adjacent lot to the west) remains the likely primary means for future site access. Thames Street was constructed to within 400 feet of the property as part of the Ocean Gateway Terminal construction project. The attached figure shows a proposed Thames Street layout, with an extension of approximately 300 linear feet, with a connector street back to Fore Street. The maintenance of access from Fore Street may also be a viable option; however, we have not evaluated this option in detail. A traffic management study will need to be completed to determine the best route for primary access based on traffic and circulation concerns in the area and the proposed scale and type of development.

We anticipate the Master Planning process will inform site access considerations and connectivity beyond what is described here.

3.2 PAVEMENT CONDITIONS

In 2013, the MDOT installed a pavement overlay on Eastern Promenade, starting at the intersection with Atlantic Street, just beyond the 58 Fore Street property. Fore Street in front of the subject property was not repaved. Existing sidewalks on Fore Street are made of concrete. This area of the City is located within the area designated for brick sidewalk. Discussions with the City of Portland Planning Division and Public Services Department will be required to determine the need for sidewalk reconstruction; however, development on the 58 Fore Street property will likely require construction of new brick sidewalks along the street frontage, or contribution to a fund for future sidewalk upgrades.

Thames Street was constructed within the past five years, and would likely not require significant work beyond patching at utility connections. Thames Street currently has brick sidewalk on the southern side of the street, and bituminous sidewalk on the northern side of the street. An extension of Thames Street would also require the extension of both sidewalks. Brick sidewalks may be required to on both sides of the street to comply with the City's standards for sidewalk materials in this location.

Pavement conditions within the 58 Fore Street parcels have not been evaluated as part of this assessment. The assumption has been made that the proposed development will result in extensive disturbance, and repaving of the entire site will be necessary. A geotechnical evaluation at the site will provide information about the existing pavement thickness and underlying soils. With this information, an appropriate new pavement section can be specified for driveways and parking areas on the property.

4. DEVELOPMENT ISSUES

DeLuca Hoffman identified a number of development issues as part of their 2007 analysis. The issues they identified are repeated below in italics, with additional information following each. Each of the issues identified in 2007 generally hold true today.

- *Site access by an extension of Thames Street into the site will need to be reviewed with City officials, particularly with respect to the demolition of existing structures to allow the extended street alignment as well as the development of new buildings for new mixed uses.*

  The extension of Thames Street to provide site access will require careful consideration, as well as coordination with the City of Portland and other adjacent land owners. The street extension and associated utility corridor may require land swaps and/or the creation of public access and utility easements. The current City of Portland standards for road construction and layout must be considered in the design. Cost responsibility for these roadway extensions would likely need to be negotiated with the City.

- *Onsite parking will require careful planning and technical guidance as the City will look for assurance that adequate parking is provided. The City will place great importance on the incorporation of Transportation Demand Management (TDM) measures into the site design so that overall traffic impacts from the site may be reduced. The site features will need to include measures for public bus service.*

  As the plan for development progresses, the need for parking and public transportation will continue to be an important consideration. Shared use parking may be of particular interest to the City.

- *The design of a retaining structure(s) along the Fore Street boundary will need to be carefully planned and designed for economics and functionality.*

  No additional comment.

- *Utility availability for the major services including water, sewer and power appears reasonable; however, new onsite infrastructure for all utilities appears necessary given the age and location of the existing systems.*

  No additional comment.

- *Current State and local regulations for stormwater management will require significant measures for stormwater quality treatment prior to release into the harbor. The existing site currently contains no formal measures for water quality treatment of stormwater runoff; therefore an entirely new drainage system will likely be required for any future development program.*

  No additional comment.

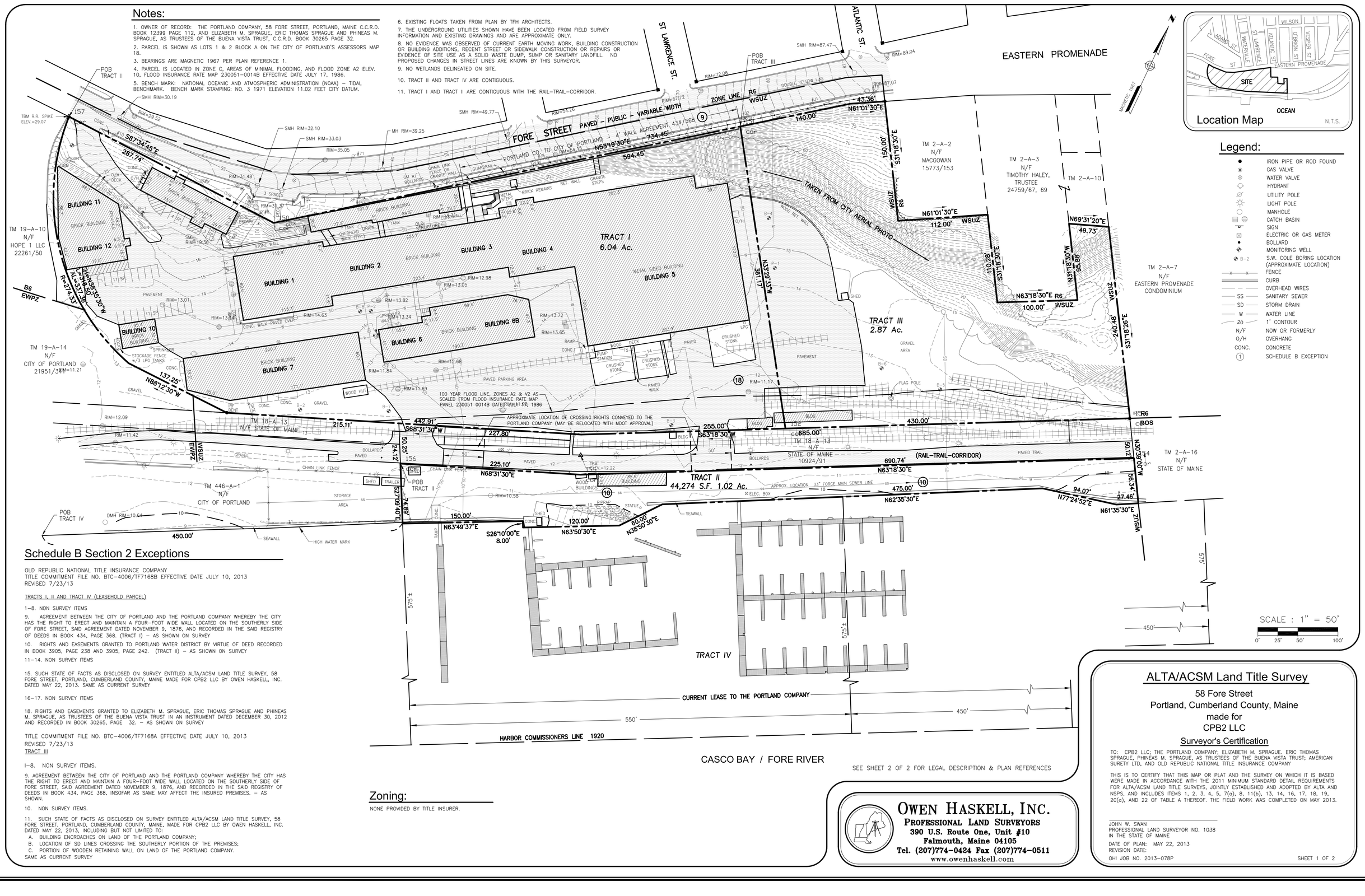
- *Pedestrian access through the site and connections to the Portland waterfront trail system will be emphasized by the City during their review process.*

  The City will be interested in status of negotiations with and the future of the MaineDOT (Narrow Gauge Railway) and Portland Trails Eastern Promenade Trail (public access).

APPENDIX A: 2013 SURVEY

Notes:

1. OWNER OF RECORD: THE PORTLAND COMPANY, 58 FORE STREET, PORTLAND, MAINE C.C.R.D. BOOK 12399 PAGE 112, AND ELIZABETH M. SPRAGUE, ERIC THOMAS SPRAGUE AND PHINEAS M. SPRAGUE, AS TRUSTEES OF THE BUENA VISTA TRUST, C.C.R.D. BOOK 30265 PAGE 32.
2. PARCEL IS SHOWN AS LOTS 1 & 2 BLOCK A ON THE CITY OF PORTLAND'S ASSESSORS MAP 18.
3. BEARINGS ARE MAGNETIC 1967 PER PLAN REFERENCE 1.
4. PARCEL IS LOCATED IN ZONE C, AREAS OF MINIMAL FLOODING, AND FLOOD ZONE A2 ELEV. 10, FLOOD INSURANCE RATE MAP 230051–0014B EFFECTIVE DATE JULY 17, 1986.
5. BENCH MARK: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) – TIDAL BENCHMARK. BENCH MARK STAMPING: NO. 3 1971 ELEVATION 11.02 FEET CITY DATUM.
6. EXISTING FLOATS TAKEN FROM PLAN BY TFH ARCHITECTS.
7. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS AND ARE APPROXIMATE ONLY.
8. NO EVIDENCE WAS OBSERVED OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS, RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OR EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL. NO PROPOSED CHANGES IN STREET LINES ARE KNOWN BY THIS SURVEYOR.
9. NO WETLANDS DELINEATED ON SITE.
10. TRACT II AND TRACT IV ARE CONTIGUOUS.
11. TRACT I AND TRACT II ARE CONTIGUOUS WITH THE RAIL–TRAIL–CORRIDOR.



Legend:

- IRON PIPE OR ROD FOUND
- GAS VALVE
- WATER VALVE
- HYDRANT
- UTILITY POLE
- LIGHT POLE
- MANHOLE
- CATCH BASIN
- SIGN
- ELECTRIC OR GAS METER
- BOLLARD
- MONITORING WELL
- B–2 S.W. COLE BORING LOCATION (APPROXIMATE LOCATION)
- FENCE
- CURB
- OVERHEAD WIRES
- SANITARY SEWER
- STORM DRAIN
- W WATER LINE
- 20 1' CONTOUR
- N/F NOW OR FORMERLY
- O/H OVERHANG
- CONC. CONCRETE
- (1) SCHEDULE B EXCEPTION

Schedule B Section 2 Exceptions

OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
TITLE COMMITMENT FILE NO. BTC–4006/TF7168B EFFECTIVE DATE JULY 10, 2013
REVISED 7/23/13

TRACTS I, II AND TRACT IV (LEASEHOLD PARCEL)

1–8. NON SURVEY ITEMS

9. AGREEMENT BETWEEN THE CITY OF PORTLAND AND THE PORTLAND COMPANY WHEREBY THE CITY HAS THE RIGHT TO ERECT AND MAINTAIN A FOUR–FOOT WIDE WALL LOCATED ON THE SOUTHERLY SIDE OF FORE STREET, SAID AGREEMENT DATED NOVEMBER 9, 1876, AND RECORDED IN THE SAID REGISTRY OF DEEDS IN BOOK 434, PAGE 368. (TRACT I) – AS SHOWN ON SURVEY

10. RIGHTS AND EASEMENTS GRANTED TO PORTLAND WATER DISTRICT BY VIRTUE OF DEED RECORDED IN BOOK 3905, PAGE 238 AND 3905, PAGE 242. (TRACT II) – AS SHOWN ON SURVEY

11–14. NON SURVEY ITEMS

15. SUCH STATE OF FACTS AS DISCLOSED ON SURVEY ENTITLED ALTA/ACSM LAND TITLE SURVEY, 58 FORE STREET, PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR CPB2 LLC BY OWEN HASKELL, INC. DATED MAY 22, 2013. SAME AS CURRENT SURVEY

16–17. NON SURVEY ITEMS

18. RIGHTS AND EASEMENTS GRANTED TO ELIZABETH M. SPRAGUE, ERIC THOMAS SPRAGUE AND PHINEAS M. SPRAGUE, AS TRUSTEES OF THE BUENA VISTA TRUST IN AN INSTRUMENT DATED DECEMBER 30, 2012 AND RECORDED IN BOOK 30265, PAGE 32. – AS SHOWN ON SURVEY

TITLE COMMITMENT FILE NO. BTC–4006/TF7168A EFFECTIVE DATE JULY 10, 2013
REVISED 7/23/13
TRACT III

1–8. NON SURVEY ITEMS.

9. AGREEMENT BETWEEN THE CITY OF PORTLAND AND THE PORTLAND COMPANY WHEREBY THE CITY HAS THE RIGHT TO ERECT AND MAINTAIN A FOUR–FOOT WIDE WALL LOCATED ON THE SOUTHERLY SIDE OF FORE STREET, SAID AGREEMENT DATED NOVEMBER 9, 1876, AND RECORDED IN THE SAID REGISTRY OF DEEDS IN BOOK 434, PAGE 368, INSOFAR AS SAME MAY AFFECT THE INSURED PREMISES. – AS SHOWN.

10. NON SURVEY ITEMS.

11. SUCH STATE OF FACTS AS DISCLOSED ON SURVEY ENTITLED ALTA/ACSM LAND TITLE SURVEY, 58 FORE STREET, PORTLAND, CUMBERLAND COUNTY, MAINE, MADE FOR CPB2 LLC BY OWEN HASKELL, INC. DATED MAY 22, 2013, INCLUDING BUT NOT LIMITED TO:
A. BUILDING ENCROACHES ON LAND OF THE PORTLAND COMPANY;
B. LOCATION OF SD LINES CROSSING THE SOUTHERLY PORTION OF THE PREMISES;
C. PORTION OF WOODEN RETAINING WALL ON LAND OF THE PORTLAND COMPANY.
SAME AS CURRENT SURVEY

Zoning:

NONE PROVIDED BY TITLE INSURER.

SEE SHEET 2 OF 2 FOR LEGAL DESCRIPTION & PLAN REFERENCES

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 U.S. Route One, Unit #10
Falmouth, Maine 04105
Tel. (207)774–0424 Fax (207)774–0511
www.owenhaskell.com

ALTA/ACSM Land Title Survey

58 Fore Street
Portland, Cumberland County, Maine
made for
CPB2 LLC

Surveyor's Certification

TO: CPB2 LLC; THE PORTLAND COMPANY; ELIZABETH M. SPRAGUE, ERIC THOMAS SPRAGUE, PHINEAS M. SPRAGUE, AS TRUSTEES OF THE BUENA VISTA TRUST; AMERICAN SURETY LTD, AND OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY

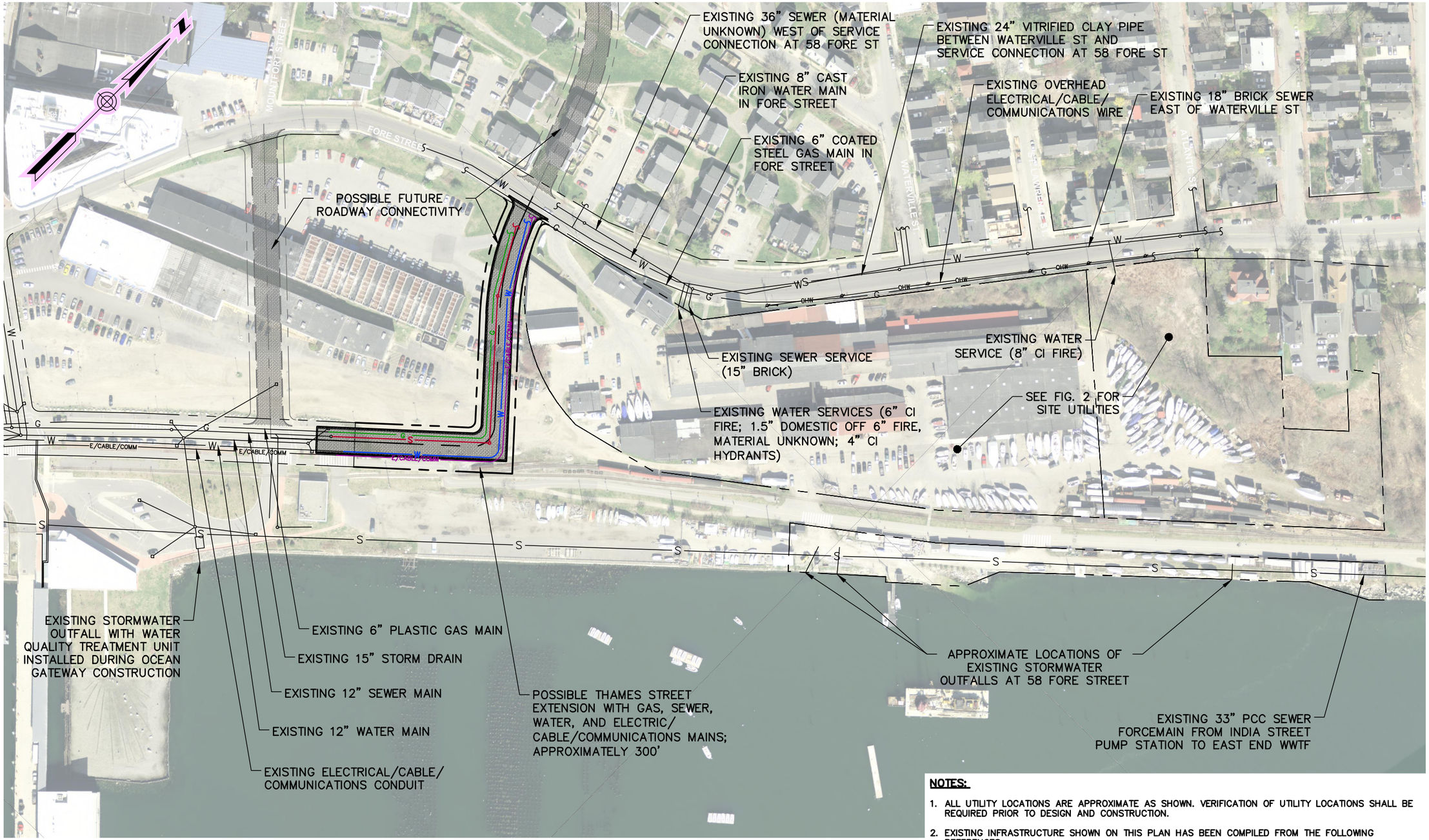
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7(a), 8, 11(b), 13, 14, 16, 17, 18, 19, 20(a), AND 22 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MAY 2013.

JOHN W. SWAN
PROFESSIONAL LAND SURVEYOR NO. 1038
IN THE STATE OF MAINE

DATE OF PLAN: MAY 22, 2013
REVISION DATE:

OHI JOB NO. 2013–078P

APPENDIX B: UTILITY FIGURES



150' 0 150' 300'

BAR SCALE
1" = 150'
CHECK GRAPHIC SCALE BEFORE USING

NOTES:

1. ALL UTILITY LOCATIONS ARE APPROXIMATE AS SHOWN. VERIFICATION OF UTILITY LOCATIONS SHALL BE REQUIRED PRIOR TO DESIGN AND CONSTRUCTION.
2. EXISTING INFRASTRUCTURE SHOWN ON THIS PLAN HAS BEEN COMPILED FROM THE FOLLOWING REFERENCES:
   a. ALTA/ACSM LAND TITLE SURVEY OF 58 FORE STREET PORTLAND, CUMBERLAND COUNTY, MAINE, PERFORMED BY OWEN HASKELL, INC., DATED MAY 22, 2013.
   b. COMMERCIAL STREET PLAN & PROFILE DRAWING C214, PREPARED BY WOODARD & CURRAN, DATED 1, 14, 2005.
   c. PORTLAND SEWER SYSTEM INFILTRATION–INFLOW ANALYSIS SYSTEM BASE MAPPING PLAN, PREPARED BY HUNTER–BALLEW ASSOCIATES, DATED 1981.
   d. GIS MAP OF 58 FORE STREET, PREPARED BY PORTLAND WATER DISTRICT, DATED NOVEMBER 26, 2013.
   e. MAPS OF GAS INFRASTRUCTURE IN FORE STREET AREA OF PORTLAND, PREPARED BY UNITIL, PROVIDED IN JANUARY, 2013.
   f. AERIAL IMAGE, FROM MAINE OFFICE OF GIS, GEOLIBRARY 3IN 2012 CIR.

41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

UTILITY PLAN

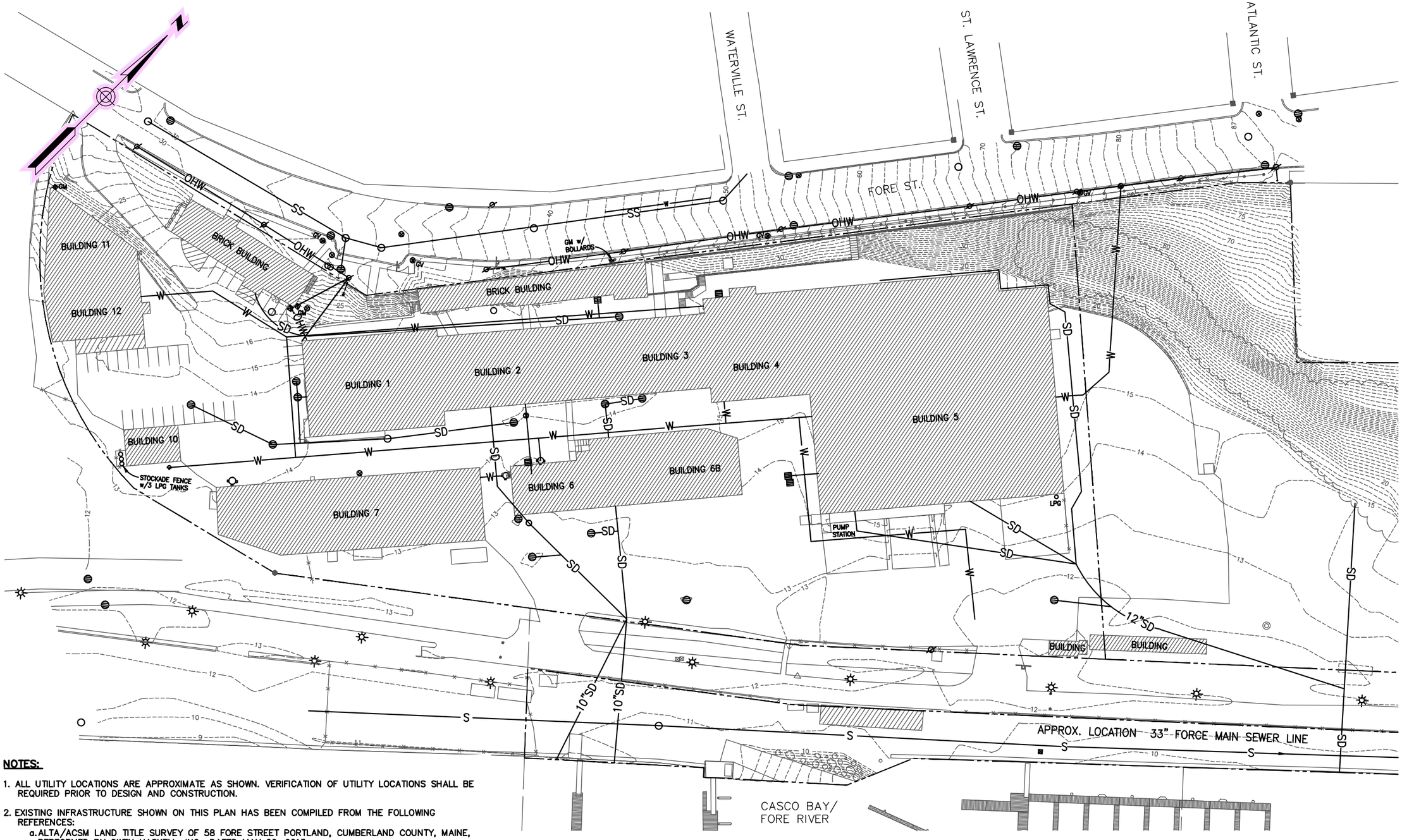
CHECKED BY: LJS
22700700–U001.dwg
DESIGNED BY: AEA
DRAWN BY: JDE

CPB2 MANAGEMENT LLC

PORTLAND COMPANY COMPLEX REDEVELOPMENT

JOB NO: 227007.00
DATE: JAN. 2014
SCALE: AS NOTED

FIGURE 1



NOTES:

1. ALL UTILITY LOCATIONS ARE APPROXIMATE AS SHOWN. VERIFICATION OF UTILITY LOCATIONS SHALL BE REQUIRED PRIOR TO DESIGN AND CONSTRUCTION.

2. EXISTING INFRASTRUCTURE SHOWN ON THIS PLAN HAS BEEN COMPILED FROM THE FOLLOWING REFERENCES:
   a. ALTA/ACSM LAND TITLE SURVEY OF 58 FORE STREET PORTLAND, CUMBERLAND COUNTY, MAINE, PERFORMED BY OWEN HASKELL, INC., DATED MAY 22, 2013.

3. UTILITY SIZES PROVIDED ONLY WHEN VERIFIED BY SURVEY.

LEGEND:

- W — WATER
- SD — STORM DRAIN
- SS — SANITARY SEWER
- OHW — OVERHEAD ELECTRICAL/ CABLE/ COMMUNICATIONS
- S — SEWER FORCE MAIN

80' 0 80' 160'

BAR SCALE
1" = 80'
CHECK GRAPHIC SCALE BEFORE USING

41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

EXISTING SITE UTILITY PLAN

DESIGNED BY: AEA
DRAWN BY: BCM
CHECKED BY: LJS
22700700–U002.dwg

CPB2 MANAGEMENT LLC

PORTLAND COMPANY COMPLEX REDEVELOPMENT

JOB NO: 227007.00
DATE: JAN. 2014
SCALE: 1"=80'

FIGURE 2

APPENDIX C: UTILITY BACKGROUND INFORMATION



0 50 100 200 300 400 500 Feet

1 inch = 100 feet

PORTLAND WATER DISTRICT
225 Douglass Street
Portland, ME 04104

Legend

- Air Valve
- Blow Off
- By Pass
- Distribution
- Transmission
- Connection
- Attribute Change
- Reducer
- Hydrant
- Hydrant Control
- Combined Service
- Domestic Service
- Fire Service
- Private Hydrants
- Meter Pits
- Manhole
- CSO
- Gravity
- Force

58 Fore Street

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.

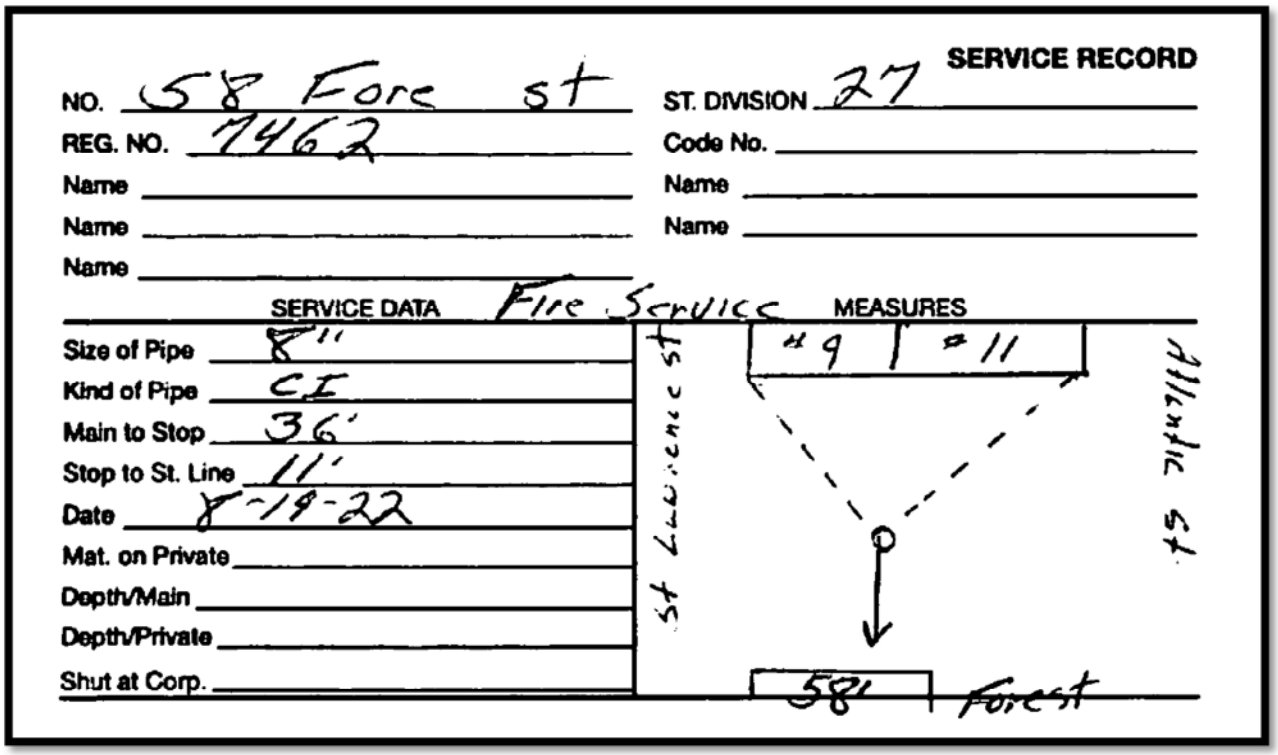
Drawn By: GJH

Prepared For: Woodard & Curran

Scale: As Noted

Date: November 26, 2013

58 Fore Street Water Services – Service Record Cards



SERVICE RECORD

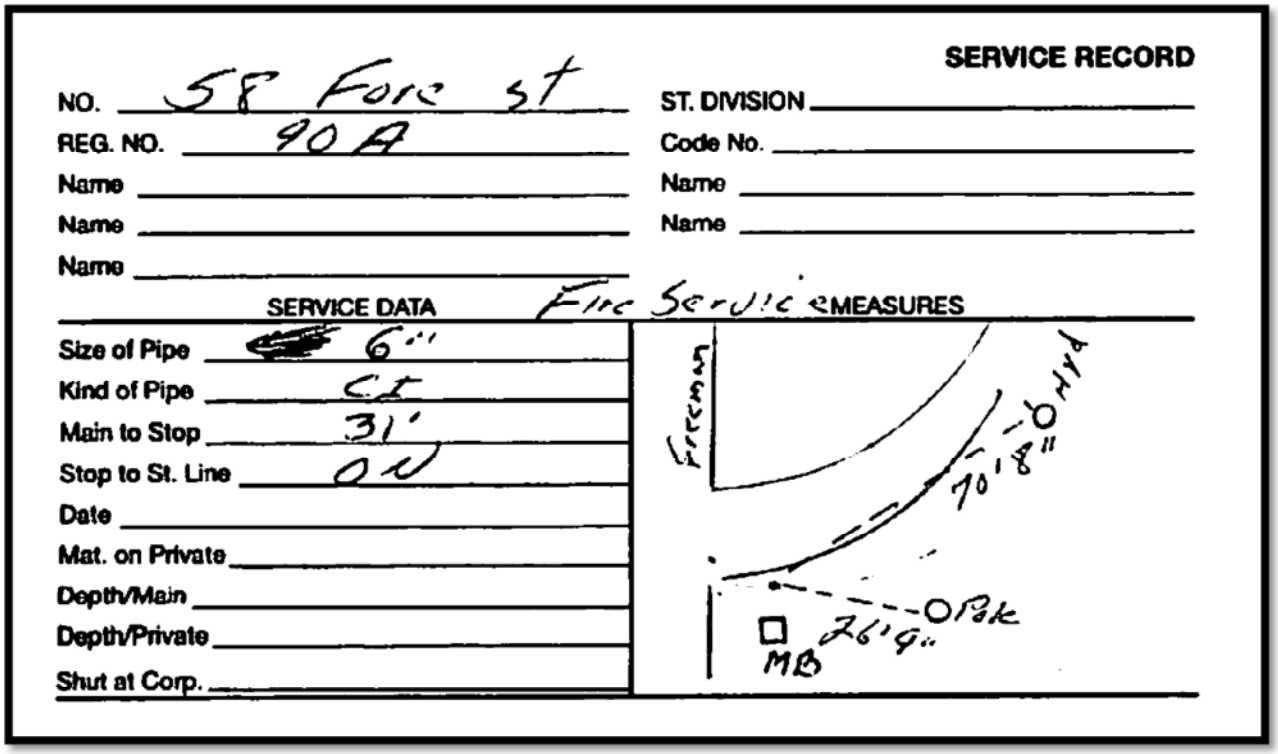
NO. 58 Fore st
REG. NO. 7462
Name
Name
Name

ST. DIVISION 27
Code No.
Name
Name

SERVICE DATA Fire Service

Size of Pipe 8"
Kind of Pipe CI
Main to Stop 36'
Stop to St. Line 11'
Date 8-19-22
Mat. on Private
Depth/Main
Depth/Private
Shut at Corp.

MEASURES



SERVICE RECORD

NO. 58 Fore st
REG. NO. 90A
Name
Name
Name

ST. DIVISION
Code No.
Name
Name

SERVICE DATA Fire Service

Size of Pipe 6"
Kind of Pipe CI
Main to Stop 31'
Stop to St. Line OW
Date
Mat. on Private
Depth/Main
Depth/Private
Shut at Corp.

MEASURES

SERVICE RECORD

NO. 58 Fore St
REG. NO. 90B
Name
Name
Name

ST. DIVISION
Code No.
Name
Name

SERVICE DATA

Size of Pipe 1 1/2"
Kind of Pipe
Main to Stop
Stop to St. Line
Date
Mat. on Private
Depth/Main
Depth/Private
Shut at Corp.

MEASURES

Connected with 90A
Meters only as Domestic
From Fire Service

Meter Box – Left of Buildi

SERVICE RECORD

NO. 58 Fore
REG. NO. 90C
Name
Name
Name

ST. DIVISION 27 Port
Code No.
Name
Name

SERVICE DATA Fire Service

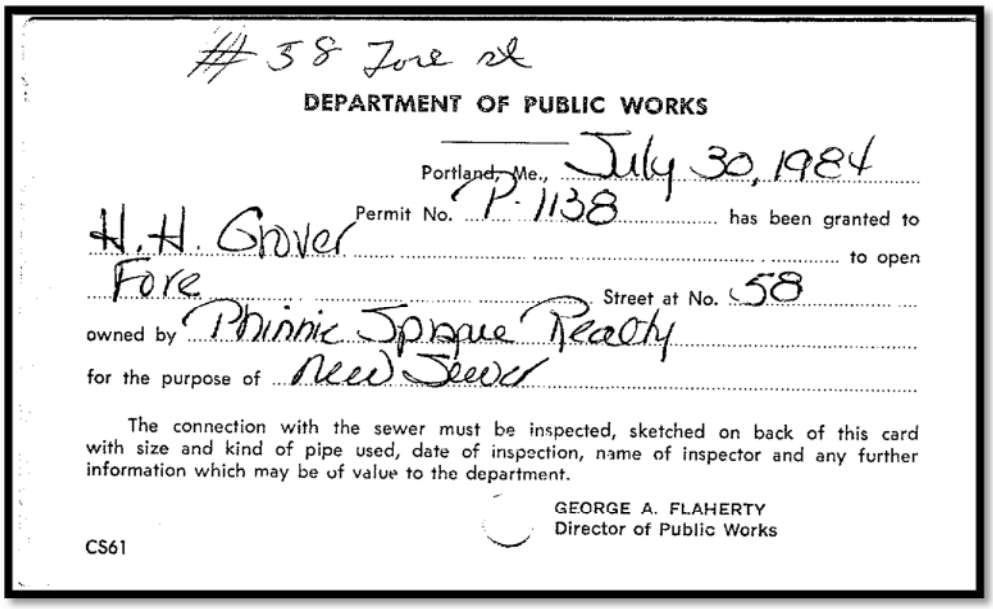
Size of Pipe 4"
Kind of Pipe CI
Main to Stop 24'
Stop to St. Line 6'
Date
Mat. on Private
Depth/Main
Depth/Private
Shut at Corp.

MEASURES

2 Private Hydrants

58 Fore Street Sewer Service – Service Record Card

Card Front:



#58 Fore st

DEPARTMENT OF PUBLIC WORKS

Portland, Me., July 30, 1984

H. H. Grover Permit No. P. 1138 has been granted to

Fore to open

Street at No. 58

owned by Phinnic Sprague Realty

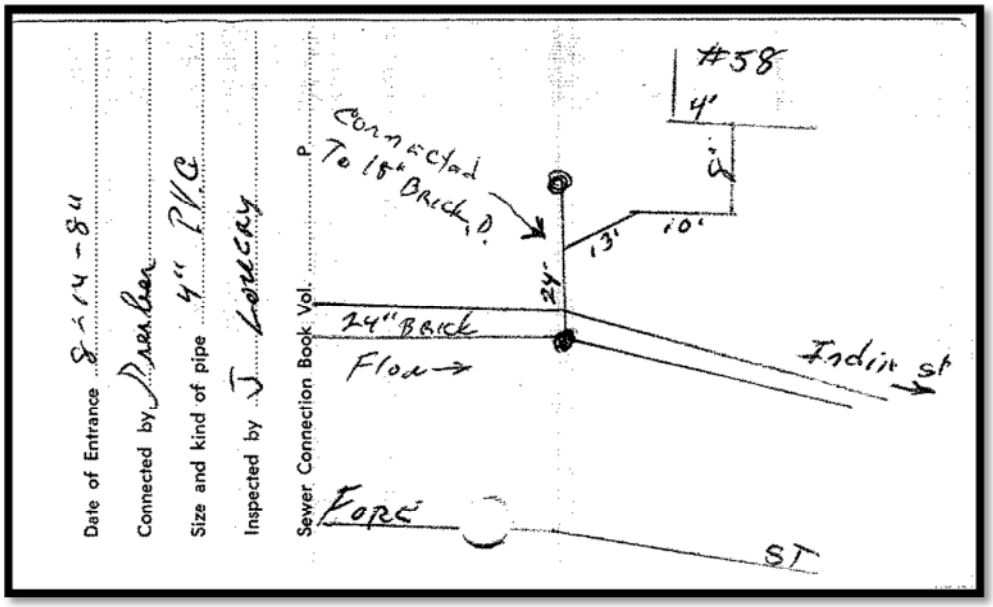
for the purpose of New Sewer

The connection with the sewer must be inspected, sketched on back of this card with size and kind of pipe used, date of inspection, name of inspector and any further information which may be of value to the department.

GEORGE A. FLAHERTY
Director of Public Works

CS61

Card Back:



Date of Entrance 8-14-84

Connected by Sanborn

Size and kind of pipe 4" PVC

Inspected by J. Lowcay

Sewer Connection Book Vol. P

#58

4"

Connected To 18" Brick D.

13'

10'

24"

24" Brick

Flow →

Indian St

Fore ST

CASCO BAY

Grid N.

OUTFALL LINE

FORT ALLEN PARK

33" FORCE MAIN

W.M. TELFORDS JR.

CUTTER ST.

MORNING ST.

VESPER ST.

EASTERN PROMENADE

WILSON ST.

HOODY ST.

GIBBON ST.

MUNJOY ST.

ATLANTIC ST.

CONGRESS ST.

ST. LAWRENCE ST.

WATERVILLE ST.

THE PORTLAND CO.

FOREST ST.

STATE OF MAINE

CANADIAN NATIONAL RAILWAYS

25 28 HP 33

CANADIAN NATIONAL RAILWAYS

66" outfall Line

19 08 HP 32 33

CITY OF PORTLAND

TURNER ST.

QUEBEC ST.

MELBOURNE ST.

MONTREAL ST.

WALNUT ST.

TREATMENT PLANT SITE

MOUNTFORT ST.

PUMPING STATION

HANCOCK ST.

CONN. ST.

INDIA ST.

DATE	REVISION

SITE LOCATION PLAN

PORTLAND, MAINE

MADE FOR

PORTLAND WATER DISTRICT

SHOWING LOCATION OF PROPOSED SEWER LINES WITHIN CANADIAN NATIONAL RAILWAYS RIGHT OF WAY

H. I. & E. C. JORDAN — SURVEYORS

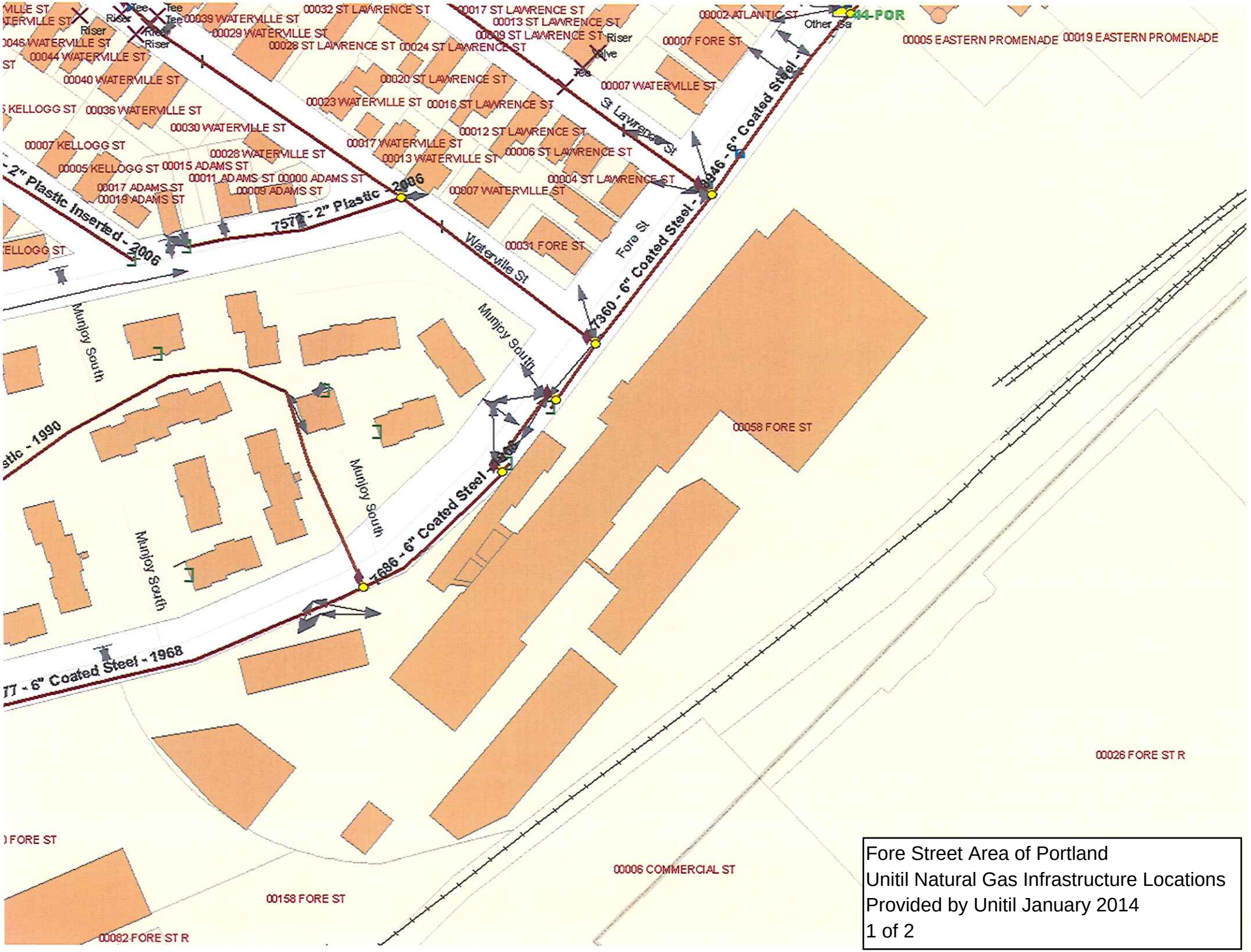
Division of EDWARD C. JORDAN CO., INC.

PORTLAND, MAINE

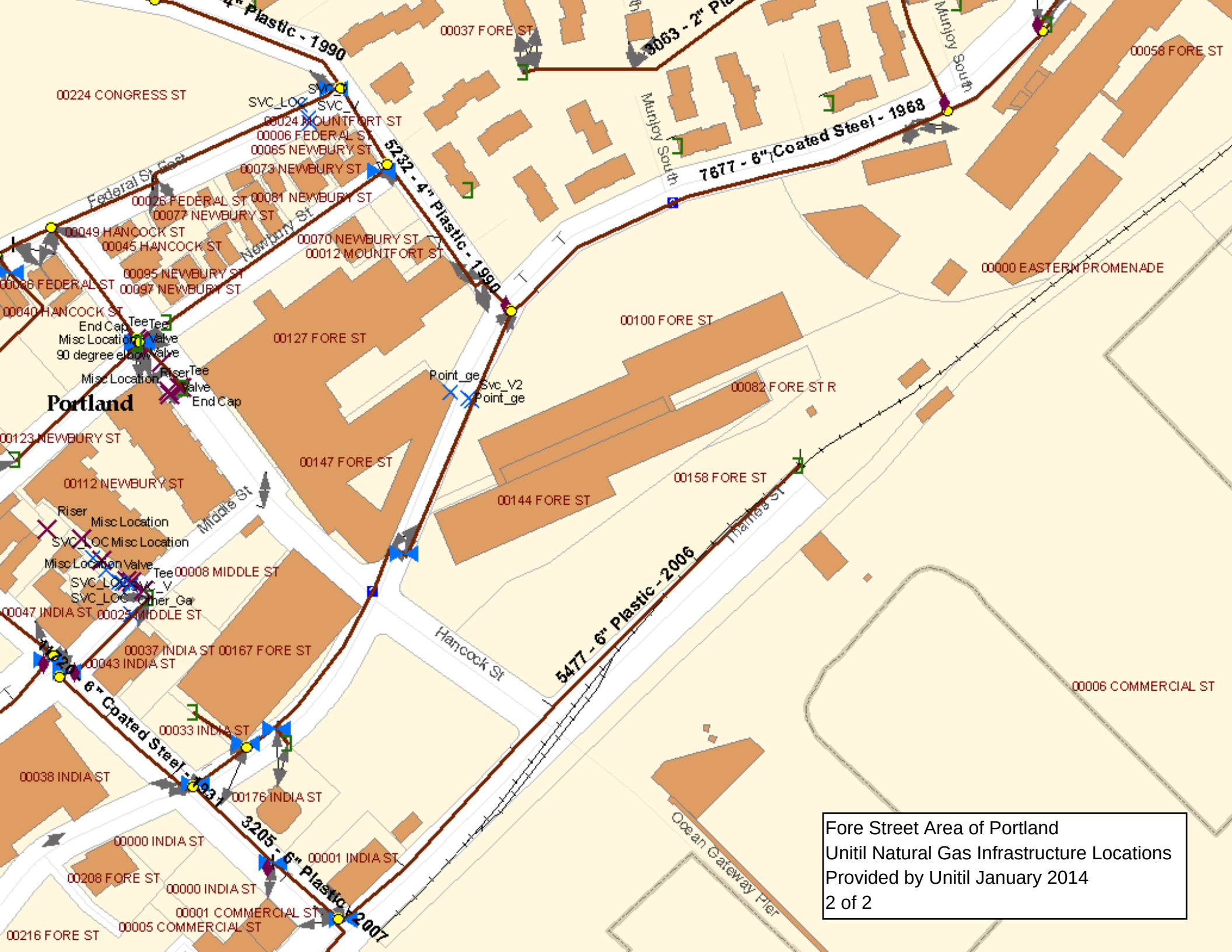
SCALE 1" = 400'	DATE 2-26-62

SURVEY	PLOT	TRACED	FIELD BOOK	OTHER PLAN REF.	JOB NO.	PLAN FILE NO.
	JMR	JMR				374

STANDARD PRODUCTS INC. PORT WASHINGTON, N.Y.



Fore Street Area of Portland
Unitil Natural Gas Infrastructure Locations
Provided by Unitil January 2014
1 of 2



Fore Street Area of Portland
Unitil Natural Gas Infrastructure Locations
Provided by Unitil January 2014
2 of 2

COMMITMENT & INTEGRITY
DRIVE RESULTS

41 Hutchins Drive
Portland, Maine 04102
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

WOODARD &CURRAN

September 16, 2016

Scott Carpenter
Unitil ME Gas Operations
376 Riverside Industrial Parkway
Portland, ME 04103

Re: Natural Gas Service Request – 58 Fore Street Re-development, Portland, Maine

Dear Scott:

On behalf of CPB2, LLC, this letter serves as written request for confirmation of availability to serve natural gas for the above-referenced project. CPB2 is submitting a Master Development Plan Application for the proposed re-development of the former Portland Company Complex located at 58 Fore Street in Portland, Maine, and is required to demonstrate to the City of Portland that there is adequate capacity to serve the proposed development.

As previously discussed, the proposed development will be a multi-phased, mixed-use development with commercial, residential, office, retail, restaurant, marina and public open space uses. A new six-inch plastic gas main was installed to the end of Thames Street in 2007 as part of the Ocean Gateway project; the proposed development will connect to this gas main via an extension of Thames Street and the associated gas main. The natural gas service entrance location will be off of the Thames Street extension, as shown on the attached plans. We anticipate individual metering will be required for approximately 638 residential units. The proposed development is depicted on the attached plans.

The proposed development will have a total gross floor area of approximately 941,129 square feet (SF) and will consist of the following uses:

- Residential Mix of Condominiums and Apartments (656,739 SF);
- Retail (50,273 SF);
- Office (123,917 SF);
- Hotel (98,000 SF/132 Rooms);
- Restaurant (3,800 SF);
- Function (5,800 SF); and
- Marina Facilities (2,600 SF).

Please note that these uses may be subject to change during future design phases and that anticipated service demands will be coordinated as the design progresses during future permit submissions.

Please provide our office with a letter of confirmation that Unitil has the capacity to service this development, an estimate of the costs for service installation, and any additional information or requirements concerning natural gas service for the Site. We appreciate your assistance. If you have any questions or require any additional information, please do not hesitate to contact me at 207-558-3704.

Sincerely,

WOODARD & CURRAN



David Senus, PE
Project Manager

Enclosure: Master Site Plan

cc: Christine Grimando, City of Portland Senior Planner
Jim Brady, CPB2, LLC

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41 Hutchins Drive
Portland, Maine 04102
www.woodardcurran.com

T 800.426.4262
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F 207.774.6635

WOODARD &CURRAN

September 16, 2016

Paul Duperre
Central Maine Power
162 Canco Road
Portland, ME 04103

Re: Electric Service Request – 58 Fore Street Re-development, Portland, Maine

Dear Paul:

On behalf of CPB2, LLC, this letter serves as written request for confirmation of availability to serve electric power for the above-referenced project. CPB2 is submitting a Master Development Plan Application for the proposed re-development of the former Portland Company Complex located at 58 Fore Street in Portland, Maine, and is required to demonstrate to the City of Portland that there is adequate capacity to serve the proposed development. The proposed development is depicted on the attached Master Site Plan and will be a multi-phased, mixed-use development with a total gross floor area of approximately 941,129 square feet (SF) consisting of the following uses:

- Residential Mix of Condominiums and Apartments (656,739 SF);
- Retail (50,273 SF);
- Office (123,917 SF);
- Hotel (98,000 SF/132 Rooms);
- Restaurant (3,800 SF);
- Function (5,800 SF); and
- Marina Facilities (2,600 SF).

We have not estimated power load demands for the upland uses on the site; however, the estimated daily Marina power demand is 3,010 (kVA). Please note that proposed uses and estimated demands may be subject to change during future design phases and that anticipated service demands will be coordinated as the design progresses during future permit submissions.

The construction of Thames Street as part of the Ocean Gateway project included installation of underground conduit to allow for future underground electrical services in the area. As discussed at our meeting on July 27, 2016, it is our understanding that the Site would be best serviced from an extension of below ground electrical from the extension of Thames Street and associated utilities into the Site. As described via email to you on September 14, 2016, the City of Portland has confirmed that the duct banks in Thames Street are a public amenity to allow CMP and other telecomm utilities to pull their wires and services to adjacent sites, including the 58 Fore Street property.

Please provide our office with a letter of confirmation that CMP has the capacity to service this development via Thames Street, an estimate of the costs for work associated with servicing the Site

from Thames Street, and any additional information or requirements concerning the proposed work (i.e. components needed for electrical service to the Site, such as number of conduits). We appreciate your assistance. If you have any questions or require any additional information, please do not hesitate to contact me at 207-558-3704.

Sincerely,

WOODARD & CURRAN

David Senus, PE
Project Manager

Enclosure: Master Site Plan

cc: Christine Grimando, City of Portland Senior Planner
Jim Brady, CPB2, LLC

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F 207.774.6635

WOODARD &CURRAN

September 16, 2016

Portland Water District MEANS Group
225 Douglass Street
PO Box 3553
Portland, ME 04104-3553

Re: Service Request – 58 Fore Street Redevelopment, Portland, Maine

To Whom It May Concern:

On behalf of CPB2, LLC, this letter serves as written request for availability to serve water and treat sanitary sewer for the above-referenced project. CPB2 is submitting a Master Development Plan Application for the proposed re-development of the former Portland Company Complex located at 58 Fore Street in Portland, Maine, and is required to demonstrate to the City of Portland that PWD has sufficient capacity to supply water service and treat wastewater to serve the proposed development. The proposed development is depicted on the attached Master Site Plan and will be a multi-phased, mixed-use development with commercial, residential, office, retail, restaurant, marina and public open space uses.

With the Ocean Gateway project completed in 2007, new utility lines, including a 12-inch water main, were installed to the end of Thames Street; the proposed development will be serviced by utilities via an extension of Thames Street and associated utilities into the Site. Total estimated water demand for the landside portion of the development is approximately 186,700 gallons per day (GPD) and the total estimated sanitary demand is approximately 169,700 GPD (calculations are attached). Additionally, Applied Technology & Management has calculated the water and sanitary demands for the marina facility, which are 28,800 GPD and 14,410 GPD, respectively. Please note that the estimated demands are based on planning-level uses that may be subject to change during future design phases and that changes in anticipated service demands will be coordinated as the design progresses during future permit submissions.

Site phasing and lot ownership configuration are still being determined at this time, and information will be provided when available. The proposed development block characteristics are indicated in the table below:

Table 1: Development Block Proposed Characteristics

Development Block	Allowable Height by Zoning	Proposed Use	Current GFA (as of September 2016)	Proposed Parking Areas
B1	35 feet	retail, residential, office	169,278	Structured parking beneath B1
B2	35 – 45 feet	retail, residential, office	72,941	Structured parking beneath B4/B5/B6
B3	35 feet	retail, office	30,800	Structured parking beneath B4/B5/B6
B4	45 - 65 feet	residential, retail	247,860	Structured parking beneath B4/B5/B6
B5	45 – 55 feet	residential, hotel, restaurant, function	247,650	Structured parking beneath B4/B5/B6
B6	45 – 55 feet	residential, B4-B6 connector	187,550	Structured parking beneath B4/B5/B6
B7 – Marina		marina	2,600	Structured parking beneath B4/B5/B6
Subtotal*			**958,679**	
Parking			435,200	
Total Project			**1,393,879**	
***Subtotal Breakdown by Use**				
Total Residential GSF			656,739	
Total Retail GSF			50,273	
Total Office GSF			123,917	
Total Hotel GSF			98,000	
Total Restaurant GSF			3,800	
Total Function GSF			5,800	
Total B4-B6 Connector GSF			17,550	
Total Marina Facilities GSF			2,600	

Please provide our office with a letter of confirmation that the Portland Water District has the capacity to supply water service and treat wastewater for this development, and any additional information or requirements concerning service for the Site. We appreciate your assistance. If you have any questions or require any additional information, please do not hesitate to contact me at 207-558-3704.

Sincerely,

WOODARD & CURRAN

David Senus, PE
Project Manager

Enclosure: Master Site Plan & Demand Calculations

cc: Jay Arnold, PWD
Christine Grimando, City of Portland Senior Planner
Jim Brady, CPB2, LLC

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991

Date: September 16, 2016

Mr. Frank J. Brancely,
Senior Engineering Technician,
Phone #: (207) 874-8832,
Fax #: (207) 874-8852,
E-mail:fjb@portlandmaine.gov

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

Site Address: 58 Fore Street, Portland ME

Chart Block Lot Number: Tax Map 18A, Lots 1, 2, & 3

Proposed Use: Mixed-Use

Previous Use: Warehouse & Parking

Existing Sanitary Flows: Unknown GPD

Existing Process Flows: Unknown GPD

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

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

A new 12-inch sanitary sewer line was installed in the eastern end of Thames Street as part of the Ocean Gateway Project. The road and associated sewer line will be extended and a sewer service will be brought into the Site.

(Clearly, indicate the proposed connections, on the submitted plans)

2. Please, Submit Contact Information.

City Planner's Name: Barbara Barhydt Phone: 207-874-8699

Owner/Developer Name: CPB2 LLC, c/o Jim Brady

Owner/Developer Address: PO Box 7987, Portland ME

Phone: 207-558-3704 Fax: E-mail: jameshbrady@gmail.com

Engineering Consultant Name: Woodard & Curran, c/o David Senus, PE

Engineering Consultant Address: 41 Hutchins Drive, Portland ME

Phone: 207-558-3704 Fax: E-mail: dsenus@woodardcurran.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. *Refer to attached calculations

Estimated Domestic Wastewater Flow Generated: 169,700 (Landside) & 14,410 (Marina) GPD

Peaking Factor/ Peak Times: 5 (Landside) & 5.6 (Marina) *Per TR-16 Guides for the Design of Wastewater Treatment Works

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,* X *Other (specify)*

As noted above

(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.

External Grease Interceptor Calculations will be prepared and submitted as part of future Site Plan Applications; the estimated Domestic Wastewater Design Flows are being submitted as part of a Master Development Plan Submission.

Total Drainage Fixture Unit (DFU) Values: _____

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: _____ 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 below, or attached, as a separate sheet)

Notes, Comments or Calculation

WOODARD &CURRAN
41 HUTCHINS DRIVE
PORTLAND, MAINE 04102
TEL. (207) 774-2112
FAX (207) 774-6635

CLIENT CPB2
PROJECT 58 Fore St. Re-development
DESIGNED BY AEA DATE 9-12-16
CHECKED BY _____ DATE _____
PROJECT NO. 227007.03 SHEET NO. 1 OF 2

Sewer Demand Calculations

* Note: Design Flows based on Table 4A + Table 4C of Ch. 241 (2015 Maine Subsurface Wastewater Disposal Rules)

Dwelling Units:

638 Residential Units

90% = 2 bedrooms or less @ 180 GPD => 103,400 GPD
10% = 3 bedrooms @ 270 GPD => 17,230 GPD

Office Space:

$123{,}917\ SF \times \frac{1\ Employee}{221\ SF} \times \frac{12\ GPD}{Employee}$ => 6,730 GPD

Function Space (Assembly Area):

$5{,}800\ SF \times \frac{1\ person}{15\ SF} \times \frac{2\ GPD}{person}$ => 773 GPD

Restaurant (3 meals/day):

$50\%\ (3{,}800\ SF) \times \frac{1\ Seat}{15\ SF} \times \frac{30\ GPD}{Seat}$ => 3,800 GPD

$50\%\ (3{,}800\ SF) \times \frac{1\ Seat}{15\ SF} \times \frac{1\ Employee}{15\ Seats} \times \frac{12\ GPD}{Employee}$ => 101 GPD

Hotel:

$132\ Keys \times \frac{100\ GPD}{Key}$ => 13,200 GPD

$132\ Keys \times \frac{0.75\ Employee}{Key} \times \frac{12\ GPD}{Employee}$ => 1,188 GPD

Calculation's Cont'd NEXT PAGE →

WOODARD &CURRAN
41 HUTCHINS DRIVE
PORTLAND, MAINE 04102
TEL. (207) 774-2112
FAX (207) 774-6635

CLIENT CPB2
PROJECT 58 Fore St. Re-development
DESIGNED BY AEA DATE 9-12-16
CHECKED BY _____ DATE _____
PROJECT NO. 227007.03 SHEET NO. 2 OF 2

Sewer Demand Calculations Cont'd...

Marina w/Bathrooms:

$$147 \text{ Slips} \times \frac{140 \text{ GPD}}{\text{Slip}} \Rightarrow 20{,}600 \text{ GPD}$$

Retail (Shopping Centers)

$$50{,}273 \text{ SF} \times \frac{1 \text{ employee}}{383 \text{ SF}} \times \frac{12 \text{ GPD}}{\text{Employee}} \Rightarrow 1{,}575 \text{ GPD}$$

$$50{,}273 \text{ SF} \times \frac{1 \text{ employee}}{383 \text{ SF}} \times \frac{1 \text{ toilet}}{40 \text{ Employees}} \times \frac{325 \text{ GPD}}{\text{toilet}} \Rightarrow 1{,}066 \text{ GPD}$$

Total Sewer Demand = 169,700 GPD

Water Demand = 1.1 (Sewer Demand) => 186,700 GPD

Marina Sewer Demand = 14,410 GPD
(from Applied Technology + Management)
Marina Water Demand = 28,800 GPD
(from Applied Technology + Management)

15. BOUNDARY SURVEY

A boundary survey of the Site was completed by Owen Haskell, Inc., in August, 2016, and is included with the Site Civil Plan set.

COMMITMENT & INTEGRITY
DRIVE RESULTS

41 Hutchins Drive
Portland, Maine 04102
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

Att. P

Via FedEx

September 16, 2016

Alison Sirois, Director of Land Enforcement
Maine Department of Environmental Protection
Southern Maine Regional Office
312 Canco Road
Portland, Maine 04103

Re: 58 Fore Street Re-development
Site Law Determination

Dear Alison:

On behalf of CPB2, LLC, Woodard & Curran is writing to confirm that the Site Location of Development Law (Site Law) does not apply to the proposed re-development of the former Portland Company Complex located at 58 Fore Street in Portland. The proposed project Site encompasses three parcels owned by CPB2, LLC. The parcels are identified as Tax Map 18A, Lots 1, 2, and 3. Lot 2 is located along the waterfront, separated from Lots 1 and 3 by a linear parcel owned by the State of Maine. A survey completed by Owen Haskell, Inc. in May 2013 identifies the areas of Lots 1 and 2 at 6.04 acres and 1.02 acres respectively, and Lot 3 as 2.87 acres for a total of 9.93 acres.

We have assessed the proposed re-development project under Site Law and have determined that it does not meet the definition of "development of state or regional significance that may substantially affect the environment." The property is less than 20 acres and the development is not oil or gas exploration or production activity, an oil terminal facility or an offshore wind power project. Therefore, the only question remaining is whether the development is a structure, i.e. does it contain "buildings, parking lots, roads, paved areas, wharves or areas to be stripped or graded and not to be revegetated that cause a total project to occupy a ground area in excess of 3 acres."

The property at 58 Fore Street was first developed in 1857, as part of the Portland Company. By 1970, the majority of the property was covered by roads, parking lots and buildings. The proposed re-development of the site will reuse many of the buildings and associated facilities existing on January 1, 1970 and therefore is exempted from review under 38 M.R.S. § 488. Accordingly, the Department may not consider the redevelopment of those areas in its determination of whether the proposed development meets the 3-acre threshold.

A 1969 aerial photograph of the Site was found in the records available from the City of Portland Public Works Department Archives Vault. Only approximately 2.83 acres of the 1969 Site was vegetated, such that much of the Site was developed and consisted of "structure" prior to January 1, 1970.

The proposed redevelopment project will result in approximately 2.77 acres of new buildings, parking lots, roads and paved areas. Attached is a Figure that shows the structure area from 1969, the proposed condition, and the resulting new structure area upon future buildout. Since the total proposed new structure area will be less than three acres, the 3-acre structure threshold is not met. Based on these findings, it is our understanding that the proposed project will not be subject to Site Location of Development standards.

Although we understand that the project will not be subject to Site Location of Development standards, substantial review of the project has and will occur by Local, State and Federal regulatory agencies. Specifically, in 2014 and 2015 the property was re-zoned in accordance with a zone change application reviewed by the City of Portland Planning Board and approved by the Portland City Council for consistency with the City's Comprehensive Plan; in 2015 and 2016 the City of Portland Historic Preservation Board recommended and the Portland City Council approved a Historic District designation on portions of the property; the property owner is currently preparing a Master Development Plan to be submitted to and reviewed by the City of Portland Planning Board for consistency with the City's Land Use Code; future development of each building or development blocks on the site will be subject to Site Plan review by the City of Portland Planning Board for consistency with the City's Land Use Code; and redevelopment of the marina and any modifications to the sea wall or stormwater outfalls will be subject to review by the MaineDEP for compliance with the Natural Resources Protection Act and US Army Corps of Engineers for compliance with the Maine General Permit.

It should also be noted that, because the proposed project will disturb more than one acre of land, MaineDEP Stormwater Law applies and a Stormwater Permit will be required. The proposed project will create more than one acre of new impervious area, and will therefore be required to comply with the Basic and General Standards of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Maine Construction General Permit. The City of Portland has delegated review for Chapter 500 Stormwater Permits, so approval will be obtained as part of the formal Site Plan application, to be submitted at a later date. The City of Portland recently adopted changes to their Stormwater Standards that require treatment of redevelopment areas beyond the standards of the Chapter 500 Stormwater Management Rules; as such we anticipate that stormwater quality treatment utilizing technologies acceptable under the General Standards will be provided for a substantial area of the site, a significant improvement over the existing site condition, which has no stormwater treatment systems in place.

Please do not hesitate to contact me if you have any questions or require additional information.

Sincerely,

WOODARD & CURRAN

David Senus, PE
Project Manager

AEA/das

Enclosure(s) Site Law Determination Figure

cc: CPB2 LLC – c/o James Brady, Kevin Costello, Casey Prentice
Barbara Barhydt, Development Review Services Manager, City of Portland Planning Division
Mary E. Costigan, Bernstein Shur

PLAN NOTES:

1. THE PURPOSE OF THESE FIGURES IS TO DETERMINE WHETHER THE PROPOSED PROJECT TRIGGERS THE REGULATORY THRESHOLDS FOR PERMITTING UNDER MAINEDEP SITE LOCATION OF DEVELOPMENT (SITE LAW) BASED ON "STRUCTURE" AREA.

2. "STRUCTURE" IS DEFINED AS BUILDINGS, PARKING LOTS, ROADS, PAVED AREAS, WHARVES OR AREAS TO BE STRIPPED OR GRADED AND NOT TO BE REVEGETATED WHICH CAUSE A TOTAL PROJECT TO OCCUPY A GROUND AREA IN EXCESS OF THREE ACES. FOR THE PURPOSES OF THIS EVALUATION, ANY NON-VEGETATED AREAS ARE ASSUMED TO BE STRUCTURE.

3. THE EFFECTIVE DATE FOR SITE LOCATION OF DEVELOPMENT LAW WAS JANUARY 1, 1970, AND THE "STRUCTURE" THRESHOLD UNDER SITE LAW WAS IMPLEMENTED ON OCTOBER 1, 1975. DEVELOPMENT THAT WAS IN PLACE PRIOR TO 1970 IS CONSIDERED TO BE GRANDFATHERED AND EXEMPT FROM SITE LAW REGULATION, AND ANY STRUCTURE ADDED AFTER THIS DATE IS CONSIDERED "NEW STRUCTURE".



LEGEND

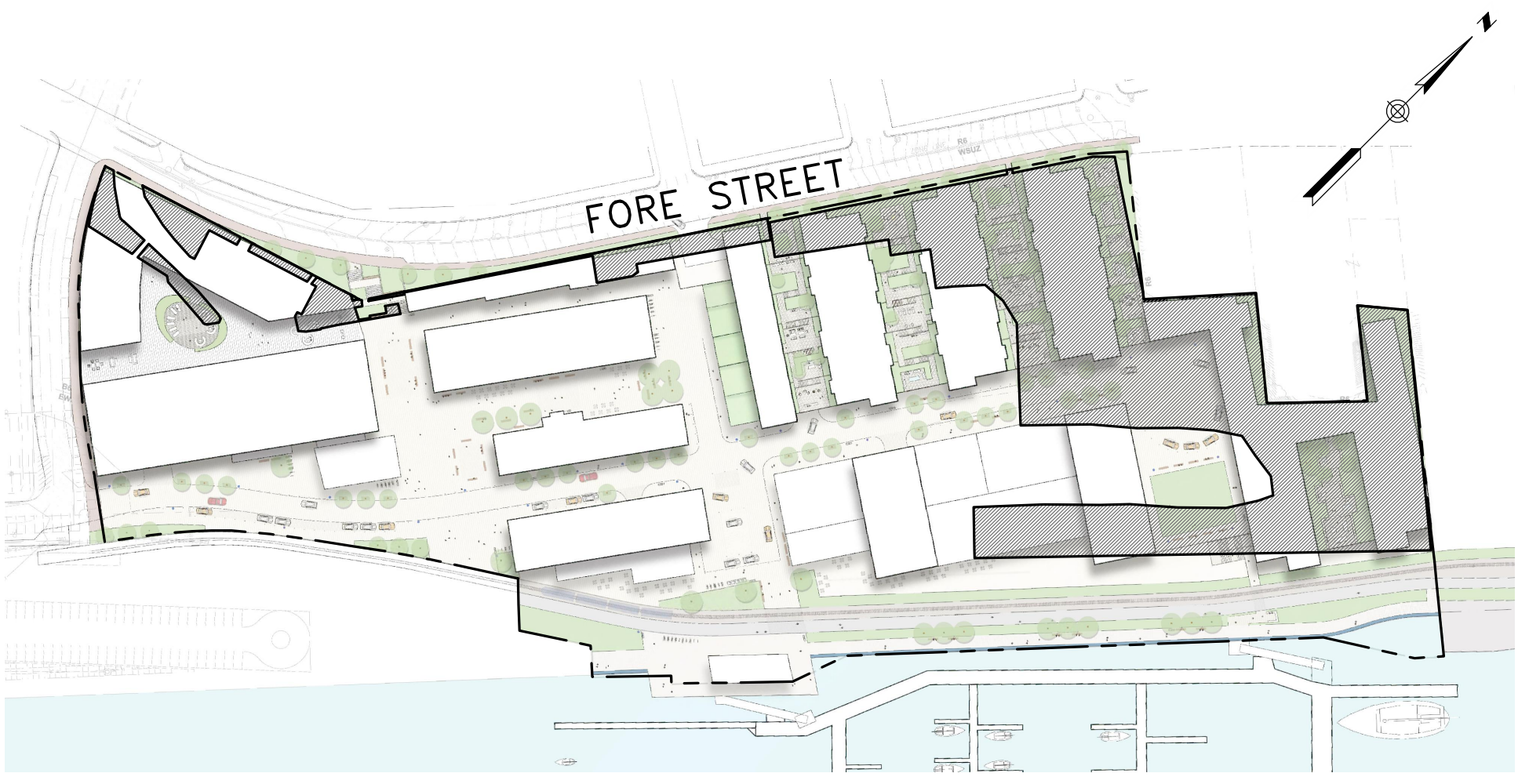
NON-"STRUCTURE" AREA
123,107 S.F. = 2.83 ACRES

150' 0 150' 300'

BAR SCALE
1" = 150'
CHECK GRAPHIC SCALE BEFORE USING

PRE-SITE LAW CONDITIONS - 1969

SCALE: 1"=150'



LEGEND

PROPOSED NEW "STRUCTURE" AREA
(1969 TO FUTURE BUILDOUT)
120,489 S.F. = 2.77 ACRES

150' 0 150' 300'

BAR SCALE
1" = 150'
CHECK GRAPHIC SCALE BEFORE USING

PROPOSED NEW "STRUCTURE" AREA

SCALE: 1"=150'

Att. Q

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

September 21, 2016

Dear Neighbor:

Please join us for a neighborhood meeting to discuss our **Master Development Plan for 58 Fore Street** located along Portland's eastern waterfront.

Meeting Location: 58 Fore Street, Portland, ME – Room with a View (Building 6 – second floor)
Meeting Date: Tuesday, October 4, 2016
Meeting Time: 6:00 p.m. – 8:00 p.m.

The City code requires that property owners within 500 feet of the proposed development and residents on an "interested parties list," be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board. We will give a brief presentation on the Master Development Plan, followed by an opportunity for public questions and comments.

If you have any questions, please call Mary McCrann with Woodard and Curran at (207) 558-3783.

Sincerely,

Jim Brady
CPB2 LLC – co-manager

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

Bay House Trip Generation and Parking Demands
In support of 58 Fore Street Project – Portland, Maine
JN 3138

Date: September 28, 2016
Subject: Bay House Trip Generation and Parking Demands
To: City: Jeremiah Bartlett, Christine Grimando, Tom Errico
Client: Jim Brady, Kevin Costello, Casey Prentice, David Senus, Mary McCrann
From: Randy Dunton, Gorrill Palmer (JN 3138)

Per the request of the City, Gorrill Palmer (GP) completed a trip generation and parking assessment at the Bay House parking structure to calculate trip generation rates and parking demand for residential units in the Portland area. The purpose of this task is to compare the results and methodology to that used for the 58 Fore Street project. The following is a summary of the background information, trip generation, and parking demand:

Bay House Information

Michelle Bellino, Property Manager for the Bay House, provided GP with information on the Bay House that was used for this study. The Bay House has 86 residential condominium units and 6 non-residential condominium units, and is at full occupancy. The parking structure below the condominiums is used by 75 of the residential units. The 11 one bedroom and studio condominiums use the Ocean Gateway Garage and visitors of the 6 non-residential units park on Hancock Street and Middle Street. This study has focused on the 75 residential units that use the Bay House parking garage. The Bay House parking garage has one vehicular access on Middle Street.

Trip Generation

Gorrill Palmer completed turning movement counts at the Bay House parking garage entrance on Middle Street on September 13, 2016 from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM. The results of these counts are shown on the attached Figure 2. Figure 2 shows both the peak hour of the adjacent street and the peak hour of the Bay House parking garage.

Counted Trip Generation for Bay House

The trip generation of the site is the number of trip ends in and out of the parking garage during the AM and PM peak hours. Since the non-residential units and the 11 one bedroom and studio condominiums do not use the Bay House parking garage, the calculations for trip generation rate are based on the 75 units that use the Bay House parking garage. As shown on Figure 2, the peak hours of the adjacent street are 7:30 AM to 8:30 AM and 4:15 PM to 5:15 PM. The peak hours

of Bay House traffic are 7:00 AM to 8:00 AM and 4:30 PM to 5:30 PM. The trip generation rate for each peak hour was calculated by dividing the number of trip ends in and out during the peak hour by the 75 units that use the parking garage. The following table summarizes the Bay House trip generation during the peak hours and the calculated trip generation rate. The detailed calculations are attached.

Bay House Trip Generation Summary

Peak Hour	Counted Trip Generation (trip ends)	Trip Generation Rate (trip ends per unit)
AM Peak Hour Adj. Street	13 (1 in / 12 out)	0.173 (8% in / 92% out)
PM Peak Hour Adj. Street	10 (7 in / 3 out)	0.133 (70% in / 30% out)
AM Peak Hour Bay House	16 (3 in / 13 out)	0.213 (19% in / 81% out)
PM Peak Hour Bay House	11 (7 in / 4 out)	0.147 (64% in / 36% out)

Calculated Trip Generation for Bay House

The Institute of Transportation Engineers (ITE) publication, *Trip Generation*, 7th Edition was used to forecast the trip generation if a new similar facility were proposed. Although the 9th Edition is available, the MaineDOT only accepts the 7th Edition for Traffic Movement Permit Applications. This is consistent with the methodology used for 58 Fore Street.

Trip Generation Reductions

In a downtown area, two reductions are often applied to trip generation; a "shared use" reduction and an "other modes of transportation" reduction. For comparison purposes, the same reductions used for the 58 Fore Street development were applied to the Bay House ITE trip generation. The "shared use" reduction for 58 Fore Street was calculated using the NCHRP 684 Internal Trip Capture Estimation Tool and the "other modes of transportation" reduction was calculated using US Census data, provided by the Greater Portland Council of Governments. A detailed summary of the calculations and sources for these reductions can be found in the "Site Parking Demands" memo dated September 16, 2016 which was previously submitted to the City. The calculated "shared use" reduction for 58 Fore Street is 13% during the AM peak hour and 16% during the PM peak hour. The calculated "other modes of transportation" reduction for 58 Fore Street is 35.8% for the residential units. The following table summarizes the Bay House ITE trip generation, the trip generation reductions, and the reduced trip generation for each peak hour.

Calculated Trip Generation Summary – Bay House

Peak Hour	ITE Trip Generation Rate (trips per unit)	ITE Trip Generation	Shared Use Reduction (13% AM, 16% PM)	Other Modes Reduction (35.8%)	Calculated Trip Generation
AM Peak Hour Adj. Street	0.44 (15% in / 85% out)	33 (5 in / 28 out)	4 (1 in / 3 out)	12 (2 in / 10 out)	17 (2 in / 15 out)
PM Peak Hour Adj. Street	0.52 (65% in / 35% out)	39 (25 in / 14 out)	6 (4 in / 2 out)	14 (9 in / 5 out)	19 (12 in / 7 out)
AM Peak Hour Bay House	0.44 (20% in / 80% out)	33 (7 in / 26 out)	4 (1 in / 3 out)	12 (3 in / 9 out)	17 (3 in / 14 out)
PM Peak Hour Bay House	0.52 (65% in / 35% out)	39 (25 in / 14 out)	6 (4 in / 2 out)	14 (9 in / 5 out)	19 (12 in / 7 out)

It should be noted that the Bay House would be expected to have a lower "shared use" reduction than 58 Fore Street since 58 Fore Street is proposed to have more complementary uses on site than the area around Bay House. A lower "shared use" reduction would result in a higher Calculated Trip Generation than shown in the table. The Bay House would be expected to have a similar "other modes of transportation" reduction since it is located in a Census Tract that was used to calculate the 58 Fore Street reduction.

Trip Generation Comparison – Counted vs. Calculated

The following table summarizes the comparison of the Bay House counted trip generation and the calculated trip generation:

Trip Generation Comparison – Counted vs. Calculated

Peak Hour	Counted Trip Generation	Calculated Trip Generation	Difference
AM Peak Hour Adj. Street	13	17	-4
PM Peak Hour Adj. Street	10	19	-9
AM Peak Hour Bay House	16	17	-1
PM Peak Hour Bay House	11	19	-8

As shown in the table, the calculated trip generation is higher than the counted trip generation during all peak hours. As noted previously, the "shared use" reduction for Bay House is expected to be lower than that for 58 Fore Street, which would result in an even higher calculated trip generation. However, even with the conservative higher "shared use" reduction, the calculated trip generation is still greater than the counted trip generation. This comparison indicates that the 58 Fore Street calculated trip generation for the residential units after reductions have been applied are anticipated to be higher than what may actually be on the adjacent roadway network.

Parking Demand

Bay House

Bay House parking counts were completed on September 13, 2016 at 9:00 AM, directly following the morning turning movement count, and at 4:00 PM, directly before the afternoon turning movement count. These counts inventoried the number of vehicles parked in the garage. At 9:00 AM there were 43 vehicles parked in the parking garage and at 4:00 PM there were 40 vehicles parked in the parking garage. Using the turning movement counts discussed in the previous section, GP calculated that there were 61 vehicles parked in the parking garage at 7:00 AM and 47 vehicles parked in the parking garage at 6:00 PM. The peak parking demand for residential units would be expected to occur between 6:00 AM and 7:00 AM, before residents of the condominiums leave for the day.

58 Fore Street

The parking demand for the 58 Fore Street site was determined by calculating the parking demand for the individual uses, applying a factor to distribute the demand throughout the day, and then adding the demand for each time period, for each use, to determine the overall peak parking demand. The parking rate used for residential units in 58 Fore Street was 1 space per unit. The parking demand factors represent how much of the total demand will be used at a specific time.

Bay House vs. 58 Fore Street

The 58 Fore Street parking demand factor for 6:00 AM to 7:00 AM is 0.84. Using the parking rate of 1 space per unit and parking demand factor of 0.84, the theoretical demand for the 75 Bay House units that use the parking garage would be 63 vehicles from 6:00 AM to 7:00 AM. There were 61 vehicles parked in the Bay House garage just before 7:00 AM. Based on this, using the base rate and AM parking demand factor yields a parking demand consistent with the actual conditions. The parking demand factor at 6:00 PM is 0.69, which would yield a parking demand of 52 vehicles for the 75 Bay House units. This is higher than the actual demand of 47 vehicles at 6:00 PM, which suggests that the parking demand factor of 0.69 may be conservative at 6:00 PM.

Conclusions

The following is a summary of the conclusions:

1. The calculated trip generation for the Bay House is higher than the actual counted trip generation. This includes a reduction in the calculated trip generation for "shared use" and "other modes of transportation" consistent with the methodologies used in the 58 Fore Street project. This indicates that the trip generation for the residential units of the 58 Fore Street project may be somewhat higher than will actually occur.

2. The calculated AM peak hour parking demand for the Bay House is consistent with the actual counted parking demand. The calculated PM peak hour parking demand for the Bay House was slightly higher than the actual counted parking demand. This indicates that the parking demand calculated for the residential portion of the 58 Fore Street project should be consistent with the actual parking demand during peak AM time periods and slightly conservative for the peak PM time periods.

Location Map

Figure No. 1



BAY HOUSE STUDY
PORTLAND, MAINE

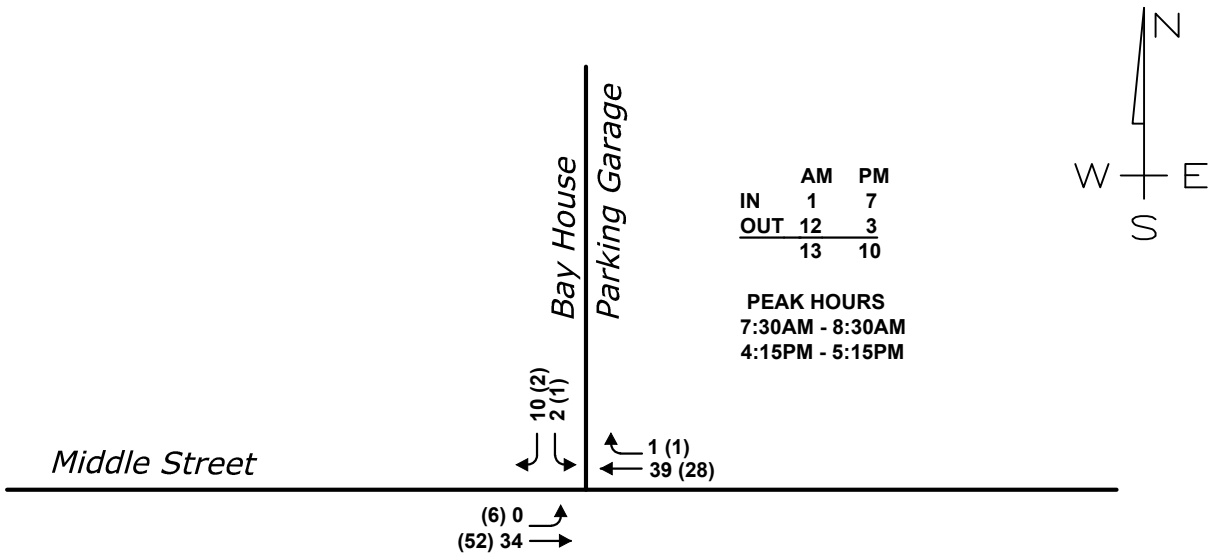
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Checked:	RED	File Name:	3138-TRAFF2.dwg

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207.772.2515

Raw Volumes

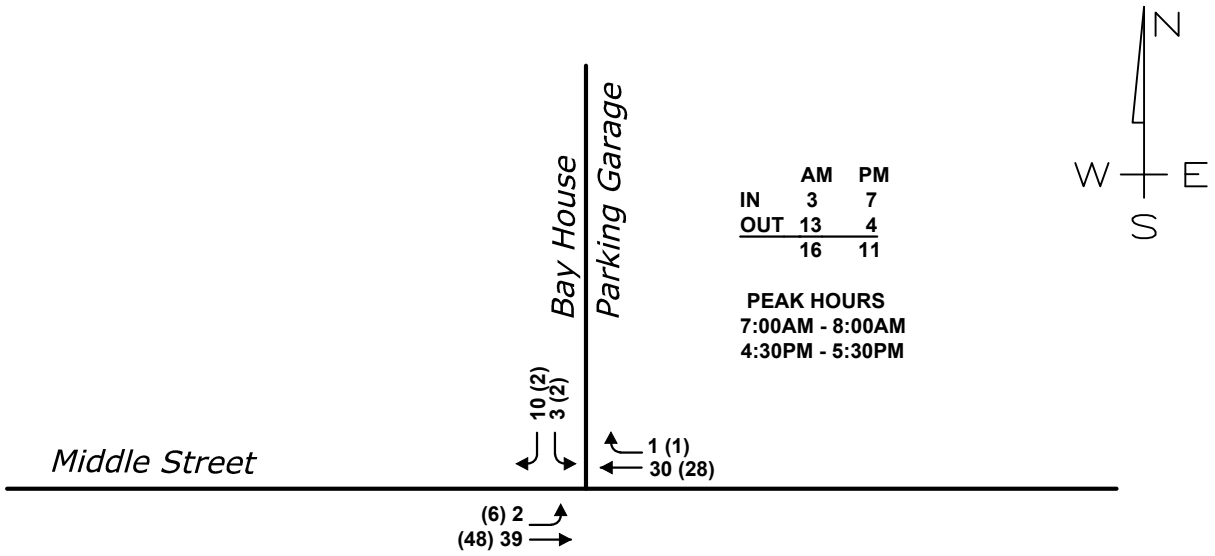
Figure No. 2

Peak Hour of the Adjacent Street



XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

Peak Hour of Bay House



XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

BAY HOUSE STUDY
PORTLAND, MAINE

Design: EAT Scale: NONE
Draft: LAN Date: SEPT 2016
Checked: RED File Name: 3138-TRAFF2.dwg

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JOB 3138-58 Fore Street
SHEET NO. _____ OF _____
CALCULATED BY ET DATE 9/15/16
CHECKED BY _____ DATE _____
SCALE _____

BayHouse Trip Generation

86 units → 11 one bedroom/studios - Park in Ocean Gateway
→ 75 two bedroom or larger - Park on site

AM Peak Hour (Adj Street): 7:30-8:30AM

1 in / 12 out → 13 trip ends 8% entering, 92% exiting

$\frac{13}{75}$ = 0.173 trips/unit

PM Peak Hour (Adj. Street): 4:15 - 5:15PM

7 in / 3 out → 10 trip ends 70% entering, 30% exiting

$\frac{10}{75}$ = 0.133 trips/unit

AM Peak Hour of Generator: 7:00AM - 8:00AM

3 in / 13 out → 16 trip ends 19% entering, 81% exiting

$\frac{16}{75}$ = 0.213 trips/unit

PM Peak Hour of Generator: 4:30PM - 5:30PM

7 in / 4 out → 11 trip ends 64% entering, 36% exiting

$\frac{11}{75}$ = 0.147 trips/unit

JN: 3158
Project Description: 58 Fore Street - Bay House
Project Location: Portland, Maine
Date: September 16, 2016

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Residential Condominium/Townhouse
Land Use Code (LUC) 230

Dwelling Units: 75

Average Rate

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split * IN	Directional Split * OUT	Directional Distribution IN	Directional Distribution OUT	R^2
Weekday	**T = 5.86 (X)**	**54**	**440**	**50%**	**50%**	**220**	**220**	**N/A**
Peak Hour of Adjacent Street Traffic 7-9 AM	**T = 0.44 (X)**	**59**	**33**	**15%**	**85%**	**5**	**28**	**N/A**
Peak Hour of Adjacent Street Traffic 4-6 PM	**T = 0.52 (X)**	**62**	**39**	**65%**	**35%**	**25**	**14**	**N/A**
AM Peak Hour of Generator	T = 0.44 (X)	52	33	20%	80%	7	26	N/A
PM Peak Hour of Generator	T = 0.52 (X)	50	39	65%	35%	25	14	N/A
Saturday	T = 5.67 (X)	30	425	50%	50%	213	212	N/A
Saturday Peak Hour of Gen.	T = 0.47 (X)	27	35	55%	45%	19	16	N/A

* Percentages rounded to nearest 5%

Fitted Curve Equation

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split * IN	Directional Split * OUT	Directional Distribution IN	Directional Distribution OUT	R^2
Weekday	Ln(T) = 0.85 Ln(X) + 2.55	54	503	50%	50%	252	251	0.83
Peak Hour of Adjacent Street Traffic 7-9 AM	Ln(T) = 0.80 Ln(X) + 0.26	59	41	15%	85%	6	35	0.76
Peak Hour of Adjacent Street Traffic 4-6 PM	Ln(T) = 0.82 Ln(X) + 0.32	62	47	65%	35%	31	16	0.80
AM Peak Hour of Generator	Ln(T) = 0.82 Ln(X) + 0.17	52	41	20%	80%	8	33	0.80
PM Peak Hour of Generator	T = 0.34 (X) + 38.31	50	64	65%	35%	42	22	0.83
Saturday	T = 3.62 (X) + 427.93	30	699	50%	50%	350	349	0.84
Saturday Peak Hour of Gen.	T = 0.29 (X) + 42.63	27	64	55%	45%	35	29	0.84

* Percentages rounded to nearest 5%

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JOB 3138-58 Fore Street
SHEET NO. _____ OF _____
CALCULATED BY ET DATE 09/16/16
CHECKED BY _____ DATE _____
SCALE _____

Bay House Parking

Parked vehicles after AM count (9 AM) = 43 vehicles

Total in during AM count: 3 vehicles
Total out during AM count: 21 vehicles

Parked vehicles before AM count (7 AM) = 43 + 3 + 21 = 61 vehicles

6:00AM - 7:00AM Parking demand factor = 0.84

Parked vehicles before PM count (4PM): 40 vehicles

Total in during PM count: 13 vehicles
Total out during PM count: 6 vehicles

Parked vehicles after PM count (6PM) = 40 - 6 + 13 = 47 vehicles

6:00PM - 7:00PM Parking demand factor = 0.69

Accommodations for 100 vehicles in the garage
4 handicap spaces, 56 standard spaces, 20 spaces for 2 vehicles
77 spaces are deeded to specific units

58 FORE STREET
MASTER PLAN

PORTLAND, MAINE

MASTER DEVELOPMENT PLAN APPLICATION SUBMISSION TO CITY OF PORTLAND

SEPTEMBER 16, 2016

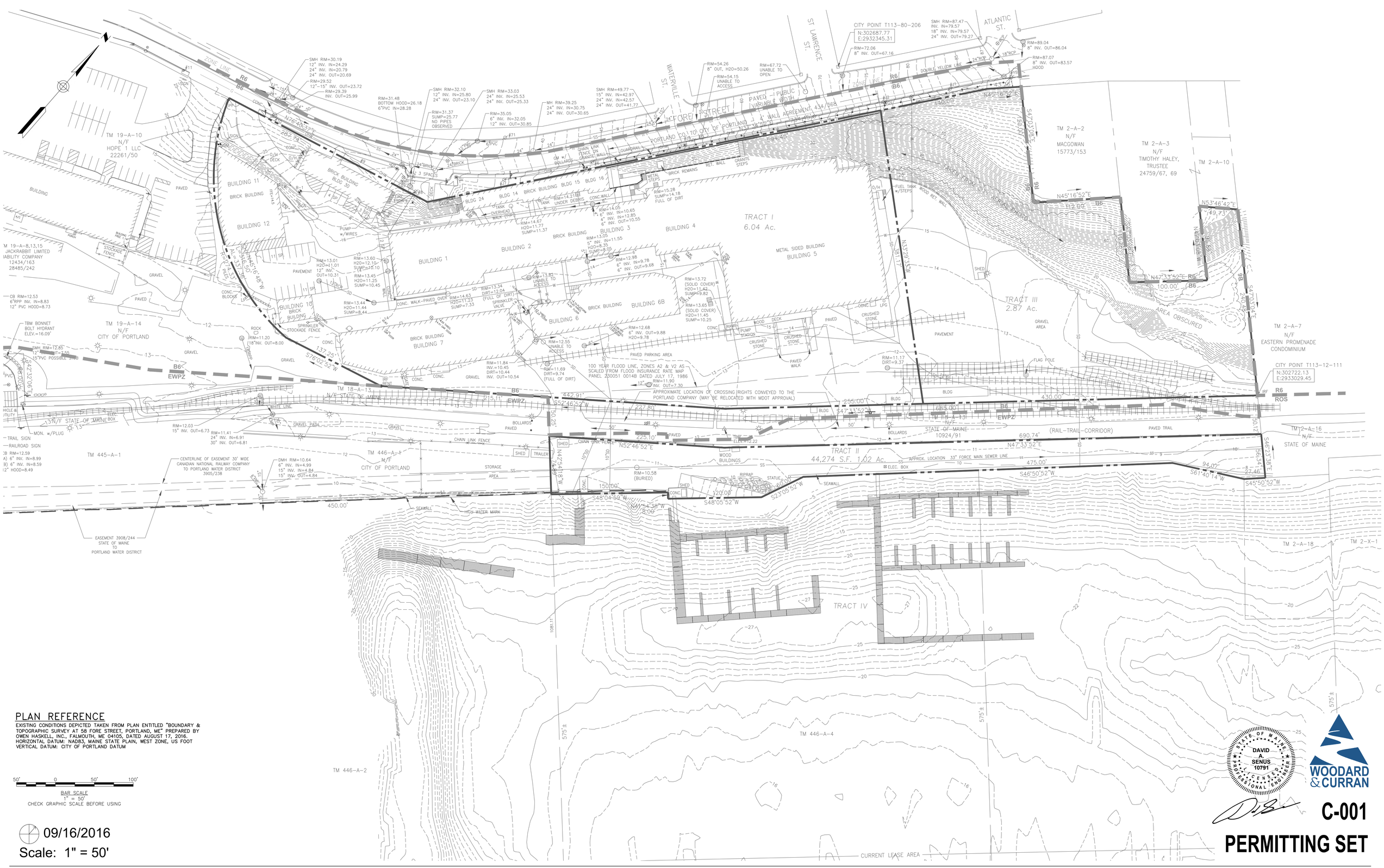
PROJECT LOCUS

SCALE: 1"=500'



CIVIL SHEET INDEX

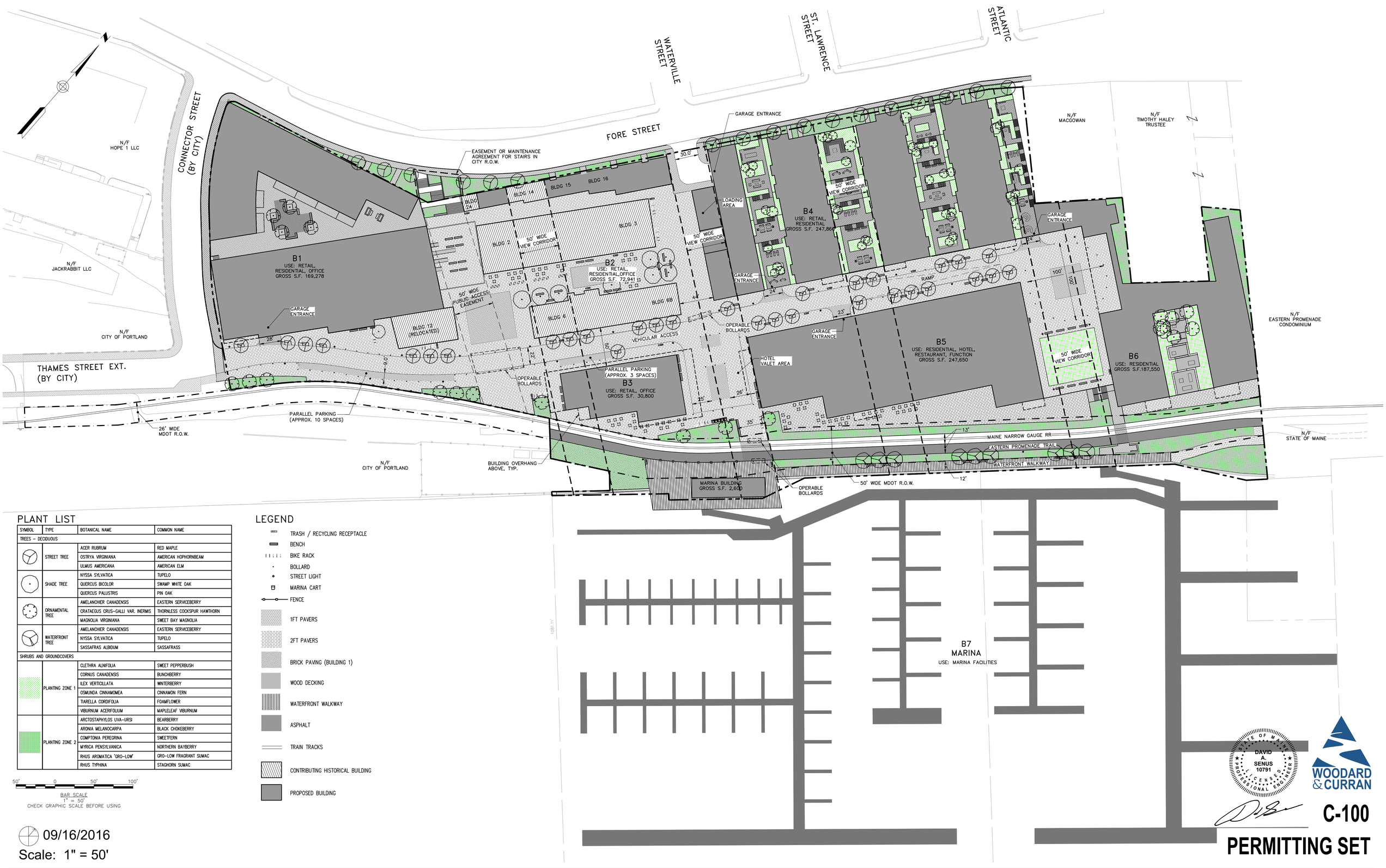
C-000	COVER SHEET
C-001	EXISTING CONDITIONS PLAN
C-100	OVERALL SITE MASTER PLAN
C-101	CONCEPTUAL DEVELOPMENT BLOCK PLAN
C-102	CONCEPTUAL GRADING PLAN
C-103	UTILITY PLAN - 1
C-104	UTILITY PLAN - 2
C-105A	CONCEPTUAL DRAINAGE AREA PLAN
C-105B	CONCEPTUAL STORMWATER TREATMENT PLAN
C-106	VEHICLE CIRCULATION PLAN
C-107	LAND TRANSFER PROPOSAL PLAN
—	BOUNDARY SURVEY



CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

EXISTING CONDITIONS PLAN
58 FORE STREET MASTER PLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



PLANT LIST

SYMBOL	TYPE	BOTANICAL NAME	COMMON NAME
TREES – DECIDUOUS			
	STREET TREE	ACER RUBRUM	RED MAPLE
		OSTRYA VIRGINIANA	AMERICAN HOPHORNBEAM
		ULMUS AMERICANA	AMERICAN ELM
	SHADE TREE	NYSSA SYLVATICA	TUPELO
		QUERCUS BICOLOR	SWAMP WHITE OAK
		QUERCUS PALUSTRIS	PIN OAK
	ORNAMENTAL TREE	AMELANCHIER CANADENSIS	EASTERN SERVICEBERRY
		CRATAEGUS CRUS–GALLI VAR. INERMIS	THORNLESS COCKSPUR HAWTHORN
		MAGNOLIA VIRGINIANA	SWEET BAY MAGNOLIA
	WATERFRONT TREE	AMELANCHIER CANADENSIS	EASTERN SERVICEBERRY
		NYSSA SYLVATICA	TUPELO
		SASSAFRAS ALBIDUM	SASSAFRASS
SHRUBS AND GROUNDCOVERS			
	PLANTING ZONE 1	CLETHRA ALNIFOLIA	SWEET PEPPERBUSH
		CORNUS CANADENSIS	BUNCHBERRY
		ILEX VERTICILLATA	WINTERBERRY
		OSMUNDA CINNAMOMEA	CINNAMON FERN
		TIARELLA CORDIFOLIA	FOAMFLOWER
		VIBURNUM ACERIFOLIUM	MAPLELEAF VIBURNUM
	PLANTING ZONE 2	ARCTOSTAPHYLOS UVA–URSI	BEARBERRY
		ARONIA MELANOCARPA	BLACK CHOKEBERRY
		COMPTONIA PEREGRINA	SWEETFERN
		MYRICA PENSYLVANICA	NORTHERN BAYBERRY
		RHUS AROMATICA 'GRO–LOW'	GRO–LOW FRAGRANT SUMAC
		RHUS TYPHINA	STAGHORN SUMAC

50' 0 50' 100'

BAR SCALE
1" = 50'
CHECK GRAPHIC SCALE BEFORE USING

LEGEND

- TRASH / RECYCLING RECEPTACLE
- BENCH
- BIKE RACK
- BOLLARD
- STREET LIGHT
- MARINA CART
- FENCE
- 1FT PAVERS
- 2FT PAVERS
- BRICK PAVING (BUILDING 1)
- WOOD DECKING
- WATERFRONT WALKWAY
- ASPHALT
- TRAIN TRACKS
- CONTRIBUTING HISTORICAL BUILDING
- PROPOSED BUILDING

09/16/2016
Scale: 1" = 50'

STATE OF MAINE
DAVID
A.
SENUS
10791
LICENSED
PROFESSIONAL ENGINEER

WOODARD & CURRAN

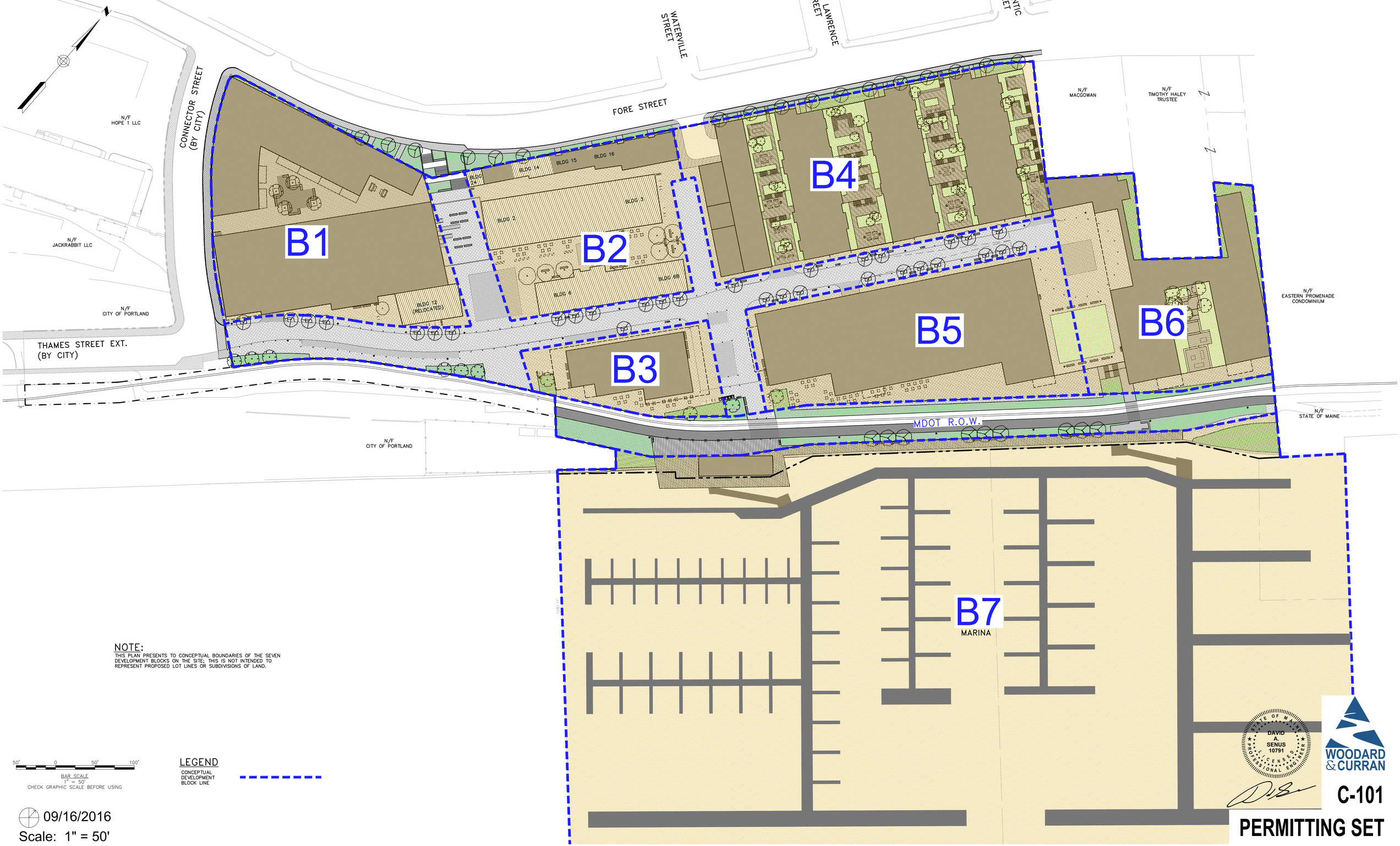
C-100

PERMITTING SET

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

OVERALL SITE MASTER PLAN
58 FORE STREET MASTER PLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



NOTE:
THIS PLAN PRESENTS TO CONCEPTUAL BOUNDARIES OF THE SEVEN DEVELOPMENT BLOCKS ON THE SITE; THIS IS NOT INTENDED TO REPRESENT PROPOSED LOT LINES OR SUBDIVISIONS OF LAND.

50' 0 50' 100'
BAR SCALE
1" = 50'
CHECK GRAPHIC SCALE BEFORE USING

LEGEND
CONCEPTUAL DEVELOPMENT BLOCK LINE

09/16/2016
Scale: 1" = 50'

STATE OF MAINE
DAVID A. SENUS 10791
LICENSED PROFESSIONAL ENGINEER

WOODARD & CURRAN

C-101

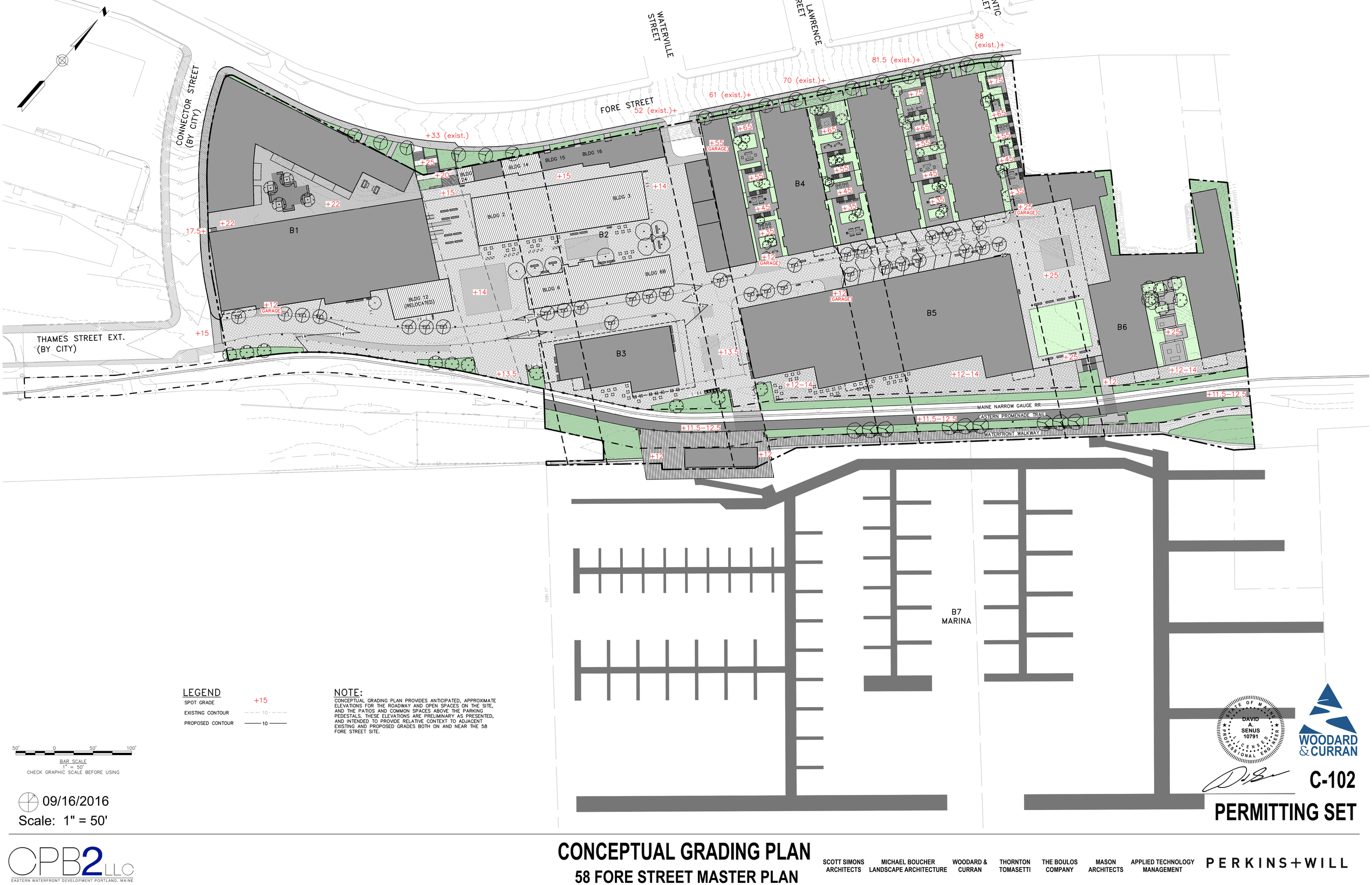
PERMITTING SET

DEVELOPMENT BLOCK OUTLINE PLAN

58 FORE STREET MASTER PLAN

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



LEGEND

SPOT GRADE	+15
EXISTING CONTOUR	10
PROPOSED CONTOUR	10

NOTE:

CONCEPTUAL GRADING PLAN PROVIDES ANTICIPATED, APPROXIMATE ELEVATIONS FOR THE ROADWAY AND OPEN SPACES ON THE SITE, AND THE PATIOS AND COMMON SPACES ABOVE THE PARKING PEDESTALS. THESE ELEVATIONS ARE PRELIMINARY AS PRESENTED, AND INTENDED TO PROVIDE RELATIVE CONTEXT TO ADJACENT EXISTING AND PROPOSED GRADES BOTH ON AND NEAR THE 58 FORE STREET SITE.

50' 0 50' 100'

BAR SCALE
1" = 50'
CHECK GRAPHIC SCALE BEFORE USING

09/16/2016
Scale: 1" = 50'

STATE OF MAINE
DAVID A. SENUS 10791
LICENSED PROFESSIONAL ENGINEER

WOODARD & CURRAN

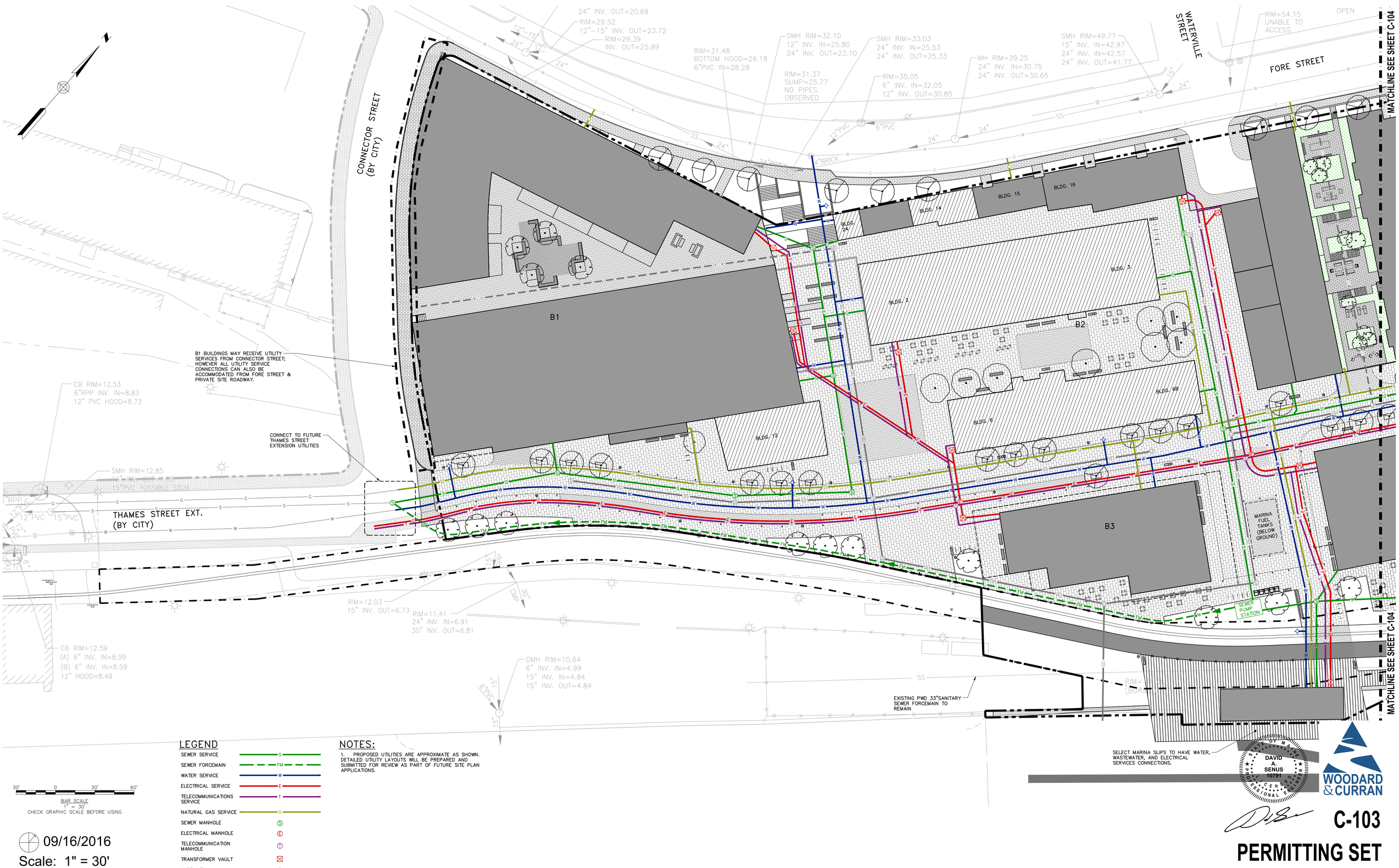
C-102

PERMITTING SET

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

CONCEPTUAL GRADING PLAN
58 FORE STREET MASTER PLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



30' 0 30' 60'

BAR SCALE
1" = 30'
CHECK GRAPHIC SCALE BEFORE USING

09/16/2016

Scale: 1" = 30'

LEGEND

- SEWER SERVICE — S
- SEWER FORCEMAIN — FM
- WATER SERVICE — W
- ELECTRICAL SERVICE — E
- TELECOMMUNICATIONS SERVICE — T
- NATURAL GAS SERVICE — G
- SEWER MANHOLE — Ⓢ
- ELECTRICAL MANHOLE — Ⓔ
- TELECOMMUNICATION MANHOLE — Ⓣ
- TRANSFORMER VAULT — ⊠
- HYDRANT

NOTES:

1. PROPOSED UTILITIES ARE APPROXIMATE AS SHOWN. DETAILED UTILITY LAYOUTS WILL BE PREPARED AND SUBMITTED FOR REVIEW AS PART OF FUTURE SITE PLAN APPLICATIONS.

DAVID A. SENUS 10791 STATE OF MAINE REGISTERED PROFESSIONAL ENGINEER

WOODARD & CURRAN

C-103

PERMITTING SET

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

UTILITY PLAN - 1

58 FORE STREET MASTER PLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL

MATCHLINE SEE SHEET C-103

ST. LAWRENCE STREET

RIM=72.06
8" INV. OUT=67.16

24"RCP

18"RCP

RIM=87.07
8" INV. OUT=83.57
HOOD

B4

B5

B6

UTILITIES SHALL BE ROUTED THROUGH THE GARAGE STRUCTURE EITHER BELOW THE GARAGE FLOOR OR WITHIN UTILITY CHASEWAYS IN THE LOWER PEDESTAL GARAGE ROOF.

APPROX. LOCATION OF FORE STREET CENTERLINE

MATCHLINE SEE SHEET C-103

30' 0 30' 60'

BAR SCALE
1" = 30'
CHECK GRAPHIC SCALE BEFORE USING

09/16/2016

Scale: 1" = 30'

LEGEND

SEWER SERVICE	S
SEWER FORCEMAIN	FM
WATER SERVICE	W
ELECTRICAL SERVICE	E
TELECOMMUNICATIONS SERVICE	T
NATURAL GAS SERVICE	G
SEWER MANHOLE	Ⓢ
ELECTRICAL MANHOLE	Ⓔ
TELECOMMUNICATION MANHOLE	Ⓣ
TRANSFORMER VAULT	⊠
HYDRANT	

NOTES:

1. PROPOSED UTILITIES ARE APPROXIMATE AS SHOWN. DETAILED UTILITY LAYOUTS WILL BE PREPARED AND SUBMITTED FOR REVIEW AS PART OF FUTURE SITE PLAN APPLICATIONS.

STATE OF MAINE
DAVID A. SENUS
10791
LICENSED PROFESSIONAL ENGINEER

WOODARD & CURRAN

C-104

PERMITTING SET

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

UTILITY PLAN - 2

58 FORE STREET MASTER PLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



Project Area Summary Table	
Total Existing Developed Area (Proposed Re-Developed Area)	9.66 Acres
Total Proposed Developed Area	11.30 Acres
Total New Developed Area	1.64 Acres
Total Proposed Impervious Area	10.75 Acres
Total Re-Developed Impervious Area	8.57 Acres
Total New Impervious Area	2.18 Acres

Treatment Area Requirements	
Required Treatment of New Impervious Area (95%)	2.07 Acres
Required Treatment of New Developed Area (80%)	1.31 Acres
Required Treatment of Redeveloped Impervious Area	4.29 Acres
Total Impervious Area Required to be Treated	6.36 Acres

50' 0 50' 100'

BAR SCALE
1" = 50'
CHECK GRAPHIC SCALE BEFORE USING

09/16/2016

Scale: 1" = 50'

LEGEND

- OUTFALL DRAINAGE AREA BOUNDARY
- OUTFALL 1 DRAINAGE AREA — 7.13 ACRES
- OUTFALL 2 DRAINAGE AREA — 4.17 ACRES
- NEW IMPERVIOUS AREA — 2.18 ACRES
- STORMDRAIN MAIN — SD
- STORMDRAIN MAIN (INTERIOR TO BLDG) — SD
- STORMDRAIN MANHOLE — Ⓓ

NOTE:

THE CONCEPTUAL DRAINAGE AREA PLAN PRESENTS A CONCEPT FOR THE COLLECTION, CONVEYANCE AND DISCHARGE OF STORMWATER FROM THE SITE. CONNECTIONS AND PIPE SIZING ARE NOT DETERMINED AT THIS TIME AND WILL BE IDENTIFIED UNDER FUTURE PERMITTING AND DESIGN EFFORTS.

STATE OF MAINE
DAVID A. SENUS
10791
LICENSED PROFESSIONAL ENGINEER

WOODARD & CURRAN

C-105A

PERMITTING SET

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

CONCEPTUAL DRAINAGE AREA PLAN

58 FORE STREET MASTER PLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



50' 0 50' 100'

BAR SCALE
1" = 50'
CHECK GRAPHIC SCALE BEFORE USING

09/16/2016

Scale: 1" = 50'

LEGEND

- TREATED AREA — 6.36 ACRES
- SURFACE FILTER UNIT
- SUBSURFACE TREATMENT UNIT
- STORMDRAIN MAIN — SD
- STORMDRAIN MAIN (INTERIOR TO BLDG) — SD
- STORMDRAIN MANHOLE — Ⓓ

NOTE:

1. IN ACCORDANCE WITH SECTION 5 OF THE CITY OF PORTLAND TECHNICAL MANUAL, THE PROJECT SHALL BE REQUIRED TO COMPLY WITH THE MAINEDEP CHAPTER 500 STANDARDS, INCLUDING THE BASIC, GENERAL AND FLOODING STANDARDS, FOLLOWING THE APPLICABILITY REQUIREMENTS OUTLINED IN THE CITY OF PORTLAND'S TECHNICAL STANDARDS.
   a. BASIC STANDARDS: SITE PLANS, DETAILS, AND EROSION AND SEDIMENT CONTROL NOTES DEMONSTRATING COMPLIANCE WITH THE BASIC STANDARDS WILL BE PROVIDED AS PART OF FUTURE SITE PLAN APPLICATIONS, WHEN ADDITIONAL DESIGN DETAIL WILL ALLOW FOR THE IDENTIFICATION OF THE NECESSARY CONTROLS
   b. GENERAL STANDARDS: GENERAL STANDARDS REQUIRES THAT STORMWATER QUALITY TREATMENT BE PROVIDED FOR NO LESS THAN 95% OF NEW IMPERVIOUS AREA AND NO LESS THAN 80% OF NEW DEVELOPED AREA. IN ACCORDANCE WITH SECTION 5.II.D. OF THE CITY OF PORTLAND TECHNICAL MANUAL, ALL PROJECTS THAT INCLUDE REDEVELOPMENT OF NON-ROOF IMPERVIOUS AREA GREATER THAN 5,000 SQUARE-FEET AND SUBJECT TO CITY OF PORTLAND REVIEW SHALL PROVIDE STORMWATER QUALITY TREATMENT IN ACCORDANCE WITH THE GENERAL STANDARDS FOR NO LESS THAN 50% OF THE REDEVELOPED IMPERVIOUS AREA. THE CONCEPT STORMWATER TREATMENT PLAN IDENTIFIES AREAS ANTICIPATED TO RECEIVE STORMWATER QUALITY TREATMENT UTILIZING MAINEDEP APPROVED STORMWATER BEST MANAGEMENT PRACTICES (BMPS) IN COMPLIANCE WITH THESE STANDARDS.
   c. FLOODING STANDARD: THE APPLICANT IS REQUESTING A WAIVER FROM PROVIDING ADDITIONAL STORAGE OF STORMWATER FOR THE FLOODING STANDARD DUE TO THE FACT THAT THE PROJECT WILL DISCHARGE DIRECTLY INTO THE OCEAN. STORMWATER RUNOFF FROM THE SITE WILL BE CONVEYED EXCLUSIVELY TO THE OCEAN VIA A DIRECT DISCHARGE PIPED SYSTEM LOCATED ON THE PROJECT PROPERTY, OR VIA SHEET FLOW FOR AREAS DIRECTLY ADJACENT TO THE SEA WALL
2. THIS PLAN PRESENTS CONCEPTUAL AREAS TO RECEIVE TREATMENT UNDER THE GENERAL STANDARDS THAT HAVE BEEN DELINEATED BASED ON PRELIMINARY GRADING AND TOPOGRAPHY, IN ADDITION TO POSSIBLE LOCATIONS OF STORMWATER TREATMENT SYSTEMS. STORMWATER RUNOFF FROM THE SITE WILL BE COLLECTED AND TREATED IN COMPLIANCE WITH THE CITY'S REQUIREMENTS.
3. PROPOSED STORMWATER MANAGEMENT MEASURES FOR COMPLIANCE WITH THE GENERAL STANDARDS WILL CONSIST OF BEST MANAGEMENT PRACTICES (BMPS), SUCH AS TREE BOX FILTERS, SUBSURFACE PROPRIETARY TREATMENT SYSTEMS (I.E. STORMFILTER, JELLYFISH), RAIN GARDENS, OR SUBSURFACE FILTRATION SYSTEMS. THESE BMPS WILL BE DESIGNED ACCORDING TO THE MOST RECENT MAINEDEP STORMWATER BMP GUIDANCE; DESIGN CALCULATIONS WILL BE SUBMITTED AS PART OF FUTURE SITE PLAN SUBMISSIONS. ADDITIONAL LOW IMPACT DEVELOPMENT (LID) MEASURES, SUCH AS RAINWATER REUSE SYSTEMS, GREEN ROOFS, AND ROOF DRIPLINE FILTERS, MAY ALSO BE INCORPORATED FOR STORMWATER CREDITS AS PART OF THE DETAILED SITE PLAN SUBMISSION.

STATE OF MAINE
DAVID A. SENUS
10791
LICENSED PROFESSIONAL ENGINEER

WOODARD & CURRAN

C-105B

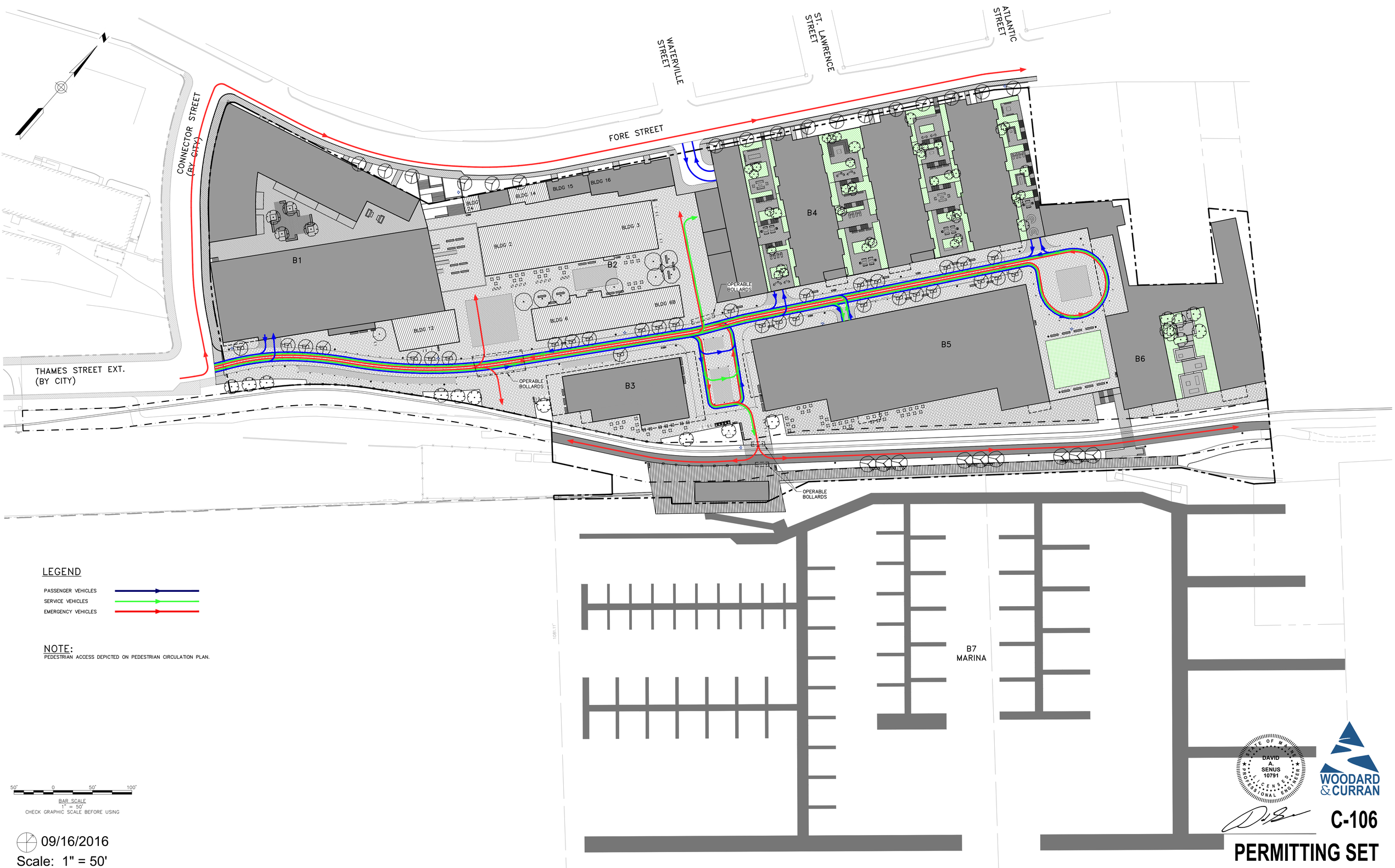
PERMITTING SET

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

CONCEPTUAL STORMWATER TREATMENT PLAN

58 FORE STREET MASTER PLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



LEGEND

PASSENGER VEHICLES
SERVICE VEHICLES
EMERGENCY VEHICLES

NOTE:
PEDESTRIAN ACCESS DEPICTED ON PEDESTRIAN CIRCULATION PLAN.

50' 0 50' 100'
BAR SCALE
1" = 50'
CHECK GRAPHIC SCALE BEFORE USING

09/16/2016
Scale: 1" = 50'

STATE OF MAINE
DAVID A. SENUS
10791
LICENSED PROFESSIONAL ENGINEER

WOODARD & CURRAN

C-106

PERMITTING SET

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

VEHICLE CIRCULATION PLAN
58 FORE STREET MASTER PLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL

TM 19-A-10
N/F
HOPE 1 LLC
22261/50

HOPE 1, LLC

THAMES ST. TO FORE ST. CONNECTOR BY CITY

FORE STREET

TM 19-A-8,13,15
N/F JACKRABBIT LIMITED LIABILITY COMPANY
12434/163
28485/242

HOPE 1, LLC

TM 19-A-14
N/F
CITY OF PORTLAND

CITY TO CPB2, LLC

THAMES ST. EXT. BY CITY

PRIVATE ROADWAY

TM 18-A-13
N/F STATE OF MAINE

MDOT TO CPB2, LLC

N/F STATE OF MAINE

TM 445-A-1

13' WIDE MNGRR (TRAIN)

REALIGNED MDOT R.O.W.

TM 446-A-1
N/F
CITY OF PORTLAND

CITY TO MDOT

EASTERN PROMENADE TRAIL

CPB2, LLC TO CITY

12'-20' WIDE WATERFRONT WALKWAY (WALKING)

5' WATERFRONT EDGE TO BE RETAINED BY CPB2, LLC

NOTE:
THIS PLAN PRESENTS POSSIBLE LAND TRANSFERS THAT HAVE BEEN CONTEMPLATED BY THE CITY AND CPB2, LLC TO ALLOW FOR THE EXTENSION OF THE CITY ROADWAY NETWORK AS PRESENTED IN THE EASTERN WATERFRONT MASTER PLAN AND TO ALLOW FOR REDEVELOPEMENT OF THE ABUTTING PUBLIC AND PRIVATE PROPERTIES.

30' 0 30' 60'
BAR SCALE
1" = 30'
CHECK GRAPHIC SCALE BEFORE USING

09/16/2016
Scale: 1" = 30'

STATE OF MAINE
DAVID A. SENIUS
10791
LICENSED PROFESSIONAL ENGINEER

WOODARD & CURRAN

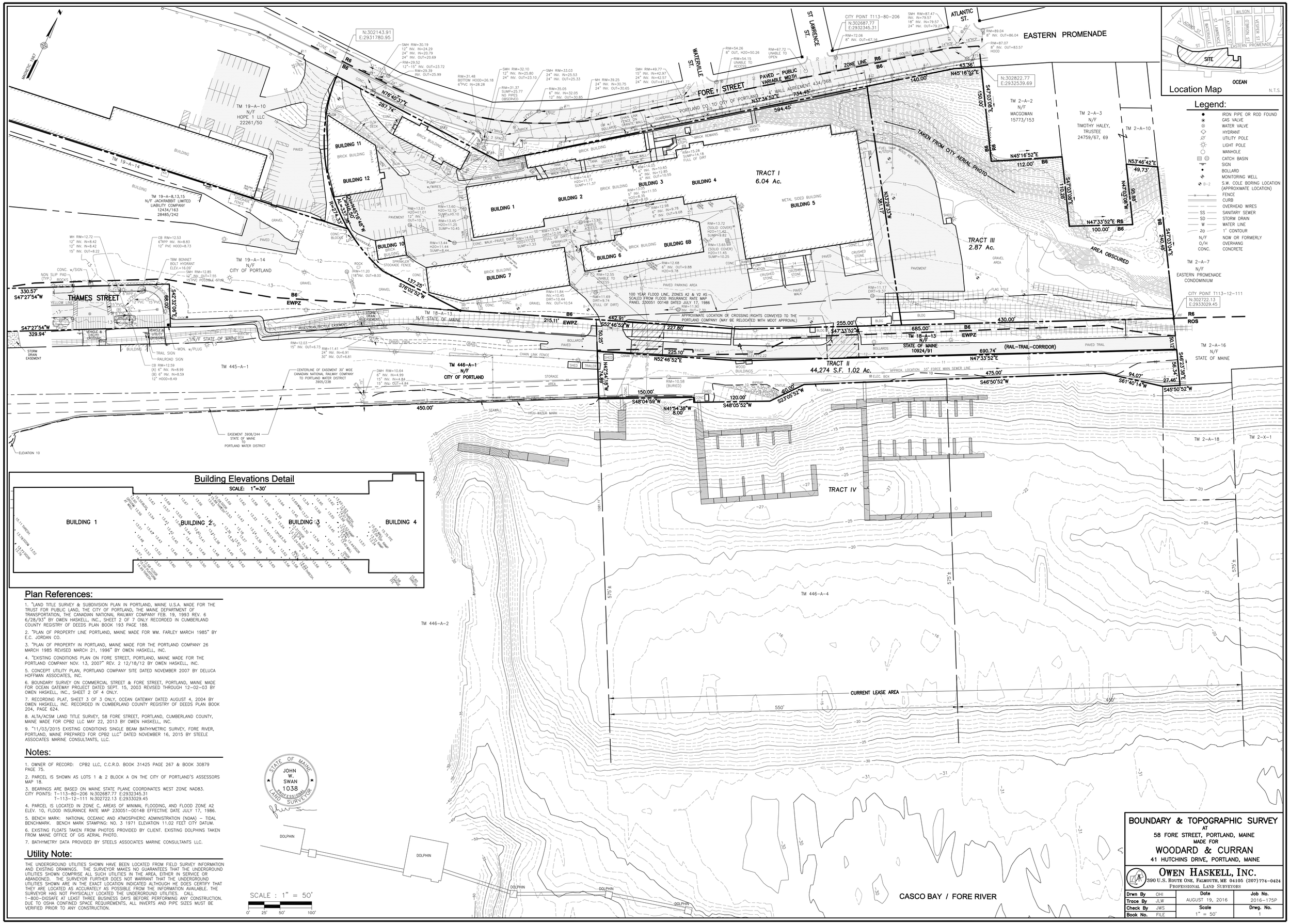
C-107

PERMITTING SET

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

LAND TRANSFER PROPOSAL
58 FORE STREET MASTER PLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



Legend:

- IRON PIPE OR ROD FOUND
- GAS VALVE
- WATER VALVE
- HYDRANT
- UTILITY POLE
- LIGHT POLE
- MANHOLE
- CATCH BASIN
- SIGN
- BOLLARD
- MONITORING WELL
- B-2 S.W. COLE BORING LOCATION (APPROXIMATE LOCATION)
- FENCE
- CURB
- OVERHEAD WIRES
- SS SANITARY SEWER
- SD STORM DRAIN
- W WATER LINE
- 20 1' CONTOUR
- N/F NOW OR FORMERLY
- O/H OVERHANG
- CONC. CONCRETE

Building Elevations Detail

SCALE: 1"=30'

Plan References:

1. "LAND TITLE SURVEY & SUBDIVISION PLAN IN PORTLAND, MAINE U.S.A. MADE FOR THE TRUST FOR PUBLIC LAND, THE CITY OF PORTLAND, THE MAINE DEPARTMENT OF TRANSPORTATION, THE CANADIAN NATIONAL RAILWAY COMPANY FEB. 19, 1993 REV. 6 6/28/93" BY OWEN HASKELL, INC., SHEET 2 OF 7 ONLY RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 193 PAGE 188.
2. "PLAN OF PROPERTY LINE PORTLAND, MAINE MADE FOR WM. FARLEY MARCH 1985" BY E.C. JORDAN CO.
3. "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR THE PORTLAND COMPANY 26 MARCH 1985 REVISED MARCH 21, 1996" BY OWEN HASKELL, INC.
4. "EXISTING CONDITIONS PLAN ON FORE STREET, PORTLAND, MAINE MADE FOR THE PORTLAND COMPANY NOV. 13, 2007" REV. 2 12/18/12 BY OWEN HASKELL, INC.
5. CONCEPT UTILITY PLAN, PORTLAND COMPANY SITE DATED NOVEMBER 2007 BY DELUCA HOFFMAN ASSOCIATES, INC.
6. BOUNDARY SURVEY ON COMMERCIAL STREET & FORE STREET, PORTLAND, MAINE MADE FOR OCEAN GATEWAY PROJECT DATED SEPT. 15, 2003 REVISED THROUGH 12-02-03 BY OWEN HASKELL, INC., SHEET 2 OF 4 ONLY.
7. RECORDING PLAT, SHEET 3 OF 3 ONLY, OCEAN GATEWAY DATED AUGUST 4, 2004 BY OWEN HASKELL, INC. RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 204, PAGE 624.
8. ALTA/ACSM LAND TITLE SURVEY, 58 FORE STREET, PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR CPB2 LLC MAY 22, 2013 BY OWEN HASKELL, INC.
9. "11/03/2015 EXISTING CONDITIONS SINGLE BEAM BATHYMETRIC SURVEY, FORE RIVER, PORTLAND, MAINE PREPARED FOR CPB2 LLC" DATED NOVEMBER 16, 2015 BY STEELE ASSOCIATES MARINE CONSULTANTS, LLC.

Notes:

1. OWNER OF RECORD: CPB2 LLC, C.C.R.D. BOOK 31425 PAGE 267 & BOOK 30879 PAGE 75.
2. PARCEL IS SHOWN AS LOTS 1 & 2 BLOCK A ON THE CITY OF PORTLAND'S ASSESSORS MAP 18.
3. BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATES WEST ZONE NAD83. CITY POINTS: T-113-80-206 N:302687.77 E:2932345.31 T-113-12-111 N:302722.13 E:2933029.45
4. PARCEL IS LOCATED IN ZONE C, AREAS OF MINIMAL FLOODING, AND FLOOD ZONE A2 ELEV. 10, FLOOD INSURANCE RATE MAP 230051-0014B EFFECTIVE DATE JULY 17, 1986.
5. BENCH MARK: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) – TIDAL BENCHMARK. BENCH MARK STAMPING: NO. 3 1971 ELEVATION 11.02 FEET CITY DATUM.
6. EXISTING FLOATS TAKEN FROM PHOTOS PROVIDED BY CLIENT. EXISTING DOLPHINS TAKEN FROM MAINE OFFICE OF GIS AERIAL PHOTO.
7. BATHYMETRY DATA PROVIDED BY STEELS ASSOCIATES MARINE CONSULTANTS LLC.

Utility Note:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-800-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

STATE OF MAINE
JOHN W. SWAN
1038
PROFESSIONAL LAND SURVEYOR

SCALE : 1" = 50'
0' 25' 50' 100'

BOUNDARY & TOPOGRAPHIC SURVEY

AT

58 FORE STREET, PORTLAND, MAINE

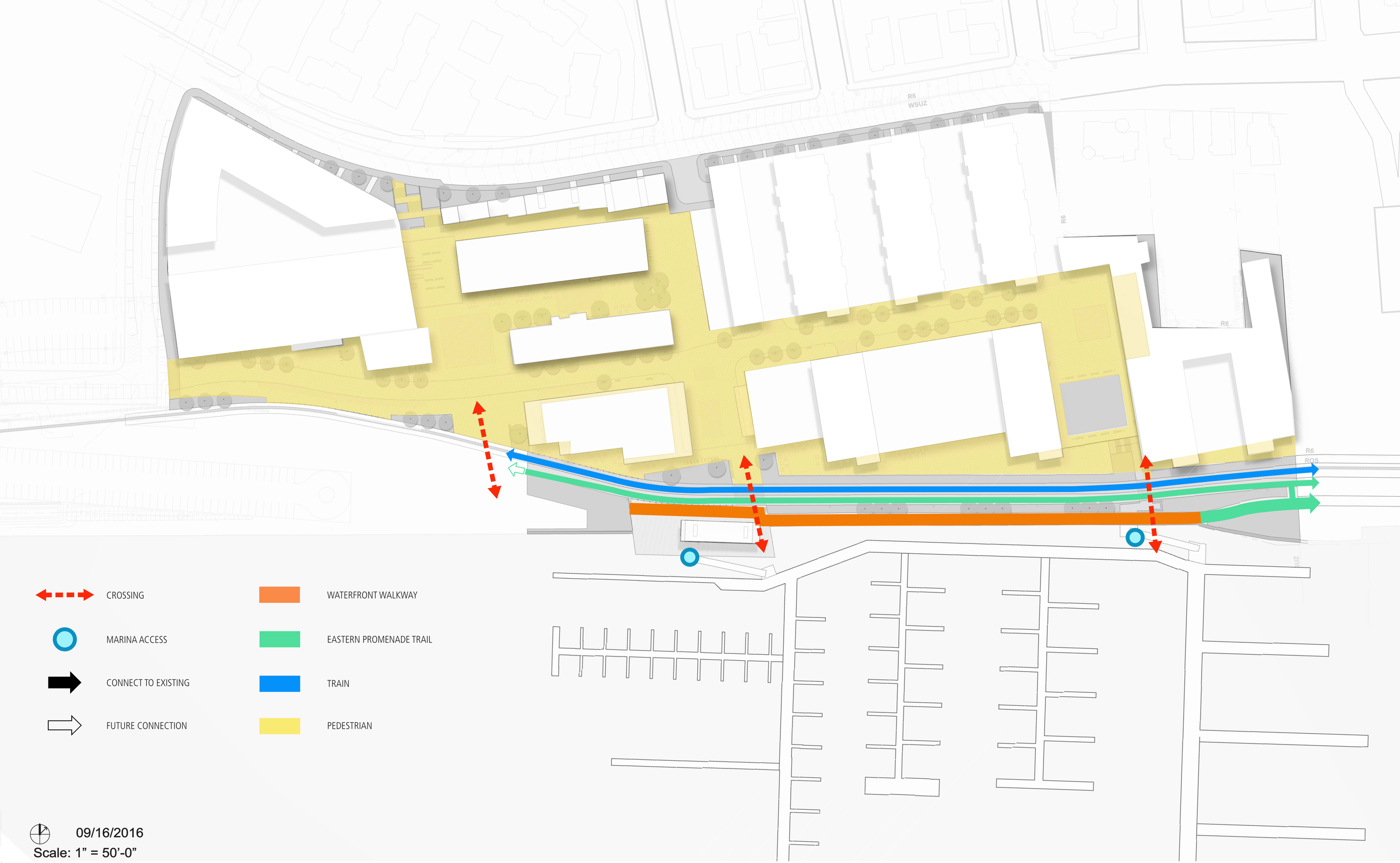
MADE FOR

WOODARD & CURRAN

41 HUTCHINS DRIVE, PORTLAND, MAINE

OWEN HASKELL, INC.
390 U.S. ROUTE ONE, FALMOUTH, ME 04105 (207) 774-0424
PROFESSIONAL LAND SURVEYORS

Drwn By	OHI	Date	Job No.
Trace By	JLW	AUGUST 19, 2016	2016-175P
Check By	JWS	Scale	Drwg. No.
Book No.	FILE	1" = 50'	1



CROSSING

MARINA ACCESS

CONNECT TO EXISTING

FUTURE CONNECTION

WATERFRONT WALKWAY

EASTERN PROMENADE TRAIL

TRAIN

PEDESTRIAN

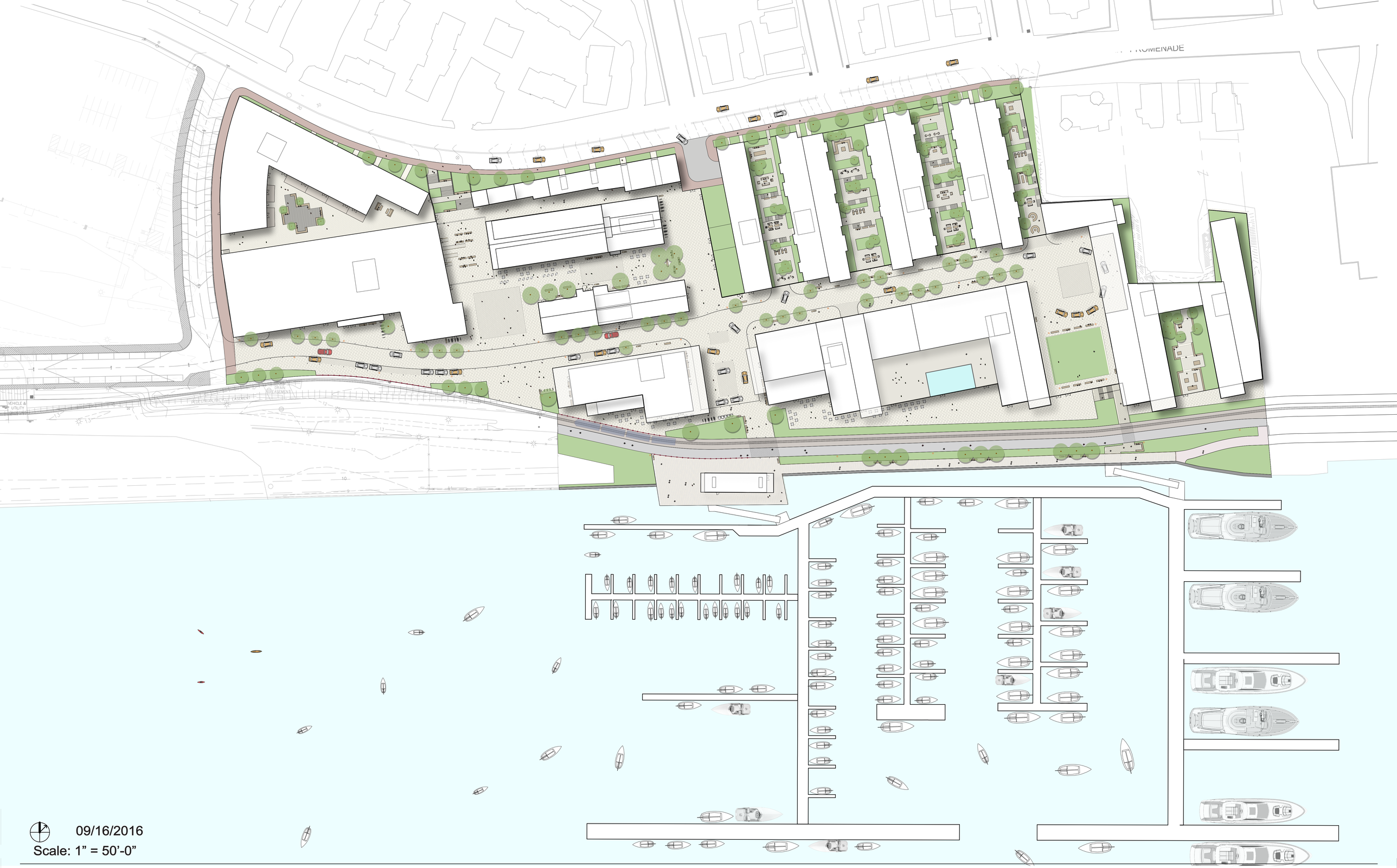
09/16/2016

Scale: 1” = 50’-0”

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

CIRCULATION DIAGRAM
58 FORE STREET MASTERPLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



09/16/2016

Scale: 1” = 50’-0”

CPB2 LLC

EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

ILLUSTRATIVE LANDSCAPE PLAN

58 FORE STREET MASTERPLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



09/16/16

Scale: 1" = 50'-0"

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

LEVEL + 15
58 FORE STREET MASTERPLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



09/16/16

Scale: 1" = 50'-0"

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

LEVEL + 25
58 FORE STREET MASTERPLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



- RESIDENTIAL
- RETAIL
- HOTEL
- OFFICE
- ROOF
- LANDSCAPE/TERRACE
- MARINA

09/16/16

Scale: 1" = 50'-0"

OPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

LEVEL + 55
58 FORE STREET MASTERPLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



- RESIDENTIAL
- RETAIL
- HOTEL
- OFFICE
- ROOF
- LANDSCAPE/TERRACE
- MARINA

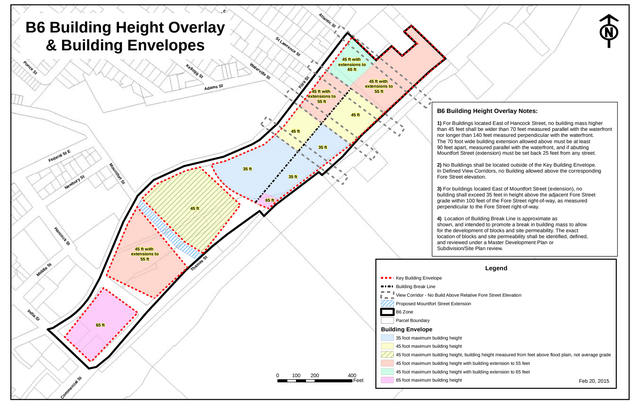
09/16/16

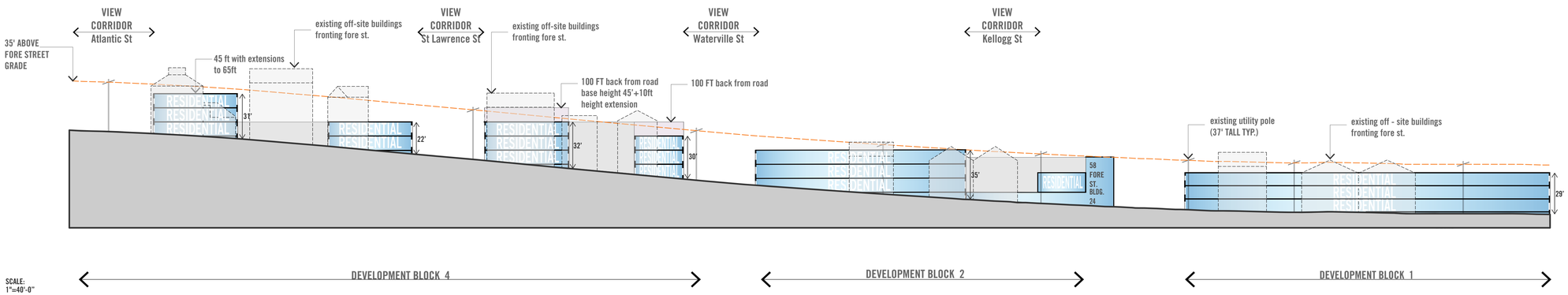
Scale: 1" = 50'-0"

OPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

LEVEL + 85
58 FORE STREET MASTERPLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL





SCALE:
1"=40'-0"

SECTION



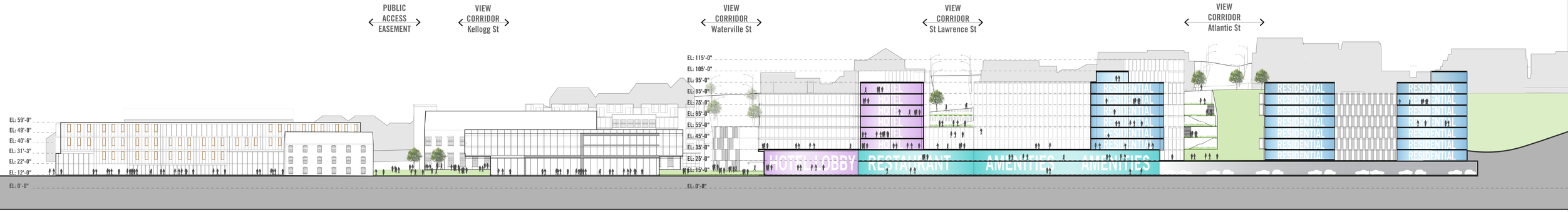
09/16/16

Scale: 1" = 40'-0"

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

LONG SECTION
58 FORE STREET MASTERPLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



SCALE:
1"=40'-0"

SECTION



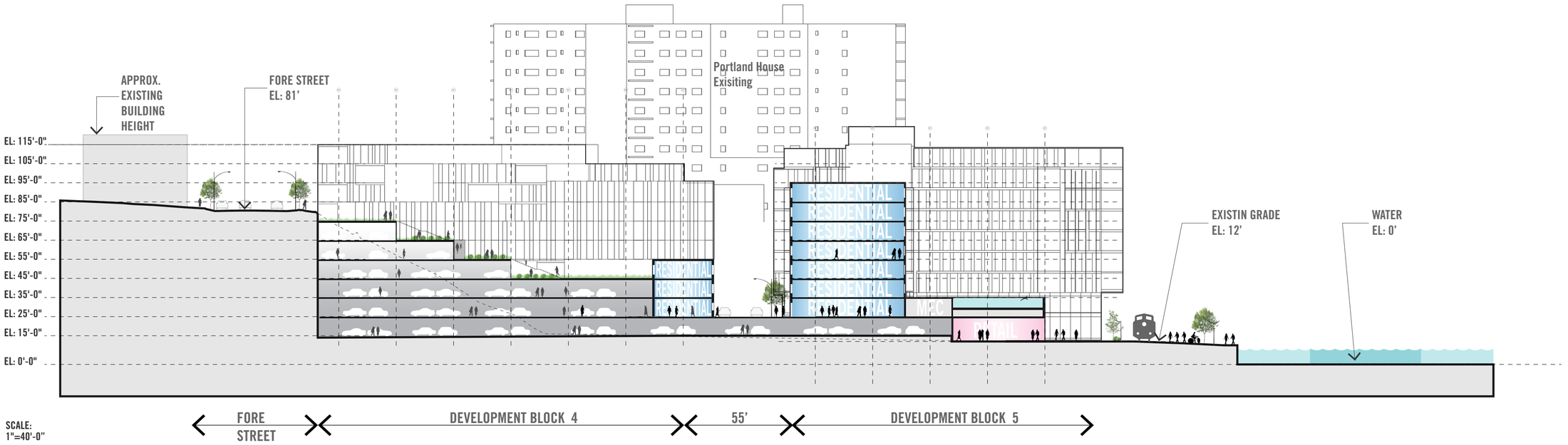
09/16/16

Scale: 1" = 40'-0"

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

LONG SECTION
58 FORE STREET MASTERPLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



SECTION 11



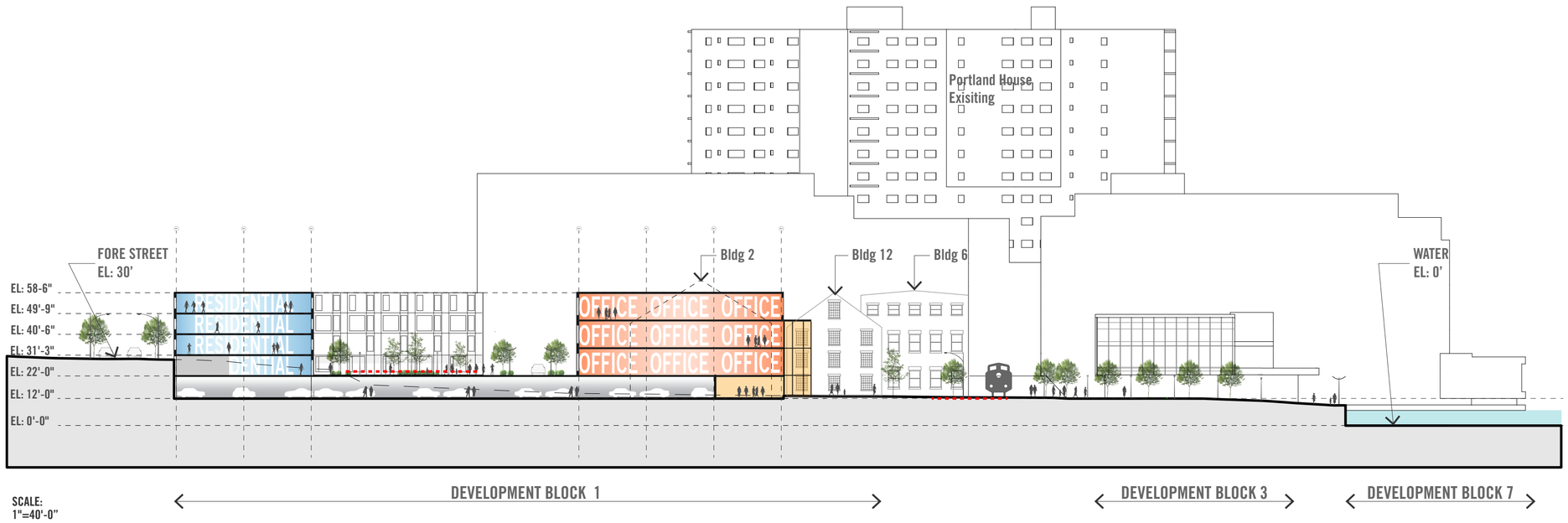
09/16/16

Scale: 1" = 40'-0"

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

SECTION
58 FORE STREET MASTERPLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



SECTION 1



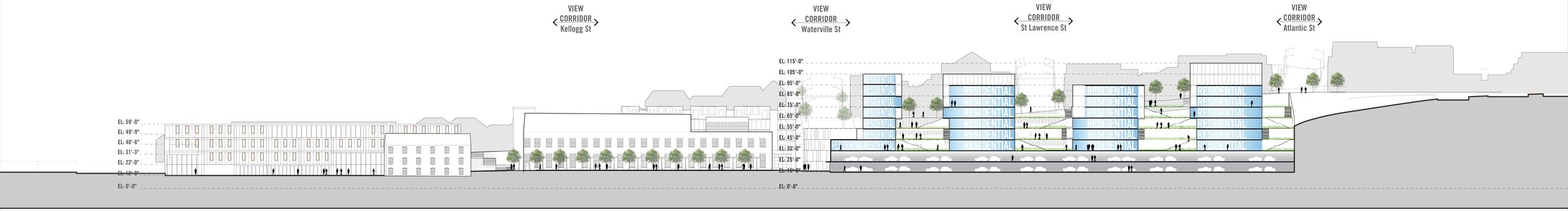
09/16/16

Scale: 1" = 40'-0"

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

SECTION
58 FORE STREET MASTERPLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



SCALE:
1"=40'-0"

SECTION



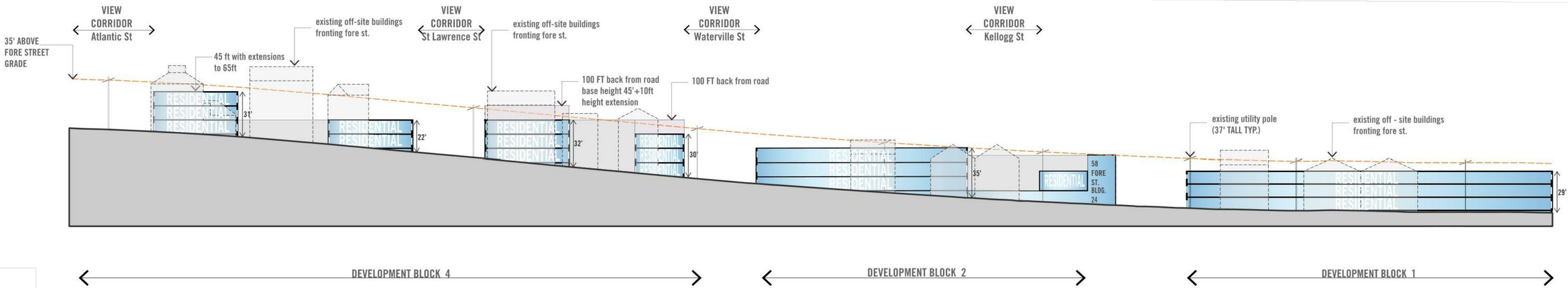
09/16/16

Scale: 1" = 40'-0"

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

LONG SECTION
58 FORE STREET MASTERPLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



SECTION



09/16/2016
N.T.S.

CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

FORE STREET SECTION
58 FORE STREET MASTER PLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



58 Fore Street | Rendering View Key

58 Fore Street | Rendering 1



58 Fore Street | Rendering 2



58 Fore Street | Rendering 3



58 Fore Street | Rendering 4



58 Fore Street | Rendering 5



58 Fore Street | Rendering 6



58 Fore Street | Rendering 7



58 Fore Street | Rendering 8



58 Fore Street | Rendering 9



58 Fore Street | Rendering 10





8'X80' ADA GANGWAY

SHORELINE PER ALTA SURVEY

SLIP MIX		
SIZE (ft)	NO. SLIPS	Slip-feet
25	40	1000
35	63	2205
45	25	1125
60	11	660
125	1	125
150	2	300
200	5	1000
Total Dedicated	147	6415
Side-tie		1475
Total Slip-Feet		7890

NOTES:

1. UPLAND SURVEY DATA FROM "ALTA/ACSM LAND TITLE SURVEY, SURVEYED BY OWEN HASKELL, INC. DATED 22 MAY 2013", TAKEN FROM CAD DRAWING "2013-078PALTA.dwg", FILE DATED 4/8/2016, FILE NOT REFERENCED TO MAINE STATE PLANE COORDINATE SYSTEM. LOCATION APPROXIMATED IN THIS FIGURE.
2. BATHYMETRIC SURVEY DATA FROM "11/03/2015 EXISTING CONDITIONS SINGLE BEAM BARHYMETRIC SURVEY FORE RIVER, PORTLAND, MAINE BY STEELE ASSOCIATES MARINE CONSULTANTS, LLC. DATED 11 NOVEMBER 2015", TAKEN FROM CAD DRAWING "CPB2 Portland Bathymetry 110315 MLLW.DWG", FILE DATED 4/15/2016.

2.1. SOUNDINGS ARE REFERENCED TO THE MEAN LOWER-LOW WATER DATUM (MLLW) USING A MLLW TO NAVD88 CORRECTION OF 5.25 FEET. THE COORDINATE SYSTEM IS THE MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802, DATUM: NAD83, UNITS: US SURVEY FEET.

LEGEND

- STANDARD FLOATING DOCK
- HEAVY DUTY FLOATING DOCK
- FLOATING WAVE ATTENUATOR
- (45) DOUBLE-LOADED SLIP
- 45 SINGLE-LOADED SLIP
- RE-PURPOSED STRUCTURMARINE FLOATING DOCK
- RE-PURPOSED STRUCTURMARINE FLOATING FINGER PIER

N

0 80'

Scale in Feet

APPROXIMATE SSL LINE

CURRENT LEASE AREA

THIS DRAWING AND DESIGNS ARE STRICTLY CONFIDENTIAL AND PROPRIETARY TO INTERNATIONAL COPYRIGHT LAW. DETAILS MUST NOT BE DISCLOSED, REPRODUCED OR COMMUNICATED TO A 3rd PARTY IN ANY FORM OR MANNER WITHOUT THE PRIOR WRITTEN APPROVAL OF APPLIED TECHNOLOGY & MANAGEMENT

O:\Projects\13-2892.68 Fore Street Marina\17-2 CAD\17-3 Docs\17-3.8_ATM\Current Version\13292.08 Fore Marina (180603).dwg 24x36 8/5/16

Signature / Date

REMARKS	REV. NO.	DATE	DRAWN BY	CHKD BY

DESIGNED	DRAWN	CHECKED
KM	MM	KM
DATE:	08-05-2016	
JOB NO.	13-2892	
SCALE:	1"=40'	

58 FORE STREET MARINA
REVISED MARINA CONCEPT

Applied Technology & Management, Inc.
941 Houston Northcutt Blvd. Suite 201
Mt Pleasant, SC 29464
(843) 414-1040
Certificate of Authorization #00395

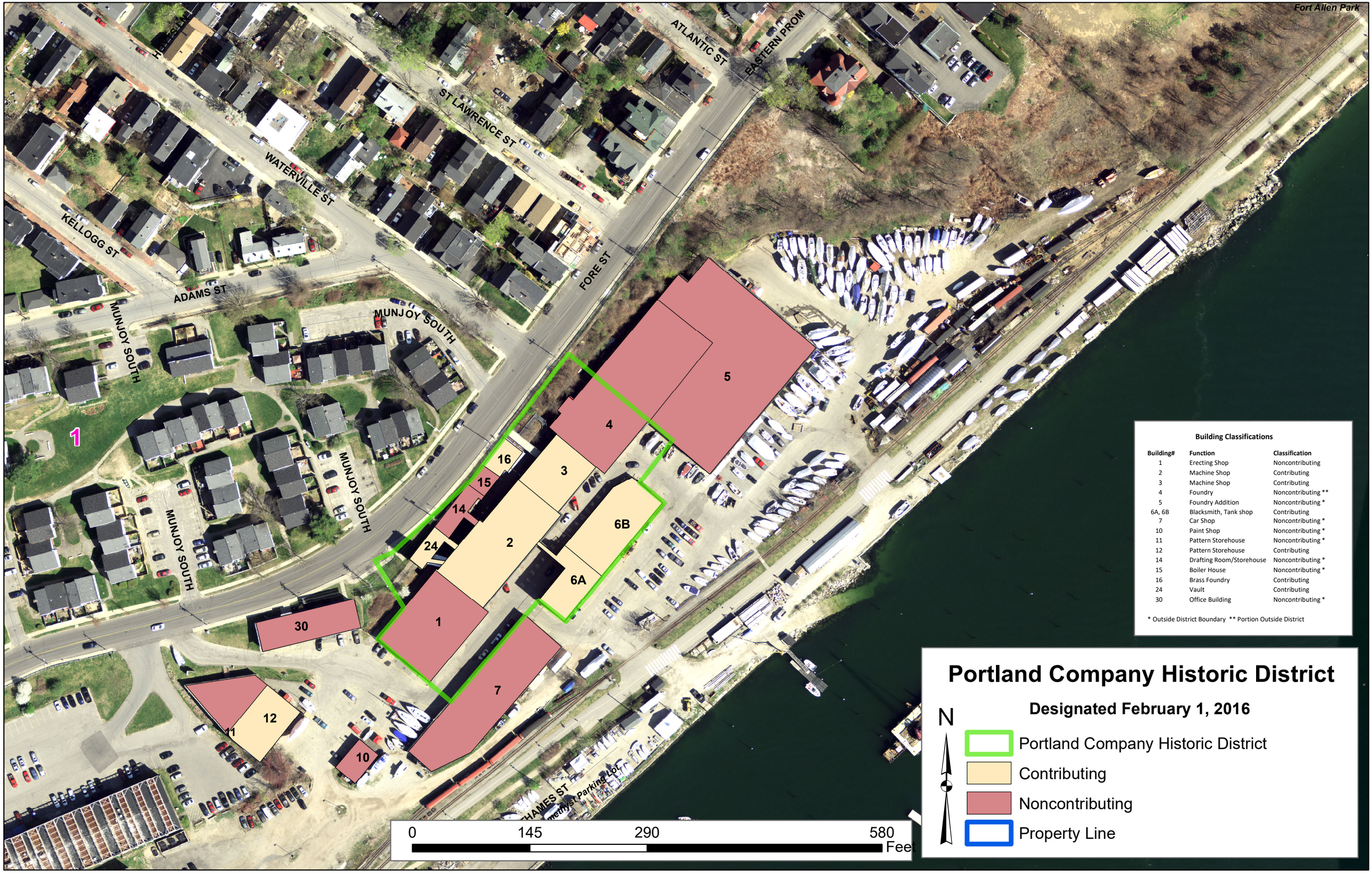
DRAWING NUMBER
1
SHEET 1 OF 1



CPB2 LLC
EASTERN WATERFRONT DEVELOPMENT PORTLAND, MAINE

58 FORE STREET MASTERPLAN

SCOTT SIMONS ARCHITECTS | MICHAEL BOUCHER LANDSCAPE ARCHITECTURE | WOODARD & CURRAN | THORNTON TOMASETTI | THE BOULOS COMPANY | MASON ARCHITECTS | APPLIED TECHNOLOGY MANAGEMENT | PERKINS+WILL



Building Classifications

Building#	Function	Classification
1	Erecting Shop	Noncontributing
2	Machine Shop	Contributing
3	Machine Shop	Contributing
4	Foundry	Noncontributing **
5	Foundry Addition	Noncontributing *
6A, 6B	Blacksmith, Tank shop	Contributing
7	Car Shop	Noncontributing *
10	Paint Shop	Noncontributing *
11	Pattern Storehouse	Noncontributing *
12	Pattern Storehouse	Contributing
14	Drafting Room/Storehouse	Noncontributing *
15	Boiler House	Noncontributing *
16	Brass Foundry	Contributing
24	Vault	Contributing
30	Office Building	Noncontributing *

* Outside District Boundary ** Portion Outside District

Portland Company Historic District

Designated February 1, 2016

N

- Portland Company Historic District
- Contributing
- Noncontributing
- Property Line

PLANNING BOARD REPORT
PORTLAND, MAINE

7-unit Condominium Development
30 Merrill Street
Level III Site Plan and Subdivision Review
2016-172
Banner Properties, LLC

Submitted to: Portland Planning Board Date: October 7, 2016 Public Hearing Date: October 12, 2016	Prepared by: Nell Donaldson, Planner CBL: 014 C 14 Project #: 2016-172

I. INTRODUCTION

Banner Properties, LLC appears before the Planning Board for a final site plan and subdivision review for a seven-unit affordable housing development at 30 Merrill Street in Munjoy Hill. The plans include a four-story building, five parking spaces, landscaping, stormwater treatment, and utility and sidewalk improvements.

This development is being referred to the Planning Board for compliance with the site plan and subdivision standards. No Planning Board workshop was held. A total of 255 notices were sent to property owners within 500 feet of the site and a legal ad for the Planning Board hearing ran on October 3 and 4, 2016.

Applicant: Mike Boissonneau, Banner Properties, LLC
Consultants: Evan Carroll, Bild Architecture; Jon Whitten, Plymouth Engineering

II. REQUIRED REVIEWS

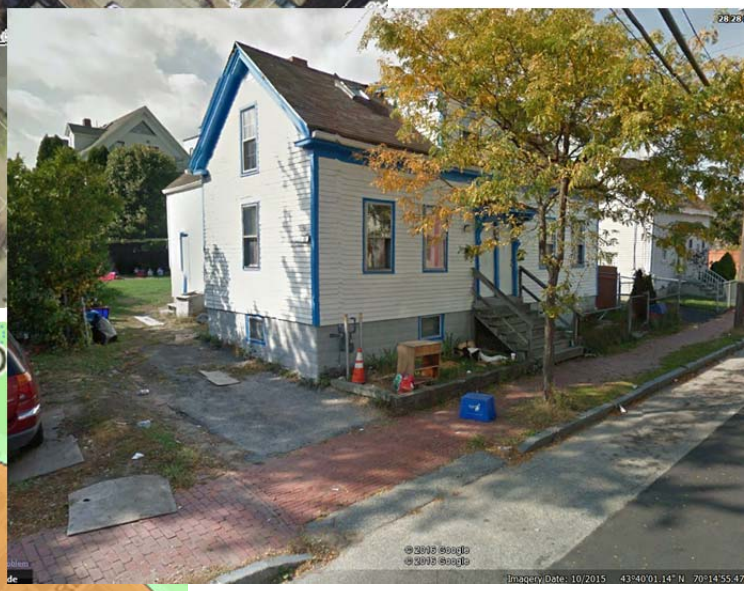
Waiver Requests	***Applicable Standards***
Aisle width – To allow a 19' aisle in the parking area *Supported by consulting traffic engineer.*	Technical Manual, *Section 1.14*, requiring that aisle width for right-angle parking be 24' per Figure I-27.
Parking dimensions – To allow all parking spaces at 8' x 15' *Supported by consulting traffic engineer.*	Technical Manual, *Section 1.14*, requiring that standard parking space be 9' x 18'.
Driveway separation – To allow approximately 11' of separation between the site driveway and the adjacent driveway to the east. *Supported by consulting traffic engineer*.	Technical Manual, *Section 1.7.1*, requiring that driveways be spaced a minimum of 20' from adjacent driveways.
Street trees – 7 units = 7 trees required. One street tree proposed to be preserved, one additional tree proposed. *Supported by city arborist, with contribution for five trees required.*	Site Plan Standard, *Section 14-526(b)2.b(iii)* and Technical Manual, *Section 4.6.1.* All multi-family development shall provide one street tree per unit. Waiver permitted where site constraints prevent it, with applicant contributing proportionate amount to Tree Fund.
Review	***Applicable Standards***
Site Plan	*Section 14-526*
Subdivision	*Section 14-497*

III. PROJECT DATA

Existing Zoning	R-6
Existing Use	Residential (duplex)
Proposed Use	Residential (7 efficiency condominium units)
Parcel Size	5,076 SF

	Existing	*Proposed*	*Net Change*
Building Footprint	1,396 SF	1,824 SF	428 SF
Building Floor Area	2,792 SF	6,580 SF	3788 SF
Impervious Surface Area	1,509 SF	1,824 SF	315 SF
Parking Spaces	2	5	3
Bicycle Parking Spaces	0	2	2
Estimated Cost of Project	$820,000		







Figures 1, 2, and 3: 30 Merrill Street and from above (top), from Merrill Street (right), and existing zoning context (left).

IV. BACKGROUND

30 Merrill Street lies on the eastern end of Merrill Street at its intersection with Turner Street and near its intersection with Cumberland Avenue. The site is currently occupied by a two-story duplex, which would be demolished under the plans proposed here. The site lies in an R-6 zone and is surrounded by residential uses, including both single and multi-family homes.

V. PROPOSED DEVELOPMENT

The applicant has proposed a contemporary four-story building to house seven efficiency condominium units. Vehicular access would be provided via a modified curb cut on Merrill Street. Five parking spaces are proposed at the site's rear. The applicant has proposed building entrances at the front of the building on Merrill Street as well as at the rear, with the primary and accessible entrance to be located at the rear. Landscaping is proposed at the rear of the site, and planter boxes are proposed for the Merrill Street frontage. A fence would wrap three sides of the property. Stormwater management is proposed with a pervious paver system.

VI. PUBLIC COMMENT

The Planning Division received comments on the plans from several neighboring property owners *(Attachments PC-1-7).* The applicant has also provided neighborhood meeting minutes *(Attachment S)*. The comments from these sources identify the following concerns:

- *Parking:* Neighbors expressed concern at the quantity and design of the parking proposed, suggesting that parking will spill over and cause congestion on Merrill Street.
- *Design:* Multiple neighbors also raised concerns with respect to the design of the building, particularly its relationship to the surrounding context. These comments are discussed in detail under site plan review below.

VII. RIGHT, TITLE, & INTEREST

The applicant has provided two deeds as evidence of right, title, and interest, with one deed referring to a small area of property transfer at the southwest corner of the site *(Attachment D)*. No easements are required.

VIII. FINANCIAL & TECHNICAL CAPACITY

The applicant has submitted a letter from Gorham Savings Bank attesting to their financial capacity *(Attachment H).*

IX. ZONING ANALYSIS

Staff conducted a zoning analysis which found that the project meets the use and dimensional requirements of the R-6 zone, including the maximum density of one unit/725 SF, minimum front yard setback of 5', minimum side yard setbacks of 5', required stepbacks of 10' above 35' in height, maximum height of 45', and minimum landscaped open space of 20%.

X. SITE PLAN SUBMISSION REQUIREMENTS (Section 14-527) and SUBDIVISION PLAT AND RECORDING PLAT REQUIREMENTS (Section 14-496)

The applicant has submitted a draft subdivision plat *(Plan 2),* which has been reviewed by William Clark, the city's surveyor. A final plat, addressing Mr. Clark's comments *(Attachment 1)* and meeting the requirements of *Section 14-496,* will be required prior to recording. This review has been included as a condition of approval. A review of condominium documents has also been included as a condition of approval.

XI. SUBDIVISION REVIEW (14-497(a). Review Criteria)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's subdivision ordinance. Staff comments are below.

1. Water, Air Pollution

The stormwater management plan for the project is discussed in more detail under site plan review below. Based on the findings of the civil engineer's review *(Attachment 2),* no detrimental water or air quality impacts are anticipated.

2 & 3. Adequacy of Water Supply
The applicant has provided evidence of capacity from the Portland Water District *(Attachment Q)*.

4. Soil Erosion
No unreasonable soil erosion or reduction in the capacity of the land to hold water is anticipated.

5. Impacts on Existing or Proposed Highways and Public Roads
Based on the findings of the traffic engineer's review *(Attachment 3)*, no detrimental impacts to the existing street network are anticipated.

6. Sanitary Sewer/Stormwater Disposal
Sanitary sewer and stormwater impacts are discussed in more detail under site plan review below.

7. Solid Waste
The applicant has proposed a location for solid waste receptacles in the basement. From there, solid waste and recycling will be collected curbside by the city. No detrimental impacts are anticipated.

8. Scenic Beauty
This proposal is not deemed to have an adverse impact on the scenic beauty of the area.

9. Comprehensive Plan
The plans meet multiple goals from the city's housing plan, including ensuring "the construction of a diverse mix of housing types that offers a continuum of options across all income levels" and "encourag[ing] higher density housing for both rental and home ownership opportunities, particularly located near services, such as schools, businesses, institutions, employers, and public transportation."

10. Financial and Technical Capacity
As noted above, the applicant has submitted a letter from Gorham Savings Bank attesting to their financial capacity (*Attachment G)*.

11. Wetland/Water Body Impacts
There are no anticipated impacts to wetlands or water bodies.

12. Groundwater Impacts
There are no anticipated impacts to groundwater supplies.

13. Flood-Prone Area
Per the city's existing flood maps, the site is not located in a flood zone.

XII. SITE PLAN REVIEW

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's site plan ordinance. Staff comments are below.

1. Transportation Standards

a. Impact on Surrounding Street Systems
The development includes seven residential units, which, per the applicant's trip generation analysis, are anticipated to generate three trips "within the peak hour" *(Attachment I)*. Tom Errico, the city's consulting traffic engineer, has reviewed the applicant's submittals and has not identified any concerns regarding impacts to surrounding street systems *(Attachment 3).*

b. Access and Circulation
The final plans include utility, street tree, and driveway apron work within the existing 8' brick sidewalk along the frontage of the site. Given the amount of work proposed in the sidewalk, the Department of Public Works has requested that the sidewalk be replaced in its entirety. Mr. Errico writes,

> *Based upon disruption of the existing sidewalk due to utility connections, driveway apron improvements, and general construction activity, DPW requires full replacement of the existing sidewalk along the project frontage.*

This has been included as a condition of approval.

The building is proposed with two entrances, a front door with access from the Merrill Street sidewalk and a rear door with access from the parking area. The front door, which the applicant has referred to as the "contextual entrance," is designed to provide direct access to the basement of the building, but not access directly to the building's first floor. (The first floor is accessible from the basement via a stairwell at the back of the building.) The rear door, which the applicant has referred to as the "practical entrance," is designed to provide at-grade, direct access to the first floor units, and thus to serve as the building's accessible entrance. Over the course of the review, staff encouraged the applicant to pursue a redesign which might allow the front door to provide direct access to living spaces. In response, Evan Carroll, the applicant's architect, highlighted conflicts between Fair Housing Act standards, design standards, and site plan standards, and argued that the proposed design represents the best solution for the site. He writes,

> *[T]he sloping site makes the possibility of multiple accessible entrances impractical for a project of this scale. The accessible rear entrance is favored as it best serves arrival by vehicle. (Attachment O)*
>
> *While [the front] entrance is to a space that is more utilitarian space than formal, it will function well as "breezeway" entrance to all of the residents. The residents will all have personal spaces for stowing bikes, kayaks, boots, umbrellas, strollers and other outdoor gear. This entrance is treated on the exterior as the formal entrance to be in keeping with the neighborhood. (Attachment M)*

Given the proposed design, and the likelihood that most visitors on foot will likely use the rear entrance, since it provides direct access to both the first floor and the stairwell to upper floors, the applicant has demarcated a pedestrian way from the driveway to the rear door in the plans.

The plans show the modification of an existing curb cut, which would slightly improve driveway separation from the adjacent driveway to the east, providing for approximately 11' in distance between the two driveways. Mr. Errico has noted that he supports a waiver from driveway separation standards.

The new curb cut is proposed with a brick apron. Asphalt aprons are standard in this area of the city, although the City Council has recently adopted a policy to provide for consistent sidewalk material across driveway openings. A condition of approval has been drafted to address this situation. As Mr. Errico writes,

> *The plans have been revised to note that the driveway apron will be upgraded and centered with the proposed driveway. The plan notes a brick driveway apron and I would suggest a condition of approval that requires the project meet driveway design material standards currently being considered for revision by the City Council.*

The plans show a driveway in pervious pavers which would provide access to five parking spaces, one of which would be accessible. The drive aisle in the parking area proposed at less than 19', less than the city standard. As such, a waiver is required. At Mr. Errico's request, the applicant has provided turning templates in an effort to document the efficacy of the parking circulation. Mr. Errico has reviewed the turning templates and supports a waiver for aisle width *(Attachment 3)*.

It should be noted that Mr. Errico has raised some concerns regarding a fence that is proposed along the eastern property line, particularly where it my conflict with sight distances to the adjacent driveway. He writes,

> *The applicant has provided a fence detail that I find to be acceptable. Given that backing maneuvers are likely, I would suggest that the fence height be reduced to 3.5 feet for the first fence panel from the property line to ensure safe sight lines to pedestrians on the sidewalk.*

This has been included as a condition of approval.

c. Public Transit Access
The proposed development is not located along a public transit route. As such, no provisions for transit access are required.

d. Parking
Division 20 of the land use ordinance provides an exception for the off-street parking requirement for the first three units in the R-6 zone and a 1:1 requirement thereafter. Per the ordinance then, only four off-street spaces are technically required. The applicant has elected to provide five off-street spaces. On the final plans, the applicant shows all five spaces at 8' x 15', dimensions which fail to meet the *Technical Manual* standard. Mr. Errico has expressed his support for this waiver *(Attachment 3)*.

Two bicycle spaces per five dwelling units are required under the site plan ordinance. As such, three bicycle parking spaces are required. The final plans denote a bicycle rack on the sidewalk in front of the building to provide space for one visiting bicycle. Additional bicycle parking would be provided in the building basement, with access via the door on Merrill Street.

e. Transportation Demand Management
A transportation demand management plan is not required.

2. Environmental Quality Standards

a. Preservation of Significant Natural Features
There are no known significant natural features on the site.

b. Landscaping and Landscape Preservation
The landscaping plan shows assorted shrubs and perennials, including dwarf balsam firs, rhododendrons, spirea, hostas, and day lilies, in two concrete planters to frame the front door on Merrill Street. The plans also include some planting, including rosa rugosas, little bluestem, and day lilies, along the fenceline at the rear of the site. These plantings meet the city's landscaping standards, and Jeff Tarling, the city's arborist, has verbally indicated his satisfaction with the plans.

Per the city's site plan ordinance, seven street trees are required for the seven residential units proposed. The plans include the preservation of one existing street tree and the planting of one more. The species of the proposed tree has not been identified on the plans; as such, this has been included as a condition of approval. Site constraints prevent the planting of additional street trees. A waiver for the planting of the five remaining street trees, with a contribution of $1,000 as required by ordinance, is proposed.

c. Water Quality/Storm Water Management/Erosion Control
In its current state, the site slopes from back to front and is largely pervious, save for the area occupied by the existing duplex. All runoff drains to Merrill Street via overland flow and from there into existing catch basins which collect in the combined sewer in Merrill Street. Under the proposed development, much of the site would remain pervious, as the entire parking area and driveway is designed with pervious pavers with a filter layer sub-base over native soils; the total impervious area on site is proposed to increase by only 315 SF. As the proposed stormwater system reaches capacity, runoff is proposed to flow to Merrill

Street, much as it does in the existing condition. Lauren Swett, the city's consulting civil engineer, has reviewed this system and indicated her approval *(Attachment 2)*.

3. Public Infrastructure and Community Safety Standards

a. Consistency with Related Master Plans
As noted above, the project is generally deemed consistent with related master plans.

b. Public Safety and Fire Prevention
Keith Gautreau, of the Fire Prevention Bureau, has reviewed the plans and found them adequate in terms of emergency vehicle access and the city's public safety standards *(Attachment 4)*. The site has generally been planned in accordance with Crime Prevention Through Environmental Design (CPTED) principles *(Attachment N)*.

c. Availability and Capacity of Public Utilities
The plans depict underground electrical service from a pole on the western edge of the Merrill Street frontage. A sewer connection is proposed to an existing combined line in Merrill Street. Evidence of sewer capacity has been provided *(Attachment P).*

Domestic and fire water service are also proposed from Merrill Street. The applicant has provided evidence of water capacity *(Attachment Q)*.

Ms. Swett has reviewed the utility plan and details and found them adequate with respect to the city's technical standards.

4. Site Design Standards

a. Massing, Ventilation, and Wind Impact
The bulk, location, and height of the proposed building are not anticipated to result in health or safety problems from a reduction in ventilation or changes to the wind climate. Likewise, these elements of the plan are not anticipated to result in substantial diminution in the value or utility of neighboring structures.

Roof-mounted HVAC systems are depicted away from the cornice line on the west side of the building. Vents are also shown on the building sides near the building's rear.

b. Shadows
No shadow impacts to publicly accessible open spaces are anticipated.

c. Snow and Ice Loading
Accumulated ice and snow are not anticipated to load onto adjacent properties or public ways.

d. View Corridors
Merrill Street is not a protected view corridor.

e. Historic Resources
The site is not within or adjacent to a designated historic resource.

f. Exterior Lighting
The applicant has provided a photometric plan and two cut sheets depicting full cutoff fixtures *(Plan 21 and Attachment R)*. These plan meets *Technical Manual* standards.

g. Noise and Vibration
As noted above, final plans and elevations show mechanical equipment on the roof at the interior of the site. The applicant has attested that all state and federal emissions requirements will be met *(Attachment P).*







Figures 4, 5, and 6: Renderings of proposed building from north, west, and east.

h. Signage and Wayfinding

No signage or wayfinding is proposed.

i. Zoning-Related Design Standards

The applicant has provided a set of elevations, renderings, a context graphic, and a design narrative which reflect several rounds of review and speak to the architectural approach for the project *(Attachment M).* The narrative addresses the R-6 design standards, and argues that elements of the design relate closely to the surrounding context - the massing "much like the double-wide triple decker buildings that exist throughout the neighborhood," the use of "areas of concentrated windows (like bay windows)," the recessed and covered front entry, the prominent cornice, and the use of clapboard siding. In response to both the drawings and the narrative, Caitlin Cameron, the city's urban designer, has provided a memo highlighting the findings of the design review and establishing that the proposed design meets all criteria for an alternative design review. *(Attachment 5).* Under alternative design review, a project must be designed by a registered Maine architect, be compatible with the surrounding buildings in a two block radius, be consistent with the principles of the R-6 standards, and meet the majority of design standards within each principle.

It should be noted that, over the course of this review, some neighbors have raised significant concerns with respect to the building design. Neighbors have questioned the building's scale and form, arguing that, while they may relate to the larger buildings of Cumberland or Congress Streets, they lack compatibility with finer-grained fabric of the buildings to the north and west. Others have argued that the elements of the building intended to provide articulation – the Juliet balconies and the recessed plane at the center of the front façade, for example – are insufficient to provide meaningful relief.

Neighbors have also raised concerns about the proposed materials and fenestration, arguing that the front windows are effectively horizontal and inappropriate in size for a residential context. Last, residents have raised concerns about the design of the front door, arguing that, since it fails to provide direct access to the living space, it will not function as a main entrance and therefore not provide many of the positive urban design benefits a main entry is intended to provide.

XIII. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board approve the proposed seven unit condominium development at 30 Merrill Street.

XIV. PROPOSED MOTIONS

A. WAIVERS

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board report for the public hearing on October 12, 2016 for application 2016-172 relevant to Portland's technical and design standards and other regulations; and the testimony presented at the Planning Board hearing:

1. The Planning Board **finds/does not find**, based upon the consulting transportation engineer's review, that extraordinary conditions exist or undue hardship may result from strict compliance with the *Technical Manual* standard *(Section 1.14)* which requires that aisle width for right-angle parking be 24 feet per *Figure I-27*, that substantial justice and the public interest are secured with the proposed variation in this standard, and that the variation is consistent with the intent of the ordinance. The Planning Board **waives/does not waive** the *Technical Manual* standard *(Section 1.14)* to allow the aisle as depicted in the proposed site plan;

2. The Planning Board **finds/does not find**, based upon the consulting transportation engineer's review, that extraordinary conditions exist or undue hardship may result from strict compliance with the *Technical Manual* standard *(Section 1.14)* which requires that a standard parking space be 9' x 18', that substantial justice and the public interest are secured with the proposed variation in this standard, and that the variation is consistent with the intent of the ordinance. The Planning Board **waives/does not waive** the *Technical Manual* standard *(Section 1.14)* to allow five 8' x 15' spaces;

3. The Planning Board **finds/does not find**, based upon the consulting transportation engineer's review, that extraordinary conditions exist or undue hardship may result from strict compliance with the *Technical Manual* standard *(Section 1.14)* which requires a minimum separation between driveways of 20 feet *Figure I-27*, that substantial justice and the public interest are secured with the proposed variation in this standard, and that the variation is consistent with the intent of the ordinance. The Planning Board **waives/does not waive** the *Technical Manual* standard *(Section 1.14)* to allow 11 feet of separation between the site driveway and the adjacent driveway to the east;

4. The Planning Board **finds/does not find** that the applicant has demonstrated that site constraints prevent the planting of all required street trees in the right-of-way. The Planning Board **waives/does not waive** the site plan standard (*Section 14-526 (b) (iii))* to allow for a contribution of $1,000 to Portland's tree fund to be substituted for the provision of additional trees on site.

B. SUBDIVISION

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board report for the public hearing on October 12, 2016 for application 2016-172 relevant to the subdivision regulations; and the testimony presented at the Planning Board hearing, the Planning Board finds that the plan **is/is not**

in conformance with the subdivision standards of the land use code, subject to the following conditions of approval, which must be met prior to the signing of the plat:

1. The applicant shall finalize the subdivision plat for review and approval by Corporation Counsel, the Department of Public Services, and the Planning Authority; and

2. Prior to Certificate of Occupancy, the applicant shall finalize condominium documents for review and approval by Corporation Counsel.

C. DEVELOPMENT REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on October 12, 2016 for application 2016-172 relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board finds that the plan **is/is not** in conformance with the site plan standards of the land use code, subject to the following conditions of approval that must be met prior to the issuance of a building permit, unless otherwise stated:

1. The applicant shall submit revised plans which:
   a. Show the extent of sidewalk replacement on Merrill Street and include all relevant *Technical Manual* details; and
   b. Show a modified fence height at the front of the property to ensure safe sight distance

   for review and approval by the Department of Public Works;

2. The applicant shall submit a final driveway apron detail meeting *Technical Manual* standards for review and approval by the Department of Public Works; and

3. The applicant shall submit revised plans which indicate the species and size for the proposed street tree on Merrill Street for review and approval by the City Arborist.

XV. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. City Surveyor review (markup from Bill Clark, 7/15/16)
2. Civil engineer review (memo from Lauren Swett, 10/7/16)
3. Traffic engineer review (memo from Thomas Errico, 10/6/16)
4. Fire Prevention Bureau review (memo from Keith Gautreau, 8/12/16)
5. Design review (memo from Caitlin Cameron, 9/28/16)

APPLICANT'S SUBMITTALS

A. Cover Letter (from Evan Carroll, 7/15/15)
B. Level III Site Plan Application
C. Description of Project
D. Evidence of Right, Title, & Interest
E. Compliance With Zoning
F. Waiver Requests
G. Evidence of Financial Capacity
H. Stormwater Management Plan
I. Trip Generation and Circulation
J. Consistency with City Master Plans
K. Solid Waste Management
L. NFPA Code Summary
M. Design Standards Assessment
N. Crime Prevention Through Environmental Design Narrative
O. Accessibility Narrative
P. Mechanical Systems Statement

Q. Utility Capacity Letters
R. Lighting Cut Sheets
S. Neighborhood Meeting Summary
T. Responses to Comments

PLANS

Plan 1. Boundary Survey
Plan 2. Plat
Plan 3. Site Plan
Plan 4. Grading and Utility Plan
Plan 5. Erosion & Sedimentation Control Details
Plan 6. Details
Plan 7. Architectural Cover Sheet
Plan 8. Basement/First Floor Plan
Plan 9. Second/Third Floor Plan
Plan 10. Fourth Floor/Roof Plan
Plan 11. Front and Rear Elevations
Plan 12. Side Elevations
Plan 13. Rendering from the East
Plan 14. Rendering from Turner Street
Plan 15. Rendering from the West
Plan 16. Context
Plan 17. Details
Plan 18. Code Summary
Plan 19. Life Safety Plan
Plan 20. Construction Management Plan
Plan 21. Photometric Plan

PUBLIC COMMENT

PC-1. Jordan email (8/16/16)
PC-2. Davis email (9/10/16)
PC-3. Harkleroad email (9/21/16)
PC-4. Davis email (9/22/16)
PC-5. Adams letter (10/6/16)
PC-6. Swartz letter (10/7/16)
PC-7. Valzania letter (10/7/16)

CERTIFICATION

STATE OF MAINE · RICHARD W. EATON # 2075 · PROFESSIONAL LAND SURVEYOR

RICHARD W. EATON P.L.S. # 2075

Space & Bulk Standards:

Zone. R-6	Required
Mimium Lot Size	2,000 S.F.
Minimum Frontage	20'
Minimum Yard Dimensions	
Front Yard	5' Or Avarage Depths of Adjacent Yards
Rear Yard	10'
Side Yard	5'
Maximum Lot Coverage	60%
Minimun Lot Width	20'
Maximum Building Height	45'

General Notes:

1) Area of Subject Parcel 5,100 Square feet or 0.12 Acres

2) Basis of Bearing, Maine State Plane NAD 1983 1802 West Zone Base Point, Granite Monument With Bolt at Congress Street and Merrill Street T111-30-132, N303787.1960 E2931509.0560 Azimuth Point, Monument With DH on Washinton Ave. T111-21-123, N304140.2327, E2930845.2163 Azimuth N61-59'-44"W 751.88' Feet

3) Vertical Datum is NGVD 1929 Benchmark is PK Nail on CMP Pole #9 West Side Congress Elevation = 139.79' Provided By City of Portland Public Works Engineering

4) Subject Tax Map 014 Block C Lot 014

5) Subject not in Special Flood Hazard Area per FEMA Flood Rate Map Panel # 230051 0014B Dated July 17, 1986 Parcel in C Zone

6) Zone R-6

PLAN REFERENCE

1) Condominium Plat Marquis Lofts Condominium 33-35 LaFayette Street, Portland Made For Random Orbit Inc, By Owen Haskell, Dated March 3, 2014 Recorded in Plan Book 214 Page 145

2) Portland Valuation Plan By William Goodwin Dated 1882 Number #14

3) Street Line Sheets From Portland Engineering Office Dated Feb 1926 Number 181

4) City of Portland Dept. of Public Works, Merrill St. Rehab Sewer, Approved July 14, 1938 Sheet 5 & 6 On File at City Engineer Vault

LEGEND

- 5/8" Rebar Set With Cap
- Rebar/Iron Pipe Found
- Utility Pole
- N.F. Now or Formerly
- 1324/98 Book & Page
- Water Valve

Location



Turner St.

Merrill Street
49.5' Wide
Accepted June 19, 1857

Sewer MH Rim Elev. 145.83
Sewer Invert Elev. 137.08
Pen Pain Ref #4

City Monument T111-21-124

Rim Elevation 145.3'

N16°53'26"E 52.36'

99.65'

12" Sewer Line Slope 1.16%

CIRF 1" AG N 304065.6970 E 2931218.2371

Connection Per Permit Sketch

Paved Driveway

5' Setback

N.F. Gene Stone 11305/97

This Pole Has Wire Support to Pole On Street

Garage

N41°33'31"E 87.96'

Deed 94'

5' Setback

S45°33'31"E 94.00'

Gas Meter

Paved Driveway

5/8" Rebar Set 0.30' North of 1" Pipe Found 2" BG

S41°33'23"W 57.54'

94.35'

S Sewer MH Rim Elev. 143.70
S Sewer Invert Elev. 134.36
Pen Pain Ref #3

State Plane Grid

N65°58'17"W 344.57' To City Monument T111-21-123 At Quebec & Lafayette

Marquis Lofts Condominium Plan Book 214 Page 145

CIRF 1" AG

N 303999.9262 E 2931159.9281

CIRF 1" AG

N42°42'48"W 44.85'

10' Setback

S42°42'48"E

Lafayette Street

S42°42'48"E

CIRF 1" AG

S46°18'50"E 3.00'

S43°33'31"W 47.89'

TEST VS LINEWORK

N41°29'08"E 14.55'

N43°34'54"W 12.34'

S Setback

N.F. Erica Thompson 20400/154

N.F. Munjoy Properties LLC 31588/282

N.F. Five Seven LLC 33264/225

N.F. Todd Grove 32062/8

Cumberland Ave.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

1 inch = 10 ft.

R. W. EATON ASSOCIATES

LAND SURVEYING & REAL ESTATE

58 PLEASANT STREET, WESTBROOK, MAINE 04092

PHONE: 207-854-2402 FAX: 856-7167 E-MAIL: RWEATON@MAINE.RR.COM

January 8th, 2016

Boundary Survey & Topographical Map

With Existing Conditions

Land Located at:	30 Merrill Street Portland, Maine 04101
Land Owned By:	Banner Properties LLC
Address:	126 Underwood Road Falmouth, Maine 04105
Deed Reference:	Book 31989 Page 345 Book 33271 Page 269

SURVEY REVIEW 10/03/2016

SCALE:	1:10
DRAWN BY:	R.W.E.
CHECKED BY:	R. W. E.
CAD FILE:	570.DWG
PROJ #:	570
ORIG DATE:	01-08-16
0 REV DATE:	07-15-16
1 REV DATE:	00-00-00
2 REV DATE:	00-00-00
3 REV DATE:	00-00-00

COMMITMENT & INTEGRITY
DRIVE RESULTS

41 Hutchins Drive
Portland, Maine 04102
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

MEMORANDUM

TO: Nell Donaldson, Planner
FROM: Lauren Swett, PE
DATE: October 7, 2016
RE: 30 Merrill Street, Level III Site Plan Application

Woodard & Curran has reviewed the Site Plan Application for the proposed development located at 30 Merrill Street in Portland, Maine. The project involves the construction of a four story residential building with parking in the rear of the lot.

Documents Reviewed by Woodard & Curran

- Response to comment letter, dated September 23, 2016, prepared by Plymouth Engineering Inc., on behalf of Banner Properties, LLC.
- Updated project plans, prepared by Plymouth Engineering Inc., on behalf of Banner properties, LLC, on behalf of Banner Properties, LLC.

Comments(*Comments in italics from previous memorandum***)**

1) The Applicant has requested letters from utilities confirming capacity to serve the proposed development; evidence of confirmation of capacity to serve the proposed development should be provided upon receipt. The wastewater capacity letter has been provided at this time and the Applicant has noted that additional letters will be forwarded when received.

2) In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. We offer the following comments:
   a) Basic Standard: The Applicant has provided Erosion & Sediment Control notes and sedimentation barrier details to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500.
   b) General Standard: The project will result in a de minimis increase in impervious area. Treatment is not required; however, the Applicant has proposed pervious pavers to provide treatment for the parking area.
   c) Flooding Standard: The project will result in a de minimis increase in impervious area and flooding control will not be required.

3) All other prior comments have been addressed.

Portland Maine | Yes. Google's good here.

Helen Donaldson <hcd@portlandmaine.gov>

30 Merrill Street - Final Traffic Comments

1 message

Tom Errico <thomas.errico@tylin.com> Thu, Oct 6, 2016 at 9:35 AM
To: Helen Donaldson <HCD@portlandmaine.gov>
Cc: Katherine Earley <kas@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Jeff Tarling <jst@portlandmaine.gov>, Lauren Swett <lswett@woodardcurran.com>

Hi Nell – The following represent a status update of my prior comments and represent final traffic comments.

· The site plan depicts the driveway offset from the curb opening, while the existing driveway is centered. The applicant should note why an offset condition is proposed.

Status: Based upon the condition of both tip-down curbing and the driveway apron, the applicant shall center and renovate the driveway apron to meet City standards.

Final Status: The plans have been revised to note that the driveway apron will be upgraded and centered with the proposed driveway. The plan notes a brick driveway apron and I would suggest a condition of approval that requires the project meet driveway design material standards currently being considered for revision by the City Council.

· The applicant should formally request a waiver from the City's driveway separation standard and provide documentation on why the standard can't be met.

Status: Given site frontage limitations and that driveways on both southerly and northerly abutting properties impact spacing, I support a waiver for driveway separation.

Final Status: I have no further comment.

· A fence is proposed on the edge of the driveway. Details on the fence should be provided.

Status: Outstanding

Final Status: The applicant has provided a fence detail that I find to be acceptable. Given that backing maneuvers are likely, I would suggest that the fence height be reduced to 3.5 feet for the first fence panel from the property line to ensure safe sight lines to pedestrians on the sidewalk.

· Access and egress movements from parking spaces will be constrained. The applicant has provided vehicle turning templates that seem to illustrate parking space accessibility is feasible. Given the constrained conditions, I would suggest the applicant simulate the layout in a field test to be reviewed by me. I would note that the parking space adjacent to the handicap space will be difficult to maneuver into and out of.

Status: The applicant has provided vehicle turning template graphics that illustrate movements. Given tight circulation conditions, conflicts with pedestrians entering the building via the driveway and parking lot, I would suggest that the parking lot be designed to minimize conflicts. I would suggest that the parking space adjacent to the handicap parking space be eliminated and used for enhanced circulation space (While I do not oppose backing maneuvers onto Merrill Street, I would prefer that they are minimized). In my professional opinion the site will function adequately by removing the subject space and the previously noted field simulation would no longer be required.

Final Status: The plans have been revised and I find them to be acceptable. I would note that given site constraints, I support waivers from the City's Technical Standards for aisle width and the provision of

compact parking spaces.

Additional Comments

- **Based upon disruption of the existing sidewalk due to utility connections, driveway apron improvements, and general construction activity, DPW requires full replacement of the existing sidewalk along the project frontage.**

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director
T·Y·LIN INTERNATIONAL

12 Northbrook Drive

Falmouth, ME 04105

207.781.4721 (main)

207.347.4354 (direct)

207.400.0719 (mobile)

207.781.4753 (fax)

thomas.errico@tylin.com

Visit us online at www.tylin.com

Twitter | Facebook | LinkedIn | YouTube

"One Vision, One Company"

Please consider the environment before printing.

MEMORANDUM

To: FILE

From: Nell Donaldson

Subject: Application ID: 2016-172

Date: 8/12/2016

Comments Submitted by: Keith Gautreau/Fire on 8/10/2016

The proposed structure will be required to have a sprinkler system in accordance with NFPA 101 2099 ed.

Comments Submitted by: Keith Gautreau/Fire on 8/10/2016

Water supply is adequate with the provided public hydrants on Munjoy Hill.

Comments Submitted by: Keith Gautreau/Fire on 8/10/2016

Emergency access to the proposed site is fine. There appears to be adequate space between the adjacent structures for access.

Planning and Urban Development Department
Planning Division

Subject: R-6 Small Infill Design Review – 30 Merrill Street

Written by: Caitlin Cameron, Urban Designer

Date of Review: Wednesday, September 28, 2016

A design review according to the *City of Portland Design Manual* Standards was performed for the proposed new construction of a multi-family dwelling at 30 Merrill Street. The review was performed by Caitlin Cameron, Urban Designer, Nell Donaldson, Planner, and Shukria Wiar, Planner, all within the Planning Division of the Department of Planning & Urban Development. The project was reviewed against the *R-6 Small Infill Development Design Principles & Standards* (Appendix 7 of the Design Manual).

Findings of the Design Review:
The Planning Authority under an Alternative Design Review may approve a design not meeting one or more of the individual standards provided that all of the conditions listed below are met:

A. The proposed design is consistent with all of the Principle Statements.
B. The majority of the Standards within each Principle are met.
C. The guiding principle for new construction under the alternative design review is to be compatible with the surrounding buildings in a two block radius in terms of size, scale, materials, and siting, as well as the general character of the established neighborhood, thus Standards A-1 through A-3 shall be met.
D. The design plan is prepared by an architect registered in the State of Maine.

The proposed design **passes** all of the criteria – please refer to comments below.

Design Review Comments *(red text denotes principles or standards that are not met)**:***

Principle A Overall Context – Met – see below.

- *A-1 Scale and Form:* The building type proposed is similar to a double-triple with an additional unit on the 4th floor. Double-triples can be found in the surrounding context, however, the scale and form of those buildings are mitigated with the use of mansard or other similar roof forms on the third floor, pronounced and overhang cornice lines, bay windows, recessed entries with canopies. Of these formal and scaling elements, the project employs a canopy at the entrance, a recessed entry, overhanging cornice at the third floor, and window bays (although not full bays, the façade plane changes). The fourth floor is made recessive to emphasize the contextual three-story massing of the main portion of the building relating more directly in scale and form with the triple-decker across the street.

- *A-2 Composition of Principal Facades:* The composition of the street-facing facades is consistent with context in terms of using symmetrical bays (two or three bays) that are oriented to the street. The rhythm, size, and proportion of windows is a contemporary exaggeration of the traditional design – staff found that the "bays" and the balconies bring articulation, vertical proportion, and human scale to the large windows.
- *A-3 Relationship to the Street:* The building placement is consistent with the spacing of the residential fabric – slightly setback from sidewalk to allow for stoops and provide privacy.

Principle B Massing – Met – Buildings in the neighborhood with similar massing and proportion (double-triples) that are wider at the street use changes in massing, like the roof form and bays, to mitigate the scale and provide a pedestrian-friendly, visually interesting street presence. The revised design at 30 Merrill emphasizes the double-triple massing by creating a strong roof line a the third floor and varies the street façade with plane changes.

- *B-1 Massing:* The principal mass is reminiscent of a double triple-decker found in the context – revisions to the cornice line at the third floor, the stepback of the fourth floor unit help to emphasize that three-story contextual massing. A recess was added at the center of the mass to create recessed entry and provide a façade plane change creating a similar effect as a window bay.
- *B-2 Roof Forms:* The proposed 7th unit on the top floor has been centered and stepped back with a material change – these three actions make that fourth floor recessive and the flat roof form of the primary mass is dominant.
- *B-4 Roof Pitch:* The roofs are monopitch/ flat roofs.
- *B-5 Façade Articulation:* The project employs two of the required articulation elements – covered entry, recessed entry. Small balconies are also used.
- *B-6 Garages:* Not applicable.

Principle C Orientation to the Street – Met – The project is oriented to the street with a street-facing door.

- *C-1 Entrances:* The entry is street-facing and emphasized with a canopy and recess.
- *C-2 Visual Privacy:* Visual privacy is adequately addressed; ground floor windows are higher than 48" above adjoining sidewalk grade; the ground floor is adequately raised above sidewalk grade appropriate for private residential buildings with living space on the ground floor (at least 24" is required by the standard).
- *C-3 Transition Spaces:* The project uses a canopy at the entrance, the building is set back with planters.

Principle D Proportion and Scale – Met – The façade elements are proportionate and scaled to the overall building.

- *D-1 Windows:* The majority of windows are rectangular and have vertical proportion; window proportion is not a proportion found in the context, however.
- *D-2 Fenestration:* The project appears to meet the 12% fenestration requirement and appropriately scaled to the massing of the building.
- *D-3 Porches:* The balconies included in this project are less than 48 sf and not do not meet this standard.

Principle E Balance – Met – The building façade composition creates a sense of balance with good use of overall and local symmetry and articulation of façade materials.

- *E-1 Window and Door Height:* The majority of window and door head heights align along a common horizontal datum.
- *E-2 Window and Door Alignment:* The majority of windows shall stack so that centerlines of windows are in vertical alignment.
- *E-3 Symmetricality:* Primary window compositions are arranged symmetrically around discernable vertical axes.

Principle F Articulation – Met – Based on the information given, it appears the project employs visually interesting and well composed facades.

- *F-1 Articulation:* Trim and balcony details will create shadow lines on front façade.
- *F-2 Window Types:* One window type at street façade.
- *F-3 Visual Cohesion:* The visual cohesion of the façade is good – one siding material proposed with color variation.
- *F-4 Delineation between Floors:* The floors are delineated by fenestration patterns.
- *F-5 Porches, etc.:* The canopy is well integrated into the overall design and highlights the entrance. Balcony railings are used to provide articulation and shadow lines to the front façade. They also draw a vertical line across the windows, creating a stronger vertical proportion for the large windows.
- *F-6 Main Entries:* The main entry is emphasized with prominent placement facing the street, recessed, and the use of a canopy.
- *F-7 Articulation Elements:* The cornice has been revised to be more pronounced and have an overhang similar to those found in context multi-family buildings; the trim details are not clear; the façade offset is at least 12".

Principle G Materials – Met– The material choices are well-placed and the siding is a contemporary version of clapboard.

- *G-1 Materials:* The residential context is predominantly clapboards with occasional shingle or brick. The proposal uses fiber cement clapboard with horizontal orientation – the reveal is larger than the traditional scale.
- *G-2 Material and Façade Design:* The materials are appropriately placed according to their nature – concrete base, clapboard above.
- *G-3 Chimneys:* Not applicable.
- *G-4 Window Types:* One window type on street façade.
- *G-5 Patios and Plazas:* Not applicable.

bild ARCHITECTURE

ingenuity thoughtfulness empathy

July 15, 2016

Barbara Barhydt, Development Review Manager
City of Portland, Planning Division
389 Congress Street, 4th Floor
Portland, Maine 04103

RE: Level III Site Plan Application
7 Unit Residential Condominium Development
30 Merrill Street
Portland, Maine

Dear Barbara,

On behalf of our client, Banner Properties LLC, we are pleased to submit this Level III Site Plan Application for the development of 7 residential condominium units at 30 Merrill Street. We look forward to collaborating with you to help create much needed mid-level market-rate dwelling units on Munjoy Hill.

The building will be four (4) stories with a full basement and surface parking in the rear. The parking will be accessed by a driveway along the south side of the building. Pervious paving will be utilized along the drive and in the parking areas, and green roof trays will be utilized on the roof. The building will be accessed from a street entrance to the basement and a rear entrance to two accessible units.

In compiling this application, we have attempted to place the materials supporting our application in the same order as the City's checklist. Please feel free to contact me with any questions or concerns you may have regarding the attached application materials.

Sincerely,

Evan A. Carroll

Evan Carroll, AIA, LEED AP BC+D

bildarchitecture.com • evan@bildarchitecture.com • (207)408-0168
PO Box 8235, Portland, ME 04104 • 30 Danforth Street, Suite 213, Portland, ME 04101

Att. B

Portland, Maine — Yes. Life's good here.

Jeff Levine, AICP, Director
Planning & Urban Development Department

Electronic Signature and Fee Payment Confirmation

Notice: Your electronic signature is considered a legal signature per state law.

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a ***legal signature*** per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no Site Plan or Historic Preservation Applications can be reviewed until payment of appropriate application fees are ***paid in full*** to the Inspections Office, City of Portland Maine by method noted below:

☒ Within 24-48 hours, once my complete application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☐ Within 24-48 hours, once my application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☐ I intend to deliver a payment method through the U.S. Postal Service mail once my application paperwork has been electronically delivered.

Applicant Signature: _____ Date: 7/13/16

I have provided digital copies and sent them on: _____ Date: _____

NOTE: All electronic paperwork must be delivered to buildinginspections@portlandmaine.gov or by physical means i.e. a thumb drive or CD to the Inspections Office, City Hall, 3rd Floor, Room 315.

Level III – Preliminary and Final Site Plans
Development Review Application
Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Level III: Preliminary or Final Site Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

Level III: Site Plan Development includes:

- New structures with a total floor area of 10,000 sq. ft. or more except in Industrial Zones.
- New structures with a total floor area of 20,000 sq. ft. or more in Industrial Zones.
- New temporary or permanent parking area(s) or paving of existing unpaved parking areas for more than 75 vehicles.
- Building addition(s) with a total floor area of 10,000 sq. ft. or more (cumulatively within a 3 year period) except in Industrial Zones.
- Building addition(s) with a total floor area of 20,000 sq. ft. or more in Industrial Zones.
- A change in the use of a total floor area of 20,000 sq. ft. or more in any existing building (cumulatively within a 3 year period).
- Multiple family development (3 or more dwelling units) or the addition of any additional dwelling unit if subject to subdivision review.
- Any new major or minor auto business in the B-2 or B-5 Zone, or the construction of any new major or minor auto business greater than 10,000 sq. ft. of building area in any other permitted zone.
- Correctional prerelease facilities.
- Park improvements: New structures greater than 10,000 sq. ft. and/or facilities encompassing 20,000 sq. ft. or more (excludes rehabilitation or replacement of existing facilities); new nighttime outdoor lighting of sports, athletic or recreation facilities not previously illuminated.
- Land disturbance of 3 acres or more (includes stripping, grading, grubbing, filling or excavation).

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: http://me-portland.civicplus.com/DocumentCenter/Home/View/1080
Design Manual: http://me-portland.civicplus.com/DocumentCenter/View/2355
Technical Manual: http://me-portland.civicplus.com/DocumentCenter/View/2356

Planning Division
Fourth Floor, City Hall
389 Congress Street
(207) 874-8719

Office Hours
Monday thru Friday
8:00 a.m. – 4:30 p.m.

Updated: October 6, 2015

PROJECT NAME: Loft Condos at 30 Merrill Street

PROPOSED DEVELOPMENT ADDRESS:

30 Merrill Street, Portland ME

PROJECT DESCRIPTION:

A new four story building with footprint of 1,824sf which will house (7) condominium units totaling of 6,580sf.

CHART/BLOCK/LOT: 14 - C - 14

PRELIMINARY PLAN _____ (date)
FINAL PLAN 7-12-2016 (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Mike Boissonneau Business Name, if applicable: Banner Properties LLC Address: 126 Underwood Rd City/State : Falmouth, ME Zip Code: 04105	**Applicant Contact Information** Work # 207-332-3038 Home# Cell # Fax# e-mail: mboisso1@maine.rr.com
Owner – (if different from Applicant) Name: Address: City/State : Zip Code:	**Owner Contact Information** Work # Home# Cell # Fax# e-mail:
Agent/ Representative Name: See Architect Address: City/State : Zip Code:	**Agent/Representative Contact information** Work # Cell # e-mail:
Billing Information Name: Banner Properties LLC Address: 126 Underwood Rd City/State : Falmouth, M Zip Code: 04105	**Billing Information** Work # 207-332-3038 Cell # Fax# e-mail: mboisso1@maine.rr.com

Engineer Jon Whitten Name: Plymouth Enginnering Address: 30 Lower Detroiy Road City/State : Plymouth, ME Zip Code: 04969	**Engineer Contact Information** Work # (207)257-2071 Cell # Fax# e-mail: jon.whitten@plymouthengineering.com
Surveyor Name: Richard Eaton Address: 58 Pleasant Street City/State : Westbrook, ME Zip Code: 04092	**Surveyor Contact Information** Work # 207-854-2402 Cell # Fax# e-mail:
Architect Evan Carroll Name: Bild Architecture Address: PO Box 8235 City/State : Portland, ME Zip Code: 04104	**Architect Contact Information** Work # (207)408-0168 Cell # Fax# e-mail: evan@bildarchitecture.com
Attorney Name: Address: City/State : Zip Code:	**Attorney Contact Information** Work # Cell # Fax# e-mail:

APPLICATION FEES:

Check all reviews that apply. (Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

Level III Development (check applicable reviews)

__X Less than 50,000 sq. ft. ($500.00)
___ 50,000 - 100,000 sq. ft. ($1,000)
___ 100,000 – 200,000 sq. ft. ($2,000)
___ 200,000 – 300,000 sq. ft. ($3,000)
___ over 300,00 sq. ft. ($5,000)
___ Parking lots over 11 spaces ($1,000)
___ After-the-fact Review ($1,000.00 plus applicable application fee)

Plan Amendments (check applicable reviews)

___ Planning Staff Review ($250)
___ Planning Board Review ($500)

_____

The City invoices separately for the following:

- Notices ($.75 each)
- Legal Ad (% of total Ad)
- Planning Review ($40.00 hour)
- Legal Review ($75.00 hour)

Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.

Other Reviews (check applicable reviews)

___ Traffic Movement ($1,000)
___ Stormwater Quality ($250)
___ Subdivisions ($500 + $25/lot)
# of Lots ___ x $25/lot = _____
___ Site Location ($3,000, except for residential projects which shall be $200/lot)
# of Lots ___ x $200/lot = _____
___ Other _____
___ Change of Use
___ Flood Plain
___ Shoreland
X_ Design Review
___ Housing Replacement
___ Historic Preservation

APPLICATION SUBMISSION:

1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan and each document submitted as separate files. Naming conventions for the individual files can be found on the **Electronic Plan and Document Submittal** page of the City's website at http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal

2. In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.

The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:

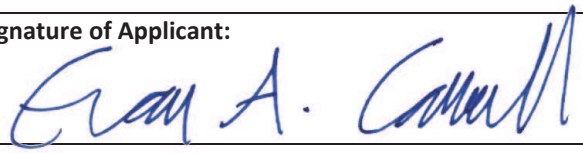
1. **One (1) full size site plans** that must be **folded.**
2. One (1) copy of all written materials or as follows, unless otherwise noted:
   a. Application form that is completed and signed.
   b. Cover letter stating the nature of the project.
   c. All Written Submittals (Sec. 14-525 2. (c), including evidence of right, title and interest.
3. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
5. One (1) set of plans reduced to 11 x 17.

Please refer to the application checklist (attached) for a detailed list of submission requirements.

APPLICANT SIGNATURE:

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Level III Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant:	**Date:**
	7-12-2016

PROJECT DATA

The following information is required where applicable, in order to complete the application.

Total Area of Site		sq. ft.
Proposed Total Disturbed Area of the Site		sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland.		
Impervious Surface Area		
Impervious Area (Total Existing)		sq. ft.
Impervious Area (Total Proposed)		sq. ft.
Building Ground Floor Area and Total Floor Area		
Building Footprint (Total Existing)	1,396	sq. ft.
Building Footprint (Total Proposed)	1,824	sq. ft.
Building Floor Area (Total Existing)	2,792	sq. ft.
Building Floor Area (Total Proposed)	6,580	sq. ft.
Zoning		
Existing	R6	
Proposed, if applicable		
Land Use		
Existing	Duplex	
Proposed	Multi-family Condominium	
Residential, If applicable		
# of Residential Units (Total Existing)	2	
# of Residential Units (Total Proposed)	7	
# of Lots (Total Proposed)	1	
# of Affordable Housing Units (Total Proposed)	NA	
Proposed Bedroom Mix		
# of Efficiency Units (Total Proposed)	7	
# of One-Bedroom Units (Total Proposed)	NA	
# of Two-Bedroom Units (Total Proposed)	NA	
# of Three-Bedroom Units (Total Proposed)	NA	
Parking Spaces		
# of Parking Spaces (Total Existing)	2	
# of Parking Spaces (Total Proposed)	5	
# of Handicapped Spaces (Total Proposed)	1	
Bicycle Parking Spaces		
# of Bicycle Spaces (Total Existing)	0	
# of Bicycle Spaces (Total Proposed)	2	
Estimated Cost of Project	$820,000	

FINAL PLAN - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	**GENERAL WRITTEN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)**
X		1	* Completed Application form
X		1	* Application fees
X		1	* Written description of project
X		1	* Evidence of right, title and interest
NA		1	* Evidence of state and/or federal permits
X		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
NA		1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
X		1	* Evidence of financial and technical capacity
X		1	Construction Management Plan
X		1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
NA		1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
X		1	Stormwater management plan and stormwater calculations
X		1	Written summary of project's consistency with related city master plans
X		1	Evidence of utility capacity to serve
X		1	Written summary of solid waste generation and proposed management of solid waste
X		1	A code summary referencing NFPA 1 and all Fire Department technical standards
X		1	Where applicable, an assessment of the development's consistency with any applicable design standards contained in Section 14-526 and in City of Portland Design Manual
X		1	Manufacturer's verification that all proposed HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

Applicant Checklist	Planner Checklist	# of Copies	**SITE PLAN SUBMISSIONS CHECKLIST** **(* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)**
X		1	* Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
X		1	**Final Site Plans including the following:**
		Existing and proposed structures, as applicable, and distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone);	
X		Existing and proposed structures on parcels abutting site;	
X		All streets and intersections adjacent to the site and any proposed geometric modifications to those streets or intersections;	
X		Location, dimensions and materials of all existing and proposed driveways, vehicle and pedestrian access ways, and bicycle access ways, with corresponding curb lines;	
X		Engineered construction specifications and cross-sectional drawings for all proposed driveways, paved areas, sidewalks;	
NA		Location and dimensions of all proposed loading areas including turning templates for applicable design delivery vehicles;	
NA		Existing and proposed public transit infrastructure with applicable dimensions and engineering specifications;	
X		Location of existing and proposed vehicle and bicycle parking spaces with applicable dimensional and engineering information;	
X		Location of all snow storage areas and/or a snow removal plan;	
NA		A traffic control plan as detailed in Section 1 of the Technical Manual;	
X		Proposed buffers and preservation measures for significant natural features, where applicable, as defined in Section 14-526(b)(1);	
NA		Location and proposed alteration to any watercourse;	
NA		A delineation of wetlands boundaries prepared by a qualified professional as detailed in Section 8 of the Technical Manual;	
NA		Proposed buffers and preservation measures for wetlands;	
X		Existing soil conditions and location of test pits and test borings;	
X		Existing vegetation to be preserved, proposed site landscaping, screening and proposed street trees, as applicable;	
X		A stormwater management and drainage plan, in accordance with Section 5 of the Technical Manual;	
X		Grading plan;	
X		Ground water protection measures;	
X		Existing and proposed sewer mains and connections;	

- Continued on next page -

X		Location of all existing and proposed fire hydrants and a life safety plan in accordance with Section 3 of the Technical Manual;
X		Location, sizing, and directional flows of all existing and proposed utilities within the project site and on all abutting streets;
NA		Location and dimensions of off-premises public or publicly accessible infrastructure immediately adjacent to the site;
X		Location and size of all on site solid waste receptacles, including on site storage containers for recyclable materials for any commercial or industrial property;
X		Plans showing the location, ground floor area, floor plans and grade elevations for all buildings;
NA		A shadow analysis as described in Section 11 of the Technical Manual, if applicable;
NA		A note on the plan identifying the Historic Preservation designation and a copy of the Application for Certificate of Appropriateness, if applicable, as specified in Section Article IX, the Historic Preservation Ordinance;
X		Location and dimensions of all existing and proposed HVAC and mechanical equipment and all proposed screening, where applicable;
X		An exterior lighting plan in accordance with Section 12 of the Technical Manual;
NA		A signage plan showing the location, dimensions, height and setback of all existing and proposed signs;
X		Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed.

PORTLAND FIRE DEPARTMENT
SITE REVIEW
FIRE DEPARTMENT CHECKLIST

A separate drawing[s] shall be provided as part of the site plan application for the Portland Fire Department's review.

1. Name, address, telephone number of applicant
2.
3. Name address, telephone number of architect

4. Proposed uses of any structures [NFPA and IBC classification]
5.
6. Square footage of all structures [total and per story]

7. Elevation of all structures

8. Proposed fire protection of all structures
   - ***As of September 16, 2010 all new construction of one and two family homes are required to be sprinkled in compliance with NFPA 13D. This is required by City Code. (NFPA 101 2009 ed.)***

9. Hydrant locations

10. Water main[s] size and location

11. Access to all structures [min. 2 sides]

12. A code summary shall be included referencing NFPA 1 and all fire department. Technical standards.

Some structures may require Fire flows using annex H of NFPA 1

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991

David Margolis-Pineo
Deputy City Engineer
207-874-8850
207-400-6696
dmp@portlandmaine.gov

Date: 7-15-16

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

Site Address: 30 Merrill Street

Chart Block Lot Number: 14-C-14

Proposed Use: Residential (7 unit)
Previous Use: Residential (2-unit)
Existing Sanitary Flows: _____GPD
Existing Process Flows: _____GPD
Description and location of City sewer that is to receive the proposed building sewer lateral.

Existing lateral in Merrill Street

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

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

2. Please, Submit Contact Information.

City Planner's Name: _____ Phone: _____
Owner/Developer Name: Banner Properties. Inc.
Owner/Developer Address: 126 Underwood Road, Falmouth, ME 04105
Phone: 332-3038 Fax: _____ E-mail: mboisso1@maine.rr.com
Engineering Consultant Name: Plymouth Engineering, Inc. - Jon Whitten, Jr. PE
Engineering Consultant Address: PO BOx 46, Plymouth, ME 04969
Phone: 257-2071 Fax: 257-2130 E-mail: jon.whitten@plymouthengineering.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: 120 X 7 = 840 GPD
Peaking Factor/ Peak Times: 25.2 gallons per minute peak domestic flow
Specify the source of design guidelines: *(i.e.* X *"Handbook of Subsurface Wastewater Disposal in Maine,"*
"*Plumbers and Pipe Fitters Calculation Manual,"* __ *Portland Water District Records,* __ *Other (specify)*

_____

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. NA

Total Drainage Fixture Unit (DFU) Values: _____

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 NA

Estimated Industrial Process Wastewater Flows Generated: _____ 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.

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Description of Project

The proposed project at 30 Merrill Street consists of seven condominium loft units to be sold at market rate.

The project design is presented under the alternative design review process and is compatible with the surrounding neighborhood in size, scale and siting. The building will be designed to high standards of energy efficiency and sustainable design, with features including a code-exceeding low-air infiltration and high-insulation building envelope, high efficiency mechanical systems, low-VOC finishes, and a green roof.

The site and landscape design utilizes the on-site treatment of water run-off, indigenous plants that will not need irrigation once established, permeable paving, and lighting that meets both safety and light pollution standards. The project will provide six parking spaces and these spaces will be accessed via one curb-cut on Merrill Street.

This private, market-rate development targets a market niche significantly lower than many or the luxury condo units recently constructed on Munjoy Hill. This is achieved by limiting partitions within units and utilizing conventional structure and materials. Banner Properties LLC is proud to be providing such a needed product in an urban location that places minimal burden on municipal infrastructure.

bildarchitecture.com • evan@bildarchitecture.com • (207)408-0168
PO Box 8235, Portland, ME 04104 • 30 Danforth Street, Suite 213, Portland, ME 04101

Doc#: 61503 Bk:31989 Pg: 345

MAINE REAL ESTATE TAX PAID

WARRANTY DEED

EDWARD B. BOISSONNEAU, an individual with a mailing address of 30 Merrill Street, Portland, ME 04101, for consideration paid, grants to **BANNER PROPERTIES LLC**, a Maine limited liability company whose mailing address is 126 Underwood Road, Falmouth, Maine, 04105, with Warranty Covenants, the following described real estate in **Portland**, Cumberland County, Maine:

A certain lot or parcel of land with the buildings thereon situated in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning at a point in the westerly side line of Merrill Street, and at the point of its intersection with the southerly side line of Carleton Place; thence southeasterly along said Merrill Street fifty-four (54) feet, more or less, to a point in the land now or formerly of Chas. F. Rundlett; thence southwesterly along the line of said Rundlett's land and parallel to said Carleton Place ninety-four (94) feet, more or less, to land now or formerly of John W. Smith; thence northwesterly along said Smith's land fifty-four (54) feet, more or less, to said Carleton Place; thence northeasterly along said Carleton Place ninety-four (94) feet, more or less, to the point of beginning.

For Grantor's source of title, reference may be had to a Warranty Deed from Kendall Caputo to Edward B. Boissonneau, dated December 5, 1996, recorded in the Cumberland County Registry of Deeds, Book 12849, Page 235.

IN WITNESS WHEREOF, Edward B. Boissonneau has hereunto set his hand and seal this ~~seventeenth~~ eighteenth of December, 2014.

WITNESS:

Edward B. Boissonneau

STATE OF MAINE
Cumberland, ss

December 18, 2014

Then personally appeared the above named Edward B. Boissonneau and acknowledged the foregoing instrument to be his free act and deed.

Notary Public/~~Attorney at Law~~

Print or type name as signed

DEBRA A. GERRY
Notary Public, Maine
My Commission Expires July 5, 2018

Commission Expiration: _____

SEAL

Received
Recorded Register of Deeds
Dec 22,2014 03:21:33P
Cumberland County
Pamela E. Lovley

Recorded in Book 33271, Page 269.

QUITCLAIM DEED WITH COVENANT

KNOW ALL PERSONS BY THESE PRESENTS, that, FIVE SEVEN LLC, a Maine limited liability company, with a mailing address of 100 Congress Street, Portland, ME 04101, grants to BANNER PROPERTIES LLC, a Maine limited liability company, with a mailing address of 100 Congress Street, Portland, ME 04101, with Quitclaim Covenant, a certain lot or parcel of land, with any improvements thereon, situated in the City of Portland, County of Cumberland and State of Maine, as more fully described in Exhibit A attached hereto.

See Exhibit A

Being a portion of the premises conveyed from Scott Somero to Five Seven LLC by Warranty Deed dated July 1, 2016 and recorded in the Cumberland County Registry of Deeds Book 33264, Page 225.

This conveyance is a transfer to an abutter. Grantee shall merge the premises conveyed herein with Grantee's adjacent land described in a deed from Edward B. Boissonneau dated December 18, 2014 and recorded in the Cumberland County Registry of Deeds in Book 31989, Page 345.

Witness my hand and seal this 11th day of July, 2016.

FIVE SEVEN LLC

Witness

By Thomas Landry
Its Manager

STATE OF MAINE
COUNTY OF CUMBERLAND July 11, 2016

Then personally appeared the abovenamed Thomas Landry as Manager of Five Seven LLC and acknowledged the foregoing to be his free act and deed in his stated capacity.

Before me,

Notary Public/Attorney at Law

SHARON E YOUNG
Notary Public-Maine
My Commission Expires
June 04, 2022

EXHIBIT A

A certain lot or parcel of land located off Cumberland Ave and Merrill Street but not adjacent to the streets located southeast of Banner Properties described in Book 31989 Page 345 and southwest of Munjoy Properties LLC described in Book 31588 Page 282 in the City of Portland, Cumberland County, and State of Maine and being more particularly described as follows.

Beginning at a 5/8" rebar set with cap at the northwest corner of Munjoy Properties LLC described in Book 31588 Page 282 and being N46°-18'-50"W ninety four and thirty nine hundredths 94.39' feet along the southwest bounds of Munjoy Properties LLC from a 5/8" rebar set with cap on the northwest bounds of Cumberland Ave at the southwest corner of Munjoy Propities LLC.

1) Thence S46°-18'-50"E three and zero hundredths 3.00' feet along the southwest bounds of Munjoy Properties LLC to a 5/8" rebar set with cap at the northeast corner of remaining land of grantor.
2) Thence S41°33'-31"W forty seven and eighty eight hundredths 47.88' feet along the northwest bounds of remaining land of grantor to a 5/8" rebar set with cap on the northeast bounds of land of Todd Grove described in Book 32062 Page 8.
3) Thence N43°-34'-54"W twelve and thirty four hundredths 12.34' feet along the northeast bounds of land of Grove to a 5/8" rebar set with cap on the southeast bounds of land of Erica Thompson described in Book 20400 Page 154.
4) Thence N41°-28'-00"E fourteen and fifty five hundredths 14.55' feet along the southeast bounds of land of Thompson to a 5/8" rebar set with cap on the southwest bounds of Banner Properties LLC described in Book 31989 Page 345.
5) Thence S42°-42'-48"E nine and thirty six hundredths 9.36' feet along the southwest bounds of Banner Properties LLC to a point being the southwest corner of Banner Properties LLC.
6) Thence N41°-33'-31"E thirty three and thirty three hundredths 33.33' feet along the southeast bounds of Banner Properties LLC to the point of beginning.

Containing 278 Square Feet, more or less.

Reference is made to a plan entitled "Boundary Survey & Topographical Map With Existing Conditions" dated 06-07-2016 and prepared by Richard W. Eaton P.L.S. of R.W. Eaton Associates of Westbrook, Maine.

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Compliance with Zoning

Purpose:

The purpose of the R-6 is to "set aside areas on the peninsula for housing characterized primarily by multifamily dwellings at a high density providing a wide range of housing for differing types of households;" and the 30 Merrill Street project propose to provide loft style dwellings at a density of (7) units per 0.1165 acres or 60 units per acre.

Permitted Uses:

A multifamily dwelling is permitted in the R-6 zone, no open stairways are proposed, and no below-grade dwelling units are proposed. The project proposes (6) parking spaces, (4) are required.

Dimensional Requirements:

The proposed 30 Merrill Street project conforms to all dimensional standards as outlined below:

	Requirement	Proposed
Min. lot size	2,000sf	5,076sf
Min. lot area/dwelling unit	725sf (7 units allowed on 5,076sf)	725sf 7 units proposed
Min. street frontage	20ft	54ft
Min. front yard setback	5ft (or average of adjacent yards) (adjacent yards are both 0ft)	5ft
Min. rear yard setback	10ft	10ft
Min. side yard setback	5ft	5ft
Structural stepbacks	Apply over 35ft	Roofline will step back at 31'-6"tall
Max. lot coverage	60%	36% (1,824sf)
Min. lot width	20ft	53' – 11"ft
Max. structure height	45ft	45'ft
Min. landscaped open space	20%	59% (2,874sf)
Max. garage opening	2	0ft (0%)

The housing preservation and replacement ordinance does not apply as the existing structure on the property only has two units.

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Waiver Requests

As part of the 30 Merrill Street Site Plan Application, the following waivers are being requested:

- Aisle Width – Allow reduced lot access aisle and parking access aisle as shown on the site plan and in turning templates.
- Parking Dimensions – Allow use of compact car parking spaces as shown on site plan.
- Street Trees – Allow installation of (1) street tree and contribution to Tree Fund.

bildarchitecture.com • evan@bildarchitecture.com • (207)408-0168
PO Box 8235, Portland, ME 04104 • 30 Danforth Street, Suite 213, Portland, ME 04101

Att. G

Gorham
SAVINGS BANK

July 12, 2015

City of Portland
Planning Division 4th Floor
389 Congress Street
Portland, Maine 04101

RE: Banner Properties LLC

To Whom it May Concern:

Banner Properties LLC is a customer of Gorham Savings Bank. To the best of our knowledge Banner Properties LLC and the members of the LLC have the adequate experience and financial ability to develop the proposed project located at 30 Merrill Street, Portland, Maine.

Should you need further information or clarification, please contact me at (207) 221-8428.

Thank you.

Sincerely,

David N. Moravick
Vice President – Commercial Services

Plymouth Engineering, Inc.
P.O. Box 46 – 30 Lower Detroit Road
Plymouth, Maine 04969
info@plymouthengineering.com
Tel: (207) 257-2071 fax: (207) 257-2130

STORMWATER MANAGEMENT PLAN

30 Merrill Street
Portland, Maine

The following Stormwater Management Plan has been prepared for Banner Properties, LLC to evaluate stormwater runoff and erosion control for the proposed 7-unit residential building to be located at 30 Merrill Street, Portland, Maine.

Site Calculations

Total Property Area	5,100 S.F.
Existing Impervious Area	1,509 S.F.
New Pervious Parking/Drive	2,190 S.F.
New Impervious Roof	1,824 S.F.
Total Landscaped Area	1,086 S.F.
Total Developed Area	5,100 S.F.
Total New Impervious Area	315 S.F.

Existing Conditions

The development parcel is located on the westerly side of Merrill Street, across from the intersection with Turner Street in Portland, Maine. The property is 5,100 square feet in area and currently includes a two-unit residential building with driveway and storage sheds. There is a brick sidewalk along the frontage of the lot and a street tree.

The lot gently slopes from west to east (back to front). Runoff is conveyed to Merrill Street via overland flow, in the lot's current state. A combined sewer overflow system within Merrill Street collects stormwater runoff in a limited number of catchbasins.

Proposed Development

The applicant is proposing to remove the existing building and replace it with a four-story building that will house (7) seven residential units. There is to be a 10-foot wide driveway that will be adjacent to the south side of the building. The driveway will lead to a 6-space parking area at the rear of the site. Project fencing will be installed along the rear and side property lines.

Drainage Pattern

Runoff leaves the development area via overland flow to Merrill Street. Runoff will continue to flow off the site via overland flow in the developed state. The entire parking area and driveway will be pervious pavers that will allow treatment of the first flush. First flush runoff will be collected within the filter layers of the sub-base and treated prior to prior to being released into native soils and overflowing to the existing sidewalk at the front of the property. Once the sub-soil collection system is full, runoff will flow overland to Merrill Street, as it does today.

Flooding

The development area is not located within an area of flood hazard according to the Federal Insurance Rate Map 2300510014 B. See attached map.

Onsite & Offsite Soils

The on-site soils are shown on the attached Medium Intensity Soil Survey and are categorized as follows:

Soil Type Summary Table		
Soil Symbol	Soil Name	HSG
HlB	Hinckley Loamy Sand	A

Water Quality (BMP Standard)

The use of LID features, such as the pervious pavers, reduces the overall impervious footprint of the site while offering water quality treatment for runoff from the highest areas for potential contaminants. For this particular project, the water quality requirements will be met by use of pervious pavers within the driveway and parking areas.

Pervious Paver Filter Bed Sizing

We propose to provide treatment for the driveway/parking area by constructing a Pervious Paver Filter Bed within the sub-base of the driveway and parking area:

This bed will receive the runoff from approximately 2,156 s.f. of pervious pavers. The reservoir course of the Filter Bed is required to provide storage volume for 1" of runoff from the contributing area. The bed sizing is as follows:

Area of Watershed: 2,190 SF

Treatment Volume Required: Area x runoff depth: 2,156 SF x 1/12 FT = **179.66 CF**

Treatment Volume Provided:
Porosity = 40%, Bed Area = 2,190 s.f., Bed Depth = 1.25', Total Volume Treated = **1,095 CF**

Summary

Based on the results of this evaluation, the proposed stormwater design is not expected to cause flooding, erosion or other significant adverse effects downstream of the site.

Prepared by:
PLYMOUTH ENGINEERING, INC.



Jon H. Whitten, Jr., P.E.
Senior Project Manager

MAINTENANCE & OPERATIONS PLAN OF STORMWATER MANAGEMENT FACILITIES
FOR:
30 MERRILL STREET, 7-UNIT BUILDING
PORTLAND, MAINE

Responsible Party: **Banner Properties, LLC**
126 Underwood Road
Falmouth, ME 04969

Plan Prepared by: **Plymouth Engineering, Inc.**
PO Box 46
Plymouth, ME 04969

List of Stormwater Measures:
Vegetated Areas
Pervious Pavers
Pre-Manufactured Green Roof System

Introduction:
The owner or operator of the proposed project will be responsible for the maintenance of all stormwater management structures, the establishment of any contract services required to implement the program, and the keeping of records and maintenance log book. At a minimum, the appropriate and relevant activities for each of the stormwater management systems will be performed on the prescribed schedule.

Inspection & Maintenance Tasks:
NOTE: The following instruction are excerpts from the Maine Department of Environmental Protection's *Stormwater Management for Maine, Volume III BMPs Technical Design Manual*, dated January 2006.

Vegetated Areas:
1. Routine Maintenance and Inspection: The area should be inspected for failures following heavy rainfall and repaired as necessary for newly formed channels or gullies, reseeding/ sodding of bare spots, removal of trash, leaves and/or accumulated sediments, the control of woody or other undesirable vegetation and to check the condition and integrity of the check dams.
2. Aeration: Vegetated areas may require periodic mechanical aeration to restore infiltration capacity. This aeration must be done during a time when the area can be reseeded and mulched prior to any significant rainfall.
3. Erosion: It is important to install erosion and sediment control measures to stabilize this area as soon as possible and to retain any organic matter on the surface.
4. Fertilization: Routine fertilization and/or use of pesticides is strongly discouraged. If complete re-seeding is necessary, half the original recommended rate of fertilizer should be applied with a full rate of seed.

Pervious Pavers:

1. **Winter Sand:** Use of winter sand is prohibited on pervious paver surfaces.
2. **Fertilization:** Use of Fertilization of the area over the pavers shall be prohibited.

3. **Monitoring and Inspections:** Inspecting the pervious paver system each month is recommended. Conduct the inspections after large storms to check for surface ponding at the inlet that may indicate clogging. Water levels in the system should be observed to ensure that the system drains within 72 hours after filling.
4. **Sediment Removal and Maintenance of System Performance:** Accumulated sediment and debris shall be removed monthly from joint spaces. The system must be rehabilitated or replaced if its performance is degraded to the point that applicable stormwater standards are not met.

Pre-Manufactured Green Roof System:

1. **Routine Maintenance and Inspection:** The area should be inspected for failures following heavy rainfall and repaired as necessary. This could include, reseeding/ sodding of bare spots, removal of trash, leaves and/or accumulated sediments, the control of woody or other undesirable vegetation and to check the condition and integrity structural components of the system.
2. **General Maintenance:** Owner/Operator shall follow manufacturer's suggested maintenance requirements for the specific system installed.

Task Frequency:

Table 11-1 Long-Term Inspection & Maintenance Plan	Spring	Fall or Yearly	After a Major Storm	Every 2-5 Years
Vegetated Areas				
Inspect all slopes and embankments	X		X	
Replant bare areas or areas with sparse growth	X		X	
Armor areas with rill erosion with an appropriate lining or divert the ero-sive flows to on-site areas able to withstand concentrated flows. See Appendix A(5) of Rule.	X		X	
Stormwater Channels				
Inspect ditches, swales and other open stormwater channels	X	X	X	
Remove any obstructions and accumulated sediments or debris	X	X		
Control vegetated growth and woody vegetation		X		
Repair any erosion of the ditch lining		X		
Mow vegetated ditches		X		
Remove woody vegetation growing through riprap		X		
Repair any slumping side slopes		X		
Replace riprap where underlying filter fabric or underdrain gravel is showing or where stones have dislodge		X		
Culverts				
Remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit	X	X	X	
Repair any erosion damage at the culvert's inlet and outlet	X	X	X	
Roadways and Parking Surfaces				
Clear accumulated winter sand in parking lots and along roadways	X			
Sweep pavement to remove sediment	X			
Grade road shoulders and remove excess sand either manually or by a front-end loader	X			
Grade gravel roads and gravel shoulders	X			
Clean-out the sediment within water bars or open-top culverts	X			
Ensure that stormwater is not impeded by accumulations of material or false ditches in the shoulder	X			

Table 11-1 Long-Term Inspection & Maintenance Plan				
	Spring	**Fall or Yearly**	**After a Major Storm**	**Every 2-5 Years**
Pervious Pavers				
Inspect and clean-out any pre-treatment measures that collect sediment and hydrocarbons entering an infiltration measure	X	X		
Provide for the removal and disposal of accumulated sediments within the infiltration area				X
Renew the infiltration measure if it fails to drain within 72 hours after a rainfall of one-half inch or more				X
Green Roof System				
Follow manufacturer's suggested maintenance requirements.				

Maintenance Log Sheet:

Maintenance Log Sheet 30 Merrill Street, Portland, ME			
BMP's	**Date Inspected**	**Repairs Needed?**	**Date Repaired**
Example	4/1/16	Y	4/2/16
1. Vegetated Areas			
2. Paved Areas			
3. Pervious Pavers			
4. Green Roof System			

Detailed Repair Notes:		
BMP Type	**Date**	**Description of Repair Made**
1	4-1-16	Sodded over eroded section (Example)

HOUSEKEEPING PERFORMANCE STANDARDS
FOR:
PROJECT NAME
TOWN NAME, MAINE

Land Owner: **Banner Properties, LLC**
126 Underwood Road
Falmouth, ME 04105

Project Developer: **Banner Properties, LLC**

Responsible Party: **Banner Properties, LLC**

Prepared By: **Plymouth Engineering, Inc.**
PO Box 46
Plymouth, ME 04969
Tel: 207-257-2071 email: info@plymouthengineering.com

Introduction:
The owner/developer's contractor shall be responsible for maintaining proper housekeeping standards throughout the construction phase of the project. After the construction phase has been completed, the owner and/or operator of the project will be responsible.

Standards:
In accordance with the housekeeping performance standards required by MDEP chapter 500 stormwater regulations, the following standards shall be met:

1. **Spill prevention.** Controls must be used to prevent pollutants from construction and waste materials stored on site to enter stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.

2. **Groundwater protection.** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials. Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide for treatment within the infiltration area, in order to prevent the accumulation of fines, reduction in infiltration rate, and consequent flooding and destabilization.

3. **Fugitive sediment and dust.** Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance (SCE) should be included to minimize tracking of mud and sediment. If off-site tracking occurs, public roads should be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems,

should wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.

4. **Debris and other materials.** Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source.

   To prevent these materials from becoming a source of pollutants, construction and post-construction activities related to a project may be required to comply with applicable provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

5. **Excavation de-watering.** Excavation de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the Department.

6. **Authorized Non-stormwater discharges.** Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:

   (a) Discharges from firefighting activity;

   (b) Fire hydrant flushings;

   (c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);

   (d) Dust control runoff in accordance with permit conditions and Appendix (C)(3);

   (e) Routine external building washdown, not including surface paint removal, that does not involve detergents;

   (f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;

   (g) Uncontaminated air conditioning or compressor condensate;

   (h) Uncontaminated groundwater or spring water;

   (i) Foundation or footer drain-water where flows are not contaminated;

   (j) Uncontaminated excavation dewatering (see requirements in Appendix C(5));

(k) Potable water sources including waterline flushings; and

(l) Landscape irrigation.

7. **Unauthorized non-stormwater discharges .** The Department's approval under this Chapter does not authorize a discharge that is mixed with a source of non-stormwater, other than those discharges in compliance with Appendix C (6). Specifically, the Department's approval does not authorize discharges of the following:

   (a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;

   (b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;

   (c) Soaps, solvents, or detergents used in vehicle and equipment washing; and

   (d) Toxic or hazardous substances from a spill or other release.

8. **Additional requirements.** Additional requirements may be applied on a site-specific basis.

Non-stormwater discharges. Identify and prevent contamination by non-stormwater discharges.

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July 12, 2016

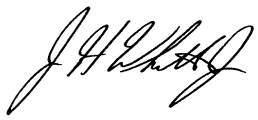
Traffic Generation and Maneuvering: 30 Merrill Street, Portland, Maine

The proposed project at 30 Merrill Street in Portland, Maine includes a seven (7) unit building and associated access driveway and parking area. The driveway is to be a 10' wide pervious paver driveway and is to utilize the existing curb cut on Merrill Street. The driveway will be adjacent to the left (southeast) side of the proposed building and will direct traffic to the rear of the building. The applicants are proposing six (6) compact parking spaces within a pervious paver parking area. One parking space has been designed to meet the ADA access regulations for small, residential development.

The applicant is proposing 6 parking spaces in an effort to maximize the salability of the units and provide convenient, off-street parking for the majority of the units. As with many parking areas within the City of Portland, the parking area has been designed to maximize the available area, while minimizing impervious area and allowing for safe access for the vehicles. This is the reason for proposing compact car spaces exclusively.

The average number of vehicle trips per day, per unit is expected to be 5.81 with an average rate of 0.44 trips per unit within the peak hour. Given these average rates from the Institute of Transportation Engineers, the expected trip generation for this project will be 41 trips per day and 3 trips within the peak hour. The proposed single aisle entrance to the site (utilizing an existing curb cut) is expected to be adequate for these expected traffic volumes. Additionally, the access aisle at the rear of the building is expected to allow each vehicle to turn around and exit the property without backing into Merrill Street.

Prepared by:
PLYMOUTH ENGINEERING, INC.



Jon H. Whitten, Jr., P.E.
Senior Project Manager

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Project Consistency with City Master Plans

The proposed subdivision is precisely the type of development that is encouraged by Portland's Comprehensive Plan. It meets multiple comprehensive plan goals, including at least the following, each of which is discussed in more detail below:

FUTURE LAND USE PLAN

- Encourage orderly growth and development in appropriate areas, making efficient use of public services and preventing development sprawl. (State Goal A, Comprehensive Plan, Vol. I, Portland's Goals and Policies for the Future, p. 21);
- In the R-6 zone, encourage the existing compact lot development pattern typically found on the peninsula. (Comprehensive Plan, Vol. II, Future Land Use Plan, p. 65)

HOUSING POLICIES

- Advance the overall goal of maintaining a 25% share of Cumberland County's population, taking advantage of the City's capacity to accommodate more people (Comprehensive Plan, Vol. I, Portland's Goals and Policies for the Future, p. 21-22);
- Create new housing to support Portland as an employment center and to achieve an improved balance between jobs and housing, (Comprehensive Plan, Vol I, Portland's Goals and Policies for the Future, pp. 21-22);
- Ensure that an adequate supply of housing is available to meet the needs and preferences of all Portland households, including a continuum of options across all income levels. (Comprehensive Plan, Vol I, Portland's Goals and Policies for the Future, p. 44);
- Promote residential densities that are consistent with past development patterns. (Housing: Sustaining Portland's Future, p. 27);

SUSTAINABILITY

- Increase efficient use of transportation resources by avoiding decentralizing land use trends and supporting land use patterns that favor density and concentration. Comprehensive Plan. Vol I, Transportation Resources, T-7-8);

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- Design housing to use new technologies and materials that reduce costs and increase energy efficiency. (Comprehensive Plan, Vol 1, Portland's Goals and Policies for the Future, p. 22)

A. Future Land Use Plan

In accordance with the mandate of the State Growth Management policies, the City designated all properties zoned R-6 as part of the growth area, however, the Future Land Use Plan went beyond that simple designation to assert that Portland needs growth to sustain it as a healthy city and to maintain its role as the economic, cultural and residential center for the region. (p. 55). Ideally, that growth will "provide housing near employment centers, support public transportation, attract families with children, expand the tax base, and stabilize neighborhoods." (p. 55)

In looking at where that growth can be accommodated within Portland, it found that only 9.75% of land in all residential zones is vacant, and in the highest density residential zone, the R-6 zone, only 2.77% of the land is vacant. As a way to foster the growth necessary to a healthy future, the Future Land Use Plan specifically endorses the recommendation, first made in Housing: Sustaining Portland's Future, to "rewrite[e] the zoning ordinance to encourage new housing and eliminate[e] barriers to development by allowing greater housing density and more efficient use of vacant land, infill lots, and redevelopment opportunities."

B. Housing Policies

Increased residential housing is viewed as a key to maintaining the health of the City. It is not sufficient for it merely to be an employment center for people to commute to by day, while living in and paying real estate taxes to suburban towns, The housing component of the comprehensive plan, Housing: Sustaining Portland's Future, calls for Portland to accommodate housing for more people so that the City increases to and then maintains a 25% share of the county's population. (p. 53)

One fundamental housing goal is to increase the supply of housing. To further that goal, the housing plan states the City should strive to ensure the construction of a diverse mix "that offers a continuum of options across all income levels." (p. 29) The City should also encourage higher density housing, "particularly located near services, such as schools, businesses, institutions, employers, and public transportation." (p. 30) Particular emphasis is placed on encouraging infill development, and housing within and adjacent to the downtown. In furtherance of the goal of developing a broad range of housing, it states the City should "[e]ncourage opportunities for the development of homes that are attractive to those households moving up in the real estate market . . so Portland can remain competitive with surrounding suburban communities. (p. 32) Additional supply-based

objectives include "identify[ing] vacant land and redevelopment opportunities throughout the city to facilitate the construction of new housing" and "[p]romot[ing] Portland as a Pro-Housing Community." (p. 33) While some parts of the housing plan emphasize affordable assisted housing, it states "the need for market rate housing for mid and higher income households is also critically important to Portland's future. Eliminating barriers to housing development and supporting market rate projects through the approval process can assist in this." (p. 62b)

Another basic housing plan goal is to maintain neighborhood stability and integrity. The plan calls for the City to "[e]ncourage innovative new housing development which is designed to be compatible with the scale, character, and traditional development patterns of each individual residential neighborhood." (p. 44) The plan advocates "work[ing] with owners and developers to find productive uses for vacant and underutilized lots." (p, 45) The plan makes it clear that it is not trying to encourage suburban, single-story ranch house infill development that was typical of prior periods. Instead the 2002 plan values traditional patterns of development and residential density, and criticizes the fact that (particularly in the R-6 zone) the traditional development pattern cannot be replicated under the zoning then in effect. (p. 27) Since that date, the City has implemented the R-6 small lot provisions so that infill development can replicate the traditional character and pattern of development.

C. Sustainability

The land use policy promoting infill development and increased housing stock in close proximity to downtown, discussed above, has been identified by the City as an important part of creating environmental and economic sustainability. ("Sustainable Portland", Final Report of the Mayor's Sustainable Portland Taskforce, November, 2007). The proposed development is consistent with these goals.

Similarly, the Sustainability Report identified green building as an important means for reducing pollution and our collective carbon footprint. (Id., p. 6) This building is designed to have numerous green features including: all landscaping requires no irrigation; roof water treated on site; building envelope sealed to prevent air leaks with insulation well above present construction standards; energy efficient windows located for cross natural ventilation, without air-conditioning systems; energy efficient systems and appliances, air exchangers, and radiant floor heat in each unit; low VOC paints, glues and sealants; light roof color to prevent heat buildup; and many green building materials, flooring, siding, and recycled products.

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Solid Waste Management Plan: 30 Merrill Street

Solid waste and recycling will be collected curbside by the city using pay per use purple bags and approved recycling bins. Appropriate trash containers will be placed in the storage basement for weekly storage.

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NFPA Code Summary

Building Area Information

Building Footprint:	1,824 SF
R-2 Net:	5,480 SF
Parking Net:	816 SF
Building Gross:	6,580 SF

NFPA Code Overview

Use:	New Residential Apartment Building, Storage
Construction:	No minimum requirement
Sprinkler:	NFPA 13R (Supervised to meet standards set forth in Chapter 10 Article VIII of the City of Portland)
Occupancy:	32 Occupants

NFPA 10

NFPA 10	6.2.1.1	Each floor shall have a single (2) unit Class A Fire Extinguisher

NFPA 101

3.3.32.5	New Building
6.1.8.1.5	Residential Occupancy – Apartment Building (Chapter 30)
6.1.13	Storage (Chapter 42)
6.1.14.4.1	Required Separation - 2hr between Apt Bldg & Storage
6.1.14.4.3	1 hour separation required in sprinkled building
6.2.2.3	Ordinary Hazard Contents
7.1.3.2.1	Stairs connecting four or more stories shall have a minimum of 2 hour rating
7.1.5.1	Min headroom: 7'-6”
7.1.6.3	Cross Slope limited to 1:48
7.2.1.2.3.2	Egress door min clear width: 32”
7.2.1.4	Door swing and force to open shall comply with this section
7.2.1.5	Door locks, latches and alarms shall comply with this section
7.2.2.2.1.1	Max riser height: 7”
	Min Tread depth: 11”
	Min headroom: 6'-8”
7.2.2.2.1.2	Min stair width: 36” (for occupancy under 50)
7.2.2.3.2.3	Min landing depth: stair width
7.2.2.4.4.1	Handrail height: 36”
7.2.2.4.4.6	Handrail shape: 1 ½” circular cross section
7.2.2.4.4.9	Handrails shall return to wall or newel post
7.2.2.4.4.10	Handrails shall extend 12” at top of stair and one tread length at bottom
7.2.2.4.5.2	Min guard height: 42”
7.2.2.4.5.3	Open guards shall not allow the passage of a 4” sphere
7.2.2.5.4	Stairway identification shall comply with this section.
7.2.6.3	Stair discharge shall have a 2-hr fire resistance rating.

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7.2.12.1.1	Sprinkler precludes need for area of refuge in stair.	
7.3.1.2	**Occupancy Load**	
	Residential Apartment: 200 gross at 6,580sf is	**32 occupants**
	Storage	**NA**
	Total Occupant Load:	**32 occupants**

7.3.4	Min Egress width: 36”	
7.4.1.1	See 30.2.4.4	
7.8	Egress Illumination shall be in accordance with this section.	
7.9	Emergency Lighting shall be in accordance with this section.	
7.10	Marking for means of egress shall comply with this section.	
30.1.6	No minimum construction requirements	
30.2.1.1	Means of Egress shall comply with Chapter 7 and Chapter 30	
30.2.4.4	Single stair permitted from building given	

- 4 stories
- Less than 3 units/floor
- Two exits from basement
- No distance from unit door to stair
- 2-hr rated stair
- Self-closing doors
- No corridors
- 1 hr rating between units

30.2.5	Common Path Limit:	50’
30.2.5.4.2	Dead-End Limit:	50’
30.2.6.2	Max Travel Distance within unit (sprinkled):	125’
30.2.6.3.2	Max Travel Distance from unit door to exit (sprinkled):	200’
30.3.4	Fire detection and alarm system shall comply with this section.	
30.3.4.5	Smoke alarms shall be installed:	
	In every sleeping area	
	Outside every sleeping area	
	At least one on each level	
30.3.5.2	Sprinkler system NFPA 13R permitted for four or fewer stories.	
30.3.6.1.2	Corridor walls (sprinkled): ½ hour	
30.3.7.2	Dwelling unit separation (sprinkled): ½ hour	
42.1.6	No minimum construction requirements	
42.2.4.1	Single means of egress allowed within common path of travel limit.	
42.2.5	Dead End Corridor: 100'	
	Common Path of Travel: 100'	
42.2.6	Maximum Travel Distance: 400'	
42.2.3.2	Storage area walls and ceilings shall be Class A, Class V or Class C	

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Design Standards Assessment

Overall Context

The building size and scale is comparable to the neighboring multifamily buildings on Cumberland and Merrill. The building offers loft units in the traditional double-wide style found throughout Portland and Munjoy Hill. Like other buildings in the area this building faces the street with a front door located adjacent to the sidewalk. The door is highlighted with an awning to further enhance the feeling of an entry. Although the current rhythm of the block is slightly broken; the scale, form and relationship to the street of the proposed building helps strengthen the rhythm of the block to be more comparable to the area.

Massing

The proposed building has a massing much like the double-wide triple decker buildings that exist throughout the neighborhood. At the top of the third story a prominent cornice, used in combination with the railing elements, emphasizes the 3-story mass, while de-emphasizing the 4th floor addition. The flat roof of the building is common and contextual for this building type. As is traditional for this building type, there is no garage door facing the street, and the parking is found behind the building. The massing of the front façade is articulated by balconies and a covered porch. The balconies are stacked and articulated to pay homage to the traditional bay window.

Orientation to the Street

The front of the building opens to the street via a single door sheltered by an awning. The front of the building is further enhanced by the use of planters with intentional landscaping and a porch area. Not only does this help create the feeling of the front entry but if also helps create a transition space between the street and front door. The windows on the street façade are arranged in a symmetrical and rhythmic pattern. The first floor occupants will have visual privacy since the windows are greater than 48” from the adjoining sidewalk. Off-street parking is concealed behind the building.

Proportion and Scale

Windows and doors are sized, scaled and arranged to have a strong and intentional relationship to the overall building massing. Fenestration on the front façade it over 35%, providing the appropriate welcome to the public street. The canopy over the front door is of a width that has a solid presence on the front façade.

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Balance

The building employs several techniques to achieve balance. The windows and doors head heights all align along a common horizontal datum line. All windows on every façade stack in vertical alignment. The window and doors are symmetrically arrange from one side of the building to the other.

Articulation

The articulation of details for the 30 Merrill Street seeks to utilize contemporary design within the contextual massing and proportion framework. A visual cohesion of materials is achieved by using concrete at the foundation of the building with the siding material on top. To pay homage to the bay windows found in the Munjoy Hill area, in a contemporary style, the front façade has a railing feature attached to the front of the building. Not only do the proportions and rhythm of this feature match bay windows, but it also functions as the railing for the "Juliet Balconies" found in each unit.

Materials

Like other buildings in the area our pallet of materials is limited to only a few. Concrete is being used where appropriate such as foundations and planters. This not only helps articulate the building but gives a sense of permanence. The siding of the building will be standing metal seam run horizontally. The horizontal feeling of the standing seam is a modern and durable way to honor the clapboard siding found in the area.

Additional Discussion of Front Door:

Due to grading of the site the front door of 30 Merrill Street opens into the lower level of the building in a similar manner as 15 Cumberland Avenue, 26 Lafayette Street and 30 Lafayette Street. While this entrance is to a space that is more utilitarian space than formal, it will function well as "breezeway" entrance to all of the residents. The residents will all have personal spaces for stowing bikes, kayaks, boots, umbrellas, strollers and other outdoor gear. This entrance is treated on the exterior as the formal entrance to be in keeping with the neighborhood.

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R-6 Infill Development Design Principles & Standards
Project Self-Evaluation of Alternative Design Approach

30 Merrill Street

"An applicant may propose an alternative design approach and request an Alternative Design Review. The Planning Authority under an Alternative Design Review may approve a design not meeting one or more of the individual standards provided that all of the conditions listed below are met."

Alternative Design Approach Criteria	Self-Evaluation
A. The proposed design is consistent with all of the Principle Statements.	Yes
B. The majority of the Standards within each Principle are met.	Yes
C. The guiding principle for new construction under the alternative design review is to be compatible with the surrounding buildings in a two block radius in terms of size, scale, materials and siting, as well as the general character of the established neighborhood, thus Standards A-1 through A-3 shall be met.	Yes
D. The design plan is prepared by an architect registered in the State of Maine.	Yes

Principals and Standards	Self-Evaluation
PRINCIPLE A - Overall Context A building design shall contribute to and be compatible with the predominant character-defining architectural features of the neighborhood.	Met All contributing standards are met. Proposal has contributing massing, cornice definition, entrance location, entrance canopy, symmetry, and orientation to the street.
STANDARD A-1 - Scale and Form Relate the scale and form of the new building to those found in residential buildings within a two-block radius of the site, that contribute to and are compatible with the predominant character-defining architectural features of the neighborhood. Special attention shall be given to the existing building forms on both sides of the street within the block of the proposed site.	Met Proposal relates in scale and form to the double-wide triple-decker apartment buildings found adjacent and throughout the neighborhood.
STANDARD A-2 - Composition of Principal Facades Relate the composition of the new building façade, including rhythm, size, orientation and proportion of window and door openings, to the facades of residential buildings within a two-block radius of the site that contribute to and are compatible with the predominant character-defining architectural features of the neighborhood. Special attention shall be given to the existing facades on both side of the street within the block of the proposed site.	Met Proposal façade composition relates to nearby buildings with areas of concentrated windows (like bay windows) and areas of less concentrated windows. Front door is found in traditional location and orientation.
STANDARD A-3 - Relationship to the Street Respect the rhythm, spacing, and orientation of residential structures along a street within a two-block radius of the site that contribute to and are compatible with the predominant character-defining architectural	Met Proposal has traditional relationship to the street.

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features of the neighborhood. Special attention shall be given to the existing streetscape on both side of the street within the block of the proposed site.	
PRINCIPLE B - Massing The massing of the building reflects and reinforces the traditional building character of the neighborhood through a well composed form, shape and volume.	Met Majority of standards are met.
STANDARD B-1 - Massing The building's massing (as defined by its bulk, size, physical volume, scale, shape and form) should be harmonious with the massing of existing buildings in a two block radius.	Met Proposal compares to triple-deckers and double-wide triple-deckers.
STANDARD B-2 - Roof Forms Roof forms shall refer to the architectural forms found within a two-block radius of the site that contribute to and are compatible with the predominant character-defining architectural features of the neighborhood. Special attention shall be given to the existing roof forms on both side of the street within the block of the proposed site.	Met Proposal compares to triple-deckers and double-wide triple-deckers.
STANDARD B-3 - Main Roofs and Subsidiary Roofs The building shall have a clear main roof form. Subsidiary roof forms and dormers shall be clearly subordinate to the main form in size, space and number. Where a building has multiple rooflines (e.g., main roof, dormer roof, porch roof, etc.) there shall not be more than two roof pitches or outlines overall.	Met Fourth floor roof is subsidiary to third floor roof.
STANDARD B-4 - Roof Pitch Gable roofs shall be symmetrical with a pitch of between 7:12 and 12:12. Hip roofs with a shallow pitch and flat roofs shall have a cornice of at least 12 inches in width. The slope of the roof may be either parallel or perpendicular to the street. Monopitch (shed) roofs are allowed only if they are attached to the wall of the main building. No mono pitch roofs shall be less than 7:12, except for porch roofs. There is no minimum pitch for porch roofs.	Met Flat roof is less than 7:12.
STANDARD B-5 - Facade Articulation Provide variety in the massing by incorporating at least two or more of the following architectural elements. Such features shall be applied to the front façade and those portions of the building that are readily visible from the public way. 1. Gables or dormers. 2. Balconies. 3. Recessed entries. 4. Covered porches, covered entries or stoops. 5. Bay windows. In the case of horizontally attached dwelling units, at least one-half of the ground floor units shall have a bay window to receive credit as a design feature.	Met Provided: - Recessed entries - Covered entry
STANDARD B-6 - Garages Attached and detached garages are allowed provided that the street-facing façade of the garage is recessed behind the façade of the main structure by a minimum of four feet. However, if the garage is integrated into the building form, the garage door may be included into the front	Met There is no garage door.

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façade of the dwelling providing that there are at least one story of living space over the garage. In this instance, the garage door width may be no more than 40% of the width of the building's overall façade width, except that no garage door need be reduced to less than 9 feet in width. Standard C-2 is not required if there is no living space on the ground level.	
PRINCIPLE C - Orientation to the Street The building's façade shall reinforce a sense of the public realm of the sidewalk while providing a sense of transition into the private realm of the home.	Met Majority of standards are met.
STANDARD C-1 - Entrances Emphasize and orient the main entrance to the street. The main entrance of the structure shall either face the street and be clearly articulated through the use of architectural detailing and massing features such as a porch, stoop, portico, arcade, recessed entry, covered entry, trim or be located on the side and be accessed by a covered porch that extends to the front of the building, at the primary street frontage.	Met Pedestrian and bike entrance faces street, is centered, is recessed, is highlighted with color, and is covered by a canopy.
STANDARD C-2 - Visual Privacy Ensure the visual privacy of occupants of dwellings through such means as placing the window sill height at least 48" above the adjoining sidewalk grade; providing the finished floor elevation of a residence a minimum of 24" above sidewalk elevation; incorporating porches along the front side of the building façade design; or other measures.	Met Dimensional standards are met.
STANDARD C-3 - Transition Spaces Create a transition space between the street and the front door with the use of such features as porches, stoops, porticos, arcades, recessed entries, covered entries, trim, sidewalk gardens or similar elements.	Met Garden provided.
PRINCIPLE D - Proportion and Scale Building proportions must be harmonious and individual building elements shall be human scaled.	Met Majority of standards are met.
STANDARD D-1 - Windows The majority of windows shall be rectangular and vertically proportioned. The use of classical proportions is encouraged. Special accent windows may be circular, square or regular polygons. Doorways, windows and other openings in the façade (fenestrations) shall have a proportional relationship to the overall massing of the building.	
STANDARD D-2 - Fenestration Doorways, windows and other openings (fenestration) shall be scaled appropriately to the overall massing of the building. The area of fenestration of the front façade (and for corner lots, both street-facing facades) shall be at least 12% of the total facade area. Appropriately scaled windows or other building openings shall be included on all sides of a building.	Met Minimum fenestration met.
STANDARD D-3 - Porches When porches are attached to the front facade, [or for porches that are required as an open space amenity under Section 14-139(f)] the porches shall extend along a horizontal line at least 20% of the front façade. Porches and balconies must have a minimum depth of 6 feet and a minimum square footage of 48 square feet. The depth may be reduced to	Met If front entry is considered a porch than it meets the dimensional standards. If it is not considered a porch than porches are not required and standard is met.

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5 feet provided that the square footage is increased to 60 square feet.	
PRINCIPLE E - Balance The building's façade elements must create a sense of balance by employing local or overall symmetry and by appropriate alignment of building forms, features and elements.	Met Majority of standards are met.
STANDARD E-1 - Window and Door Height The majority of window's and door's head heights shall align along a common horizontal datum line.	Met
STANDARD E-2 - Window and Door Alignment The majority of windows shall stack so that centerlines of windows are in vertical alignment.	Met
STANDARD E-3: - Symmetricality Primary window compositions (the relationship of two or more windows) shall be arranged symmetrically around the building façade's centerline (overall symmetry) or around another discernable vertical axis line.	Met
PRINCIPLE F - Articulation The design of the building is articulated to create a visually interesting and well composed residential façade.	Met Majority of standards are met.
STANDARD F-1 - Articulation Buildings shall provide surface articulation by employing such features such as dimensional trim, window reveals, or similar elements appropriate to the style of the building. Trim and details shall be designed and detailed consistently on the facades visible from the public right of way.	Met Proposal is articulated using metal fabrications such as railings and canopies as is appropriate to the style of the building.
STANDARD F-2 - Window Types Window patterns shall be composed of no more than two window types and sizes except where there is a design justification for alternate window forms..	Met Window types are limited and justified.
STANDARD F-3 - Visual Cohesion Excessive variations in siding material shall not be allowed if such changes disrupt the visual cohesion of the façade. Materials shall be arranged so that the visually heavier material, such as masonry or material resembling masonry, is installed below lighter material, such as wood cladding.	Met Materials are used in a visually cohesive manner.
STANDARD F-4 - Delineation between Floors Buildings shall delineate the boundary between each floor of the structure through such features as belt courses, cornice lines, porch roofs, window head trim or similar architectural features.	Met Floor delineation is clearly identified by the aligned heads of windows and doors.
STANDARD F-5 - Porches, etc. Porches, decks, balconies, stoops and entryways shall be architecturally integrated into the overall design of the building in a manner that compliments its massing, material, and details. Multilevel porches and balconies on front facades shall not obscure the architectural features of the façade. Use of rail/baluster systems with appropriate openings between rails, stepping back balconies from the front plane of the building face, or other appropriate design features shall be employed to achieve this standard.	Met Canopy and railing features are related to each other with color and detailing.
STANDARD F-6 - Main Entries Main entries shall be emphasized and shall be integrated architecturally	Met Pedestrian and bike entrance

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into the design of the building, using such features as porch or stoop forms, porticos, recessed entries, trim or a combination of such features, so that the entry is oriented to the street.	faces street, is centered, is recessed, is highlighted with color, and is covered by a canopy.
STANDARD F-8 – Articulation Provide articulation to the building by incorporating the following architectural elements. Such features shall be on all façades facing and adjacent to the street. 1. Eaves and rakes shall have a minimum projection of 6 inches. 2. All exterior façade trim such as that used for windows, doors, corner boards and other trim, shall have a minimum width of 4 inches except for buildings with masonry exteriors. 3. If there are off sets in building faces or roof forms, the off sets shall be a minimum of 12 inches. 4. Pronounced and decorative cornices.	
PRINCIPLE G - Materials Building facades shall utilize appropriate building materials that are harmonious with the character defining materials and architectural features of the neighborhood.	Met Majority of standards are met.
STANDARD G-1 - Materials Use materials and treatments for the exterior walls (including foundation walls) and roofing that are harmonious with those in buildings within a two-block radius of the site that contribute to and are compatible with the predominant character- defining architectural features of the neighborhood. Special attention shall be given to the existing building forms on both sides of the street within the block of the proposed site.	Met Proposal utilizes clapboard siding, vinyl windows, concrete foundation and metal railings as can be found in the immediate neighborhood.
STANDARD G-2 - Material and Façade Design The selection of façade materials shall be consistent with the façade design and appropriate to their nature. For example, brick facing should not appear to be thin layers on the façade, or to overhang without apparent support.	Met
STANDARD G-3 - Chimneys Chimneys shall be of brick, finished metal, stone or boxed- in and clad with materials to match the building.	Met No chimney is provided.
STANDARD G-4 - Window Types A variety of window treatments and skylights are acceptable. However, within a single building the types of windows shall be limited to two types, and window detailing shall be consistent throughout.	
STANDARD G-5 - Patios and Plazas Patios and plazas shall be constructed of permanent materials such as concrete, brick or stone.	Met

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Crime Prevention Through Environmental Design Narrative

Natural surveillance will be used to the maximum extent possible with two loft apartments on the first floor. These units will have view of the entrance approach, side, and back of the building.

The contextual front entrance and the practical parking entrance will be well lit, the entries are not recessed, preventing the possibility of entrapment. The open parking area will be lit during night hours to discourage unwanted use.

The landscape plan clearly delineates public and private space, utilizing plantings, fencing and retaining walls. The use of such features will clearly delineate private space without the need for signage.

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Accessibility Narrative

The proposed project at 30 Merrill Street will meet Fair Housing Accessibility Standards as is required for a new building. Due to the goal of providing housing at sub-market rates, no elevator will be installed and only the first floor units will need to meet the Fair Housing requirements. As no public spaces exist within the building, ADA will not apply.

The design includes two entrances: a contextual entrance and a practical entrance. The contextual entrance faces the street, has a glazed door, a canopy and is framed by two planning beds. These elements give the building the same connection to the street that is found in the surrounding buildings and has documented historic precedent.

The practical entrance is located in the back of the building adjacent to the parking and represents the shortest path by which to leave the building. This back entrance and the way it is used is also consistent with the surrounding buildings. The back entrance is the accessible entrance, and is immediately adjacent to the accessible parking spot.

The Fair Housing Act and the Fair Housing Design Manual specifically address situations where a building has more than one entrance. Page 1.33 of the design manual states:

> *"When a building has a single ground floor and more than one common entrance, at least one entrance must be accessible. This accessible entrance should be the primary entrance and must provide an interior accessible route to all ground floor units in the building."*

While Bild seeks to maximize accessibility in projects, the sloping site makes the possibility of multiple accessible entrances impractical for a project of this scale. The accessible rear entrance is favored as it best serves arrival by vehicle.

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Mechanical Systems Statement:

The HVAC design effort for the multi-family residential project at 30 Merrill Street has not yet begun in earnest however, Horizon Residential Energy Service, will specify that all HVAC equipment will meet any applicable State and Federal emissions requitments.

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Portland Water District

From Sebago Lake To Casco Bay

July 26, 2016

Plymouth Engineering Inc.
30 Lower Detroit Road
P.O. Box 46
Plymouth, ME 04969

Attn: Jon Whitten
Re: 30 Merrill Street - Portland
Ability to Serve with PWD Water

Dear Mr. Whitten:

The Portland Water District has received your request for an Ability to Serve determination for the noted site submitted on May 11, 2016. Based on the information provided, we can confirm that the District will be able to serve the proposed project as further described in this letter.

Conditions of Service

The following conditions of service apply:

- A new 4" fire service may be installed from the water main in Merrill Street. A 2-inch domestic service may be tapped off the 4" fire service just before the street line as shown on a plan entitled Seven Unit Building, 30 Merrill Street, Sheet C1. Based on the fixture count you provided, we have calculated a peak flow of 25 gallons per minute. A ¾" meter will accommodate this flow.

- We will need written confirmation from the sprinkler company that this configuration is acceptable to them.

- The existing building is currently served with a ¾-inch domestic water service. The size of this service is undersized for the proposed use. This service must be terminated by shutting the corporation valve, cutting the pipe from the water main and removing the curb stop.

- Once the project is ready for construction, the owner or contractor will need to make an appointment to come in and complete a service application form and pay the necessary fees.

Existing Site Service

According to District records, the project site does currently have existing water service. A 3/4-inch diameter copper water service line, located as shown on the attached water service card, provides water

service to this site. Please refer to the "Conditions of Service" section of this letter for requirements related to the use of this service.

Water System Characteristics

According to District records, there is an 8-inch diameter cast iron water main on the southwest side of Merrill Street and a public fire hydrant located 60 feet from the site. Recent flow data is not available in this area. The most recent static pressure reading was 50 psi on March 4, 2016.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District

Gordon S. Johnson
Engineering Services Manager

CODE NO. P-5 DISTRICT PORTLAND

REG. NO. 5347 NO. 30/32 Merrill ST

NAME ~~Ernest E. Hooker~~ Joseph H. Fournier

NAME ~~Gregory Hewins~~ ~~John Hoyt Levy~~ Robert Davis

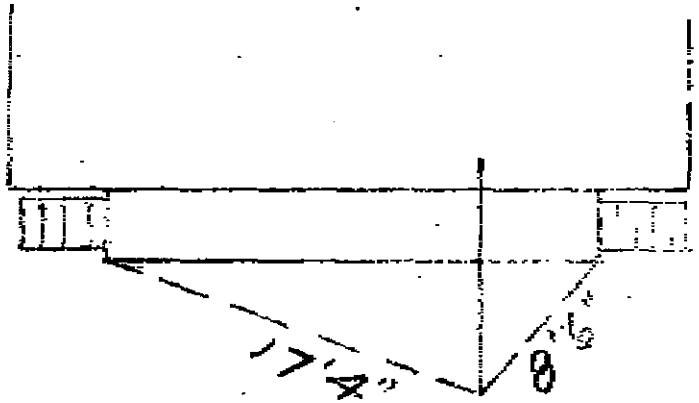
NAME

SERVICE RECORD		RENEWAL RECORDS	
KIND OF PIPE		KIND OF PIPE	Cop.
SIZE OF PIPE		SIZE OF PIPE	3/4"
MAIN TO STOP		MAIN TO STOP	25'
STOP TO ST. LINE		STOP TO ST. LINE	6'
ST. LINE TO BUILDING		ST. LINE TO BUILDING	C. & - 1926
TOTAL LENGTH		TOTAL LENGTH	31'
DATE		DATE	May 31, 1938
REMARKS		REMARKS	

SERVICE SHUT AT CORP.

CLEAN OUT AND REPAIR RECORD

DATE	REMARKS
7-15-91	Cleaned out, now
	cover 8101 - 10249



PORTLAND WATER DISTRICT

Portland, Maine | Yes. Life's good here.

August 22, 2016

Re: Wastewater Capacity Authorization

Address: **30 Merrill Street**
Applicant: Banner Properties, LLC

Planner: Nell Donaldson

Anticipated Wastewater Flows:

Multiple Family Dwelling Units 1 Bedroom	120 GPD Per Dwelling Unit X 7	840 GPD
	Total Anticipated Wastewater Flows	**840 GPD**

Comments:
The Department of Public Works, which includes the Water Resource Division, have reviewed and determined that the downstream sewers from the project address have the capacity to convey the estimated dry weather wastewater flows which will be generated from this development.

You are reminded that the sewers you are proposing to connect into convey both sanitary and stormwater (Combined Sewer) and therefore a backflow preventer is suggested. Any addition of stormwater flows in this drainage area will have an impact on CSO discharge volumes therefore no roof, sump pump or site drainage may be discharged to the sanitary sewer.

Information available in the City's archives indicate the building is served by an 8" cement pipe installed in 1938 connecting into Merrill Street. I would suggest it be investigated/confirmed for condition.

If the City can be of further assistance, please contact me at all 874-8840 or brad@portlandmaine.gov

Sincerely,
CITY OF PORTLAND

Bradley A. Roland, P.E.
Senior Project Engineer

CC:
Jeffrey Levine, Director, Department of Planning and Urban Development, City of Portland
Stuart O'Brien, Planning Director, Department of Planning and Urban Development, City of Portland
Barbara Barhydt, Development Review Services Mgr., Dep't. of Planning and Urban Development, City of Portland

Kathi Earley, City Engineer/Engineering Manager, Portland Department of Public Works



WST LED
Architectural Wall Sconce

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

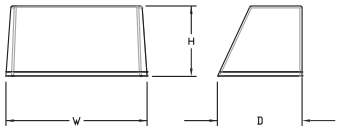
Luminaire

Height: 8-1/2" *(21.59 cm)*

Width: 17" *(43.18 cm)*

Depth: 10-3/16" *(25.9 cm)*

Weight: 20 lbs *(9.1 kg)*

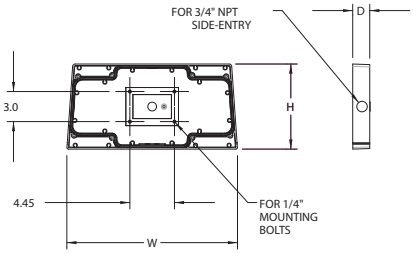


Optional Back Box (BBW)

Height: 4" *(10.2 cm)*

Width: 5-1/2" *(14.0 cm)*

Depth: 1-1/2" *(3.8 cm)*



Introduction

The WST LED is designed with the specifier in mind. The traditional, trapezoidal shape offers a soft, non-pixilated light source for end-user visual comfort. For emergency egress lighting, the WST LED offers six battery options, including remote. For additional code compliance and energy savings, there is also a Bi-level motion sensor option. With so many standard and optional features, three lumen packages, and high LPW, the WST LED is your "go to" luminaire for most any application.

Ordering Information

EXAMPLE: WST LED P1 40K VF MVOLT DDBTXD

WST LED

Series	Performance Package	Color temperature	Distribution	Voltage	Mounting	Options	Finish *(required)*
WST LED	P1 1,500 Lumen package P2 3,000 Lumen package P3 6,000 Lumen package	27K 2700 K 30K 3000 K 40K 4000 K 50K 5000 K	VF Visual comfort forward throw VW Visual comfort wide	MVOLT[1] 120[1] 208[1] 240[1] 277[1] 347 480	**Shipped included** (blank) Surface mounting bracket **Shipped separately** BBW Surface-mounted back box PBBW Premium surface-mounted back box[2] LCE Left side conduit entry[3] RCE Right side conduit entry[3]	PE Photoelectric cell, button type PER NEMA twist-lock receptacle only PER5 Five-wire receptacle only PER7 Seven-wire receptacle only PIR Motion/Ambient Light Sensor, 8-15' mounting height[4] PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[4] PIRH 180° motion/ambient light sensor, 15-30' mounting height[4] PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[4] SF Single fuse (120, 277, 347V)[5] DF Double fuse (208, 240, 480V)[5] DS Dual switching[6] E7WH Emergency battery backup (7W)[7] E7WC Emergency battery backup (cold, 7W)[7,8] E7WHR Remote emergency battery backup (remote 7W)[7,9] E20WH Emergency battery backup (20W)[7,10] E20WC Emergency battery backup (cold, 20W)[7,8,10] E23WHR Remote emergency battery backup (remote 20W)[7,9] **Shipped separately** RBPW Retrofit back plate VG Vandal guard WG Wire guard	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

NOTES

1 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with photocell (PE), fusing (SF, DF), or dual switching (DS).
2 Top conduit entry standard.
3 Not available with BBW.
4 Not available with PE, PER, PER5, PER7, VG or WG.
5 Not available with MVOLT option. Button photocell (PE) can be ordered with a dedicated voltage option. Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option."
6 Not available with E7WH, E7WC, E7WHR, E20WC, E20WH, or E23WHR. Used with inverter system. Not available with 347/480V. Not available with PE, PER, PER5 & PER7.
7 Not available with 347/480V.
8 Battery pack rated for -20° to 40°C.
9 Comes with PBBW.
10 Warranty period is 3-years.

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Emergency Battery Operation

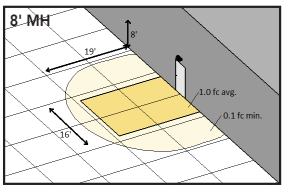
The emergency battery backup is integral to the luminaire - no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product.

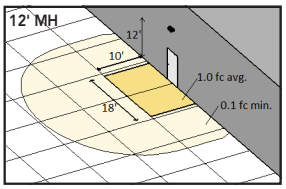
All emergency backup configurations include an independent secondary driver with an integral relay to immediately detect AC power loss, meeting interpretations of NFPA 70/NEC 2008 - 700.16

The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time supply power is lost, per International Building Code Section 1006 and NFPA 101 Life Safety Code Section 7.9, provided luminaires are mounted at an appropriate height and illuminate an open space with no major obstructions.

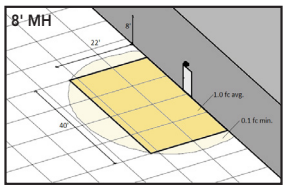
The examples below show illuminance of 1 fc average and 0.1 fc minimum of the P1 power package and VF distribution product in emergency mode.

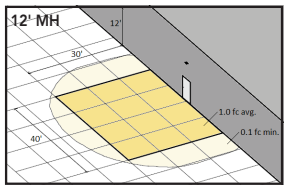
10' x 10' Gridlines
8' and 12' Mounting Height





WST LED P1 27K VF MVOLT E7WH





WST LED P2 40K VF MVOLT E20WH

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts.

Performance Package	System Watts (MVOLT[1])	Dist. Type	27K (2700K, 70 CRI)					30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
			Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	12W	VF	1,494	0	0	0	125	1,529	0	0	0	127	1,639	0	0	0	137	1,639	0	0	0	137
		VW	1,513	0	0	0	126	1,548	0	0	0	129	1,660	0	0	0	138	1,660	0	0	0	138
P2	25W	VF	3,162	1	0	1	126	3,236	1	0	1	129	3,468	1	0	1	139	3,468	1	0	1	139
		VW	3,202	1	0	0	128	3,277	1	0	0	131	3,512	1	0	0	140	3,512	1	0	0	140
P3	50W	VF	6,023	1	0	1	120	6,164	1	0	1	123	6,607	1	0	1	132	6,607	1	0	1	132
		VW	6,100	1	0	1	122	6,242	1	0	1	125	6,691	1	0	1	134	6,691	1	0	1	134

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
40°C	104°F	0.98

Projected LED Lumen Maintenance

Values calculated according to IESNA TM-21-11 methodology and valid up to 40°C.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.95	>0.92	>0.87

Electrical Load

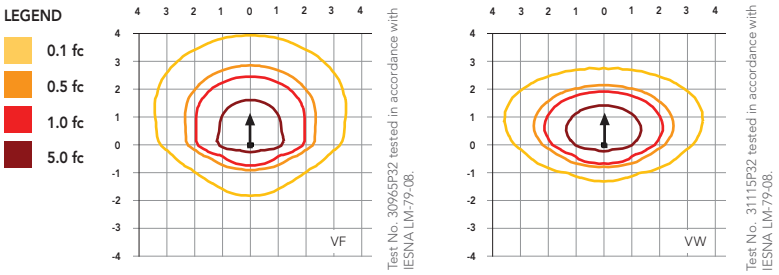
Performance package	System Watts	Current (A)					
		120	208	240	277	347	480
P1	11	0.1	0.06	0.05	0.04	---	---
	14	---	---	---	---	0.04	0.03
P1 DS	14	0.12	0.07	0.06	0.06	---	---
P2	25	0.21	0.13	0.11	0.1	---	---
	30	---	---	---	---	0.09	0.06
P2 DS	25	0.21	0.13	0.11	0.1	---	---
P3	50	0.42	0.24	0.21	0.19	---	---
	56	---	---	---	---	0.16	0.12
P3 DS	52	0.43	0.26	0.23	0.21	---	---

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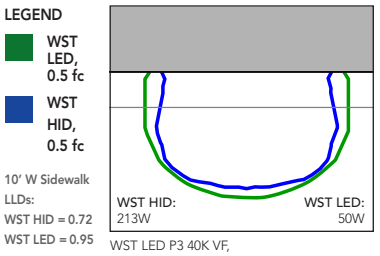
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's WST LED homepage.

Isofootcandle plots for the WST LED P3 40K VF and VW. Distances are in units of mounting height (10').



Distribution overlay comparison to 175W metal halide.



WST LED P3 40K VF,
WST 175M FT Probe, 12' Mounting Ht

FEATURES & SPECIFICATIONS

INTENDED USE
The classic architectural shape of the WST LED was designed for applications such as hospitals, schools, malls, restaurants, and commercial buildings. The long life LEDs and driver make this luminaire nearly maintenance-free.

CONSTRUCTION
The single-piece die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP65 rating for the luminaire.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS
Well crafted reflector optics allow the light engine to be recessed within the luminaire, providing visual comfort, superior distribution, uniformity, and spacing in wall-mount applications. The WST LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine(s) consist of 98 high-efficacy LEDs mounted to a metal core circuit board and integral aluminum heat sinks to maximize heat dissipation and promote long life (100,000 hrs at 40°C, L87). Class 2 electronic driver has a power factor >90%, THD <20%. Easily-serviceable surge protection device meets a minimum Category B (per ANSI/IEEE C62.41.2).

INSTALLATION
A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. PIR options are rated for wet location. Rated for -30°C to 40°C ambient.

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.

WARRANTY
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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7171 LED

PROJECT:
MODEL #:
FIXTURE TYPE:

STANDARD SPECIFICATIONS

HOUSING
Die cast, 0.090" thick housing designed for rugged applications. The housing features a 70 durometer o-ring seal that seats on the edge of the opening against the diffuser.

REFLECTOR
Formed aluminum, secured in position with hardware.

DIFFUSER
Injection molded clear prismatic polycarbonate, UV stabilized material with a base thickness of 0.090" that is resistant to damage.

LED PERFORMANCE - 3500K STANDARD
120-277V - 3500K, 82 CRI - L80 rating - 60,000 hrs - L70 rating (projected) - 100,000 hrs
Source lumens noted. Amperage rated @ 110V input
Operating ambient temperature: -20°C / -4°F - 40°C / 104°F

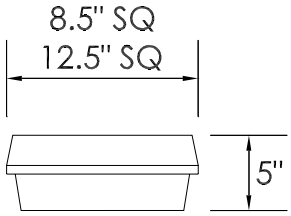
B6LED - 6W nominal, .05 A input - 711 lm - 119 lm/W
B12LED - 12W nominal, .10 A input - 1422 lm - 120 lm/W
C9LED - 9W nominal, .10 A input - 1009 lm - 121 lm/W
C17LED - 17W nominal, .15 A input - 1829 lm - 111 lm/W
C24LED - 24W nominal, .20 A input - 2438 lm - 100 lm/W
C37LED - 37W nominal, .30 A input - 3641 lm - 99 lm/W

MOUNTING
The 7171 is designed to be installed on either the wall or ceiling and mounted with proper anchors (by others). The housing has removable plugs for conduit entry in the side or rear wire entry from a j-box or conduit.

FINISH
This series is available in a standard bronze polyester powder coat.

WARRANTY
5 year limited warranty on this LED product. Consult factory for details.





WET



ORDERING INFORMATION

7171	-	_____	-	_____	-	_____
Model		2.		3.		4. (if required)

2. SIZE

8	8.5" sq.
12	12.5" sq.

3. WATTAGE

8 SIZE

B6LED	1-B Series board
B12LED	2-B Series boards
C9LED	1-C Series board
C17LED	2-C Series boards
C24LED	2-C Series boards

12 SIZE

B12LED	2-B Series boards
C9LED	1-C Series board
C17LED	2-C Series boards
C24LED	2-C Series boards
C37LED	3-C Series boards

4. AVAILABLE OPTIONS

27K	2700K color temperature B6LED - 634 lm - 106 lm/W B12LED - 1266 lm - 107 lm/W C9LED - 900 lm - 108 lm/W C17LED - 1547 lm - 94 lm/W C24LED - 2062 lm - 84 lm/W C37LED - 3080 lm - 83 lm/W
30K	3000K color temperature B6LED - 689 lm - 115 lm/W B12LED - 1376 lm - 116 lm/W C9LED - 977 lm - 117 lm/W C17LED - 1763 lm - 107 lm/W C24LED - 2351 lm - 96 lm/W C37LED - 3512 lm - 95 lm/W
40K	4000K color temperature B6LED - 710 lm - 119 lm/W B12LED - 1421 lm - 120 lm/W C9LED - 1010 lm - 121 lm/W C17LED - 1862 lm - 113 lm/W C24LED - 2482 lm - 101 lm/W C37LED - 3707 lm - 100 lm/W
BAC	Buy American Compliant
DIM	Dimming driver (120-277V) (All except B6LED) (0-10V dimming control required)
ECW	Extreme Cold Weather (-40°C / -40°F min.)
ES	ENERGY STAR® (All except B6LED)
OCC[1,2]	Occupancy Sensor (B12LED, C17LED & C24LED only)
PO1	Photo Control (120V)
PO2	Photo Control (208, 240, 277V)

1) Minimum operating temperature is -20°C / -4°F. Cannot be used with ECW
2) Occupancy sensor operates with microwaves and is not recommended for use in waiting areas with elevators

Specifications and dimensions subject to change without notice.
Consult your Brownlee Lighting representative for availability and ordering information.

BROWNLEE LIGHTING
www.brownlee.com

REVISED
2015.12.15

Att. S

30 Merrill Neighborhood Meeting Sign-in Sheet

	Name	Address	Email
1	Katy Harkleroad	47 Howard St	katyharkleroad@yahoo.com
2	Ryan Harkleroad	47 Howard St.	
3	Carol McCulloch	1 North ST.	carolcullen@aol.com
4	Don Head	118 Congress #403	donhead66@gmail.com
5	Caran Zaud	"	czaud@meca.edu
6	Lisa Adams	49 Merrill St	elizabethspenceradams@gmail.com
7	Peter Adams	" "	petersayresadams@gmail.com
8	sharon mcgauley	23 cumberland ave	sharonmcgauley@gmail.com
9	Robert Norton	15 North St	easterdpropertymgmt@gmail.com
10	Bruce Davis	45 Quebec	bruce.davis21@yahoo.com
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30 Merrill Street

Neighborhood Meeting Minutes

6:00pm Monday, August 15, 2016

Presenting:

- Evan Carroll, bild Architecture (EC)
- Michael Boissonneau, Banner Properties (MB)

Attendees:

- See attached sign-in sheet (ATT below, unless named)

Meeting Notes:

EC Welcome and agenda
- Intros
- Presentation
- Q and A
- Done by 7:00pm

Introductions:

All All presenters and attendees introduced themselves

Team Presentation:

MB Reasons for Development
- Mike grew up in Portland
- Originally was his Uncles property
- It's now a dilapidated property
- Looking forward to making the neighborhood better

EC General Project Goals
- Make it energy efficient.
- More affordable and modest than other projects in the area
- This project represents a look to the future of city living in Portland.

Site Presentation:
- Illustrated orientation of project to street, park and neighboring buildings.
- Parking (6) spaces will be in the back
- Driveway will be constructed from pervious pavers
- This will help control storm water runoff
- Lighting follows city standards and will not "creep" onto adjacent properties
- Fencing around the site will help with this
- All construction activities will be able to happen on the site
- Shoring might be needed on the project north side

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Building Affordably:
- Having (7) units using (1) stair helps keep the construction costs down,
- Studio layouts with open floor plans helps keep the units affordable.
- An efficient building layout, minimizing bump-outs and details also helps with building cost

Building Design
- Large French doors allow lots of light into the units.
- The placement of the building matches the context of the neighborhood.
- Façade will be standing metal seam.
- The building's roofline is offset to work with the zoning requirements.
- A custom railing system pays homage to more traditional bay windows, also act as railing system for the Juliet balconies.
- Railing system becomes railing for roof deck giving symmetry and continuality to front façade
- Entries all have canopies

ATT /Public Comment (ATT used when source of comment was not noted)
- Carol: How much land was being used?
  - EC: Would get back to her with an exact number
- Carol: Have we met with the city yet?
  - EC: Yes
- Carol: What was the exterior material again?
  - Standing metal seam
- Carol: How many bedrooms?
  - EC: Seven
- Carol: How many stories?
  - EC: 4
- Carol: The parking is all outdoors?
  - EC: Yes
- Carol: When do you plan to break ground?
  - EC: This fall
- Carol: Have you filed the site plan?
  - EC: Yes
- Carol: How long ago did you file?
  - EC: July 15th 2016
- Don: Curious about the difference in height due to the zoning.
  - EC: On the North side of the property the building max height is 35' but elsewhere it's 45' causing the difference
- Katy: Pricewise, where will these units fall?
  - EC: It will be under the cost of Munjoy Heights
- Lisa: Have there been any design standard comments from the city?
  - EC: Yes, we've gotten comments back from the city, the majority being the project needs more articulation
- Lisa: What does that mean?
  - EC: More detail
- Carol: Have you requested any waivers from the city?

- EC: Not at this time, but possibly for the parking
- Carol: Is the parking Compact only?
  - EC: Four of the six spots are compact
- Carol: Was Caitlyn ok with that?
  - EC: The city has requested turning radius templates to be shown.
- Carol: Where will the trash be located?
  - The project is small enough it can use city bags on the curb.
- Ryan: Can you talk about the concept behind the design, why is it so drab and thin?
  - EC: It is a contemporary design that is looking towards the future. There is also money in details and bump outs which is why they have been minimized.
- Lisa: It's a massive building compared to the single family homes nearby.
  - EC: It follows the R6 zoning in the area.
- Lisa: I'm curious about the color choice, is there another color that would minimize the sense of mass?
  - EC: We can look at that
- Bruce: The building is not contextual. Contextual is not subjective.
- Carol: Personally objects to the Orange strip on the Lafayette project. Will you be doing something like that on this project? Why not use blue like the sky or green like the grass.
- Katy: Was curious as to MB's definition of "Fit in"
  - MB: Anything that enhances the neighborhood and makes it better than it is now. We want the neighborhood to be accepting of it.
- Don: It's a big square ugly block
- Ryan: Aesthetics are the most important to the neighborhood.
- Carol: There are no elevators? No Closets? Are you working with a real estate person?
  - EC: That's correct, having no elevators saves money, there are currently no closets and we are working with a real estate person.
- Peter: This is an embarrassment to the neighborhood with no context. Its cheap looking and unimaginable. Can tell EC and MB are passionate about the project, just wish it would be put to good use.
- Bruce: I appreciate the design, just not in this location.
- Sharon: Where do we go from here?
  - EC: We will be submitting notes on this meeting to the city, as well as working with them through the design review process.
- Ryan: Appreciated the information and holding the meeting, just wished the project had more respect for the neighborhood.

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LEVEL II/III REVIEW (14-526): 30 Merrill – 7 units

Bild Responses

		Preliminary Review	
Transportation	a. Impact on Surrounding Street Systems	•	•
	b. Access and Circulation	• Need turning templates showing that parking area at rear will function adequately • Rear door appears to be located in close proximity to parking space, where there is potential for conflict between pedestrians exiting the building and cars. What about door swing? • Concern re FHA accessibility and the legibility of building entrances. Ideally, the front entrance would be accessible. Further comments on this will be forthcoming. • Concern re utility of front entrance for guest/resident access. Wayfinding is an issue.	- Turing templates are attached. The 17.7 foot radius is reflects the published turning radius of a Toyota Prius and Honda Civic. - Door has been adjusted to swing in. No further changes will be made until parking layout is finalized and accepted. - The accessibility & way-finding narrative has been revised and is attached. - Response to comment found in accessibility and way-finding narrative
	c. Public Transit Access	• N/A	
	d. Parking	• *Bike parking standard:* *Residential – 2 spaces/5 dwelling units = 3 bike parking spaces.* Please show rack on plan and include detail. • Snow storage area will be inaccessible when cars are parked. Please revise or provide alternate plan for snow storage/removal.	- Bike rack for (2) bicycles provided on sidewalk in site plan for public use. Location of front door and access to basement storage compartments is intended to give residents ample personal storage to be used for bicycles as needed. - Snow storage will be addressed in separate response from civil engineer.
	e. Transportation Demand Management (TDM)	• N/A	
Environmental Quality	a. Preservation of Significant Natural Features	• N/A	

	b. Landscaping and Landscape Preservation	• *Street tree standard for multi-family (TM 4.6.1):1 tree/unit in ROW.* Show street tree in tree well, with species denoted. Contribution for remaining required trees will be necessary.
		• Need landscaping plan to confirm that standards are being met
		  • *Parking lot standard (14-526(b)2b(ii)(a)): 2 trees (or 1 tree & 3 shrubs)/5 spaces*
		  • *Understory plantings standard (14-526(b)2b(i)(b)): 6 shrubs (or ornamental grass)/45 LF of property line*
		• Provide buffering to rear where parking will directly abut the neighboring property. Is fence proposed for this area? If so, please show.
			- Revisions for street tree details will be provided in separate response from civil engineer. Waiver request for number of street trees provided is attached.
			- Landscaping plan will be provided in separate response from civil engineer.
			- A fence enclosing rear parking area is proposed, and no vegetative buffering is intended. A revised fence layout will be provided in separate response from civil engineer.

	c. Water Quality, Storm Water Management and Erosion Control	• Are pervious pavers proposed within the center of the driveway or within all of the parking area? The stormwater report and plan appear to conflict • Based on response to above, confirm impervious calculations. Calculations in stormwater report appear to assume that entire parking area and driveway are pervious • Show where stormwater is proposed to enter the city's system	- The pavers are within all of the parking area. This will be updated on the site plan in separate response from civil engineer. - See above. - Stormwater runoff will flow overland to the existing stormdrain system within Merrill Street once the pervious pavement treatment system is over capacity.
Public Infrastructure and Community Safety	a. Consistency with Master Plans	•	
	b. Public Safety and Fire Prevention	•	•
	c. Availability and Adequate Capacity of Public Utilities	• Provide evidence of sewer capacity • Show proposed electrical service. Should be located underground.	- See attached letter. - This will be updated on the site plan in separate response from civil engineer.
Site Design	a. Massing, Ventilation and Wind Impact	• Show location of HVAC equipment/venting	- Location of roof equipment is shown on roof plan. Elevations have been updated to show venting.
	b. Shadows	•	•
	c. Snow and Ice Loading	•	

	d. View Corridors	•	
	e. Historic Resources	•	
	f. Exterior Lighting	• Provide cut sheets • Move light on southwest corner of the building away from property line in order to minimize light trespass	- Cut sheets attached. - Fence will be installed along this property line. This will prevent light trespass.
	g. Noise and Vibration	•	•
	h. Signage and Wayfinding		
	i. Zoning Related Design Standards	•	•

SUBDIVISION REVIEW (14-497)

	Preliminary Review	2nd Review
1. Water/Air Pollution	•	
2. & 3. Water Supply	•	
4. Erosion	•	
5. Transportation Impacts	•	
6. Sanitary Sewer/Stormwater	•	
7. Solid Waste	•	
8. Scenic Beauty	•	
9. Comprehensive Plan	•	
10. Financial and Technical Capacity	•	
11. Wetland Impacts	•	
12. Groundwater Impacts	•	
13. Flood-Prone Area?		
14. & 15. ID Wetlands & Rivers		

Waivers
Provide formal request for waivers (including aisle width and % compact parking) — Waiver request is attached.

Additional Submittals Required
Sewer capacity — Sewer capacity is attached.
Plat — Plat plan will be provided.
Site plan/civil set

- Clean up extraneous lines (e.g. SW corner of parking area)
- Eliminate references to 'impervious patio?'
- Add north arrow
- Show distances to property lines from all building sides and from parking area
- Show important dimensions (e.g. aisle width in parking)
- Confirm curb cut location, as it appears to show slightly differently on survey
- Show exterior doors
- Show bicycle parking on plan
- Show areas of sidewalk repair
- Need grading/drainage plan that shows stormwater treatment plan

Updated site plan will be in separate response from civil engineer.

Zoning

- Building appears to encroach on 5' right yard setback. Lines are not clearly legible. Confirm that right yard setback is being met
- Please confirm height (need average grade calculations)
- Based on average grade and height calculations, confirm that stepback on north side is being met

- Foundation is at 5' setback line. Building sheathing assembly encroaches on setback as allowed by Sec. 14-425
- Building height and stepback requirements are being met. Average grade calculation to be provided in separate response from civil engineer.

- Please define areas that were included as open space in the calculation in order to confirm that plans meet 20% open space requirement. — Open space requirement is being met. Open space calculation to be provided in separate response from civil engineer.

Right, Title, Interest

- The deed provided only addresses a portion of the site. Please provide additional deeds.
- Site plan shows planter bed encroaching on property line. Revise to eliminate encroachments.
- Per survey, it looks like existing fence encroaches on Thompson property

- Additional deed attached.
- Revised plan with planter attached.
- Existing fence will be shown to be removed in revised site plan.

Additional comments have been received from:
Caitlin Cameron: Revised renderings and elevations are attached. Additional siding options are being considered and budgeted, and will be submitted at a later time.
Keith Gautreau: No responses requested
Lauren Swett: Separate responses to come from civil engineer.
Jeff Tarling: Separate responses to come from civil engineer.

bild ARCHITECTURE

ingenuity thoughtfulness empathy

September 28, 2016

RE: Bild Responses to Planning Staff Comments, 30 Merrill Street

Dear Nell,

Below is a list of the drawings that have uploaded to the e-plan review site, accompanied by notes representing the planning staff comments they address. The notes regarding civil responses can be found under separate cover.

Also please note the following additional waiver request:
We request a waiver of the driveway separation distance requirement. We proposed to upgrade and improve, but not significantly relocate the existing curb cut, which is located to one side of the property.

A1.1, A1.2, A1.3 - Floor Plans
Design Review Comments
- Massing revisions: Recess at front of building for basement, 1st, 2nd, & 3rd floors.
- Massing revisions: Recess of 4th floor on front and sides of building, creating a centered massing for the 4th floor.

A2.1, A2.2 - Elevations
Zoning Comments
- Average grade shown with height from average grade
Design Review Comments
- Massing revisions: Recess at front of building for basement, 1st, 2nd, & 3rd floors.
- Massing revisions: Recess of 4th floor on front and sides of building, creating a centered massing for the 4th floor.
- Articulation Revisions: Accentuated cornice
- Materials Revisions: Wide exposure clapboard siding in place of standing seam siding.

A2.3. A2.4. A2.5 - Renderings
Design Review Comments
- Massing revisions: Recess at front of building for basement, 1st, 2nd, & 3rd floors.
- Massing revisions: Recess of 4th floor on front and sides of building, creating a centered massing for the 4th floor.
- Articulation Revisions: Accentuated cornice
- Materials Revisions: Wide exposure clapboard siding in place of standing seam siding.

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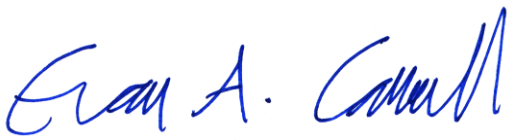
A3.2 - DETAILS
- Fence Detail provided

000 – PLAT
- Provided as requested

000 – PARKINGLOTLIGHTING
- Southwest building light moved as requested

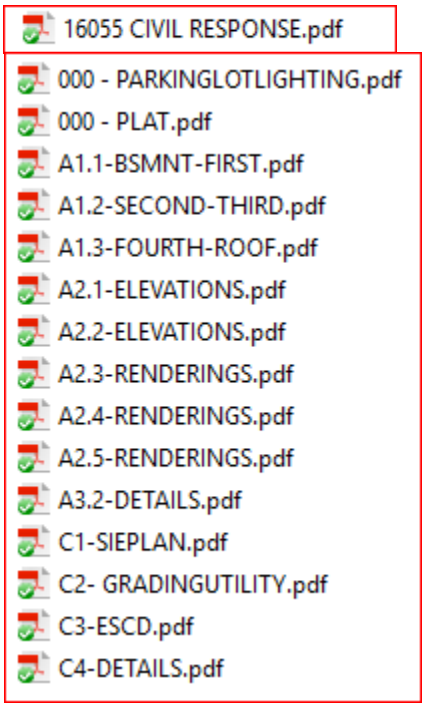
Thank you to you and all the other departments for your collaboration on this site plan approval application.

Sincerely,



Evan Carroll, AIA, LEED AP BC+D

Attachments:



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Plymouth Engineering, Inc.

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Plymouth, Maine 04969
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tel: (207) 257-2071 fax: (207) 257-2130

August 29, 2016 Project No. 16055

Mr. Evan Carroll
Bild Architecture
PO Box 8235
Portland, ME 04104

Response to Comments – 7-Unit Building, 30 Merrill Street, Portland, Maine

Dear Mr. Carroll:

We have prepared the attached packet of plans and narratives in response to review comments from various staff members and consultants to the City of Portland. Please accept this letter as a summary of the response items. The summary is as follows:

Comments from the review table:

- *Need turning templates showing that parking area at rear will function adequately.*

We have provided a plan showing 4 turning templates illustrating 4 typical car movements within the proposed parking area. The published turning radii for Honda and Toyota compact cars was found to be 17.7'. We used this turning radius for the turning templates used on the plan.

- *Bike Parking.*

To add to your response on this issue, we have added the location of the bike rack on the front sidewalk. We have provided an excerpt from the Technical Design Manual as well. This is located on the last detail sheet, Sheet C5.

- *Snow Storage Area:*

We were able to move the parking area over a few feet to the south to maximize the access to the snow storage area.

- *Provide buffering to rear where parking…*

We have shown fencing to be installed 1' from the southern, western and northern property lines of the lot. This will provide visual buffering from the parking area and the first floor residences.

- *Pervious Pavers clarifications:*

We have updated the narratives to include the entire parking and access drive as pervious pavers. The entire sub-base will have a filter layer that will treat stormwater runoff. Runoff will mimic existing conditions of the site by allowing runoff to flow northeasterly to Merrill Street via overland flow once the storage space within sub-layers of the driveway and parking area are maximized.

- *Sewer Capacity:*

We will forward any correspondence from the Sewer Dept. once we receive it. The PWD has determined the expected water usage for the project.

- *Electrical Service:*

We have revised the plans to show an underground power, telephone and cable service for the building, as requested.

- *Site Plan/Civil Set:*

We have revised the plans to include a Site Layout Plan, a Grading & Utility Plan and construction details. We have revised labels, added dimensions and a North Arrow. We have added the exterior doors to the building and show the bicycle rack on the sidewalk. We are proposing that the existing curb-cut on Merrill Street remain as-is for this project. It will adequately service the proposed driveway location. The treatment area for the project is simply the driveway and parking area, in its entirety.

The Open Space for the project is depicted on Sheet C1. It includes landscaped areas and areas of lawn. No landscaping is included on the north side of the building due to the fact that it is a narrow area that is on the north side of a multi-story building. We do not believe many plantings would survive within this area.

The average grade of the building is 148.39' at the foundation. The highest point is 150.45' and the lowest is 146.20'.

Comments from Woodard & Curran, dated August 23, 2016:

1) *The Applicant has requested letters from utilities confirming capacity to serve the proposed development; evidence of confirmation of capacity to serve the proposed development should be provided upon receipt.*

We will submit letters upon receipt.

2) *In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards.*
We offer the following comments:

   a) *Basic Standard: The Applicant has provided Erosion & Sediment Control notes and sedimentation barrier details to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500. However, details should be provided for a stabilized construction entrance and catch basin inlet protection measures and the locations of proposed erosion and sediment control measures should be indicated on the drawings.*

We have indicated on the drawings where erosion control measures should be located. We have also indicated that the existing paved driveway will remain and shall act as the stabilized construction entrance for the site.

   b) *General Standard: The project will result in a de minimis increase in impervious area of approximately 315 square feet, assuming the roof to be impervious and proposed parking as pervious. The Applicant has proposed pervious pavers and a green roof. The Applicant should address the following comments:*

- *The Pervious Paver Section Detail provided on Sheet C2 includes a Filter Layer; however, the Site Plan and stormwater management plan indicate that the limit of the proposed filter bed does not extend over the full area of proposed pervious pavers. A detail should be provided for paver installation in areas outside of the filter bed, to confirm that the entire paver area may be considered pervious. If the additional pavers are not installed in such a way that they are pervious, the impervious surface calculations should be updated, and the filter area should be designed per the Maine DEP Stormwater BMP manual's guidance for "Run-On Modular Pervious Pavement."*

The plans and calculations have been updated to show that the entire parking area and driveway are to be consistently constructed as pervious pavers.

- *The Applicant should provide information on the depth to groundwater and bedrock in the area of the proposed pervious pavers.*

The area is a sandy soil where groundwater and bedrock are expected to be at least 1 foot below the sub-layers of the pervious paver build-up. An Impervious Liner can be introduced during construction if determined to be needed by an inspecting engineer.

- *The Pervious Paver Section Detail should include specifications for the filter layer per Chapter 7.7 of Volume III of the MaineDEP Stormwater BMP Manual.*

We have added this information to the detail.

- *The Operation and Maintenance Plan should specify that winter sand be prohibited in the area of Pervious Pavers. If the Applicant intends to seek credit from the City's Stormwater Service Charge for the proposed Pervious Pavers, the Applicant should ensure that the Operations and Maintenance Plan specifies that accumulated sediment and debris be removed from joint space monthly.*

We have revised the Operations and Maintenance Plan accordingly.

- *A green roof design has not been reviewed. The Applicant should note that green roofs are not currently included in the City's list of treatment systems eligible for credits from the City's Stormwater Service Charge. We encourage the Applicant to review the City's Stormwater Service Charge Credit Manual (available online) to evaluate whether they may want to incorporate stormwater quality treatment measures that qualify for a future Stormwater Service Charge credit.*

The use of a green roof system is completely voluntary by the applicant. We have not taken any treatment credits for this system in our stormwater management plan. We will be sure to advise them on this information regarding the treatment credits.

c) Flooding Standard: The project will result in a de minimis increase in impervious area of approximately 315 square feet. As such, the project is not required to include any specific stormwater management features to control the rate or quantity of stormwater runoff from the site.

3) *The Applicant should provide a detail for pipe trenches, brick sidewalk repair, and pavement repair within the City of Portland Right-Of-Way per the City of Portland Technical Manual.*

We have added these details to the plans.

4) *It appears that the Applicant is proposing to abandon an existing sanitary sewer service connection and install a new one. The Applicant should clarify what methods will be utilized to abandon the existing connection.*

We look forward to working with the sewer dept. to finalize an approach on the sewer connection construction.

Comments from TY Lin International:

- *The site plan depicts the driveway offset from the curb opening, while the existing driveway is centered. The applicant should note why an offset condition is proposed.*

The existing driveway is 7.85' wide, is located on the southerly property line and is 1.5' offset from the southerly edge of the existing curb opening. The existing curb opening is 10 feet wide, at the narrowest point. The proposed driveway is to be 10 feet wide and located 1-foot away from the southerly property line. This results in the existing curb tip-down on Merrill Street being 1.25 feet offset from the northerly edge of the proposed driveway. It leaves 9.20 feet of clear access between the proposed fence and the existing tip-down curb. This width appears to be adequate for access of residential scale vehicles and minimizes impacts to the existing sidewalk and curbing on Merrill Street.

- *The applicant should formally request a waiver from the City's driveway separation standard and provide documentation on why the standard can't be met.*

We will formally request the waiver.

- *A fence is proposed on the edge of the driveway. Details on the fence should be provided.*

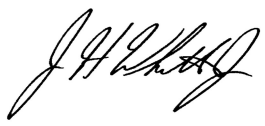
Fencing details will be included in the upcoming Landscaping design and details for the site.

- *Access and egress movements from parking spaces will be constrained. The applicant has provided vehicle turning templates that seem to illustrate parking space accessibility is feasible. Given the constrained conditions, I would suggest the applicant simulate the layout in a field test to be reviewed by me. I would note that the parking space adjacent to the handicap space will be difficult to maneuver into and out of.*

If the applicant were to remove the parking space closest to the building, would that eliminate the request for a field test? I believe the required number of parking spaces is 4 for this property. If so, we will discuss this with the applicant.

Thank you for your continued review of this project, and please call with any questions.

Sincerely,
PLYMOUTH ENGINEERING, INC.



Jon H. Whitten, Jr., P.E.
Senior Project Manager

Plymouth Engineering, Inc.

P.O. Box 46 – 30 Lower Detroit Road
Plymouth, Maine 04969
info@plymouthengineering.com
tel: (207) 257-2071 fax: (207) 257-2130

September 23, 2016 Project No. 16055

Mr. Evan Carroll
Bild Architecture
PO Box 8235
Portland, ME 04104

Response to Comments – 7-Unit Building, 30 Merrill Street, Portland, Maine

Dear Mr. Carroll:

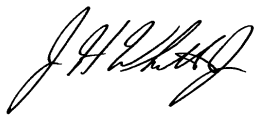
We have attached our revised plans in response to review comments from City Staff, Woodard and Curran and TYLIN through September 21, 2016.

Our revisions include:

- Addition of a Landscape List on Sheet C1,
- Removal of the parking space closest to the building, adjacent to the Handicap space,
- Moved Handicap closer to building to increase access to snow storage area in the rear,
- Addition of an alternate style of pavers next to the building to indicate a pedestrian walking area,
- Addition of a 4'x4' concrete pad at the door adjacent to the parking lot,
- Note to center and renovate the brick driveway entrance and granite curbing for the site, and
- Note on the Pervious Paver Detail (Sheet C4) to indicate a potential need for an impervious liner if separation from bedrock cannot be achieved on the site,

Please let us know if there are any additional revisions requested for this project.

Sincerely,
PLYMOUTH ENGINEERING, INC.



Jon H. Whitten, Jr., P.E.
Senior Project Manager

CERTIFICATION

STATE OF MAINE · RICHARD W. EATON · # 2075 · PROFESSIONAL LAND SURVEYOR

RICHARD W. EATON P.L.S. # 2075

Space & Bulk Standards:

Zone. R-6	Required
Mimium Lot Size	2,000 S.F.
Minimum Frontage	20'
Minimum Yard Dimensions	
Front Yard	5' Or Avarage Depths of Adjacent Yards
Rear Yard	10'
Side Yard	5'
Maximum Lot Coverage	60%
Minimun Lot Width	20'
Maximum Building Height	45'

General Notes:

1) Area of Subject Parcel 5,100 Square feet or 0.12 Acres

2) Basis of Bearing, Maine State Plane NAD 1983 1802 West Zone Base Point, Granite Monument With Bolt at Congress Street and Merrill Street T111-30-132, N303787.1960 E2931509.0560 Azimuth Point, Monument With DH on Washinton Ave. T111-21-123, N304140.2327, E2930845.2163 Azimuth N61-59'-44"W 751.88' Feet

3) Vertical Datum is NGVD 1929 Benchmark is PK Nail on CMP Pole #9 West Side Congress Elevation = 139.79' Provided By City of Portland Public Works Engineering

4) Subject Tax Map 014 Block C Lot 014

5) Subject not in Special Flood Hazard Area per FEMA Flood Rate Map Panel # 230051 0014B Dated July 17, 1986 Parcel in C Zone

6) Zone R-6

PLAN REFERENCE

1) Condominium Plat Marquis Lofts Condominium 33-35 LaFayette Street, Portland Made For Random Orbit Inc, By Owen Haskell, Dated March 3, 2014 Recorded in Plan Book 214 Page 145

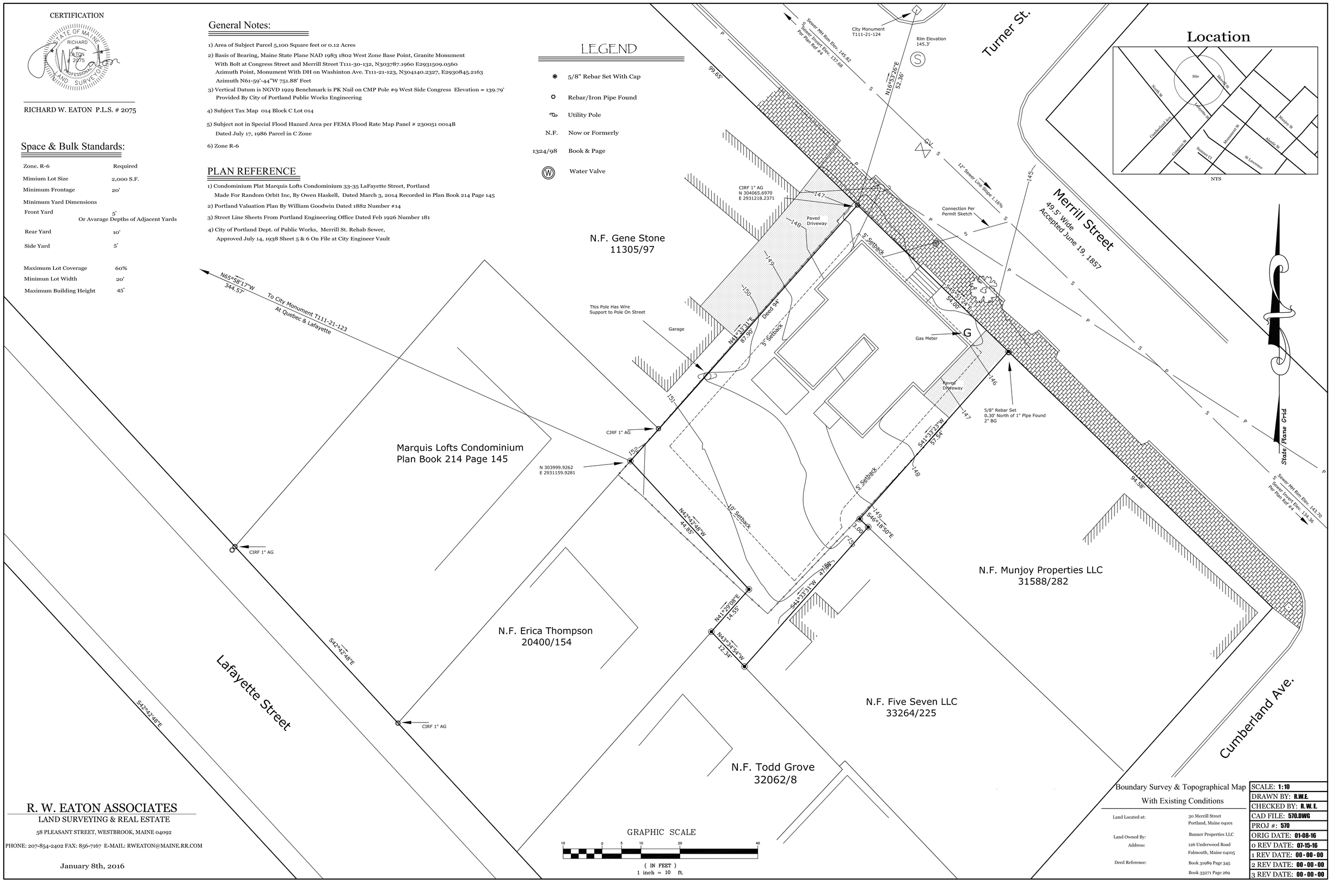
2) Portland Valuation Plan By William Goodwin Dated 1882 Number #14

3) Street Line Sheets From Portland Engineering Office Dated Feb 1926 Number 181

4) City of Portland Dept. of Public Works, Merrill St. Rehab Sewer, Approved July 14, 1938 Sheet 5 & 6 On File at City Engineer Vault

LEGEND

- 5/8" Rebar Set With Cap
- Rebar/Iron Pipe Found
- Utility Pole
- N.F. Now or Formerly
- 1324/98 Book & Page
- Water Valve



R. W. EATON ASSOCIATES
LAND SURVEYING & REAL ESTATE
58 PLEASANT STREET, WESTBROOK, MAINE 04092
PHONE: 207-854-2402 FAX: 856-7167 E-MAIL: RWEATON@MAINE.RR.COM

January 8th, 2016

Boundary Survey & Topographical Map
With Existing Conditions

Land Located at:	30 Merrill Street Portland, Maine 04101
Land Owned By:	Banner Properties LLC
Address:	126 Underwood Road Falmouth, Maine 04105
Deed Reference:	Book 31989 Page 345 Book 33271 Page 269

SCALE:	1:10
DRAWN BY:	R.W.E.
CHECKED BY:	R. W. E.
CAD FILE:	570.DWG
PROJ #:	570
ORIG DATE:	01-08-16
0 REV DATE:	07-15-16
1 REV DATE:	00 - 00 - 00
2 REV DATE:	00 - 00 - 00
3 REV DATE:	00 - 00 - 00

CERTIFICATION

RICHARD W. EATON P.L.S. # 2075

GENERAL NOTES:

1. THE APPLICANT AND RECORD OWNER IS BANNER PROPERTIES, LLC WHOSE ADDRESS IS 126 UNDERWOOD ROAD, FALMOUTH, ME 04105.

2. THE PROPERTY IS LOCATED AT 30 MERRILL STREET, PORTLAND, ME AND IS DESCRIBED AS LOT 014 ON THE CITY OF PORTLAND ASSESSOR'S TAX MAP 014, BLOCK C.

3. THE PURPOSE OF THIS PLAN SET IS TO PERMIT THE DEVELOPMENT OF A SEVEN (7) UNIT, RESIDENTIAL BUILDING. EACH OF THE SEVEN UNITS WILL BE OFFERED FOR SALE.

4. THE SITE IS LOCATED WITHIN THE R–6 RESIDENTIAL ZONE.

5. TOTAL AREA OF PARCEL: . . . . . 5,100 S.F.

6. SPACE AND BULK INFORMATION FOR R–6 ZONE:

MIN. LOT AREA:	2,000 S.F
MIN. LOT AREA/DWELLING	750 S.F.
MIN. LOT WIDTH:	20 FT.
MIN. FRONT SETBACK:	5 FT
MIN. SIDE SETBACK:	5 FT
MIN. REAR SETBACK:	10 FT
MAX. HEIGHT:	45 FT
MAX. LOT COVERAGE:	60%
LANDSCAPED OPEN AREA:	20%

7. SUBJECT NOT IN SPECIAL FLOOD HAZARD AREA PER FEMA FLOOD RATE MAP PANEL # 230051 0014B, DATED JULY 17, 1986 PARCEL IN C ZONE.

8. BASIS OF BEARING, MAINE STATE PLANE NAD 1983 1802 WEST ZONE BASE POINT, GRANITE MONUMENT WITH BOLT AT CONGRESS STREET AND MERRILL STREET T111–30–132, N303787.1960 E2931509.0560, AZIMUTH POINT, MONUMENT WITH DH ON WASHINGTON AVE. T111–21–123, N304140.2327, E2930845.2163, AZIMUTH N61–59'–44"W 751.88' FEET. VERTICAL DATUM IS NGVD 1929 BENCHMARK IS PK NAIL ON CMP POLE #9 WEST SIDE CONGRESS ELEVATION = 139.79', PROVIDED BY CITY OF PORTLAND PUBLIC WORKS ENGINEERING

9. BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY RICHARD W. EATON, PLS #2075 OF R.W. EATON ASSOCIATES, INC., WESTBROOK, MAINE.

10. SITE ENGINEERING PROVIDED BY JON H. WHITTEN, JR., P.E. #10414 OF PLYMOUTH ENGINEERING, INC., WHOSE ADDRESS IS PO BOX 46, PLYMOUTH, ME 04969.

11. ARCHITECTURAL DESIGN PROVIDED BY EVAN CARROLL, ALA OF BILD ARCHITECTURE, PORTLAND, MAINE.

10.

APPROVAL–
CITY OF PORTLAND
PLANNING BOARD

_____ DATE

_____ CHAIRPERSON

STATE OF MAINE

_____ COUNTY SS REGISTRY OF DEEDS
RECEIVED _____, 20___
AT ___h _____m _____M. AND RECORDED IN
PLAN BOOK _____ PAGE _____

ATTEST _____ REGISTRAR

R. W. EATON ASSOCIATES
LAND SURVEYING & REAL ESTATE
58 PLEASANT STREET, WESTBROOK, MAINE 04092
PHONE: 207-854-2402 FAX: 856-7167 E-MAIL: RWEATON@MAINE.RR.COM

August 30, 2016

PLAN REFERENCE

1) Condominium Plat Marquis Lofts Condominium 33-35 LaFayette Street, Portland Made For Random Orbit Inc, By Owen Haskell, Dated March 3, 2014 Recorded in Plan Book 214 Page 145

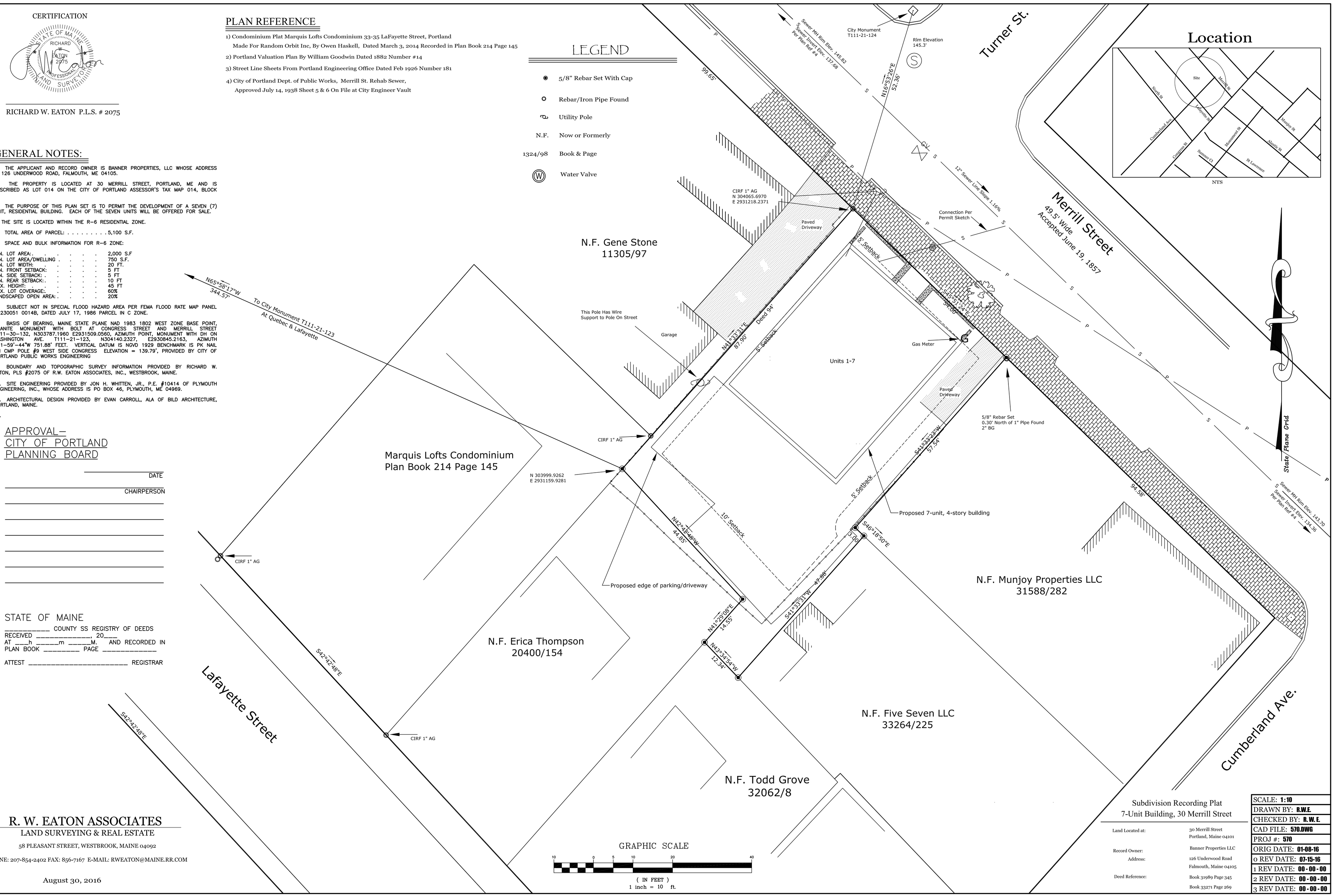
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4) City of Portland Dept. of Public Works, Merrill St. Rehab Sewer, Approved July 14, 1938 Sheet 5 & 6 On File at City Engineer Vault

LEGEND

- 5/8" Rebar Set With Cap
- Rebar/Iron Pipe Found
- Utility Pole
- N.F. Now or Formerly
- 1324/98 Book & Page
- Water Valve



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

Subdivision Recording Plat
7-Unit Building, 30 Merrill Street

Land Located at:	30 Merrill Street Portland, Maine 04101
Record Owner:	Banner Properties LLC
Address:	126 Underwood Road Falmouth, Maine 04105
Deed Reference:	Book 31989 Page 345 Book 33271 Page 269

SCALE:	1:10
DRAWN BY:	R.W.E.
CHECKED BY:	R. W. E.
CAD FILE:	570.DWG
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ORIG DATE:	01-08-16
0 REV DATE:	07-15-16
1 REV DATE:	00 - 00 - 00
2 REV DATE:	00 - 00 - 00
3 REV DATE:	00 - 00 - 00

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
AB	6	*Abies balsamea 'Nana'*	Dwarf Balsam Fir	#3 Container	2' o.c.
AS	4	*Astilbe chinensis "Superba'*	False Spirea	#2 Container	
HH	8	*Hemerocallis* 'Happy Returns'	Happy Returns Daylilly	#2 Container	2' o.c.
HS	4	*Hemerocallis* 'Stella Supreme'	Stella Supreme Daylilly	#2 Container	2' o.c.
HR	2	*Hosta 'Regal Splendor"*	Regal Splendor Hosta	#2 Container	
HW	2	*Hosta 'Widebrim'*	Widebrim Hosta	#2 Container	
RR	3	*Rosa rugosa 'Rubrum'*	Rosa Rugosa	2'-3' ht.	4' o.c.
RT	8	*Rhododenron 'Towhead'*	Towhead Rhododendron	#2 Container	3' o.c.
SS	6	*Schizachyrium scoparium*	Little Bluestem	#2 Container	2.5' o.c.

MAGNETIC NORTH

17° ±

AREA SUMMARY:
LOT AREA = 5,100 S.F.
IMPERVIOUS AREA = 1,824 S.F. (36%)
PERVIOUS PAVER AREA = 2,190 S.F. (43%)
OPEN SPACE = 1,086 S.F. (21%)

HANDICAP PARKING SIGN

(3) SS
(2) HS
(3) HH

22.51'
1.00'
10.4'
N42° 42' 48"W
44.85
10' SETBACK
8.00'
8.00'
(2) HS
(3) RR
(3) SS
(3) HH
19.24'
8.00'
15.00'
21.06'
8.00'
N41° 28' 00"E
14.55
N41° 33' 31"E
47.88
1.00'
PERVIOUS, INTERLOCKING BLOCK PAVERS, TYP.
PROPOSED FENCING, TYP.

8.2'
N41° 33' 31"E
89.90
5' SETBACK
48.02'
5.05'
8.63'

LIMIT OF SIDEWALK REPAIRS, SEE SHEET C2 FOR MORE DETAILED LOCATIONS OF DISTURBANCE.
NEW STREET TREE. INSTALLATION SHALL MEET CITY OF PORTLAND STANDARDS, SEE DETAILS.
TREE GRATE, SEE DETAIL

LANDSCAPING TO MATCH OTHER PLANTER LAYOUT

4'X4' CONCRETE ENTRANCE PAD

PROPOSED 7-UNIT BUILDING

38.00'

4' WIDE PEDESTRIAN WALKWAY, CONSTRUCTED W/ PERVIOUS, INTERLOCKING BLOCK PAVERS.

5' Setback
10.24'
S41° 33' 31"W
57.54
S46° 18' 50"E
3.00

5' Setback
54.00
S45° 51' 24"E

(1) AS
(1) HR
NEW BICYCLE PARKING, SEE DETAILS.
(2) RT
(1) HH
(1) HW
(3) AB
(1) AS
(2) RT
11.85'
CENTER AND RENOVATE DRIVEWAY ENTRANCE TO MEET CITY OF PORTLAND STANDARDS, INCLUDING BRICK, CURBING AND PAVEMENT.
CONCRETE PLANTER
DISTURBANCE OF BRICK SIDEWALK SHALL BE MINIMIZED AS MUCH AS POSSIBLE. RE-CONSTRUCTION OF DISTURBED AREAS SHALL BE PERFORMED TO CITY OF PORTLAND STANDARDS, SEE DETAILS.
LIMIT OF SIDEWALK REPAIRS

Turner St.

Merrill Street

GRAPHIC SCALE
5 0 2.5 5 10 20
(IN FEET)
1 inch = 5 ft.

REVISIONS

NO.	DATE	DESCRIPTION	DRAWN	APPD.
1	9/23	REVISED PER CITY REVIEW COMMENTS	JHW	JHW
2	10/3	REVISED PER CITY REVIEW COMMENTS	JHW	JHW

PROJECT NAME:
SEVEN-UNIT BUILDING
30 MERRILL STREET
PORTLAND MAINE

SHEET NAME:
SITE LAYOUT PLAN

DESIGNED:
DRAWN:
CHECKED:
APPROVED:
PLAN DATE:
PROJECT NO. 16055
DRAWING NO.
FIELDBOOK:
SCALE:
DATE ISSUED:
CLIENT/RECORD OWNER:
BANNER PROPERTIES, LLC
126 UNDERWOOD ROAD
FALMOUTH, ME 04105

Plymouth Engineering, Inc.
P.O. Box 46 30 Lower Detroit Road
Plymouth, Maine 04969
Tel: (207) 257-2071 Fax: (207) 257-2130
info@plymouthengineering.com
www.plymouthengineering.com

STATE OF MAINE
JOHN H. WHITTEN, JR.
No. 12166
LICENSED
PROFESSIONAL ENGINEER

DRAWINGS, NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION

SHEET 1 OF 4

C1

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(D:20161003115509-04’00’)
/CreationDate
(Jon Whitten)
/Author
-mark-

MAGNETIC NORTH
17± EAST

INSTALL AND MAINTAIN SILT FENCING OR EROSION CONTROL MIX, SEE DETAILS.

LANDSCAPE/LAWN AREA, TYP.

HANDICAP PARKING SIGN

SNOW STORAGE

Paved Driveway

Rim Elevation 145.3'

NEW, UNDERGROUND POWER UTILITY SERVICE.

STREET TREE

8"X4" TAPPING SLEEVE
4" TAPPING VALVE

4" GATE VALVE, 3' FROM CURB

2" CURBSTOP, 3' FROM CURB

RETIRE EXISTING SERVICE. SHUT CORPORATION AND REMOVE SERVICE BOX AND ROD.

Turner St.

12" Sewer Line Slope 1.16%

Connection Per Permit Sketch

4"D.I.

4"D.I.

2"COPPER

5' Setback

APPROXIMATE LOCATION OF NEW BICYCLE PARKING AREA.

CONCRETE PLANTER FOR PERENNIAL BEDS.

Merrill Street

REMOVE APPROX. 3.67' OF EXISTING CURB

RELOCATE EXISTING TIPDOWN

APPROX. SAWCUT LINE, TYP.

Gas Meter

CONSTRUCT NEW BRICK DRIVEWAY APRON TO MEET CITY OF PORTLAND STANDARDS

RELOCATE EXISTING TIPDOWN

DISTURBANCE OF BRICK SIDEWALK SHALL BE MINIMIZED AS MUCH AS POSSIBLE. RE-CONSTRUCTION OF DISTURBED AREAS SHALL BE PERFORMED TO CITY OF PORTLAND STANDARDS.

INSTALL GRANITE CURB, APPROX. 1.45' IN LENGTH

RETAIN EXISTING ENTRANCE TO SERVE AS STABILIZED CONSTRUCTION ENTRANCE

INSTALL CATCH BASIN INLET PROTECTION INSERTS IN EXISTING, DOWNSTREAM CATCHBASINS, SEE DETAILS

PROPOSED FENCING, TYP.

AVERAGE GRADE AT FOUNDATION = 148.39'
((150.45+146.90+146.20+150.00)/4)

N41° 33' 31"E 87.90

5' SETBACK

48.02'

N42° 42' 48"W 44.85

10' SETBACK

N41° 28' 00"E 14.55

5' Setback

S41° 33' 31"W 57.54

N41° 33' 31"E 47.88

S46° 18' 50"E 3.00

S46° 15' 24"E 54.00

GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

NO.	DATE	REVISIONS DESCRIPTION	DRAWN	APPD
1	9/23	REVISED PER CITY REVIEW COMMENTS	JHW	JHW
2	10/3	REVISED PER CITY REVIEW COMMENTS	JHW	JHW

PROJECT NAME:
SEVEN-UNIT BUILDING
30 MERRILL STREET
PORTLAND MAINE

SHEET NAME:
GRADING & UTILITY PLAN

PROJECT NO. 16055
DRAWING NO.
FIELDBOOK:
SCALE:
DATE ISSUED:

DESIGNED:
DRAWN:
CHECKED:
APPROVED:
PLAN DATE:

CLIENT/RECORD OWNER:
BANNER PROPERTIES, LLC
126 UNDERWOOD ROAD
FALMOUTH, ME 04105

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STATE OF MAINE
JOHN H. WHITTEN, JR.
NOT FOR CONSTRUCTION
LICENSED
DRAWINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION

ERROR: syntaxerror
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(D:20161003115536-04’00’)
/CreationDate
(Jon Whitten)
/Author
-mark-

EROSION AND SEDIMENT CONTROL PLAN

Pre-Construction Phase
A person who conducts, or causes to be conducted, an activity that involves filling, displacing or exposing soil or other earthen materials shall take measures to prevent unreasonable erosion of soil or sediment beyond the project site or into a protected natural resource as defined in 38 MRSA § 480–B. Erosion control measures must be in place before the activity begins. Measures must remain in place and functional until the site is permanently stabilized. Adequate and timely temporary and permanent stabilization measures must be taken. The site must be maintained to prevent unreasonable erosion and sedimentation. Minimize disturbed areas and protect natural downgradient buffer areas to the extent practicable.

BMP Construction Phase
A. Sediment barriers. Prior to the beginning of any construction, properly install sediment barriers at the edge of any downgradient disturbed area and adjacent to any drainage channels within the proposed disturbed area. Maintain the sediment barriers until the disturbed area is permanently stabilized.

B. Construction entrance: Prior to any clearing or grubbing, a construction entrance shall be constructed at the intersection with the proposed access drive and the existing roadway to avoid tracking of mud, dust and debris from the site.

C. Riprap: Since riprap is used where erosion potential is high, construction must be sequenced so that the riprap is put in place with the minimum delay. Disturbance of areas where riprap is to be placed should be undertaken only when final preparation and placement of the riprap can follow immediately behind the initial disturbance. Where riprap is used for outlet protection, the riprap should be placed before or in conjunction with the construction of the pipe or channel so that it is in place when the pipe or channel begins to operate. Maintain temporary riprap, such as temporary check dams until the disturbed area is permanently stabilized.

D. Temporary stabilization. Stabilize with temporary seeding, mulch, or other non–erodable cover any exposed soils that will remain unworked for more than 14 days except, stabilize areas within 100 feet of a wetland or waterbody within 7 days or prior to a predicted storm event, whichever comes first. If hay or straw mulch is used, the application rate must be 2 bales (70–90 pounds) per 1000 sf or 1.5 to 2 tons (90–100 bales) per acre to cover 75 to 90% of the ground surface. Hay mulch must be kept moist or anchored to prevent wind blowing. An erosion control blanket or mat shall be used at the base of grassed waterways, steep slopes (15% or greater) and on any disturbed soil within 100 feet of lakes, streams and wetlands. Grading shall be planned so as to minimize the length of time between initial soil exposure and final grading. On large projects this should be accomplished by phasing the operation and completing the first phase up to final grading and seeding before starting the second phase, and so on.

E. Vegetated waterway. Upon final grading, the disturbed areas shall be immediately seeded to permanent vegetation and mulched and will not be used as outlets until a dense, vigorous vegetative cover has been obtained. Once soil is exposed for waterway construction, it should be immediately shaped, graded and stabilized. Vegetated waterways need to be stabilized early during the growing season (prior to September 15). If final seeding of waterways is delayed past September 15, emergency provisions such as sod or riprap may be required to stabilize the channel. Waterways should be fully stabilized prior to directing runoff to them.

Permanent Stabilization Defined
A. Seeded areas. For seeded areas, permanent stabilization means an 90% cover of the disturbed area with mature, healthy plants with no evidence of washing or rilling of the topsoil.

B. Sodded areas. For sodded areas, permanent stabilization means the complete binding of the sod roots into the underlying soil with no slumping of the sod or die–off.

C. Permanent mulch. For mulched areas, permanent mulching means total coverage of the exposed area with an approved mulch material. Erosion control mix may be used as mulch for permanent stabilization according to the approved application rates and limitations.

D. Riprap. For areas stabilized with riprap, permanent stabilization means that slopes stabilized with riprap have an appropriate backing of a well–graded gravel or approved geotextile to prevent soil movement from behind the riprap. Stone must be sized appropriately. It is recommended that angular stone be used.

E. Agricultural use. For construction projects on land used for agricultural purposes (E.G., pipelines across crop land), permanent stabilization may be accomplished by returning the disturbed land to agricultural use.

F. Paved areas. For paved areas, permanent stabilization means the placement of the compacted gravel subbase is completed.

G. Ditches, channels, and swales. For open channels, permanent stabilization means the channel is stabilized with mature vegetation at least three inches in height, with well–graded riprap, or with another non–erosive lining capable of withstanding the anticipated flow velocities and flow depths without reliance on check dams to slow flow. There must be no evidence of slumping of the lining, undercutting of the banks, or down–cutting of the channel.

General Construction Phase
The following erosion control measures shall be followed by the contractor throughout construction of this project:

A. All topsoil shall be collected, stockpiled, seeded with rye at 3 pounds/1,000 sf and mulched, and reused as required. Silt fencing shall be placed down gradient from the stockpiled loam. Stockpile to be located by designation of the owner and inspecting engineer.

B. The inspecting engineer at his/her discretion, may require additional erosion control measures and/or supplemental vegetative provisions to maintain stability of earthworks and finish graded areas. The contractor shall be responsible for providing and installing any supplemental measures as directed by the inspecting engineer. Failure to comply with the engineer's directions will result in discontinuation of construction activities.

C. Erosion control mesh shall be applied in accordance with the plans over all finish seeded areas as specified on the design plans.

D. All graded or disturbed areas including slopes shall be protected during clearing and construction in accordance with the approved erosion and sediment control plan until they are adequately stabilized.

E. All erosion, and sediment control practices and measures shall be constructed, applied and maintained in accordance with the approved erosion and sediment control plan.

F. Areas to be filled shall be cleared, grubbed and stripped of topsoil to remove trees, vegetation, roots or other objectionable materials.

G. Areas shall be scarified to a minimum depth of 3 inches prior to placement of topsoil.

H. All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence or other related problems. Fill intended to support buildings, structures and conduits, etc., shall be compacted in accordance with local requirements or codes.

I. All fills shall be placed and compacted in layers not to exceed 8 inches in thickness.

J. Except for approved landfills or non–structural fills, fill material shall be free of brush, rubbish, rocks, logs, stumps, building debris and other objectionable materials that would interfere with or prevent construction of satisfactory lifts.

K. Frozen material or soft, mucky or highly compressible materials shall not be incorporated into fill slopes or structural fills.

L. Fill shall not be placed on a frozen foundation.

M. Seeps or springs encountered during construction shall be handled appropriately.

N. All graded areas shall be permanently stabilized immediately following finished grading.

O. Remove any temporary control measures, such as silt fence, within 30 days after permanent stabilization is attained. Remove any accumulated sediments and stabilize.

Permanent Vegetation
Permanent vegetative cover should be established on disturbed areas where permanent, long lived vegetative cover is needed to stabilize the soil, to reduce damages from sediment and runoff, and to enhance the environment.

Seedbed Preparation
A. Grade as feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application and anchoring, and maintenance.

B. Apply limestone and fertilizer according to soil tests such as those offered by the University of Maine soil testing laboratory. Soil sample mailers are available from the local cooperative extension service office. If soil testing is not feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 800 pounds per acre or 18.4 pounds per 1,000 square feet using 10–20–20 (n–p2o5–k2o) or equivalent. Apply ground limestone (equivalent to 50% calcium plus magnesium oxide) at a rate of 3 tons per acre (138 lb. Per 1,000 sq. Ft).

C. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, spring tooth harrow or other suitable equipment. The final harrowing operation should be on the general contour. Continue tillage until a reasonably uniform, fine seedbed is prepared. All but clay or silty soils and coarse sands should be rolled to firm the seedbed wherever feasible.D. Remove from the surface all stones 2 inches or larger in any dimension. Remove all other debris, such as wire, cable, tree roots, concrete, clods, lumps or other unsuitable material.

E. Inspect seedbed just before seeding. If traffic has left the soil compacted; the area must be tilled and firmed as above.

F. Permanent seeding should be made 45 days prior to the first killing frost or as a dormant seeding with mulch after the first killing frost and before snowfall. When crown vetch is seeded in later summer, at least 35% of the seed should be hard seed (unscarified). If seeding cannot be done within the seeding dates, mulch according to the temporary mulching BMP and overwinter stabilization and construction to protect the site and delay seeding until the next recommended seeding period.

G. Following seed bed preparation, swale areas, fill areas and back slopes shall be seeded at a rate of 3 lbs./1,000 s.F. With a mixture of 35% creeping red h. Fescue, 6% red top, 24% Kentucky bluegrass, 10% perennial ryegrass, 20% annual ryegrass and 5% white Dutch clover.

I. Areas which have been temporarily or permanently seeded shall be mulched immediately following seeding.

J. Areas which cannot be seeded within the growing season shall be mulched for over–winter protection and the area should be seeded at the beginning of the growing season.

Winter Construction Phase
If an area is not stabilized with temporary or permanent measures by November 15, then the site must be protected with additional stabilization measures.

A. Permanent stabilization consists of at least 90% vegetation, pavement/gravel base or riprap.

B. Do not expose slopes or leave slopes exposed over the winter or for any other extended time of work suspension unless fully protected with mulch.

C. Apply hay mulch at twice the standard rate (150 lbs. Per 1,000 sf). The mulch must be thick enough such that the ground surface will not be visible and must be anchored.

D. Use mulch and mulch netting or an erosion control mulch blanket or all slopes greater than 8 % or other areas exposed to direct wind.

E. Install an erosion control blanket in all drainageways (bottom and sides) with a slope greater than 3 %.

F. See the vegetation measures for more information on seeding dates and types.

G. Winter excavation and earthwork shall be completed so that no more than 1 acre of the site is without stabilization at any one time.

H. An area within 100 feet of a protected natural resource must be protected with a double row of sediment barrier.

I. Temporary mulch must be applied within 7 days of soil exposure or prior to any storm event, but after every workday in areas within 100 feet from a protected natural resource.

J. Areas that have been brought to final grade must be permanently mulched that same day.

K. If snowfall is greater than 1 inch (fresh or cumulative), the snow shall be removed from the areas due to be seeded and mulched.

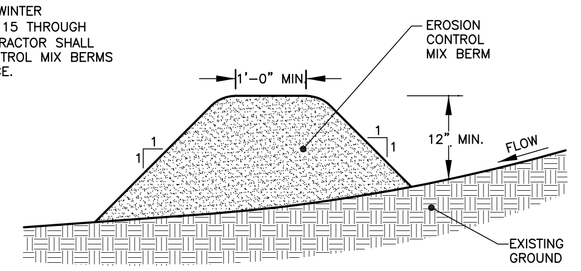
L. Loam shall be free of frozen clumps before it is applied.

M. All vegetated ditch lines that have not been stabilized by November 1, or will be worked during the winter construction period, must be stabilized with an appropriate stone lining backed by an appropriate gravel bed or geotextile unless specifically released from this standard by the department.

Maintenance and Inspection Phase
A. Contractor shall inspect disturbed and impervious areas, and erosion and stormwater control measures, areas used for storage that are exposed to precipitation, and locations where vehicles enter or exit the parcel at least once a week and before and after a storm event, prior to completion of permanent stabilization. A person with knowledge of erosion and stormwater must conduct the inspection. This person must be identified in the inspection log. If best management practices (BMPs) need to be modified or if additional BMPs are necessary, implementation must be completed within 7 calendar days and prior to any storm event (rainfall). All measures must be maintained in effective operating condition until areas are permanently stabilized.

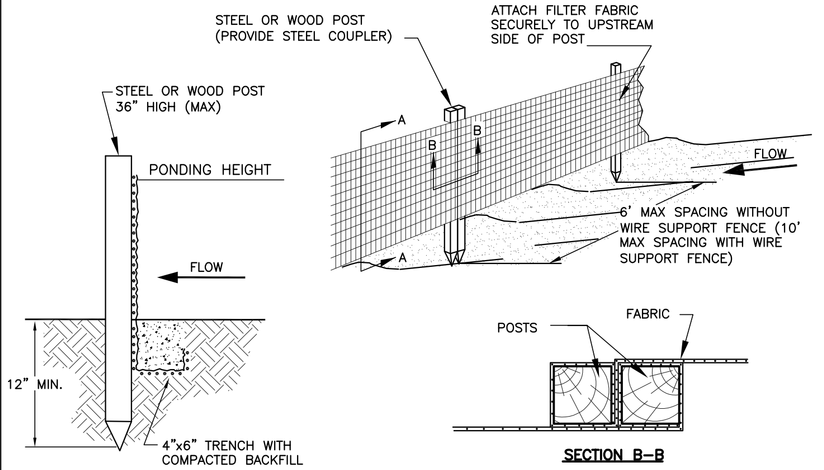
B. A log (report) must be kept summarizing the scope of the inspection, name(s) and qualifications of the personnel making the inspection, the date(s) of the inspection, and major observations relating to operation of erosion and sedimentation controls and pollution prevention measures. Major observations must include: BMPs that need to be maintained; location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location; and location(s) where additional BMPs are needed that did not exist at the time of inspection. Follow–up to correct deficiencies or enhance controls must also be indicated in the log and dated, including what action was taken and when.

NOTE:
DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.



EROSION CONTROL MIX:
EROSION CONTROL MIX SHALL CONTAIN A WELL–GRADED MIXTURE OF PARTICLE SIZES & 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% – 100% DRY WEIGHT BASIS
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85% PASSING A 0.75" 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 mmhos/cm.
- ph SHALL FALL BETWEEN 5.0 – 8.0.

EROSION CONTROL MIX BERM
NOT TO SCALE



SECTION A–A

SECTION B–B

SILT FENCE
NOT TO SCALE

CONSTRUCTION NOTES:

1. All work shall conform to the applicable codes and ordinances.

2. 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 confirming 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.

3. Contractor shall notify engineer of all products or items noted as "existing" which are not found in the field.

4. Install all equipment and materials in accordance with manufacturer's recommendations and owner's requirements unless specifically otherwise indicated or where local codes or regulations take precedence.

5. Contractor shall verify all dimensions and conditions in the field prior to fabrication and erection of any material. Any unusual conditions shall be reported to the attention of the engineer.

6. Contractor shall clean and remove debris and sediment deposited on public streets, sidewalks, adjacent areas, or other public ways due to construction.

7. Contractor shall incorporate provisions as necessary in construction to protect existing structures, physical features, and maintain site stability during construction. Contractor shall restore all areas to original condition and as directed by design drawings.

8. Site contractor shall obtain all required permits prior to construction.

9. All erosion and sediment control measures shall be installed in accordance with "Maine Erosion and Sedimentation Control Handbook for Construction: Best Management Practices" published by the Cumberland County Soil and Water Conservation District and Maine Department of Environmental Protection, March 2004 or latest edition. It shall be the responsibility of the contractor to possess a copy of the erosion control plan at all times.

10. The contractor is hereby cautioned that all site features shown hereon are based on field observations by the surveyor and by information provided by utility companies. The information is not to be relied on as being exact or complete. The contractor shall contact Dig Safe (1–888–digsafe) at least three (3) but not more than thirty (30) days prior to commencement of excavation or demolition to verify horizontal and vertical location of all utilities.

11. Contractor shall be aware that Dig Safe only notifies its "member" utilities about the dig. When notified, Dig Safe will advise contractor of member utilities in the area. Contractor is responsible for identifying and contacting non–member utilities directly. Non–member utilities may include town or city water and sewer districts and small local utilities, as well as USG public works systems.

12. Contractors shall be responsible for compliance with the requirements of 23 MRSA 3360–A. It shall be the responsibility of the contractor to coordinate with the appropriate utilities to obtain authorization prior to relocation of any existing utilities which conflict with the proposed improvements shown on these plans. If a utility conflict arises, the contractor shall immediately notify the owner, the municipality and appropriate utility company prior to proceeding with any relocation.

13. All pavement markings and directional signage shown on the plan shall conform to the Manual of Uniform Traffic Control Devices (MUTCD) standards.

14. All pavement joints shall be sawcut prior to paving to provide a durable and uniform joint.

15. No holes, trenches or structures shall be left open overnight in any excavation accessible to the public or in public rights–of–way.

16. All work within the public right–of–way shall require a M.D.O.T. Permit as well as permits from the town as applicable.

17. The proposed limits of clearing shown hereon are approximate based upon the proposed limits of site grading. The applicant reserves the right to perform normal forest management activities outside of the clearing limit as shown. Tree removal outside of the limits of clearing may be necessary to remove dead or dying trees or tree limbs. This removal is due to potential safety hazards and to promote proper forest growth.

18. Immediately upon completion of cuts/fills, the contractor shall stabilize disturbed areas in accordance with erosion control notes and as specified on plans.

19. The contractor shall be fully and solely responsible for the removal, replacement and rectification of all damaged and defective material and workmanship in connection with the contract work. The contractor shall replace or repair as directed by the owner all such damaged or defective materials which appear within a period of one year from the date of substantial completion.

20. All work performed by the general contractor and/or trade subcontractor shall conform to the requirements of local, state or federal laws, as well as any other governing requirements, whether or not specified on the drawings.

21. Where the terms "approved equal", "other approved", "equal to", "acceptable" or other general qualifying terms are used in these notes, it shall be understood that reference is made to the ruling and judgment of Plymouth Engineering, inc.

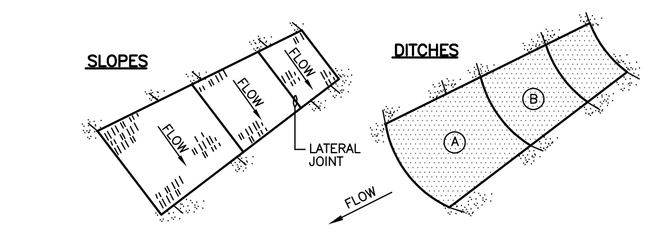
22. The general contractor shall provide all necessary protection for the work until turned over to the owner.

23. The general contractor shall maintain a current and complete set of construction drawings on site during all phases of construction for use of all trades.

24. The contractor shall take full responsibility for any changes and deviation of approved plans not authorized by the architect/engineer and/or client/owner.

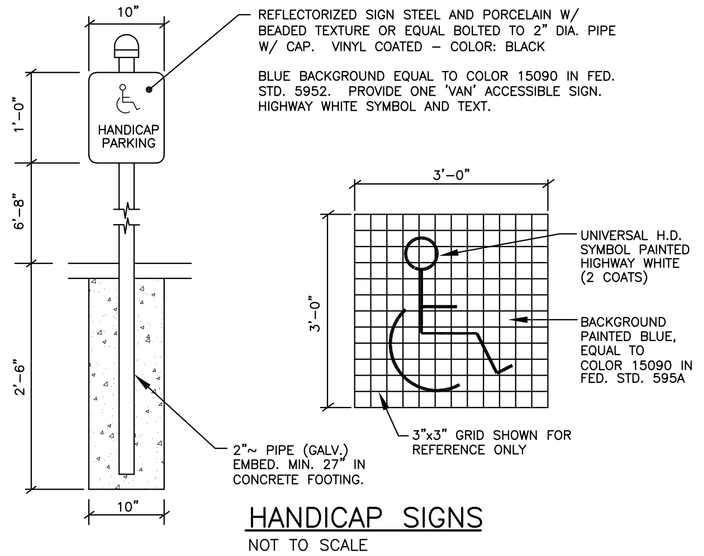
25. Details are intended to show end result of design. Any modification to suit field dimension and condition shall be submitted to the engineer for review and approval prior to any work.

26. Before the final acceptance of the project, the contractor shall remove all equipment and materials, repair or replace private or public property which may have been damaged or destroyed during construction, clean the areas within and adjacent to the project which have been obstructed by his/her operations, and leave the project area neat and presentable.

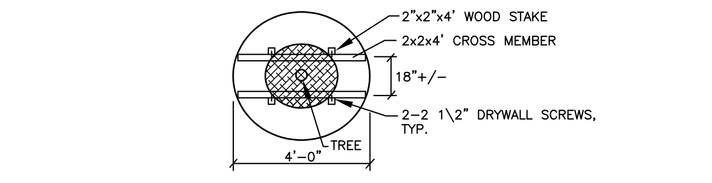


NOTES:
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.
5. WIRE STAPLES TO BE MIN. OF #11 WIRE, 6" LONG & 1–1/2" WIDE.
6. USE NORTH AMERICAN GREEN DS 150 (OR APPROVED EQUAL) ON SLOPES BETWEEN 4:1–2:1. USE NORTH AMERICAN GREEN VMAX SC250 PERMANENT TURF REINFORCEMENT MAT (OR APPROVED EQUAL) ON SLOPES 2:1 AND STEEPER..

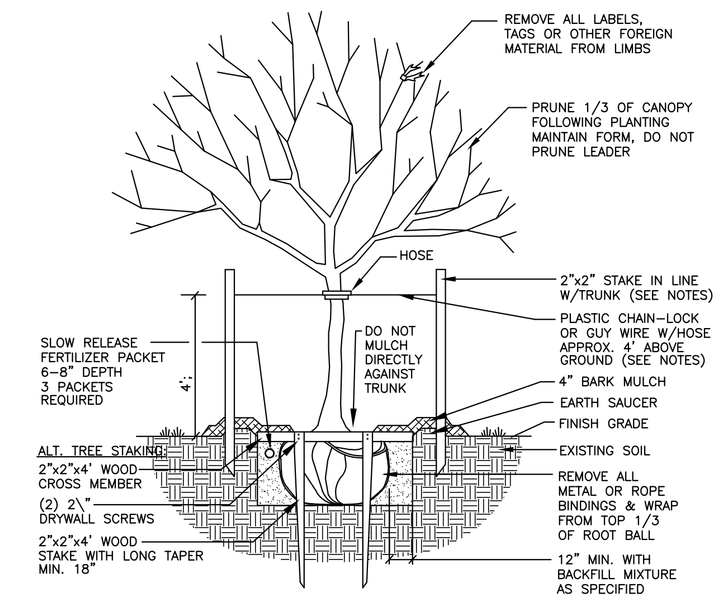
EROSION CONTROL BLANKET
NOT TO SCALE



HANDICAP SIGNS
NOT TO SCALE



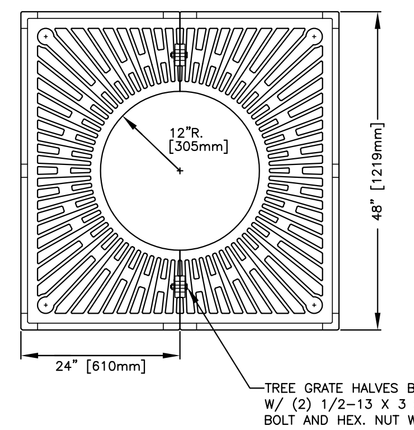
ALT. TREE STAKING PLAN
NOT TO SCALE



NOTES:
INSTALL STAKES AND GUYS TO TREES IF THE FOLLOWING APPLY:
1. THE TREE IS OF SUBSTANTIAL SIZE.
2. THE PLANTING LOCATION IS EXTREMELY WINDY, AS ON OPEN UNDEVELOPED SITES.
3. THE PLANTING LOCATION IS COMPRISED OF SAND OR OTHER LOOSE TEXTURED SOILS.
4. IF STAKES AND GUYS ARE REQUIRED, REMOVE AFTER ONE YEAR TIME.

DECIDUOUS TREES 2" TO 4" CALIPER
NOT TO SCALE

NOTE:
COMPONENT NO'S: (2) TREE GRATE 8750–0004
MATERIAL: CAST GRAY IRON ASTM A–48, CLASS 35B
FINISH: NO PAINT



STREET TREE GRATE
NOT TO SCALE

REVISIONS

NO.	DATE	DESCRIPTION	DRAWN	APPD
1	9/23	REVISED PER CITY REVIEW COMMENTS	JHW	JHW
2	10/3	REVISED PER CITY REVIEW COMMENTS	JHW	JHW

SEVEN–UNIT BUILDING
30 MERRILL STREET
PORTLAND MAINE

EROSION & SEDIMENTATION CONTROL DETAILS

PROJECT NAME:
PROJECT NO. 16055
DRAWING NO. 16055B2
FIELDBOOK:
SCALE: —"=1'–0"
DATE ISSUED: 5–11–16
CLIENT/RECORD OWNER:
BANNER PROPERTIES, LLC
128 UNDERWOOD ROAD
FALMOUTH, ME 04105

DESIGNED: JHW
DRAWN: JHW
CHECKED: SEB
APPROVED: JHW
PLAN DATE: 5–11–16

Plymouth Engineering, Inc.
P.O. Box 46 30 Lower Detroit Road
Plymouth, Maine 04969
Tel: (207) 257–2071 Fax: (207) 257–2130
info@plymouthengineering.com
www.plymouthengineering.com

STATE OF MAINE
JOHN H. WHITE
No. 10121
LICENSED PROFESSIONAL ENGINEER

DRAWINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION

SHEET 3 OF 4

C3

ERROR: syntaxerror
OFFENDING COMMAND: --nostringval--

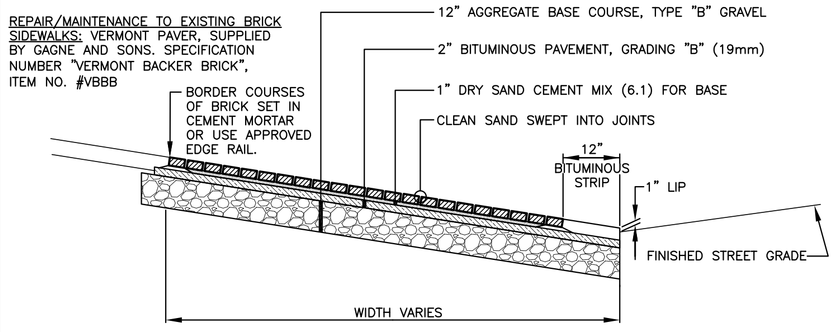
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/CreationDate
(Jon Whitten)
/Author
-mark-

BRICKS TO BE USED:

NEW CONSTRUCTION:
4"X8" PINE HALL PATHWAY PAVER BRICK, MFG. BY PINE HALL BRICK CO., MADISON, NORTH CAROLINA. LACHANCE ITEM #193623, PINE HALL PATHWAY PAVER BRICK.

REPAIR/MAINTENANCE TO EXISTING BRICK SIDEWALKS: VERMONT PAVER, SUPPLIED BY GAGNE AND SONS. SPECIFICATION NUMBER "VERMONT BACKER BRICK", ITEM NO. #VBBB

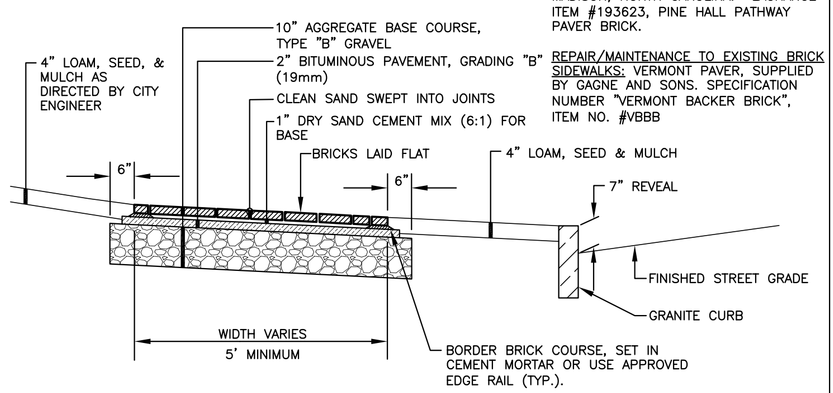


BRICK DRIVEWAY APRON WITH BITUMINOUS BASE
NOT TO SCALE

BRICKS TO BE USED:

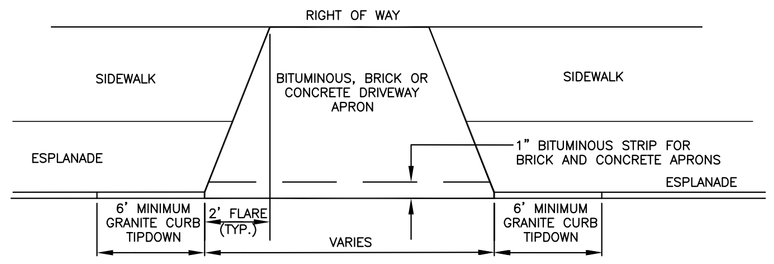
NEW CONSTRUCTION:
4"X8" PINE HALL PATHWAY PAVER BRICK, MFG. BY PINE HALL BRICK CO., MADISON, NORTH CAROLINA. LACHANCE ITEM #193623, PINE HALL PATHWAY PAVER BRICK.

REPAIR/MAINTENANCE TO EXISTING BRICK SIDEWALKS: VERMONT PAVER, SUPPLIED BY GAGNE AND SONS. SPECIFICATION NUMBER "VERMONT BACKER BRICK", ITEM NO. #VBBB

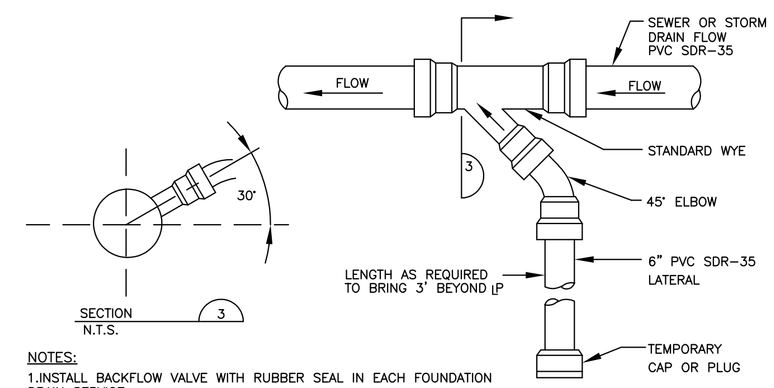


BRICK SIDEWALK WITH BITUMINOUS BASE
NOT TO SCALE

NOTE:
MATCH GRADE OF EXISTING DRIVEWAY AT R.O.W. LINE, EXCEPT WHEN DIRECTED OTHERWISE BY CITY ENGINEER.

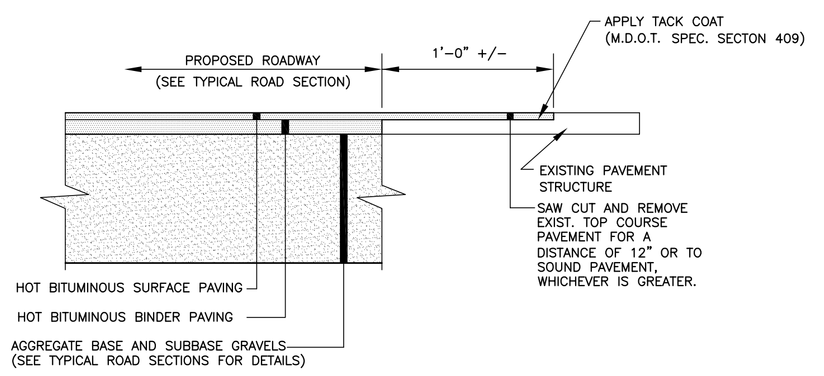


DRIVEWAY APRON LAYOUT
NOT TO SCALE



NOTES:
1.INSTALL BACKFLOW VALVE WITH RUBBER SEAL IN EACH FOUNDATION DRAIN SERVICE.
2. IF SUMP PUMP IS UTILIZED INSTALL CHECK VALVE AT SUMP PUMP.

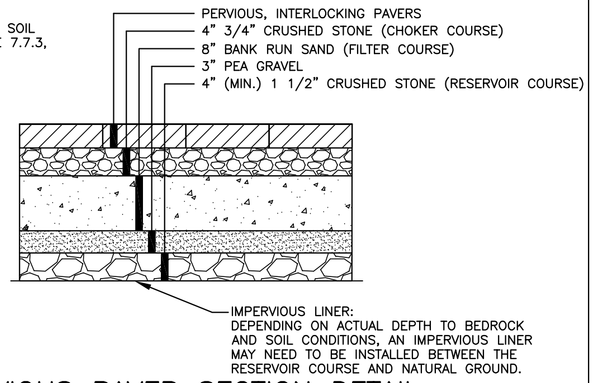
SEWER / FOUNDATION DRAIN SERVICE CONNECTION
NOT TO SCALE



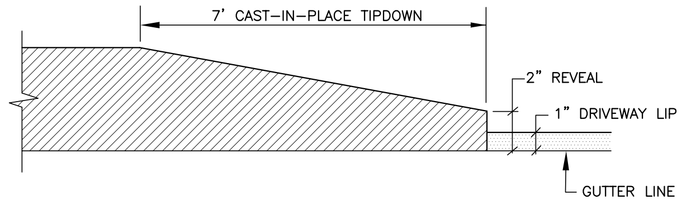
TYPICAL PAVEMENT JOINT
NOT TO SCALE

NOTE:
FILTER COURSE MUST BE A MINERAL SOIL MEETING SPECIFICATION WITHIN TABLE 7.7.3, BELOW.

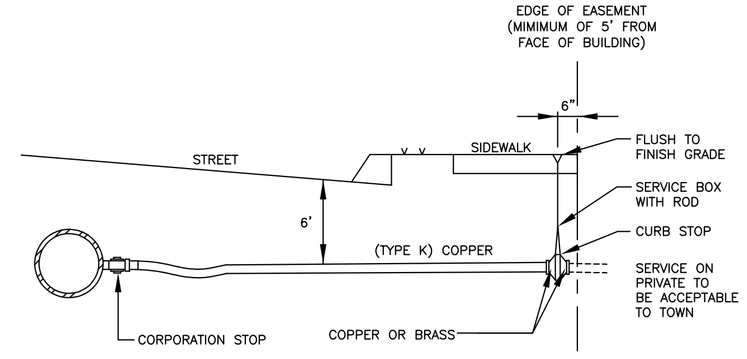
TABLE 7.7.3– MDOT SPEC FOR AGGREGATE (MDOT #703.01)	
SIEVE SIZE	% BY WEIGHT
1"	100
#4	95–100
#8	80–100
#16	50–85
#30	25–60
#60	10–30
#100	2–10
#200	0–5 (8–10% PREFERRED)



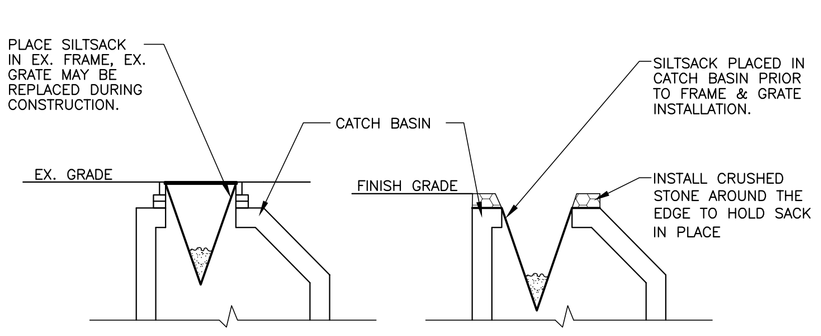
PERVIOUS PAVER SECTION DETAIL
NOT TO SCALE



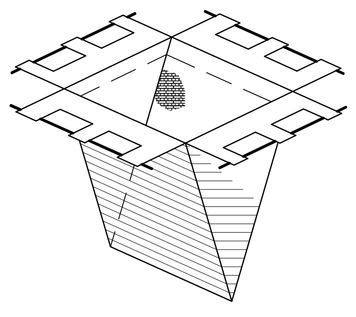
TYPICAL TIPDOWN CURB INSTALLATION
NOT TO SCALE



TYPICAL WATER SERVICE CONNECTION
NOT TO SCALE



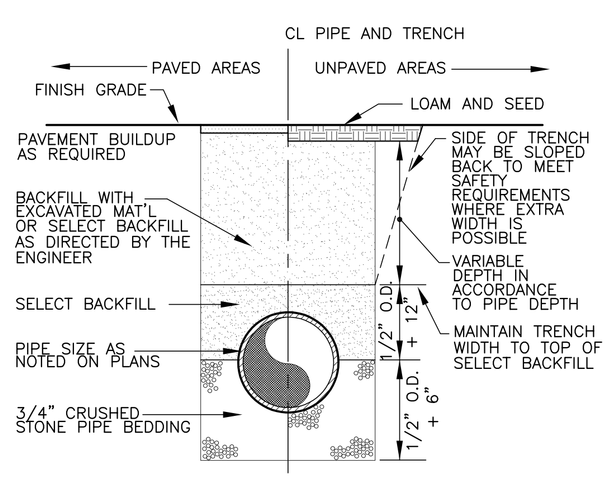
EXISTING BASIN NEW INSTALLATION



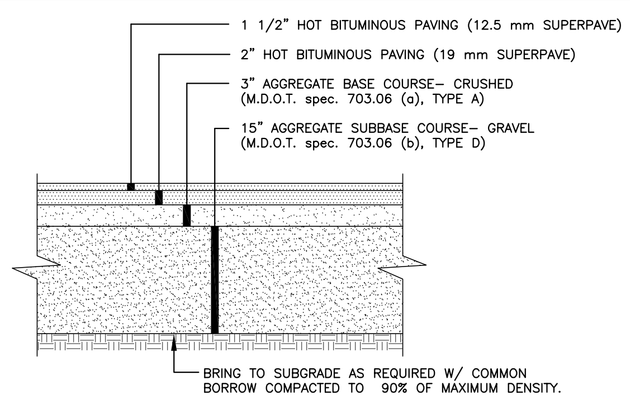
SILT SACK PROTECTION

NOTES:
PRIOR TO FINAL GRADING AND PAVING OPERATIONS BEGIN, A CATCH BASIN INSERT (SUCH AS A SILT SACK OR A DANDY BAG II) MUST BE INSTALLED IN EACH BASIN PER MANUFACTURES INSTRUCTIONS. HAY BALES SHOULD BE REMOVED ONCE INSERTS ARE INSTALLED.

CATCH BASIN EROSION CONTROL INSERT
NOT TO SCALE

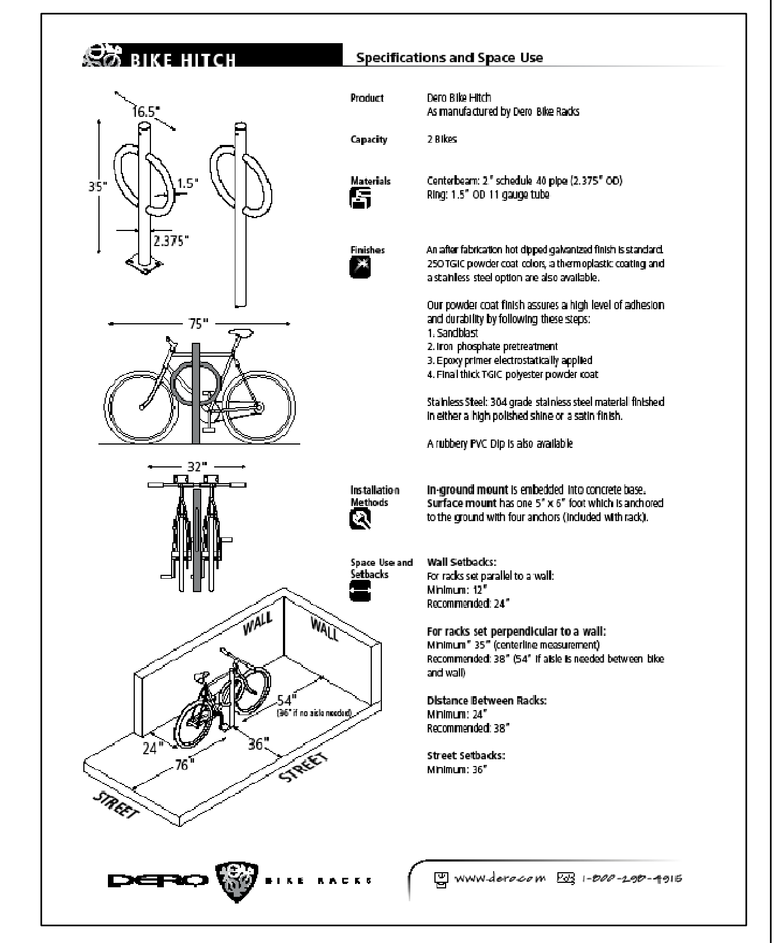


TYPICAL TRENCH SECTION
NOT TO SCALE



NOTES:
1. COMPACT GRAVEL SUBBASE COURSE TO 92% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

CITY OF PORTLAND LOCAL ST. SECTION
NOT TO SCALE



DATE: AUGUST 2009
REVISED:

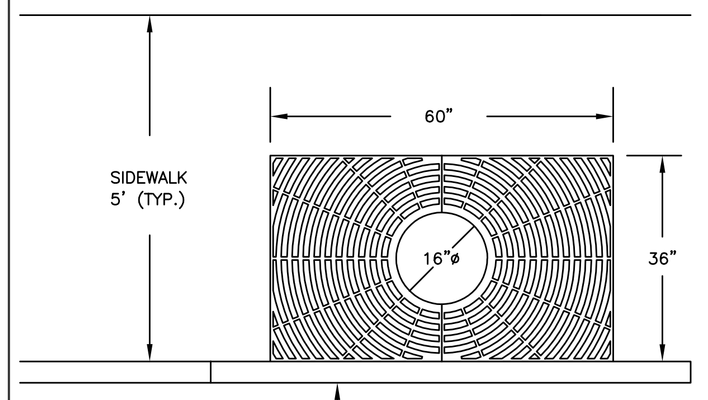
CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL | TRANSPORTATION SYSTEMS AND STREET DESIGN SECTION 1 | FIGURE: I-33a 66

BICYCLE RACK SPECIFICATION - BIKE HITCH

NOTES:
16"ø EXPANDABLE TREE OPENING. 0.25" SLOT OPENINGS.

SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.

WHEN THE TREE GRATE IS INSTALLED IN A CONCRETE SIDEWALK, A NOTCH MUST BE INSTALLED ALONG THE EDGE TO HOLD THE GRATE, WHEN INSTALLED IN A BRICK SIDEWALK IT REQUIRES A FRAME TO BE INSTALLED TO HOLD THE GRATE IN PLACE.



PLAN VIEW

EXPANDABLE TREE GRATE NEENAH MODEL R–8810
NOT TO SCALE
http: //www.nfco.com/literature/TreeGrateCatalog22/Avenue.pdf

DATE: MARCH 2011
REVISED:

CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL | STDS FOR LANDSCAPING AND PRESERVATION OF EXISTING VEGETATION SECTION IV | FIGURE: IV-4A 134

EXPANDABLE TREE GRATE FOR NARROW RESIDENTIAL URBAN STREETS

REVISIONS

NO.	DATE	DESCRIPTION	DRAWN	APPD
1	9/23	REVISED PER CITY REVIEW COMMENTS	JHW	JHW
2	10/3	REVISED PER CITY REVIEW COMMENTS	JHW	JHW

PROJECT NAME: SEVEN–UNIT BUILDING
30 MERRILL STREET
PORTLAND MAINE

SHEET NAME: DETAILS

PROJECT NO. 16055
DRAWING NO. 15215–1PP
FIELDBOOK:
SCALE:
DATE ISSUED: 3–15–16

DESIGNED: Client
DRAWN: RGM
CHECKED: JHW
APPROVED: JHW
PLAN DATE: FEB. 23, 2016
CLIENT/RECORD OWNER: BANNER PROPERTIES, LLC 126 UNDERWOOD ROAD FALMOUTH, ME 04105

Plymouth Engineering, Inc.
P.O. Box 46 30 Lower Detroit Road
Plymouth, Maine 04969 Fax: (207) 257-2130
Tel: (207) 257-2071 info@plymouthengineering.com
www.plymouthengineering.com

STATE OF MAINE
JOHN H. WHITTEN, JR.
NO. 10078
LICENSED
PROFESSIONAL ENGINEER

DRAWINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION

SHEET 4 OF 4

C4

ERROR: syntaxerror
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/Creator
(D:20161003111349-04’00’)
/CreationDate
(Jon Whitten)
/Author
-mark-

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30 MERRILL STREET

PORTLAND, MAINE 04101

SITE APPLICATION

7-15-2016

GENERAL NOTES

1. ALL MATERIALS, COMPONENTS, AND WORK ARE NEW AND SHALL BE PROVIDED IN THIS CONTRACT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

2. ALL WORK INCLUDED IN THIS CONTRACT SHALL CONFORM TO ALL STATE, NATIONAL AND OTHER CODES AND ORDINANCES WHICH APPLY TO THIS PROJECT.

3. IT IS THE INTENT AND MEANING OF THESE DRAWINGS THAT THE CONTRACTOR AND EACH SUBCONTRACTOR PROVIDE ALL LABOR, MATERIALS, TRANSPORTATION, SUPPLIES, EQUIPMENT, ETC. TO OBTAIN A COMPLETE JOB TO INDUSTRY STANDARD IN A PROFESSIONAL WORKMANLIKE MANNER.
   - CONTRACTORS AND SUBCONTRACTORS SHALL REVIEW THE DRAWINGS AND SPECIFICATIONS PRIOR TO PERFORMANCE OF ANY WORK.
   - CONTRACTORS AND SUBCONTRACTORS SHALL INSTALL ALL MATERIALS AS PER THE CONSTRUCTION DOCUMENTS AND THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS.
   - INSTALLERS MUST BE TRAINED AND EXPERIENCED IN THE APPLICATION/INSTALLATION OF THE PRODUCTS/MATERIALS THAT THEY ARE INSTALLING.
   - PRODUCTS/MATERIALS MUST BE APPLIED/INSTALLED/USED IN CONDITIONS AS ALLOWED BY THE MANUFACTURER.
   - PRODUCTS/MATERIALS MUST BE APPLIED/INSTALLED/USED IN COORDINATION WITH ALL OTHER WORK CONDUCTED ON SITE.

4. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT ANY DISCREPANCY(IES) IMMEDIATELY TO THE ARCHITECT.

5. ANY DEVIATIONS WHATSOEVER FROM THE DRAWINGS AND/OR SPECIFICATIONS ARE NOT ALLOWED WITHOUT THE OWNER'S WRITTEN PERMISSION. FAILURE TO PROCURE SUCH WRITTEN AUTHORIZATION PLACES ALL RESPONSIBILITY FOR THE VARIATION ON THE CONTRACTOR.

6. AT THE END OF EACH WORKING DAY, THE CONSTRUCTION SITE SHALL BE LEFT IN A NEAT AND CLEAN MANNER.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS WHICH ARE REQUIRED FOR THE SATISFACTORY COMPLETION OF THE WORK AND THE OWNER SHALL BE RESPONSIBLE FOR PAYING ALL FEES, HOOK UP CHARGES, ETC. EXCEPTION: THE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR THE SITE AND BUILDING PERMITS.

8. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE OWNER FOR THE SEQUENCE AND TIMING OF OPERATIONS PRIOR TO COMMENCING WORK. AREAS FOR STAGING ETC. MUST BE APPROVED BY THE OWNER.

9. THE CONTRACTOR SHALL DISPOSE OF AND / OR RECYCLE ANY CONSTRUCTION DEBRIS FROM THE PROJECT SITE AS REQUIRED BY REGULATING AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING DISPOSAL PERMITS WHICH ARE REQUIRED. CONSTRUCTION DEBRIS FROM THE PROJECT SITE SHALL BE DISPOSED OF IN AN APPROVED AND LEGAL MANNER.

10. DUTY OF COOPERATION: RELEASE OF THESE PLANS CONTEMPLATES FURTHER COOPERATION AMONG THE OWNER, THE CONTRACTOR, THE ARCHITECT AND THE ARCHITECT'S CONSULTANTS. DESIGN AND CONSTRUCTION ARE COMPLEX. ALTHOUGH THE ARCHITECT AND HIS CONSULTANTS HAVE PERFORMED THEIR SERVICES WITH DUE CARE AND DILIGENCE, THEY CANNOT GUARANTEE PERFECTION. COMMUNICATION IS IMPERFECT, AND EVERY CONTINGENCY CANNOT BE ANTICIPATED. ANY AMBIGUITY OR DISCREPANCY DISCOVERED BY THE USE OF THESE PLANS SHALL BE REPORTED IMMEDIATELY TO THE OWNER. FAILURE TO NOTIFY THE OWNER COMPOUNDS MISUNDERSTANDING AND MAY INCREASE CONSTRUCTION COSTS. A FAILURE TO COOPERATE BY A SIMPLE NOTICE TO THE OWNER SHALL RELIEVE THE OWNER AND THE ARCHITECT FROM RESPONSIBILITY FROM ALL COSTS.

11. THESE DRAWINGS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THE GENERAL CONTRACTOR SHALL PROVIDE FOR THE SAFETY, CARE OF UTILITIES AND ADJACENT PROPERTIES DURING CONSTRUCTION, AND SHALL COMPLY WITH STATE AND FEDERAL SAFETY REGULATIONS.

12. ALL MATERIALS AND WORK SHALL BE GUARANTEED FOR A MINIMUM OF ONE YEAR FROM THE DATE OF FINAL PAYMENT.

13. COORDINATE ALL MECHANICAL & ELECTRICAL DEVICES SO THEY DO NOT CONFLICT W/ ARCHITECTURAL FEATURES.

14. DIMENSIONS SHOWN ON DRAWINGS ARE TAKEN FROM FACE OF GYPSUM WALLBOARD UNLESS OTHERWISE NOTED

15. COORDINATE ALL MECHANICAL & ELECTRICAL DEVICES SO THEY DO NOT CONFLICT W/ ARCHITECTURAL FEATURES.

16. ELECTRICAL WORK TO BE DESIGNED, PERMITTED AND INSTALLED BY CONTRACTOR.

17. EXISTING ELECTRICAL SYSTEM TO BE PRESERVED TO THE MAXIMUM EXTENT ALLOWABLE BY CODE.

18. PLUMBING WORK TO BE DESIGNED, PERMITTED AND INSTALLED BY CONTRACTOR.

19. HVAC WORK TO BE DESIGNED, PERMITTED AND INSTALLED BY CONTRACTOR.



ABBREVIATIONS

A/V	AIR/VAPOR
AFF	ABOVE FINISH FLOOR
B.O.	BOTTOM OF
CONC.	CONCRETE
E	EXISTING
ELEVS.	ELEVATIONS
FFE	FINISH FLOOR ELEVATION
FRP	FIBERGLASS REINFORCED PANELS
GWB	GYPSUM WALL BOARD
GYP BD	GYPSUM WALL BOARD
INSUL	INSULATION
O.C.	ON CENTER
P&S	BRACKET W/ CLOTHES POLE & SHELF
PT	PRESSURE TREATED/PAINTED
RCP	REFLECTED CEILING PLAN
SAT	SUSPENDED ACOUSTICAL TILE
SIM	SIMILAR
STRUCT	STRUCTURAL DRAWINGS OR STRUCTURAL ENGINEER
T.B.D.	TO BE DETERMINED
T.O.	TOP OF
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITE TILE

DRAWING LIST

G100	COVER SHEET
000	SURVEY
C1	SITE PLAN
C2	EROSION & SEDIMENTATION CONTROL DETAILS
CM1.1	CONSTRUCTION MANAGEMENT
G103	CODE SUMMARY
G104	LIFE SAFETY PLANS
A1.1	BSMNT / FIRST
A1.2	2ND 3RD FLOOR PLANS
A1.3	4TH & ROOF PLANS
A2.1	ELEVATIONS
A2.2	ELEVATIONS
A2.3	RENDERING
A2.4	RENDERING
A2.5	RENDERING
A2.6	CONTEXT
000	PARKING LOT LIGHTING

PERMIT SET
XX/XX/2016

PROJECT CONTACTS

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LANDSCAPE ARCHITECT
NA

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PROJECT NO.
15018
PROJECT NAME
MERRILL STREET - 7 UNIT
PORTLAND, ME

REVISIONS
1 -
2 -
3 -
4 -
5 -

SITE APPLICATION
NOT FOR CONSTRUCTION

DRAWN BY
EMW
SHEET TITLE
TITLE SHEET

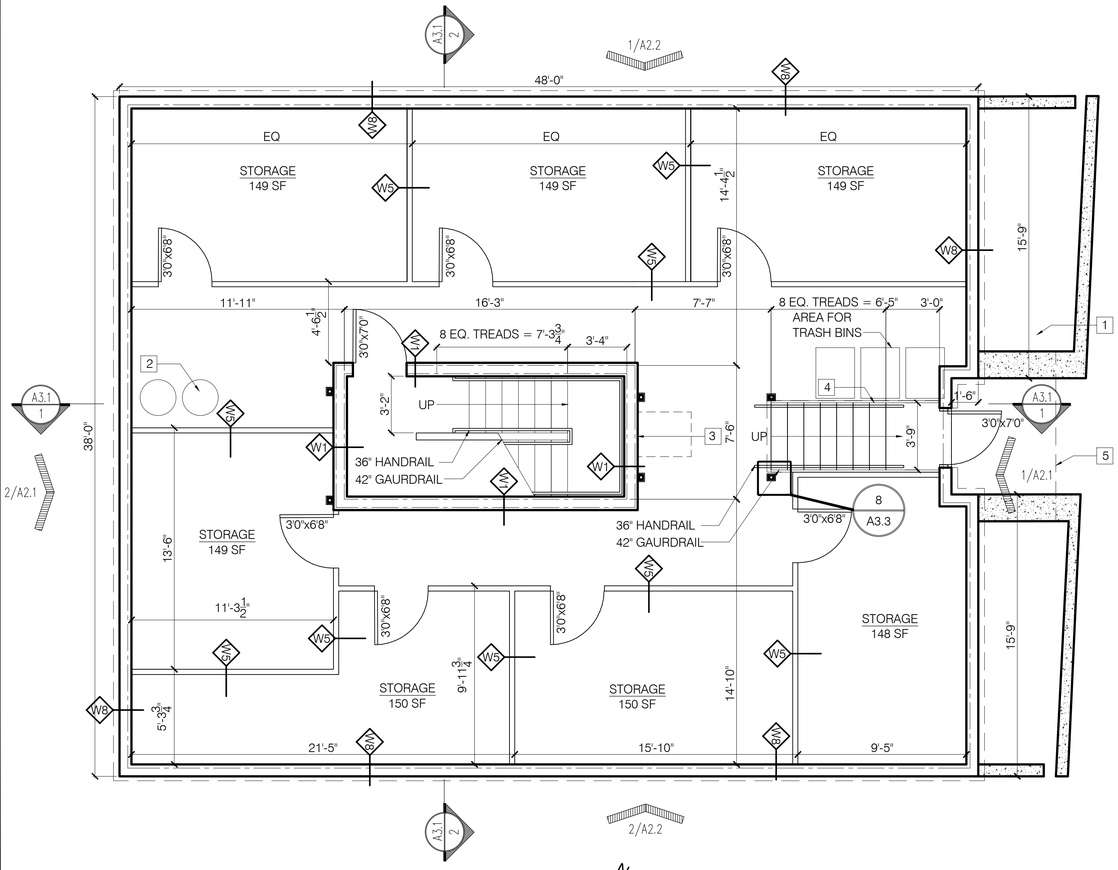
ISSUE DATE
07/15/16
SHEET SCALE
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X KEYNOTES:.

1. CONCRETE PLANTER - FRONT EDGE FOLLOWS PROPERTY LIN
2. WATER HEATERS
3. ELECTRICAL PANELS
4. FRAMED STAIR OPENING ABOVE
5. LINE OF AWNING ABOVE
6. LINE OF LOWER CEILING
7. LOCATION FOR INSTALLATION OF HEAT PUMP UNITS
8. ROOF DRAIN
9. OVERFLOW DRAIN
10. MEMBRANE ROOF
11. 1/8" TAPERED INSULATION TO PROVIDE POSITIVE SLOPE T OF ROOF DRAIN /SCUPPER
12. AREA FOR GREEN ROOF TRAY SYSTEM
13. FABRICATED METAL RAILING
14. TILE ON PEDESTAL ROOF DECK SYSTEM



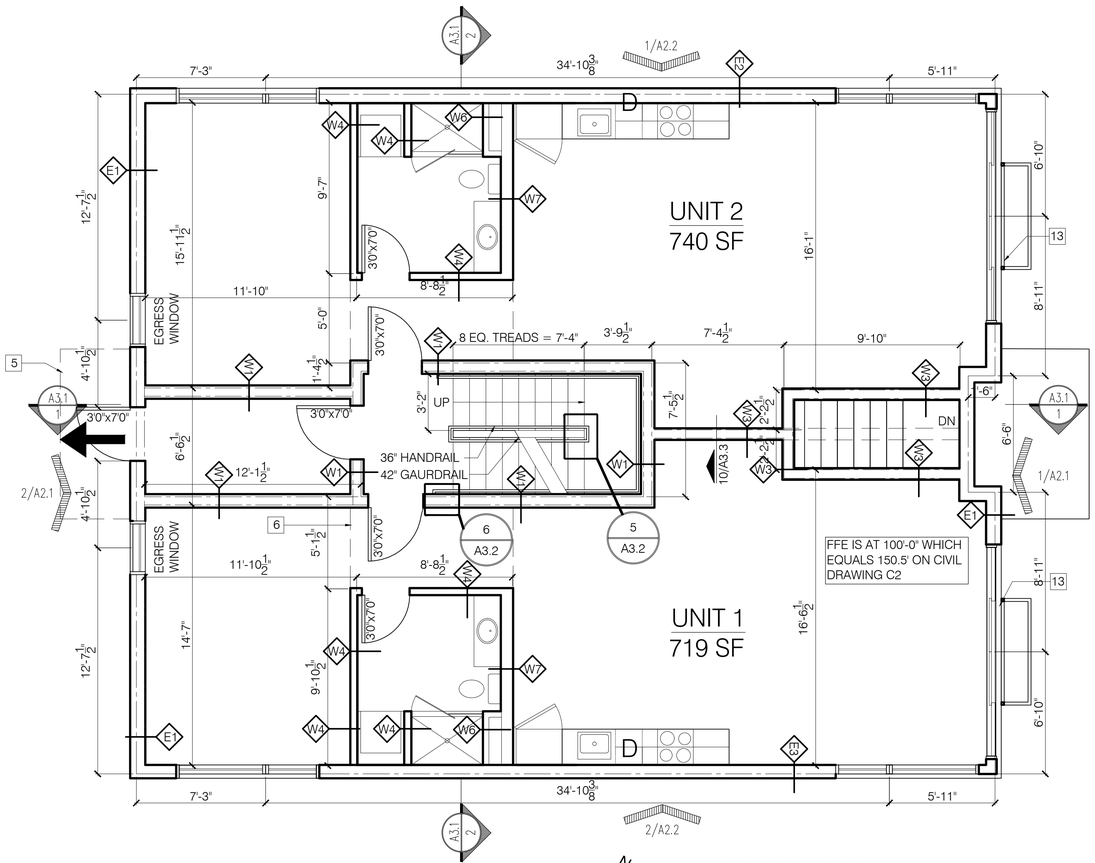


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SITE APPLICATION
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SHEET TITLE
BSMNT / FIRST

ISSUE DATE
08/26/16

SHEET SCALE
1/4" = 1'-0"

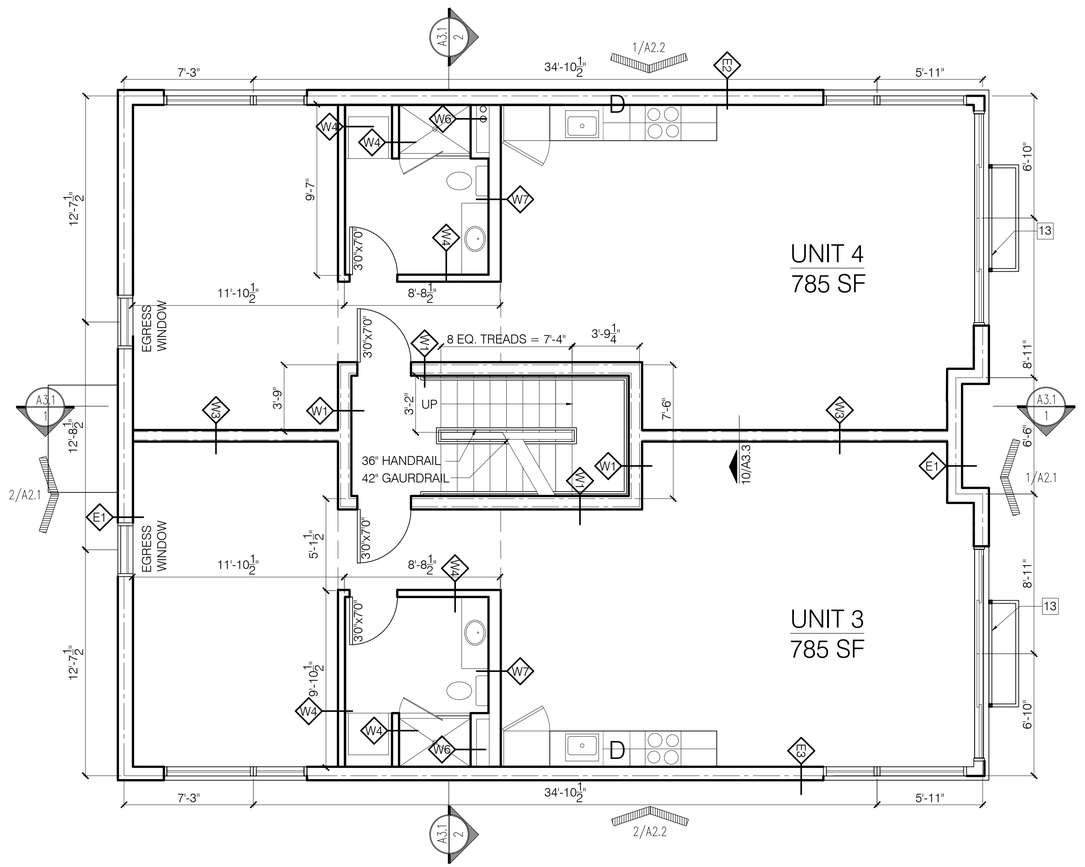
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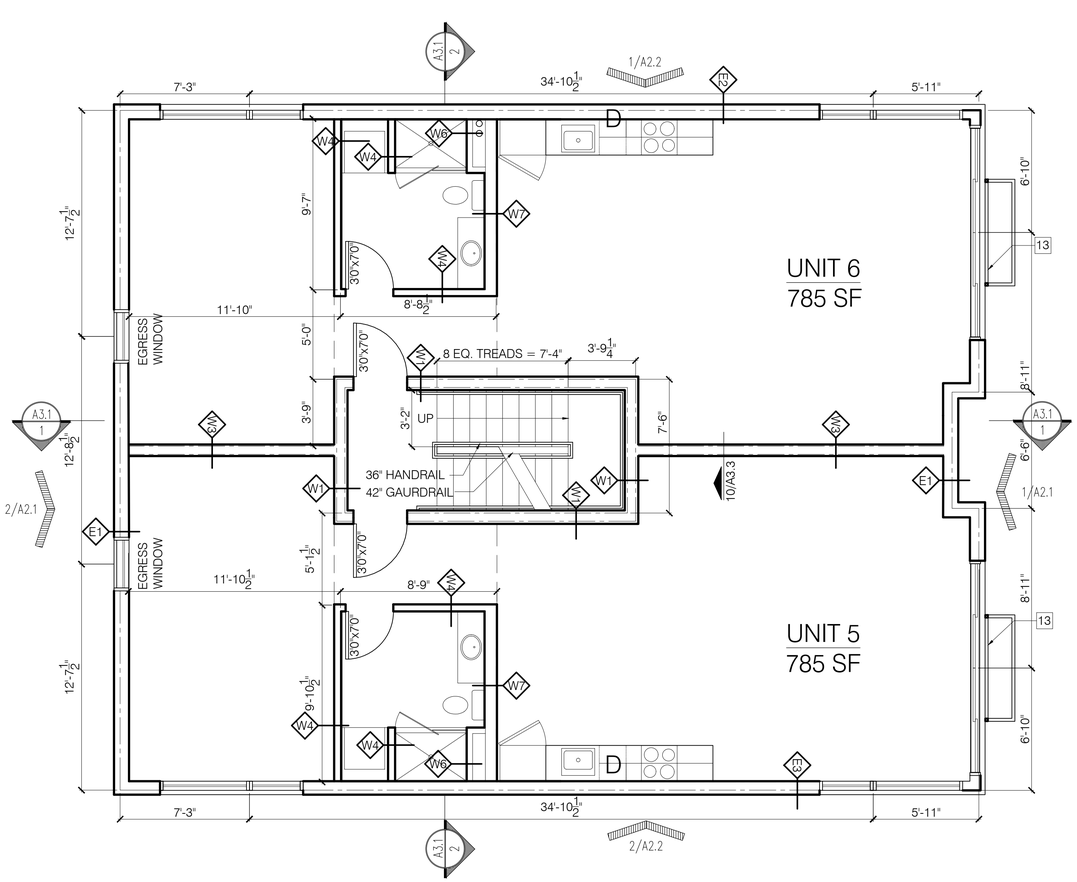
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12. AREA FOR GREEN ROOF TRAY SYSTEM
13. FABRICATED METAL RAILING
14. TILE ON PEDESTAL ROOF DECK SYSTEM



SECOND FLOOR

SCALE: 1/4" = 1'-0"



THIRD FLOOR

SCALE: 1/4" = 1'-0"

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SHEET TITLE 2ND 3RD FLOOR

ISSUE DATE 08/26/16

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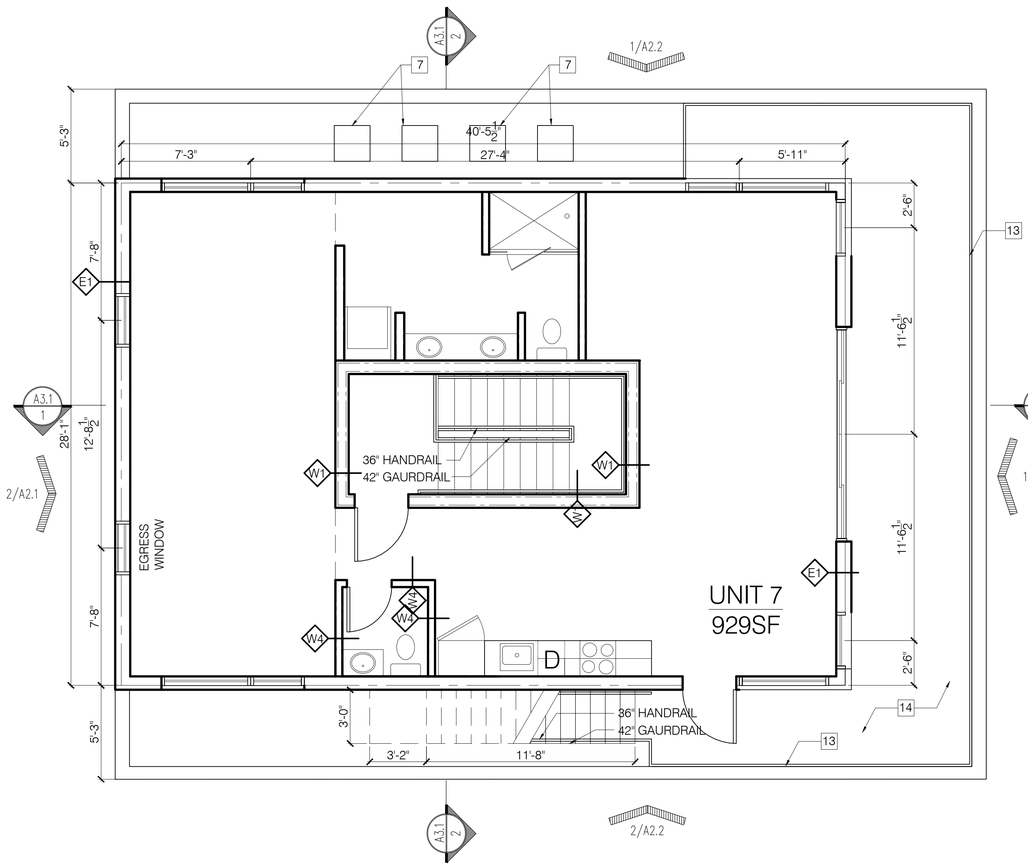
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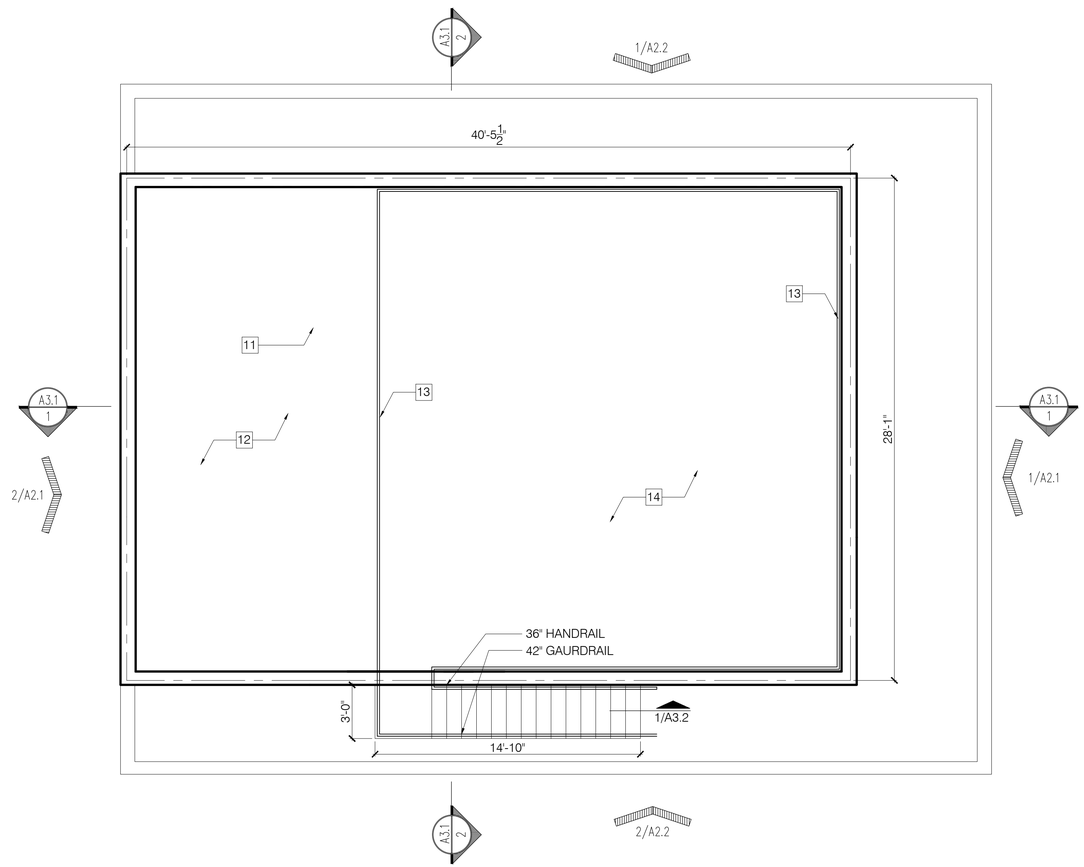
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X KEYNOTES:.

1. CONCRETE PLANTER - FRONT EDGE FOLLOWS PROPERTY LINE
2. WATER HEATERS
3. ELECTRICAL PANELS
4. FRAMED STAIR OPENING ABOVE
5. LINE OF AWNING ABOVE
6. LINE OF LOWER CEILING
7. LOCATION FOR INSTALLATION OF HEAT PUMP UNITS
8. ROOF DRAIN
9. OVERFLOW DRAIN
10. MEMBRANE ROOF
11. 1/8" TAPERED INSULATION TO PROVIDE POSITIVE SLOPE TO TOP OF ROOF DRAIN /SCUPPER
12. AREA FOR GREEN ROOF TRAY SYSTEM
13. FABRICATED METAL RAILING
14. TILE ON PEDESTAL ROOF DECK SYSTEM





N

3 FOURTH FLOOR
0 4'-0" SCALE: 1/4" = 1'-0"

N

4 ROOF PLAN
0 4'-0" SCALE: 1/4" = 1'-0"

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SITE APPLICATION
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SHEET TITLE 4TH & ROOF

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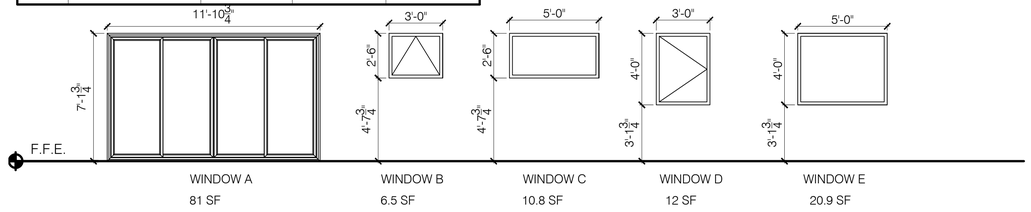
WINDOW SCHEDULE				
TYPE	SIZE (ROUGH OPENING)	MATERIAL	OPERATION	NOTES
A	11'-10 3/4" X 6'-9 3/4"	-	SLIDING	1,2,4
B	2'-4" X 4'-0"	-	AWNING	1,2,4
C	2'-4" X 4'-0"	-	FIXED	1,2,4
D	4'-8" X 4'-0"	-	CASEMENT	1,3,2,4

WINDOW SCHEDULE NOTES:

1. SAFETY GLAZING MAY BE REQUIRED FOR WINDOWS NEAR A SLIDING DOOR
2. ALL WINDOWS TO HAVE A MAXIMUM U-FACTOR OF 0.35
3. WINDOWS LABELED "EGRESS WINDOW" IN PLAN MUST COMPLY WITH: MIN AREA: 5.7SF
   MIN HEIGHT: 24"
   MIN WIDTH: 20"
4. WINDOWS TP BE THERMALLY BROKEN

WINDOW SPECIFICATIONS:

1. Size and window configuration.	See Window Schedule
2. Color options.	To be selected
3. Factory Mulling Capabilty.	Preferred
4. Design Pressure Rating	25
5. U Factor	0.35 or lower
6. Material	To be selected
7. Glazing Type	To be selected
8. Hardware type.	To be selected
9. Exterior Washing Capability	Washing from interior preferred
10. Warranty (Window & glazing units)	10 years
11. Insect Screens	Standard Insect Screens



GENERAL NOTES:

A. GLAZING IN ALL DOORS IS REQUIRED TO BE SAFETY GLAZING

B. FINAL FINISHES TO BE SELECTED BY OWNER.

C. ----

D. ----

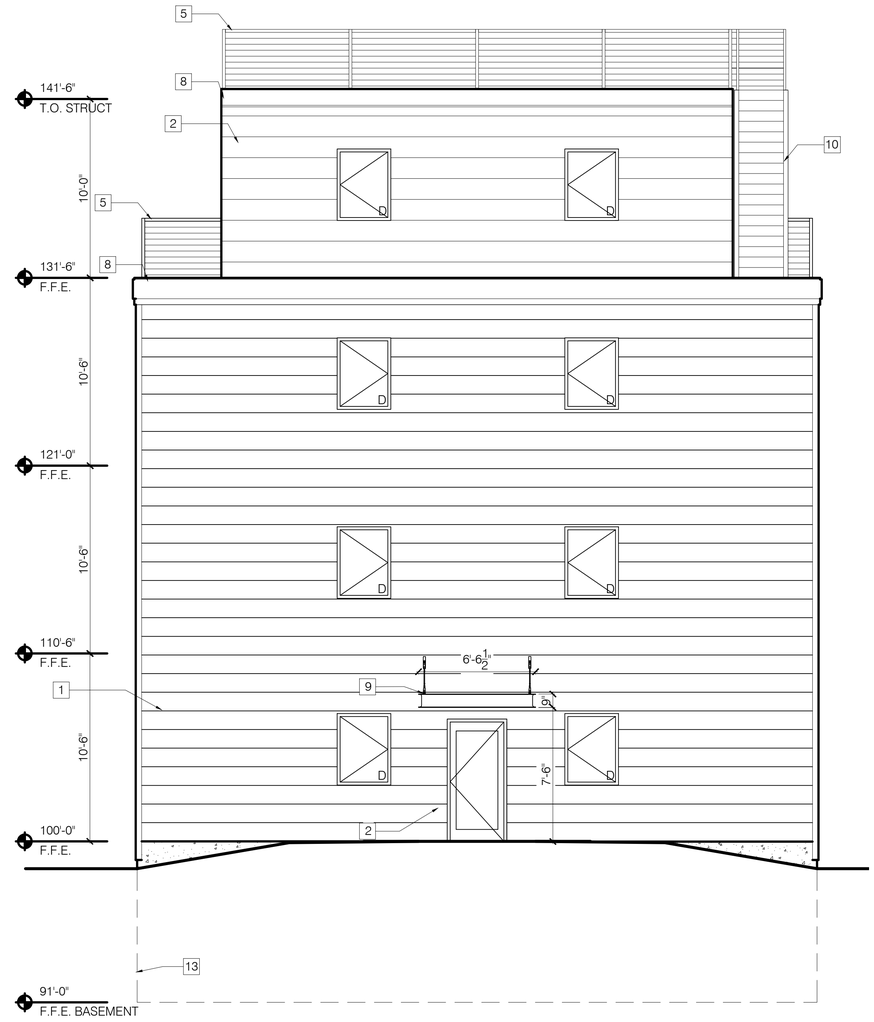
X KEYNOTES:.

1. LP SMART SIDING - SMOOTH FINISH - CLAPBOARD - 11.84 WIDTH - COLOR 1
2. LP SMART SIDING - SMOOTH FINISH - CLAPBOARD - 11.84 WIDTH - COLOR 2
3. FABRICATED METAL GUARD SYSTEM CONSTRUCTED OH HSS
4. ROOF SCUPPER
5. HANDRAIL W/ 42" HISS HSS GUARDRAIL W/ HORIZONTAL STEEL RODS @ 3 1/2" O.C.
6. CONCRETE PLANTER
7. BUILDING ADDRESS FORMED INTO CONCRETE
8. GALVANIZED FINISHED BREAK METAL COPING
9. FABRICATED METAL AWNING WITH METAL ROD SUPPORTS
10. FABRICATED METAL STAIR W/ 36" 111-1/2" HSS RAILINGS AND HORZ STEEL RODS @ 3-1/2" O.C.
11. BREAK METAL WINDOW TRIM DETAIL
12. LINE OF ROOF BEYOND
13. LINE REPRESENTS BASEMENT BELOW GRADE
14. DOWNSPOUT
15. DRYER VENT
16. HVAC EXHAUST



1 FRONT (EAST) ELEVATION

0 4'-0" SCALE: 1/4" = 1'-0"



2 BACK (WEST) ELEVATION

0 4'-0" SCALE: 1/4" = 1'-0"

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SHEET TITLE ELEVATIONS

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MAX WALL OPENING					
ELEVATION	SEPARATION DISTANCE	NFPA SPRINKLERED	PROTECTED OPENINGS	ALLOWABLE AREA	% OF WALL OPENING
NORTH	5' TO 10'	YES	NO	25%	7%
NORTH ROOF	20' TO 25'	YES	NO	NO LIMIT	-
EAST	30' OR GREATER	YES	NO	N/A	-
SOUTH	10' TO 15'	YES	NO	45%	8.5%
WEST	30' OR GREATER	YES	NO	N/A	-

GENERAL DOOR SCHEDULE NOTES:

- ALL DOOR HANDLES TO BE ADA COMPLIANT LEVER HANDLES.
- ALL INTERIOR DOOR HARDWARE FINISH TBD
- DOORS WITHIN UNITS FINISH TBD
- PROVIDE A COMMON SPACES KEY FOR TENANT ENTRANCES AND STORAGE AREA (ISSUED TO EACH TENANT)

HARDWARE SETS:

01	UNIT ENTRY DOORS:	PEEP HOLE, (3) HINGES, SOFT CLOSE DAMPER, STRIKE, DOOR STOP, SINGLE CYLINDER DEADBOLT, ENTRY LOCKSET, THROW-BOLT, LATCH ASSEMBLY, LEVER, CLOSER, THRESHOLD, SWEEP
02	BATHROOM DOORS:	(3) HINGES, STRIKE, DOOR STOP, LEVER, BED/BATH LOCKSET
03	PATIO DOORS:	(3) HINGES, ESCUTCHEON PLATE, HANDLE, DEADBOLT LOCKSET
04	ENTRY DOOR:	(3) HINGES, STRIKE, DOOR STOP, THRESHOLD, SWEEP ENTRY LOCKSET, GASKET, LEVER, METAL PROTECTIVE TRIM, PEEP HOLE CLOSER
05	EXTERIOR STORAGE DOOR	(3) HINGES, STRIKE, THRESHOLD, SWEEP, ENTRY LOCKSET, GASKET, LEVER, METAL PROTECTIVE TRIM, PEEP HOLE, CLOSER
06	STAIRWAY/HALLWAY DOOR	(3) HINGES, SOFT CLOSE DAMPER, STRIKE, DOOR STOP, FREE PASSAGE LATCH ASSEMBLY, LEVER, CLOSER
07	STORAGE DOOR:	(3) HINGES, STRIKE, LOCKSET, LEVER, CLOSER

GENERAL NOTES:

A. GLAZING IN ALL DOORS IS REQUIRED TO BE SAFETY GLAZING

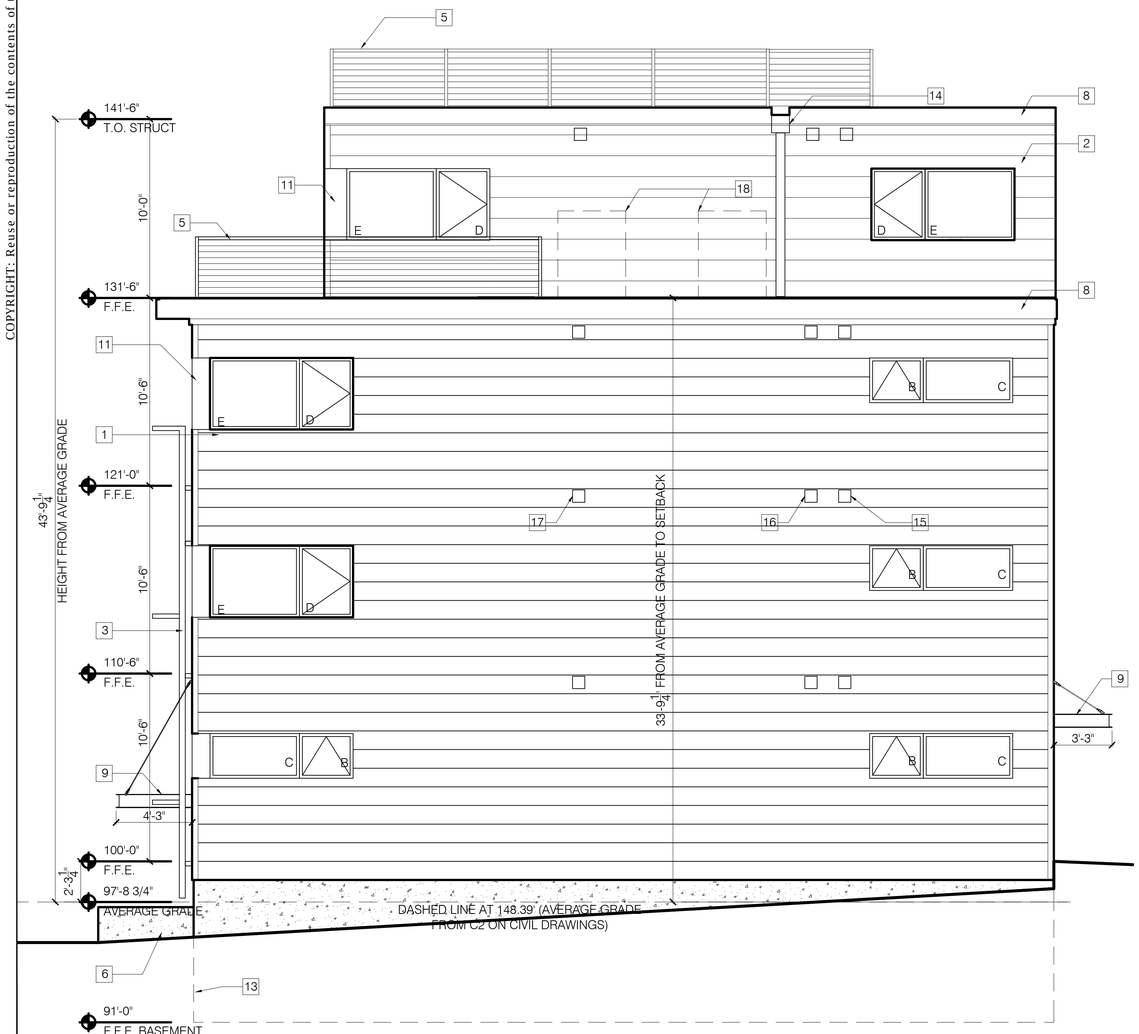
B. FINAL FINISHES TO BE SELECTED BY OWNER.

C. ----

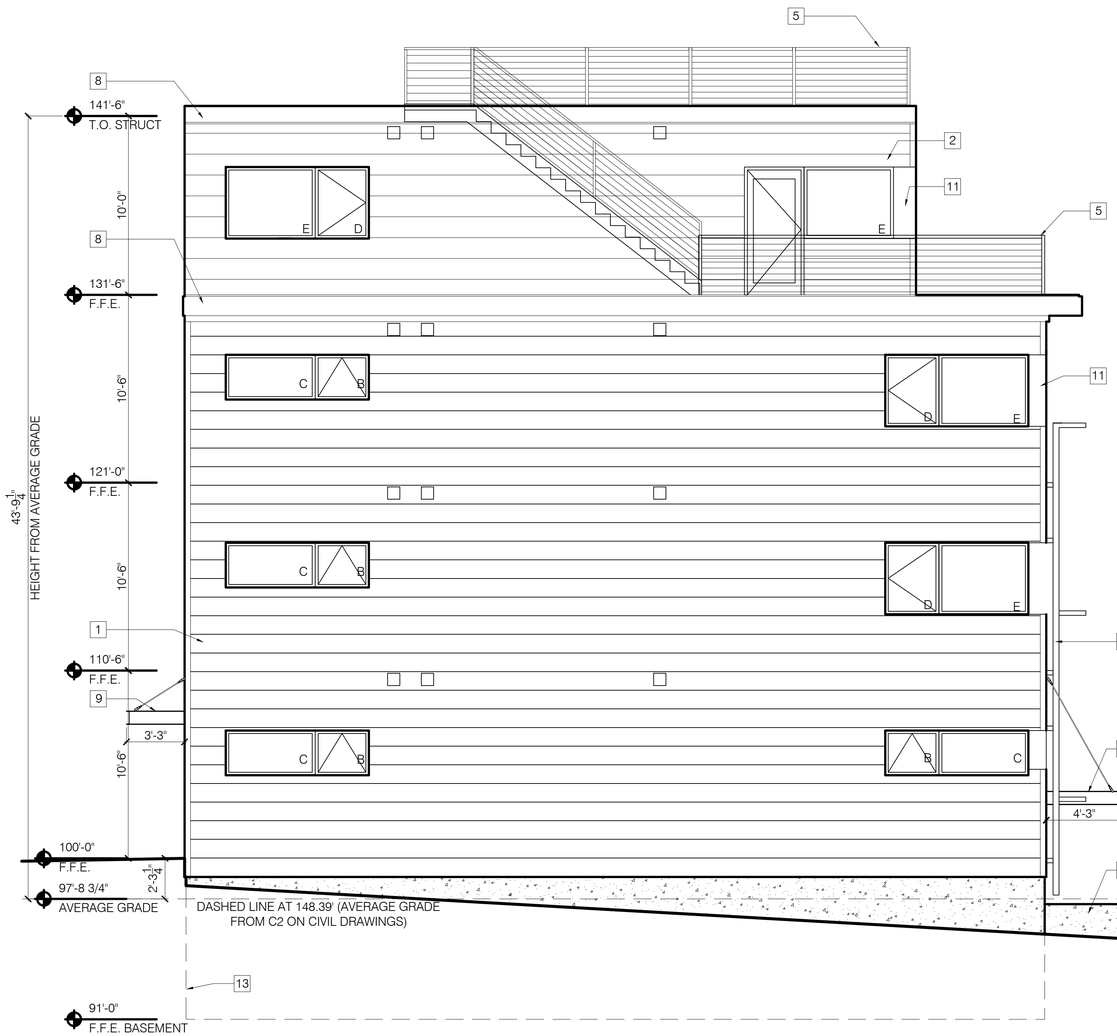
D. ----

X KEYNOTES:.

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15. DRYER VENT
16. HVAC EXHAUST
17. HVAC INTAKE
18. LOCATION FOR INSTALLATION OF HEAT PUMP UNITS



1 NORTH ELEVATION
0 4'-0" SCALE: 1/4" = 1'-0"



2 SOUTH ELEVATION
0 4'-0" SCALE: 1/4" = 1'-0"

Bild Architecture
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PROJECT NO. 15018
PROJECT NAME MERRILL STREET PORTLAND, ME

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2 -
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4 -
5 -

SITE APPLICATION
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SHEET TITLE ELEVATIONS

ISSUE DATE 08/26/16
SHEET SCALE 1/4" = 1'-0"

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MERRILL STREET VIEW

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2.3

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TURNER STREET VIEW

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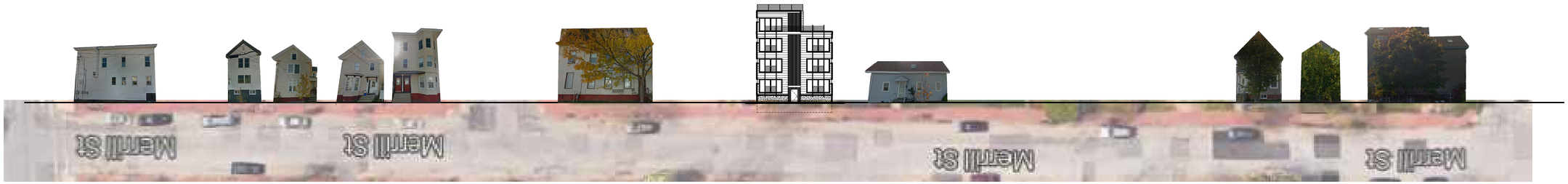
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1 MERRILL STREET NORTH
0 30'



2 MERRILL STREET SOUTH
0 30'



3 CUMBERLAND AVE WEST
0 30'



4 CUMBERLAND AVE EAST
0 30'



N
5 SITE MAP
0 NTS

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PROJECT NAME
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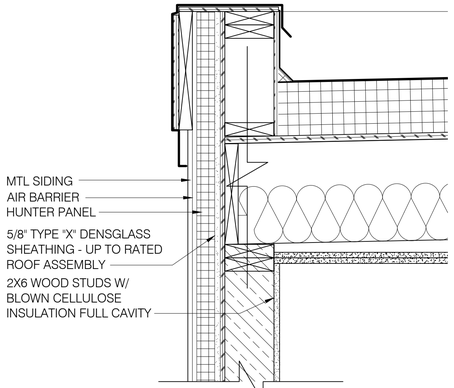
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CONTEXT

ISSUE DATE
7/15/16
SHEET SCALE
NTS

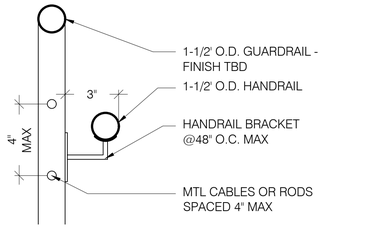
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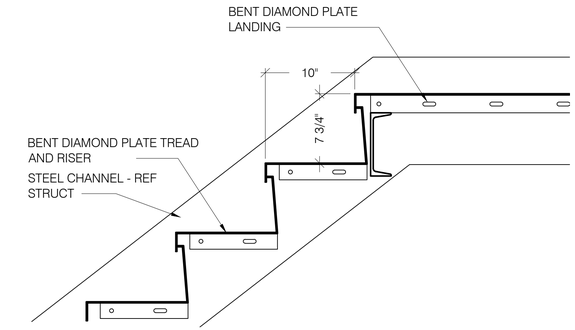
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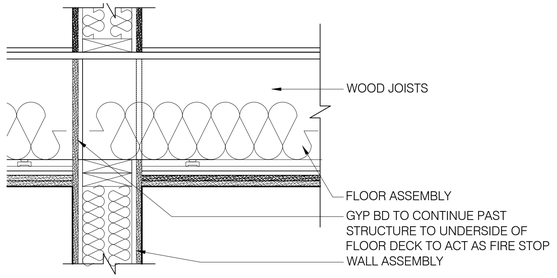
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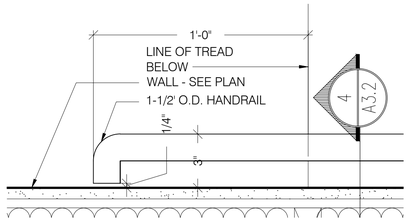
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0 4" SCALE: 3" = 1'-0"



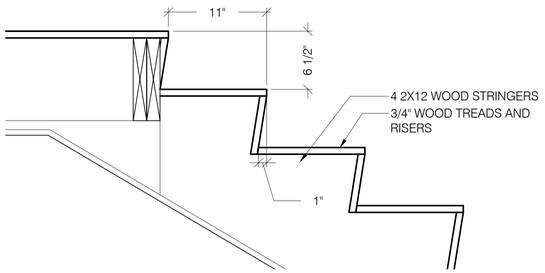
3 A3.2A3.2 — EXTERIOR TREAD/RISER DETAIL
0 8" SCALE: 1-1/2" = 1'-0"



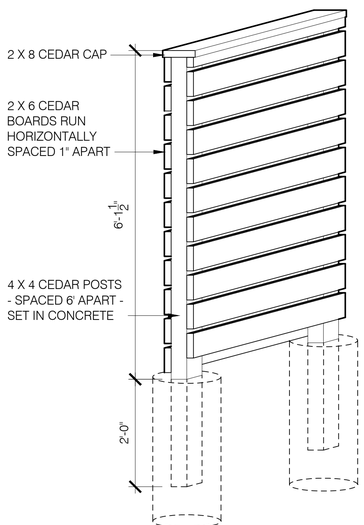
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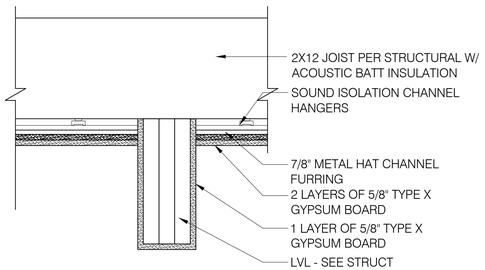
6 — HANDRAIL DETAIL
0 4" SCALE: 3" = 1'-0"



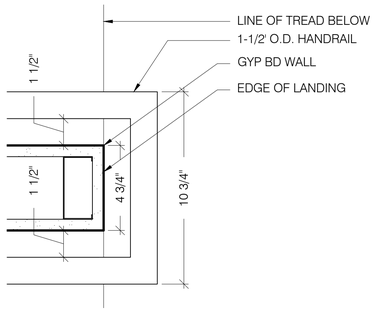
2 A3.1A3.2 — TYP. RISER TREAD DETAIL
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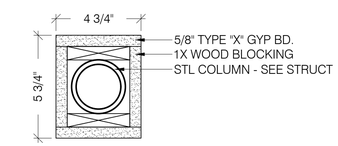
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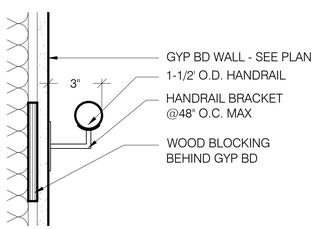
9 A3.1A3.3 — LVL WRAP DETAIL
0 8" SCALE: 1-1/2" = 1'-0"



5 — HANDRAIL DETAIL
0 4" SCALE: 3" = 1'-0"



8 A1.1A3.3 — COLUMN WRAP DETAIL
0 4" SCALE: 3" = 1'-0"



4 — HANDRAIL SECTION
0 4" SCALE: 3" = 1'-0"

1 A1.3A3.2 — STAIR SECTION
0 2'-0" SCALE: 1/2" = 1'-0"

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ISSUE DATE 08/23/16
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Maine Human Rights Act (ANSI A117.1 - Use the Fair Housing Guidelines)

2. Applicability. This section applies to multifamily housing accommodations constructed for first occupancy after March 13, 1991.

3. Standards. Facilities subject to this section must meet the following standards.

A. Doors designed to allow passage into and within all premises within those accommodations must be sufficiently wide to allow passage by a person in a wheelchair.

B. A route accessible to a person in a wheelchair into and through the dwelling unit must exist.

C. Light switches, electrical outlets, thermostats and other environmental controls must be in locations accessible to a person in a wheelchair.

D. Bathroom walls must have reinforcements to accommodate the installation of grab bars.

E. Kitchens and bathrooms must be accessible to and usable by a person in a wheelchair.

Zoning:

Building, height of: The vertical measurement from grade, or the predevelopment grade on the islands, to the highest point of the roof beams in flat roofs

Building Area Information

Building Footprint:	1,824 SF
Building Area:	6,580 SF

NFPA Code Overview

Use:	New Residential Apartment Building
Construction:	No minimum requirement
Sprinkler:	NFPA 13R
Occupancy:	32 Occupants

IBC Code Overview

Use:	R-2, S-1
Construction:	Type VA
Sprinkler:	NFPA 13R
Occupancy:	23 in R-2 + 6 in S-2 = 29 Occupants

IBC - Detail Code Review

Use and Occupancy Classification:

310.1 Residential Group R-2 (Apartments)

311.2 Storage S-1

420.2 Fire Partitions Separating Dwelling Units (709)

420.3 Floor Assemblies Separating Dwelling Units (712)

503	R-2 VA	7,000sf	3 stories	50' tall
	S-1 VA	14,000sf	3 stories	50' tall

504.2 Where a building is equipped throughout with an approved automatic sprinkler system, the maximum building height is increased by 20 feet, and the maximum number of stories is increased by one.

508.4 S-1 and R occupancies shall be separated by 1-HR when sprinklered

508.4.2 Allowable Area

508.4.3 Allowable Height

601 Type VA - No fire-resistance rating requirements for building elements

Primary Structural Frame	1hr
Exterior Bearing walls	1hr
Interior Bearing walls	1hr
Nonbearing Exterior	See table 602
Nonbearing Interior	0hr
Floor Construction	1hr
Roof Construction	1hr

602	Separation distance	5'≤X<10' VA	1-hr exterior wall NW building side (rated from both sides)
		10'≤X<30' VA	1-hr
		X≥30 VA	No rating required

705.2.2 Projections (including balconies) may be of any material

705.5 When exterior walls are required to be rated:

X<10' Rated for exposure from both sides

X>10' Rated from inside

705.8.1 Buildings whose exterior bearing walls, exterior non-bearing walls, and exterior primary structural frame are not required to be fire-resistance rated shall be permitted to have unlimited unprotected openings.

705.11.4 Parapet not required on any exterior walls

707.3.1 Fire Barrier required for shaft enclosure

707.5 Fire barriers: From TOP of floor to bottom of decking above (cont. thru concealed)

707.5.1 Fire Barrier supporting construction shall have same rating

708.1 Shaft enclosures shall be constructed of fire barriers and horizontal assemblies.

708.2 Shaft enclosure is required stair

708.4 Shaft Enclosure: 2 hour when connecting four or more stories

709.1 Fire partitions required to separate dwelling units

709.3 Fire partitions shall be not less than 1-hr

709.4 Fire partition continuity: from TOP of floor to bottom of decking above or to bottom of ceiling assembly (with fireblocking or draftstopping)

712.3 Horizontal Assembly = Dwelling unit and sleeping unit separation in buildings of Type VA construction shall have a fire-resistance rating of not less than 1 hour in buildings equipped with an automatic sprinkler system.

712.4 Supporting construction of horz. assembly between units is required to be rated in VA

713 All Rated vertical and horizontal assemblies shall be complete assemblies in that any penetrations shall be treated as in accordance with this section.

714 All Rated vertical and horizontal assemblies shall be complete assemblies in that any joints shall be treated as in accordance with this section.

715 All Rated vertical and horizontal assemblies shall be complete assemblies in that any openings shall be treated as in accordance with this section.

715.4 Doors in 2-hour stair shaft shall have a rating of 1-1/2 hour

716 All Rated vertical and horizontal assemblies shall be complete assemblies in that any ducts and air transfers shall be treated as in accordance with this section.

716.6.2 Ducts and air transfer openings penetrating a rated ceiling membrane must be installed with a listed ceiling radiation damper

717 Fire blocking and draft-stopping shall be installed in concealed spaces in accordance with this section.

803.9 R-2: Exit enclosures, corridors, rooms and enclosed spaces required to have Class C finishes.

S-1: Exit enclosures, corridors, rooms and enclosed spaces required to have Class C finishes.

901.6.1 Automatic sprinkler system shall be monitored by a supervising station (NFPA 72)

901.6.2 Fire alarm system shall be monitored by a supervising station

903.2.8 Sprinkler System is required for Group R

903.3.1.2 NFPA 13R is permitted up to and including 4 stories

905.3.1 Class III standpipe system shall be installed

906.1 Fire extinguisher REQUIRED

907.2.9.1 Manual pull station fire alarm system is required as building is four stories.

907.2.11.2 Interconnected Smoke Alarms Required:

Outside each sleeping area and in each sleeping room

1003.2 Min egress ceiling height: 7'-6"

1003.5 Exception 1: A single step (under 7") allowed at exterior doors in R-2 that are not required to be accessible doors.

1004.1.1 Occupancy Load for Residential: 200 gross at 4,756 SF is 29 occupants

Occupancy Load for Storage: 300 gross at 1,824 SF is 29 occupants

1005.3 Door swing shall not reduce the required egress width more than half

1006.1 Stair must be illuminated at all times

1007.3 Sprinkler precludes need for wider stair or area of refuge

1008.1.1 Min Door size: 32" clear (36" door)

1008.1.5 Same floor elevation on either side of doors

1008.1.6 Landing not less than width of door

1008.1.8 48" plus door swing between doors in succession

1009.1 Min stair width 36" (for occ. less than 50)

1009.2 Min head clearance 80" (6'-8")

1009.4 7" rise max, and 11" run min

1009.5 Landing width no more than stair width

1009.6 Stair construction can be of any material permitted by construction type

1009.13 Stairway required to extend to roof in four-story building

1012.2 Handrails between 34"-38"

1012.6 Railing extensions must be 12" at top of stairs and 11" at bottom.

1013.2 Min Guard Height: 42"

1014.3 NFPA 101 Table A7.6

Sprinkled Apartments common Path Limit: 50'

NFPA 101 30.2.5.3.2: "Travel within a dwelling unit shall not be included when determining the common path of travel

1015.1 One exit is permitting from dwelling units at occupant load for individual units is under 20 and building is sprinkled 13R.

1016.1 Exit Access travel Distance: 250' (for sprinkled 13R R-2)

1018.1 Corridor Fire Rating: ½" (for sprinkled 13R R-2)

1018.2 Corridor Min Width: 36" (for occ under 50)

1018.4 Dead-End Corridor Limit: 20' (for R-2)

1021.2 Three-story R-2 building is permitted to have one exit if under 4-units per floors, under 50' travel distance to exit, sprinkled 13R, and provided with emergency escape openings.

Basement S-1 can have one exit is 29 occupants and 100 feet travel distance

1022.1 2-hour exit enclosure required when connecting 4-stories

Stairway from basement not enclosed. Under 10 occupants and not open to story above

1022.8 Floor identification signs shall comply with this section

1023.2 Min exit passageway width: 36" for less than 50 occupants

1023.3 Exits passageway min rating: 1-hr (or rating of connected enclosure if greater)

Constructed of fire barriers and horizontal assemblies.

1029.1 Sleeping rooms below the fourth story shall have emergency escape and rescue openings

1029.2 Min area: 5.7SF

Min height: 24"

Min width: 20"

1029.3 Max height about floor: 44"

1100 Chapter does not apply in the State of Maine

1207 Sound transmission between dwelling units

Walls: STC-50 (45 field tested)

Ceilings: IIC-50 (45 field tested)

2406.4 Safety Glazing: all swinging doors, fixed and sliding panels of sliding door assemblies, glazing in an individual fixed or operable panel adjacent to a door where the nearest exposed edge of the glazing is within a 24 inch arc of either vertical edge of the door in a closed position and where the bottom exposed edge of the glazing is less than 60 inches above the walking surface, glazing with exposed area of an individual pane greater than 9 square feet, and glazing w/ exposed bottom edge less than 18 inches above floor.

IECC

301.1 Climate Zone 6A

402.1.1	Element:	Required:	Provided:
	Fenestration U-Factor	0.35 max	0.17
	Ceiling R-Value	49 min	71
	Wood Frame R-Value	20 min	32.6
	Floor R-Value	30 min	51
	Slab R-Value	10 min	10

402.4.2.1 Air Sealing will be tested on-site using a blower door test.

NFPA 10

NFPA 106.2.1.1 Each floor shall have a single (2) unit Class A Fire Extinguisher

NFPA 101

3.3.32.5 New Building

6.1.8.1.5 Residential Occupancy - Apartment Building (Chapter 30)

6.1.13 Storage (Chapter 42)

6.1.14.4.1 Required Separation - 2hr between Apt Bldg & Storage

6.1.14.4.3 1 hour separation required in sprinkled building

6.2.2.3 Ordinary Hazard Contents

7.1.3.2.1 Stairs connecting four or more stories shall have a minimum of 2 hour rating

7.1.5.1 Min headroom: 7'-6"

7.1.6.3 Cross Slope limited to 1:48

7.2.1.2.3.2 Egress door min clear width: 32"

7.2.1.4 Door swing and force to open shall comply with this section

7.2.1.5 Door locks, latches and alarms shall comply with this section

7.2.2.2.1.1 Max riser height: 7"

Min Tread depth: 11"

Min headroom: 6'-8"

7.2.2.2.1.2 Min stair width: 36" (for occupancy under 50)

7.2.2.3.2.3 Min landing depth: stair width

7.2.2.4.4.1 Handrail height: 36"

7.2.2.4.4.6 Handrail shape: 1 ½" circular cross section

7.2.2.4.4.9 Handrails shall return to wall or newel post

7.2.2.4.4.10 Handrails shall extend 12" at top of stair and one tread length at bottom

7.2.2.4.5.2 Min guard height: 42"

7.2.2.4.5.3 Open guards shall not allow the passage of a 4" sphere

7.2.2.5.4 Stairway identification shall comply with this section.

7.2.6.3 Stair discharge shall have a 2-hr fire resistance rating.

7.2.12.1.1 Sprinkler precludes need for area of refuge in stair.

7.3.1.2	Occupancy Load		
	Residential Apartment:	200 gross at 6,580sf is	32 occupants
	Storage:	NA	

7.3.3.1 0.3 Occ. per in. for Stairs

7.3.4 Min Egress width: 36"

7.4.1.1 See 30.2.4.4 and 42.2.41

7.8 Egress Illumination shall be in accordance with this section.

7.9 Emergency Lighting shall be in accordance with this section.

7.10 Marking for means of egress shall comply with this section.

30.1.6 No minimum construction requirements

30.2.1.1 Means of Egress shall comply with Chapter 7 and Chapter 30

30.2.4.4 Single stair permitted from building given

- 4 stories
- Less than 4 units/floor
- Two exits from basement
- No distance from unit door to stair
- 2-hr rated stair
- Self-closing doors
- No corridors
- 1 hr rating between units

30.2.5	Common Path Limit:	50'
30.2.5.4.2	Dead-End Limit:	50'
30.2.6.2	Max Travel Distance within unit (sprinkled):	125'
30.2.6.3.2	Max Travel Distance from unit door to exit (sprinkled):	200'

30.3.4 Fire detection and alarm system shall comply with this section.

30.3.4.5 Smoke alarms shall be installed:

In every sleeping area

Outside every sleeping area

At least one on each level

30.3.5.2 Sprinkler system NFPA 13R permitted for four or fewer stories.

30.3.6.1.2 Corridor walls (sprinkled): ½ hour

30.3.7.2 Dwelling unit separation (sprinkled): ½ hour

42.1.6 No minimum construction requirements

42.2.4.1 Single means of egress allowed within common path of travel limit.

42.2.5 Dead End Corridor: 100'

Common Path of Travel: 100'

42.2.6 Maximum Travel Distance: 400'

42.2.3.2 Storage area walls and ceilings shall be Class A, Class V or Class C

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PROJECT NO.
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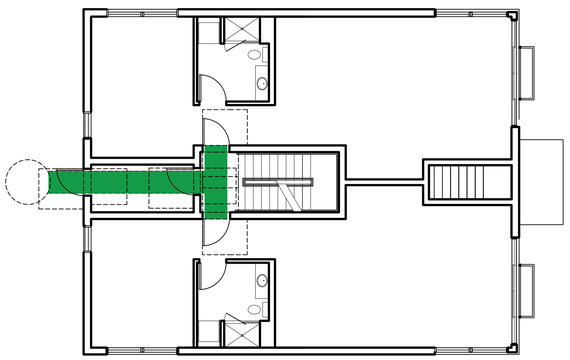
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CODE SUMMARY

ISSUE DATE
07/15/16

SHEET SCALE
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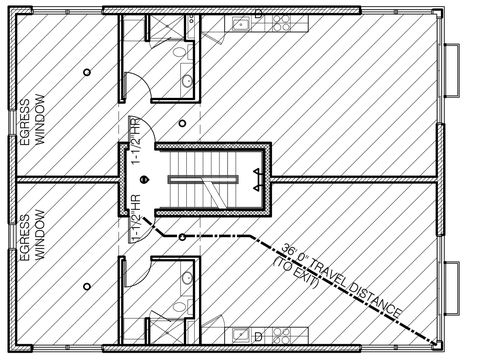
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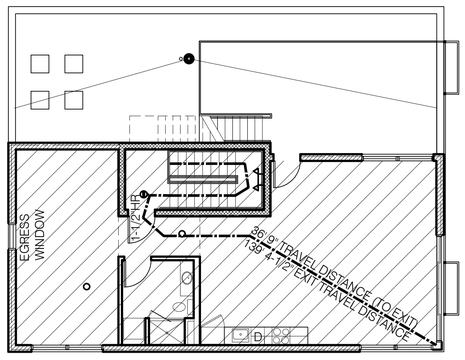
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KEY

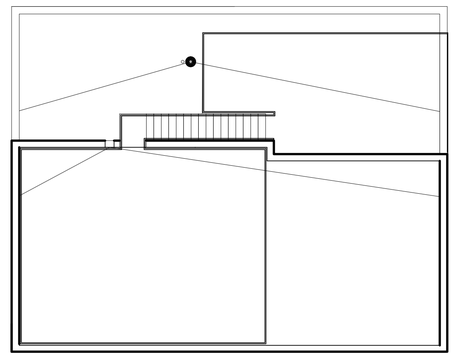
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- COMMON PATH (DISTANCE LABELED ON PATH)
- TRAVEL DISTANCE (DISTANCE LABELED ON PATH)
- SMOKE DETECTOR/ CO2 DETECTOR
- EMERGENCY LIGHTING
- FIRE EXTINGUISHER
- 1-HR RATED WALL ASSEMBLY
- 2-HR RATED WALL ASSEMBLY
- PROVIDE 1-HR RATED CEILING
- PROVIDE 2-HR RATED CEILING



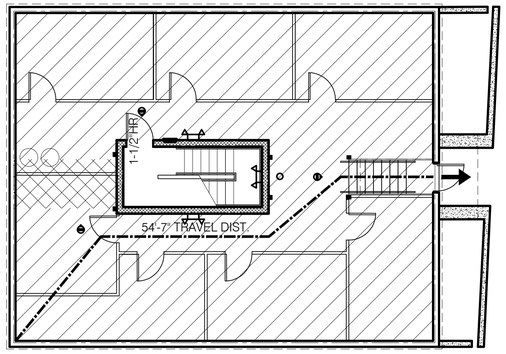
4 THIRD FLOOR
0 8'-0" SCALE: 1/8" = 1'-0"



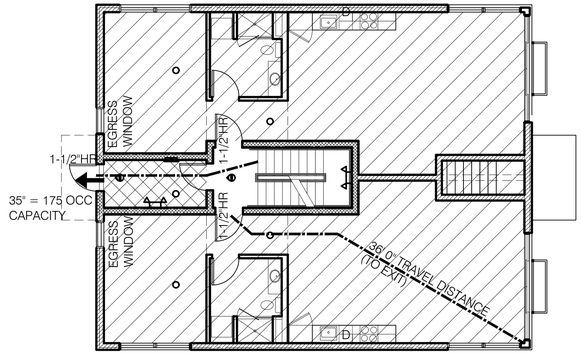
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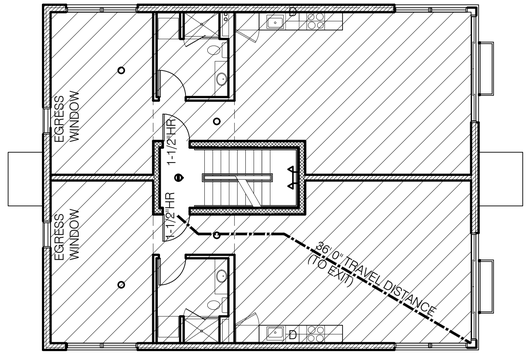
6 ROOF DECK
0 8'-0" SCALE: 1/8" = 1'-0"



1 BASEMENT
0 8'-0" SCALE: 1/8" = 1'-0"



2 FIRST FLOOR
0 8'-0" SCALE: 1/8" = 1'-0"



3 SECOND FLOOR
0 8'-0" SCALE: 1/8" = 1'-0"

Bild Architecture
PO Box 8235
Portland, ME
04104
207.408.0168
evan@bildarchitecture.com

bild ARCHITECTURE

PROJECT NO. 15018
PROJECT NAME MERRILL STREET - 7 UNIT PORTLAND, ME

REVISIONS
1 -
2 -
3 -
4 -
5 -

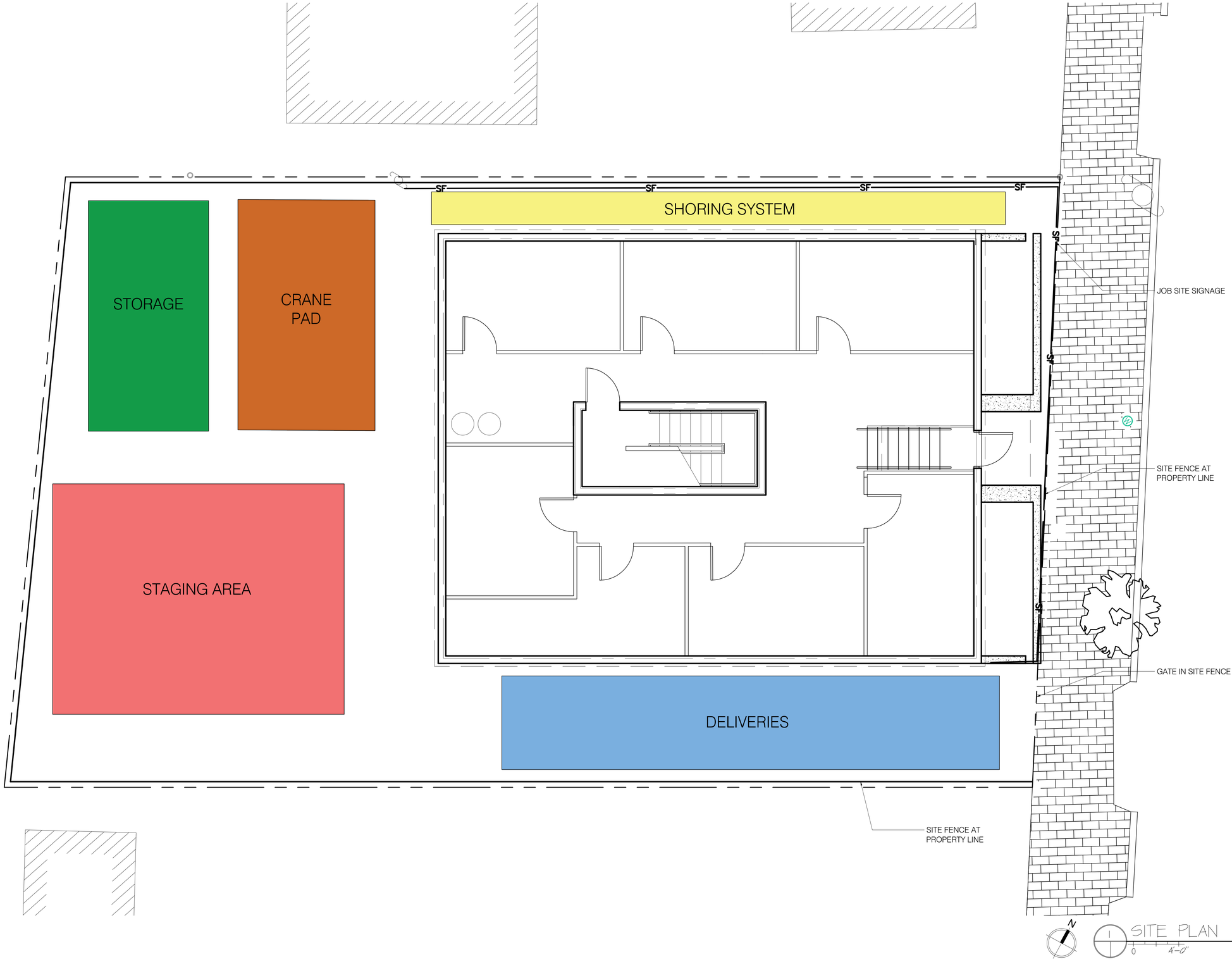
SITE APPLICATION
NOT FOR CONSTRUCTION

LIFE SAFTEY

ISSUE DATE 08/26/16
DRAWN BY EMW
SHEET SCALE 1/8" = 1'
SHEET TITLE

G

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SITE PLAN

0 4'-0" SCALE: 1/4" = 1'-0"

Bild Architecture
PO Box 8235
Portland, ME
04104
207.408.0168
evan@bildarchitecture.com

PROJECT NO.
15018

PROJECT NAME
MERRILL STREET
PORTLAND, ME

REVISIONS
1 -
2 -
3 -
4 -
5 -

SITE APPLICATION
NOT FOR CONSTRUCTION

CONSTRUCTION MANAGMENT

DRAWN BY
EMW

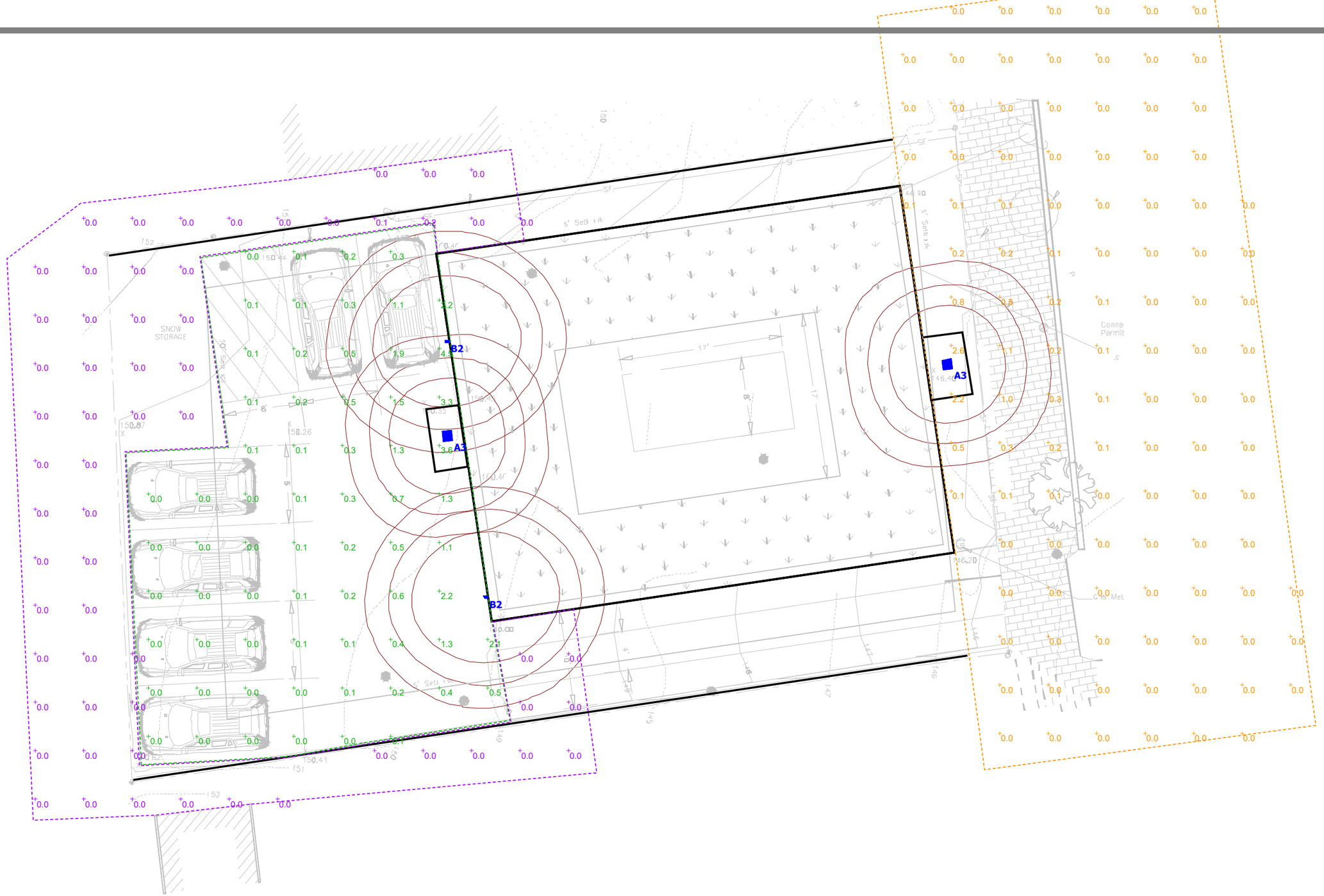
SHEET TITLE

ISSUE DATE
7/15/16

SHEET SCALE
1/4" = 1'-0"

CM

1.1



Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Front of Building	+	0.1 fc	2.6 fc	0.0 fc	N/A	N/A
Outside of Parking	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A
Parking Area	+	0.5 fc	4.5 fc	0.0 fc	N/A	N/A

Plan View
Scale - 1" = 10ft

Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A3	2	Brownlee Lighting	7171 8 B6LED 40K ES	Canopy Fixture; mounted at 7ft/7.5ft	LED	1	7171-C37LED-35K.ies	2961	0.17	9
	B2	2	JUNO LIGHTING GROUP, INC	MSL2-35K-UN-BZ	Mini Wall Pack; mounted at 8ft	LED	1	MSL2-35K-UN-XX Led (164CHI-001).IES	662.7201	0.9	11

VISUAL

30 MERRILL ST
Portland, ME
Parking Lot Lighting

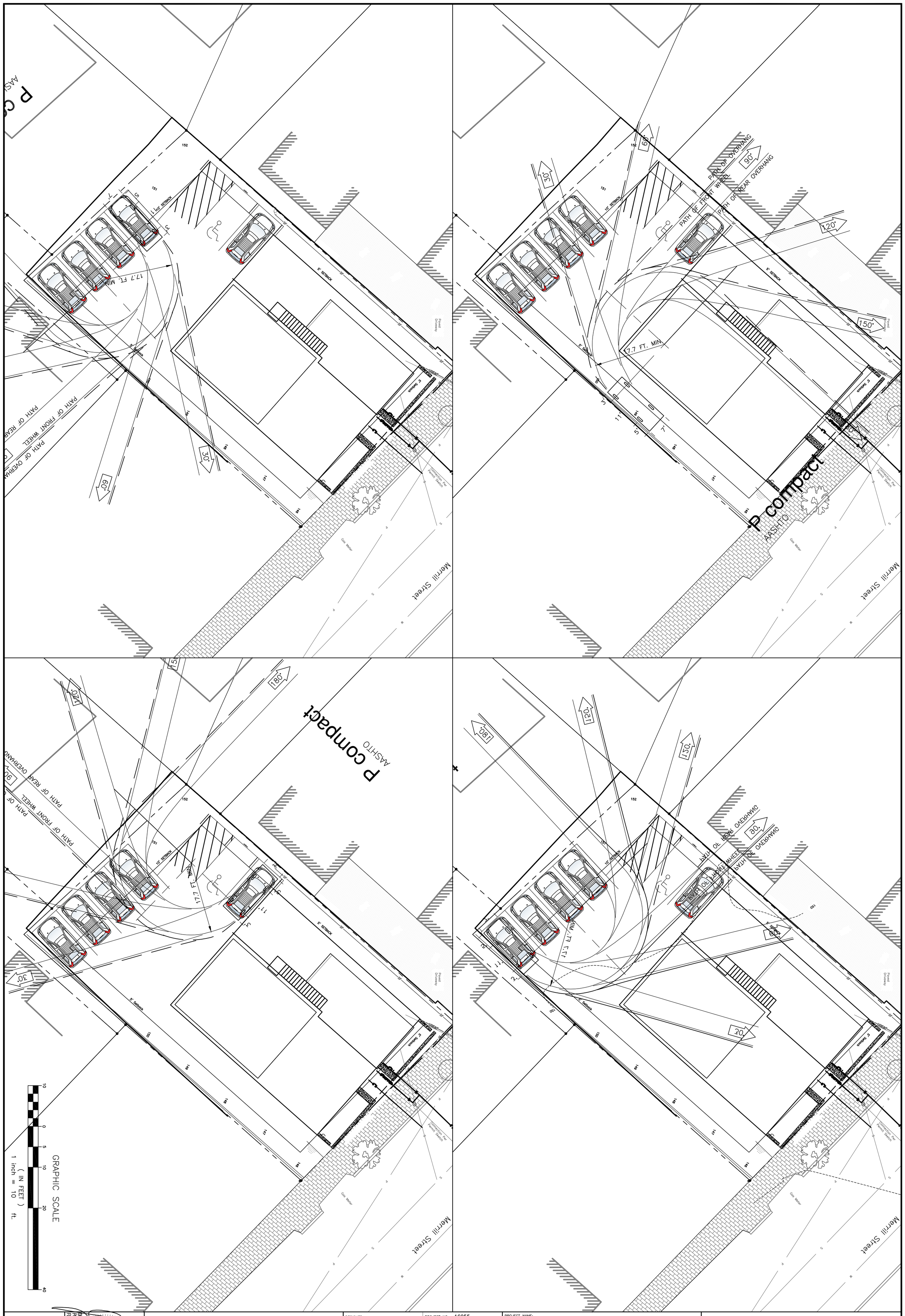
Designer
Heidi G. Connors
Visible Light, Inc.
24 Stickney Terrace
Suite 6
Hampton, NH 03842

Date
10/6/2016

Scale
Not to Scale

Drawing No.

Summary



C2

SHEET 1 OF 2

STATE OF MAINE
JOHN H. WHITTEN JR.
LICENSED PROFESSIONAL ENGINEER

DRAWINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION

Plymouth Engineering, Inc.

P.O. Box 46 30 Lower Detroit Road
Plymouth, Maine 04969
Tel: (207) 257-2071 Fax: (207) 257-2130
info@plymouthengineering.com
www.plymouthengineering.com

DESIGNED:	PROJECT NO. 16055
DRAWN:	DRAWING NO.
CHECKED:	FIELDBOOK:
APPROVED:	SCALE:
PLAN DATE:	DATE ISSUED:

CLIENT/RECORD OWNER:

BANNER PROPERTIES, LLC
126 UNDERWOOD ROAD
FALMOUTH, ME 04105

PROJECT NAME:

SEVEN-UNIT BUILDING
30 MERRILL STREET

PORTLAND MAINE

SHEET NAME:

TURNING TEMPLATES

REVISIONS

NO.	DATE	DESCRIPTION	DRAWN	APPD.

ERROR: syntaxerror
OFFENDING COMMAND: --nostringval--

STACK:

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()
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(D:20160826103057-04’00’)
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(PDFCreator Version 0.9.5)
/Creator
(D:20160826103057-04’00’)
/CreationDate
(Jon Whitten)
/Author
-mark-

Portland Maine Yes. Google's good here.

Helen Donaldson <hcd@portlandmaine.gov>

Fwd: 30 Merrill

2 messages

Philip DiPierro <pd@portlandmaine.gov> Mon, Aug 15, 2016 at 10:47 AM
To: "Donaldson, Helen" <hcd@portlandmaine.gov>, "Barhydt, Barbara" <bab@portlandmaine.gov>

FYI.....

Philip DiPierro
Development Review Coordinator
City of Portland Planning Division
389 Congress Street
Portland, Maine 04101

Phone 207 874-8632
Fax 207 756-8258

---------- Forwarded message ----------
From: **Allyson Jordan** <eatlocalfish@me.com>
Date: Mon, Aug 15, 2016 at 10:26 AM
Subject: 30 Merrill
To: evan@bildarchitecture.com
Cc: Philip DiPierro <PD@portlandmaine.gov>

I am writing to not support this project on 30 Merrill Street. I live on Quebec and have spent the entire summer dealing with construction of a monster, flat roof 2 unit the is obnoxious and is taking 2 parking spots off the street…. People are flocking here for the charm- and with building all of these modern, multi- units we are loosing the charm and parking on the hill. Even though they provide parking where are there guest going to park? This is going to turn out like Charlestown or Southie before you know it- and the price will plummet and it will be ghetto.

How about making it smaller and quaint and worth more money then bringing in 7 units to what use to be a 2- unit..

Allyson Jordan
Quebec Street

Barbara Barhydt <bab@portlandmaine.gov> Mon, Aug 15, 2016 at 11:47 AM
To: "Donaldson, Helen" <hcd@portlandmaine.gov>

Barbara Barhydt
Development Review Services Manager
Planning Division
389 Congress Street 4th Floor
Portland, ME 04101
(207) 874-8699
Fax: (207) 756-8256
bab@portlandmaine.gov
[Quoted text hidden]

Bruce Davis
45 Quebec Street, Portland Maine 04201

Planning Board
Portland, Maine

September 10, 2016

To whom it may concern:

I am an owner-occupant at my property at 45 Quebec Street, an abutter to the proposed multi-family project for 30 Merrill Street, and I attended the public meeting held by architect Evan Carroll and developer Michael Boissoneau on August 15th at East End School. As a neighbor I consider myself a significant stake-holder in how new development affects the fabric of the much-valued community that currently exists in the East End. I am in no way opposed to new development or appropriate changes to the existing fabric of the neighborhood. As a stake-holder I am sensitive to architectural interventions' potential to add value to the context of the existing neighborhood, or conversely to potentially work against making the neighborhood even better.

My impressions from attending the public meeting on August 15th are not entirely reflected in the notes provided by the presenters as part of the public record. I heard numerous comments from attendees about the project as presented not being respectful of the existing fabric and context of the neighborhood, and no comments in favor of the presented architectural renderings for use at this site. Comments from the record included:

> "It's a big square ugly block", "This is an embarrassment to the neighborhood with no context. Its cheap looking and unimaginable.", "Can tell EC and MB are passionate about the project, just wish it would be put to good use.", " I appreciate the design, just not in this location.", "just wished the project had more respect for the neighborhood."

There were further negative comments, the discussion became quite heated and Mr Carroll ended up stopping discussion of aesthetics, contextuality and respecting neighborhood fabric. Mr Carroll then asked for other areas for comment only, stating that he takes his design efforts very seriously and he made it clear that attendee comments were personally difficult for him. I believe that comments were terminated preliminarily, and this gives me concern that this permitting/planning process may not fully allow meaningful community input.

Mr Carroll did report that early comments from Planning staff had asked for more contextualism (not reflected in the minutes), and he stated that he planned to address such concerns in subsequent design presentations to the Planning Board. I have since reviewed the architect's resubmittal that Helen Donaldson has sent to me, and I do not perceive any significant changes to allow the project to fit in with its neighbors more successfully. I again raise concerns whether community concerns may go unheeded.

My personal concerns about the project are entirely about what kind of neighbor this property will be on Merrill Street and beyond. I don't have any issues with the scope or scale of the property or creating greater density at this site - those are broader Portland Planning goals that I support. I am fine with the building's massing. The almost complete lack of contextual elements as presented in the preliminary AND revised renderings are my biggest concern: the vertical balcony elements that Mr Carroll states in his Design Standards Assessment as "stacked and articulated to pay homage to the traditional bay window" entirely unconvincing from reviewing his renderings. Similarly, the standing-seam cladding is a material alien to the streetscape, and the scale of the cladding elements is out-of-scale with local materials, so that his argument that the horizontality of the cladding makes it appear contextual is unconvincing as well.

In order to actually be contextual, I believe the siding should be actual clapboard or shingle elements - abstract “homages” that are not evident to a room full of neighbors viewing the renderings are not meeting criteria for being contextual. Similarly, the fenestration is also entirely out of synch with residential architecture on the Hill, as the renderings made evident. Abstract language attempting to substantiate contextualism needs to be evident to real people who live on the street and the city.

This project seems to fit the cliche of a "box that dropped out of the sky" – the opposite of contextual. Mr Carroll made a strong argument for new construction in Portland to be forward-looking, with which I agree. I would never say additions to the neighborhood need to look like they were always there, however Mr Boissoneau stated in the meeting that context is subjective, to which I replied it can also be objectively assessed, which is what I am advocating for here. The proposed project does not appear to be trying to be contextual. There are numerous examples on the Hill of new construction that is both forward-looking and contextual. To suggest that this project is one of them would be disingenuous. Mr Boissoneau stated that “We want the neighborhood to be accepting of it” (the design). I question why the essentially same design was resubmitted if this is the intent.

Mr Carroll lists “ingenuity, thoughtfulness, empathy” on his logo/letterhead, however I do not believe his responses thus far to public comment give evidence of sincere efforts to adapt to neighbors’ concerns. I do not understand how Mr Carroll can state at the public meeting that he intends to address Planning staff and meeting attendees’ concerns about contextualism, and then resubmit his design without substantive changes to address these.

As a neighbor and stake-holder who cares deeply about the future of my neighborhood, I expect to remain involved with the existing process for this and future additions to our great neighborhood. I am hoping that the involvement of stakeholders like myself has potential to positively influence how this proposed project contributes to our neighbor and great city.

Respectfully submitted,

Bruce Davis

Portland Maine Yes. Google's good here.

Helen Donaldson <hcd@portlandmaine.gov>

revised submittals for 30 Merrill Street

Katy Harkleroad <katyharkleroad@yahoo.com> Tue, Sep 20, 2016 at 9:23 PM
Reply-To: Katy Harkleroad <katyharkleroad@yahoo.com>
To: Helen Donaldson <hcd@portlandmaine.gov>
Cc: "donhead66@gmail.com" <donhead66@gmail.com>, "czand@meca.edu" <czand@meca.edu>, "elizabethspenceradams@gmail.com" <elizabethspenceradams@gmail.com>, "petersaylesadams@gmail.com" <petersaylesadams@gmail.com>, "sharonmcgauley@gmail.com" <sharonmcgauley@gmail.com>, "eastendpropertymgmt@gmail.com" <eastendpropertymgmt@gmail.com>, Bruce Davis <bruce.davis21@yahoo.com>

Hi Helen,

My name is Katy Harkleroad. I would also like to submit a letter to the planning board regarding the proposed project at 30 Merrill Street. Like my neighbor, Bruce Davis, I am also copying this email to those who included their email addresses on the community meeting sign-in. Please let me know if I should send my letter to someone/anyone else. I would appreciate being notified of any further public meetings.

Best,
Katy Harkleroad
47 Howard Street

Katy and Ryan Harkleroad
47 Howard Street, Portland, ME 04101

September 20, 2016

To whom it may concern,

My name is Katy Harkleroad. My husband, Ryan, and I own our home on 47 Howard Street. On August 15 we attended the public meeting held for the project at 30 Merrill Street. It was a rather disappointing meeting, where many of us who were concerned with the project's proposed exterior were cut short from voicing all of our concerns. Since that meeting I've been wanting to write and express to the Portland City Planning Board some of those concerns. I wasn't sure whom to write until I received the CC'ed email from Bruce Davis at 45 Quebec Street. As it turns out, Bruce succinctly and accurately summed up all of my husband's and my concerns. I do not want to completely repeat what Bruce said, but I DO want the planning board to know that there are more neighbors who are equally concerned about the 30 Merrill Street building project.

Our concerns are as follows:

1. We want the exterior of the condos at 30 Merrill fits in with the "charm" of the rest of the Munjoy Hill neighborhood. (And for the record, when I say "fit in," I mean *to blend in, to conform to, or to be in harmony with.* When pressed for his definition of "fit in," project developer, Michael Boissoneau, didn't use any of those words, but rather thought that "fitting in" meant to enhance a place. Enhancement is great but it's not a substitute for harmonizing.) My husband and I completely agree with Bruce Davis that for the 30 Merrill Street project to fit in, the exterior cladding of the condos needs to have traditional elements, be that color, material, and/or design.

2. We want current and future developers/builders be required to have building designs that stay within a traditional aesthetic context, in order to maintain the charm that attracts so many people to the neighborhood. At the public meeting, architect Evan Carroll argued that we always need to be moving forward with our thinking and design. While I don't disagree with him, I don't believe that to move forward means that we must forget the past. I also think that creating aesthetic harmony in a neighborhood *is* forward-thinking, even if it means the structures being built aren't the most modern designs possible.

3. We want the neighborhood residents' voices to be heard by the city planning board. It currently seems that, while residents are informed of impending building projects, there is not much they (we) can do accomplish any changes, should those projects have significant negative outcomes for the neighborhood. (And, in case we weren't clear, we believe that the current design for the condos at 30 Merrill St. will negatively impact the neighborhood by changing the block's aesthetic charm.)
4. We are worried that the 30 Merrill Street project as currently proposed will set a precedent of allowing development with no contextual relation to the neighborhood. The Cumberland Avenue, North Street, Quebec Street, and Howard Street blocks of Munjoy

Hill are poised for a significant amount of redevelopment in the near future. We know of several existing multi-unit rentals currently for sale in this area, as well as several that have been recently sold. Not having seen proposals for all of these properties, we can only guess that multi-unit condos will be the plan for nearly all of these properties. Never mind that this sort of development will be removing 10-20+ affordable rental units and replacing them with condos (that's the subject of another important conversation). The issue at hand is that the approval of projects such as 30 Merrill Street will set a precedent for how properties are developed on Munjoy Hill:

-Buildings with little to no contextualism;
-Development designs meant to maximum space for minimum costs and without regards to aesthetics;
-Lack of meaningful dialogue between developers and community members.

We are writing this letter because we care a great deal about the Munjoy Hill neighborhood. We want to see it progress, but without losing sight of its roots. The neighborhood appears to be rapidly approaching a tipping point as to the type of neighborhood it will become for the foreseeable future. In our opinion, it would be tragic for it to lose its classic charm for the sake of insensitive development.

Please continue to include us as part of the ongoing permitting process involving the 30 Merrill Street project.

Sincerely,
Katy and Ryan Harkleroad
[Quoted text hidden]

Portland Maine | Yes. Google's good here.

Helen Donaldson <hcd@portlandmaine.gov>

revised submittals for 30 Merrill Street

Bruce Davis <bruce.davis21@yahoo.com> Wed, Sep 21, 2016 at 5:27 PM
Reply-To: Bruce Davis <bruce.davis21@yahoo.com>
To: Helen Donaldson <hcd@portlandmaine.gov>
Cc: Katy Harkleroad <katyharkleroad@yahoo.com>, Alice Shea <alice.shea@gmail.com>

Hi Nell,

Thank you for sending these renderings to me. From my perusal it appears the siding has changed from 12" coursing to 8" coursing, a slight improvement. Not clear whether the material is still standing seam metal or a more common residential siding material. Also good that the center section is similar coursed material.

The 'nod' to bay windows is awkward and they simply do not read as bays in any way to me. I have avoided suggesting specific alternatives so far, but actual bays would make a huge difference. While I understand the developer wants to contain costs, some additional expense may need to allocated to become a contributing element in this neighborhood. Additionally, there is no fenestration on the street that relates to this project, thus neighbors' concerns that it seems alien to the streetscape.

I do not think this is nearly enough progress, and it does not yet feel like a good-faith effort on the developer's part at this point.

Further, based on Mr Carroll's comments at the neighborhood meeting, I am not convinced that style isn't driving the proposed project's aesthetic more than financial considerations of providing some architectural detail.

Please keep me apprised of any updates, and I look forward to attending the upcoming Planning Board meeting(s).

Thank you, Bruce Davis

207 756-0185

From: Helen Donaldson <hcd@portlandmaine.gov>
To: Bruce Davis <bruce.davis21@yahoo.com>
Sent: Wednesday, September 21, 2016 11:25 AM
Subject: Re: revised submittals for 30 Merrill Street

[Quoted text hidden]

Notice: Under Maine law, documents - including e-mails - in the possession of public officials or city employees about government business may be classified as public records. There are very few exceptions. As a result, please be advised that what is written in an e-mail could be released to the public and/or the media if requested.

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3 attachments

A2.3-RENDERINGS.pdf
354K

A2.4-RENDERINGS.pdf
272K

A2.5-RENDERINGS.pdf
260K

Elizabeth Spencer Adams
49 Merrill Street
Portland, ME 04101

Planning Board
Planning and Urban Development Department
Planning Division
City of Portland
389 Congress St
Portland, ME 04101

Re: 30 Merrill Street

October 4, 2016

To the Members of the Planning Board and Planning Division Staff:

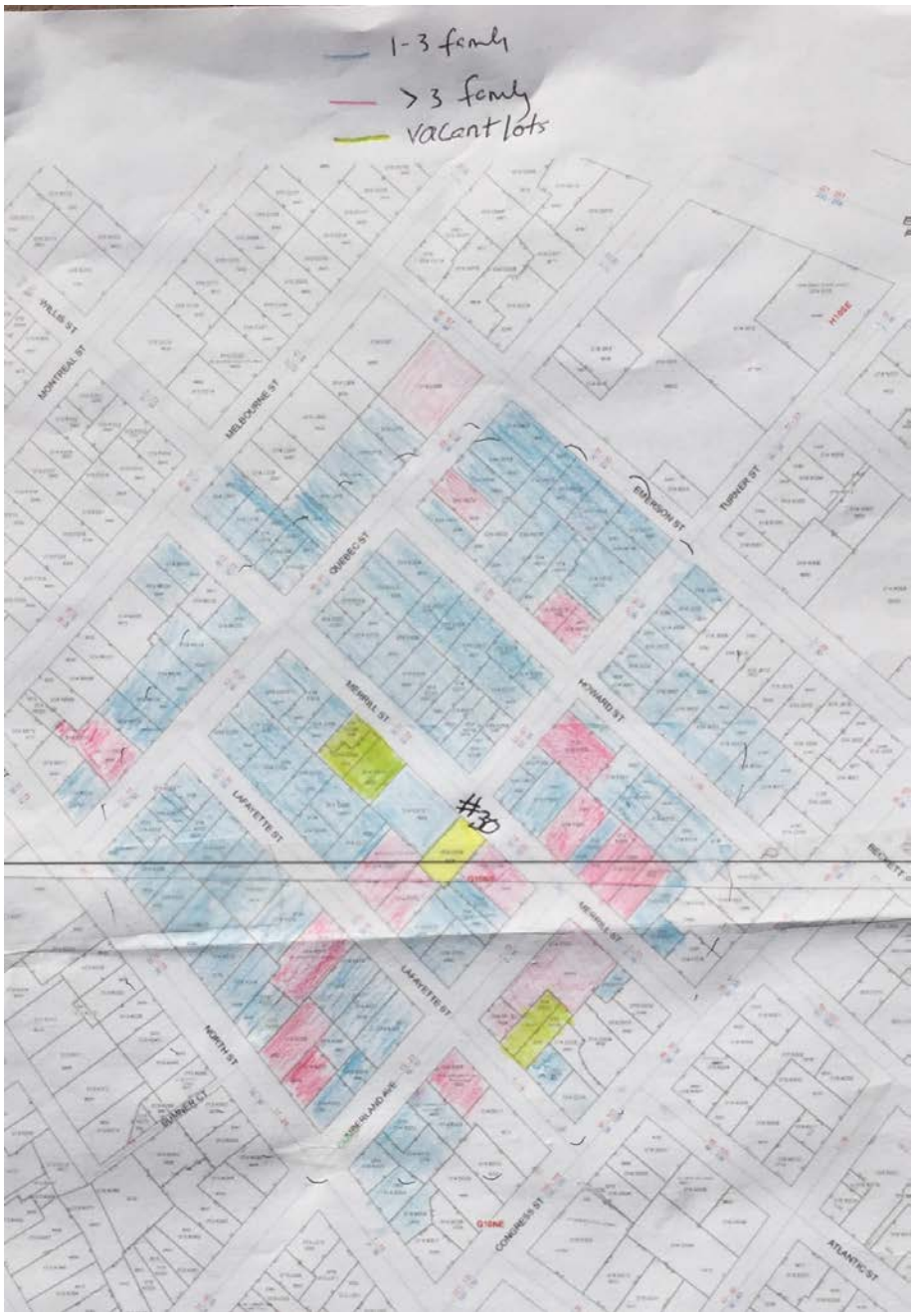
My husband Peter and I live at 49 Merrill Street. We also own a two-family house at 51 Merrill and an empty lot across from our house at 46 Merrill. We attended the neighborhood meeting and I have met with Helen Donaldson who very kindly helped me to better understand the review process. The following are my concerns, the first one an overarching concern and the others relating to specific aspects of the proposed design.

<u>Increased R-6 density means large buildings in neighborhoods of smaller homes. The Board must carefully consider the Design Guidelines in this situation to preserve the character of our neighborhoods.</u>

My overarching concern is the immediate and cumulative effect of allowing construction of large infill buildings that fail to respect the architectural details of the neighborhood. Munjoy Hill is an extremely important neighborhood to the city, drawing a wonderfully diverse

group of residents and providing an excellent tax base. The Hill, and Merrill Street in particular, are susceptible, however, to irrevocably losing their character given the number of empty lots, tear-downs, and smaller homes that seem likely headed for tear-down in the not distant future. The strong profit motive to capitalize on the new infill regulations by constructing the maximum number of units at the lowest possible price appears to be irresistible. The Planning Board needs to step up and be sure that an unintended consequence of the R-6 infill regulations is not a proliferation of maximum size/minimum cost buildings that are totally alien to the design elements of the neighborhood. It may not be the tear down of Union Station, but it will be a real shame for us and for the city if unrestrained R-6 infill destroys our neighborhood.

I would to emphasize the fact that 30 Merrill sits at the boundary between the large apartment buildings to the south and the small residences to the north. To the south of 30 Merrill (towards Congress) are a few small residences plus two 5–10 family buildings and one 10-20 family building. Around the corner on Cumberland are several more large apartment buildings. At present, Merrill Street from Cumberland Avenue north (towards Melborne Street) consists of 9 single-family homes, 4 two-family homes, 2 three-family homes, 2 vacant lots and 1 office/business building. Most are older buildings and the few new ones preserve the architectural flavor of the neighborhood. The map below shows the size of the buildings in the nearby neighborhood and demonstrates the demarcation between the large apartment buildings to the south and the small residences to the north.



The architect and developer consistently ask the Planning Division to look south towards the large buildings for its claimed support for the design. They make no mention of the rest of the neighborhood except to mistakenly refer to the doublewide triple deckers "that exist throughout the neighborhood." They do not. It is critical that these new large infill structures are sympathetic to the entire neighborhood, not just those structures that are purportedly similar on just one end of the street. And it is important to recognize that if the Board relies just on the

design elements of the large buildings to the south towards Congress Street, the next R6 infill project on the street may do the same, and the next and the next, with a potential domino effect that overwhelms the neighborhood with large insensitively designed buildings.

<u>The proposed project fails to consider the "overall context" of the neighborhood</u>

This building does not in any recognizable way reinforce positive features of the surrounding area. Within the block the unique identity of the large buildings to the south are their bays and cornices and mansard roofs, to the north, for the smaller residence are their gable ends, their bays, window shapes and emphasized entrances. It is not impossible to design a larger building that is sympathetic to an existing neighborhood of smaller residences. An excellent example is the new 5-family building at 72 Munjoy Street. Although it is the largest building on the street it, it does not overwhelm the neighborhood; rather, it adopts numerous of the existing characteristics of its neighborhood and employs them in its design.



72 Munjoy Street

Furthermore, contemporary architecture is not anathema to the neighborhood. 39 Lafayette a beautifully designed single family home that at 1360 sq. feet is roughly 1/5th the size of the proposed structure.



39 Lafayette Street

39 Lafayette incorporates the window dimensions of neighboring buildings, has a strongly recessed entry with steps, and is clad in horizontal material evoking the clapboard found throughout the neighborhood. The excellent design and small scale of 39 Lafayette makes it an interesting and respectful counterpoint to the older architecture in the neighborhood. The proposed design for 30 Merrill is 5 times larger than 39 Lafayette and will loom over the neighboring houses to the north. Because of its size it will have a very significant impact on the neighborhood making it imperative that its design embrace the context of the neighborhood, reinforcing its positive features and demonstrating compatibility with the nearby buildings. This is not to suggest that blowing 39 Lafayette up to five times its size would be an appropriate design for 30 Merrill. I am pointing out that contemporary design is not the problem. Non-contextual design is the problem.

Lack of Articulation

As for the balconies that the architect relies on heavily to satisfy the B-5 façade articulation standard (this because no other of the architectural elements of facade articulation exist: no gables or dormers, no recessed entry, no bay windows, and surely the small awning over the entry does not constitute a "covering"), the railings across the sliding doors used as windows do not in any way read as balconies and if they are also designed "pay homage to the traditional bay window," (a two'fer? balcony and bay?) they have missed the mark by a long shot. And does not Standard D-3 state that balconies must be a minimum of 6 feet in depth? What is presented to the Board as a balcony (or bay) in an attempt to satisfy the facade articulation standard in fact neither actually articulates the building nor does it create an impression of articulation. The most recent iteration has created an indentation running from the ground to the 3rd floor along the vertical line above the "front door." Although it is an improvement to my eye, it is inadequate to satisfy the articulation standard.

Recent contemporary apartment buildings and condominiums developed in Portland in commercial areas have more architectural detail than the current 30 Merrill design. The Redfern development at 89-91 Anderson is one example, with real balconies, a true recessed front door above ground level, and significant "in and out" of the façade.



89 – 91 Anderson Street
The Avesta building at 409 Cumberland, presumably built with minimizing cost forefront in the mind of the developer, is superior in articulation to the 30 Merrill design. And this building sits in a neighborhood of other very large square commercial buildings.


409 Congress Street

<u>Massing and Roofing</u>

Most definitely, when considering design, size matters. The bigger the project, the bigger the impact of the design, the bigger the effect on the neighborhood. The architect argues that the proposed building has massing and roofing much like the double-wide triple decker buildings "that exist throughout the neighborhood." I believe he is referring to the three large multi-families towards Congress Street on Merrill and the several nearby on Cumberland Ave. Otherwise, I can find no double-wide triple deckers in a 2-block radius. There are a few two-entrance buildings, but no double wide triple deckers which seems reasonably interpreted to mean this:



And, of these nearby early 1900's multi-family buildings that might possibly be described as a double-wide triple decker, those that have flat roofs all have substantial bay windows and a large cornice created by the protrusion of the bays giving them significant articulation. The others have attractive mansard roofs creating harmony with a number of smaller mansard houses in the neighborhood and making the 3rd floor part of the roofline, thereby lowering the impression of the height of the building. The large boxy 4-story shape of the proposed 30 Merrill building has nothing in common with these earlier buildings other than size. And notably**,** again, these are all to the south, towards Congress street and most definitely not "throughout the neighborhood." Perhaps the architect is referring to the new construction at 33 Lafayette that he designed. However, I don't think anyone would refer to that as a "traditional double-wide style."

The "Front Door "Is Not a Real Front Door

Design Standard C-1 states: "Emphasize and orient the main entrance to the street." The 30 Merrill design includes a minimally-enhanced "main entrance," which we learned at the neighborhood meeting is not a main entrance at all. In fact, it is an entrance to the basement that contains only storage areas for the units. It seems to be the argument that so long as it looks like a main entrance that is enough. It is not. There is a rationale behind this design standard that has been well articulated by numerous urban designers (Jan Gehl , Cities for Real People; Jane Jacobs, The Death and Life of Great American Cities; Christopher Alexander, A Pattern Language), planners and articulated in municipal standards. The rationales relate to the life of the street, community, walkability, and the safety of the inhabitants and passersby.

The interaction between people living on and walking along a street happens at the front door and in the "transition space" between the sidewalk and the door. People pause at the front door to find their keys and someone walking by says hello. A conversation starts and they linger chatting for a few minutes, community begins to form and street life is enhanced. In the proposed design, the residents will use the front door only for storage purposes, occasionally putting a bike in or out a few months of the year, pulling out the snow tires, grabbing skis for a weekend trip. This is not the 2, 3, 4, 5 times a day in and out of a

building to go to work, run for groceries, make a trip to the gym, etc. that happens from the true main entrance to a building. Instead, they will enter the building at the back, unseen by passersby, a much less safe proposition, and much less likely to result in contact with the neighborhood. And will they linger at the sidewalk? Not if they are already in their car, of course, and even if on foot, they will have already begun their walk to wherever they are going and are not in a transition space and are far less likely to pause. Jane Jacobs explains that

> A central challenge of [a] city, therefore, is to make its inhabitants feel safe, secure, and socially integrated in the midst of an overwhelming volume of rotating strangers. The healthy sidewalk is a critical mechanism for achieving these ends, given its role in preventing crime and facilitating contact with others.

.

Standard C-1 requires that the main entrance either be at the front of the building or on a covered porch to the side that extends all the way to the front of the building. It makes a mockery of this design standard to interpret it to mean that something that looks like a front door is good enough. It also fails to add to the city's goal of walkability and health. Sam Newburg in his 2014 article "Front Doors and Walkable Cities" writes:

> A city that is genuinely trying to be walkable must not only build public infrastructure that truly prioritizes the pedestrian, not just accommodates them, but also has buildings that relate well to those streets, and therefore front doors are very important. In a perfect world, a common sense approach would suffice; if the developer, architect and planning commission agree they'd be comfortable walking in and out of that door every day, then it is probably good enough.

The current design cannot even attempt to pass the test of "be[ing] comfortable walking in and out of that door every day" because it is not actually a main entrance that one will walk in and out of on any regular basis. That it might be dressed up to look like a main entrance is most definitely not good enough.

Finally, on this point of where the true main entrance is sited, the requested waiver for a narrowed driveway aisle makes stopping to visit even less likely for a resident who must take care not to be hit by a fellow resident turning into or coming out of the driveway. Many design standards require a full walkway in the event that an entrance to a building is at the back so people coming and going are not walking along a driveway. Not having a walkway is bad enough; narrowing the driveway is clearly unsafe.

Street Level Front Door

There is absolutely no precedent for street level front doors in residential buildings on Merrill Street. And the examples cited by the architect are all buildings that have attractive primary entrances on the side. The street level doors on the buildings he refers to are basement doors and they look like it.







Windows

One of the reasons the building looks so out of place in the rendering is the size and horizontal effect of the front windows. The windows are in fact two sets of sliding doors put together and the net effect is a window of 11'10"H x 6'9 ¾"W, most definitely horizontal in effect. Again, there is nothing like this on Merrill Street. This design fails to recognize and be responsive to the patterns and characteristics of the buildings of the neighborhood. In addition, it ignores the design standard relating to windows (D-1), which states that the majority of windows shall be vertically proportioned, and encourages classic proportions. These grouped sliding doors are neither. In addition, it is startling to see first floor windows of this size. They would be appropriate for a commercial space, but despite being 48" from the ground are not in keeping with a first floor living space and again fails to find any sympathy with the predominant design features of the neighborhood. Where such large windows do exist on Congress Street they are all office and retail spaces, not residential.

In summary, given the very significant impact of this building on the neighborhood, it is vitally important that great care and time be given to assuring that the building meet all the applicable design principals and standards. It is a disappointment that there was no pubic workshop to allow for a more cooperative approach to the challenges presented by this design. It is incumbent on the Board to proceed carefully as it

develops a thoughtful and fair approach to allowing R-6 infill while protecting the neighborhoods where this development will occur.

Thank you for your consideration.

Elizabeth (Lisa) Adams
49 Merrill Street

Additional signatories:

Peter Adams
49 Merrill Street

Carolyn Swartz
27 Merrill Street

Wayne Valzania
27 Merrill Street

Britt Knowlton
43 Merrill Street

Stephanie Doyle
43 Merrill Street

Teo Doyle
43 Merrill Street

Tim Adams
38 Howard Street

Birch Hincks
38 Howard Street

cc: Evan Carroll

Carolyn Swartz and Wayne Valzania
27 Merrill Street
Portland, ME 04101
and
28 East 10th Street 8D
NYC 10003

Planning Board
Planning and Urban Development Department
City of Portland
389 Congress St
Portland, ME 04101

Re: 30 Merrill Street October 5, 2016

To the Members of the Planning Board and Planning Division Staff:

One of the big challenges in the jarring, unbalanced design for proposed development of 30 Merrill is that you can't measure the value of a neighborhood's character in dollars and cents.

And dollars and cents appear to be the only measure driving this tired, corner-cutting design.

This design reminds me of what the Berliners scornfully refer to as *plattenbau* (flat-build) construction. Just after World War II, the communist government – short of funds – had to scramble to create housing to replace hundreds, if not thousands, of buildings destroyed by bombs. The only criteria were fast and cheap, i.e. as many units as could be crammed into a single block. The buildings had no contour, no character, no pleasing detail. They were human warehouses: as many units as could be crammed into a single block. With Reunification, much effort has gone into remediation, adding contour and character to these structures. The city of Berlin recognizes that people were not meant to live in—or look out at– faceless boxes.

Back to the architect's justification of this particular faceless box. A few thoughts:

A metal bar "pays homage" to the neighborhood's bay windows? Let's be precise about language. Here, the same could be said about using glass.

Perhaps he thinks the “front door” pays homage to the stoops and steps that lead to welcoming entrances all over the hill. After all, it no doubt opens and closes to allow a person to pass through it.

The jolt of white that bisects the building vertically: I’m not sure what that pays homage to, since nowhere on Munjoy Hill is there precedent for this kind of color contrast. Perhaps the architect feels the white pays homage to the clouds.

Now let’s pay homage to safety. What kind of floodlights will be necessary to illuminate a rear or side entrance? And what impact will this have on the look and feel of the neighborhood at night?

Granted, esthetics are by nature subjective. But there is nothing subjective in the assertion that this design demonstrates zero sensibility for how life is lived - and has been lived for at least a century and a half – in the neighborhood of Munjoy Hill.

Finally, I’d like to note that not one of the Munjoy Hill homeowners or residents opposed to this design is against new development and changes in aesthetics resulting from new materials, advancing technologies and changing preferences and needs. Neither is anyone advocating against the expansion of the community.

By general consensus, however, this particular design is off the charts: both functionally and esthetically. I hope the Planning Board will send the designer back to the drawing board, and the developers see the value – to their future bottom line – in preserving the character of the neighborhood with more sensitivity and sophistication than is implied by this design.

Thank you,



Carolyn Swartz

WAYNE VALZANIA

27 Merrill Street
Portland, Maine 04101
207.274.4918

Planning Board
Planning and Urban Development Department
City of Portland
389 Congress St
Portland, ME 04101

October 6, 2016

Re: 30 Merrill Street

Members of the Planning Board,

I am writing to express concern with the proposed development of 30 Merrill Street and the impact that it will have on our neighborhood. Further, I am concerned with the overall disregard of the East End of Portland, particularly Munjoy Hill, as an area worthy of some level of forethought and preservation.

The 30 Merrill project is just the latest in a series of buildings, proposed and built, with no sense of the local flavor that makes "The Hill" an important part of Portland, both historically and in the present. Thankfully, there is an atmosphere here that is the result of homeowners who care about the neighborhood, who interact with one another, and who enhance and maintain their properties for the betterment of everyone living nearby. In short, this is a vibrant community of neighbors. My wife and I are embark on the restoration of a period home directly across the street from the proposed industrial looking complex at 30 Merrill. I am disturbed to imagine that what we will see as we walk down the steps from our front door (past what we envision as a lovingly landscaped front yard) is the back, storage room door of a gargantuan monolith (with a few horizontal and vertical slashes oddly justified as *design* features.)

To qualify my opinion, I am a master craftsman, a millwright, a restoration advocate and practitioner, and minimally, a resident with an aesthetic sense, aware of what proliferation of big-box residential development does to a neighborhood. As a builder, I also know that what is rendered on paper, is the best a proposed building will ever look, and that the reality, after ten years of aging, will be far less than the pristine drawing with well heeled people on the sidewalks, with trees that don't exist, next door to houses that have nothing in common with the proposed "high rise" developers dream.

To be clear, I understand and agree with the need for higher density housing, and realize that the future will see a change in the neighborhood. But that change must be for the better not the worse.

This is an important time for Portland. The hill, in particular, has been discovered and it is desirable. Because it not an area not of distinguished architecture in mansions and stately brick homes makes it no less worthy of memory and preservation with respect for the history and feel of the neighborhood.

I implore the Board to honor their responsibility to preserving the integrity of all of Portland's neighborhoods, whether its homes were built by wealthy merchants or humble fisher folk.

Growth requires forethought and direction. Please consider the future of the city as well as us who chose Munjoy Hill for a reason, and are working to make it a better place to live.

Thank you for considering my opinion,



Wayne Valzania MS CPM
Red Hook Design LLC
Brooklyn, NY - Portland, ME
860.248.5670 - 207.274.4918
RedHookDesignAlliance.com

Thank You,

Wayne Valzania
Red Hook Design Alliance LLC
182 Halleck Street Studio #8
Brooklyn, NY 11231
860-248-5670
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www.RedHookDesignAlliance.com

Elizabeth Spencer Adams
49 Merrill Street
Portland, ME 04101

Planning Board
Planning and Urban Development Department
Planning Division
City of Portland
389 Congress St
Portland, ME 04101

Re: 30 Merrill Street

October 4, 2016

To the Members of the Planning Board and Planning Division Staff:

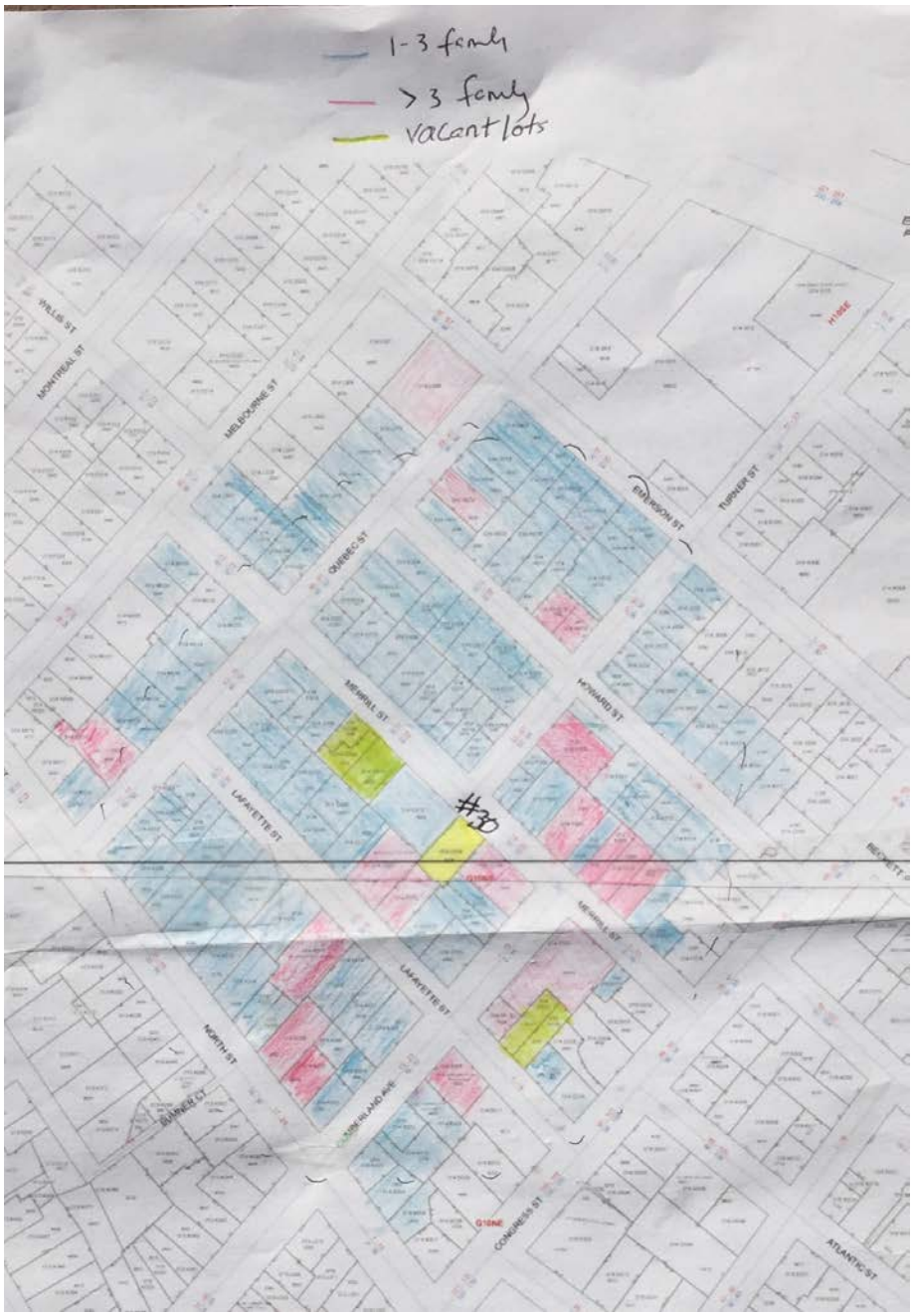
My husband Peter and I live at 49 Merrill Street. We also own a two-family house at 51 Merrill and an empty lot across from our house at 46 Merrill. We attended the neighborhood meeting and I have met with Helen Donaldson who very kindly helped me to better understand the review process. The following are my concerns, the first one an overarching concern and the others relating to specific aspects of the proposed design.

<u>Increased R-6 density means large buildings in neighborhoods of smaller homes. The Board must carefully consider the Design Guidelines in this situation to preserve the character of our neighborhoods.</u>

My overarching concern is the immediate and cumulative effect of allowing construction of large infill buildings that fail to respect the architectural details of the neighborhood. Munjoy Hill is an extremely important neighborhood to the city, drawing a wonderfully diverse

group of residents and providing an excellent tax base. The Hill, and Merrill Street in particular, are susceptible, however, to irrevocably losing their character given the number of empty lots, tear-downs, and smaller homes that seem likely headed for tear-down in the not distant future. The strong profit motive to capitalize on the new infill regulations by constructing the maximum number of units at the lowest possible price appears to be irresistible. The Planning Board needs to step up and be sure that an unintended consequence of the R-6 infill regulations is not a proliferation of maximum size/minimum cost buildings that are totally alien to the design elements of the neighborhood. It may not be the tear down of Union Station, but it will be a real shame for us and for the city if unrestrained R-6 infill destroys our neighborhood.

I would to emphasize the fact that 30 Merrill sits at the boundary between the large apartment buildings to the south and the small residences to the north. To the south of 30 Merrill (towards Congress) are a few small residences plus two 5–10 family buildings and one 10-20 family building. Around the corner on Cumberland are several more large apartment buildings. At present, Merrill Street from Cumberland Avenue north (towards Melborne Street) consists of 9 single-family homes, 4 two-family homes, 2 three-family homes, 2 vacant lots and 1 office/business building. Most are older buildings and the few new ones preserve the architectural flavor of the neighborhood. The map below shows the size of the buildings in the nearby neighborhood and demonstrates the demarcation between the large apartment buildings to the south and the small residences to the north.



The architect and developer consistently ask the Planning Division to look south towards the large buildings for its claimed support for the design. They make no mention of the rest of the neighborhood except to mistakenly refer to the doublewide triple deckers "that exist throughout the neighborhood." They do not. It is critical that these new large infill structures are sympathetic to the entire neighborhood, not just those structures that are purportedly similar on just one end of the street. And it is important to recognize that if the Board relies just on the

design elements of the large buildings to the south towards Congress Street, the next R6 infill project on the street may do the same, and the next and the next, with a potential domino effect that overwhelms the neighborhood with large insensitively designed buildings.

<u>The proposed project fails to consider the "overall context" of the neighborhood</u>

This building does not in any recognizable way reinforce positive features of the surrounding area. Within the block the unique identity of the large buildings to the south are their bays and cornices and mansard roofs, to the north, for the smaller residence are their gable ends, their bays, window shapes and emphasized entrances. It is not impossible to design a larger building that is sympathetic to an existing neighborhood of smaller residences. An excellent example is the new 5-family building at 72 Munjoy Street. Although it is the largest building on the street it, it does not overwhelm the neighborhood; rather, it adopts numerous of the existing characteristics of its neighborhood and employs them in its design.



72 Munjoy Street

Furthermore, contemporary architecture is not anathema to the neighborhood. 39 Lafayette a beautifully designed single family home that at 1360 sq. feet is roughly 1/5th the size of the proposed structure.



39 Lafayette Street

39 Lafayette incorporates the window dimensions of neighboring buildings, has a strongly recessed entry with steps, and is clad in horizontal material evoking the clapboard found throughout the neighborhood. The excellent design and small scale of 39 Lafayette makes it an interesting and respectful counterpoint to the older architecture in the neighborhood. The proposed design for 30 Merrill is 5 times larger than 39 Lafayette and will loom over the neighboring houses to the north. Because of its size it will have a very significant impact on the neighborhood making it imperative that its design embrace the context of the neighborhood, reinforcing its positive features and demonstrating compatibility with the nearby buildings. This is not to suggest that blowing 39 Lafayette up to five times its size would be an appropriate design for 30 Merrill. I am pointing out that contemporary design is not the problem. Non-contextual design is the problem.

Lack of Articulation

As for the balconies that the architect relies on heavily to satisfy the B-5 façade articulation standard (this because no other of the architectural elements of facade articulation exist: no gables or dormers, no recessed entry, no bay windows, and surely the small awning over the entry does not constitute a "covering"), the railings across the sliding doors used as windows do not in any way read as balconies and if they are also designed "pay homage to the traditional bay window," (a two'fer? balcony and bay?) they have missed the mark by a long shot. And does not Standard D-3 state that balconies must be a minimum of 6 feet in depth? What is presented to the Board as a balcony (or bay) in an attempt to satisfy the facade articulation standard in fact neither actually articulates the building nor does it create an impression of articulation. The most recent iteration has created an indentation running from the ground to the 3rd floor along the vertical line above the "front door." Although it is an improvement to my eye, it is inadequate to satisfy the articulation standard.

Recent contemporary apartment buildings and condominiums developed in Portland in commercial areas have more architectural detail than the current 30 Merrill design. The Redfern development at 89-91 Anderson is one example, with real balconies, a true recessed front door above ground level, and significant "in and out" of the façade.



89 – 91 Anderson Street
The Avesta building at 409 Cumberland, presumably built with minimizing cost forefront in the mind of the developer, is superior in articulation to the 30 Merrill design. And this building sits in a neighborhood of other very large square commercial buildings.


409 Congress Street

<u>Massing and Roofing</u>

Most definitely, when considering design, size matters. The bigger the project, the bigger the impact of the design, the bigger the effect on the neighborhood. The architect argues that the proposed building has massing and roofing much like the double-wide triple decker buildings "that exist throughout the neighborhood." I believe he is referring to the three large multi-families towards Congress Street on Merrill and the several nearby on Cumberland Ave. Otherwise, I can find no double-wide triple deckers in a 2-block radius. There are a few two-entrance buildings, but no double wide triple deckers which seems reasonably interpreted to mean this:



And, of these nearby early 1900's multi-family buildings that might possibly be described as a double-wide triple decker, those that have flat roofs all have substantial bay windows and a large cornice created by the protrusion of the bays giving them significant articulation. The others have attractive mansard roofs creating harmony with a number of smaller mansard houses in the neighborhood and making the 3rd floor part of the roofline, thereby lowering the impression of the height of the building. The large boxy 4-story shape of the proposed 30 Merrill building has nothing in common with these earlier buildings other than size. And notably**,** again, these are all to the south, towards Congress street and most definitely not "throughout the neighborhood." Perhaps the architect is referring to the new construction at 33 Lafayette that he designed. However, I don't think anyone would refer to that as a "traditional double-wide style."

The "Front Door "Is Not a Real Front Door

Design Standard C-1 states: "Emphasize and orient the main entrance to the street." The 30 Merrill design includes a minimally-enhanced "main entrance," which we learned at the neighborhood meeting is not a main entrance at all. In fact, it is an entrance to the basement that contains only storage areas for the units. It seems to be the argument that so long as it looks like a main entrance that is enough. It is not. There is a rationale behind this design standard that has been well articulated by numerous urban designers (Jan Gehl , Cities for Real People; Jane Jacobs, The Death and Life of Great American Cities; Christopher Alexander, A Pattern Language), planners and articulated in municipal standards. The rationales relate to the life of the street, community, walkability, and the safety of the inhabitants and passersby.

The interaction between people living on and walking along a street happens at the front door and in the "transition space" between the sidewalk and the door. People pause at the front door to find their keys and someone walking by says hello. A conversation starts and they linger chatting for a few minutes, community begins to form and street life is enhanced. In the proposed design, the residents will use the front door only for storage purposes, occasionally putting a bike in or out a few months of the year, pulling out the snow tires, grabbing skis for a weekend trip. This is not the 2, 3, 4, 5 times a day in and out of a

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Finally, on this point of where the true main entrance is sited, the requested waiver for a narrowed driveway aisle makes stopping to visit even less likely for a resident who must take care not to be hit by a fellow resident turning into or coming out of the driveway. Many design standards require a full walkway in the event that an entrance to a building is at the back so people coming and going are not walking along a driveway. Not having a walkway is bad enough; narrowing the driveway is clearly unsafe.

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There is absolutely no precedent for street level front doors in residential buildings on Merrill Street. And the examples cited by the architect are all buildings that have attractive primary entrances on the side. The street level doors on the buildings he refers to are basement doors and they look like it.







Windows

One of the reasons the building looks so out of place in the rendering is the size and horizontal effect of the front windows. The windows are in fact two sets of sliding doors put together and the net effect is a window of 11'10"H x 6'9 ¾"W, most definitely horizontal in effect. Again, there is nothing like this on Merrill Street. This design fails to recognize and be responsive to the patterns and characteristics of the buildings of the neighborhood. In addition, it ignores the design standard relating to windows (D-1), which states that the majority of windows shall be vertically proportioned, and encourages classic proportions. These grouped sliding doors are neither. In addition, it is startling to see first floor windows of this size. They would be appropriate for a commercial space, but despite being 48" from the ground are not in keeping with a first floor living space and again fails to find any sympathy with the predominant design features of the neighborhood. Where such large windows do exist on Congress Street they are all office and retail spaces, not residential.

In summary, given the very significant impact of this building on the neighborhood, it is vitally important that great care and time be given to assuring that the building meet all the applicable design principals and standards. It is a disappointment that there was no pubic workshop to allow for a more cooperative approach to the challenges presented by this design. It is incumbent on the Board to proceed carefully as it

develops a thoughtful and fair approach to allowing R-6 infill while protecting the neighborhoods where this development will occur.

Thank you for your consideration.

Elizabeth (Lisa) Adams
49 Merrill Street

Additional signatories:

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Tim Adams
38 Howard Street

Birch Hincks
38 Howard Street

Gene Stone
34 Merrill Street

Cyrus Hagge
45 Turner Street

Katy Harkleroad
47 Howard Street

Bruce Davis
Quebec Street

Christine Kiley
52 Turner Street

David P Jefferson
52 Turner Street

Erica Thompson
31 Lafayette Street

Ben O'Connell
57 Turner Street

Ana O'Connell
57 Turner Street

cc: Evan Carroll

PLANNING BOARD REPORT
PORTLAND, MAINE

230 Commercial Street (Widgery and Union Wharves)

Level III Site Plan Review
Proprietors of Union Wharf, Applicant
Project # 2016-137
CBL: 031 K 003 & 103; 031/L/035, 038 & 135

Submitted to: Portland Planning Board Public Hearing Date: October 12th, 2016	Prepared by: Jean Fraser, Planner Date: October 7th, 2016

I. INTRODUCTION

Malcolm Poole of the Proprietors of Union Wharf has submitted a final application for a phased development on the part of Union and Widgery Wharves nearest to Commercial Street. Overall the proposal involves three new buildings totaling approximately 40,000 sq ft of non-marine uses (offices, retail, restaurant) and a reconfiguration of the parking and circulation at this end of Union Wharf. This project was considered at a Planning Board Workshop on June 28, 2016.

The applicant intends to phase the project and is therefore requesting an approval for 3 years, which is the maximum period for a site plan approval.

The entire lot is within the Waterfront Central Zone (WCZ) and the proposed redevelopment is located within the Non Marine Use Overlay Zone (NMUOZ) which extends from Commercial Street to about half way down the wharf to the green line shown on the aerial at right.



The proposed uses are permitted uses and the change from the marine to non-marine is allowed. However, this is the first time a proposal has triggered the WCZ conditions as they pertain to proposed non-marine uses within the NMUOZ. These conditions aim to ensure that the proposed uses do not adversely impact the nearby ongoing marine uses or access to the waterfront, secure investment funds toward wharf infrastructure maintenance costs, and integrate with the Commercial Street corridor.

Some Board members may recall the development at the neighboring Merrill's Wharf (conversion of the Cumberland Cold Storage Building into offices, marine uses and restaurant) where the WCZ Performance Standards regarding circulation and parking were the subject of extensive review.

Applicant: Malcolm Poole, Proprietors of Union Wharf
Consultants: Steve Bushey, PE, Stantec; David Lloyd, Architect, Archetype, PA

Required reviews:

Applicant's Proposal	Applicable Standards
Proposed new development (phased) for 18,000 sq ft of offices and approx. 24,000 sq ft of mixed retail and restaurant uses in the WCZ NMUOZ	WCZ Standards for non marine uses in the NMUOZ: 14-311 Development Standards (WCZ) Sections (b) *NMUOZ standards*; and (d) *Performance Standards*
Proposed new development totaling approximately 40,000 sq ft of floorspace	Level III Site Plan - 14-523 *Required Approvals and Applicability* (f) which specifies development having a total floor area of 10,000 sq ft or more is a Level III review and subject to 14-526 *Site Plan Standards*

Required waivers:

Waiver Requests to Planning Board	*Applicable Standards*
Parking Drive Aisle and Space dimensions: Waiver required for parking drive aisles and spaces as shown on the submitted plans.	Technical Standard 1.14 *Parking Lot and Parking Space Design* specify parking aisle and space dimensions that are not met in a number of locations in the proposed site plan. The Traffic Engineering Reviewer supports this waiver due to site constraints and the desire to allocate space for other needs, including enhanced sidewalks. He also confirmed that although vehicle circulation under the Phase 1 building will be constrained, it is reasonable. (Att 5).
Lighting: Waiver requested to ensure light levels do not impact nearby residential properties and to allow reuse of existing light infrastructure.	Technical Standard *Section 12 Site Lighting* requires minimum light levels and full cut off fixtures. A suggested condition of approval requires the submission of a lighting plan and details that meets CPTED objectives and the aim of the standard.

II. PROJECT DATA

DATA	*Phase I Office Building*	*Future Phases along Commercial Street*	*Both Phases for development area*
Total Site Acreage	Just over 1 acre (Entire lot is about 5 acres)		
Existing Zoning	WCZ/Non Marine Use Overlay Zone		
Existing Use		Sapporo Restaurant	
Proposed Uses	Offices	Retail/market/restaurant	
Total Disturbed Area	20,000 sq ft		
Existing impervious areas	181,907 sq ft (entire lot)		
Proposed impervious areas	181,907 sq ft (entire lot)		
Existing building footprint	6000 sq ft	2538 sq ft	8,538 sq ft
Proposed building footprint	6094 sq ft	10,030 sq ft	16,124 sq ft
Proposed floorspace	18,000 sq ft	Approx 24,000 sq ft	Approx. 40,000-42,000
Proposed structure height	49 feet	42 feet	
Existing parking spaces	109 approx in development area		109 approx in development area
Proposed parking spaces	113 within development area		81 within development area
Proposed handicapped parking spaces	2		2
Proposed number of new bicycle parking spaces	4 bike parking spaces	4 bike parking spaces	8 bike parking spaces
Estimated Cost of Project	$1.5 million		

III. EXISTING CONDITIONS

The applicant has described the site in some detail in Attachment D; an aerial is included in Attachment 1 and the *View Assessment* in Attachment L shows "before" and "after" views that compare existing conditions to the post-development conditions.

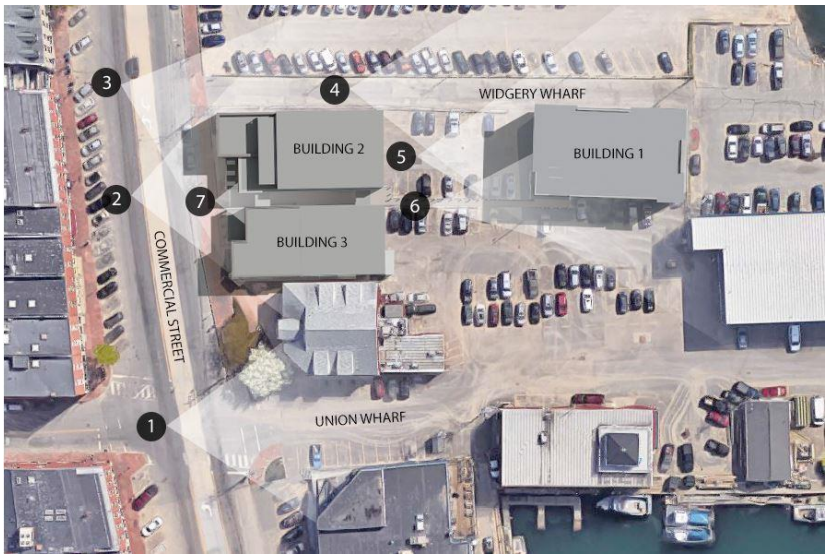
The development site is within a 1+ acre section of the Union Wharf complex nearest to Commercial Street. There are existing brick commercial buildings facing Commercial Street and more "industrial" buildings within the lot. The overall lot totals 5 acres and includes part of Widgery Wharf; the remainder of the overall lot is largely marine uses.

The site is accessed by two drives from Commercial Street, the western-most one is signalized, as it is an extension of Union Street. Current pedestrian access from Commercial Street is via roads and parking lots. The overall site includes 212 parking spaces, with about half of those within the development area and mostly leased on a monthly basis. The applicant allows these spaces to be used at night (to serve local restaurants and businesses) on a casual basis.

The entire lot and development site are impervious, with no vegetation; the stormwater surface flows into the harbor.

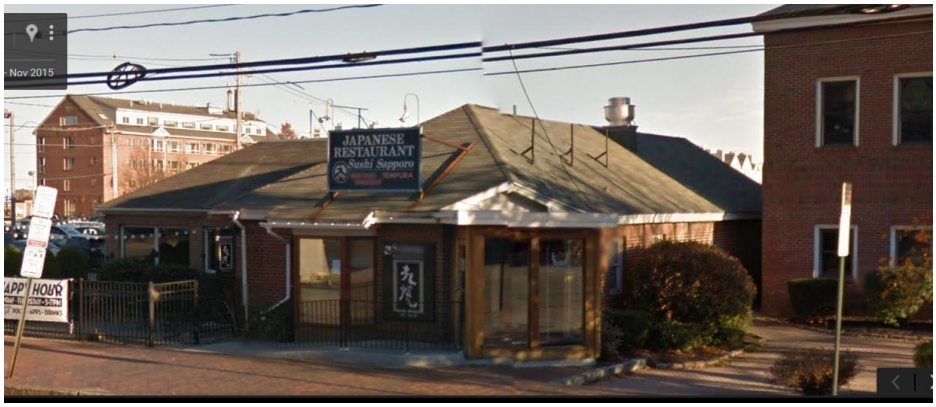
IV. PROPOSED DEVELOPMENT

The proposals are described in Attachments D, E and K and the Plan Set. They include a first phase office building (Building 1 on the aerial below) of 3 floors plus ground level parking, with a total of 18,000 sq ft. It is located on the site of an existing single story metal building that is currently vacant. The floor plans are included at Plan P15; the elevations are in Plan P16 and the renderings and perspectives are in Plan P19.



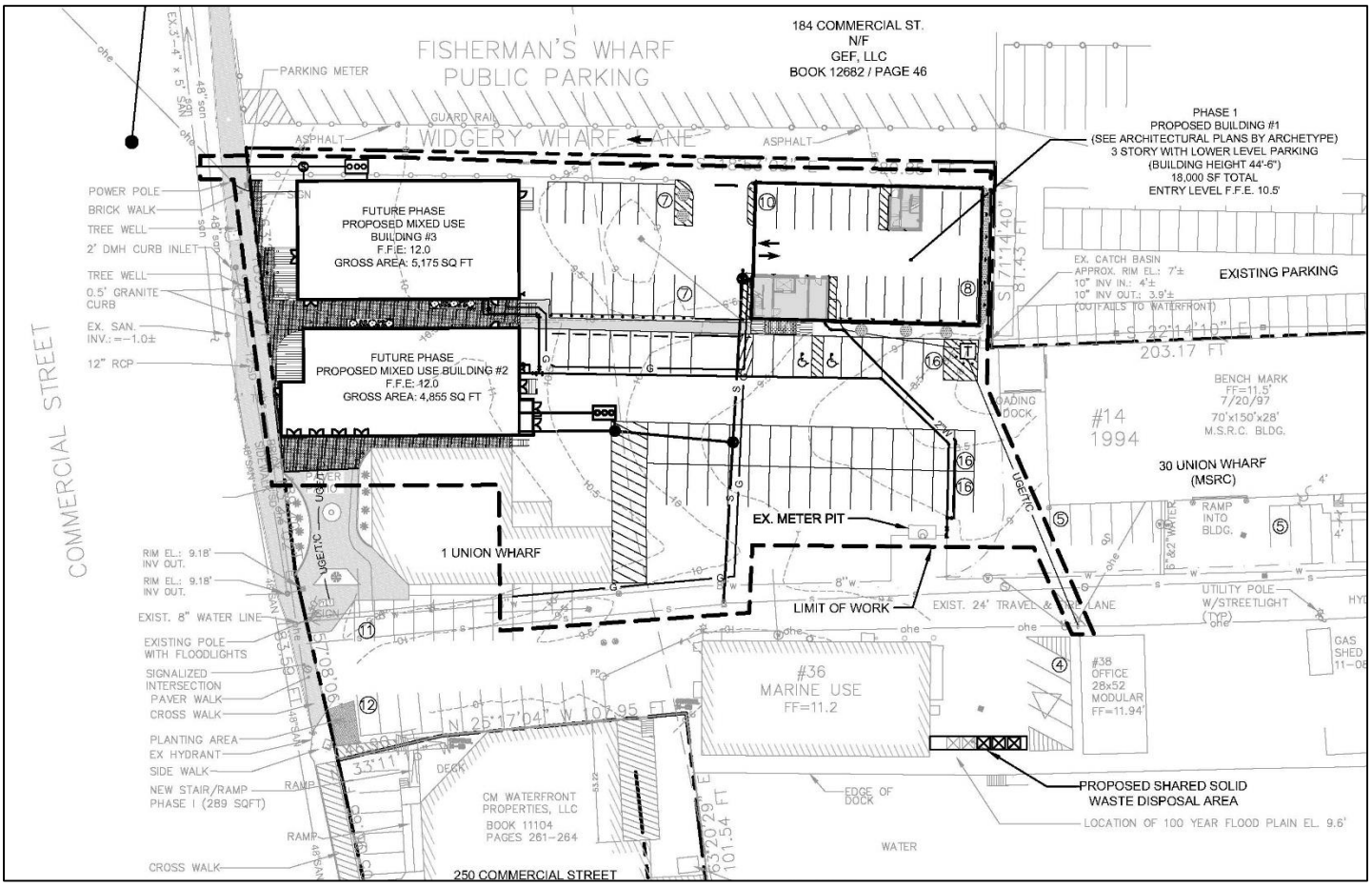


The phase 2 proposals comprise 2 new buildings to be constructed on the site of an existing single story restaurant building (see right) and on the adjacent parking lot to the east- these are annotated as buildings 2 and 3 in the aerial above.



The proposed 2 and 3 story buildings would total approximately 20,000-25,000 sq ft; the floorplans and elevations are shown in Plans P17 and P18; the renderings /perspectives are in Plan P20.).

The overall site plan (Plan P5 with an extract below) for all of the phases includes a pedestrian link from Commercial Street to the new office building, and enhanced landscape treatment along Commercial Street:



V. PUBLIC COMMENT AND WORKSHOP DISCUSSION

The Planning Board held a Workshop on June 28, 2016 where the Board asked the applicant to:

- Reconsider the layout to preserve public views of water as per the WCZ condition
- Focus on pedestrian/traffic safety and parking
- Undertake more scrutiny of the access- address current problems
- Aim to reduce impervious surface and increase stormwater treatment
- Clarify an alternative approach to parking lot landscaping and wayfinding that is consistent with the marine character.

Public comments

A total of 261 notices of this Hearing were sent to property owners within 500 feet and to interested citizens. In addition, the project was the subject of a legal advertisement in the *Portland Press Herald* editions on October 3rd and 4th, 2016. The Planning Division has not received any public comments as of the time of completing this report.

A Neighborhood Meeting is required for this project and was held on August 2, 2016 and attended by nine neighbors. The submitted certification is included in Attachment I.

VI. RIGHT, TITLE AND INTEREST AND FINANCIAL/TECHNICAL CAPACITY

Right, Title and Interest - The deed as recorded in 1993 is included in Attachment C.

Financial Capacity – A letter from the Gorham Savings Bank dated May 12, 2016 is included in Attachment C.

VII. STAFF REVIEW

A. ZONING ASSESSMENT

The development area as well as the entire lot are located in the Waterfront Central Zone; the development area is within the Non Marine Use Overlay Zone (NMUOZ) part of the wharf. The submissions include a narrative (Attachment D Development Description) that outlines that the proposed uses are permitted uses in the NMUOZ and notes that they are subject to the standards set out in 14-311.

The applicable 14-311 standards are set out in full below (italics) as many of the requirements have not been applied to a project in Portland and this review will be the first time it has been applied. Staff have consulted with Bill Needelman, a former Senior Planner who drafted these standards and who managed the public process and reviews with the Planning Board/City Council during the adoption process. Bill is now the City's Waterfront Coordinator and recently met with staff and the applicant to clarify the intent of the ordinance language; he will be attending the Planning Board hearing.

14-311 (b) NMUOZ standards: Non-marine uses listed under 14-307(b) and 14-308 located within the NMUOZ, as defined in 14-306, shall be subject to the performance standards listed in 14-311(d) as well as the following standards:

1. Vessel access: Non-marine uses allowed under this provision shall not disrupt or block access to vessel berthing and shall otherwise adhere to the performance standards of this zone described in Sec. 14-311(d).

Staff Comment: The proposals are not located near the waterside areas.

2. Maximum setback for new development on lots with seventy-five (75) or more feet of Commercial Street frontage: Any new non-marine development constructed subject to this provision which is located on a lot with seventy-five (75) or more feet of frontage along the Commercial Street right of way shall be located with its front façade no further than thirty-five feet (35) from the southerly sideline of the Commercial Street right of way. Furthermore, any such development shall orient its front façade and its primary pedestrian entrance toward Commercial Street and no vehicular circulation or parking may occupy the land or pier area between the front façade of the building and Commercial Street.

Non-marine development subject to this provision on lots with fewer than seventy-five (75) feet of frontage along the Commercial Street right-of-way, changes of use within existing buildings, and/or building additions of less than 5,000 square feet of new development to existing buildings are exempt from the maximum setback provisions established herein.

Staff Comment: The overall development (all phases) meets this requirement. The applicant has requested that the site plan approval be confirmed for 3 years to allow the construction to take place over that time period.

3. Investment in marine infrastructure: All applicants for site plan review or a change of use permit for non-marine development in the NMUOZ are required to invest in marine infrastructure as a condition of development, provided that the total project costs exceed $250,000. The value of the investment shall be not less than five percent (5%) of total project costs over $250,000 for constructing non-marine space and associated site improvements in the NMUOZ.

Required investment may occur by one or both the following methods:

a. Direct investment in marine infrastructure located on the same lot: Investment shall be for the benefit of marine uses listed in 14-307(a) within the same lot as the proposed non-marine development. Investment may include dredging, pile replacement, new or replaced structural decking (but not pavement resurfacing), new or replaced fendering systems, new or replaced floats, pier expansions, permanent conversions of recreational berthing to commercial berthing, bulkhead or seawall repair or improvements, or any combination of similar improvements.

Plans for the marine infrastructure investment shall be submitted to the planning authority with the application for site plan review or change of use permit and shall include details and a commitment as to how the marine infrastructure will be utilized by marine users. The marine infrastructure improvements shall be

completed prior to the issuance of a certificate of occupancy for the non-marine development project.

b. Financial contribution: If direct investment in marine infrastructure is not made, the developer shall make a financial contribution to the city's waterfront loan and investment fund.

Staff Comment: The applicant has confirmed that they will be making a direct investment in eligible marine infrastructure in the amount of $380,000 to $550,000 (Attachment K). This meets the zoning requirement of $62,500 investment for all phases that comprise this site plan applicaton. A suggested condition confirms the investment shall be made prior to the issuance of the Phase 1 Certificate of Occupancy, and that in the event the investment was not complete a Performance Guarantee type escrow account would be set up, and that the issuance of a building permit for the next phase of the development would be contingent on the improvements being completed.

(d) Performance standards: All uses in the waterfront central zone shall comply with the following standards. Standards 8, 10, 13, 14, 15, 16, and 17 below shall be reviewed by the planning authority:

1. *Outdoor storage of materials: Outdoor storage of commodities and materials accessory to normal conduct of business, except pilings and/or cranes, shall be permitted to a maximum height of forty-five (45) feet, and such materials shall be entirely contained, including runoff contaminants and residual material, within a designated area within the lot boundaries.*

2. *Noise: The level of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American National Standards Institute, Inc.), inherently and recurrently generated within the waterfront central zone shall not exceed seventy-five (75) decibels on the A scale at the boundaries of any lot, except for sound from construction activities, sound from traffic on public streets, sound from temporary activities such as festivals, and sound created as a result of, or relating to, an emergency, including sound from emergency warning signal devices. In measuring sound levels under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ_1).*

3. *Vibration: Vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries. This shall not apply to vibration resulting from activities aboard a vessel or from railroad vehicle activities, or from activities on a pile supported pier.*

4. *Federal and state environmental regulations: All uses shall comply with federal and state environmental statutes and regulations regarding emissions into the air, except where provisions of this Code are more stringent.*

5. *Discharges into harbor areas: No discharge into harbor water areas shall be permitted, unless permitted by the Maine Department of Environmental Protection under a waste discharge license and as approved by the department of public works in accordance with chapter 24, article III of this code. All private sewage disposal or private wastewater treatment facilities shall comply with the provisions of chapter 24, article II of this code and federal and state environmental statutes and regulations regarding wastewater discharges.*

6. *Storage of vehicles: Storage of any unregistered automotive vehicle on the premises for more than sixty (60) days shall not be permitted.*

7. *Landfill of docking and berthing areas: Landfill of docking and berthing areas shall be governed by 38 M.R.S.A. sections 480-A through 480-HH, and permitted only if the landfill does not reduce the amount of linear berthing areas or space, or berthing capacity. If approved, construction shall be undertaken using methods approved by the department of public works and shall be accomplished in accordance with the provisions of division 25 of this article and in a manner so as to ensure that a stable and impermeable wall of acceptable materials will completely contain the fill material and will not permit any fill material to leach into docking areas or navigable waters.*

Staff Comment: Provisions 1-7 do not appear to apply to the proposals under consideration.

8. *Off-street parking and loading: Division 20 (off-street parking) and division 21 (off-street loading) of this article shall not apply.*

   The planning authority shall review applications for non-marine use parking against the following standards:

   a. *Applicants for non-marine parking in the waterfront central zone shall submit a parking and traffic circulation plan showing the location of all existing and proposed structures, travel ways and parking on the subject lot.*

   b. *Outside of the NMUOZ, non-marine use parking is subject to the limitations described in 14-311(a) ("55% rule").*

   c. *Non-marine use parking shall only be located on a lot where, based on the parking and traffic circulation plan and a parking analysis to be submitted for planning authority review, the marine use parking supply is reasonably sufficient to serve marine use space located on the subject lot.*

   d. *Water-dependent use parking spaces shall be located as close as reasonably possible to associated vessels and/or ground floor lease areas.*

   Staff Comment: The applicant has submitted an assessment of the parking requirement based on the Land Use Code 332.1 (J) which is under Division 20 (Attachment K). This code states that it applies to the WCZ but is contradicted by the opening sentence of the standard. At the time of the PB Workshop staff had requested more analysis and a plan that clarified the number, location and need for parking spaces for offices and employees of future phase buildings.

   Tom Errico, Traffic Engineering Reviewer, is comfortable that the Phase 1 parking requirements can be accommodated without impacting the parking needs of the other wharf occupants. The impact of the future phases is not clear and he has provided the following comment (Attachment 5):

   - **Status:** The applicant has noted that there are no long-term leases for parking spaces to be dedicated to the Phase 1 building. Accordingly, I find Phase 1 parking supply conditions to be acceptable. A Condition of Approval shall be included for the future project phases that a parking supply and management plan shall be provided to the City Planning Authority prior to construction of future phase buildings. The desired outcome of the plan would be to survey parking demand and supply conditions on the entire site following occupancy of Phase 1. The plan should specifically note parking spaces dedicated through lease or other arrangements to each business on the entire project site. The plan should also include details on the management of evening and weekend parking conditions. A scope of work for the study should be coordinated with the Planning Authority.

9. *Shoreland and flood plain management regulations: Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5 of this article.*

   Staff Comment: The applicant has submitted a narrative outlining how the proposals meet the Shoreland Zone requirements (Attachment K). The project includes the installation of several cartridge filter units for the roof drainage on all of the buildings and therefore has addressed the Shoreland ordinance provision that encourages upgrades to the stormwater system. The proposal is in conformance with the Shoreland Regulations generally.

10. *Lighting: All lighting on the site shall be shielded such that direct light sources shall not unreasonably interfere with vessels transiting the harbor nor have an unreasonable adverse impact on adjacent residential zones.*

11. *Signs: Signs shall be permitted as set forth in division 22 of this article.*

12. *Storage of pollutants and oily wastes: On-premises storage of pollutants and oily wastes shall not be permitted for more than forty-five (45) days.*

    Staff Comment: These are generally covered by the site plan standards; see staff comments below under **Section VII.**

13. *Urban design: Construction of new structures located within thirty-five (35) feet of the southerly edge of Commercial Street between Maine Wharf and the easterly property line of the city fish pier shall conform to the guidelines set forth in the downtown urban design guidelines, unless such structures are also located within one-hundred (100) feet of the water. Such structures that are also located within one-hundred (100) feet of the water shall conform to the extent practicable to the downtown urban design guidelines.*

Staff Comment: The applicant has provided more detailed plans and renderings (Attachment L and Plans P5-7 and P19-21) and staff consider these meet the downtown urban design guidelines (Attachment 4).



Phase 1 Office Building



Future Phases on Commercial Street

14. *Pier and wharf expansions: In addition to meeting Harbor Commission and Coast Guard requirements for navigation, any expansion or extension of a pier and or wharf in the waterfront central zone shall demonstrate its compatibility with fixed route ferry service and emergency vessel operations.*

Staff Comment: The proposals do not include any pier or wharf expansion.

15. *Compatibility of non-marine uses with marine uses: Non-marine uses, structures and activities, including but not limited to access, circulation, parking, dumpsters, exterior storage and loading facilities or other structures shall neither interfere with the existence or operation of marine uses nor impede access to vessel berthing or other access to the water by existing or potential marine uses. Siting of a use not set forth in section 14-307(a) shall not substantially reduce or inhibit existing public access to marine or tidal waters.*

16. *Functional utility of piers and access to the water's edge: All new development, whether for marine or non-marine uses, should anticipate current and future functional and operational needs of water-dependent pier tenants to access the water's edge for the transfer of goods and materials between berthed vessels and land bound vehicles, and shall demonstrate adherence to the following provisions:*

    a. *Provisions for the storage and movement of goods and materials must be designed into all waterside development and internal circulation routes must be maintained or otherwise provided as an element of any development. The siting, design, and circulation of non-marine uses, particularly those allowed on first floors, shall adjust if needed to accommodate reasonable access for pedestrians, vehicles, and freight transfer to and from berthed vessels.*

    b. *Any development that proposes to site a building within ten (10) feet of a pier edge (thus precluding vehicle use of the pier edge) should provide openings and circulation through or around the building to allow the transfer of goods and materials to trucks and circulation routes within the interior of the pier.*

    c. *With the exception of non-commercial berthing allowed under section 14-307(a)(20), there is to be no other non-commercial berthing.*

    d. *Except for common circulation drives as defined in 14-306, access ways, parking and loading areas designated for marine uses shall be exclusively for marine uses and shall not be shared with non-marine uses.*

Staff Comment: The proposals do not interfere with the existence or operation of the marine uses and access to vessels. There is no change to the circulation for existing occupants of the wharf and parking is addressed by a condition as discussed above under #8.

17. *Public view protection: Any new development in the waterfront central zone shall perform a public view impact analysis for review and approval by the planning board or planning authority as a condition of site plan approval. The analysis shall: (a) demonstrate the project's adherence to the Portland View Corridor Protection Plan (City of Portland Comprehensive Plan, 2002) to the extent practicable; and (b) promote the public's visual access to the water through sensitive building placement.*

Staff Comment: The proposal is located near an extended and protected view corridor as shown on the View Corridor Protection Plan in Attachment 2; the proposed new buildings are located outside of the protected view corridor itself. The applicant has submitted a *View Assessment* in Attachment L that illustrates that there is limited visual access to the water under the existing conditions and that the proposals maintain visual links between Commercial Street, the new office building and the remainder of the wharf.

B. DEVELOPMENT REVIEW (SITE PLAN STANDARDS in Section 14-526)

The applicant has provided a comprehensive final application, with additional information as requested at the Planning Board Workshop. The proposed development has been reviewed by staff for conformance with the relevant review standards of Portland's site plan ordinance and applicable regulations.

Transportation Standards

a. ***Impact on Surrounding Street Systems (Traffic Movement Permit)***

The applicant has provided trip generation data for Phase 1 (offices) and these confirm that a Traffic Movement Permit would not be required for Phase 1 of the project. The site plan application includes the future phases and Tom Errico is unable to evaluate the trip generation and associated impacts of the future phases. He comments (Attachment 5):

- *Based upon trip generation information provided by the applicant, Phase 1 of the project will not generate a significant amount of new traffic and will not require a Traffic Movement Permit. Significant traffic and safety impacts are not anticipated for Phase 1. Given that trip generation for the full build-out project has not been provided, the applicant shall provide trip generation estimate for the full project. If the outcome of that analysis indicates in excess of 100 new peak hour trips are generated, the applicant shall comply with all requirements of obtaining a Traffic Movement Permit, which includes Planning Board review and approval.*

The applicant was requested by the Board to look at the access conditions near where Union Street enters the site and this was discussed with staff. Mr Errico comments (Attachment 5):

- *Based upon several field observations of traffic and pedestrian conditions on Union Street Wharf near Commercial Street, I find conditions to be reasonable given the uniqueness of the area and that the proposed project is not be expected to increase pedestrian demand significantly to the subject area as a direct sidewalk connection to Commercial Street will be provided.*

b. ***Access and Circulation (including for pedestrians)***

The applicant has submitted a Circulation Plan (Plan P8) that is based on a meeting with staff and addresses the questions that came up during the PB Workshop regarding emergency service and delivery vehicle access and access to the parking under the Phase 1 office building. A 5 foot wide pedestrian walkway between Commercial Street and the Phase 1 office building has been added and is to be framed with wood pilings and accent lighting (Attachment K).

Tom Errico, the City's consultant Traffic Engineering reviewer, has provided the following final comments regarding several details, and these have been included in the suggested conditions of approval: (Attachment 5):

- *The plans note a removable barrier between Widgery and Union Wharf's. In my professional opinion providing access to the Union Street traffic signal for the area of parking abutting Widgery Wharf is important. Accordingly, I would suggest that a permanent circulation lane between the Wharf's be provided.*
  Status: The plans note that the owner reserves the right to install a removable barrier. I would recommend that the note be revised to add "following approval by the City's Planning Authority".

- *Pedestrian accessibility and provision of a designated routing between the proposed office building and Commercial Street shall be included.*
  Status: The applicant is providing a sidewalk connection under both Phase 1 and full build construction. I generally find it to be reasonable with the following comments:
  - ***Under Phase 1, the sidewalk width narrows as it approaches Commercial Street. It is recommended that a 5-foot minimum width be provided all the way to Commercial Street. Adjustments to the parking lot are recommended. I would also suggest the wood pole/bollard lighting continue to Commercial Street.***
  - ***Under the future phases, steps are proposed along the sidewalk to Commercial Street. It is recommended that full ADA accessibility be provided.***

c. ***Transit Facilities -*** this standard would not apply as there are no bus routes along this section of Commercial Street.

d. ***Parking -*** see discussion under the WCZ Performance Standards above. It should be noted that the Site Plan ordinance requires a parking analysis showing "*that the amount of parking is appropriate for the proposed use of the site"* where the proposed parking is 10% or more over the required parking (in this case there is no parking requirement under zoning).

The Traffic Engineering reviewer has requested a condition that would require further parking demand and supply information prior to commencement of the future phases (Attachment 5). The reviewer has also indicated support for waivers in respect of the reconfiguration of the existing parking areas and the dimensions in the parking underneath the phase 1 office building, which are not compliant with the technical standards because of the need to incorporate pedestrian facilities and address the building structural constraints.

e. ***Bicycle Parking -*** these have been included in the proposals and meet the site plan standards.

f. ***Transportation Demand Management (TDM)-*** This standard applies to all commercial or institutional uses of 50,000 sq ft or more total floor space. The current overall proposal is for new floorspace totaling up to about 42,000 sq ft, so the standard would not apply if the future phases remain as outlined.

Environmental Quality Standards

a. ***Site Landscaping***
The Planning Board discussed the fact that the landscaping in the rear parking lot area should be consistent with the marine character of the wharf. Staff including the City Arborist met with the applicants and the proposals for limited plantings and a pedestrian path lined by wooden piles is considered acceptable in principle. The City Arborist has recommended that the island that shows three "potted trees" have a single honey locust tree (planted) or bayberry shrubs/sweet fern. Staff also recommend that prior to the implementation of the future phases that a plan for the Commercial Street frontage be submitted that shows the required (under site plan) street trees and other landscape enhancement along the frontage.

b. ***Water Quality, Storm Water Management and Erosion Control***
The development site is already 100% impervious and therefore the Chapter 500 standards technically do not require any quality control for stormwater despite the large areas of parking lot that drain directly into the harbor. The applicant has introduced some treatment to roof drainage. The applicant has addressed all of the comments of the Peer Engineer prelim comments but details of retaining walls would need to be submitted (Attachment 6).

Public Infrastructure and Community Safety Standards

a. ***Consistency with City Master Plans (Infrastructure) -*** The Traffic Engineering Reviewer has noted the following issues; they have been included in the suggested conditions of approval (Attachment 5):

- *In conjunction with the future project phases, the applicant shall provide a lighting design for the project frontage along Commercial Street that includes installation of light fixtures that meet City standards for Commercial Street. The applicant is responsible for design and construction of the street lights.*
- *The full build project does not indicate improvements to the Commercial Street sidewalk along the project frontage. The applicant shall be responsible for replacement of sidewalk in areas disturbed by construction, lighting, or utility activities.*
- *Commercial Street in under pavement Moratorium status and thus any impacts to the street by the project will trigger City Moratorium mitigation cost/renovation requirements that shall be the responsibility of the applicant.*

b. ***Public Safety and Fire Prevention -*** The Fire Department has confirmed that they find the access to be acceptable (Attachment 3). Staff have some concerns regarding the lack of surveillance of the parking are under the Phase 1 office building, and the suggested condition regarding the lighting is included to address this concern.

c. ***Public Utilities -*** all capacity letters have been obtained (Attachment J.)

Site Design Standards - all standards have generally been addressed but staff have comments regarding the following:

a. ***Exterior Lighting:*** The final submission does not include any details of the existing or proposed lighting (including the accent lighting along the walkway) and requests a waiver from the Site Plan Technical Standards (Attachment D page 1-7). Staff consider that for security and safety in relation to CPTED (especially in the under-building parking area and along the pedestrian walkway from Commercial Street) the lighting should meet the City standards. In addition, the existing lighting comprises high level spotlights that are not compliant and staff consider some modification to the existing lighting is required.

The applicant has indicated in Attachment K that they are amenable to providing specific building mounted light design, fixture selection and photometrics as a condition of approval prior to the issuance of a buidng permit. Staff suggest that the condition include the following:

- The requirement for a lighting plan (and photometrics regarding the light levels) that shows details of lighting under and in the vicinity of the Phase 1 building and along the pedestrian walkways;
- Proposals for modified fixtures to replace existing exterior lighting to bring these into greater compliance with the standards.

The Board is requested to approve a waiver from the Lighting Standards to allow staff to work with the applicant to achieve a lighting plan that addresses the CPTED and Lighting objectives but may have elements that are not strictly in conformance with the standards.

VIII. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board approve the proposed phased office and commercial/retail development as proposed by the Proprietors of Union Wharf.

IX. MOTIONS FOR THE BOARD TO CONSIDER

A. WAIVERS

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations, contained in the Planning Board Report for the public hearing on October 12, 2016 for application #2016-137 (230 Commercial Street) relevant to Portland's Technical and Design Standards and other regulations, and the testimony presented at the Planning Board hearing:

1. Parking Lot Design: The Planning Board (**waives/does not waive**) Technical Manual Standard *Section 1.14. Parking Lot and Parking Space Design,* which specifies parking aisle and space dimensions, to allow for variations as shown in Plans P5-P7 to facilitate enhanced pedestrian accommodations and address building structure constraints.

2. Lighting: The Planning Board (**waives/does not waive**) Technical Manual Standard *Section 12 Site Lighting* to facilitate the development of lighting plans for the new external lighting (including building mounted, pedestrian walkway and in the parking area under the Phase 1 office building) and existing site lighting, that meets the objectives of the standards as well as ensuring security and safe conditions.

B. SITE PLAN

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in Planning Board Report for the public hearing on October 12, 2016 for application #2016-137 (230 Commercial Street) relevant to the Site Plan Ordinance and other regulations and the testimony presented at the Planning Board hearing:

The Planning Board finds that the plan **is / is not** in conformance with the site plan standards of the land use code, subject to the following conditions:

i. That this approval is valid for 3 years to allow for the phasing of the three buildings that are subject of the application; and

ii. That the marine infrastructure improvements, up to a total of $62,500, shall be documented to be complete (to the Planning Authority) prior to the issuance of a certificate of occupancy for the Phase 1 office building. If these improvements are not complete at that time, the applicant shall post a Performance Guarantee to cover the costs of the outstanding improvements. The building permit for the future phases shall not be issued until these improvements are documented to have been completed (up to the required total cost); and

iii. That the applicant shall provide trip generation estimate for the full project prior to the issuance of a building permit for future phases. If the outcome of that analysis indicates in excess of 100 new peak hour trips are generated, the applicant shall comply with all requirements of obtaining a Traffic Movement Permit, which includes Planning Board review and approval prior to the issuance of a building permit; and

iv. The applicant shall advise the Planning Authority as to the floorspace of the future phases prior to applying for a building permit for future phases. If the floorspace of the future phases brings the total (of the three buildings) to 50,000 sq ft or above, a Transportation Demand Management Plan shall be submitted for review and approval prior to the issuance of a building permit; and

v. That a parking supply and management plan shall be provided to the Planning Authority for review and approval prior to construction of the future phase buildings. The parking supply and management plan shall comply with the requirements set out in the Traffic Engineering Review comments dated October 7, 2016.

vi. That that following shall be submitted to the Planning Authority for review and approval prior to the issuance of a building permit for the future phases (frontage refers to the ROW and the area between the ROW and the building wall):
    a. A lighting design plan for the Commercial Street frontage that includes installation of street light fixtures that meet City standards for Commercial Street. The applicant is responsible for design and construction of the street lights;
    b. A landscape plan that shows the final layout and details for street trees; lights; bicycle parking; signage and wayfinding; sidewalk materials including where there would be disturbance and replacement (note: all work to be the responsibility of the applicant).

vii. That the proposals for the pedestrian walkway between Commercial Street and the Phase 1 office building shall be completed prior to the issuance of a Certificate of Occupancy for the Phase 1 office building, and shall be 5 feet in width with the wood pole/bollard lighting for the entire length ie continue to Commercial Street. Under the future phases, this walkway shall be designed to provide full ADA accessibility; and

viii. That the note shown on Plan P6 (C3.1 Phase 1 Site Layout) that states "*Owner reserves the right to install a removable barrier to restrict access between Widgery Wharf and Union Wharf as necessary"* be revised to add "*following approval by the City's Planning Authority*"; and

ix. That the Plan P6 (C3.1 Phase 1 Site Layout) shall be revised, for review and approval prior to the issuance of a building permit for Phase 1, to add planted vegetation to the island nearest Widgery Wharf Lane as recommended by the City Arborist (single honey locust tree or bayberry shrubs/sweet fern); and

x. That the applicant shall submit the following for review and approval by the Planning Authority prior to the issuance of a building permit:
   a. A lighting plan (and photometrics regarding the light levels) that shows details of lighting under and in the vicinity of the Phase 1 building and along the pedestrian walkways;
   b. Proposals for modified fixtures to replace existing exterior lighting to bring these into greater compliance with the standards;
   c. Details of any proposed retaining wall structures, including height and geotechnical considerations.

xi. That the applicant shall note that Commercial Street is under a Pavement Moratorium status and thus any impacts to the street by the project will trigger City Moratorium mitigation cost/renovation requirements that shall be the responsibility of the applicant.

ATTACHMENTS

Report Attachments

1. Aerial photograph
2. View Corridor Protection Plan
3. Fire Department final comments
4. Urban Designer final comments
5. Traffic Engineer preliminary comments
6. Peer Engineer final comments
7. City Arborist final comments

Public comments - (none received to date)

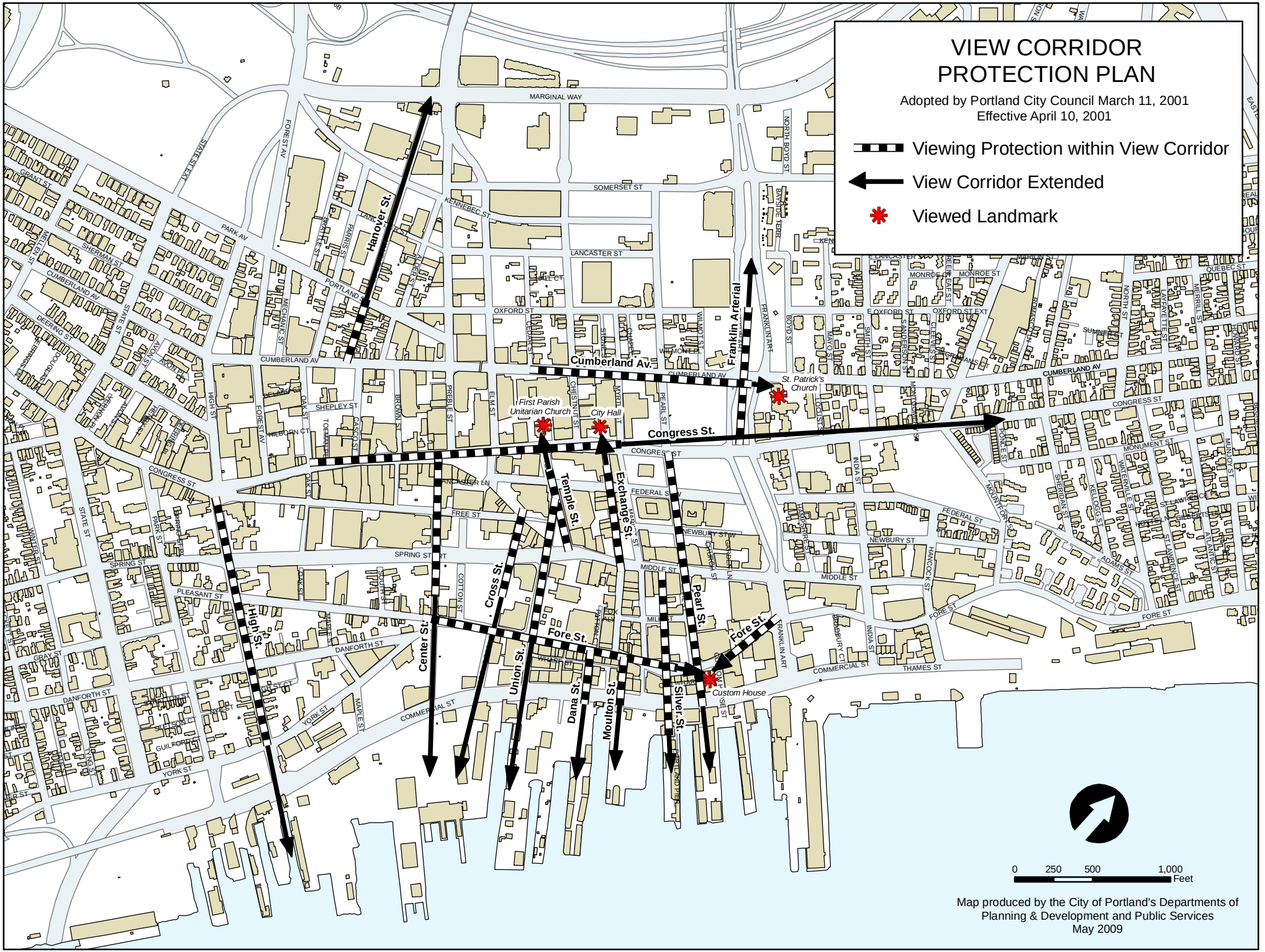
Applicants Submittal

A. Stantec Final Cover letter and table of contents submission
B. Final Site Plan Application
C. RTI & Financial Capacity documents
D. Development Description
E. Conformity with Standards
F. Traffic Information
G. Construction Plan
H. Fire Safety
I. Neighborhood Meeting
J. Capacity letters
K. Stantec letter: further info costs & parking & other response to comments
L. View Assessment

Submitted Plans

P1. Cover Sheet
P2. General Notes and legend
P3. Boundary survey
P4. Existing conditions
P5. Overall Site Layout (all phases)
P6. Phase 1 Site Layout
P7. Future Phases Site Layout
P8. Circulation Plan
P9. Overall Grading and Drainage
P10. Phase 1 Grading and Drainage
P11. Future Phases Grading and Drainage
P12. Details (4 sheets)
P13. Construction Management Plan Phase 1
P14. Construction Management Plan Future Phases
P15. Phase 1 Floor Plan (offices)
P16. Phase 1 Elevation (offices)
P17. Future Phases Floor Plans
P18. Future Phases Elevations
P19. Renderings/Perspectives of Phase 1 Office Building
P20. Renderings/perspectives of Future Phases/Commercial Street
P21. Aerial View all phases


LONG WHARF
WIDGERY'S WHARF
UNION WHARF
PORT
1
2
225
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VIEW CORRIDOR
PROTECTION PLAN
Adopted by Portland City Council March 11, 2001
Effective April 10, 2001
Viewing Protection within View Corridor
View Corridor Extended
Viewed Landmark
Hanover St.
Franklin Arterial
Cumberland Av.
Congress St.
Temple St.
Exchange St.
Cross St.
Center St.
High St.
Union St.
Fore St.
Dana St.
Moulton St.
Pearl St.
Silver St.
St. Patrick's Church
First Parish Unitarian Church
City Hall
Custom House
MARGINAL WAY
SOMERSET ST
KENNEBEC ST
LANCASTER ST
OXFORD ST
CUMBERLAND AV
CONGRESS ST
FEDERAL ST
FREE ST
SPRING ST
MIDDLE ST
PLEASANT ST
DANFORTH ST
COMMERCIAL ST
NEWBURY ST
THAMES ST
0 250 500 1,000 Feet
Map produced by the City of Portland's Departments of
Planning & Development and Public Services
May 2009

MEMORANDUM

To: FILE

From: Jean Fraser

Subject: Application ID: 2016-137

Date: 10/7/2016

Comments Submitted by: Keith Gautreau/Fire on 10/3/2016

Jean,

I'm good with what they are proposing as far as emergency access.

Thanks,
Keith

Portland Maine Yes. Google's good here.

Jean Fraser <jf@portlandmaine.gov>

Re: Hearing Report 230 Commercial (Union Wharf)

1 message

Caitlin Cameron <ccameron@portlandmaine.gov> Wed, Oct 5, 2016 at 3:07 PM
To: Jean Fraser <jf@portlandmaine.gov>

Based on the submission, I feel the Standards 13 and 17 to be met.

On Wed, Oct 5, 2016 at 2:54 PM, Jean Fraser <jf@portlandmaine.gov> wrote:

> Caitlin
>
> I know you are very busy but I am completing the hearing report on this on Friday and there are 2 Urban Design issues- below is from the Workshop Memo:
>
> *13. Urban design: Construction of new structures located within thirty-five (35) feet of the southerly edge of Commercial Street between Maine Wharf and the easterly property line of the city fish pier shall conform to the guidelines set forth in the downtown urban design guidelines, unless such structures are also located within one-hundred (100) feet of the water. Such structures that are also located within one-hundred (100) feet of the water shall conform to the extent practicable to the downtown urban design guidelines.*
>
> **Staff Comment:** Staff have requested a more detailed site plan showing the proposed treatment of the areas along Commercial Street and the area between the two phases. This will be subject to a more detailed review for the Hearing.
>
> *17. Public view protection: Any new development in the waterfront central zone shall perform a public view impact analysis for review and approval by the planning board or planning authority as a condition of site plan approval. The analysis shall: (a) demonstrate the project's adherence to the Portland View Corridor Protection Plan (City of Portland Comprehensive Plan, 2002) to the extent practicable; and (b) promote the public's visual access to the water through sensitive building placement.*
>
> **Staff Comment:** The proposal is located near an extended and protected view corridor as shown on the View Corridor Protection Plan in Attachment 2 (contrary to the last part of Attachment E). The proposed new buildings are located outside of the protected view corridor itself.

Portland Maine | Yes. Google's good here.

Jean Fraser <jf@portlandmaine.gov>

230 Commercial Street - Final Traffic Comments

1 message

Tom Errico <thomas.errico@tylin.com> Fri, Oct 7, 2016 at 10:09 AM
To: Jean Fraser <jf@portlandmaine.gov>

Hi Jean – The following is a status update of my preliminary comments and represent my Final Traffic Comments.

· The plans note a removable barrier between Widgery and Union Wharf's. In my professional opinion providing access to the Union Street traffic signal for the area of parking abutting Widgery Wharf is important. Accordingly, I would suggested that a permanent circulation lane between the Wharf's be provided.

Status: The plans note that the owner reserves the right to install a removable barrier. I would recommend that the note be revised to add "following approval by the City's Planning Authority".

· The applicant should clearly depict which spaces are designated for the office use and document the current users of the spaces and whether they are tied to an existing site plan approvals.

Status: The applicant has noted that there are no long-term leases for parking spaces to be dedicated to the Phase 1 building. Accordingly, I find Phase 1 parking supply conditions to be acceptable. A Condition of Approval shall be included for the future project phases that a parking supply and management plan shall be provided to the City Planning Authority prior to construction of future phase buildings. The desired outcome of the plan would be to survey parking demand and supply conditions on the entire site following occupancy of Phase 1. The plan should specifically note parking spaces dedicated through lease or other arrangements to each business on the entire project site. The plan should also include details on the management of evening and weekend

parking conditions. A scope of work for the study should be coordinated with the Planning Authority.

· The applicant should provide information that summarizes the purpose and dimensions of the painted cross hatched area. It is unclear if the dimensions are being adjusted and if it serves as the main circulatory aisle to the Union Street traffic signal.

Status: The applicant has provided sufficient information and I have no further comment.

· All circulation aisles, parking spaces, and Union Street Wharf (the plans should include the drive) should be dimensioned. Specific waivers from the City's dimensional standards shall be requested with supporting justification.

Status: The applicant has generally provided the requested information and I have the following comments:

- **Phase 1 and future project phases require waivers from the City's Technical standards for parking space size and aisle width. I support waivers from the City's standards due to site constraints and the desire to allocate space for other needs, including enhanced sidewalks. I would note that vehicle circulation under the Phase 1 building will be constrained, but I find it to be reasonable.**
- **Based upon several field observations of traffic and pedestrian conditions on Union Street Wharf near Commercial Street, I find conditions to be reasonable given the uniqueness of the area and that the proposed project is not be expected to increase pedestrian demand significantly to the subject area as a direct sidewalk connection to Commercial Street will be provided.**

· Pedestrian accessibility and provision of a designated routing between the proposed office building and Commercial Street shall be included.

Status: The applicant is providing a sidewalk connection under both Phase 1 and full build construction. I generally find it to be reasonable with the

following comments:

- **Under Phase 1, the sidewalk width narrows as it approaches Commercial Street. It is recommended that a 5-foot minimum width be provided all the way to Commercial Street. Adjustments to the parking lot are recommended. I would also suggest the wood pole/bollard lighting continue to Commercial Street.**

- **Under the future phases, steps are proposed along the sidewalk to Commercial Street. It is recommended that full ADA accessibility be provided.**

· Specific truck delivery plans shall be provided and include specific vehicle loading/unloading locations.

Status: A truck circulation plan has been provided and I find conditions to be acceptable.

<u>Additional Comments</u>

· **In conjunction with the future project phases, the applicant shall provide a lighting design for the project frontage along Commercial Street that includes installation of light fixtures that meet City standards for Commercial Street. The applicant is responsible for design and construction of the street lights.**

· **The full build project does not indicate improvements to the Commercial Street sidewalk along the project frontage. The applicant shall be responsible for replacement of sidewalk in areas disturbed by construction, lighting, or utility activities.**

· **Based upon trip generation information provided by the applicant, Phase 1 of the project will not generate a significant amount of new traffic and will not require a Traffic Movement Permit. Significant traffic and safety impacts are not anticipated for Phase 1. Given that trip generation for the full build-out project has not been provided, the applicant shall provide trip generation estimate for the full project. If the outcome of that analysis indicates in excess of 100 new peak hour trips are generated, the applicant shall comply with all requirements of obtaining a Traffic Movement Permit, which includes Planning Board review and approval.**

- **Commercial Street in under pavement Moratorium status and thus any impacts to the street by the project will trigger City Moratorium mitigation cost/renovation requirements that shall be the responsibility of the applicant.**

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director
TY LIN INTERNATIONAL

12 Northbrook Drive

Falmouth, ME 04105

207.781.4721 (main)

207.347.4354 (direct)

207.400.0719 (mobile)

207.781.4753 (fax)

thomas.errico@tylin.com

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COMMITMENT & INTEGRITY
DRIVE RESULTS

41 Hutchins Drive
Portland, Maine 04102
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

MEMORANDUM

TO: Jean Fraser, Planner
FROM: Lauren Swett, PE
DATE: October 4, 2016
RE: Union Wharf Mixed-Use Development, Level III Preliminary Site Plan Application

---

Woodard & Curran has reviewed the Preliminary Level III Site Plan Application for the proposed mixed-use development located at 230 Commercial Street in Portland, Maine. The project involves a multi-phase development of up to three new buildings for office space, and future mixed-uses, which may include an open market and restaurant.

Documents Reviewed by Woodard & Curran

- Response to comments and attachments, dated September 28, 2016, prepared by Stantec, on behalf of Proprietors of Union Wharf/Poole Group of Companies.
- Engineering Plans, dated September 27, 2016, prepared by Stantec, on behalf of Proprietors of Union Wharf/Poole Group of Companies.

Comments *(repeated comments are provided in italics)*

1) *Per Section 13 of the City's Technical Manual, the Applicant is required to submit a Boundary Survey that has been Stamped by a Maine Licensed Professional Surveyor; the survey has not been stamped at this time. A stamped survey should be provided as part of the final application.* Applicant has noted that this will be provided under separate cover.
2) In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. We offer the following comments:
   a) Basic Standard: Plans, notes, and details have been provided to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500.
   b) General Standard: The project will not result in an increase in impervious area. As such, the project is not required to include any specific stormwater management features for stormwater quality control.
   c) Flooding Standard: The project will not result in an increase in impervious area. As such, the project is not required to include any specific stormwater management features to control the rate or quantity of stormwater runoff from the site.
3) *Details should be provided for the proposed retaining wall structures, including height and geotechnical considerations.* Applicant has noted that they would like to provide this information as a condition of approval as the design of these elements is not complete.

The Applicant has addressed all prior comments at this time.

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DRIVE RESULTS

41 Hutchins Drive
Portland, Maine 04102
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

MEMORANDUM

TO: Jean Fraser, Planner
FROM: Lauren Swett, PE
DATE: June 24, 2016
RE: Union Wharf Mixed-Use Development, Level III Preliminary Site Plan Application

---

Woodard & Curran has reviewed the Preliminary Level III Site Plan Application for the proposed mixed-use development located at 230 Commercial Street in Portland, Maine. The project involves a multi-phase development of up to three new buildings for office space, and future mixed-uses, which may include an open market and restaurant.

Documents Reviewed by Woodard & Curran

- Preliminary Level III Site Plan Application and attachments, dated May 31, 2016, prepared by Stantec, on behalf of Proprietors of Union Wharf/Poole Group of Companies.
- Engineering Plans, dated May 26, 2016, prepared by Stantec, on behalf of Proprietors of Union Wharf/Poole Group of Companies.

Comments

1) Per Section 13 of the City's Technical Manual, the Applicant is required to submit a Boundary Survey that has been Stamped by a Maine Licensed Professional Surveyor; the survey has not been stamped at this time. A stamped survey should be provided as part of the final application.
2) The Applicant should note that any changes to the design of the future phases will require additional review and approval by the City of Portland.
3) The Applicant has submitted a wastewater capacity application and provided a letter from the Portland Water District noting that there is sufficient capacity to serve the proposed development. However, there are several conditions of service noted in the letter from Portland Water District; the Applicant should provide a status update on these conditions.
4) In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. We offer the following comments:
    a) Basic Standard: Plans, notes, and details have been provided to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500; however, a detail for the proposed stabilized construction entrance should be provided.
    b) General Standard: The project will not result in an increase in impervious area. As such, the project is not required to include any specific stormwater management features for stormwater quality control. However, the Applicant is proposing a Fabco Roof Drain Stormbasin Cartridge Filter to be connected to the proposed roof drain systems in the three buildings. We encourage the Applicant to review the City's Stormwater Service Charge Credit Manual (available online) to evaluate whether this system qualifies for a Stormwater Service Charge credit. We also encourage the Applicant to consider utilizing other LID measures and stormwater treatment for other existing impervious areas on the site.
    c) Flooding Standard: The project will not result in an increase in impervious area. As such, the project is not required to include any specific stormwater management features to control the rate or quantity of stormwater runoff from the site.
5) The plans should note a location for snow storage. The snow storage location should be sited outside of existing and proposed drainage courses.
6) Details should be provided for the proposed retaining wall structures, including height and geotechnical considerations.

Stantec Consulting Services Inc.
482 Payne Road – Scarborough, ME 04074

August 31, 2016

Ms. Jean Fraser
Planning and Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

Subject: Union Wharf Mixed-Use Development
Level III Final Site Plan Application

Dear Jean:

On behalf of Proprietors of Union Wharf/Poole Group of Companies, we are pleased to provide the accompanying package of submission materials related to the proposed Union Wharf Mixed-Use Development project. These uses include office space in a Phase 1 building and mixed used consisting of retail/market/restaurant uses for two future phase structures. This submission package is intended to meet the City's Final Submission Requirements as outlined in the Level III Application procedures. The proposed development consists of the multi-phase development of up to three (3) new buildings on the property generally bounded by Union Wharf and Widgery Wharf. The property is identified on City of Portland Tax Map 31, Block K, Lots 003 and 103 and Block L, Lots 035, 038, and 135. The property size is approximately 5.0 acres according to a boundary survey completed by Downeast Surveying & Development that is made part of the development plan set accompanying this submission. On behalf of the applicant, we previously participated in a Preapplication meeting on December 23, 2015. The applicant's team appeared before the Planning Board at a workshop on June 28, 2016. The applicant conducted a Public Informational Meeting on August 2, 2016.

The development site is located within the City's WCZ (Waterfront Central Zone), and the proposed land uses comply with the permitted uses within the zone. The proposed activities lie within the Non-Marine Use Overlay Zone (NMUOZ) and are considered compliant under the requirements of the overlay zone. Further evidence in support of this finding is contained in Section 3 of this application.

The Applicant is proposing to construct an approximately 6,094 SF footprint building as part of Phase 1 development. The building will contain three (3) stories over a ground level parking area. This Phase 1 building will be located nearly in the same footprint as an existing single story metal warehouse building located on the south side of the Widgery Wharf Lane. The existing building will be demolished and the foundation removed to make way for the new structure and parking.

The development includes two future phase buildings to be constructed along the Commercial Street frontage. These buildings are summarized as follows:

Building #	First Floor	Second Floor	Third Floor
2	4,855 SF Open Market/Restaurant	4,855 SF Restaurant	---
3	5,175 SF Restaurant	5,175 SF Food Court/Market	4,465 SF Office

Specific elements of the site improvements plan include the following:

- Demolition of an existing 6,000 SF single story metal structure to make way for Building #1. Site improvements include utilities including water, sewer, underground power, and natural gas to this new building. Parking area improvements will be modest in nature and include some new pavement markings and an access route from Commercial Street.

- The future phase building development will include the demolition of the existing single story structure at 230 Commercial Street (now occupied by Sapporo Restaurant) and this space will be replaced with a multi-story mixed used structure that is currently contemplated as a combination open market/restaurant. This building may include direct pedestrian access from the Commercial Street frontage and may involve typical sidewalk enhancements related to pedestrian access. Building #2 will contain approximately 4,855 SF of GLA per the current schematics prepared by Archetype.

- The future phase activity may also include a second new structure along the Commercial Street frontage. This new multi-story structure will be located within what is now parking area along Widgery Wharf Lane. This 5,175 SF multi-story building will align with the Commercial Street frontage and also rely upon pedestrian access from Commercial Street. Additional street side enhancements including bike racks, etc. are contemplated. The future phase buildings will require utility improvements that will rely on the existing utility infrastructure on the wharfs or within Commercial Street.

- The existing site contains approximately 208 parking spaces. Upon the completion of Phase 1, there will be 216 spaces and upon full buildout there will be 181 spaces. Code Section 14-311 (d) 8 indicates the provisions of Division 20/21 do not apply; however, for a comparison, the calculated code requirements result in a parking demand of 142 spaces, thus there is expected to be ample onsite parking for both marine and non-marine uses at the site. The applicant does lease parking spaces during the day to various users in the area; however, there are no long term parking obligations to offsite development in place on the site.

The Development Team will include the Proprietors of Union Wharf as the Developer and Owner; Stantec providing civil engineering and permitting assistance; and Archetype Architects as Architect.

Accompanying this cover letter are the following materials:

- Site Plan Application
- Section 1: Written Description of Project
- Section 2: Evidence of Right, Title, and Interest
- Section 3: Written Assessment of Proposed Project's Compliance with Applicable Zoning and Land Use Requirements
- Section 4: Traffic Information
- Section 5: Construction Plan
- Section 6: Fire Safety Analysis
- Section 7: Public Information Meeting Certification
- Full and Reduced Sized Plans

You will find in the accompanying materials, information including the Final Site Layout Plan that provides greater detail for the proposed site development activities. The information pertaining to the project's utilities needs and statements regarding compliance with the City's Standards are contained within this submission.

On behalf of the Union Wharf Development Team, we look forward to your continued assistance on the project and we look forward to the earliest available public hearing meeting with the Planning Board. All materials have been uploaded electronically in accordance with the City's new submission filing requirements. If you have any questions with the submission materials, please contact this office.

Sincerely,

STANTEC CONSULTING SERVICES, INC.

Stephen R. Bushey, P.E.
Associate
Phone: 207-883-3478
Fax: 207-883-3376
stephen.bushey@stantec.com

Attachments

c: Malcolm Poole, Proprietors of Union Wharf
David Lloyd, Archetype, PA

V:\1953\active\195350003\Admin\Permitting\Level III final application\sub_fraser_final-app_20160831.docx

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LIST OF ATTACHMENTS

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Attachment B – Figures 1-11
Attachment C – Capacity Letters from CMP & the Portland Water District
Attachment D – Building Elevations/Floor Plans
Section 2: Attachment E – Deed
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Section 6: Attachment G – Portland Fire Department Site Review Checklist & NFPA 1 Review
Section 7: Attachment H – Public Informational Meeting Information

LIST OF PLANS

SHEET #	TITLE
C-1.0	COVER SHEET
C-1.1	GENERAL NOTES AND LEGEND
C-2.0	EXISTING CONDITIONS PLAN (SURVEY BY D.S.D.)
C-2.1	EXISTING CONDITIONS AND DEMOLITION PLAN PHASE 1
C-3.0	OVERALL SITE LAYOUT PLAN AND UTILITY PLAN
C-3.1	PHASE 1 SITE LAYOUT AND UTILITY PLAN
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C-7.3	DETAILS

Portland, Maine — Yes. Life's good here.

Jeff Levine, AICP, Director
Planning & Urban Development Department

Electronic Signature and Fee Payment Confirmation

Notice: Your electronic signature is considered a legal signature per state law.

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a ***legal signature*** per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no Site Plan or Historic Preservation Applications can be reviewed until payment of appropriate application fees are ***paid in full*** to the Inspections Office, City of Portland Maine by method noted below:

☐ Within 24-48 hours, once my complete application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☐ Within 24-48 hours, once my application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☒ I intend to deliver a payment method through the U.S. Postal Service mail once my application paperwork has been electronically delivered.

Applicant Signature: _____ Date: August 31, 2016

Agent - Stephen R. Bushey, P.E.
I have provided digital copies and sent them on: Date: August 31, 2016

NOTE: All electronic paperwork must be delivered to buildinginspections@portlandmaine.gov or by physical means i.e. a thumb drive or CD to the Inspections Office, City Hall, 3rd Floor, Room 315.

Level III – Preliminary and Final Site Plans
Development Review Application
Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Level III: Preliminary or Final Site Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

Level III: Site Plan Development includes:

- New structures with a total floor area of 10,000 sq. ft. or more except in Industrial Zones.
- New structures with a total floor area of 20,000 sq. ft. or more in Industrial Zones.
- New temporary or permanent parking area(s) or paving of existing unpaved parking areas for more than 75 vehicles.
- Building addition(s) with a total floor area of 10,000 sq. ft. or more (cumulatively within a 3 year period) except in Industrial Zones.
- Building addition(s) with a total floor area of 20,000 sq. ft. or more in Industrial Zones.
- A change in the use of a total floor area of 20,000 sq. ft. or more in any existing building (cumulatively within a 3 year period).
- Multiple family development (3 or more dwelling units) or the addition of any additional dwelling unit if subject to subdivision review.
- Any new major or minor auto business in the B-2 or B-5 Zone, or the construction of any new major or minor auto business greater than 10,000 sq. ft. of building area in any other permitted zone.
- Correctional prerelease facilities.
- Park improvements: New structures greater than 10,000 sq. ft. and/or facilities encompassing 20,000 sq. ft. or more (excludes rehabilitation or replacement of existing facilities); new nighttime outdoor lighting of sports, athletic or recreation facilities not previously illuminated.
- Land disturbance of 3 acres or more (includes stripping, grading, grubbing, filling or excavation).

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: http://me-portland.civicplus.com/DocumentCenter/Home/View/1080
Design Manual: http://me-portland.civicplus.com/DocumentCenter/View/2355
Technical Manual: http://me-portland.civicplus.com/DocumentCenter/View/2356

Planning Division
Fourth Floor, City Hall
389 Congress Street
(207) 874-8719

Office Hours
Monday thru Friday
8:00 a.m. – 4:30 p.m.

Updated: October 6, 2015

PROJECT NAME: Site Development for Union and Widgery Wharf - Commercial Street

PROPOSED DEVELOPMENT ADDRESS:

230 Commercial Street at 1 Widgery Wharf and 1 Union Wharf

PROJECT DESCRIPTION:

Development of three buildings over multiple phases. Phase 1 building will be approximately 18,745 SF office building. Future phases will include restaurant/retail/market spaces within two structures totaling approximately 25,000 SF.

CHART/BLOCK/LOT: 031/K/003 & 103
031/L/035, 038 & 135

PRELIMINARY PLAN 05/31/16 (date)
FINAL PLAN 08/25/16 (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Malcolm Poole Proprietors of Union Wharf Business Name, if applicable: Address: PO Box 7467 DTS City/State : Portland, ME Zip Code: 04112	**Applicant Contact Information** Work # 207.772.8160 Home# Cell # Fax# 207.939.1431 e-mail: mpoole@whshurtleff.com
Owner – (if different from Applicant) Name: Same as Above Address: City/State : Zip Code:	**Owner Contact Information** Work # Home# Cell # Fax# e-mail:
Agent/ Representative Name: Stephen R. Bushey, P.E. Stantec Address: 482 Payne Road City/State : Scarborough, ME Zip Code: 04074	**Agent/Representative Contact information** Work # 207.883.3355 Cell # 207.756.9359 e-mail: stephen.bushey@stantec.com
Billing Information Name: Same as Applicant Address: City/State : Zip Code:	**Billing Information** Work # Cell # Fax# e-mail:

Engineer Name: Same as Agent Address: City/State : Zip Code:	**Engineer Contact Information** Work # Cell # Fax# e-mail:
Surveyor Name: Elwood Ellis Downeast Surveying & Development Address: PO Box 6234 City/State : China Village, ME Zip Code: 04926	**Surveyor Contact Information** Work # 207.968.2507 Cell # Fax# e-mail:
Architect Name: David Lloyd Archetype, P.A. Address: 48 Union Wharf City/State : Portland, ME Zip Code: 04101	**Architect Contact Information** Work # 207.772.6022 Cell # Fax# e-mail: lloyd@archetypepa.com
Attorney Name: Address: City/State : Zip Code:	**Attorney Contact Information** Work # Cell # Fax# e-mail:

APPLICATION FEES:

Check all reviews that apply. (Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

Level III Development (check applicable reviews)

X Less than 50,000 sq. ft. ($500.00)
___ 50,000 - 100,000 sq. ft. ($1,000)
___ 100,000 – 200,000 sq. ft. ($2,000)
___ 200,000 – 300,000 sq. ft. ($3,000)
___ over 300,00 sq. ft. ($5,000)
___ Parking lots over 11 spaces ($1,000)
___ After-the-fact Review ($1,000.00 plus applicable application fee)

Plan Amendments (check applicable reviews)

___ Planning Staff Review ($250)
___ Planning Board Review ($500)

_____

The City invoices separately for the following:

- Notices ($.75 each)
- Legal Ad (% of total Ad)
- Planning Review ($40.00 hour)
- Legal Review ($75.00 hour)

Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.

Other Reviews (check applicable reviews)

___ Traffic Movement ($1,000)
___ Stormwater Quality ($250)
___ Subdivisions ($500 + $25/lot)
# of Lots ___ x $25/lot = _____
___ Site Location ($3,000, except for residential projects which shall be $200/lot)
# of Lots ___ x $200/lot = _____
___ Other _____
___ Change of Use
___ Flood Plain
___ Shoreland
___ Design Review
___ Housing Replacement
___ Historic Preservation

APPLICATION SUBMISSION:

1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan and each document submitted as separate files. Naming conventions for the individual files can be found on the **Electronic Plan and Document Submittal** page of the City's website at http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal

2. In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.

The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:

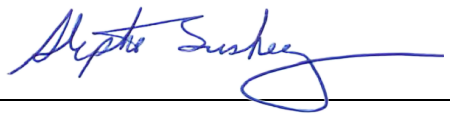
1. **One (1) full size site plans** that must be **folded.**
2. One (1) copy of all written materials or as follows, unless otherwise noted:
   a. Application form that is completed and signed.
   b. Cover letter stating the nature of the project.
   c. All Written Submittals (Sec. 14-525 2. (c), including evidence of right, title and interest.
3. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
5. One (1) set of plans reduced to 11 x 17.

Please refer to the application checklist (attached) for a detailed list of submission requirements.

APPLICANT SIGNATURE:

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Level III Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant:	**Date:**
	August 31, 2016

PROJECT DATA

The following information is required where applicable, in order to complete the application.

Total Area of Site	217,800 sq. ft. (5 ac)
Proposed Total Disturbed Area of the Site	20,000 sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland.	
Impervious Surface Area	
Impervious Area (Total Existing)	181,907 sq. ft.
Impervious Area (Total Proposed)	181,907 sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	53,657 sq. ft.
Building Footprint (Total Proposed)	63,717 sq. ft.
Building Floor Area (Total Existing)	60,000 +/- sq. ft.
Building Floor Area (Total Proposed)	90,000 +/- sq. ft.
Zoning	
Existing	WCZ/NMUOZ
Proposed, if applicable	-
Land Use	
Existing	Mixed Commercial (Waterfront Central Zone)
Proposed	Mixed Commercial Marine & Non Marine
Residential, If applicable	N/A
# of Residential Units (Total Existing)	
# of Residential Units (Total Proposed)	
# of Lots (Total Proposed)	
# of Affordable Housing Units (Total Proposed)	
Proposed Bedroom Mix	N/A
# of Efficiency Units (Total Proposed)	
# of One-Bedroom Units (Total Proposed)	
# of Two-Bedroom Units (Total Proposed)	
# of Three-Bedroom Units (Total Proposed)	
Parking Spaces	
# of Parking Spaces (Total Existing)	208
# of Parking Spaces (Total Proposed)	216 (After Phase 1)
# of Handicapped Spaces (Total Proposed)	6
Bicycle Parking Spaces	
# of Bicycle Spaces (Total Existing)	0
# of Bicycle Spaces (Total Proposed)	8 (All Phases)
Estimated Cost of Project	$1.5 Million (Phase 1)

PRELIMINARY PLAN (Optional) - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	**GENERAL WRITTEN SUBMISSIONS CHECKLIST**
X		1	Completed Application form
X		1	Application fees
X		1	Written description of project
X		1	Evidence of right, title and interest
N/A		1	Evidence of state and/or federal approvals, if applicable
X		1	Written assessment of proposed project's compliance with applicable zoning requirements
X		1	Summary of existing and/or proposed easement, covenants, public or private rights-of-way, or other burdens on the site
X		1	Written requests for waivers from site plan or technical standards, if applicable.
X		1	Evidence of financial and technical capacity
		1	Traffic Analysis (may be preliminary, in nature, during the preliminary plan phase)
Applicant Checklist	Planner Checklist	# of Copies	**SITE PLAN SUBMISSIONS CHECKLIST**
X		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
		1	**Preliminary Site Plan including the following: (information provided may be preliminary in nature during preliminary plan phase)**
X		Proposed grading and contours;	
X		Existing structures with distances from property line;	
X		Proposed site layout and dimensions for all proposed structures (including piers, docks or wharves in Shoreland Zone), paved areas, and pedestrian and vehicle access ways;	
X		Preliminary design of proposed stormwater management system in accordance with Section 5 of the Technical Manual (note that Portland has a separate applicability section);	
X		Preliminary infrastructure improvements;	
X		Preliminary Landscape Plan in accordance with Section 4 of the Technical Manual;	
N/A		Location of significant natural features (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features) located on the site as defined in Section 14-526 (b) (1);	
N/A		Proposed buffers and preservation measures for significant natural features, as defined in Section 14-526 (b) (1);	
X		Location , dimensions and ownership of easements, public or private rights of way, both existing and proposed;	
X		Exterior building elevations.	

FINAL PLAN - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	**GENERAL WRITTEN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)**
X		1	* Completed Application form
X		1	* Application fees
X		1	* Written description of project
X		1	* Evidence of right, title and interest
N/A		1	* Evidence of state and/or federal permits
X		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
X		1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
X		1	* Evidence of financial and technical capacity
X		1	Construction Management Plan
N/A		1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
N/A		1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
Waiver Requested		1	Stormwater management plan and stormwater calculations
X		1	Written summary of project's consistency with related city master plans
X		1	Evidence of utility capacity to serve
X		1	Written summary of solid waste generation and proposed management of solid waste
X		1	A code summary referencing NFPA 1 and all Fire Department technical standards
X		1	Where applicable, an assessment of the development's consistency with any applicable design standards contained in Section 14-526 and in City of Portland Design Manual
X		1	Manufacturer's verification that all proposed HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

Applicant Checklist	Planner Checklist	# of Copies	**SITE PLAN SUBMISSIONS CHECKLIST** **(* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)**
X		1	* Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
X		1	**Final Site Plans including the following:**
X		Existing and proposed structures, as applicable, and distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone);	
X		Existing and proposed structures on parcels abutting site;	
N/A		All streets and intersections adjacent to the site and any proposed geometric modifications to those streets or intersections;	
X		Location, dimensions and materials of all existing and proposed driveways, vehicle and pedestrian access ways, and bicycle access ways, with corresponding curb lines;	
X		Engineered construction specifications and cross-sectional drawings for all proposed driveways, paved areas, sidewalks;	
N/A		Location and dimensions of all proposed loading areas including turning templates for applicable design delivery vehicles;	
N/A		Existing and proposed public transit infrastructure with applicable dimensions and engineering specifications;	
X		Location of existing and proposed vehicle and bicycle parking spaces with applicable dimensional and engineering information;	
X		Location of all snow storage areas and/or a snow removal plan;	
N/A		A traffic control plan as detailed in Section 1 of the Technical Manual;	
N/A		Proposed buffers and preservation measures for significant natural features, where applicable, as defined in Section 14-526(b)(1);	
N/A		Location and proposed alteration to any watercourse;	
N/A		A delineation of wetlands boundaries prepared by a qualified professional as detailed in Section 8 of the Technical Manual;	
N/A		Proposed buffers and preservation measures for wetlands;	
X		Existing soil conditions and location of test pits and test borings;	
N/A		Existing vegetation to be preserved, proposed site landscaping, screening and proposed street trees, as applicable;	
Waiver Requested		A stormwater management and drainage plan, in accordance with Section 5 of the Technical Manual;	
X		Grading plan;	
N/A		Ground water protection measures;	
N/A		Existing and proposed sewer mains and connections;	

- Continued on next page -

X		Location of all existing and proposed fire hydrants and a life safety plan in accordance with Section 3 of the Technical Manual;
X		Location, sizing, and directional flows of all existing and proposed utilities within the project site and on all abutting streets;
N/A		Location and dimensions of off-premises public or publicly accessible infrastructure immediately adjacent to the site;
X		Location and size of all on site solid waste receptacles, including on site storage containers for recyclable materials for any commercial or industrial property;
X		Plans showing the location, ground floor area, floor plans and grade elevations for all buildings;
N/A		A shadow analysis as described in Section 11 of the Technical Manual, if applicable;
N/A		A note on the plan identifying the Historic Preservation designation and a copy of the Application for Certificate of Appropriateness, if applicable, as specified in Section Article IX, the Historic Preservation Ordinance;
N/A		Location and dimensions of all existing and proposed HVAC and mechanical equipment and all proposed screening, where applicable;
N/A		An exterior lighting plan in accordance with Section 12 of the Technical Manual;
N/A		A signage plan showing the location, dimensions, height and setback of all existing and proposed signs;
X		Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed.

2. TECHNICAL AND FINANCIAL CAPACITY

2.1 TITLE, RIGHT AND INTEREST

The applicant currently owns the site as evidenced by the accompanying deed contained in Attachment E.

2.2 TECHNICAL CAPACITY

The applicant has assembled a highly qualified team of professionals to plan, permit, and develop construction documents for the project. The Team is working under the direction of Mr. Malcolm Poole, Proprietors of Union Wharf/Poole Group Companies.

The Team services will be provided by the following companies and their respective team leaders.

2.3 CONSULTANT TEAM

Civil Engineer	Stephen R. Bushey, P.E. Stantec Consulting Services, Inc. (207) 887-3478 – Work (207) 887-3376– Fax (207) 756-9359 – Cell stephen.bushey@stantec.com
Surveyor	Elwood Ellis, PLS #1176 Downeast Surveying & Development P.O. Box 6234 China Village, ME 04926 (207) 668-2507 – Work
Architect	David Lloyd Archetype P.A. 48 Union Wharf Portland, ME 04101 (207) 772-6022 – Work (207) 772-4056-Fax lloyd@archetypepa.com
Geotechnical	William Peterlein, PE Summit Geoengineering Services, Inc. PO Box 7216 Lewiston, ME 04243 (207) 576-3313 bpeterlein@summitgeoeng.com
Traffic Engineering	Bill Bray, P.E. Traffic Solutions 235 Bancroft Street Portland, ME 04102 (207) 774-3603 trafficsolutions@maine.rr.com

2.4 EXPERIENCE OF PROJECT TEAM

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

The applicant also has significant experience in the development as they have managed the property for over a century.

2.5 FINANCIAL CAPACITY

The applicant has the means at its disposal for financing the proposed project as evidenced by the accompanying letter from Gorham Savings Bank contained in Attachment F.

2.6 CONSTRUCTION COST ESTIMATE

The anticipated project costs for Phase 1 is approximately $1.5 to $2.0 million dollars. The future phases may involve an additional $3 million to $4 million dollars.

These values are considered preliminary and approximate and are subject to change as building design and project layout is refined.

2.7 ATTACHMENTS

Attachment E – Deed

Attachment F – Letter from Gorham Savings Bank

ATTACHMENT E

Deed

MAINE REAL ESTATE TAX PAID

QUITCLAIM DEED WITHOUT COVENANT
(Maine Statutory Short Form)

KNOW ALL PERSONS BY THESE PRESENTS that THOMAS E. CARR, SR., an individual resident at Bridgton, Maine, THOMAS E. CARR, II, an individual resident at Brunswick, Maine, DANIEL J. DESMOND, an individual resident at Portland, Maine, ALICE D. HARRIS, an individual resident at Beverly, Massachusetts, ELLEN D. STONE, an individual resident at Boston, Massachusetts, and FLEET BANK OF MAINE, as Trustee of Trust B (The "Residual Trust") under Trust Agreement dated February 27, 1964, between Edward J. Carr and First National Bank of Portland (now Fleet Bank of Maine) and HARRIS REALTY ASSOCIATES, a Maine limited partnership with its principal place of business in South Portland, Maine (collectively, "Grantors"), for consideration paid, RELEASES to PROPRIETORS OF UNION WHARF, a Maine corporation having its place of business and mailing address at 36 Union Wharf, P.O. Box 7467 DTS, Portland, ME 04112, the real estate, together with any buildings and improvements thereon, located on the southerly side of Commercial Street in the City of Portland, County of Cumberland and State of Maine, all as more particularly described on Schedule A attached hereto.

IN WITNESS WHEREOF, the Grantors have caused this instrument to be executed this 28th day of December, 1993.

Witness

Thomas E. Carr, II

Witness

Thomas E. Carr, Sr., by Thomas E. Carr, II, attorney in fact

Witness

Daniel J. Desmond

Witness

Alice D. Harris, by Daniel J. Desmond, attorney in fact

Witness

Ellen D. Stone, by Daniel J. Desmond, attorney in fact

Fleet Bank of Maine, as
Trustee under the Residual
Trust

Witness

By: _____
Its Vice President
Jean T. Wilkinson

Witness

Harris Realty Associates

By: _____
Mortier D. Harris, Jr.
General Partner

Witness

By: _____
Ronnell F. Harris
General Partner

Witness

By: _____
Austin F. Harris
General Partner

State of Maine
County of Cumberland, ss.

December 28, 1993

Personally appeared the above-named Thomas E. Carr, II and acknowledged the foregoing instrument to be his free act and deed.

Before me,

_____
Michael L. Sheehan,
Attorney at Law

DAR05D79

SCHEDULE A

Those certain parcels or lots of land with the buildings thereon situated on the southerly side of Commercial Street in Portland, Cumberland County, Maine being the premises described in the following deeds.

1) Deed from Harbor Realty Company to Carr Realty Co. dated August 13, 1946 and recorded in the Cumberland County Registry of Deeds in Book 1833, Page 254;

2) Deed from Harbor Realty Company to Carr Realty Co. dated August 19, 1958 and recorded in said Registry of Deeds in Book 2428, Page 335;

3) Deed from Harbor Realty Company to Carr Realty Co. dated August 19, 1958 and recorded in said Registry of Deeds in Book 2428, Page 337;

4) Deed from Harris Realty Co. to Carr Realty Co. dated April 10, 1950 and recorded in said Registry of Deeds in Book 2226, Page 378;

5) Deed from Proprietors of Union Wharf to Carr Realty Co. dated September 21, 1971 and recorded in said Registry of Deeds in Book 3192, Page 381; and

6) Deed from Proprietors of Union Wharf to Carr Realty Co. dated October 19, 1972 and recorded in said Registry of Deeds in Book 3315, Page 183.

Excluding from the above premises so much thereof as was conveyed by the following deeds:

1) Deed from Carr Realty Co. to Harris Realty Co. dated July 19, 1983 recorded in said Registry of Deeds in Book 6224, Page 223.

2) Deed from Carr Realty Co. to Proprietors of Union Wharf dated September 20, 1971 recorded in said Registry of Deeds in Book 3192, Page 379.

3) Deed from Carr Realty Co. to Proprietors of Union Wharf dated October 19, 1972 recorded in said Registry of Deeds in Book 3315, Page 185.

Any portion of the premises that may be between high and low water mark is subject to the rights of the public under the Colonial Ordinance of 1641-1647.

Any portion of the premises that may be below low water mark is subject to rights of navigation and any rights of the federal and state governments.

Meaning and intending to convey and hereby conveying the same premises described in a deed from Carr Realty Co. to Harris Realty Associates, et al., dated December 28, 1988 and recorded in said Registry of Deeds in Book 8611, Page 208.

Also hereby conveying all right, title and interest in an easement for all purposes of a common passageway in common with others in, on, over and under the twenty (20) foot wide strip of land extending southerly from Commercial Street to land now or formerly of Widgery's Wharf, Inc. and used as a passageway, a portion of which is described as "Access Easement" in an Easement Deed from Harris Realty Associates to Fisherman's Wharf Associates II dated March 20, 1987 and recorded in said Registry of Deeds in Book 7688, Page 213, subject to rights of others in common to use said twenty (20) foot wide strip of land for all purposes of a common passageway and specifically subject to the easement granted by Harris Realty Associates to Fisherman's Wharf Associates II by said Easement Deed referred to above.

DAR05A76

Recorded
Cumberland County
Registry of Deeds
12/30/93 02:46:01PM
John B. O'Brien
Register

ATTACHMENT F

Letter from Gorham Savings Bank

Gorham
SAVINGS BANK

May 12, 2016

City of Portland
389 Congress Street
Portland, ME 04101

RE: Poole Group and Proprietors of Union Wharf

To Whom It May Concern:

The Poole Group and Proprietors of Union Wharf are valued customers of Gorham Savings Bank. Please be advised they have the cash resources and financial capacity to complete the building project on Union Wharf.

Please feel free to contact me with any questions.

Sincerely,

Matthew W. Early
Senior Vice President

MWE/ckb

1. DEVELOPMENT DESCRIPTION

1.1 PROJECT OVERVIEW

Proprietors of Union Wharf/Poole Group of Companies propose to develop and construct three (3) mixed-use buildings on Union and Widgery Wharf in Portland. The development activity is expected to occur in phases with Phase 1 consisting of an approximately 6,000 SF footprint building with at grade parking and three (3) upper levels of office space. The total building gross area will be approximately 18,282 SF with 16,532 SF of rentable area. The building use is proposed as office space. The structure will be located within an existing building footprint and that single story structure will be razed to allow construction of the new building. The Phase 1 structure will have a primary entrance from within the Union Wharf parking lot and a secondary entry off Widgery Wharf Lane. The at-grade parking within the building footprint will accommodate 16 vehicle spaces and two motorcycle spaces. The primary vehicular access will be on the west end of the building from a drive aisle off Widgery Wharf Lane.

The future phase development will consist of two additional structures to be constructed along the Commercial Street frontage. These structures are currently contemplated to house restaurant/open market/retail uses. The structures will be aligned with the street conditions to the extent practicable while maintaining accessibility from Commercial Street. Sidewalk enhancement including bike racks, extended brick sidewalk conditions, and related work will be performed.

Archetype PA has prepared renderings for the proposed buildings that are contained in Attachment D to this submission.

1.2 SITE OWNERSHIP AND LOCATION

According to the ALTA/ACSM Survey completed by Downeast Surveying & Development in March 2012 and updated in 2015, the development site contains multiple parcels as identified in the City of Portland Tax Assessor's maps. These parcels are more fully described as follows:

TABLE 1 – Land Ownership

Chart-Block-Lot	Owner	Description
031-K-003	Proprietors of Union Wharf	Rectangular shaped parcel containing 34,080 SF (0.78 ac) of land; currently being used as a parking lot.
031-K-103	Proprietors of Union Wharf	Rectangular shaped parcel containing 11,786 SF of land; currently being used as a parking lot.
031-L-035	Proprietors of Union Wharf	Rectangular shaped parcel containing 147,389 SF of land; contains multiple marine related uses and water frontage.
031-L-038	Proprietors of Union Wharf	Rectangular shaped parcel containing 2,778 SF of land; currently being used as a parking lot.
031-L-135	Proprietors of Union Wharf	Square shaped parcel containing 26,336 SF of land; currently being used as office building and adjacent parking.

Photographs of the existing site are included in Attachment A to this section and multiple figures depict the project location on various available resource maps which are included in Attachment B.

1.3 PROJECT PURPOSE AND NEED

The proposed project provides an opportunity to developed multiple mixed-use buildings within a long developed space that has readily available access to utility infrastructure, including access to Commercial Street and nearby parking through various leased parking agreements. The project's community benefits include the following:

- Maintenance of the Union Wharf marine uses that include the Marine Spill Response Corp; CBS Lobster and Bait; Cozy Harbor Seafood among other related marine uses. The proposed uses will not interfere with these or other related marine uses.
- Efficient reuse of a previously developed building space for Phase 1. A single story metal clad structure will be replaced with a multi-level building with enhanced architecture and visual appeal.
- Provide opportunities for expanded retail, restaurant, and office space in the water front area. The proposed uses fall within the Non-Marine Use Overlay Zone (NMUOZ) of the Waterfront Central zoning district and are thus considered appropriate and consistent with the planning for the area. The future phase buildings will occupy space along the Commercial Street frontage and thus achieve the City's goal of building development along the street frontage.
- Continued investment by the owners in the wharf's marine infrastructure. The owner's family has overseen operations on the wharf for several centuries. They remain a vital supporter of the Portland Waterfront marine activities and they constantly invest time and capital in their facilities, as evidenced later in this submission.

1.4 EXISTING CONDITIONS

The site consists of multiple existing buildings and structures extending from the Commercial Street frontage out to the end of the Union Wharf Pier. As shown on the Overall Site Existing Conditions Plan, the site's Commercial Street frontage includes two structures, housing the Union Wharf Catering business and the Sapporo Restaurant. Further, into the Union Wharf property, there are multiple tenants occupying the various structures. These include Sawyer & Whitten Marine Electronics, MSRC (Marine Spill Response Corporation), several Architectural offices, Cozy Harbor Seafood, and CBS Commercial Lobster & Bait among others. The Union Wharf site currently contains approximately 208 parking spaces, distributed throughout the wharf area. The higher density of spaces is located along the Widgery Wharf Lane frontage where a larger surface parking area exists. The parking is used by both the onsite marine and non-marine tenants and there are lease spaces to various offsite users. During non-business periods the parking is managed for short term (hourly) parking use. There are existing utilities including sanitary sewer, water supply, and overhead utilities available on the wharf. The water system includes a public water main that extends from Commercial Street into the wharf to a supply meter pit. Beyond the meter pit, the water supply line is a private main held by the applicant. The sanitary sewer connects to the collection

system in Commercial Street. The majority of the site is developed with pavement, wood surfaces, buildings, or concrete pads. There is little to no non-impervious surface area on the site.

The site contains numerous catch basin structures that collect storm water runoff from the developed areas across the site. There are multiple pipe discharge locations from these catch basins to the Fore River.

1.5 ACCESS CONDITIONS

The site's primary vehicular access will continue to be from the signalized intersection of Union Wharf and Commercial Street as well as from the unsignalized intersection of Widgery Wharf Lane and Commercial Street. The Phase 1 building and its associated parking will be accessed primarily via Widgery Wharf Lane. Pedestrian access from the Commercial Street sidewalk will be provided for a defined pedestrian route, outlined by the placement of pavement markings on other surface treatment. The proposed Phase 1 building location will include a small entry and elevator lobby at the ground level. Access to the Phase 1 building will be from Widgery Wharf Lane or thru the existing Union wharf parking lot. The future phase buildings are expected to include the continuation of brick sidewalk along the street front as well as between the buildings, thus offering pedestrian connectivity to the wharf where none exists today. The development will not generate an increase in parking within the Wharf area and in fact will result in a decrease to overall parking upon the completion of the future phase development activities. For these reasons, no further traffic analysis has been performed, since the overall development is not expected to substantially increase traffic to the Commercial Street Corridor.

1.6 SITE UTILITIES

The site contains access to several utility lines. The primary lines are identified are as follows:

- The Portland Water District maintains an 8" cast water main from Commercial Street into Union Wharf. This line feeds from a 12" water main in Commercial Street. Within the wharf, there is a meter pit and a private water main serving most of the wharf's structures. There is a single fire hydrant on the wharf and another hydrant in Commercial Street within 100' of the site.
- The Portland Water District maintains a 12" cast iron water main on the northerly side of Commercial Street of which it is understood that a 2" water service line enters the site to supply domestic service to the building at 250 Commercial Street (Black Tie Catering building).
- Unitil maintains a natural gas line along Commercial Street and service lines to the two existing buildings along Commercial Street. It is the applicant's intent to use natural gas to heat the proposed buildings.
- Power to the site is supplied by Central Maine Power. An overhead service line feeds multiple pole-mounted transformers that then provide service lines to each of the buildings. The Phase 1 building development will include a new underground primary feed from an existing pole on the wharf and a new pad mount transformer is proposed.

Capacity availability letters from the Portland Water District and Central Maine Power are included in Attachment C to this section.

1.7 TOPOGRAPHY AND DRAINAGE

Downeast Surveying & Development has completed a boundary and topographic survey of the property. The site is relatively flat with the highest points along the Commercial Street frontage. The site grades range from Elevation 10' (NGVD 29) along the street to Elevations 8.5' within the interior of the wharf. The wharf contains numerous catch basins as identified on the existing conditions plan. Generally speaking, the drainage structures are typically precast square or circular structures with cast iron grate inlets. Outlet pipes are located at various locations although not all are identified on the plan due to the difficulty in viewing around the wharf perimeter. For those outlets that can be observed, they are mostly positioned to outlet near the mean high tide level. Most of the catch basins appear to have shallow sumps in them.

The proposed buildings will have finish floor elevations established at elevation 12.0' or higher. The Phase 1 building will have ground level parking so its first flow level will be elevated approximately 9 feet above the ground level parking.

1.8 SOILS CONDITIONS

A geotechnical investigation has been performed by Summit Geoengineering, Inc. and they have provided geotechnical recommendations for the proposed building. As part of this effort, they completed a geotechnical field investigation of the Phase 1 building area which included several deep borings. It is anticipated that the new Phase 1 building will be supported on driven piles.

1.9 PROPOSED DEVELOPMENT

The applicant proposes to develop the property in a manner consistent with the WCZ Standards. The development program includes the following components:

1.9.1 ONSITE

The ground floor of the Phase 1 building will have a footprint area of 6,094 SF. The typical upper floor level will contain rentable floor area of 5,497 SF with perhaps two units. The ground floor area is associated with parking, the utility/maintenance rooms for the building as well as the entry lobby, stairwells, and elevator for the upper floors of the building. The third floor of the building may contain additional office units. There will not be a basement provided as part of the building.

The project developer is not seeking LEED designation but the building will conform to the most current International Energy Conservation Code.

As shown on the Site Layout Plan (Sheet C-3.0), the proposed Phase 1 building will have a corner entry from within the Union Wharf parking lot area as well as a stairwell off Widgery Wharf Lane.

The future phase buildings will be positioned along the Commercial Street Frontage thus achieving the requirements for maximum setback from the street line. These structures will have direct pedestrian access from the Commercial Street sidewalk. The buildings

are anticipated to be multi-level structures with a mix of uses including restaurant, retail, and market type land use. The buildings will have floor elevations at a minimum elevation of 12.0 feet; therefore, sidewalk ramps and steps will be necessary for accessibility from the street grade.

Exterior improvements include installation of new utility services to the buildings for water, sewer, natural gas, electric, telephone, and communications. In addition, the proposed site improvements include installation of new street light fixtures as well as replacement of the sidewalk along Commercial Street due to disturbance from building construction. The applicant has existing parking available within the Union Wharf; therefore, no new parking is proposed as part of the project.

1.9.2 OFF-SITE

No offsite improvements are proposed as part of the project.

1.10 LAND ORDINANCE REVIEW

1.10.1 OVERVIEW

The property currently lies within the City of Portland Waterfront Central Zone (WCZ) and the Non-Marine Use Overlay Zone (NMUOZ). Within the WCZ District, the following uses are permitted or conditioned:

Permitted Uses:

(b) Non-marine commercial and industrial uses: Non-marine uses permitted by this section are subject to the standards listed in section 14-311:

1. *Professional, business, government, and general offices;*
2. *Retail and service establishments, including craft and specialty shops. Convenience stores with gas pumps shall not be permitted under this section;*
3. *Restaurants provided that full course meal food service and consumption shall be the primary function of the restaurant, and full course meal service shall be continued up until the hours of closing;*
4. *Banking services without drive-up services;*
5. *Laundry and dry cleaning services;*
6. *Cabinet and carpentry shops, studios for artists and crafts people;*
7. *Intermodal transportation facilities;*
8. *Cold storage facilities;*
9. *Museums and art galleries; and*
10. *Outside accessory activities.*

Conditional Uses:

- Commercial marine uses
- Fish by-products processing
- Boat rack storage facilities

- Residential
- Utility substations
- Temporary wind anemometer
- Wind Energy Systems

The following dimensional requirements apply in the WCZ District:

Dimensional Standard	Requirement
Minimum Lot Size	None
Minimum Frontage Along Commercial Street	75 feet
Minimum Lot Width Within the NMUOZ	50 feet
Front Yard Setback	None
Side Yard Setback	None
Rear Yard Setback	None
Setback from Pier Edge	5 feet for structures
Maximum Lot Coverage	100%
Maximum Building Height	50 feet/3 floors maximum unless for new non-marine use in the NMUOZ; 4 floors will be allowed

1.10.2 SHORELAND ZONING

The site is located within the 250' Shoreland Zone that extends from the High Annual Tide Line. There are currently no vegetated conditions on the wharf and the proposed development including the Phase 1 building and the future phase structures are all within existing building footprint areas or paved surfaces.

1.11 TRAFFIC

The proposed Phase 1 project will not result in significant impacts to the surrounding street system. Based on the ITE 8th Edition Average Trip Rates for LUC 710 (Offices), the project's Phase 1 conditions will result in 28 trips and 27 trips for the AM and PM peak hour, respectively. The applicant is seeking a waiver for a Traffic Movement Permit based on the understanding that the Phase 1 building will result in fewer than 100 peak hour trips.

1.12 NATURAL FEATURES

The development site does not contain any significant natural features including wetlands, vernal pools, or other protected resources. The site has been developed for a period greater than 150 years and there is generally no land area that has not been disturbed or otherwise developed.

1.13 NOISE AND VIBRATION

The WCZ has the following standards for noise and vibration:

"2. Noise: The level of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American National Standards Institute, Inc.), inherently and recurrently generated within the waterfront central zone shall not exceed seventy-five (75) decibels on the A scale at the boundaries of any lot, except for sound from construction activities, sound from traffic on public streets, sound from temporary activities such as festivals, and sound created as a result of, or relating to, an emergency, including sound from emergency warning signal devices. In measuring sound levels under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ_1).

3. Vibration: Vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries. This shall not apply to vibration resulting from activities aboard a vessel or from railroad vehicle activities, or from activities on a pile supported pier."

It is the Applicant's intention to comply with the noise and vibration standards above. Night time activity will be minimal. Typical sources of noise from the site are from marine and non-marine sources. Temporary noise sources during construction will include pile driving, pavement grind, dump trucks delivering gravel/fill to the site.

The site is well separated from noise sensitive sites with no direct abutting impacts to abutting residential neighborhoods. The nearest residential building is Chandler's Wharf which is approximately 220' away from the edge of the proposed Phase 1 building.

The site is surrounded by commercial/industrial uses as previously outlined. Other adjacent noise generating sources including Commercial Street activities and the flight path of the Portland International Jetport.

1.14 LIGHTING

The primary purpose for site lighting for the site is for security in the vicinity of the buildings and to provide lighting at key operational access points to the wharf. Security at the site will be supplemented by infrared cameras mounted on the buildings. With future development, and potentially increased nighttime activities, additional pole and wall-mounted full cutoff fixtures with LED lamps may be proposed.

It is important to note that light sources from abutting properties cast direct and indirect illumination onto the property. The adjacent light sources include cobra head sodium lights on utility poles along Commercial Street.

Based upon the existing ambient light levels and the proposed lighting, the Applicant is comfortable that adequate lighting will be present at the property for the proposed uses.

The Applicant is requesting that the Planning Staff support a waiver by the Planning Board of the lighting standards of Section XV 4.A. Uniformity and 4.B. Illumination Levels, based upon the following:

1. Existing ambient light levels at the property are between 0 and 0.3 foot-candles at the interior and 0.8 to 1.5 fc at the edges of the lot;

2. Proposed lighting will provide for security, safety, and nighttime use of the new buildings and work yards; and

3. Illumination of the property to the levels required by the City Ordinance will impact the residences located at Chandler's Wharf.

1.15 SOLID WASTE

The site will generate typical solid waste.

Regular non-hazardous waste will be stored on site in a dumpster(s) and collected by a local solid waste company with whom the Applicant will form an annual contract. The site plans indicate the location of a group of dumpsters to serve the property along the south side of the pier. This location is relatively screened yet accessible by the waste disposal vendor.

1.16 STORMWATER MANAGEMENT

The wharf currently contains multiple catch basins that discharge directly to the waterfront. There are no known drainage connections to any City systems in Commercial Street. Because of the proximity of the site to the Fore River and tidal conditions, the applicant is requesting a waiver of any flood control standards. The proposed project includes the installation of several cartridge filter units for roof drainage on each of the proposed buildings. This is the extent of proposed water quality treatment. The proposed project will not result in any increase to site imperviousness, thus the impacts to overall stormwater management are considered negligible.

1.17 EROSION AND SEDIMENT CONTROL

Temporary Erosion and Sediment Control measures are included as part of the plan documents. Temporary measures during construction are expected to be modest since there will be limited earthmoving involved. The primary emphasis will be on keeping paved areas clean and swept and existing drainage inlets protected during construction.

1.18 FLOODING

The project site has been depicted graphically on a portion of the FEMA Flood Insurance Rate Map and is attached as Figure 7 and provided at the end of this section. The buildings will be constructed with a minimum finish floor elevation of 12.0 feet, which is 2 feet higher than the 100-year flood elevation of 10.0 feet.

1.19 BLASTING

Based on previous soil investigation at the site, blasting is not anticipated for construction of the project. If blasting or rock removal is required, the contractor will be required to prepare a Blasting Plan and preblast survey prior to any rock removal.

1.20 AIR EMISSIONS/ODORS/VAPORS

Air emissions expected to occur as a result of or within the project area are as follows:

- Temporary emissions associated with construction vehicles and construction of project.
- Temporary emissions associated with vehicular travel of employees, delivery vehicles, travel lift, etc.
- Emissions associated with the heating systems for the brokerage building and tension fabric building.
- Emissions related to boat repair activity.

Odors will be generated during the construction phase of the development and during day to day operation of the proposed boatyard facility.

Short term odors or odors generated during construction include the following:

- Organic odors from earth moving during construction.
- Petroleum odors from construction equipment and vehicles used during construction for the project.
- These odors will emanate from the site and may be detectable in the immediate vicinity of the development but will dissipate through the air into the atmosphere in negligible amounts.

Long term odors or odors generated during day to day operation of the facility such as that proposed include:

- Petroleum odors from vehicles/travel lift.
- Solid Waste odors.
- Marine use odors associated with boat storage and related activities.

These odors are not likely to be offensive, as they are of low intensity; therefore, no provisions for odor control are planned. However, appropriate ventilation procedures will be utilized on site for health and safety of staff as necessary.

Large Scale water vapor emissions are not anticipated as part of this project.

1.21 SUNLIGHT

The proposed buildings at the site will not cast significant shadows onto neighboring properties, or block access to direct sunlight for structures utilizing solar energy. The Site Layout Plan and Grading and Drainage Plan show the proposed site improvements and their relationships to property lines. The grading plan shows the relative elevations of the buildings with respect to elevations along the property lines.

1.22 APPROVAL REQUIREMENTS

The following permits are anticipated:

- City of Portland Planning Board Level III Site Plan Approval
- City of Portland Building Permit(s)

1.23 ATTACHMENTS

Attachment A – Photographs of the Existing Site

Attachment B – Figures 1-11

Attachment C – Ability to Serve Letters from PWD and Central Maine Power

Attachment D – Building Elevations/Floor Plans/Renderings

ATTACHMENT A

Existing Site Photographs



PHOTO 1 – Commercial Street Frontage



PHOTO 2 – View from Widgery Wharf Lane

Stantec

Stantec Consulting Services Inc.
482 Payne Road, Scarborough Court
Scarborough ME 04074-8929
Main: 207.883.3355 Fax: 207.883.3376

Existing Site Photographs
Union Wharf – Portland, Maine



PHOTO 3 – View of the Rear of Sapporo Restaurant



PHOTO 4 – View of the Front of Black Tie Catering

Stantec

Stantec Consulting Services Inc.
482 Payne Road, Scarborough Court
Scarborough ME 04074-8929
Main: 207.883.3355 Fax: 207.883.3376

Existing Site Photographs
Union Wharf – Portland, Maine



PHOTO 5 – View of the Front of Sapporo



PHOTO 6 – Aerial View

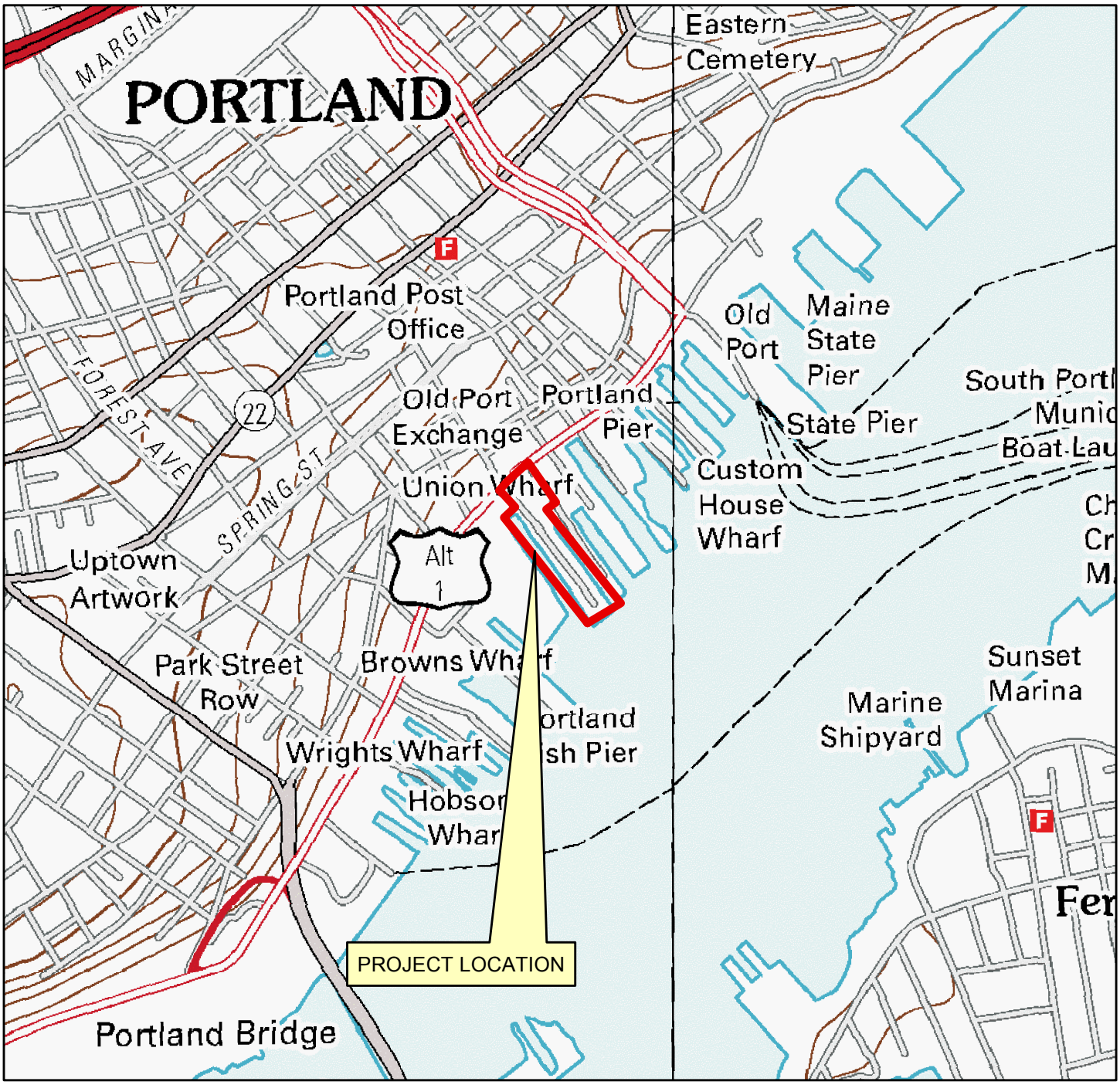
Stantec

Stantec Consulting Services Inc.
482 Payne Road, Scarborough Court
Scarborough ME 04074-8929
Main: 207.883.3355 Fax: 207.883.3376

Existing Site Photographs
Union Wharf – Portland, Maine

ATTACHMENT B

Figures 1-11



USGS LOCATION MAP
UNION WHARF
PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS

STANTEC

482 PAYNE ROAD SCARBOROUGH COURT
SCARBOROUGH, MAINE 04106
WWW.STANTEC.COM

DRAWN:	DED
CHECKED:	SRB
DATE:	MAY 2016
FILENAME:	195350003 USGS
SCALE:	1 inch = 1,000 feet

FIGURE

1



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AERIAL PHOTOGRAPH
UNION WHARF
PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS

STANTEC

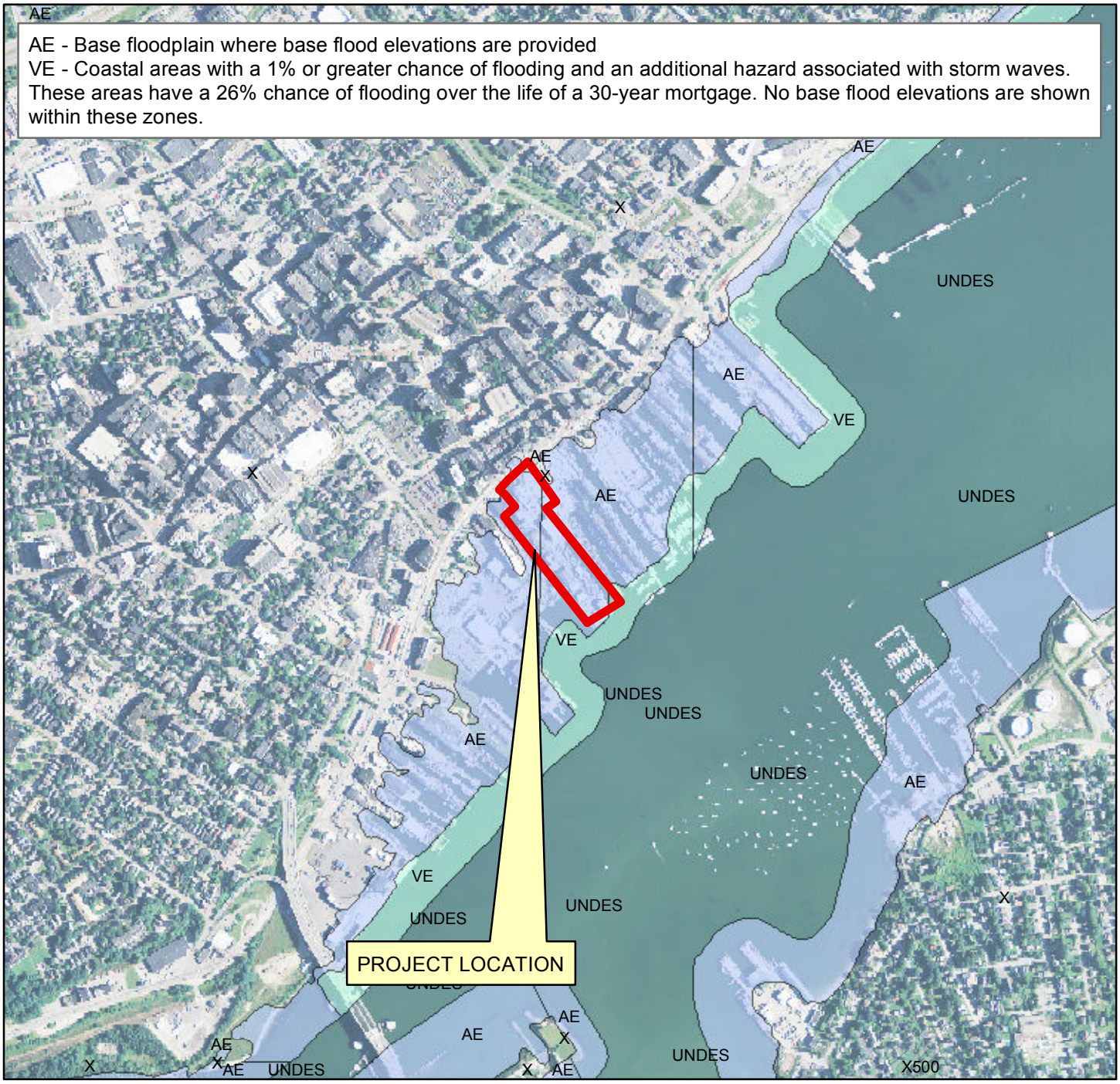
482 PAYNE ROAD SCARBOROUGH COURT
SCARBOROUGH, MAINE 04106
WWW.STANTEC.COM

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DATE:	MAY 2016
FILENAME:	195350003 AERIAL
SCALE:	1 inch = 1,000 feet

FIGURE

2



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FLOOD MAP
UNION WHARF
PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS

STANTEC

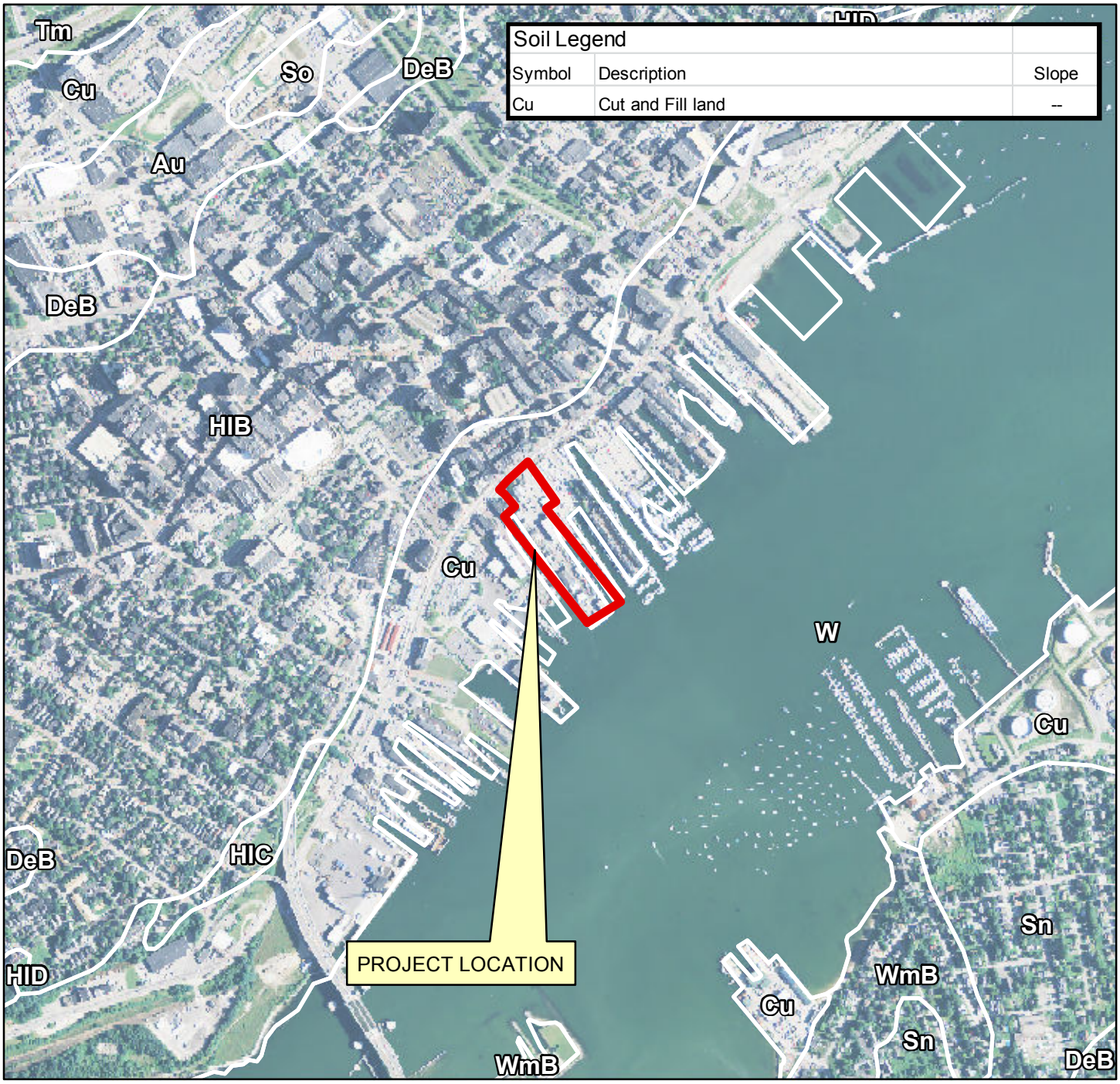
482 PAYNE ROAD SCARBOROUGH COURT
SCARBOROUGH, MAINE 04106
WWW.STANTEC.COM

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DATE:	MAY 2016
FILENAME:	195350003 FLOOD
SCALE:	1 inch = 1,000 feet

FIGURE

3



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MEDIUM INTENSITY SOILS MAP
UNION WHARF
PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS

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SCARBOROUGH, MAINE 04106
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DRAWN:	DED
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DATE:	MAY 2016
FILENAME:	195350003 SOILS
SCALE:	1 inch = 1,000 feet

FIGURE

4



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NATIONAL WETLAND INVENTORY MAP
UNION WHARF
PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS

STANTEC

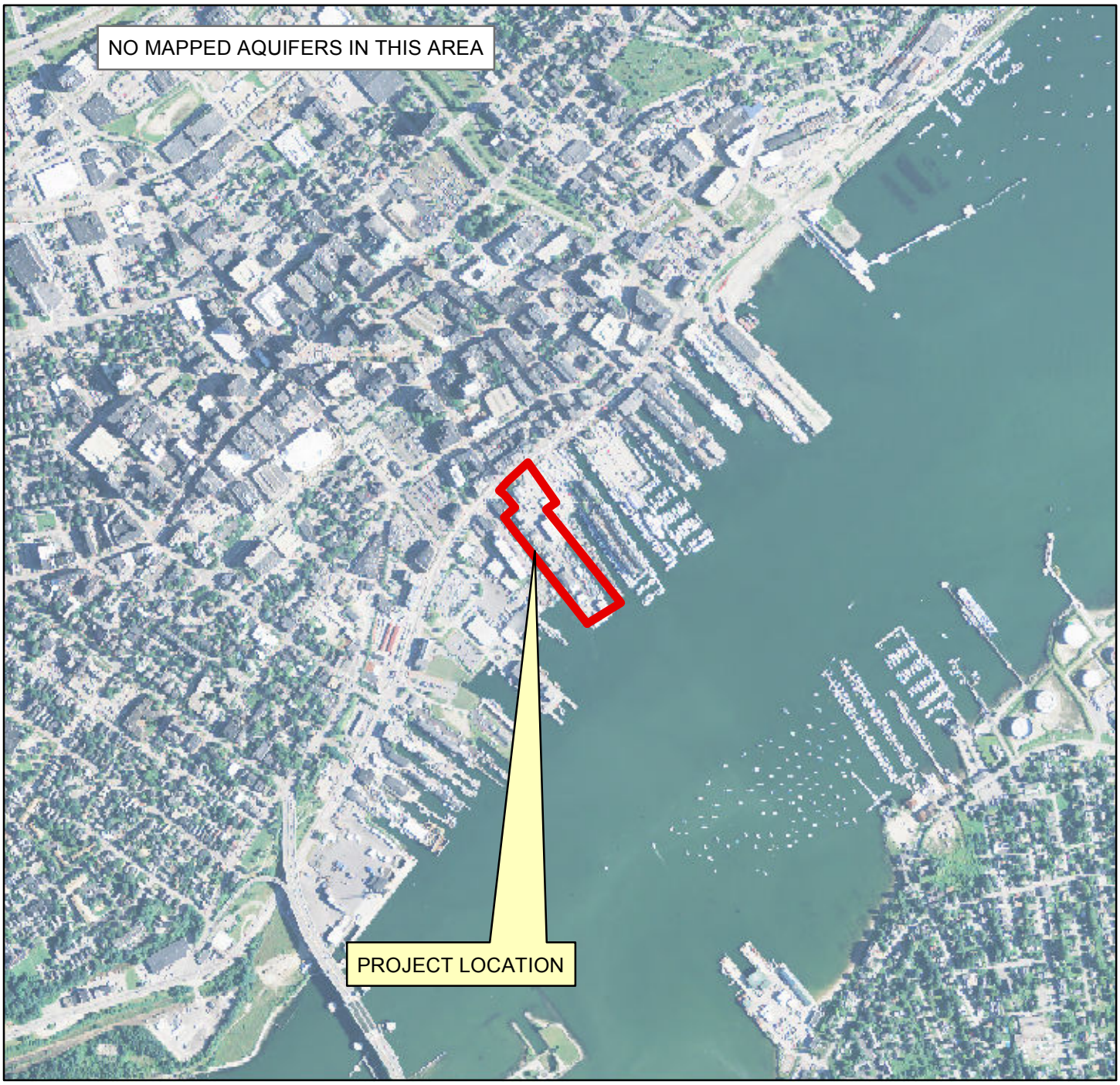
482 PAYNE ROAD SCARBOROUGH COURT
SCARBOROUGH, MAINE 04106
WWW.STANTEC.COM

Stantec

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DATE:	MAY 2016
FILENAME:	195350003 NWI
SCALE:	1 inch = 1,000 feet

FIGURE

5



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SAND AND GRAVEL AQUIFER
WIDGERY WHARF
PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS

STANTEC

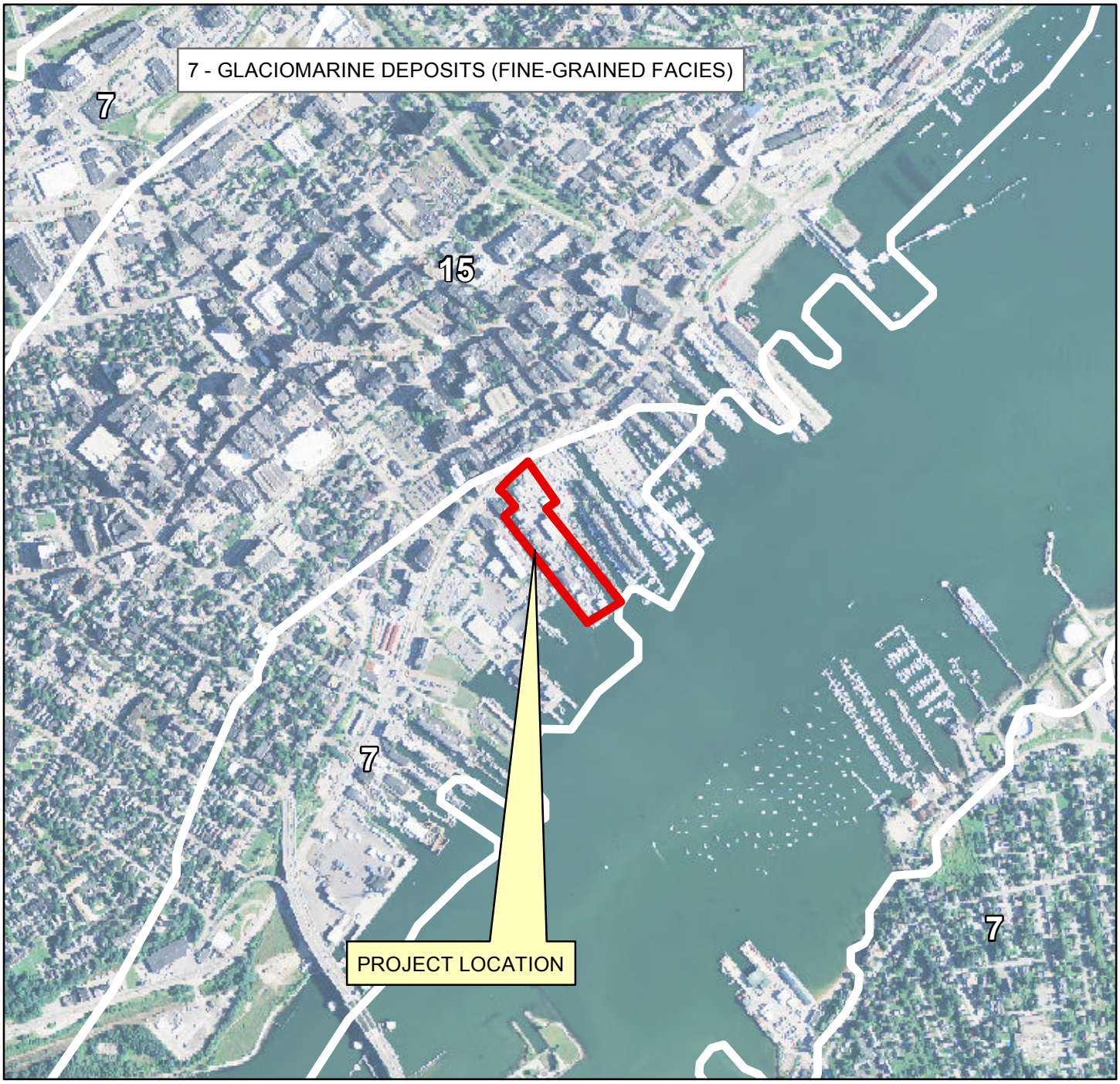
482 PAYNE ROAD SCARBOROUGH COURT
SCARBOROUGH, MAINE 04106
WWW.STANTEC.COM

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DATE:	MAY 2016
FILENAME:	195350003 AQUIFER
SCALE:	1 inch = 1,000 feet

FIGURE

6



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SURFICIAL GEOLOGY MAP
UNION WHARF
PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS

STANTEC

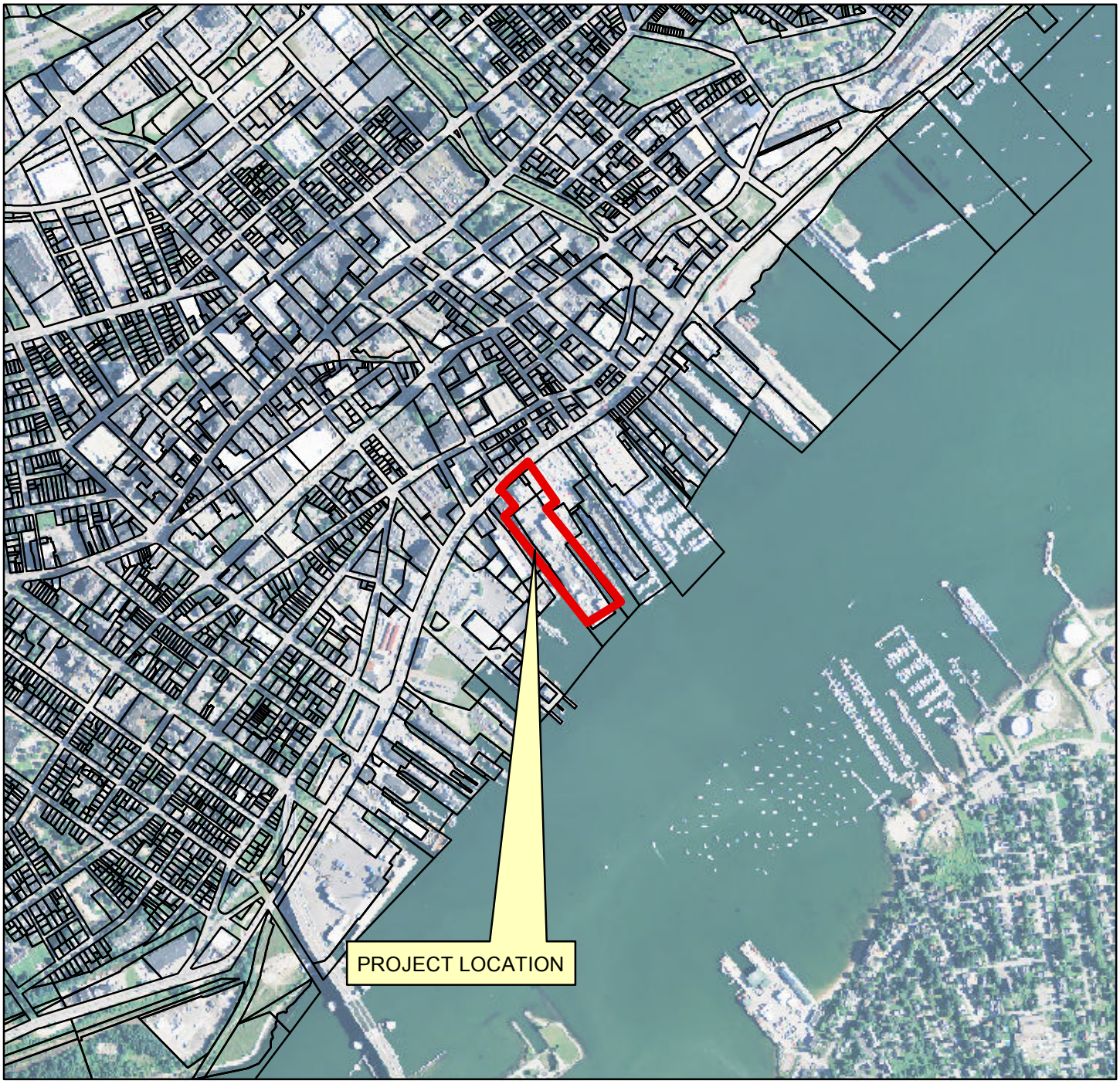
482 PAYNE ROAD SCARBOROUGH COURT
SCARBOROUGH, MAINE 04106
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DATE:	MAY 2016
FILENAME:	195350003 SURFICIAL
SCALE:	1 inch = 1,000 feet

FIGURE

7



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CITY OF PORTLAND TAX MAP
UNION WHARF
PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS

STANTEC

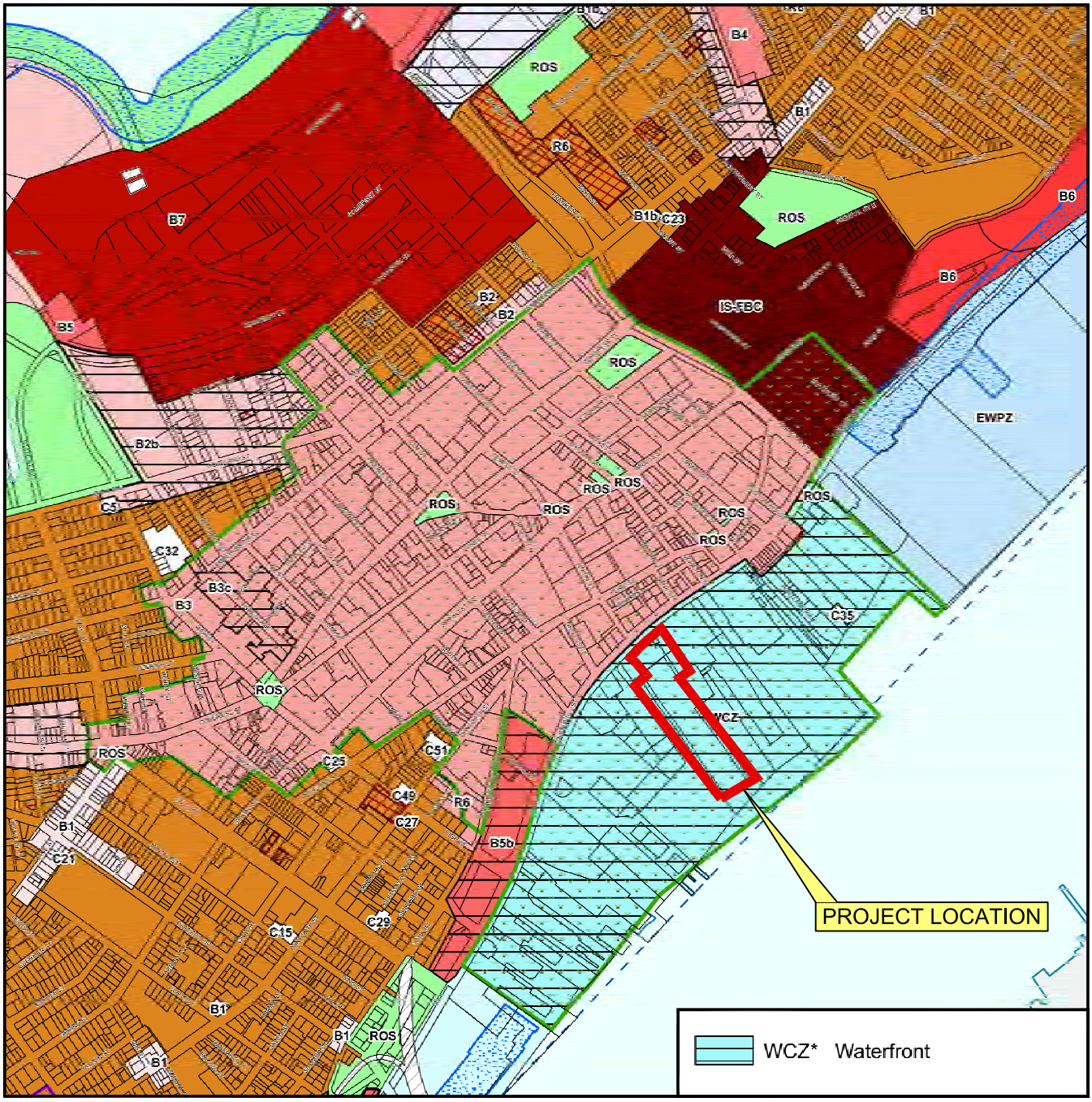
482 PAYNE ROAD SCARBOROUGH COURT
SCARBOROUGH, MAINE 04106
WWW.STANTEC.COM

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DATE:	MAY 2016
FILENAME:	195350003 TAX MAP
SCALE:	1 inch = 1,000 feet

FIGURE

8



N
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ZONING MAP
UNION WHARF
PORTLAND, MAINE

SOURCE: TOWN OF GRAY

STANTEC CONSULTING SERVICES INC.

778 MAIN ST, SUITE 8
SOUTH PORTLAND, ME 04106
WWW.STANTEC.COM

Stantec

DRAWN:	DED
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DATE:	MAY 2016
FILENAME:	195350003 ZONING
SCALE:	1" = 1000'

FIGURE
9

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ATTACHMENT C

Ability to Serve Letters

Portland Water District

From Sebago Lake To Casco Bay

January 28, 2016

Stantec
778 Main Street, Suite 8
South Portland, ME 04106

Attn: Mr. Stephen Bushey, P.E.
Re: 218 Commercial Street - Portland
Ability to Serve with PWD Water

Dear Mr. Bushey:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on January 12, 2016. Based on the information provided, we can confirm that the District will be able to serve the proposed project as further described in this letter.

Conditions of Service

The following conditions of service apply:

- The property requesting water service does not have deeded frontage on a public way containing a public water main, which is a requirement for water service. However, a main extension along Widgery Wharf would not be warranted due to the limited potential for further development. New water services may be installed from the public main in either Commercial Street or Union Wharf.

- Proper easement documentation must be obtained from any properties that the new service line will cross. The easement(s) should specifically cite the right to install and maintain utilities. A copy of the deed for each of the proposed parcels must be provided to the District prior to completing new service applications.

- Water District approval of water infrastructure plans will be required for the project prior to construction. As your project progresses, we advise that you submit any preliminary design plans to MEANS for review of the water main and water service line configuration. We will work with you to ensure that the design meets our current standards.

Existing Site Service

According to District records, the project site does not currently have existing water service.

225 Douglass Street P.O. Box 3553 Portland, Maine 04104-3553
Phone: 207.774.5961 Fax: 207.523.5440 Web: www.pwd.org

Water System Characteristics

According to District records, there is a 12-inch diameter cast iron water main on the north side of Commercial Street and a public fire hydrant located 270 feet from the site. Recent flow data is not available in this area. The most recent static pressure reading was 102 psi on September 2, 2015.

Public Fire Protection

You have not indicated whether this project will include the installation of new public hydrants to be accepted into the District water system. It is your responsibility to contact the Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project. Based on the high water pressure in this area, we recommend that you consider the installation of pressure reducing devices that comply with state plumbing codes.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District

Glissen Havu, E.I.
Design Engineer



218 Congress Street

Portland

PORTLAND WATER DISTRICT
225 Douglass Street
Portland, ME 04104

Scale 0 25 50 100 150 200 Feet — 1 inch = 103 feet

Legend

Air Valve	Connection	Combined Service	Manhole
Blow Off	Attribute Change	Domestic Service	CSO
By Pass	Reducer	Fire Service	Gravity
Distribution	Hydrant	Private Hydrants	Force
Transmission	Hydrant Control	Meter Pits	

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.

Infrastructure Map	Infrastructure Map
Scale: As Noted	Date: January 12, 2016

12/10/2014

Stephen Bushey
Fay, Spofford & Thorndike
778 Main Street, Suite 8
South Portland, ME 04106
Sent via email to: sbushey@fstinc.com

RE: Ability to Serve Letter for Widgery Wharf

Dear Mr. Bushey:

CMP has the ability to serve the proposed project located at 230 Commercial Street and 1-11 Widgery Wharf in Portland, Maine, in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Standards Handbook. If you have any questions on the process, or need help in completion of the documents, please feel free to contact me.

New Service Milestones

- Call 1-800-565-3181 to establish a new account and an SAP work order.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections if you have them.
- Submit Load information. Please complete this CMP spreadsheet using load information
- Submit the easement information worksheet. Please complete this CMP form and either email or fax back to us.
- Preliminary meetings with CMP to determine the details of job
- Field planner design appointment to cost out job and develop CMP Invoice.
- Submit invoice for payment.
- Easements signed and payment received.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer delivery, potential substation upgrades, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

162 Canco Road Portland, ME 04103
Tel (800) 750-4000
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

www.cmpco.com

An equal opportunity employer

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements:

CMP Handbook of Standard Requirements
(http://www.cmpco.com/MediaLibrary/3/6/Content%20Management/YourAccount/PDFs%20and%20Docs/handbook.pdf)

If you have any questions, please contact me.

Regards,



Jamie Cough
Energy Services Advisor
Central Maine Power Company
162 Canco Road
Portland, ME 04103
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

ATTACHMENT D

Building Elevations/Floor Plans/Renderings


ARCHETYPE
architects


SIG


ARCHETYPE
architects



ARCHETYPE
architects


ARCHETYPE
architects



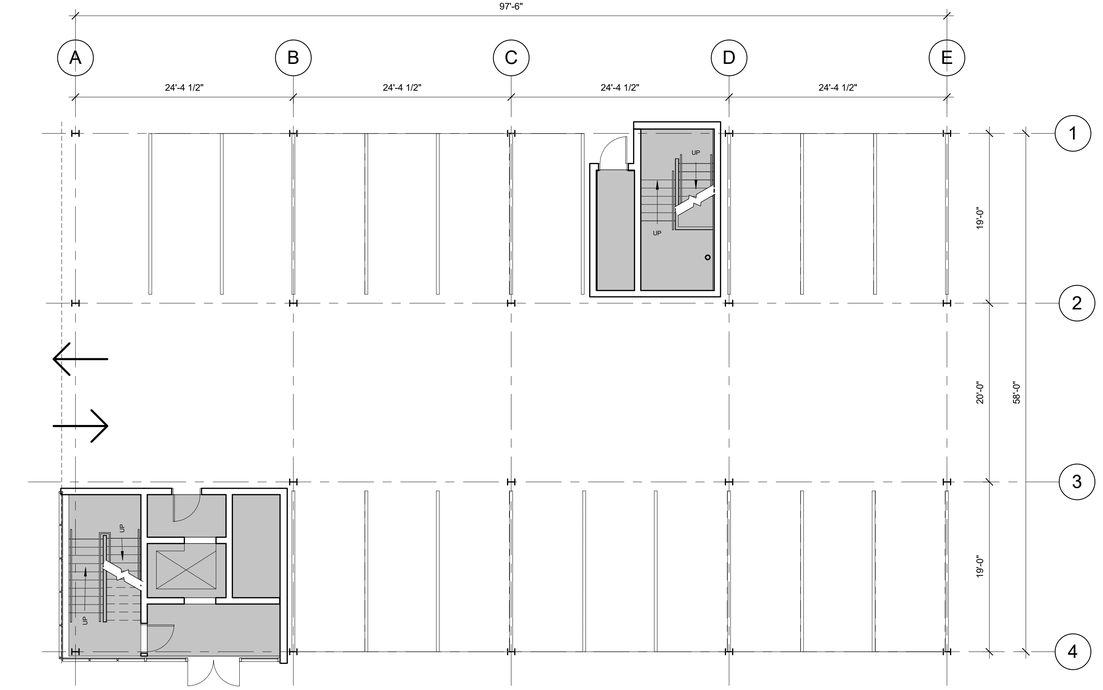
1 | TYPICAL UPPER FLOOR
1/8" = 1'-0"

GROSS: 6,094 SF
FLOOR RENTABLE AREA: 5,497 SF
FLOOR USABLE AREA: 4,622 SF



3 | 3RD FLOOR
1/8" = 1'-0"

GROSS: 6,094 SF
FLOOR RENTABLE AREA: 5,538 SF
FLOOR USABLE AREA: 5,240 SF



2 | LOWER LEVEL
1/8" = 1'-0"

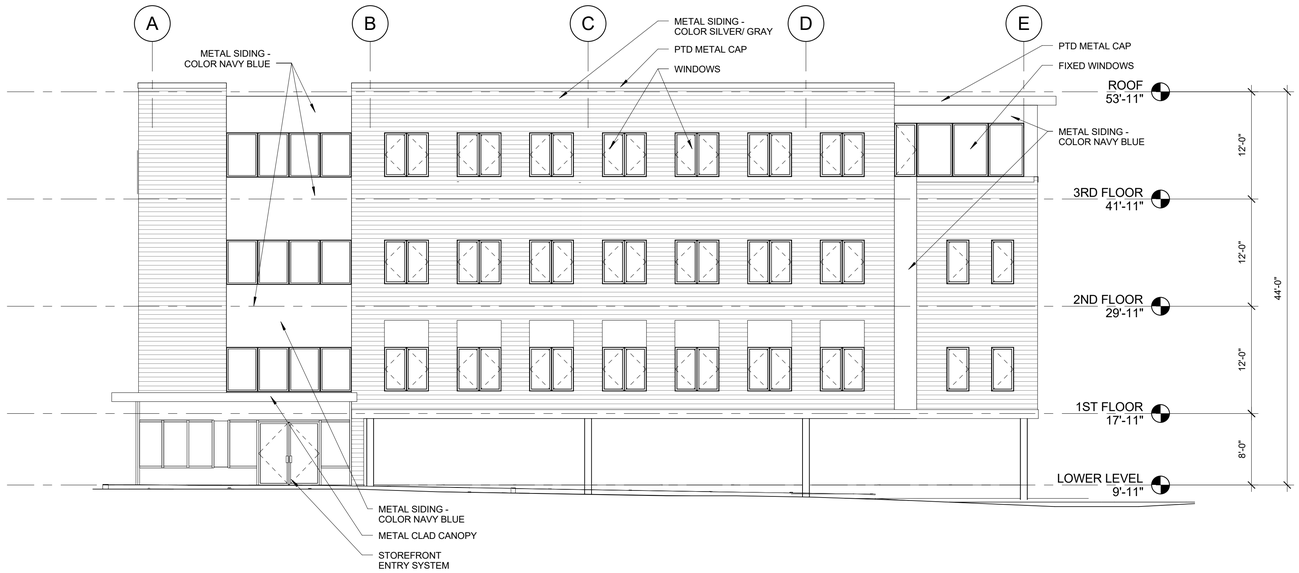
WIDGERY WHARF - BUILDING C

PORTLAND, MAINE

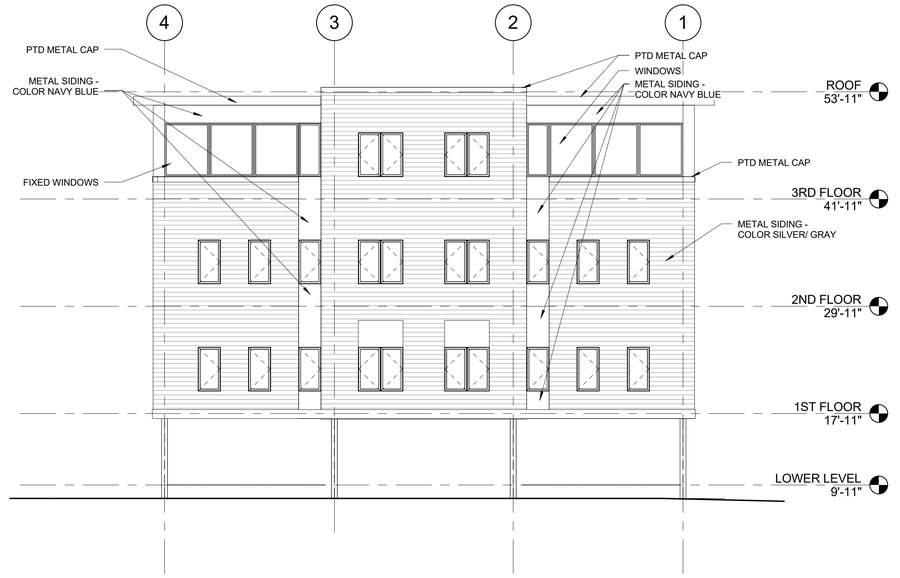
JULY 07, 2016

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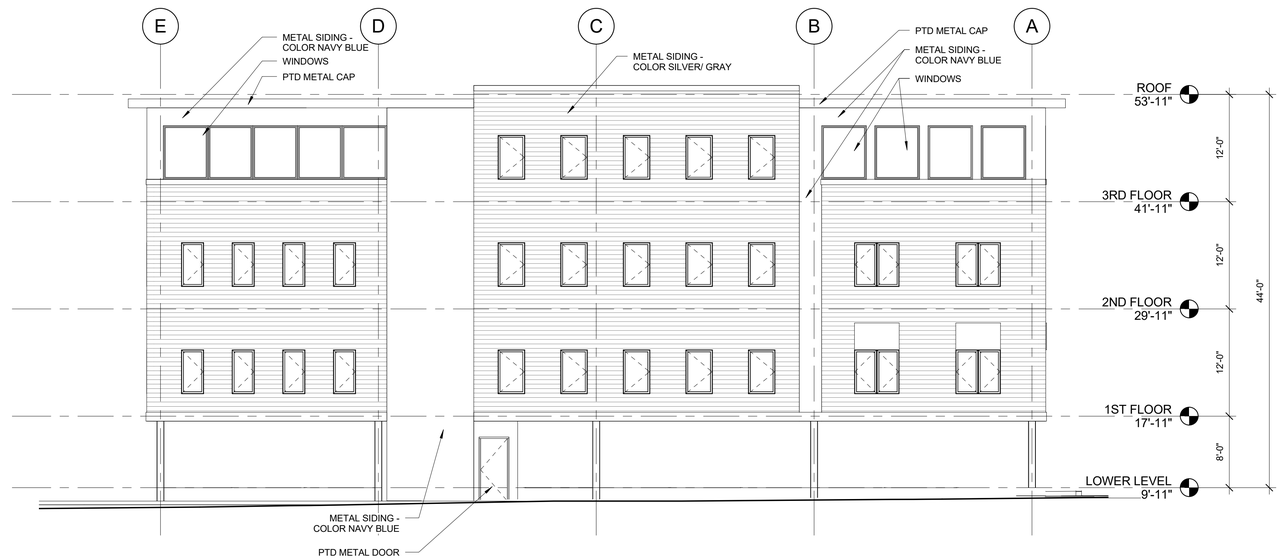
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101



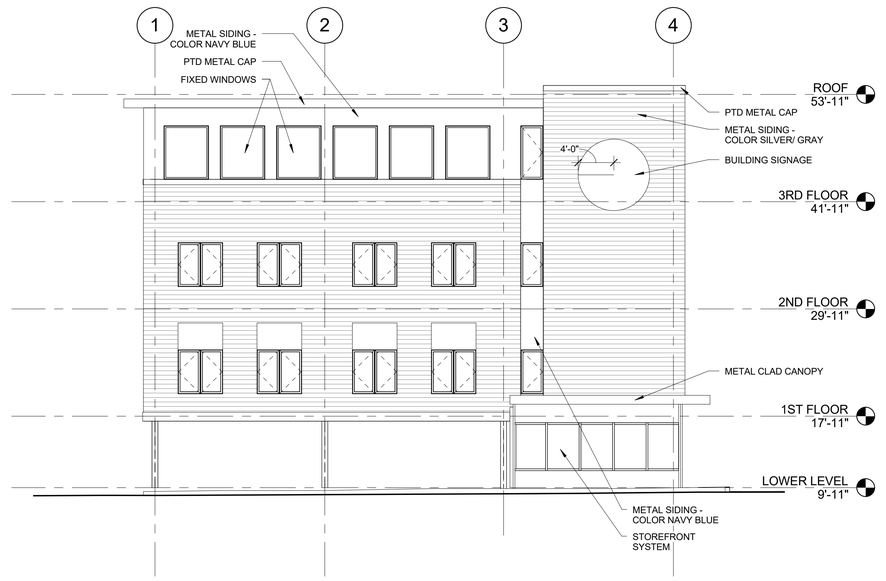
1 | S-W ELEVATION
1/8" = 1'-0"
0 2'-0" 4'-0" 8'-0" 16'-0"



3 | S-E ELEVATION
1/8" = 1'-0"
0 2'-0" 4'-0" 8'-0" 16'-0"



2 | N-E ELEVATION
1/8" = 1'-0"
0 2'-0" 4'-0" 8'-0" 16'-0"



4 | N-W ELEVATION
1/8" = 1'-0"
0 2'-0" 4'-0" 8'-0" 16'-0"

GENERAL NOTES:
1. AVERAGE GRADE BY DEFINITION: 4 CORNER AVERAGE GRADE - N 9.7' + E 9.3' + S 9.3' + W 7.4' = 35.7' / 4 = 8'- 11" (AVERAGE GRADE)

2. BUILDING HEIGHT: THE VERTICAL MEASUREMENT FROM AVERAGE GRADE TO HIGHEST POINT OF THE ROOF BEAMS = 44' - 6" TO THE MAIN ROOF

WIDGERY WHARF - BUILDING C

PORTLAND, MAINE

JULY 27, 2016

A2.1

ARCHETYPE architects
48 Union Wharf Portland, Maine 04101

3. CONFORMITY WITH APPLICABLE DESIGN STANDARDS

The following statements are made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use, Article V Section 14-526.

3.1 OVERVIEW

This project conforms with all the applicable design standards of Section 14-526 as demonstrated in the following narrative.

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

   The development will fit in with the existing street system as it will use existing improved access locations off Commercial Street. Based on the limited intensity of use, the project is expected to have an insignificant impact on traffic in the neighborhood. The existing Union Wharf access is signalized at Commercial Street and the Widgery Wharf Lane is unsignalized. There are no changes proposed to either intersection.

2. Access and Circulation:

   a. Site Access and Circulation.

      (i) The development provides access via Commercial Street. Internal circulation has been reviewed and designed to accommodate the typical use of passenger vehicles and occasional semitrailers. Marine use heavy vehicle movements have routinely occurred over many years without significant issue or impact to the surrounding street system.

      (ii) Access and egress have been designed to avoid conflicts with existing turning movements and traffic flows.

      (iii) The site does not feature drive up services as mentioned in this requirement.

   b. Loading and Servicing.

      (i) The site layout has been configured to accommodate the existing movements of large vehicles and access to the wharf. The proposed buildings will not require large vehicle delivery service but will rely on routine box truck and similar service vehicle support which can use the Wharf and Commercial Street for access to the buildings.

   c. Sidewalks.

      (i) The existing site contains brick sidewalk along its length of Commercial Street. An access route for Commercial Street to the Phase 1 building will be provided and additional brick sidewalk/plaza will be provided as part of the future phase build out.

(ii) Additional internal sidewalk off Commercial Street will be provided between the future phase buildings. This alley will provide pedestrian access as well as continued visual access from Commercial Street to the waterfront.

3. Access and Circulation:

   a. The development contains no residential uses. In addition, METRO service does not currently use Commercial Street in front of the site; therefore, provisions for transit are not applicable.

   b. A new Transit stop is not proposed.

   c. A new transit stop is not proposed.

   d. Waiver: The applicant requests a waiver of the transit facility requirement.

4. Parking:

   a. Location and Required Number of Vehicle Parking Spaces:

      (i) The wharf currently contains approximately 208 parking spaces serving various uses onsite as well as leased spaces to nearby downtown tenants. The Phase 1 building will increase the parking count to 216 spaces. The following tables summarizes the parking required by Code for the existing and proposed buildings:

Proposed Buildings			
Building	**Uses/Size**	**Parking Rates**	**Required Spaces***
1	Office/1,800 SF	1 SP/400 SF	18,000/400 x 50% = 23 Spaces
2	Open Market/4,855 SF	1 SP/200 SF	4,855/200 x 50% = 12 Spaces
	Restaurant/4,855 SF	1 SP/150 SF	4,855/150 x 50% = 16 Spaces
3	Restaurant/5,175 SF	1 SP/150 SF	5,175/150 x 50% = 17 Spaces
	Food Court/5,175 SF	1 SP/200 SF	5,175/200 x 50% = 13 Spaces
	Office/4,018 SF	1 SP/40 SF	4,018/400 x 50% = 5 Spaces
		Total	**86 Spaces**

**Per Sec. 14-332.1(J) offstreet parking required at 50% of code required spaces.*

Existing Buildings			
Building*	**Uses/Size (SF)**	**Parking Rates**	**Required Spaces***
1	Union Kitchen/3,525 SF	1 SP/200 SF	3,525/200 = 18 Spaces
230	Sapparo/2,539 SF	1 SP/150 SF	2,539/150 = 17 Spaces
36	Offices/5,014 SF	1 SP/1,000 SF	5,014/1,000 = 5 Spaces
38	Office/1,456 SF	Not Required	(<3,000 SF) ---
14	MSRC/10,900 SF	1 SP/1,000 SF	10,99000/1,000 = 11 Spaces
41	Various/1,560 SF	Not Required	(<3,000 SF) ---
48	Various/6,691 SF	1 SP/1,000 SF	6,691/1,000 = 7 Spaces
28	1 / 1,864 SF	Not Required	(<3,000 SF) ---
50	Maine Lobster/2,220 SF	Not Required	(<3,000 SF) ---
52	CBS Bait/2,388 SF	Not Required	(<3,000 SF) ---
35	Cozy Harbor/4,928 SF	1 SP/1,000 SF	4,928/1,000 = 5 Spaces
		Total	**63 Spaces**

**See Survey Plan*

Total Spaced Required Per Code for Existing and Proposed Uses = 149 Spaces

(ii) The applicant has not prepared a TDM strategy as it is not applicable to the intended uses.

(iii) The applicant proposes the amount of parking which is appropriate for the anticipated uses of this site.

(iv) Parking spaces and aisles have been designed to meet the dimensional requirements of the Technical Manual.

(v) Vehicle parking areas have been designed to withstand site conditions.

b. Location and Required Number of Bicycle Parking Spaces:

(i) The applicant is proposing bicycle hitches for all three buildings in an amount considered appropriate for each use.

c. Motorcycles and Scooter Parking:

(i) The applicant is requesting a waiver of the motorcycle/scooter parking requirements based on the site use. There will be at least 2 designated motorcycle spaces beneath the Phase 1 building. There are also multiple motorcycle spaces on Commercial Street in front of the Union Kitchen.

d. Snow Storage:

(i) Snow storage management will employ two strategies;

1. On-site snow storage around the perimeter of the site.

2. Snow removal and offsite storage – the nature of the proposed site use precludes the need for significant snow removal. During larger snow fall events, hauling of snow offsite may be required.

5. Transportation Demand Management (TDM):

a. A TDM plan is not required for the project.

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

a. The existing site retains no prominent significant natural features; therefore, no issue related to the preservation of these features applies.

b. The applicant is not requesting a waiver from this standard.

2. Landscaping and Landscaping Preservation:

a. Landscape Preservation:

(i) The site's existing conditions contains little to no significant trees other than several along Commercial Street in front of the Union Kitchen building. These will remain. The site plan depicts the placement of seasonal planting on the site, placed in a manner that will allow removal for winter time operations.

(ii) Not applicable

(iii) Not applicable

(iv) The applicant will request a waiver from this standard.

(v) Not applicable

b. Site Landscaping.

(i) Landscaped Buffers:

(a) There are no service or loading areas observable from nearby sidewalks or residential properties.

(b) The development is not subject to zoning setbacks or buffering requirements.

(c) Not applicable.

(ii) Parking Lot Landscaping:

a) thru d) The applicant will be requesting a waiver of the parking lot landscaping standards based on site use.

(iii) Street Trees:

(a) The applicant requests a waiver of this standard based on site use and existing conditions.

3. Water Quality, Stormwater Management, and Erosion Control:

a. Stormwater:

(i) The site's runoff conditions are primarily self-contained and runoff either sheets to the Fore River or discharges via pipe outfalls from multiple small catch basins into the river; therefore, issues related to offsite or downstream flooding are not applicable. There is one onsite catch basin within the Union Wharf access that possibly drains to the City's Commercial Street system per various records.

(ii) All stormwater runoff is proposed to discharge to the Fore River. The project will not adversely impact adjacent lots or the City street system.

(iii) All stormwater runoff is proposed to discharge to the Fore River. The project will not adversely impact adjacent lots or the City street system.

(iv) All stormwater runoff is proposed to discharge to the Fore River. The project will not adversely impact adjacent lots or the City street system.

b. The Stormwater Management Plan will meet the requirements and goals stated in Section 5 of the Technical Manual.

c. The project is not located in a watershed of an urban impaired stream as listed by the MeDEP.

d. N/A

e. The project is serviced by both a public wastewater system and public water supply systems. The project will not pose a risk of groundwater contamination.

f. The project will be connected to the public sanitary sewer system which is adequately sized for the project flows.

(c) Public Infrastructure and Community Safety Standards.

1. Consistency with City Master Plans:

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

   b. The applicant will coordinate with utility representatives for the continuation of easements related to utility infrastructure crossing the site.

2. Public Safety and Fire Prevention:

   a. The site has been designed to promote safe and inviting customer access. Controlled access into the interior parking spaces has been designed into the site plan.

   b. No changes to emergency access conditions within the surrounding streets is proposed.

   c. Fire hydrants are located within the adjacent street system and onsite.

3. Availability and Adequate Capacity of Public Utilities:

   a. The applicant will secure letters from all applicable utilities stating their ability to serve this project. The project will require new utility service infrastructure to serve the new buildings.

   b. All on site electrical lines serving the new buildings will be underground.

   c. All new utility infrastructure will meet the provisions of the Technical Manual.

d. The project will require a new service connection to the sewer system that crosses the site.

e. The sanitary sewer collection system will be designed to meet all applicable sections of the Technical Manual.

f. Not applicable.

(d) Site Design Standards.

1. Massing, Ventilation, and Wind Impact:

   a./b. The bulk, location and height of the proposed building have been designed to not result in adverse impacts to abutting properties. The elevations depicting building massing are enclosed in the site plan package.

   c. HVAC venting is proposed to be directed to the building roof and directed away from public spaces.

2. Shadows:

   a. The development is located in the WCZ Zone and this standard is not applicable.

3. Snow and Ice Loading:

   a. The proposed buildings will be designed and located such that accumulated snow and ice will not fall onto adjacent properties or public ways.

4. View Corridors:

   a. The project site is located outside the Downtown Vision View Corridor Protection Plan.

5. Historic Resources:

   a. The development is not located in a historic district, historic landscape district or City designated landmark.

   b. The development is not located adjacent to or within 100 ft. of a designated landmark, historic district, or historic landscape district.

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

6. Exterior Lighting:

   a. Site Lighting.

(i) Exterior lighting will be designed to meet the requirements of Section 12 of the Technical Manual.

7. Noise and Vibration:

   The project noise levels will be designed to meet the permitted levels as outlined in the WCZ Zone. All HVAC and mechanical equipment is proposed to be mounted on the roof, or otherwise ground mounted and concealed from nearby properties.

8. Signage and Wayfinding:

   a. All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.

      (i) The project is not located in a historic district or subject to Article IX.

      (ii) Proposed commercial signage is still being designed and subject to a condition of approval.

      (iii) All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.

9. Zoning Related Design Standards:

   a. The project is within the WCZ and zoning related design standards are not applicable.

3.2 WATERFRONT CENTRAL ZONE STANDARDS

This project conforms with all the applicable design standards of Section 14-311 as demonstrated in the following narrative.

(b) NMUOZ Standards

1. Vessel Access:

   (i) The proposed uses will not disrupt or block access to vessel berthing and do otherwise adhere to the performance standards of Section 14-311 (d).

2. Maximum setback for new development on lots with seventy-five (75) or more feet of commercial street frontage.

   (i) The proposed future phase buildings identified on the site plans include building construction within 35 feet of the Commercial Street frontage. The intent is for these new buildings to form a façade between Widgery Wharf Lane and the Union Wharf entrance. The layout contemplates pedestrian access/connectivity from the street sidewalk into the interior of the site while also maintaining a view corridor between buildings.

3. Investment in marine infrastructure.

   (i) Section 14-311(b)(3) requires evidence of marine infrastructure investment as a condition of development in the NMUOZ. The following is a list of pier infrastructure investment since 2010:

   a. MSRC berth deck repairs and piling work - $104,000
   b. Est side pier retaining wall and deck repairs - $60,000
   c. Pier roadway, drains, catch basins, sink hole repairs - $83,000
   d. #35 Union Wharf – pier deck under building - $70,000
   e. Pier foundation, deck repairs - $116,000
   f. Timber for decking pier apron decking $20,000
   g. Pier roadway maintenance/paving - $80,000
   h. Note: In 2009, east side of the pier, piling, CAPS and pier deck rebuild - $100,000

   Total - $633,000.

   The following is a summary of upcoming expenditures:

   a. MSRC berth – deck repairs, piling work and foundation rebuild - $300,000 - $450,000
   b. Annual pier maintenance - $80,000 - $100,000

   We believe these investments represent greater than 5 percent of the value of the proposed Phase 1 costs, whereby meeting the provisions of the code. Further documentation on these expenditures can be provided, if necessary.

(d) Performance Standards

1. *Outdoor Storage of Materials*: The proposed uses will not involve the outdoor storage of materials. The existing outdoor storage of marine use related activities on the wharf will continue unchanged.

2. *Noise*: The proposed activities are not expected to increase noise beyond the current levels resulting from the surrounding activities. There will be no exterior activities or equipment that will exceed normal background noise levels.

3. *Vibration*: The proposed activities involve building construction that is not anticipated to result in significant vibration other than during construction.

4. *Federal and State Environmental Regulations*: The proposed buildings will generate typical HVAC/mechanical emissions that will be within all permittable thresholds.

5. *Discharges into Harbor Areas*: The proposed building will include roof drain filter cartridges that will connect to the onsite drainage systems. There are no new proposed outfalls to the Fore River.

6. *Storage of Vehicles*: The project involves no storage of vehicles nor do we understand there to be any issues with this standard in the past.

7. *Landfill of Docking and Berthing Areas*: No landfilling activity is proposed as part of the proposed project.

8. *Off-Street Parking and Loading*:

   a) The overall site layout plan (C-3.0) provides the location of parking and traffic circulation on the site.

   b) The proposed project will not impact the availability of marine use parking in or out of the NMUOZ Zone.

   c) Based on the existing marine uses and the parking supply for these uses, there appears to be adequate parking supply on the site to serve both the marine uses, existing non-marine uses and also the proposed non-marine uses. Upon full buildout there will be a parking supply of 180 spaces on the site and a project parking demand of 142 spaces based on the existing and proposed building sizes and uses.

   d) Parking is generally provided throughout the wharf area.

9. *Shoreland and Flood Plain Management Regulations*: The proposed buildings will be constructed with finish floors no lower than elevation 12.0 ft. which is 2 feet above the flood plain.

10. *Lighting*: The existing site lighting will remain unchanged. The applicant is considering security level lighting around/under the Phase 1 building and future phase building mounted lighting. Most of the existing buildings have wall mounted fixtures and there are several street lights on the overhead utility poles on the wharf and on Commercial Street. The Union Wharf access has street lights. There are also pole mounted area lights along Widgery Wharf Lane. All existing lighting is placed in a manner to avoid glare to passing vessels and also do not have an unreasonable impact on the Chandler's Wharf property, to the best of our understanding.

11. *Signs*: No new signs are proposed at this time. New signs shall be permitted under a separate application.

12. *Storage of Pollutants and Oily Waters*: The proposed project involves no storage of pollutants or oily waters.

13. *Urban Design*: The buildings were designed with the intent of meeting and exceeding the Downtown Urban Guidelines. The buildings directly on Commercial Street are designed with high quality materials, brick, glass, and metal. There is a strong design emphasis on urban activity incorporated by providing balconies, patios, and store front entrances. The face is broken up in 3 dimensions. A contemporary design set in a commercial street indigenous context. All spaces are designed to provide full accessibility to all types of users regardless of disabilities and meeting all current ADA laws. The two buildings on Commercial are separated by a pedestrian access offering views to the interior

of Union Wharf and to phase one of the project. Phase 1 of the project is a building designed within what is really an industrial use waterfront complex. The architecture reelects its neighboring buildings with the application of metal siding but the building is generally of a higher quality than the existing buildings and designed in a clean modern theme. The first floor lobby is surrounded by a store front giving an inviting open feeling to the building. The upper floors have large windows proportioned to the overall façade. The remainder of the first floor is open allowing for the much need parking and offering a transparency to the ground level offering limited views through to the water.

14. *Pier and Wharf Expansions*: The proposed project does not involve a pier or wharf expansion.

15. *Compatibility of Non-Marine Uses with Marine Uses*: The proposed buildings are proposed within the Non-Marine Use Overlay Zone and are located in a manner that will not interfere with any of the long time marine use operations of Union Wharf or Widgery Wharf. The placement of pedestrian access from Commercial Street to the Phase 1 building improves the overall access to the waterfront, while similar pedestrian access along Widgery Wharf Lane will remain unchanged.

16. *Functional Utility of Piers and Access to the Water's Edge*:

    a) The proposed buildings will not interfere with the primary circulation route along the Union Wharf access lane. This route will continue to be as primary means of transport between berthed vessels and Commercial Street.

    b) Not applicable

    c) Not Applicable

    d) The common circulation drives for Union Wharf and Widgery Wharf will remain unchanged and should not be impacted by the proposed buildings.

17. *Public View Protections*: The applicant/architect has considered this standard and believes it is addressed by the implementation of one or more pedestrian corridors running from Commercial Street into the site. As evidenced in the submitted renderings, the alley between the two future phase buildings is envisioned on a pedestrian friendly corridor with ample space and width to afford views to the waterfront. Most importantly, the design of the Phase 1 building will create an open space at ground level, whereby views of the water between Widgery Wharf and Union Wharf may be substantially improved, since an existing ground level building will be demolished.

4. TRAFFIC INFORMATION

4.1 OVERVIEW

This project Phase 1 development will generate fewer than 100 trip ends in a peak hour. Based on the location of a signalized intersection at the Union Wharf/Commercial Street intersection, adequate access to the site is provided. No further traffic analysis has been performed at this time.

5. CONSTRUCTION MANAGEMENT PLAN

5.1 OVERVIEW

The project involves multiple phases of activity within an active business site already occupied by marine and non-marine uses and businesses. The core element of the plan is to have the Owner and Project Management team and the Field Supervision team working together out of an on-site construction office where scheduling, materials handling, manpower and related construction activities can be coordinated. This team will be linked directly to the General Contractor's project management and job cost accounting systems. The goal of this arrangement is to ensure clear and timely communication within the General Contractor team and seamless coordination of project activities with the ongoing businesses and any related public activity. Project management will be overseen by a Senior Project Manager working out of the General Contractor's home office. The General Contractor will locate a Project Manager and one or more Superintendents on the site for direct oversight and management of the Infrastructure work, site work and building. This arrangement will be applicable to all construction phases.

The work involves the construction of a new three story office building for phase one and two additional multi-story buildings during future phases. This work will require coordination with the utility companies, City of Portland, and adjacent property owners along Widgery Wharf Lane.

Key issues to be addressed include:

- Public safety and continued accessibility along the adjacent streets including Widgery Wharf Lane.
- The placement of temporary barriers around the work zones and the placement of safety measures including signage.
- Communication with abutters
- Traffic management
- Parking for workforce
- Coordination of material deliveries
- Laydown and material storage areas
- Crane pads and erection sequences (if required)
- Waste management
- Construction office areas
- Designated areas for stockpiled materials
- Snow removal

The General Contractor will work with the City of Portland, Owner and other entities to coordinate with the various off site construction activities including all work within the Public Right of Ways. During the Phase 1 building activity there are no specific work activities contemplated within the Public ROW. The future phase building construction along Commercial Street is expected to require some amount of sidewalk closures to facilitate the work. The contractor will coordinate these efforts with the City including the DRC and Public Services staff.

6. FIRE SAFETY ANALYSIS

6.1 OVERVIEW

Stantec has completed the Fire Department checklist and will continue to perform ongoing coordination with Fire Department representatives and City Planning officials. The accompanying memorandum outlines our findings with respect to compliance with the City's Public Safety Standards as set forth in the City's Technical Manual, Section 3 – Public Safety Standards.

Generally, the site provides access from Commercial Street and will allow access to two or more sides of each building. Numerous hydrants are located in the site vicinity. All buildings will be code compliant to current applicable standards. The future phase buildings will be sprinkled but the Phase 1 building will not.

6.2 ATTACHMENTS

Attachment G – Portland Fire Department Site Review Checklist & NFPA 1 Review

ATTACHMENT G

Portland Fire Department Site Review Checklist & NFPA 1 Review

Stantec Consulting Services Inc.
482 Payne Road, Scarborough Court, Scarborough, ME 04074

August 31, 2016

Mr. Keith Gautreau, Assistant Chief
City of Portland Fire Department
380 Congress Street
Portland, Maine 04101

Subject: Union Wharf Mixed-Use Development
Fire Department Site Review Checklist

Dear Assistant Chief Gautreau:

In accordance with instructions in the City's Level II Site Plan Review packet, please find enclosed the drawings necessary for your review of the proposed amended project. We have listed each item in your checklist below, followed by our response.

1. *Name, address, telephone number of applicant.*

   Proprietors of Union Wharf
   P.O. Box 7467 DTS
   Portland, ME 04112
   Attn: Malcolm Poole
   207-772-8160

2. *Name, address, telephone number of architect.*

   Project Architect: Archetype, PA
   48 Union Wharf
   Portland, ME 04101
   Attn: David Lloyd, P.E.
   207-772-6022

3. *Proposed uses of any structures (NFPA and IBC classification).**

Building	Size (SF)	IBC Code	NFPA Code
1	19,207	2009	2009 NFPA 101
2	9,710	2009	2009 NFPA 101
3	14,815	2009	2009 NFPA 101

4. *Elevation of all structures.*

   The Phase 1 building will consist of three floors elevated over a ground level parking area. The upper floors will be accessed from an elevator/stairwell lobby at ground level and a secondary stairwell. The building heights and approximate elevations are identified on the architectural renderings and site plans.

5. *Proposed fire protection of all structures.*

   The building will have a sprinkler system. The future phase buildings will have sprinkler systems. Fire flows and requirements for system storage or booster pumping are subject to the fire system design which will be performed prior to the request for a building permit.

6. *Hydrant locations.*

   A hydrant is currently located on Commercial Street at the Union Street Intersection. There is also at least one private hydrant at the Wharf.

7. *Water main(s) size and location.*

   The site is served by an 8" water main.

8. *Access to all structures (min. 2 sides).*

   The accompanying site plan depicts the site access conditions from Union Wharf, Widgery Wharf and Commercial Street.

9. *A code summary shall be included referencing NFPA 1 and all fire department technical standards.*

   NFPA 1 – Chapter 18 Fire Department Access and Water Supply

   18.2 Fire Department Access:

   The project site is located in a downtown urban condition and is located off Commercial Street which street width is at least 48 feet. Access is also provide off Widgery Wharf Lane which is 20 feet wide. The Union Wharf Access Drive is approximately 22 feet to 24 feet wide.

   Per NFPA 1 – Chapter 18.2.3.3.1, there will be public street access within 50 ft. of at least one exterior door. Per NFPA 1 – Chapter 18.2.3.2.2.1, all first story floors shall be located not more than 450 ft. from a Fire Department access road.

   City of Portland Technical Manual – Section 3 Public Safety

   3.4.1 Every dead-end roadway more than one hundred fifty (150') feet in length shall provide a turnaround at the closed end. Turnarounds shall be designed to facilitate future street connectivity and shall always be designed to the right (refer to Figure I-5).

Supporting Evidence: Not applicable

3.4.2 Where possible, developments shall provide access for Fire Department vehicles to at least two sides of all structures. Access may be from streets, access roads, emergency access lanes, or parking areas.

Supporting Evidence: As depicted on the site plans, the proposed building layout provides for minimum two-sided access to each of the new structures.

3.4.3 Building setbacks, where required by zoning, shall be adequate to allow for emergency vehicle access and related emergency response activities and shall be evaluated based on the following factors:

- *Building Height.*
- *Building Occupancy.*
- *Construction Type.*
- *Impediments to the Structures.*
- *Safety Features Provided.*

Supporting Evidence: The proposed development layout has contemplated emergency access conditions and provided for safe and efficient access along two public streets and Widgery Wharf Lane for emergency vehicles.

3.4.4. Fire Dept. access roads shall extend to within 50' of an exterior door providing access to the interior of the structure.

Supporting Evidence: All buildings will be provided with an exterior door that will be within 50' of a Fire Department access route.

3.4.5. Site access shall provide a minimum of nine (9) feet clearance height to accommodate ambulance access.

Supporting Evidence: A minimum of 9 ft. vertical clearance will be provided below any overhead signage or utilities entering the site.

3.4.6. Elevators shall be sized to accommodate an 80 x 24 inch stretcher.

Supporting Evidence: Elevator design has not yet commenced but it is understood that this requirement must be met.

3.4.7. All structures are required to display the assigned street number. Numbers shall be clearly visible from the public right of way.

Supporting Evidence: The applicant will work with the City's Public Services Division to assign street addresses and numbering to meet City Standards.

If you need any further information regarding this review, please contact our office.

Sincerely,

STANTEC CONSULTING SERVICES, INC.

Stephen R. Bushey, P.E.
Associate
Phone: 207-883-3478
Fax: 207-883-3376
stephen.bushey@stantec.com

Attachments

c: Captain David Petruccelli, Fire Department (via email)

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7. PUBLIC INFORMATIONAL MEETING

7.1 OVERVIEW

Attached is the public informational meeting information.

ATTACHMENT H

Public Informational Meeting

Neighborhood Meeting Certification

I, Steve Bushey, P.E., hereby certify that a neighborhood meeting was held on August 2, 2016 at 36 Union Wharf; 3rd Floor at 5:30 P.M.

I also certify that on July 22, 2016, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division, including property owners within 500 feet of the proposed development or within 1000 feet of a proposed industrial subdivision or industrial zone change.

2. Residents on the "interested parties" list.

3. A digital copy of the notice was also provided to the Planning Division (jmy@portlandmaine.gov and ldobson@portlandmaine.gov) and the assigned planner to be forwarded to those on the interested citizen list who receive e-mail notices.

Signed,



_____ August 29, 2016
(date)

Attached to this certification are:

1. Copy of invitation sent
2. Sign-in sheet

Stantec Consulting Services Inc.
482 Payne Road Scarborough Court, Scarborough ME 04074-8929

July 22, 2016

Dear Neighbor:

Please join us for a Neighborhood Meeting to discuss our plans for proposed site development at 230 Commercial Street at 1 Widgery Wharf and 1 Union Wharf, Portland, Maine.

Meeting Location:	**Third Floor (look for sign)** **36 Union Wharf** **Portland, Maine**
Meeting Date:	**Tuesday, August 2, 2016**
Meeting Time:	**5:30 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. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board.

If you have any questions, please feel free to contact Steve Bushey, P.E. at 207-883-3355.

Sincerely,

STANTEC CONSULTING SERVICES, INC.

Stephen R. Bushey, P.E.
Associate

V:\1953\active\195350003\Admin\Permitting\Level III Preliminary application\Neighborhood Meeting\Neighborhood Meeting Notice 2016.07.21.docx

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Note: Under Section 14-32(C) and 14-525 of the City Code of Ordinances, an applicant for a Level III development, subdivision of over five lots/units, or zone change is required to hold a neighborhood meeting within three weeks of submitting a preliminary application or two weeks of submitting a final site plan application, if a preliminary plan was not submitted. The neighborhood meeting must be held at least seven days prior to the Planning Board public hearing on the proposal. Should you wish to offer additional comments on this proposed development, you may contact the Planning Division at 874-8721 or send written correspondence to the Planning and Urban Development Department, Planning Division 4th Floor, 389 Congress Street, Portland, ME 04101 or by email to: bab@portlandmaine.gov

Union Wharf

Stantec

Public Info Meeting 8/2/16

NAME	Address	contact info
Steve Bushey	Stantec	stephen.bushey@stantec.com
Daniel Bickford	13 Chandlers Wharf	Dan@eagle-rental.co.
Susanne Newman	409 " "	susannehnewman@yahoo.com
Connie Bone	716 Chandlers Wharf	Constancebone@AOL.com
Darrine Steele	804 " "	761-6643
LAURIE AMERON	312 "	2148372759
CYRUS Hagge		chagge@mac.com
Brewster Harding		shipwreckcargo@gmail.com
Leonard Kovit	Chandlers W.	LKovit@aol.com.
BRUCE WOOD	607 CHANDLERS WHARF	BRUCESARG@YAHOO.COM
Charlie Poole		
Malcolm Poole		

Designed by: Checked by:

ATTACHMENT C

Ability to Serve Letters

Portland Water District

From Sebago Lake To Casco Bay

January 28, 2016

Stantec
778 Main Street, Suite 8
South Portland, ME 04106

Attn: Mr. Stephen Bushey, P.E.
Re: 218 Commercial Street - Portland
Ability to Serve with PWD Water

Dear Mr. Bushey:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on January 12, 2016. Based on the information provided, we can confirm that the District will be able to serve the proposed project as further described in this letter.

Conditions of Service

The following conditions of service apply:

- The property requesting water service does not have deeded frontage on a public way containing a public water main, which is a requirement for water service. However, a main extension along Widgery Wharf would not be warranted due to the limited potential for further development. New water services may be installed from the public main in either Commercial Street or Union Wharf.

- Proper easement documentation must be obtained from any properties that the new service line will cross. The easement(s) should specifically cite the right to install and maintain utilities. A copy of the deed for each of the proposed parcels must be provided to the District prior to completing new service applications.

- Water District approval of water infrastructure plans will be required for the project prior to construction. As your project progresses, we advise that you submit any preliminary design plans to MEANS for review of the water main and water service line configuration. We will work with you to ensure that the design meets our current standards.

Existing Site Service

According to District records, the project site does not currently have existing water service.

225 Douglass Street P.O. Box 3553 Portland, Maine 04104-3553
Phone: 207.774.5961 Fax: 207.523.5440 Web: www.pwd.org

Water System Characteristics

According to District records, there is a 12-inch diameter cast iron water main on the north side of Commercial Street and a public fire hydrant located 270 feet from the site. Recent flow data is not available in this area. The most recent static pressure reading was 102 psi on September 2, 2015.

Public Fire Protection

You have not indicated whether this project will include the installation of new public hydrants to be accepted into the District water system. It is your responsibility to contact the Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project. Based on the high water pressure in this area, we recommend that you consider the installation of pressure reducing devices that comply with state plumbing codes.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District

Glissen Havu, E.I.
Design Engineer



218 Congress Street

Portland

PORTLAND WATER DISTRICT
225 Douglass Street
Portland, ME 04104

Scale 0 25 50 100 150 200 Feet — 1 inch = 103 feet

Legend

Air Valve	Connection	Combined Service	Manhole
Blow Off	Attribute Change	Domestic Service	CSO
By Pass	Reducer	Fire Service	Gravity
Distribution	Hydrant	Private Hydrants	Force
Transmission	Hydrant Control	Meter Pits	

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.

Infrastructure Map	Infrastructure Map
Scale: As Noted	Date: January 12, 2016

12/10/2014

Stephen Bushey
Fay, Spofford & Thorndike
778 Main Street, Suite 8
South Portland, ME 04106
Sent via email to: sbushey@fstinc.com

RE: Ability to Serve Letter for Widgery Wharf

Dear Mr. Bushey:

CMP has the ability to serve the proposed project located at 230 Commercial Street and 1-11 Widgery Wharf in Portland, Maine, in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Standards Handbook. If you have any questions on the process, or need help in completion of the documents, please feel free to contact me.

New Service Milestones

- Call 1-800-565-3181 to establish a new account and an SAP work order.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections if you have them.
- Submit Load information. Please complete this CMP spreadsheet using load information
- Submit the easement information worksheet. Please complete this CMP form and either email or fax back to us.
- Preliminary meetings with CMP to determine the details of job
- Field planner design appointment to cost out job and develop CMP Invoice.
- Submit invoice for payment.
- Easements signed and payment received.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer delivery, potential substation upgrades, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

162 Canco Road Portland, ME 04103
Tel (800) 750-4000
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

www.cmpco.com

An equal opportunity employer

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements:

CMP Handbook of Standard Requirements
(http://www.cmpco.com/MediaLibrary/3/6/Content%20Management/YourAccount/PDFs%20and%20Docs/handbook.pdf)

If you have any questions, please contact me.

Regards,



Jamie Cough
Energy Services Advisor
Central Maine Power Company
162 Canco Road
Portland, ME 04103
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

July 22, 2016

Re: Wastewater Capacity Authorization

Address: **230 Commercial Street – Union Wharf Development**
Applicant: The Proprietors of Union Wharf – mpoole@whshurtleff.com

Planner: Jean Fraser

Anticipated Wastewater Flows:

Building 1 Level 1-3 Office	55 Employees @ 15 gpd/Employee	825 gpd
Building 2 Level 1 – Open Market Restaurant	4,855 SF @ 50 gpd/100 SF	2427.50 gpd
Level 2 – Restaurant Use	200 Seats @ 30 gpd/Seat Plus 25 Employees @ 12 gpd/Employee	6000 gpd 300 gpd
Building 3 Level 1 – Restaurant Use	200 Seats @ 30 gpd/Seat plus 25 Employees @ 12 gpd/Employee	6000 gpd 300 gpd
Level 2 – Food Court/Market	5,175 SF @ 50 gpd/100 SF	2587.50 gpd
Level 3 – Office Space	4,018 SF @ 300 SF/Employee = 13 Employees 13 Employees @ 15 gpd/Employee	195 gpd
	Total Anticipated Wastewater Flows	**18,635 gpd**

Comments:
The Department of Public Works, which includes the Water Resource Division, have reviewed and determined that the downstream sewers from the project address have the capacity to convey the estimated dry weather wastewater flows which will be generated from this development.

Grease capturing devices will be required for food preparation establishments and are noted on your plan for Buildings 2 and 3.

Your proposed Building 3 currently shows sewer connection to the Portland Water District interceptor which will not be acceptable. Your options are to connect to the City's 3'4"x5' sewer on the north side of the PWD interceptor or re-direct sewer out the back of the building to the south and connect to the private sewer as with Buildings 1 and 2.

You are reminded that the sewers you are proposing to connect into convey both sanitary and stormwater (Combined Sewer) and therefore a backflow preventer is required. The system on Commercial Street does surcharge.

Any addition of stormwater flows in this drainage area will have an impact on CSO discharge volumes therefore no roof, sump pump or site drainage may be discharged to the sanitary sewer.

If the City can be of further assistance, please contact me at all 874-8840 or brad@portlandmaine.gov

Sincerely,
CITY OF PORTLAND



Bradley A. Roland, P.E.
Senior Project Engineer

CC:
Jeffrey Levine, Director, Department of Planning and Urban Development, City of Portland
Stuart O'Brien, Planning Director, Department of Planning and Urban Development, City of Portland
Barbara Barhydt, Development Review Services Mgr., Dep't. of Planning and Urban Development, City of Portland

Kathi Earley, City Engineer/Engineering Manager, Portland Department of Public Works

Nancy Gallinaro, Water Resources Manager, Portland Department of Public Works
Rachel Smith, Industrial Pretreatment Coordinator, Portland Department of Public Works
John Emerson, Wastewater Coordinator, Portland Department of Public Works

Lauren Swett, Woodard & Curran, DPW Development Review
Scott Firmin, Director of Wastewater, Portland Water District

Stantec Consulting Services Inc.
482 Payne Road Scarborough Court, Scarborough ME 04074-8929

September 28, 2016

Ms. Jean Fraser
City of Portland – Planning Authority
389 Congress Street
Portland, ME 04101

Subject: Application for Level III Site Plan Application
230 Commercial Street (Union &Widgery Wharfs)
Map 31/Block K/Lots 003 & 103; Block L/Lots 035, 038 &135
Letter of Response #1 to Staff Review Comments

Dear Jean:

On behalf of Proprietors of Union Wharf/Poole Group of Companies, Stantec has received and reviewed the staff review comments sent via email on June 24, 2016 for the proposed redevelopment of the Union &Widgery Wharfs site located at 230 Commercial Street (Widgery & Union Wharf). For ease of reference, we have repeated each comment below in *italics* followed by our response.

PLANNING COMMENTS

Planning Board Workshop 6.28.16 – Other Staff Comments

- *Address WCZ re impact on marine uses*

  Response:

  The proposed project is within the Non Marine Use Overlay Zone within the WCZ and these uses will not impact the existing marine uses already occupying the property. The intent of the development is to help support the continuation of marine use on the wharf by implementing non-marine uses which supplement the overall wharf financial operations.

- *Document re marine infrastructure contribution; clarify timetable re phases*

  Response:

  Section 14-311(b)(3) requires evidence of marine infrastructure investment as a condition of development in the NMUOZ. The following is a list of pier infrastructure investment since 2010:

a. MSRC berth deck repairs and piling work	$104,000
b. East side pier retaining wall and deck repairs	$60,000
c. Pier roadway, drains, catch basins, sink hole repairs	$83,000
d. #35 Union Wharf – pier deck under building	$70,000
e. Pier foundation, deck repairs	$116,000
f. Timber for decking pier apron decking	$20,000
g. Pier roadway maintenance/paving	$80,000
h. Note: In 2009, east side of the pier, piling, CAPS and pier deck rebuild	$100,000
Total	**$633,000**

The following is a summary of upcoming expenditures that will be performed as part of phase 1 plus on an annual basis:

a. MSRC Berth: Deck repairs, piling work and foundation rebuild – $300,000 - $450,000 (2017)
b. Annual Pier Maintenance – $80,000 - $100,000

We believe these investments represent greater than 5 percent of the value of the proposed Phase 1 costs, whereby meeting the provisions of the code. Further documentation on these expenditures can be provided, if necessary.

- *Clarify number, location and need for parking spaces for offices and employees of future phase buildings (parking analysis)*

Response:

The wharf currently contains approximately 208 parking spaces serving various uses onsite as well as leased spaces to nearby downtown tenants. The Phase 1 building will increase the parking count to 212 spaces. Upon completion of the future phases, there will be 179 spaces available on the site. The following tables summarize the parking required by Code for the existing and proposed buildings:

Proposed Buildings				
Building	**Uses/Size**	**Parking Rates**	**Required Spaces***	
1	Office/1,800 SF	1 SP/400 SF	18,000/400 x 50% =	23 Spaces
2	Open Market/4,855 SF	1 SP/200 SF	4,855/200 x 50% =	12 Spaces
	Restaurant/4,855 SF	1 SP/150 SF	4,855/150 x 50% =	16 Spaces
3	Restaurant/5,175 SF	1 SP/150 SF	5,175/150 x 50% =	17 Spaces
	Food Court/5,175 SF	1 SP/200 SF	5,175/200 x 50% =	13 Spaces
	Office/4,018 SF	1 SP/40 SF	4,018/400 x 50% =	5 Spaces
		Total		**86 Spaces**

**Per Sec. 14-332.1(J) offstreet parking required at 50% of code required spaces.*

Existing Buildings				
Building*	**Uses/Size (SF)**	**Parking Rates**	**Required Spaces***	
1	Union Kitchen/3,525 SF	1 SP/200 SF	3,525/200 =	18 Spaces
230	Sapparo/2,539 SF	1 SP/150 SF	2,539/150 =	17 Spaces
36	Offices/5,014 SF	1 SP/1,000 SF	5,014/1,000 =	5 Spaces
38	Office/1,456 SF	Not Required	(<3,000 SF)	---
14	MSRC/10,900 SF	1 SP/1,000 SF	10,99000/1,000 =	11 Spaces
41	Various/1,560 SF	Not Required	(<3,000 SF)	---
48	Various/6,691 SF	1 SP/1,000 SF	6,691/1,000 =	7 Spaces
28	1 / 1,864 SF	Not Required	(<3,000 SF)	---
50	Maine Lobster/2,220 SF	Not Required	(<3,000 SF)	---
52	CBS Bait/2,388 SF	Not Required	(<3,000 SF)	---
35	Cozy Harbor/4,928 SF	1 SP/1,000 SF	4,928/1,000 =	5 Spaces
		Total		**63 Spaces**

**See Survey Plan*

Total Spaced Required Per Code for Existing and Proposed Uses = 149 Spaces

The applicant currently manages any excess parking capacity on the site by way of various short term parking leases with offsite users. These short term leases may phase out over time and as needed for use by the new onsite users. There is no onsite parking that is allocated to long term parking needs of any offsite tenants to the best of our understanding.

- *Clarify number of existing parking spaces lost and current users and whether linked to a site plan or in use for marine users*

  Response:

  See table above.

- *Show meeting shoreland and floodplain management ordinance requirements*

  Response:

  The site is within the Water Central Zone and no building setback is required in the Shoreland zone. The finish floor of the habitable spaces for the three buildings will be set at Elevation 12.0 feet or higher. There is no clearing or removal of vegetation involved with the project. In accordance with Section 14-449 (o), we believe the proposal satisfies Standards 1 thru 9 as follows:

  1. The project involves traditional building development for permitted land uses and the activity will not involve filling of any shoreland resource thus achieving safe and healthful conditions.
  2. The proposal involves activity within existing developed area and no significant earthwork or ground disturbance is anticipated, thus the proposal will not result in water pollution, erosion, or sedimentation to surface waters.
  3. The site is served by a public wastewater collection system and the City of Portland has provided a wastewater authorization for discharge to the city system.
  4. The project is within previously developed land. It will not have adverse impact on spawning grounds, fish, aquatic life, bird or other wildlife habitat.
  5. The development will not expand activity within the shoreland zone, thus it involves no impacts to shore cover. The development is believed to improve the visual access to the waterfront and it will not impact any documented visual corridors.
  6. There are no archaeological or historic resources on the site.
  7. The proposal is ultimately intended to help maintain the working marine waterfront by allowing the applicant the opportunity to improve the wharf's financial operations which help supplement the ability to maintain marine activities on the wharf.
  8. The proposal will not impact any floodplain as it will involve building placement above the floodplain.
  9. We believe the proposal is substantially in conformance with the standards set forth in the Shoreland and Floodplain ordinances.

- *Clarify circulation and access, so to ensure fire access and link between Widgery Wharf and Union Street signal- reduce conflict and potential for blockage*

  Response:

  The updated site plans include a linkage between the Widgery Wharf parking lot and the Union Wharf lots. A site circulation plan is now also made part of the plan set accompanying this submission.

- *Show pedestrian links to and between buildings and linking to Commercial Street*

  Response:

  A 5' wide pedestrian route is depicted to connect from the Commercial Street frontage to the Phase 1 building location. The architectural renderings depict this route and identify how it will be framed with wood pilings and accent lighting. During the future phase development, the pedestrian alley between the two buildings will be further enhanced with an extension of the brick sidewalk treatment and landscaping between the buildings.

- *Show loading areas*

  Response:

  The loading areas are identified on the site plans and the circulation plan identifies the travel path for various vehicles including the typical UPS/FedEx and solid waste trucks. The wharf has operated with various tenants and users for many years and despite its size limitations, users always find appropriate and reasonable means of access to maintain safe operations to/from Commercial Street into the site.

- *Confirm evening/dual use parking plans (interim/future)*

  Response:

  The applicant intends to maintain evening and weekend managed parking wherein a parking manager oversees fee collection and parking within the site. This will continue as part of Phase 1. The applicant seeks to reserve the right to continue managed parking for the off hour periods even upon the completion of the future phase building development.

- *Show meeting downtown urban design guidelines*

  Response:

  The downtown urban design guidelines were carefully read and used as basic goals in developing the two future phase structures fronting on Commercial Street. Prominence along the street was a major component of the design. This was accomplished by including decks, storefronts, large glass areas and recessing entries. Also a key component in designing the two buildings allows one to view the inner workings of Union wharf and offers more retail opportunities when walking from Commercial Street to the first phase Building one. The introduction of a skywalk from building two to three at the upper level adds diversity to future tenant layouts and visual interest to the building. The pedestrian experience is enhanced with the use of landscaping, storefronts and sitting areas. The

prominent building materials are brick, tile metal and glass, all high quality materials that are indigenous to the old Port and the pier.

The phase one building in the plan is set back from Commercial Street and very much in the middle of the working marine pier. The inspiration for the design was to have a building that fit in with its industrial neighbors but also became the link to the Commercial Street buildings. So the siding is a metal siding but with a higher level of punched openings and more sophisticated proportions for its openings. The building is raised above grade allowing one to see through the building to the water and giving us needed parking. The entry lobby is well defined and an interior site walkway leads thru the site from the lobby to Commercial Street.

- *Clarify re details of lighting and wayfinding and CPTED*

  Response:

  The site contains existing overhead lighting throughout and the proposed work contains only a small amount of lighting to be placed for aesthetics. This will include decorative lighting along timber piles to be aligned along the pedestrian route to the Phase 1 building. Security lighting is also proposed for each of the buildings. There will be a limited amount of directional signage on the site, given the relatively small site size and limited areas of travel. The applicant is amenable to providing specific building mounted lighting design, fixture selection and photometrics as a condition of approval prior to the issuance of a building permit.

Planning Board Workshop 6.28.16 – Planning Board Comments

- *Better preserve public views of water – reconsider layout (address WCZ condition)*

  Response:

  As evidenced by the architectural renderings and view study provided by Archetype, we believe the project proposal will not negatively impact any view corridors and will enhance the view for passers-by along the Commercial Street frontage. See the view study in Attachment A.

- *Focus on pedestrian/traffic safety and parking*

  Response:

  The site plan includes provisions for pedestrian movement through the site and access is reasonably accommodated for vehicles as evidenced by the site circulation plan.

- *More scrutiny of the access- address current problems*

  Response:

  The connectivity between the Widgery Wharf parking lot and Union Wharf is the primary action taken to address this comment.

- *Aim to reduce impervious/increase stormwater treatment*

Response:

The development involves no increase to the site's impervious area and in fact will include roof drain cartridge filters as a means of providing some amount of water quality treatment, where it is otherwise not provided currently.

- *Need to clarify alternative approach to parking lot landscaping and wayfinding/marking of ped access/safety- some trees or plants in pots, but also bollards, painting on pavement etc. as per illustrative photo - keep dynamic (?marine) character*

Response:

The architectural renderings by Archetype aid in representing the proposed buildings in context with the existing surroundings. Some amount of seasonal planting is identified on the site plan within planters that may be removed during the winter. The goal is to maintain the existing landscaping in front of the Union Kitchen while enhancing it when the new future buildings are constructed. Progressing into the wharf the overall site development will quickly transition to the working waterfront elements now seen today, including marine storage for materials, products and uses.

Public Works Review Comments 6.22.16

1. *The Wastewater Capacity Application is being processed by Brad Roland of this office under a separate cover and will forwarded shortly.*

Response:

A copy of the Wastewater Authorization from the Public Works department accompanies this letter in Attachment B.

2. *Phase I – Since the existing sanitary manhole rims are below the flood tide elevation. If the existing frames and covers are not water tight, replace frames and covers with a water tight frames and covers with bolt down cover or make arrangements to make the existing frame and cover water tight. The same should apply to manhole frames and covers in future phases for buildings #2 and #3.*

Response:

A note has been added to the utility plans the require modifications to the existing and proposed sanitary structures as necessary.

3. *During the design phase for building #2, please contact Rachel Smith (874-8833) for sizing and design of grease traps. For the proposed grease trap connecting into Commercial St, (see comment 5.) you are requested to connect to the parallel sanitary sewer on the other side of the four foot diameter Portland Water District trunk sewer. As-Built drawing are available in this office.*

Response:

A note has been added to the Utility Plans with this information for future reference.

4. *Detail A, Sheet C 7.0 does not depict City of Portland's current standard.*

   Response:

   The Detail has been updated to depict the current city standard.

5. *Commercial St was recently paved and is now subject to a five year moratorium.*

   Response:

   A note has been added to the plan regarding the moratorium conditions on Commercial Street.

6. *The City of Portland Technical Manual requires that backflow preventers be installed on all sewer laterals connected to the City's combined sewer system.*

   Response:

   A note has been added to the Utility plan to include the requirement for backflow prevention for all sewer laterals.

Traffic Review Comments (Tom Errico, PE) Dated 6.23.16

- *The plans note a removable barrier between Widgery and Union Wharf's. In my professional opinion providing access to the Union Street traffic signal for the area of parking abutting Widgery Wharf is important. Accordingly, I would suggested that a permanent circulation lane between the Wharf's be provided.*

  Response:

  The latest plans have been updated to include an access opening between the Widgery parking lot and the Union Wharf lot. The access route will be narrowed to 20 feet as a means of allowing cross access, yet not promoting the access as a primary means of travel to/from the proposed Phase 1 building. This configuration will allow wharf users the ability to enter/exit the site from the Union/Commercial Signalized intersection.

- *The applicant should clearly depict which spaces are designated for the office use and document the current users of the spaces and whether they are tied to an existing site plan approvals.*

  Response:

  The Phase 1 Office use spaces will generally occupy the spaces at ground level below the building as well as those identified on the site plan. These spaces are currently occupied by off site users under short term lease arrangements with the applicant.

- *The applicant should provide information that summarizes the purpose and dimensions of the painted cross hatched area. It is unclear if the dimensions are being adjusted and if it serves as the main circulatory aisle to the Union Street traffic signal.*

Response:

The painted cross hatch zone is intended to prohibit parking so that an access route for service vehicles is available behind the existing buildings. A Circulation Plan has been prepared that outlines the vehicle routes available within the site. This plan is now part of the plan set.

- *All circulation aisles, parking spaces, and Union Street Wharf (the plans should include the drive) should be dimensioned. Specific waivers from the City's dimensional standards shall be requested with supporting justification.*

Response:

The aisles and parking spaces have been dimensioned on the site layout plans. The applicant is requesting waivers from the minimum dimensional requirements for aisle widths and parking space sizes. A minimum aisle width of 22' is requested along with 8' wide spaces.

- *Pedestrian accessibility and provision of a designated routing between the proposed office building and Commercial Street shall be included.*

Response:

A pedestrian access route is proposed from Commercial Street to the Phase 1 building. This 5' wide route will contain surface markings to distinguish the route and it will be framed by a line of wood piles with lighting. During the future phases a pedestrian alley will be provided, that will include an extension of the brick sidewalk from Commercial Street into the site. See renderings by Archetype for further detail of the proposal.

- *Specific truck delivery plans shall be provided and include specific vehicle loading/unloading locations.*

Response:

A Vehicle Circulation Plan (C-3.5) is included in the plan set and this plan identifies AutoTURN routes for delivery vehicles and standard autos.

Woodard & Curran Comments (Lauren Swett, PE) Dated 6.24.16

1. *Per Section 13 of the City's Technical Manual, the Applicant is required to submit a Boundary Survey that has been Stamped by a Maine Licensed Professional Surveyor; the survey has not been stamped at this time. A stamped survey should be provided as part of the final application.*

Response:

We have requested a Stamped survey from the consultant and await delivery. A copy of the stamped survey will be provided to the Planning Department upon receipt.

2. *The Applicant should note that any changes to the design of the future phases will require additional review and approval by the City of Portland.*

   Response:

   Noted – no action required at this time.

3. *The Applicant has submitted a wastewater capacity application and provided a letter from the Portland Water District noting that there is sufficient capacity to serve the proposed development. However, there are several conditions of service noted in the letter from Portland Water District; the Applicant should provide a status update on these conditions.*

   Response:

   The wastewater authorization accompanies this submission.

4. *In accordance with Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. We offer the following comments:*

   a) *Basic Standard: Plans, notes, and details have been provided to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500; however, a detail for the proposed stabilized construction entrance should be provided.*

      Response:

      A stabilized construction entrance detail in now included in the detail sheets.

   b) *General Standard: The project will not result in an increase in impervious area. As such, the project is not required to include any specific stormwater management features for stormwater quality control. However, the Applicant is proposing a Fabco Roof Drain Stormbasin Cartridge Filter to be connected to the proposed roof drain systems in the three buildings. We encourage the Applicant to review the City's Stormwater Service Charge Credit Manual (available online) to evaluate whether this system qualifies for a Stormwater Service Charge credit. We also encourage the Applicant to consider utilizing other LID measures and stormwater treatment for other existing impervious areas on the site.*

      Response:

      Noted – no action required.

   c) *Flooding Standard: The project will not result in an increase in impervious area. As such, the project is not required to include any specific stormwater management features to control the rate or quantity of stormwater runoff from the site.*

      Response:

      No action required.

5. *The plans should note a location for snow storage. The snow storage location should be sited outside of existing and proposed drainage courses.*

   Response:

   Snow storage is typically managed along the fringes of the site during small snowfall events. Larger snow events require snow removal from the site. The applicant routinely contracts for these services with local snow removal contractors.

6. *Details should be provided for the proposed retaining wall structures, including height and geotechnical considerations.*

   Response:

   The applicant would like to provide any wall information as a condition of approval as these features are part of the future phase development and the exact details have yet to be determined.

If you have any questions with regards to the information submitted, please contact our office.

Regards,

STANTEC CONSULTING SERVICES INC.

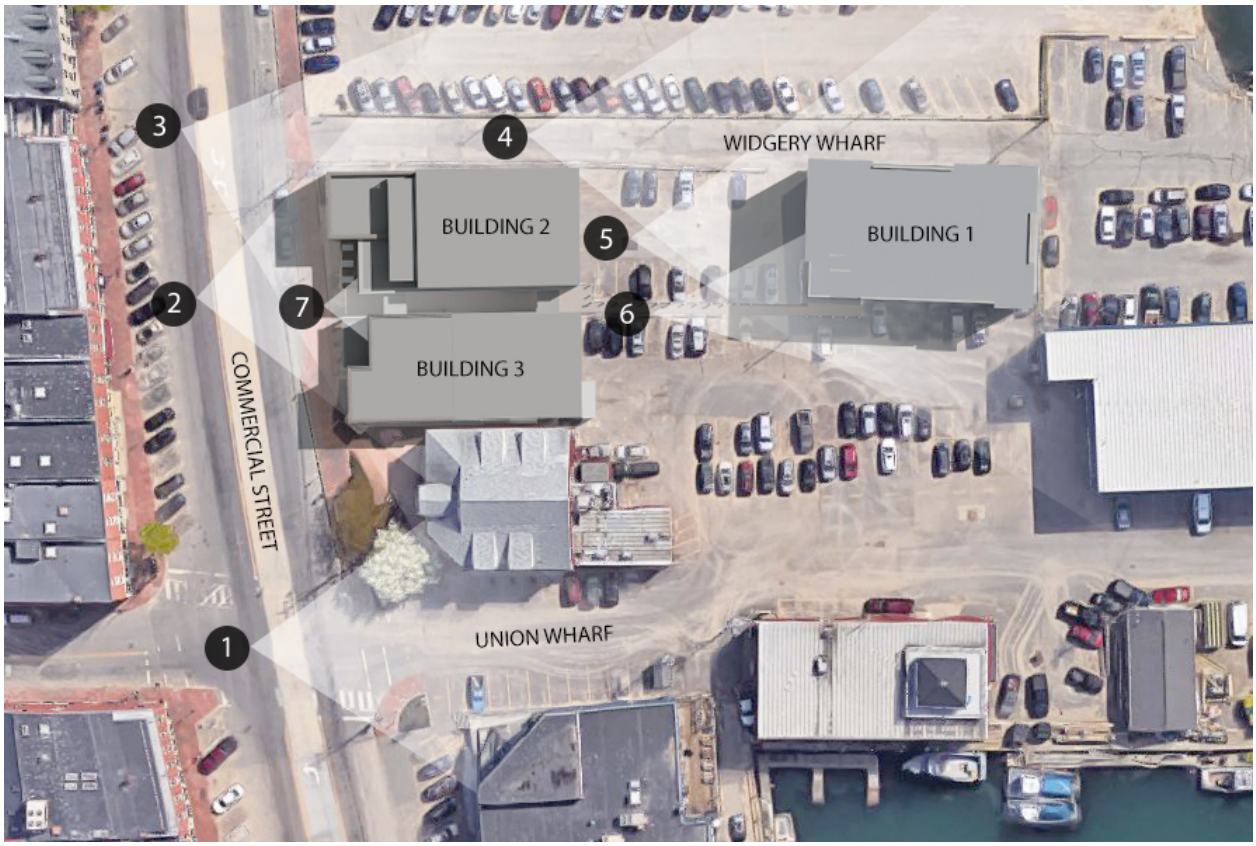
Stephen R. Bushey, P.E.
Associate
Phone: (207) 887-3478
Fax: (207) 883-3376
stephen.bushey@stantec.com

Attachments

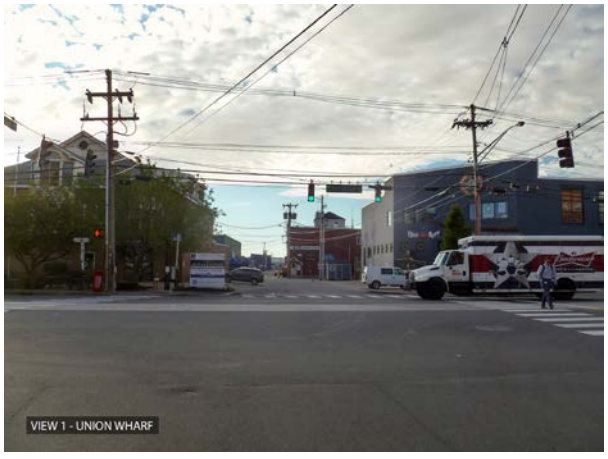
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ATTACHMENT A

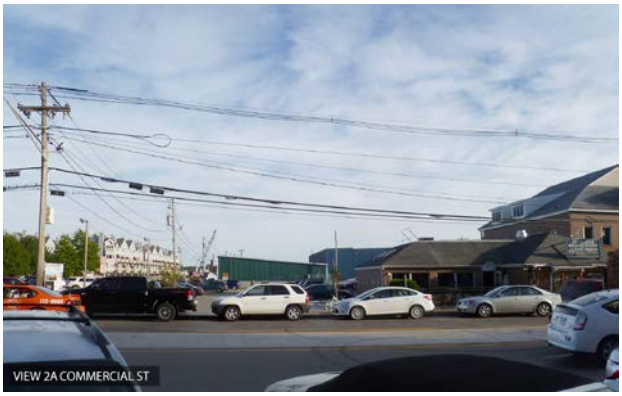
September 26, 2016



Key Plan of views taken around Commercial Street and Widgery Wharf



VIEW 1 – Current View looking south down Union Wharf. Note water cannot be seen. This view is not affected by development.

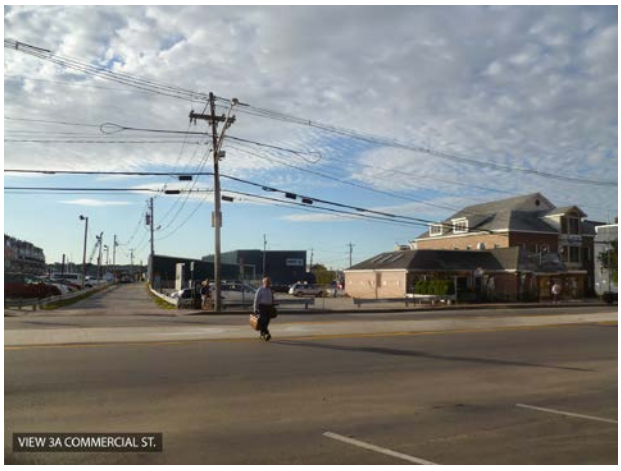




VIEW 2A – Existing view along Commercial Street. Note parking lot directly on Commercial St. and one story sushi restaurant.

VIEW 2B – View shows new buildings fronting Commercial Street. Buildings incorporate many of the downtown urban design guideline standards, I.e.

- Prominence along the street
- Enhanced pedestrian experience with glass storefronts, decks and patios.
- Introduction of open passageways for retail and views to inner workings of wharf.
- Plantings along sidewalk





VIEW 3A – Existing view down Widgery Wharf with partial water views.

VIEW 3B – Note, new buildings do not obstruct street views down wharf.





VIEW 4A – Existing view towards water down Widgery Wharf.

VIEW 4B – Note, view to water not obstructed by new buildings.





VIEW 5A – View shows existing building to be demolished.

VIEW 5B – View shows new building elevated to allow views beneath to water.



VIEW 6 – View shows proposed interior walkway defined by colored path, piers, lighting and planters.



VIEW 7 – View shows proposed walkway from Commercial Street between buildings 2 and 3.

ATTACHMENT B

July 22, 2016

Re: Wastewater Capacity Authorization

Address: **230 Commercial Street – Union Wharf Development**
Applicant: The Proprietors of Union Wharf – mpoole@whshurtleff.com

Planner: Jean Fraser

Anticipated Wastewater Flows:

Building 1 Level 1-3 Office	55 Employees @ 15 gpd/Employee	825 gpd
Building 2 Level 1 – Open Market Restaurant	4,855 SF @ 50 gpd/100 SF	2427.50 gpd
Level 2 – Restaurant Use	200 Seats @ 30 gpd/Seat Plus 25 Employees @ 12 gpd/Employee	6000 gpd 300 gpd
Building 3 Level 1 – Restaurant Use	200 Seats @ 30 gpd/Seat plus 25 Employees @ 12 gpd/Employee	6000 gpd 300 gpd
Level 2 – Food Court/Market	5,175 SF @ 50 gpd/100 SF	2587.50 gpd
Level 3 – Office Space	4,018 SF @ 300 SF/Employee = 13 Employees 13 Employees @ 15 gpd/Employee	195 gpd
	Total Anticipated Wastewater Flows	**18,635 gpd**

Comments:
The Department of Public Works, which includes the Water Resource Division, have reviewed and determined that the downstream sewers from the project address have the capacity to convey the estimated dry weather wastewater flows which will be generated from this development.

Grease capturing devices will be required for food preparation establishments and are noted on your plan for Buildings 2 and 3.

Your proposed Building 3 currently shows sewer connection to the Portland Water District interceptor which will not be acceptable. Your options are to connect to the City's 3'4"x5' sewer on the north side of the PWD interceptor or re-direct sewer out the back of the building to the south and connect to the private sewer as with Buildings 1 and 2.

You are reminded that the sewers you are proposing to connect into convey both sanitary and stormwater (Combined Sewer) and therefore a backflow preventer is required. The system on Commercial Street does surcharge.

Any addition of stormwater flows in this drainage area will have an impact on CSO discharge volumes therefore no roof, sump pump or site drainage may be discharged to the sanitary sewer.

If the City can be of further assistance, please contact me at all 874-8840 or brad@portlandmaine.gov

Sincerely,
CITY OF PORTLAND



Bradley A. Roland, P.E.
Senior Project Engineer

CC:
Jeffrey Levine, Director, Department of Planning and Urban Development, City of Portland
Stuart O'Brien, Planning Director, Department of Planning and Urban Development, City of Portland
Barbara Barhydt, Development Review Services Mgr., Dep't. of Planning and Urban Development, City of Portland

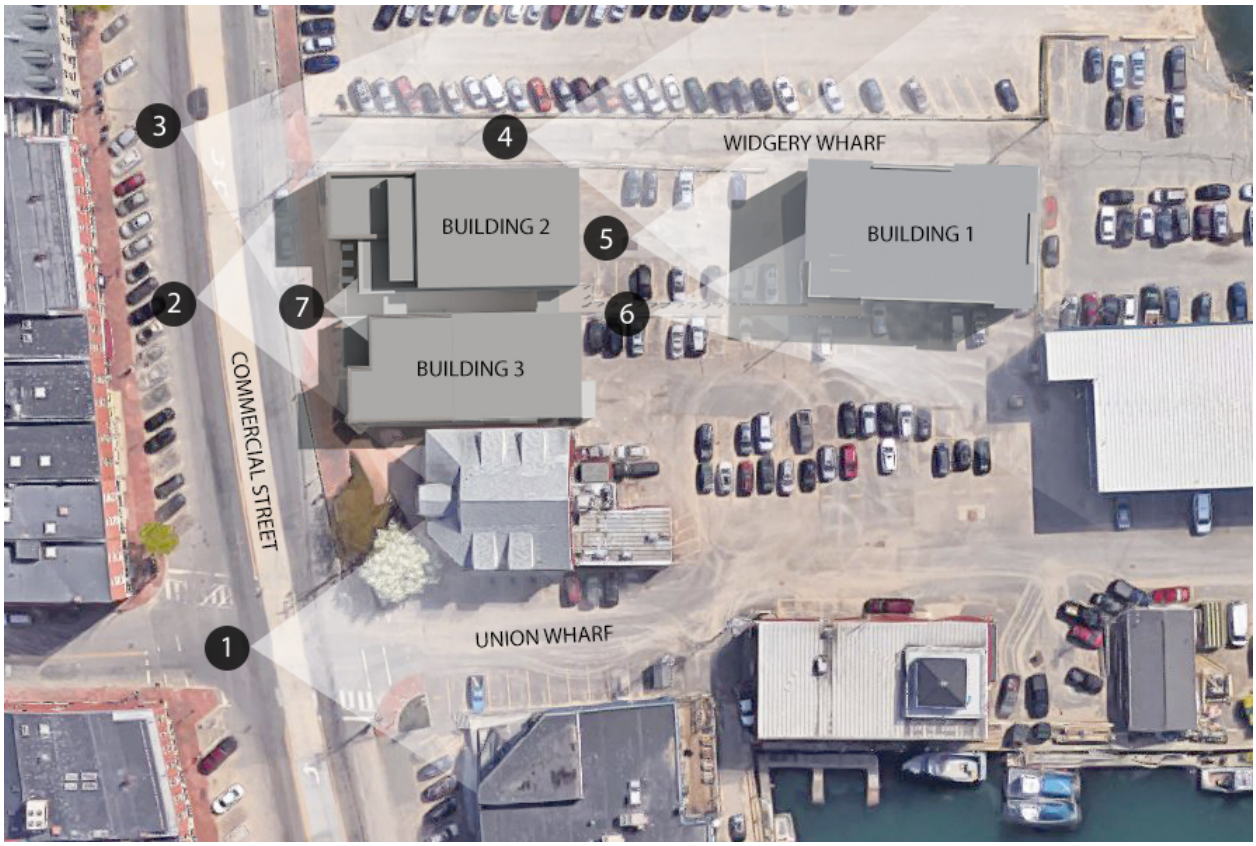
Kathi Earley, City Engineer/Engineering Manager, Portland Department of Public Works

Nancy Gallinaro, Water Resources Manager, Portland Department of Public Works
Rachel Smith, Industrial Pretreatment Coordinator, Portland Department of Public Works
John Emerson, Wastewater Coordinator, Portland Department of Public Works

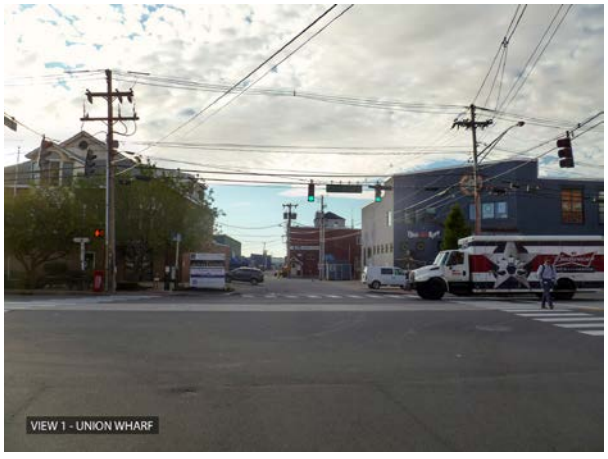
Lauren Swett, Woodard & Curran, DPW Development Review
Scott Firmin, Director of Wastewater, Portland Water District

ATTACHMENT A

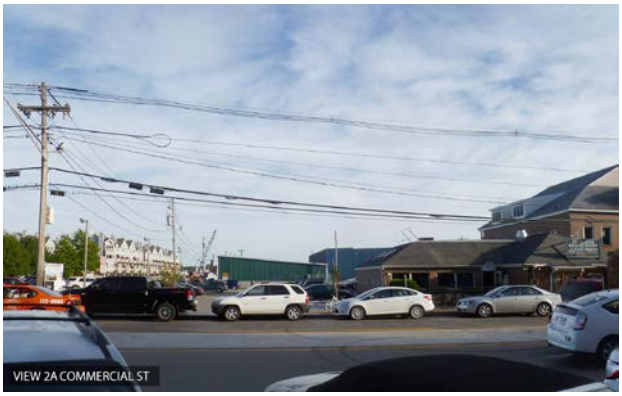
September 26, 2016



Key Plan of views taken around Commercial Street and Widgery Wharf



VIEW 1 – Current View looking south down Union Wharf. Note water cannot be seen. This view is not affected by development.

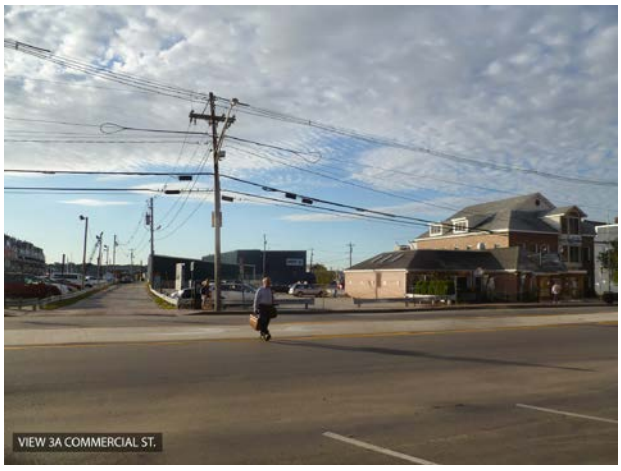




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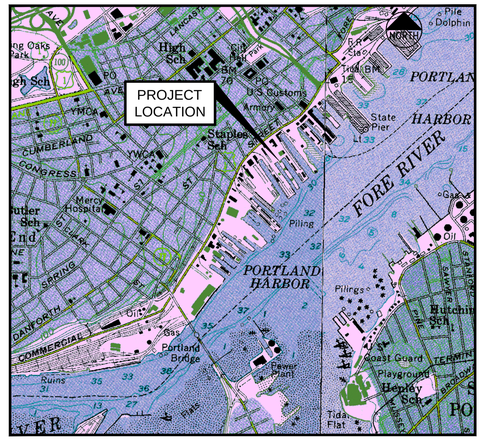


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VIEW 7 – View shows proposed walkway from Commercial Street between buildings 2 and 3.

SITE DEVELOPMENT PLANS
FOR
UNION AND WIDGERY WHARF
COMMERCIAL STREET
PORTLAND, MAINE
SEPTEMBER 2016
FINAL PLAN PERMIT DOCUMENTS



LOCATION MAP
N.T.S.

CURRENT APPLICANT / OWNER
PROPRIETORS OF UNION WHARF
P.O. BOX 7467
36 UNION WHARF
PORTLAND, ME 04101
ATTN: MALCOLM POOLE
(207) 772 - 8160

TAX MAP / BLOCK / LOT (ADDRESS)
TAX MAP 031/K/003, 008 AND 103 (218 COMMERCIAL, 1 WIDGERY WHARF)
TAX MAP 031/L/038 AND 135 (230 COMMERCIAL, 1 UNION WHARF)

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C-1.1 GENERAL NOTES AND LEGEND
C-2.0 EXISTING CONDITIONS PLAN (SURVEY BY D.S.D.)
C-2.1 EXISTING CONDITIONS & DEMOLITION PLAN PHASE 1
C-3.0 OVERALL SITE LAYOUT AND UTILITY PLAN
C-3.1 PHASE 1 SITE LAYOUT AND UTILITY PLAN
C-3.2 FUTURE PHASES SITE LAYOUT AND UTILITY PLAN
C-3.3 CONSTRUCTION MANAGEMENT PLAN - PHASE 1
C-3.4 CONSTRUCTION MANAGEMENT PLAN - FUTURE PHASES
C-3.5 CIRCULATION PLAN
C-4.0 OVERALL GRADING AND DRAINAGE PLAN
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C-4.2 FUTURE PHASES GRADING AND DRAINAGE PLAN
C-7.0 DETAILS
C-7.1 DETAILS
C-7.2 DETAILS
C-7.3 DETAILS

UTILITIES
WATER:
PORTLAND WATER DISTRICT
22 DOUGLAS STREET
P.O. BOX 3553
PORTLAND, MAINE 04104
207.774.5961 x3199
CONTACT: JAY ARNOLD
MEANS@PWD.ORG

SEWER / STREETS:
CITY OF PORTLAND
PUBLIC SERVICES DIVISION
55 PORTLAND STREET
PORTLAND, MAINE 04102
207.874.8850
CONTACT: DAVID MARGOLIS-PINEO, DEPUTY CITY ENGINEER

ELECTRIC:
CENTRAL MAINE POWER
162 CANCO ROAD
PORTLAND, MAINE 04103
207.842.2367
CONTACT: JAMIE COUGH/PAUL DUPERRE
JAMIE.COUGH@CMPCO.COM

TELEPHONE:
FAIRPOINT COMMUNICATIONS
5 DAVIS HILL FARM ROAD
PORTLAND, MAINE 04103
207.797.1866
CONTACT: SCOTT DERRIG

NATURAL GAS:
UNITIL1075 FOREST AVENUE
PORTLAND, MAINE 04103
207.541.2505
CONTACT: KELLY FOWLER
FOWLER @UNITIL.COM

DIG SAFE:
CALL BEFORE YOU DIG
888.344.7233

PERMITS / APPROVALS

TYPE:	GOVERNING BODY:	STATUS/DATE ISSUED:
LOCAL		
SITE PLAN/SUBDIVISION APPROVAL:	CITY OF PORTLAND PLANNING AUTHORITY CITY HALL, CONGRESS STREET PORTLAND, MAINE 04103 207.874.8699 CONTACT: JEAN FRASER	PRELIMINARY SUBMISSION 05.26.16 FINAL PLAN SUBMISSION 08.26.16 REVISED 09.27.16
BUILDING PERMIT:	CITY OF PORTLAND CODE ENFORCEMENT OFFICE CITY HALL, CONGRESS STREET PORTLAND, MAINE 04103 207.874.8900	TO BE FILED BY BUILDING CONTRACTOR
UTILITY / STREET OPENING PERMITS:	CITY OF PORTLAND PUBLIC SERVICES DIVISION 55 PORTLAND STREET PORTLAND, ME 04102 ATTN: CAROL MERRITT 207.874.8801	TO BE FILED PRIOR TO CONSTRUCTION

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.

CONSULTANT LIST
CIVIL ENGINEER:
Stantec
482 PAYNE ROAD, SCARBOROUGH COURT
SCARBOROUGH, MAINE 04074
207.883.3355
ATTN: STEPHEN BUSHEY
stephen.bushey@stantec.com

ARCHITECT:
Archetype Architects
48 UNION WHARF
PORTLAND, MAINE 04101
207.772.6022
ATTN: DAVID LLOYD
lloyd@archetypepa.com

SURVEYOR:
Downeast Surveying & Development
P.O. BOX 6234
CHINA VILLAGE, MAINE 04926
207.968.2507
ATTN: ELWOOD ELLIS

ELECTRICAL ENGINEER:
Bartlett Design
942 WASHINGTON STREET
BATH, MAINE 04530
207.443.5447
ATTN: LARRY BARTLETT

ENVIRONMENTAL CONSULTANT:
Drumlin Environmental LLC
75 YORK STREET
PORTLAND, MAINE 04101
207.771.5546

STANTEC CONSULTING SERVICES INC.
482 PAYNE ROAD SCARBOROUGH COURT
SCARBOROUGH ME 04074-8929
WWW.STANTEC.COM
Stantec

Prepared For: PROPRIETORS OF UNION WHARF	Project: UNION AND WIDGERY WHARF DEVELOPMENT	Revisions: 09.27.16 - REVISED PER CITY COMMENTS & RESUBMITTED 08.29.16 - FINAL PLAN PERMIT SUBMISSION 05.26.16 - PRELIMINARY PLAN SUBMISSION TO CITY	
36 UNION WHARF PORTLAND, ME 04101	PORTLAND, MAINE		
Architect: ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	STATE OF MAINE STEPHEN R. BUSHEY 7429 REGISTERED PROFESSIONAL ENGINEER 09/27/2016 P.E. STEPHEN R. BUSHEY LIC. #7429	Date: JAN 2015	Scale: N.T.S.
COVER SHEET			C-1.0

GENERAL NOTES

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF ALL REGULATIONS ADMINISTERED BY THE LOCAL UTILITY COMPANIES AND THE CITY OF PORTLAND.
2. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF THE ENTRANCES, EXITS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE POINTS.
3. ALL REQUIRED AND NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL SERVICE CONNECTIONS.
4. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE (1-888-DIGSAFE). IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS, AT NO EXTRA EXPENSE TO THE OWNER.
5. MAINTENANCE OF EROSION CONTROL MEASURES IS OF PARAMOUNT IMPORTANCE TO THE OWNER AND THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ONSITE INSPECTIONS OF THE OWNER OR THEIR REPRESENTATIVES AT NO ADDITIONAL COST TO THE OWNER.
6. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
7. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO PROJECT CONTRACT SPECIFICATIONS, AND THE CITY OF PORTLAND TECHNICAL STANDARDS, WHICHEVER IS MORE STRINGENT.
8. TOPOGRAPHIC AND BOUNDARY SURVEY INFORMATION WAS PROVIDED BY DOWNEAST SURVEYING & DEVELOPMENT. BENCHMARK = DATUM FROM USGS CUSTOM HOUSE ELEVATION +14.07'.
9. FEMA MAP COMMUNITY PANEL NUMBER 2300510014B. THE SITE IS LOCATED IN ZONE A2 (EL 10).
10. THE PROPERTY SHOWN ON THIS PLAN MAY BE DEVELOPED AND USED ONLY AS DEPICTED IN THIS APPROVED PLAN. ALL ELEMENTS AND FEATURES OF THE PLAN AND ALL THE PROPERTY WHICH APPEARS IN THE RECORD OF THE PLANNING BOARD PROCEEDINGS ARE CONDITIONS OF THE APPROVAL. NO CHANGE FROM THE CONDITIONS OF APPROVALS IS PERMITTED UNLESS AN AMENDED PLAN IS FIRST SUBMITTED TO AND APPROVED BY THE PLANNING AUTHORITY.
11. ALL SIGNAGE SHALL CONFORM TO THE STANDARDS FOR SIZE, HEIGHT, LOCATION AND REFLECTIVITY SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
12. ALL CURB SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS AS NOTED ON THE PLANS: GRANITE AND BITUMINOUS CONCRETE CURB SHALL MEET THE REQUIREMENTS OF MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS 609.03 AND 609.04 AND CITY OF PORTLAND TECHNICAL STANDARDS.
13. ALL DIMENSIONING UNLESS OTHERWISE NOTED IS TO THE FACE OF CURB OR FACE OF BUILDING.
14. THE FACILITY IS SERVICED BY PUBLIC WATER, SEWER, NATURAL GAS AND OVERHEAD POWER. THE PROJECT INCLUDES UPDATES TO THE POWER SERVICE INCLUDING THE INSTALLATION OF NEW UNDERGROUND SYSTEM. SEE SITE ELECTRICAL PLANS FOR DETAILS.
15. THE CONTRACTOR IS REQUIRED TO NOTIFY THE CITY OF PORTLAND PUBLIC WORKS INSPECTION SERVICES DIVISION (874-8300 EXT. 8838), CODE ENFORCEMENT OFFICE AND DEVELOPMENT REVIEW COORDINATOR IN WRITING THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION. A PRE-CONSTRUCTION MEETING MAY BE REQUIRED TO INCLUDE THE PUBLIC WORKS AUTHORITY OR DEVELOPMENT REVIEW COORDINATOR.
16. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE.
17. WARNING SIGNS, MARKERS, BARRICADES OR FLAGMEN MUST BE EMPLOYED ON ADJACENT STREETS AS NECESSARY THE CONTRACTOR SHALL COORDINATE AND SEEK APPROVAL FROM THE PUBLIC SERVICE DIVISION FOR THE PLACEMENT/PARKING OF EQUIPMENT WITHIN THE PUBLIC RIGHT OF WAY.
18. CONSTRUCTION DEBRIS SHALL BE CONTAINERIZED AND DISPOSED OF IN ACCORDANCE WITH THE CITY OF PORTLAND'S SOLID WASTE ORDINANCE CHAPTER 12. ALL DEMOLITION MATERIAL FROM THE PROJECT SITES SHALL BE TAKEN TO THE RIVERSIDE RECYCLING FACILITY OR AS OTHERWISE DIRECTED PENDING THE RESULTS OF A HAZARDOUS BUILDING MATERIALS SURVEY AS AUTHORIZED AND COORDINATED BY THE OWNER. ALL SALVAGED MATERIAL WITHIN THE PUBLIC R.O.W.(SIDEWALKS, BRICKS, GRANITE CURB) NOT REUSED SHALL BE DISPOSED OF AS DIRECTED BY THE PORTLAND PUBLIC SERVICES DEPARTMENT AT NO EXTRA COST TO THE OWNER.
19. ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
20. PROPERTY MARKERS AND STREET LINE MONUMENTS SHALL BE PROPERLY PROTECTED AT ALL TIMES DURING CONSTRUCTION TO INSURE INTEGRITY. IF DISTURBED THEY SHALL BE REPLACED BY A SURVEYOR REGISTERED IN THE STATE OF MAINE AT THE CONTRACTOR EXPENSE.
21. THE OWNER SHALL BE RESPONSIBLE TO COORDINATE THE PERFORMANCE OF A HAZARDOUS MATERIALS INSPECTION OF THE PROPERTY.
22. A STREET OPENING PERMIT MUST BE OBTAINED FROM THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT PRIOR TO BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF-WAY. ALL WORK WITHIN THE PUBLIC RIGHT OF WAY SHALL BE COMPLETED IN CONFORMANCE TO THE CITY'S RULES AND REGULATIONS FOR EXCAVATION ACTIVITIES IN PUBLIC RIGHT OF WAYS.
23. CONTRACTOR MUST MAINTAIN THROUGH TRAFFIC ON ADJACENT STREETS AT ALL TIMES.
24. ALL METHODS AND MATERIALS USED IN THE CONSTRUCTION OF THE IMPROVEMENTS IDENTIFIED HEREIN SHALL CONFORM TO THE CITY OF PORTLAND CONSTRUCTION AND TECHNICAL STANDARDS AND SPECIFICATIONS AND/OR CURRENT MDOT STANDARDS AND SPECIFICATIONS, WHICHEVER IS MORE STRINGENT.
25. SITE WORK FOR BUILDING SHALL INCLUDE GRADING THE BUILDING PAD AREA (DEFINED AS THE BUILDING FOOTPRINT PLUS 5'-0" BEYOND THE EXTERIOR WALL) TO A GRADE 18" BELOW THE GROUND FLOOR FINISH ELEVATION. ALL WORK SHALL INCLUDE EXCAVATION (INCLUDING ROCK REMOVAL AND EXISTING FOUNDATION DEMOLITION) AND BACKFILL OF ALL FOOTINGS AND FOUNDATIONS, INSTALLATION OF PERIMETER FOUNDATION DRAINS, EXCAVATION AND BACKFILL OF ALL UNDERSLAB UTILITIES AND PLACEMENT OF ALL AGGREGATES BELOW THE FLOOR SLAB AND ADJACENT THE FOUNDATION WALLS IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS. (SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR ADDITIONAL DETAILS PERTAINING TO ANY BUILDING RELATED FOUNDATION WORK).
26. RECORD DRAWINGS REQUIRE ALL BURIED UTILITIES INCLUDING, BUT NOT LIMITED TO, BENDS, APPURTENANCES, AND OTHER FEATURES TO BE LOCATED BY COORDINATE INFORMATION TO BE RECORDED BY THE CONTRACTOR AND SUPPLIED TO THE OWNER AT THE END OF THE PROJECT.
27. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS PREPARED BY ARCHETYPE ARCHITECTS FOR EXACT LOCATIONS AND DIMENSIONS OF THE ENTRANCES, PAVING, EXIT PORCHES, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE POINTS.
28. ALL REQUIRED AND NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL SERVICE CONNECTIONS.

PERMITTING NOTES

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF THE SITE PLAN REVIEW PERMIT FROM THE CITY OF PORTLAND WHICH WILL BE MADE A PART OF THE CONTRACT BID DOCUMENTS. THE CONSTRUCTION WILL BE GOVERNED BY THE ZONING ORDINANCES WHICH ARE AVAILABLE FOR VIEWING AT THE OFFICE OF THE ENGINEER OR THE MUNICIPAL OFFICE.

SITE PLAN CONDITIONS OF APPROVAL (PENDING)

TO BE ADDED AS PART OF CONSTRUCTION DOCUMENTS

SUBDIVISION CONDITIONS OF APPROVAL (PENDING)

TO BE ADDED AS PART OF CONSTRUCTION DOCUMENTS

LAYOUT NOTES

1. ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE FACE OF CURB OR BUILDING.
2. ALL SIGNS INDICATED ON THE LAYOUT PLANS ARE TO MEET ALL REQUIREMENTS AND STANDARDS OF THE MAINE DEPARTMENT OF TRANSPORTATION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. COORDINATES AND/OR DIMENSIONS FOR CATCH BASIN AND MANHOLES ARE TO THE CENTER OF THE FRAME.
4. PIPE LENGTH EQUALS THE CENTER TO CENTER DISTANCES BETWEEN CATCH BASINS AND/OR MANHOLES MINUS ONE-HALF OF THE DIAMETER OF EACH CATCH BASIN OR MANHOLE.
5. PROPERTY LINE AND R.O.W. MONUMENTS SHALL NOT BE DISTURBED BY CONSTRUCTION. IF DISTURBED, THEY SHALL BE RESET TO THEIR ORIGINAL LOCATIONS, AT THE CONTRACTOR'S EXPENSE, BY A MAINE PROFESSIONAL LAND SURVEYOR.
6. PROPOSED RIGHT-OF-WAY MONUMENTS AND PROPERTY LINE PINS SHALL BE INSTALLED UNDER THE DIRECTION OF A MAINE PROFESSIONAL LAND SURVEYOR.
7. ALL HANDICAP PARKING SPACES ARE TO RECEIVE HANDICAP SIGNS AND PAVEMENT MARKINGS AS ILLUSTRATED ON THE DETAIL SHEETS. UNLESS OTHERWISE NOTED, ALL ON-SITE CURB SHALL BE GRANITE AND CONFORM TO MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

GRADING AND DRAINAGE NOTES:

1. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF n = 0.013 OR LESS. UNLESS A SPECIFIC PIPE MATERIAL IS CALLED FOR ON THE CONTRACT DRAWINGS. PVC PIPING SHALL NOT BE USED IN AREAS OF EXPOSED SUNLIGHT.
2. SLOPE PROTECTION IS TO BE PROVIDED PER THE DESIGN PLANS AND MAY INCLUDE RIPRAP, SOD OR MULCH.
3. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING EARTHWORK OPERATIONS TO INSURE THAT DISTURBANCE TO ANY STEEP SLOPE AREAS ARE MINIMIZED TO THE EXTENT PRACTICABLE.
4. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY OTHERS. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (1-888-DIGSAFE) AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES.
5. ALL PAVING WITHIN THE PUBLIC R.O.W. SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF PORTLAND RULES AND REGULATIONS FOR EXCAVATION ACTIVITIES IN THE PUBLIC R.O.W.
6. NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.
7. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.
8. CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES AND PHYSICAL FEATURES THAT ARE OUTSIDE THE SCOPE OF WORK. THE CONTRACTOR SHALL MAINTAIN SITE STABILITY DURING CONSTRUCTION TO AVOID EROSION AND SEDIMENT TRANSPORT. CONTRACTOR SHALL RESTORE ALL AREAS TO A FINAL STABILIZED CONDITION AS DIRECTED BY DESIGN DRAWINGS.
9. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.
10. EXTERIOR GRADES AROUND PROPOSED STRUCTURE SHALL BE COORDINATED WITH FINAL BUILDING PLANS AND PROVIDE FOR ALL ACCESS OPENINGS.
11. SUBGRADE FILL PLACED BENEATH ALL PERMANENT PAVEMENT, SIDEWALK OR CONCRETE SURFACES EXCLUDING ANY BUILDING AREAS, SHALL BE GRANULAR BORROW. SUBGRADE FILL PLACED BENEATH ALL LANDSCAPE AREAS EXCEPT THOSE ADJACENT THE FOUNDATION SYSTEMS MAY BE A COMMON BORROW MATERIAL SUITABLE FOR EMBANKMENT CONSTRUCTION, FREE FROM FROZEN MATERIAL, PERISHABLE RUBBLE, PEAT, ORGANICS, ROCKS LARGER THAN 12" IN DIAMETER, VEGETATION AND OTHER MATERIAL UNSUITABLE FOR ROADWAY AND SUBGRADE CONSTRUCTION. EXCAVATED ON-SITE MATERIALS MAY BE USED FOR FILL PROVIDED THE MATERIAL IS FREE FROM UNSUITABLE MATERIAL DESCRIBED IN THIS NOTE AND UPON APPROVAL OF THE ENGINEER. EXCAVATED ONSITE MATERIALS MAY NOT BE USED AS COMPACTED STRUCTURAL FILL BENEATH THE BUILDING AREAS OR AS FOUNDATION BACKFILL. GRANULAR BORROW AND COMMON BORROW SHALL COMPLY WITH THE MDOT SPECIFICATIONS.
12. ALL FILLS SHALL BE PLACED IN LAYERS NOT MORE THAN 12" LOOSE DEPTH AND COMPACTED BY HEAVY COMPACTION EQUIPMENT. MINIMUM COMPACTION SHALL BE 95% OF MAXIMUM DENSITY ASTM 1557, MODIFIED AND FIELD DENSITY ASTM D2922 (NUCLEAR METHODS).
13. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.

UTILITY NOTES:

1. ALL REQUIRED UTILITIES SERVING THE PROJECT SHALL BE COORDINATED BETWEEN THE SITE WORK CONTRACTOR AND DIVISION 22/26 CONTRACTOR(S). THE SITE WORK CONTRACTOR SHALL BE RESPONSIBLE TO EXTEND ALL PROPOSED UTILITIES TO WITHIN FIVE (5) FEET OF THE BUILDING TO A LOCATION COORDINATED WITH THE MECHANICAL AND ELECTRICAL SUBCONTRACTORS. THE BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITIES WITHIN FIVE (5) FEET AND INSIDE THE BUILDING OR UNDER SLAB.
2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF AND/OR RELOCATION OF OVERHEAD AND UNDERGROUND TELEPHONE WITH FAIRPOINT COMMUNICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUITS, PULL WIRES, TRENCHING AND BACKFILLING NECESSARY TO COMPLETE THE WORK.
3. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRIC SERVICE WITH CENTRAL MAINE POWER; THE TELECOMMUNICATIONS SERVICE WITH FAIRPOINT COMMUNICATIONS AND CABLE SERVICE WITH TIME WARNER CABLE. ALL WORK SHALL CONFORM TO THE PROJECT SPECIFICATIONS OR UTILITY COMPANY STANDARDS, WHICHEVER IS MORE STRINGENT.
4. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE AT NO ADDITIONAL EXPENSE TO THE OWNER.
5. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
6. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO COMPLETION OF THE PROJECT.
7. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL, AT NO EXTRA EXPENSE TO THE OWNER.
8. A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18 INCH OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER AND SANITARY SEWER CROSSINGS.
9. THE CONTRACTOR SHALL PROVIDE TEMPORARY SERVICES AS REQUIRED TO PROVIDE CONTINUOUS SERVICE TO THE JOBSITE. TEMPORARY SERVICES SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND UTILITY COMPANY STANDARDS. COORDINATE ALL TEMPORARY SERVICES WITH UTILITY COMPANY, OWNER AND AFFECTED BUSINESSES.
10. CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY ELECTRICAL SERVICES IN CONDUIT TO SITE LIGHTING, COMPLYING WITH APPLICABLE CODES. COORDINATE WITH OWNER, SITE ELECTRICAL, ARCHITECTURAL AND CMP PLANS.
11. ALL SANITARY SERVICES AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT. ALL SANITARY SERVICES AND APPURTENANCES TO BE ABANDONED SHALL BE PROPERLY RECORDED WITH PORTLAND PUBLIC WORKS ENGINEERING DEPARTMENT. A DIGITAL VIDEOTAPE SHALL BE MADE OF SANITARY SEWER SYSTEMS TO BE UTILIZED PRIOR TO CONSTRUCTION; UPSTREAM PIPES INTENDED FOR ABANDONMENT SHALL BE INSPECTED TO VERIFY THAT THEY NO LONGER SERVE OTHER FACILITIES.

WCZ Waterfront Central zone		
ZONING REQUIREMENTS	REQUIRED	PROVIDED
LOT SIZE	NONE	5± ACRES
MIN. FRONTAGE ALONG COMMERCIAL ST	75'	343.64 FT.
MIN. LOT WIDTH WITHIN THE NON-MARINE USE OVERLAY ZONE (*NMUOZ)*	50'	75'
MIN. YARD DIMENSIONS FRONT, SIDE AND REAR SETBACK FROM PIER EDGE	NONE 5' FROM EDGE OF ANY PIER, WHARF, OR BULKHEAD	0 FT. < 0.5' FROM PIER
MAX. LOT COVERAGE	100%	100%
MAX. BUILDING HEIGHT	50' *	< 50'
OFF-STREET PARKING AND LOADING	DIV 20 AND DIV 21 SHALL NOT APPLY	EXISTING = 208 SPACES PROPOSED = 215 SPACES (Phase 1) PROPOSED = 180 SPACES (Future Phases)

ZONING NOTES:

1. MAXIMUM BUILDING HEIGHT: FIFTY (50) FEET. EXCEPT AS PROVIDED IN (H) BELOW, A STRUCTURE IN THE WATERFRONT CENTRAL ZONE SHALL PROVIDE NO MORE THAN THREE HABITABLE FLOORS; HOWEVER, TYPICAL ROOFTOP APPURTENANCES AND/OR ENCLOSED OR OPEN MECHANICAL INSTALLATIONS SHALL BE ALLOWED OVER THE THIRD FLOOR.
2. NEW NON-MARINE USE BUILDING EXCEPTION FOR USABLE FLOORS AND MINIMUM GROUND FLOOR CLEARANCE: NOTWITHSTANDING PROVISIONS (F) AND (G) ABOVE, FOR NEW NON-MARINE USE BUILDINGS PERMITTED WITHIN THE NMUOZ, FOUR (4) USABLE FLOORS ARE ALLOWED AND GROUND FLOOR CLEARANCE MINIMUMS DO NOT APPLY.

EROSION CONTROL NOTES:

1. LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE THAT CAUSES THE LEAST PRACTICAL DISTURBANCE OF THE SITE.
2. PRIOR TO BEGINNING ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL THE PERIMETER SILT FENCES AND THE STABILIZED CONSTRUCTION ENTRANCES.
3. SILT BARRIERS SHALL BE INSPECTED, REPAIRED AND CLEANED AS NOTED IN THE EROSION CONTROL NOTES SHOWN ON THE EROSION CONTROL DETAIL SHEET.
4. THE CONTRACTOR SHALL REPAIR AND ADD STONE TO THE CONSTRUCTION ENTRANCES AS THEY BECOME SATURATED WITH MUD TO ENSURE THAT THEY WORK AS PLANNED DURING CONSTRUCTION AND SHALL KEEP ADJACENT STREETS CLEAR OF DIRT AND MUD.
5. SILT REMOVED FROM AROUND INLETS AND BEHIND THE SILT FENCES SHALL BE PLACED ON A TOPSOIL STOCKPILE AND MIXED INTO IT FOR LATER USE IN LANDSCAPING OPERATIONS.
6. CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITIES IN THE AREA OF PROPOSED EXCAVATION OR BLASTING AT LEAST THREE (3) BUT NOT MORE THAN (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 MRSA 3360-A.
7. IMMEDIATELY UPON COMPLETION OF CUTS/FILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AS SPECIFIED ON PLANS.
8. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES" PUBLISHED BY THE CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 1991 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.
9. CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL REQUIREMENTS, INSPECTION AND MAINTENANCE REQUIREMENTS AND GOOD HOUSEKEEPING PRACTICES IN ACCORDANCE WITH APPENDIX A, B& C OF MAINE DEP CHAPTER 500.

EXISTING		PROPOSED	
○	IRON PIN FOUND (IPF) OR CAPPED IRON ROD FOUND (CIR)		PROPERTY LINE
(E)	ELECTRIC MANHOLE		BARRIER FREE SYMBOL
	CATCH BASIN		SIGN
(S)	SEWER MANHOLE	M	SIGN LABEL
(D)	DRAIN MANHOLE		BUILDING
	DOWN SPOUT		GRANITE CURB
WSO	WATER VALVE	T	TRANSFORMER
	WATER SHUTOFF		BRICK
	UTILITY POLE		ASPHALT GRIND
	SIGN		DERO BIKE HITCH
	LIGHT POLE		
	ELECTRIC METER		
	GAS METER		
	EDGE OF PAVEMENT		
	CURB (GRANITE, UNLESS NOTED)		
	EDGE OF GRAVEL		
SS	SEWER		
W	UNDERGROUND WATER		
OHP	OVERHEAD UTILITY WIRES		
	WOOD STOCKADE FENCE		
X	CHAIN LINK FENCE		
	GUARD RAIL		
	EXISTING BUILDING		
	TREE		
70	EXISTING CONTOUR		
X=48.3'	SPOT GRADE		
	PROPERTY LINE		
	RIGHT OF WAY		
SD	STORM DRAIN		
	BRICK		
	BUILDING		
	PAVEMENT SAWCUT		
	PAVEMENT DEMOLITION		

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Stantec

Prepared For:
PROPRIETORS OF UNION WHARF
36 UNION WHARF
PORTLAND, ME 04101

Project:
UNION AND WIDGERY WHARF DEVELOPMENT
PORTLAND, MAINE

Revisions:
09.27.16 - REVISED PER CITY COMMENTS & RESUBMITTED
08.29.16 - FINAL PLAN PERMIT SUBMISSION
05.26.16 - PRELIMINARY PLAN SUBMISSION TO CITY

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

STATE OF MAINE
STEPHEN R. BUSHEY
PE 7429
09/27/2016
LICENSED PROFESSIONAL ENGINEER
P.E. STEPHEN R. BUSHEY
LIC. #7429

Date: JAN 2015
Scale: N.T.S.

GENERAL NOTES AND LEGEND

C-1.1

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LEGEND: (EXISTING FEATURES)

- PROPERTY CORNER
- POWER POLE
- FIRE HYDRANT
- WATER SHUT OFF (W) 2008
- STORM DRAIN
- SEWER MAN HOLE (S) 2008
- BULKHEAD
- FENCE
- TELEPHONE
- FIRE BOX
- FLAG POLE
- X SPOT GRADES
- SMALL TREE
- TREES AND SHRUBS
- EXISTING PARKING
- TRAFFIC FLOW
- DRAINAGE ARROWS

LEGEND: (FEATURES)

- LIMIT OF LEASE
- FLAG POLE
- LIGHT POLE
- FIRE HYDRANT
- PARKING
- PP POWER POLE
- WALL PACK LIGHT

BUILDING INFORMATION

BLDG. #	GROUND FLOOR AREA	GRADE ELEVATION
#1	4680 S.F.	F.F. EL. 11.3'
#230	1481 S.F.	F.F. EL. 11.9'
#36	5014 S.F.	F.F. EL. 11.2'
#55	61 S.F.	F.F. EL. 11.2'
#41	1560 S.F.	F.F. EL. 8.7'
#48	6691 S.F.	F.F. EL. 10.3'
#50	1557 S.F. & 663 S.F.	F.F. EL. 10.2'
#50A	722 S.F.	F.F. EL. 11.9'
#52	2388 S.F.	F.F. EL. 12.0'
#35	DEMOLISHED AS PER 7/20/97	F.F. EL. 9.2'
#30	1080 S.F.	F.F. EL. 8.5'
#28	1864 S.F.	F.F. EL. 9.2'
#14	10900 S.F.	F.F. EL. 11.6'
CM WATERFRONT PROPERTIES, LLC	10400 S.F.	NOT IN FLOOD ZONE

40 0 40 80 120
Scale: 1" = 40'

GRID NORTH
-13450'06"
MAGNETIC
1925
N

NOTE: 16 APRIL 2010
WEST AND SOUTH SIDES OF CM WATERFRONT PROPERTIES, LLC PARCEL ARE THE CENTERLINE OF THE "PARTY WALLS". LOCATION AS SHOWN IS APPROXIMATE.

MERRILS WHARF, INC.
4549-113

S 22°06'31" E
813.40 FT

WIDGERY WHARF, INC.
2966-449
7133-295

"MAINE RESPONDER" BERTH

WHARF (APPROX LOC) E Z P

M.S.R.C. WORK YARD (SPACE #52)

LIMIT OF LEASE (6' CHAIN LINK FENCE)

COOLER

OLD HCL

HCL 1920

STORAGE

#35 COZY HARBOR

HOIST PLATFORM

EDGE OF DOCK

CRANE BASE

#41

DOCK

GAS SHED 11-08

WATER

LOT #35

RETAINING WALL

#48

#50

#52

Opp

MSRC #52

NEW SEWER

NEW WATER

GATE

VALVE BOX TBM=9.4

SLIDE

SEWER

WATER LINE

DOCK & RAMP

6" WATER HPDE

EXIST. 24' TRAVEL & FIRE LANE

#28

#30

HOIST S 22°33'38" E 60.85 FT

8.7'

EDGE OF DOCK

PAVEMENT EDGE OF DOCK

CONTROL POINT "C"

LOCATION OF 100 YEAR FLOOD PLAIN EL. 9.6'

#38 28x52 MODULAR FF=11.94

#36 FF=11.2

#1

#230

#14 M.S.R.C. BLDG. 70'x30'x28' 1994

HYD.

RAMP INTO BLDG.

LOADING DOCK

GUIDED SLANT

RAMP

4 long

BENCH MARK FF=11.5' 7/20/97

S 22°14'10" E 203.17 FT

#1 (WW)

81.43 FT

GROUND AT EDGE OF FOUNDATION = 9.0, FEATHER INTO EXIST. GRADES

GUARD RAIL

SHARED 20' R.O.W. UNION & WIDGERY WHARF

S 18°53'03" E 139.85 FT

150 FT COMMERCIAL ST. SETBACK

25 FOOT AVERAGE HIGH TIDE SETBACK

N 23°19'08" W 146.46 FT PARTY WALL

S 22°06'31" E 95.48 FT

DUMPSTER

N 67°20'29" E 107.54 FT

BRICK BUILDING

BLOCK BUILDING

CM WATERFRONT PROPERTIES, LLC BOOK 11101 PAGES 261-264

N 45°17'04" W 107.95 FT

GAS ENTRY

SIDE WALK

CROSS WALK

RAMP

SIDE WALK

PLANTING AREA

CROSS WALK

EXIST. 12" SEWER LINE

EXIST. 8" WATER LINE

SIGN

COMMERCIAL STREET

FLAG

STEPS

N 63°22'02" E 189.40 FT

CONTROL POINT "B"

LOT #3

GUARD RAIL

GUARD RAIL

STATE PLANE COORDINATES FOR CONTROL POINTS

POINT "B"	= 91247.263 ; 309775.517
POINT "C"	= 90716.938 ; 39986.777

SURVEY CONTROL POINTS

- PIN FOUND
- MAG NAIL OVER PIN FOUND

NOTES:

COASTAL BASE FLOOD EL. = 9.6' PER FLOOD INSURANCE STUDY DATED JULY 17, 1986.

BENCH MARK: DATUM USGS FROM CUSTOM HOUSE B.M. +14.04'.

FLOOD MAP NOTE (PLAN #9)

SOILS ARE MAN MADE BEING CRUSHED STONE ON CONSOLIDATED FILL.

LOT SHOWN ON MAP 31 LOTS 35 & 3 IN TAX ASSESSORS BOOK.

TOTAL WHARF REQUIRED PARKING 123 SPACES. PARKING PROVIDED 150 SPACES.

NOTE:
UNDERGROUND UTILITIES LOCATED BY "PUCK" FOREMAN FOR CHASE EXCAVATION ON 12/7/02.

REGISTRY OF DEEDS

COUNTY CUMBERLAND
DATE:
TIME:
PLAN BOOK: 215 PAGE: 337
FILE NO.:
REGISTRAR'S ATTEST:

SURVEY NOTES

Owner of record: Proprietors of Union Wharf
252-254 Commercial Street
Portland Maine 04101

deeds of Record: (at Cumberland County Registry)

198-49;215-139;336-501;336-504; 726-401&402; 2117-307;2191-244;3315-185;3858-320&323; 3990-183;9829-14;11205-34;11205-52
Plan book 10-93 & Plan book 161-9

tax map 31 lot 35
5.0 +/- acres
shoreland zone
flood zone as shown

Vertical datum: RM 41 at Custom House NGVD 1929

Horizontal datum: MDOT 555-13,14 west zone (NAD 83)

OWNER: The Proprietors of Union Wharf
40A Union Wharf
Portland, ME 04101

DATE: 2015-4-22 SCALE: 1" = 40'

PROJECT: Union Wharf Site Plan

ADDRESS: 40A Union Wharf
CITY: Portland, Maine 0410 COUNTY: Cumberland STATE: Maine

D. S. D.
DOWNEAST SURVEYING & DEVELOPMENT
EDWOOD ELLIS, P.L.S. # 1176
P.O. BOX 1634
CINA VILLAGE, MAINE 04926
(207) 968-2507
MEMBER MAINE SOCIETY OF LAND SURVEYORS

NO.	REVISIONS	DATE

FISHERMAN'S WHARF PUBLIC PARKING

GUARD RAIL

WIDGERY WHARF LANE

COMMERCIAL ST. SETBACK

ASPHALT

OVERHEAD ELECTRIC TO REMAIN

OVERHEAD ELECTRIC TO BE REMOVED

R.O.W.

ASPHALT

SAWCUT AND REMOVE ASPHALT WITHIN WORK LIMITS

S 18°53'03" E

329.85 FT

PARKING METER

GUARD RAIL

REMOVE & REPLACE GUARDRAIL

ASPHALT DRIVE

REMOVE & REPLACE GUARDRAIL

GUARD RAIL

B-101

B-103

81.43 FT

S 71°14'40" W

METAL GUARDRAIL

LOT #3

ASPHALT PARKING LOT

RIM EL.: 8.57'
10" INV OUT.: 6.74'

10" AOS

EXISTING METAL BUILDING TO BE DEMOLISHED INCLUDING ALL CONCRETE FOUNDATIONS/SLABS/ BACKFILL WITH SUITABLE GRANULAR BORROW OR AS DIRECTED BY STRUCTURAL ENGINEER.

TEMPORARY LICENSE REQUIRED FROM ABUTTING LANDOWNER

REMOVE GUARDRAIL

PROTECT EXISTING DRAIN PIPE DURING FOUNDATION CONSTRUCTION OR OTHERWISE REPLACE WITH HDPE (TYP)

189.40 FT

WOOD GUARDRAIL

REMOVE GUARDRAIL

GUARD RAIL

CPT-1

PROTECT CATCH BASIN

B-102

EX. 10" SD

EX. CATCH BASIN
APPROX. RIM EL.: 3'±
10" INV IN.: 4'±
10" INV OUT.: 3.9'±
(OUTFALLS TO WATERFRONT)

ASPHALT PATIO

BLD. #230
FF=8.5'
(2,538 SF)
SAPPORO RESTAURANT

CONCRETE RAMP

EXISTING OVERHEAD UTILITY POLE TO BE REMOVED UPON RELOCATION OF OVERHEAD WIRES BY OTHERS

REMOVE OVERHEAD ELECTRIC

ASPHALT PARKING LOT

UNION WHARF
5 ACRES ±

LOADING DOCK

GAS METER

CONCRETE WALK

BRICK SIDEWALK

PAVER PATIO

FLAGPOLE

FOUNTAIN

N 63°22'02" E 84.0 FT

BLD. #1
FF=11.3'
(10,305 SF)
1 UNION WHARF
(224–240 COMMERCIAL ST.)
(UNION KITCHEN)

TEST PIT TO LOCATE WATER LINE AT POINT OF CONNECTION (SEE SITE LAYOUT AND UTILITY PLAN) - ADJUST SAWCUT AS NECESSARY

SAWCUT & REMOVE PAVEMENT TO UTILITY POLE AT BUILDING #38

METER PIT

RIM EL.: 9.18'
INV. OUT.:

SIGN

12" CMP
(POOR COND.)

RIM EL.: 8.8'

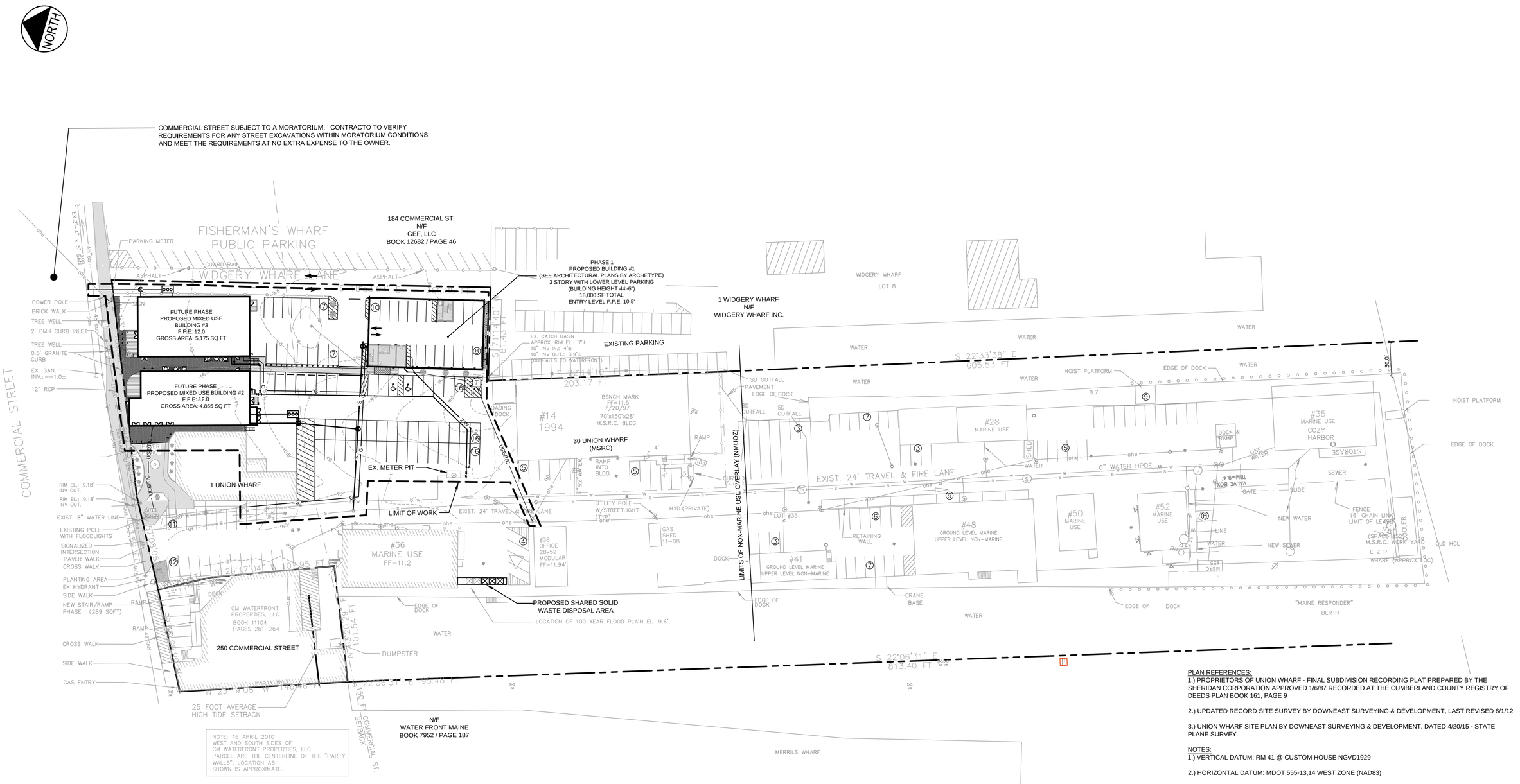
RIM EL.: 9.4'
INV. IN.: 1.4'
INV. OUT.: '

UTILITY POLE W/STREETLIGHT (TYP)

STANTEC CONSULTING SERVICES INC.
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Stantec

Prepared For: PROPRIETORS OF UNION WHARF 36 UNION WHARF PORTLAND, ME 04101	Project: UNION AND WIDGERY WHARF DEVELOPMENT PORTLAND, MAINE	Revisions: 09.27.16 - REVISED PER CITY COMMENTS & RESUBMITTED 08.29.16 - FINAL PLAN PERMIT SUBMISSION 05.26.16 - PRELIMINARY PLAN SUBMISSION TO CITY
Architect: ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	STATE OF MAINE STEPHEN R. BUSHEY No. 7429 REGISTERED PROFESSIONAL ENGINEER P.E. STEPHEN R. BUSHEY LIC. #7429	Date: JAN 2015 Scale: 1" = 10' EXISTING CONDITIONS AND DEMOLITION PLAN PHASE 1 C-2.1

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PARKING SUMMARY

TOTAL EXISTING PARKING -	208 SPACES
TOTAL PROPOSED PARKING (PHASE 1) -	212 SPACES
TOTAL PROPOSED PARKING (FUTURE PHASES) -	179 SPACES

PER SECTION 14-311(d)(8) THE DIVISION 20 (OFF STREET PARKING) AND DIVISION 21 (OFF STREET LOADING) PROVISIONS DO NOT APPLY TO THE SITE.

PLAN REFERENCES:
1.) PROPRIETORS OF UNION WHARF - FINAL SUBDIVISION RECORDING PLAT PREPARED BY THE SHERIDAN CORPORATION APPROVED 1/6/87 RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 161, PAGE 9

2.) UPDATED RECORD SITE SURVEY BY DOWNEAST SURVEYING & DEVELOPMENT, LAST REVISED 6/1/12

3.) UNION WHARF SITE PLAN BY DOWNEAST SURVEYING & DEVELOPMENT. DATED 4/20/15 - STATE PLANE SURVEY

NOTES:
1.) VERTICAL DATUM: RM 41 @ CUSTOM HOUSE NGVD1929

2.) HORIZONTAL DATUM: MDOT 555-13,14 WEST ZONE (NAD83)

GRAPHIC SCALE

40 0 5 40 80

(IN FEET)
1 inch = 40 ft.

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STATE OF MAINE
STEPHEN R. BUSHEY
7429
06/07/2016
LICENSED PROFESSIONAL ENGINEER
P.E. STEPHEN R. BUSHEY
LIC. #7429

Date: JAN 2015
Scale: 1" = 40'

OVERALL SITE LAYOUT & UTILITY PLAN

C-3.0

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NORTH

FISHERMAN'S WHARF PUBLIC PARKING

WIDGERY WHARF LANE

GUARD RAIL

ASPHALT

COMMERCIAL ST. SETBACK

R.O.W.

ASPHALT DRIVE

PARKING METER

EXISTING GUARDRAIL TO REMAIN

PROPOSED DIRECTIONAL ARROW (TYP)

S 18°53'03" E 329.85 FT

STOP BAR

APPROXIMATE PHASE 1 WORK LIMITS

WALL PACK LIGHT FIXTURE

INSTALL NEW GUARD RAIL

SAWCUT

SAWCUT

8' WIDE SPACES (TYP. OF 9 NEW SPACES)

PARKING TO REMAIN FOR PHASE 1

12" WOOD PILE W/LIGHTING (TYP. OF 25) EXTEND 42" TO 48" ABOVE GRADE

PAVEMENT MARKINGS (TYP)

PROPOSED PARKING

RIM EL.: 8.57'
10" INV OUT.: 6.74'

COLUMNS (APPROXIMATE LOCATION SUBJECT TO STRUCTURAL DESIGN. ACTUAL SPACING MAY REQUIRE ALTERNATE PARKING ALIGNMENT

SANITARY EXIT - INV. 5.0'

NATURAL GAS ENTRY

SMH #1 (SEE NOTE 1)
RIM: 9.45'
INV. IN: 4.50'
INV. OUT: 4.45'

PHASE 1
PROPOSED BUILDING #1
(SEE ARCHITECTURAL PLANS BY ARCHETYPE)
3 STORY WITH LOWER LEVEL PARKING
(BUILDING HEIGHT 44'-6")
18,000 SF TOTAL
GROUND LEVEL F.F.E. 10.5'

STANDARD DUTY PAVEMENT SECTION (TYP) BENEATH BUILDING

GROUND LEVEL LOBBY

MECH./ ELEC. ROOM

6" BOLLARD (TYP)

BIKE RACK (DERO HITCH, TYP. OF 2)

TEST PIT STORMDRAIN

TIMBER GUIDERAIL (TYP)

100.58'

81.43 FT

S 71°14'40" W

60.58'

APPROXIMATE PHASE 1 WORK LIMITS

WHEEL BARRIER (TYP)

TEST PIT STORMDRAIN

CROSSWALK

SIDEWALK

LANDSCAPE BEDS

EX. 10" SD

EX. CATCH BASIN APPROX. RIM EL.: 7'± 10" INV IN.: 4'± 10" INV OUT.: 3.9'± (OUTFALLS TO WATERFRONT)

TD

TD (BLDG. MOUNTED)

UGE/T/C

6" BOLLARDS (TYP.)

9'(TYP)

7'x 7' TRANSFORMER (SIZE BY SITE ELECTRICAL ENGINEER)

BUILDING TO REMAIN FOR PHASE 1

WHEEL BARRIER (TYP)

EXISTING SERVICE AREA TO REMAIN

PROPOSED PEDESTRIAN ACCESS ROUTE PAVED WITH SURFACE TREATMENT WHICH MAY CONSIST OF PAINT, TEXTURED SURFACE OR OTHER HARD SURFACE TREATMENT

PROPOSED PARKING

OWNER RESERVES THE RIGHT TO INSTALL A REMOVABLE BARRIER TO RESTRICT ACCESS BETWEEN WIDGERY WHARF LANE AND UNION WHARF AS NECESSARY

EXISTING OVERHEAD TO BE REMOVED

6" SAN L=124' S=TBD

6' WIDE BRICK SIDEWALK WITH VERTICAL GRANITE CURB (TYP)

SEASONAL PLANTERS - PLACED TO ALLOW REMOVAL FOR WINTER SNOW REMOVAL OPERATIONS

PROPOSED PARKING

UNION WHARF
5 ACRES ±

9' (TYP OF 32)

LOADING DOCK

BRICK SIDEWALK

PAVER PATIO

FLAGPOLE

FOUNTAIN

N 63°22'07" E 80.90'

BUILDING TO REMAIN FOR PHASE 1

BLD. #1
FF=11.3'
(10,305 SF)
1 UNION WHARF
(224–240 COMMERCIAL ST.)
(UNION KITCHEN)

EXISTING SERVICE AREA TO REMAIN

CROSS HATCH PAVEMENT MARKINGS TO DELINEATE "NO PARKING ZONE" (TYP)

SAWCUT

APPROXIMATE PHASE 1 WORK LIMITS

UNITIL TO CONFIRM NATURAL GAS LINE SUPPLY SIZE

EX. SMH (SEE NOTE 1)
RIM: 9.4
INV. IN: 1.4'
INV. OUT: 1.4'
CORE HOLE TO ACCEPT NEW 6" SAN AT ELEV.: 2.0'± RECONSTRUCT SEWER INVERT TO PROVIDE BRICK CHANNEL

12" CMP (POOR COND.)

RIM EL.: 9.4'
INV. IN.: 1.4'
INV. OUT.:

PROPOSED PARKING

CAP WITH 1" BLOW OFF

SAWCUT

NEW UNDERGROUND ELECTRIC AND COMMUNICATIONS FROM EXISTING POLE (TYP.)

2" SERVICE TO PHASE 1

2" SERVICE CONNECTION & VALVE

TEST PIT REQUIRED

6"x6" TAPPING SLEEVE AND VALVE ASSEMBLY

APPROXIMATE PHASE 1 WORK LIMITS

METER PIT

NOTE:
1. ALL EXISTING AND PROPOSED SANITARY MANHOLE COVERS SHALL HAVE WATERTIGHT LOCK DOWN COVERS (TYP).

GRAPHIC SCALE
10 0 5 10 20
(IN FEET)
1 inch = 10 ft.

SIGN LEGEND

R1-1	R7-8A					
STOP	RESERVED PARKING	COMPACT CAR PARKING	MOTORCYCLE PARKING	NO PARKING	PARKING BY PERMIT ONLY	
24"x24"	18"x12"	18"x12"	18"x12"	18"x12"	18"x12"	24"x24"
A	B	C	D	E	F	G

CURB LEGEND

GRANITE CURB

TD — TIP DOWN

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SCARBOROUGH ME 04074-8929
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Stantec

Prepared For:
PROPRIETORS OF UNION WHARF
36 UNION WHARF
PORTLAND, ME 04101

Project:
UNION AND WIDGERY WHARF DEVELOPMENT
PORTLAND, MAINE

Revisions:
09.27.16 - REVISED PER CITY COMMENTS & RESUBMITTED
08.29.16 - FINAL PLAN PERMIT SUBMISSION
05.26.16 - PRELIMINARY PLAN SUBMISSION TO CITY

Architect:
ARCHETYPE architects
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(207) 772-6022 Fax (207) 772-4056

STATE OF MAINE STEPHEN R. BUSHEY 7429 LICENSED PROFESSIONAL ENGINEER 09/27/2016
P.E. STEPHEN R. BUSHEY LIC. #7429

Date: JAN 2015

Scale: 1" = 10'

PHASE 1
SITE LAYOUT & UTILITY PLAN

C-3.1

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NORTH

FISHERMAN'S WHARF PUBLIC PARKING

GUARD RAIL

WIDGERY WHARF LANE

FT. COMMERCIAL ST. SETBACK

ASPHALT DRIVE

ASPHALT

R.O.W.

S 18°53'03" E

329.85 FT

CORE TO ACCEPT 6" SAN. CONNECTION TO EXISTING 3'-4" x 5' SEWER PER CITY REQUIREMENTS - CONNECTION TO BE ABOVE SPRING LINE OF PIPE

SMH1 (4' Ø)
RIM= 10.4'
4" INV. IN= 4.91
4" INV. IN= 4.33
6" INV. OUT = 4.23

1500 TO 2500 GAL. GREASE TANK (FINAL SIZE TBD PRIOR TO CONSTRUCTION)(SEE NOTE 1)

LIMITS OF PAVEMENT RESTORATION WITHIN WIDGERY WHARF LANE TO BE COORDINATED WITH OWNERS (MAY INCLUDE A MINIMUM 1½" PAVEMENT OVERLAY

EXISTING POLE AND OVERHEAD LINE TO BE REMOVED (BY OTHERS) RECONFIRMATION OF SERVICE TO BE COORDINATED BETWEEN ELECTRICAL DESIGNER AND CMP

6" SAN.
L= 44'
S= 0.0208 MIN.

4" SAN.
L= 16'
S= 0.0208 MIN.

4" SAN.
L= 4'
S= 0.0208 MIN.

4" SAN.
L= 4'
S= 0.0208 MIN.

REMOVE & REPLACE EXISTING GUARDRAIL

PARKING METER

POWER POLE

UGE/T/C

BRICK WALK

TREE WELL

2' DMH CURB INLET

0.5' GRANITE CURB

EX. SAN. INV.: ≈-1.0±

12" RCP

4" DOMESTIC SAN. SERVICE INV. OUT= 5.0'

4" SAN. INV. OUT= 5.0'

98'-1"

SURFACE TREATMENT BELOW PORCH AND DECK (TBD)

MATCH PROPOSED BRICK WITH EXISTING BRICK SIDEWALK (TYP.)

PORCH
680 SF

DERO BIKE HITCH (TYP. OF 3)

DECK

STAIRS

MAIN ENTRANCE

FUTURE PHASE
PROPOSED MIXED USE BUILDING #3
F.F.E: 12.0
GROSS AREA: 5,175 SQ FT
(SEE FLOOR PLANS BY ARCHETYPE)
(BUILDING LIGHTING TO BE DETERMINED AT TIME OF FINAL DESIGN)

52'-10"

6" FIRE DEPT. CONNECTION

ELEVATOR ENTRY

2" DOMESTIC WATER

6" FIRE ENTRY

RAISED LANDSCAPE PLANTER WITH ANNUAL PLANTINGS

RAISED GRANITE CURB (TYP)

PAVER WALK

PAVER WALK

12' WIDE BRICK WALKWAY

DERO BIKE HITCH (TYP. OF 2)

RAISED LANDSCAPE PLANTER WITH ANNUAL PLANTINGS

RAISED GRANITE CURB (TYP)

SURFACE TREATMENT BELOW (TBD)

WOOD DECK

MAIN ENTRY

FUTURE PHASE
PROPOSED MIXED USE BUILDING #2
F.F.E: 12.0
GROSS AREA: 4,855 SQ FT
(SEE FLOOR PLANS BY ARCHETYPE)
(BUILDING LIGHTING TO BE DETERMINED AT TIME OF FINAL DESIGN)

48'-2"

2" DOMESTIC WATER

6" FIRE DEPT. CONNECTION

6" FIRE ENTRY

6" x 6" SWIVEL TEE AND VALVE ASSEMBLY

STAIRS

KITCHEN WASTE
INV. OUT: 6.0'

SEWER EXIT
INV. OUT: 5.76'

EXISTING GAS SERVICE - REALIGN AS NECESSARY FOR GAS SERVICE ENTRY INTO FUTURE PHASE BUILDING

105'-6"

BRICK WALK

DERO BIKE HITCH (TYP. OF 2)

DERO BIKE HITCH (TYP. OF 3)

MATCH EXISTING BRICK WALK

PAVER PATIO

FLAGPOLE

FOUNTAIN

N 63°10'12" E 189.80 FT

SUBJECT TO COORDINATION WITH CMP/COMMUNICATIONS

BLD. #1
FF=11.3'
(10,305 SF)
1 UNION WHARF
(224–240 COMMERCIAL ST.)
(UNION KITCHEN)

UNION WHARF
5 ACRES ±

COMMERCIAL STREET

STAIRS (SEE BUILDING PLANS FOR DETAILS)

EXISTING PARKING TO REMAIN

RIM EL.: 8.57'
10" INV OUT.: 6.74'

EXISTING PARKING TO REMAIN

10" ADS

RETAINING WALL (TYP.) MODULAR BLOCK OR CIP

STAIRS FOR TRANSITIONING FROM BRICK SIDEWALK TO GRADE

RETAINING WALL (TYP.) MODULAR BLOCK OR CIP

DUMPSTER PEN (OPTIONAL)

4" SAN.
L= 40'
S= 0.0208 MIN.

1500 TO 2500 GAL. GREASE TANK (FINAL SIZE TBD PRIOR TO CONSTRUCTION)(SEE NOTE 1)

4" SAN.
L= 3'
S= 0.0208 MIN.

SMH#2 (4'Ø) (SEE NOTE 2)
RIM=10.1
4" INV. IN= 4.96
4" INV. IN= 4.96
6" INV. OUT= 4.86

6" SAN.
L= 48'
S= 0.024

PHASE 1 SAN.

PHASE 1 NATURAL GAS

SMH#3 (4'Ø) (SEE NOTE 2)
RIM=9.3±
6" INV. IN= 3.76 (FROM PHASE 1)
6" INV. IN= 3.76 (FROM FUTURE PHASE)
6" INV. OUT= 3.66

EXISTING PHASE 1 BUILDING

SIDEWALK

UGE/T/C

PHASE 1 WATER

6" TAPPING SLEEVE AND SWIVEL TEE

METER PIT

RIM EL.: 9.18'
INV. OUT.

RIM EL.: 9.18'
INV. OUT.

GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
1 inch = 10 ft.

NOTES:

1. CONTACT PORTLAND PUBLIC WORKS (RACHAEL SMITH) 874-8833 FOR SIZING AND GREASE TRAP DESIGN.
2. ALL EXISTING AND PROPOSED SANITARY MANHOLE COVERS SHALL HAVE WATERTIGHT LOCK DOWN COVERS (TYP).
3. BACKFLOW PREVENTERS ARE REQUIRED FOR ALL SANITARY CONNECTIONS.

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Prepared For:
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36 UNION WHARF
PORTLAND, ME 04101

Project:
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Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
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STATE OF MAINE
STEPHEN R. BUSHEY
No. 7429
09/27/2016
LICENSED PROFESSIONAL ENGINEER
P.E. STEPHEN R. BUSHEY
LIC. #7429

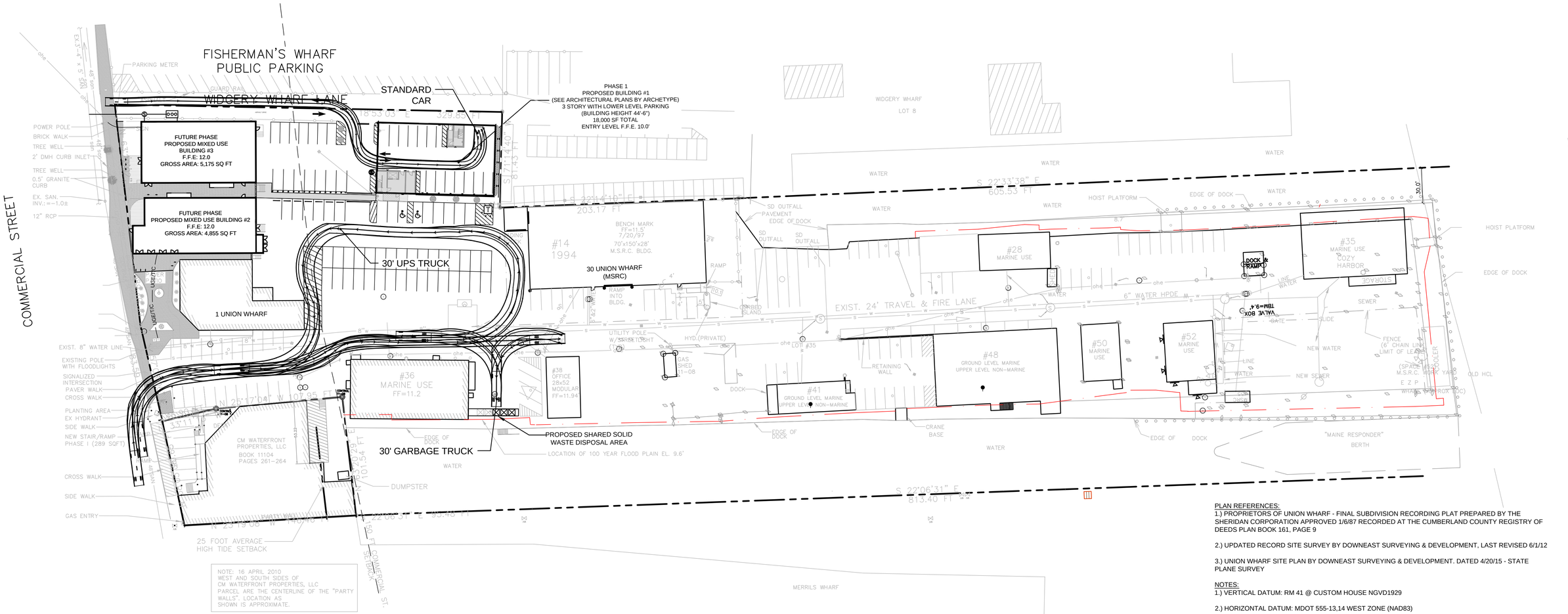
Date: JAN 2015

Scale: 1" = 10'

FUTURE PHASES SITE LAYOUT & UTILITY PLAN

C-3.2

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PLAN REFERENCES:
1.) PROPRIETORS OF UNION WHARF - FINAL SUBDIVISION RECORDING PLAT PREPARED BY THE SHERIDAN CORPORATION APPROVED 1/6/87 RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 161, PAGE 9

2.) UPDATED RECORD SITE SURVEY BY DOWNEAST SURVEYING & DEVELOPMENT, LAST REVISED 6/1/12

3.) UNION WHARF SITE PLAN BY DOWNEAST SURVEYING & DEVELOPMENT. DATED 4/20/15 - STATE PLANE SURVEY

NOTES:
1.) VERTICAL DATUM: RM 41 @ CUSTOM HOUSE NGVD1929

2.) HORIZONTAL DATUM: MDOT 555-13,14 WEST ZONE (NAD83)

GRAPHIC SCALE

40 0 5 40 80

(IN FEET)
1 inch = 40 ft.

Prepared For: PROPRIETORS OF UNION WHARF	Project: UNION AND WIDGERY WHARF DEVELOPMENT	Revisions:
36 UNION WHARF PORTLAND, ME 04101	PORTLAND, MAINE	09.27.16 - REVISED PER CITY COMMENTS & RESUBMITTED

Architect:
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STATE OF MAINE — STEPHEN R. BUSHEY — PE 7429 — LICENSED PROFESSIONAL ENGINEER
P.E. STEPHEN R. BUSHEY
LIC. #7429

Date: JAN 2015
Scale: 1" = 40'

CIRCULATION PLAN

C-3.5

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NORTH

PHASE 1
PROPOSED BUILDING #1
3 STORY WITH LOWER LEVEL PARKING
(BUILDING HEIGHT 44'-6")
18,000 SF TOTAL
ENTRY LEVEL F.F.E. 10.5'

FISHERMAN'S WHARF
PUBLIC PARKING

WIDGERY WHARF LANE

COMMERCIAL STREET

FUTURE PHASE
PROPOSED MIXED USE
F.F.E: 12.0
GROSS AREA: 5,175 SQ FT

FUTURE PHASE
PROPOSED MIXED USE
F.F.E: 12.0
GROSS AREA: 4,855 SQ FT

#14
1994
BENCH MARK
FF=11.5'
7/20/97
70'x150'x28'
M.S.R.C. BLDG.

#36
MARINE USE
FF=11.2

#38
OFFICE
28x52
MODULAR
FF=11.94

#41
GROUND LEVEL MARINE
UPPER LEVEL NON-MARINE

#48
GROUND LEVEL MARINE
UPPER LEVEL NON-MARINE

#28
MARINE USE

#35
MARINE USE
COZY
HARBOR

#50
MARINE USE

#52
MARINE USE

CM WATERFRONT PROPERTIES, LLC
BOOK 11104
PAGES 261-264

WIDGERY WHARF
LOT 8

LOT #35

EXIST. 24' TRAVEL & FIRE LANE

6" WATER HDPE

NEW WATER

NEW SEWER

SEWER

FENCE
(6' CHAIN LINK)
LIMIT OF LEASE

(SPACE #52)
M.S.R.C. WORK YARD

E Z P
WHARF (APPROX LOC)

OLD HCL

"MAINE RESPONDER"
BERTH

HOIST PLATFORM

EDGE OF DOCK

DOCK RAMP

GATE

SLIDE

STORAGE

VALVE BOX
TBM=9.4'

EX. CATCH BASIN
APPROX. RIM EL.: 7'±
10" INV IN.: 4'±
10" INV OUT.: 3.9'±
(OUTFALLS TO WATERFRONT)

SD OUTFALL
PAVEMENT
EDGE OF DOCK

SD OUTFALL

SD OUTFALL

LOADING DOCK

RAMP

RAMP INTO BLDG.

CURBED ISLAND

HYD.(PRIVATE)

UTILITY POLE W/STREETLIGHT (TYP)

GAS SHED
11-08

RETAINING WALL

DOCK

CRANE BASE

EDGE OF DOCK

SOLID WASTE DISPOSAL AREA

LOCATION OF 100 YEAR FLOOD PLAIN EL. 9.6'

WATER

DUMPSTER

PARKING METER

GUARD RAIL

ASPHALT

POWER POLE

BRICK WALK

TREE WELL

2' DMH CURB INLET

TREE WELL

0.5' GRANITE CURB

EX. SAN. INV.: =-1.0±

12" RCP

PAVER PATIO

RIM EL.: 9.18'
INV OUT.

RIM EL.: 9.18'
INV OUT.

EXIST. 8" WATER LINE

EXISTING POLE WITH FLOODLIGHTS

SIGNALIZED INTERSECTION

PAVER WALK

CROSS WALK

PLANTING AREA

EX HYDRANT

SIDE WALK

NEW STAIR/RAMP PHASE I (289 SQFT)

RAMP

RAMP

48" RAIL

CROSS WALK

SIDE WALK

GAS ENTRY

PARTY WALL

25 FOOT AVERAGE HIGH TIDE SETBACK

150 FT. COMMERCIAL ST. SETBACK

MERRILS WHARF

NOTE: 16 APRIL 2010
WEST AND SOUTH SIDES OF
CM WATERFRONT PROPERTIES, LLC
PARCEL ARE THE CENTERLINE OF THE "PARTY
WALLS". LOCATION AS
SHOWN IS APPROXIMATE.

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1 inch = 40 ft.

Prepared For: PROPRIETORS OF UNION WHARF	Project: UNION AND WIDGERY WHARF DEVELOPMENT	Revisions: 09.27.16 - REVISED PER CITY COMMENTS & RESUBMITTED; 08.29.16 - FINAL PLAN PERMIT SUBMISSION; 05.26.16 - PRELIMINARY PLAN SUBMISSION TO CITY
36 UNION WHARF PORTLAND, ME 04101	PORTLAND, MAINE	
Architect: ARCHETYPE architects	Date: JAN 2015	Scale: 1" = 30'
48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	STATE OF MAINE STEPHEN R. BUSHEY 7429 REGISTERED PROFESSIONAL ENGINEER 10/27/2016 P.E. STEPHEN R. BUSHEY LIC. #7429	OVERALL GRADING & DRAINAGE PLAN
STANTEC CONSULTING SERVICES INC. 482 PAYNE ROAD SCARBOROUGH COURT SCARBOROUGH ME 04074-8929 WWW.STANTEC.COM Stantec		C-4.0

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NORTH

FISHERMAN'S WHARF PUBLIC PARKING

GUARD RAIL

ASPHALT

WIDGERY WHARF LANE

R.O.W.

ASPHALT

S 18°53'03" E

329.85 FT

ASPHALT DRIVE

PARKING METER

E COMMERCIAL ST. SETBACK

STABILIZED CONSTRUCTION ENTRANCE (TYP.)

9.00

9.40

9.50

FFE 10.0

PHASE 1
PROPOSED BUILDING
6,000 SF
3 STORY
18,000 SF TOTAL
F.F.E. 10.5'

H.P. 9.90

9.5

9.0

9.40

9.25

10.0

10.48

10.48

FFE 10.5

10.27

10.50

81.43 FT

S 71°14'40" W

FUTURE DECK AREA

RIM EL.: 8.57'
10" INV OUT.: 6.74'

PROVIDE TEMPORARY
INLET PROTECTION
DURING CONSTRUCTION
(TYP.)

MATCH GRADE AT EXISTING PAVEMENT
CONDITIONS OR REGRADE EXISTING
PAVEMENT SURFACE AS NECESSARY TO
CREATE PEDESTRIAN ROUTE

10" ADS

168.40 FT

10

10.5

9.78

SIDEWALK

10.00

9.92

9.90

9.75

TC 10.25
BC 9.75

TC 10.42
BC 9.92

REPLACE STRUCTURE
W/NEW 4'Ø CB W/2' SUMP
MATCH EXISTING RIM
AND INVERTS

EX. SD
TO OUTFALL

EX. CATCH BASIN
APPROX. RIM EL.: 7'±
10" INV IN.: 4'±
10" INV OUT.: 3.9'±
(OUTFALLS TO
WATERFRONT)

ASPHALT PATIO

BLD. #230
FF=8.5'
(2,538 SF)
SAPPORO RESTAURANT

CONCRETE RAMP

ASPHALT PARKING LOT

UNION WHARF
5 ACRES ±

GAS METER

CONCRETE WALK

BRICK SIDEWALK

PAVER PATIO

FLAGPLOT

FOUNTAIN

N 63°22'02" E 180.10 FT

BLD. #1
FF=11.3'
(10,305 SF)
1 UNION WHARF
(224-240 COMMERCIAL ST.)
(UNION KITCHEN)

RIM EL.: 9.18'
INV OUT.:

9.62

9.60

9.50

9.5

9.0

MATCH EXISTING PAVEMENT CONDITIONS FINAL SAWCUT LINE TO BE DETERMINED DURING CONSTRUCTION (TYP.)
OWNER RESERVES RIGHT TO PERFORM PAVEMENT SURFACE MAINTENANCE INCLUDING BUT NOT LIMITED TO, CRACK SEALING, SEAL COATING, PAVEMENT OVERLAY OR FULL DEPTH RECONSTRUCTION

FABCO ROOF DRAIN STORM BASIN
CARTRIDGE FILTER CONNECTED TO ROOF
DRAIN SYSTEM. COORDINATE LOCATION
WITH PLUMBING AND ARCHITECTURAL
PLANS) SHOP DRAWING REQUIRED
CONNECT TO NEW CATCH BASIN

RIM EL.: 9.4'
INV IN.: 1.4'
INV OUT.:

LOADING
DOCK

GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
1 inch = 10 ft.

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PHASE 1 GRADING AND DRAINAGE PLAN	C-4.1	

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NORTH

FISHERMAN'S WHARF PUBLIC PARKING

GUARD RAIL

ASPHALT

WIDGERY WHARF LANE

MAINTAIN ADJACENT STEETS FREE OF MUD & DEBRIS DURING CONSTRUCTION - SWEEP STREETS AND SIDEWALKS AS NECESSARY (TYP)

50 FT. COMMERCIAL ST. SETBACK

R.O.W.

ASPHALT

ASPHALT DRIVE

PARKING METER

POWER POLE

SIGN

MATCH EXISTING SIDEWALK (TYP)

BRICK WALK

TREE WELL

2' DMH CURB INLET

TREE WELL

0.5' GRANITE CURB

EX. SAN INV.: ∞-1.0±

12" RCP

4" SDR

COMMERCIAL STREET

BRICK SIDEWALK

PAVER PATIO

MATCH EXISTING GRADES

FOUNTAIN

RIM EL.: 9.18'
INV OUT.

RIM EL.: 9.18'
INV OUT.

FUTURE PHASE
PROPOSED MIXED USE
F.F.E: 12.0
GROSS AREA: 5,175 SQ FT

ACCESSIBLE ROUTE TO BE DETERMINED AT TIME OF FINAL BUILDING DESIGN (TYP)

FABCO ROOF DRAIN STORM BASIN CARTRIDGE FILTER CONNECTED TO ROOF DRAIN SYSTEM. COORDINATE LOCATION WITH PLUMBING AND ARCHITECTURAL PLANS) SHOP DRAWING REQUIRED

TOP OF CURB ELEV: 11.9'
HIGH POINT: 11.75'

TOP OF CURB ELEV: 11.5'

FABCO ROOF DRAIN STORM BASIN CARTRIDGE FILTER CONNECTED TO ROOF DRAIN SYSTEM. COORDINATE LOCATION WITH PLUMBING AND ARCHITECTURAL PLANS) SHOP DRAWING REQUIRED

FUTURE PHASE
PROPOSED MIXED USE
F.F.E: 12.0
GROSS AREA: 4,855 SQ FT

GRADES AT ALL DOORS TO BE DETERMINED AT TIME OF FINAL BUILDING DESIGN (TYP)

HIGH POINT

GRADE TO DRAIN

BLD. #1
FF=11.3'
(10,305 SF)
1 UNION WHARF
(224-240 COMMERCIAL ST.)
(UNION KITCHEN)

FUTURE DECK AREA

STAIRS
(SEE ARCHITECTURAL / STRUCTURAL PLAN) (TYP)

RIM EL.: 8.57'
10" INV OUT.: 6.74'

INSTALL TEMPORARY SEDIMENT BARRIER DURING CONSTRUCTION

EXISTING PHASE 1 BUILDING

F.F.E.: 10.5'

SIDEWALK

STAIRS

GRADES AT SOLID WASTE ENCLOSURE TO BE DETERMINED AT TIME OF FINAL BUILDING DESIGN (TYP)

STAIRS

UNION WHARF
5 ACRES ±

GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
1 inch = 10 ft.

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48 Union Wharf Portland, Maine 04101
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STATE OF MAINE STEPHEN R. BUSHEY 7429 REGISTERED PROFESSIONAL ENGINEER
P.E. STEPHEN R. BUSHEY LIC. #7429

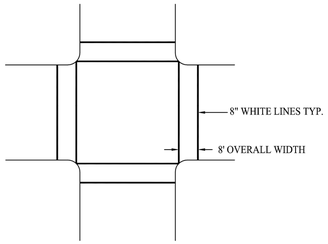
Date: JAN 2015
Scale: 1" = 10'

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FUTURE PHASES GRADING & DRAINAGE PLAN

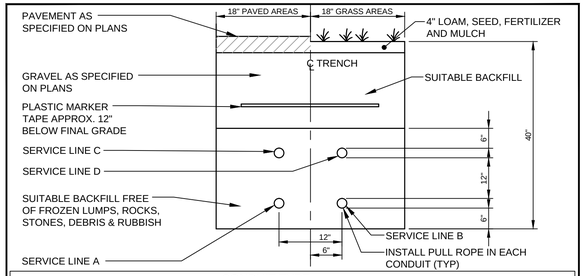
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STANDARD CROSSWALK MARKINGS
POSTED SPEED ≤ 35 mph

A TYPICAL CROSSWALK MARKINGS
N.T.S.

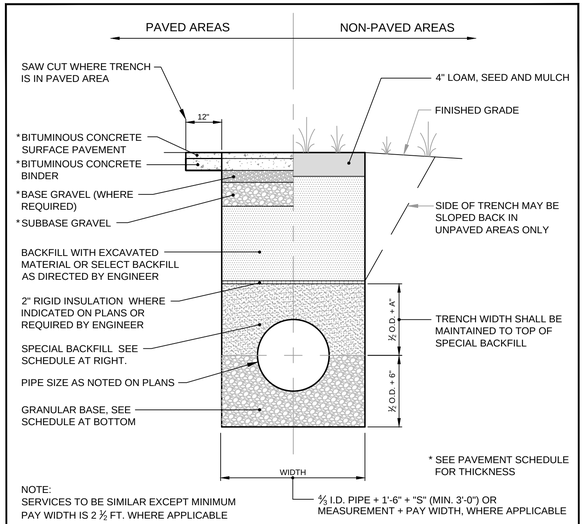


CONDUIT TYPE

SERVICE	CONDUIT SIZE	GRASS AREAS	PAVED AREAS	UTILITY	REMARKS
A	2-5"	SCHEDULE 40 PVC ELECTRICAL GRADE	RIGID GALVANIZED STEEL, ASTM A120	POWER	SEE NOTE
B	2-4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120	TELEPHONE	SEE NOTE
C	2-4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120	COMMUNICATION	SEE NOTE
D	2-4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120	SPARES	SEE NOTE

NOTE: 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. COORDINATE WITH ELECTRICAL SITE PLANS BY BARTLETT DESIGN.

D UTILITY TRENCH - PRIMARY ELECTRIC, TELEPHONE & COMMUNICATIONS
N.T.S.



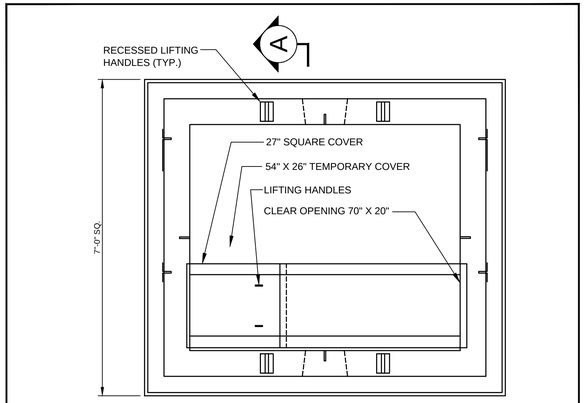
NOTE:
SERVICES TO BE SIMILAR EXCEPT MINIMUM PAY WIDTH IS 2 ½ FT. WHERE APPLICABLE

SCHEDULE OF BASE BACKFILL

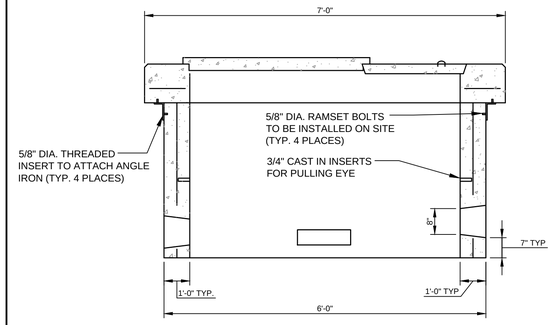
TYPE OF PIPE	BEDDING MATERIAL	SPECIAL BACKFILL	SPECIAL BACKFILL COVER "A" (IN)	SELECT BACKFILL
CONCRETE	GRANULAR AASHTO M145 49-A-3 OR BETTER	GRANULAR AASHTO M145 49-A-3 OR BETTER	12	GRANULAR AASHTO M145 49-A-3 OR BETTER
PVC	¾" CRUSHED STONE	GRANULAR AASHTO M145 49-A-3 OR BETTER	6	GRANULAR AASHTO M145 49-A-3 OR BETTER
CMP	¾" CRUSHED STONE	GRANULAR AASHTO M145 49-A-3 OR BETTER	6	GRANULAR AASHTO M145 49-A-3 OR BETTER
D.I.	GRANULAR AASHTO M145-49 A-3 OR BETTER	AASHTO M145 49-A-3 OR BETTER	6	AASHTO M145 49-A-3 OR BETTER

NOTE:
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.

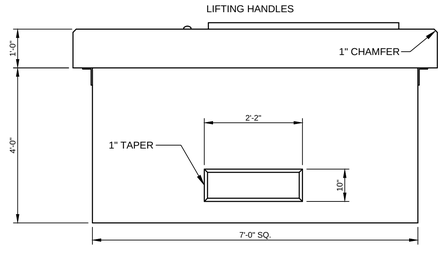
G TYPICAL TRENCH DETAIL
N.T.S.



TOP VIEW



SECTION A-A

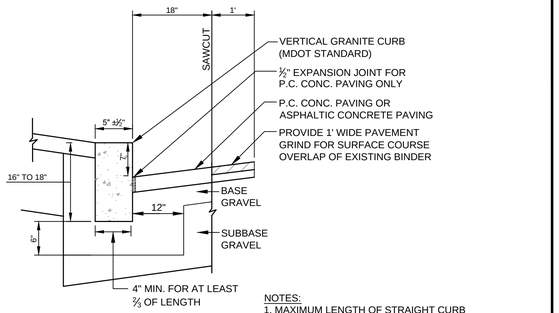


FRONT VIEW

DESIGN NOTES:
1. CONCRETE 4,000 PSI AT 28 DAYS
2. REINFORCING #4 BARS AT 6" O.C. EACH WAY
3. DUCT OPENINGS SHOWN ARE TYPICAL AND CAN BE MODIFIED PER REQUEST
4. CENTRAL MAINE POWER COMPANY SPECIFICATION
5. TEMPORARY COVER HAS (2) ⅝" THREADED LIFTING INSERTS CAST IN

NOTE:
CONFIRM TRANSFORMER PAD SIZES WITH OWNER AND/OR ELECTRICAL SITE PLANS. DIVISION 2 CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING THE TRANSFORMER PAD.

I 7'-0" TRANSFORMER PAD
N.T.S.



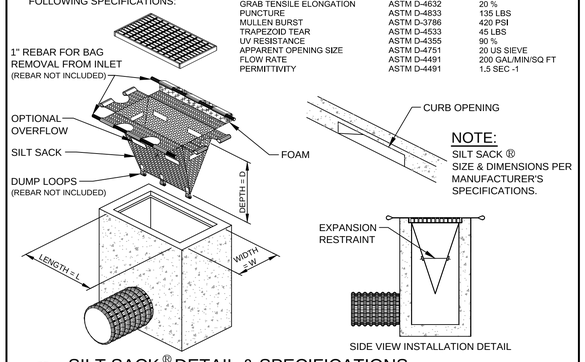
NOTES:
1. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8'
2. MINIMUM LENGTH OF STRAIGHT CURB STONES = 3'
3. CIRCULAR CURB REQUIRED FOR RADIUS LESS THAN 50'
4. GROUT OR CAULK ALL CURB JOINTS OVER ½" IN WIDTH. INSTALL STRIP OF FILTER FABRIC BEHIND EACH CURB JOINT.

B VERTICAL GRANITE CURB
N.T.S.

NOTE: THE SILT SACK ® WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

HIGH-FLOW SILT SACK ® (FOR USE IN LOW POINTS/SAGS)
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

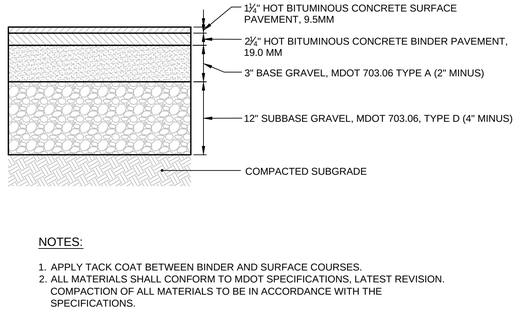
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1



NOTE:
SILT SACK ® SIZE & DIMENSIONS PER MANUFACTURER'S SPECIFICATIONS.

SIDE VIEW INSTALLATION DETAIL

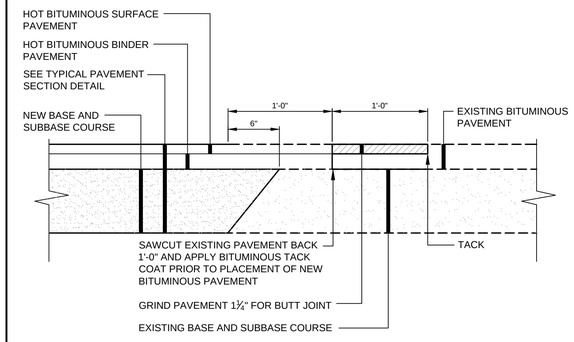
E SILT SACK® DETAIL & SPECIFICATIONS
N.T.S.



NOTES:

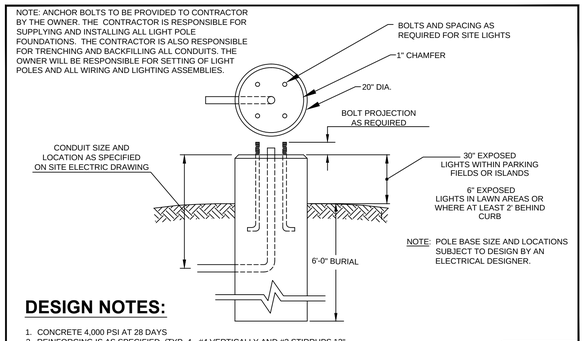
1. APPLY TACK COAT BETWEEN BINDER AND SURFACE COURSES.
2. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.

C STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT SECTION
N.T.S.



F PAVEMENT SAWCUT DETAIL
N.T.S.

NOTE: ANCHOR BOLTS TO BE PROVIDED TO CONTRACTOR BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING AND INSTALLING ALL LIGHT POLE FOUNDATIONS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR TRENCHING AND BACKFILLING ALL CONDUITS. THE OWNER WILL BE RESPONSIBLE FOR SETTING OF LIGHT POLES AND ALL WIRING AND LIGHTING ASSEMBLIES.



DESIGN NOTES:

1. CONCRETE 4,000 PSI AT 28 DAYS
2. REINFORCING IS AS SPECIFIED. (TYP. 4 - #4 VERTICALLY AND #3 STIRRUPS 12" O.C. HORIZONTALLY)
3. ANCHOR BOLTS AND GROUNDING AS SPECIFIED AND REQUIRED BY SUPPLIER.
4. EXPOSED PORTION OF CONCRETE FOUNDATION TO BE PAINTED WITH 2 COATS OF ACRYLIC PAINT. COLOR TO MATCH POLE COLOR.
5. FOR POLE HEIGHTS EQUAL TO OR LESS THAN 25' TALL.

H 20" ROUND PRECAST CONCRETE LIGHT POLE FOUNDATION
N.T.S.

Prepared For:
PROPRIETORS OF UNION WHARF
36 UNION WHARF
PORTLAND, ME 04101

Project:
UNION AND WIDGERY WHARF DEVELOPMENT
PORTLAND, MAINE

Revisions:
09.27.16 - REVISED PER CITY COMMENTS & RESUBMITTED
08.29.16 - FINAL PLAN PERMIT SUBMISSION
05.26.16 - PRELIMINARY PLAN SUBMISSION TO CITY

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

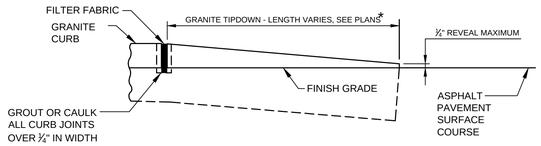
STATE OF MAINE STEPHEN R. BUSHEY PE 7429 LICENSED PROFESSIONAL ENGINEER
P.E. STEPHEN R. BUSHEY LIC. #7429

Date: JAN 2015
Scale: N.T.S.

DETAILS

C-7.0

STANTEC CONSULTING SERVICES INC.
482 PAYNE ROAD SCARBOROUGH COURT
SCARBOROUGH ME 04074-8929
WWW.STANTEC.COM
Stantec

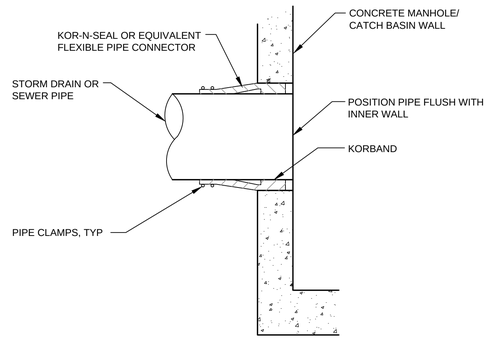


* 4'-0" IS MINIMUM IN AREAS NOT ADJACENT TO SIDEWALKS
7'-0" IS MINIMUM AT ADA RAMP LOCATIONS - LENGTH MAY NEED TO BE EXTENDED TO MEET ADA REQUIREMENTS

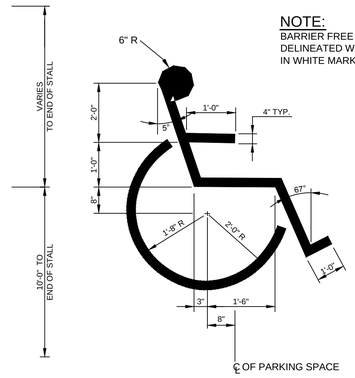
NOTE:

REFER TO PLANS FOR LOCATIONS & LENGTHS OF TIPDOWNS.

A GRANITE CURB TIPDOWN INSTALLATION DETAIL
N.T.S.

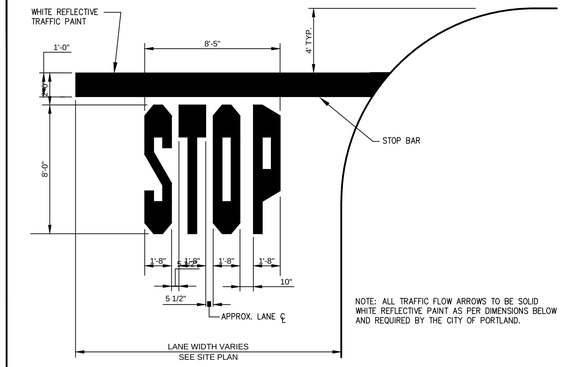


D PIPE CONNECTION TO EXISTING STRUCTURE DETAIL
N.T.S.



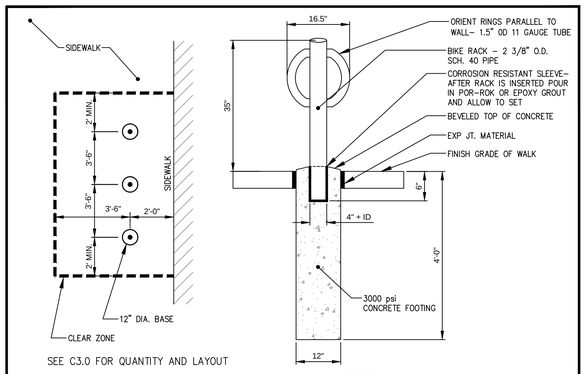
NOTE:
BARRIER FREE STALLS SHALL BE DELINEATED WITH THIS SYMBOL IN WHITE MARKING.

G INTERNATIONAL BARRIER FREE SYMBOL
N.T.S.



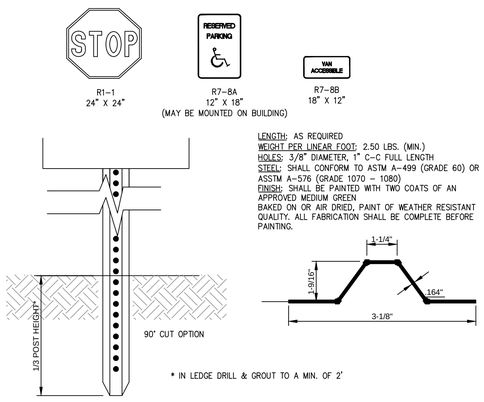
NOTE: ALL TRAFFIC FLOW ARROWS TO BE SOLID WHITE REFLECTIVE PAINT AS PER DIMENSIONS BELOW AND REQUIRED BY THE CITY OF PORTLAND.

J TYPICAL PAVEMENT MARKINGS
N.T.S.



MFR: DERO BIKE RACKS
IN–GROUND MOUNT,
POWDER COAT FINISH
COLOR: BLACK
www.dero.com
1–800–296–4915

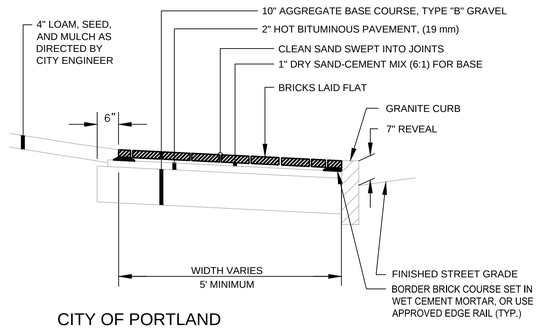
B BIKE HITCH MOUNTING DETAIL
N.T.S.



E SIGN LEGEND & SIGN POST
N.T.S.

BRICKS TO BE USED:
NEW CONSTRUCTION:
4"x8" PINE HALL PATHWAY PAVER BRICK; MFG. BY PINE HALL BRICK CO., MADISON, NORTH CAROLINA.LACHANCE ITEM # 193623, PINE HALL PATHWAY PAVER BRICK.

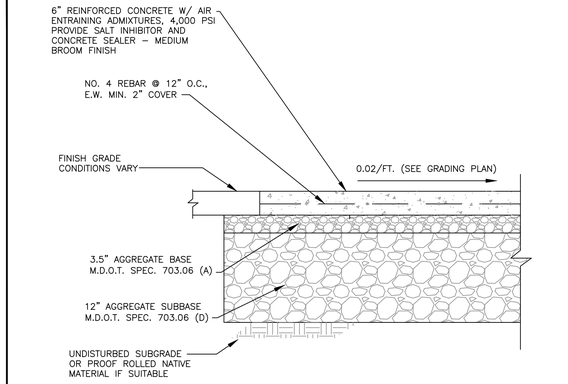
REPAIR /MAINTENANCE TO EXISTING BRICK SIDEWALKS: VERMONT PAVER; SUPPLIED BY GAGNE AND SONS.
SPECIFICATION NUMBER:"VERMONT BACKER BRICK", ITEM NUMBER # VBBB



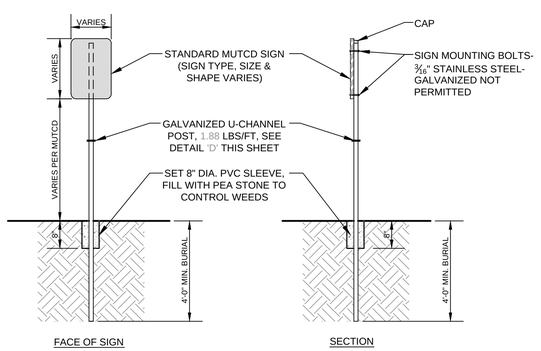
CITY OF PORTLAND

H BRICK SIDEWALK WITH BITUMINOUS BASE
N.T.S.

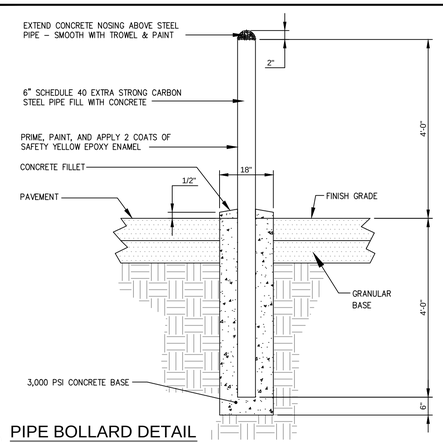
NOT TO SCALE



K REINFORCED CONCRETE PAD DETAIL
N.T.S.



C TRAFFIC SIGN
N.T.S.



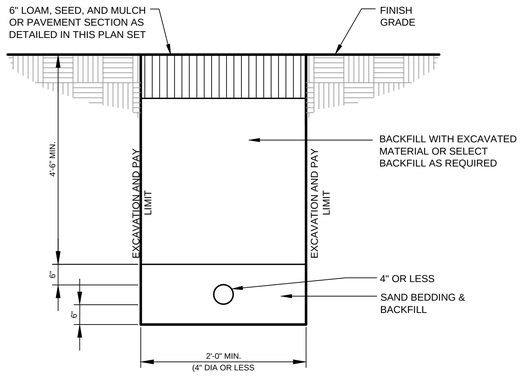
F PIPE BOLLARD DETAIL
N.T.S.

I VACANT
N.T.S.

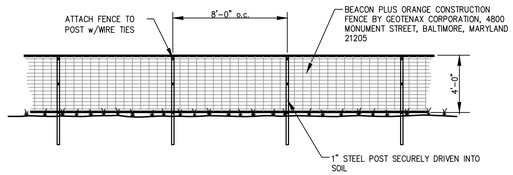
L VACANT
N.T.S.

Prepared For: PROPRIETORS OF UNION WHARF 36 UNION WHARF PORTLAND, ME 04101	Project: UNION AND WIDGERY WHARF DEVELOPMENT PORTLAND, MAINE	Revisions: 09.27.16 - REVISED PER CITY COMMENTS & RESUBMITTED 08.29.16 - FINAL PLAN PERMIT SUBMISSION 05.26.16 - PRELIMINARY PLAN SUBMISSION TO CITY
Architect: ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	STATE OF MAINE STEPHEN R. BUSHEY No. 7429 05/27/2016 LICENSED PROFESSIONAL ENGINEER P.E. STEPHEN R. BUSHEY LIC. #7429	Date: JAN 2015 / Scale: N.T.S.
STANTEC CONSULTING SERVICES INC. 482 PAYNE ROAD SCARBOROUGH COURT SCARBOROUGH ME 04074-8929 WWW.STANTEC.COM	Stantec	DETAILS — C-7.1

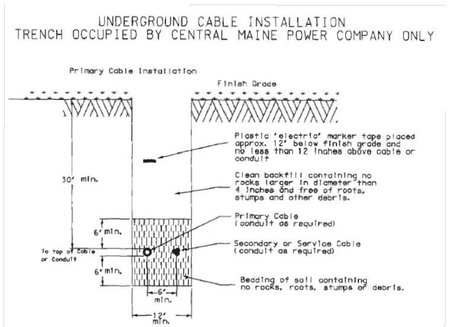
V:\1953\active\195350003\Cadd\Permit Set\dwg\phase 1 And 2 - Standard\BA-M041A DETAILS.dwg pfilliettaz 9/27/2016 11:57 AM



A WATER SERVICE TRENCH DETAIL
N.T.S.

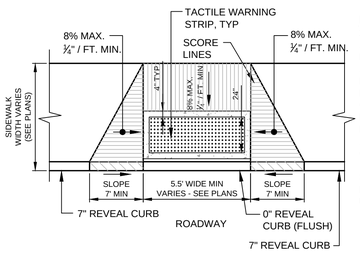


D ORANGE CONSTRUCTION FENCE DETAIL
N.T.S.



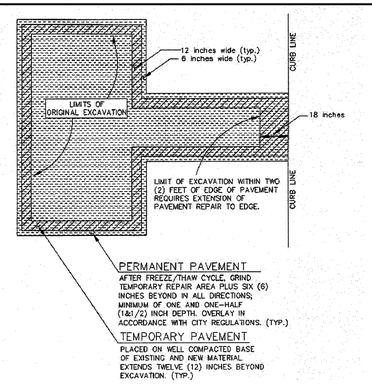
G UNDERGROUND CABLE TRENCH FOR POWER ONLY
N.T.S.

I VACANT
N.T.S.



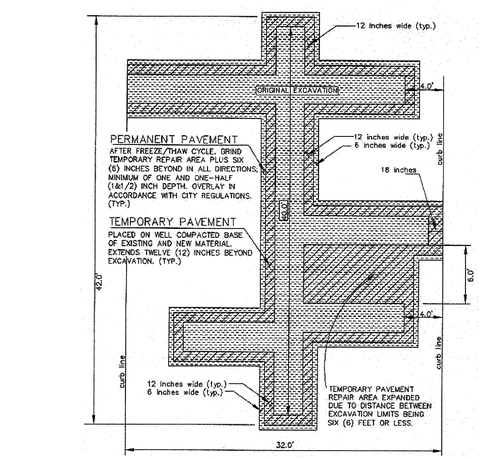
NOTE:
1. RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AMERICANS WITH DISABILITIES ACT (ADA).
2. THE FULL DEPTH AND WIDTH OF THE RAMP PER SECTION 4.29 OF THE ADA. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES A DIAMETER OF 0.90 INCHES, A HEIGHT OF NOMINAL 0.20 INCHES AND A SPACING OF 2.35 INCHES CENTER TO CENTER. THESE SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
3. A TACTILE WARNING STRIP IS REQUIRED WHERE RAMP ABUTS AREA USED BY MOTORIZED VEHICLES.

B BARRIER FREE RAMP DETAILS
N.T.S.



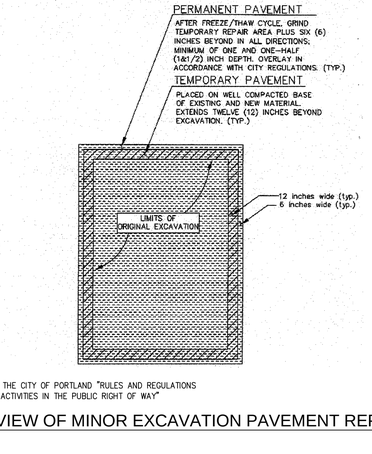
NOTE: AS TAKEN FROM THE CITY OF PORTLAND "RULES AND REGULATIONS FOR EXCAVATION ACTIVITIES IN THE PUBLIC RIGHT OF WAY"

E PLAN VIEW OF MINOR EXCAVATION PAVEMENT REPAIR
N.T.S.



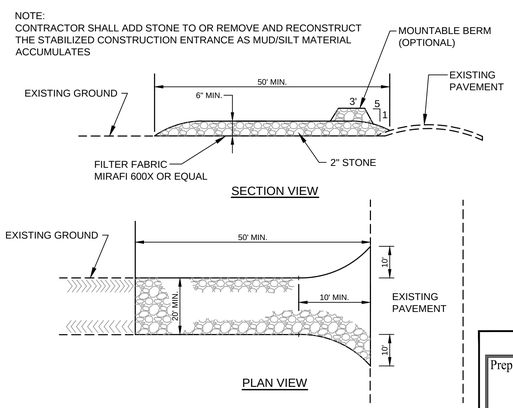
NOTE: AS TAKEN FROM THE CITY OF PORTLAND "RULES AND REGULATIONS FOR EXCAVATION ACTIVITIES IN THE PUBLIC RIGHT OF WAY"

C PLAN VIEW OF MAJOR EXCAVATION PAVEMENT REPAIR
N.T.S.



NOTE: AS TAKEN FROM THE CITY OF PORTLAND "RULES AND REGULATIONS FOR EXCAVATION ACTIVITIES IN THE PUBLIC RIGHT OF WAY"

F PLAN VIEW OF MINOR EXCAVATION PAVEMENT REPAIR
N.T.S.



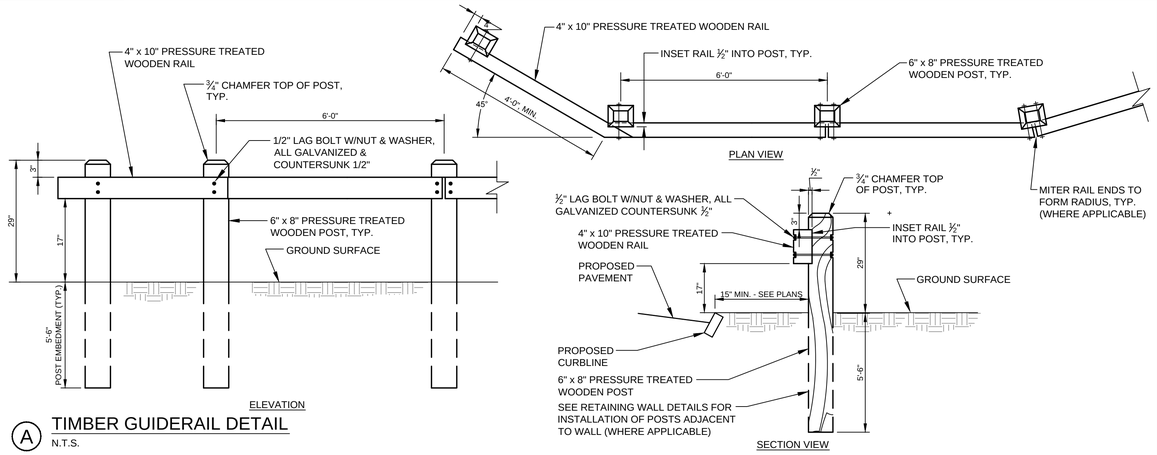
H STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.

J VACANT
N.T.S.

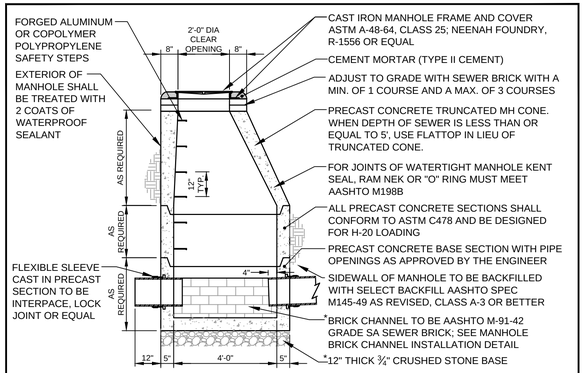
Prepared For: PROPRIETORS OF UNION WHARF 36 UNION WHARF PORTLAND, ME 04101	Project: UNION AND WIDGERY WHARF DEVELOPMENT PORTLAND, MAINE	Revisions: 09.27.16 - REVISED PER CITY COMMENTS & RESUBMITTED 08.29.16 - FINAL PLAN PERMIT SUBMISSION 05.26.16 - PRELIMINARY PLAN SUBMISSION TO CITY
Architect: ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	STATE OF MAINE STEPHEN R. BUSHEY PE 7429 REGISTERED PROFESSIONAL ENGINEER P.E. STEPHEN R. BUSHEY LIC. #7429	Date: JAN 2015 Scale: N.T.S. DETAILS C-7.2

STANTEC CONSULTING SERVICES INC.
482 PAYNE ROAD SCARBOROUGH COURT
SCARBOROUGH ME 04074-8929
WWW.STANTEC.COM
Stantec

V:\1953\active\195350003\Cadd\Permit Set\dwg\phase 1 And 2 - Standard\BA-M041A DETAILS.dwg pfillettaz 9/28/2016 3:31 PM



A TIMBER GUIDERAIL DETAIL
N.T.S.



D 4'-0" DIA. PRECAST SEWER & STORM DRAIN MANHOLE DETAIL
N.T.S.

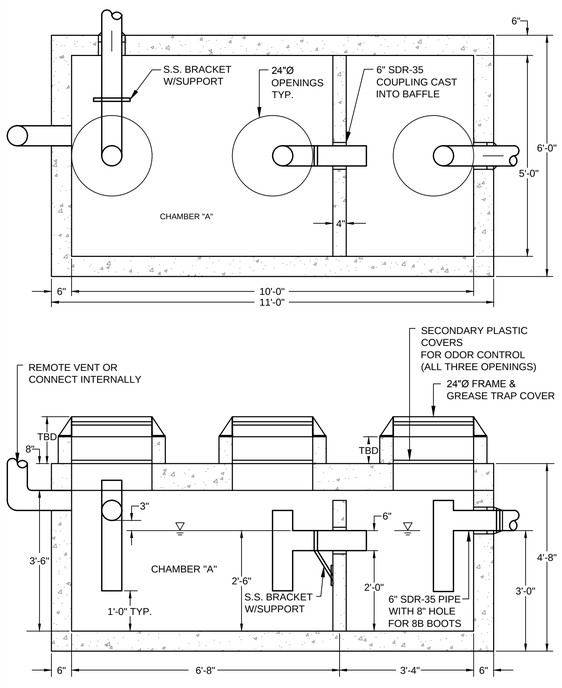
*NOTE:
CHANNEL MAY ALSO BE A PREFABRICATED FIBERLINER 2000 CHANNEL AS FABRICATED BY GDT, INC. OF ESSEX, CT OR EQUAL

G VACANT
N.T.S.

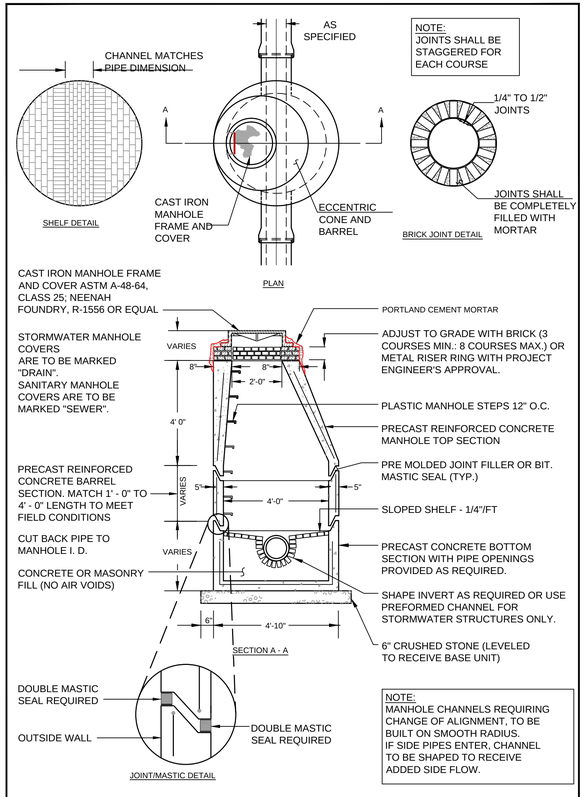
DESIGN NOTES:
1. CONCRETE 5000 PSI AT 28 DAYS.
2. H-20 LOADING
3. JOINTS SEALED WITH BUTYL RUBBER JOINT SEALANT (ASSHTO M-19)
4. ALL TEES/BAFFLES PROVIDED BY PRECAST.

THIS STRUCTURE MUST DISCHARGE TO A CITY OF PORTLAND STANDARD MANHOLE WITH CHANNEL (CONTROL/SAMPLING MANHOLE).

FORMULA FOR SIZING THE TRAP: CHAMBER "A" (2/3 OF TANK VOLUME) MUST BE EQUIVALENT TO THE AVERAGE DAILY PROCESS FLOW FROM THE FACILITY WITH NO SANITARY OR OTHER EXTRANEOUS WASTES FLOWING THROUGH IT.



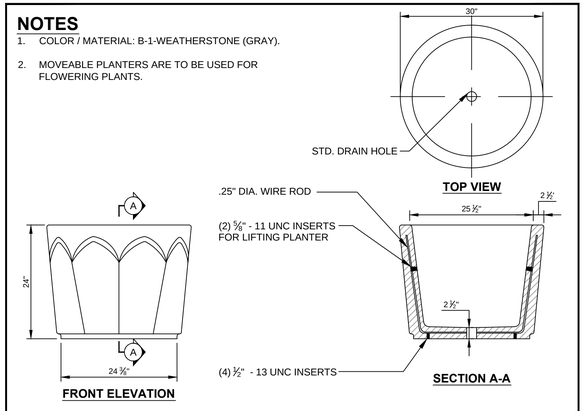
B CITY OF PORTLAND GREASE TRAP DETAIL
N.T.S.



C CITY OF PORTLAND PRECAST CONCRETE MANHOLE
N.T.S.

NOTES

1. COLOR / MATERIAL: B-1-WEATHERSTONE (GRAY).
2. MOVEABLE PLANTERS ARE TO BE USED FOR FLOWERING PLANTS.



E MOVEABLE PLANTER DETAIL
N.T.S.

F VACANT
N.T.S.

H VACANT
N.T.S.

STANTEC CONSULTING SERVICES INC.
482 PAYNE ROAD SCARBOROUGH COURT
SCARBOROUGH ME 04074-8929
WWW.STANTEC.COM

Stantec

Prepared For: PROPRIETORS OF UNION WHARF 36 UNION WHARF PORTLAND, ME 04101	Project: UNION AND WIDGERY WHARF DEVELOPMENT PORTLAND, MAINE	Revisions: 09.27.16 - REVISED PER CITY COMMENTS & RESUBMITTED 08.29.16 - FINAL PLAN PERMIT SUBMISSION 05.26.16 - PRELIMINARY PLAN SUBMISSION TO CITY
Architect: ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	STATE OF MAINE STEPHEN R. BUSHEY 7429 LICENSED PROFESSIONAL ENGINEER P.E. STEPHEN R. BUSHEY LIC. #7429	Date: JAN 2015 Scale: N.T.S. DETAILS C-7.3

V:\1953\active\195350003\Cadd\Permit Set\dwg\phase 1 And 2 - Standard\BA-M041A DETAILS.dwg pfilliettaz 9/27/2016 11:58 AM

GENERAL NOTES

1. CLOSURE OF WIDGERY WHARF LANE WILL NOT BE ALLOWED UNLESS APPROVED BY THE ADJACENT LANDOWNER AND THE CITY EMERGENCY SERVICES REPRESENTATIVES.
2. ALL TEMPORARY CONSTRUCTION ZONE FENCING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.
3. ALL TRAFFIC SIGNAGE, PAVEMENT MARKINGS, CHANNELIZATION DRAINS, REFLECTIVE PANELS, ETC. SHALL CONFORM TO THE LATEST VERSION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
4. CONTRACTOR SHALL REPAIR/REPLACE ALL ONSITE/OFFSITE AREAS DAMAGED BY THE BUILDING CONSTRUCTION PROJECT, AT NO EXTRA EXPENSE TO THE OWNER.
5. CONSTRUCTION MANAGEMENT PLAN MAY BE ADAPTED BY THE CONTRACTOR IN CONSULTATION WITH THE CITY OF PORTLAND.
6. THE CONSTRUCTION ZONE SHALL INCLUDE SAFETY SIGNAGE SUCH AS "HARD HAT AREA", "NO TRESSPASSING", ETC.
7. CLOSED PARKING SPACES SHALL BE COORDINATED WITH THE OWNER.

FISHERMAN'S WHARF PUBLIC PARKING
GUARD RAIL
WIDGERY WHARF LANE
COMMERCIAL ST. SETBACK
ASPHALT DRIVE
NO PARKING ALLOWED ALONG WIDGERY WHARF LANE DURING CONSTRUCTION
TEMPORARY 6' CHAIN LINK FENCE BARRIER OR JERSEY BARRIERS
R.O.W.
ASPHALT
S 18°53'03" E
329.85 FT
APPROXIMATE PHASE 1 WORK LIMITS
WALL PUCK LIGHT FIXTURE
INSTALL NEW GUARD RAIL
SAWCUT
NORTH
CONSTRUCTION DELIVERIES MAY BE FROM WIDGERY WHARF LANE OR UNION WHARF
PARKING TO REMAIN FOR PHASE 1
PROPOSED PARKING
RIM EL.: 8.57'
10" INV OUT.: 6.74'
APPROXIMATE PHASE 1 WORK LIMITS
PHASE 1
PROPOSED BUILDING #1
(SEE ARCHITECTURAL PLANS BY ARCHETYPE)
3 STORY WITH LOWER LEVEL PARKING
(BUILDING HEIGHT 44'-6")
18,000 SF TOTAL
GROUND LEVEL
F.F.E. 10.0'
GROUND LEVEL LOBBY
MECH./ ELEC. ROOM
100.58'
60.58'
81.43 FT
S 71°14'40" W
LANDSCAPE BEDS
SIDEWALK
UGE/T/C
EX. 10" SD
EX. CATCH BASIN
APPROX. RIM EL.: 7'±
10" INV IN.: 4'±
10" INV OUT.: 3.9'±
(OUTFALLS TO WATERFRONT)
LOADING DOCK
BUILDING TO REMAIN FOR PHASE 1
EXISTING SERVICE AREA TO REMAIN
6" SAN
L=124'
S=TBD
PROPOSED PARKING
UNION WHARF
5 ACRES ±
9' (TYP OF 32)
CAP WITH 1" BLOW OFF
METER PIT
BUILDING TO REMAIN FOR PHASE 1
BLD. #1
FF=11.3'
(10,305 SF)
1 UNION WHARF
(224-240 COMMERCIAL ST.)
(UNION KITCHEN)
EXISTING SERVICE AREA TO REMAIN
PROPOSED PARKING
RIM EL.: 9.4'
INV IN.: 1.4'
INV OUT.: '
12" CMP (POOR COND.)
BRICK SIDEWALK
PAVER PATIO
FLAGPOLE
FOUNTAIN
N 63°22'02" E 85.05 FT
48" SAN
GRAPHIC SCALE
10 0 5 10 20
(IN FEET)
1 inch = 10 ft.

SIGN LEGEND

R1-1	R7-8A				
STOP	RESERVED PARKING	COMPACT CAR PARKING	MOTORCYCLE PARKING	NO PARKING	PARKING BY PERMIT ONLY
24"x24"	18"x12"	18"x12"	18"x12"	18"x12"	18"x12"
A	B	C	D	E	F

CURB LEGEND

GRANITE CURB
TD TIP DOWN

STANTEC CONSULTING SERVICES INC.
482 PAYNE ROAD SCARBOROUGH COURT
SCARBOROUGH ME 04074-8929
WWW.STANTEC.COM

Prepared For:
PROPRIETORS OF UNION WHARF
36 UNION WHARF
PORTLAND, ME 04101

Project:
UNION AND WIDGERY WHARF DEVELOPMENT
PORTLAND, MAINE

Revisions:
09.27.16 - REVISED PER CITY COMMENTS & RESUBMITTED
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Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

STATE OF MAINE
STEPHEN R. BUSHEY
PE 7429
LICENSED
PROFESSIONAL ENGINEER
P.E. STEPHEN R. BUSHEY
LIC. #7429

Date: JAN 2015
Scale: 1" = 10'

CONSTRUCTION MANAGEMENT PLAN - PHASE 1

C-3.3

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NORTH

FISHERMAN'S WHARF PUBLIC PARKING

GUARD RAIL

MAINTAIN ONE LANE OF TRAFFIC AT ALL TIMES OR ARRANGE FOR DETOUR THROUGH UNION WHARF

NO PARKING ALLOWED ALONG WIDGERY WHARF LANE DURING CONSTRUCTION

"CONSTRUCTION AHEAD" SIGNAGE (TYP)

ASPHALT

WIDGERY WHARF LANE

6" SAN. L= 36' S= 0.0208 MIN.

4" SAN. L= 16' S= 0.0208 MIN.

4" SAN. L= 4' S= 0.0208 MIN.

PROTECT EXISTING GUARDRAIL

PARKING METER

4" SAN. L=4' S= 0.0208 MIN.

ASPHALT DRIVE

POWER POLE

UGE/T/C

4" DOMESTIC SAN. SERVICE INV. OUT= 5.0'

4" SAN. INV. OUT= 5.0'

98'-1"

SURFACE TREATMENT BELOW PORCH AND DECK (TBD)

BRICK WALK

PORCH 680 SF

FUTURE PHASE
PROPOSED MIXED USE BUILDING #3
F.F.E: 12.0
GROSS AREA: 5,175 SQ FT
(SEE FLOOR PLANS BY ARCHETYPE)
(BUILDING LIGHTING TO BE DETERMINED AT TIME OF FINAL DESIGN)

52'-10"

STAIRS (SEE BUILDING PLANS FOR DETAILS)

LAYDOWN STORAGE

TREE WELL

DERO BIKE HITCH (TYP. OF 3)

EXISTING PARKING TO REMAIN

RIM EL.: 8.57'
10" INV OUT.: 6.74'

TEMPORARY 6' CHAIN LINK FENCE BARRIER OR JERSEY BARRIERS

2" DMH CURB INLET

DECK

STAIRS

MAIN ENTRANCE

EXISTING PARKING TO REMAIN

10" ADS

TRAILER

EXISTING PHASE 1 BUILDING

TREE WELL

0.5' GRANITE CURB

PAVER WALK

PAVER WALK

SIDEWALK

EX. SAN. INV.: =-1.0±

12" RCP

12' WIDE BRICK WALKWAY

WOOD DECK

6" x 6" SWIVEL TEE AND VALVE ASSEMBLY

FUTURE PHASE
PROPOSED MIXED USE BUILDING #2
F.F.E: 12.0
GROSS AREA: 4,855 SQ FT
(SEE FLOOR PLANS BY ARCHETYPE)
(BUILDING LIGHTING TO BE DETERMINED AT TIME OF FINAL DESIGN)

48'-2"

STAIRS

CONSTRUCTION SIGNAGE (TYP)

4" SAN. L= 35' S= 0.0208 MIN.

EXISTING GAS SERVICE - REALIGN AS NECESSARY FOR GAS SERVICE ENTRY INTO FUTURE PHASE BUILDING

105'-6"

UNION WHARF
5 ACRES ±

6" SAN. L= 48' S= 0.024

PHASE 1 SAN.

PHASE 1 NATURAL GAS

SMH#3 (4'Ø)
RIM=9.3±
6" INV. IN= 3.76 (FROM PHASE 1)
6" INV. IN= 3.76 (FROM FUTURE PHASE)
6" INV. OUT= 3.66

PHASE 1 WATER

4" SAN. L= 40' S= 0.0208 MIN.

DUMPSTER PEN (OPTIONAL)

"CONSTRUCTION AHEAD" SIGNAGE (TYP)

COMMERCIAL STREET

PAVER PATIO

FLAGPOLE

FOUNTAIN

RETAINING WALL (TYP.) MODULAR BLOCK OR CIP

BLD. #1
FF=11.3'
(10,305 SF)
1 UNION WHARF
(224–240 COMMERCIAL ST.)
(UNION KITCHEN)

N 63°22'02" E 150.01'

RIM EL.: 9.18'
INV OUT.

RIM EL.: 9.18'
INV OUT.

GRAPHIC SCALE

10 0 5 10 20

(IN FEET)

1 inch = 10 ft.

S 18°53'03" E 329.85 FT

R.O.W.

ASPHALT

GENERAL NOTES

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Prepared For:
PROPRIETORS OF UNION WHARF

36 UNION WHARF
PORTLAND, ME 04101

Project:
UNION AND WIDGERY WHARF DEVELOPMENT

PORTLAND, MAINE

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Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

STATE OF MAINE
STEPHEN R. BUSHEY
No. 7429
REGISTERED PROFESSIONAL ENGINEER
P.E. STEPHEN R. BUSHEY LIC. #7429

Date: JAN 2015

Scale: 1" = 10'

CONSTRUCTION MANAGEMENT - FUTURE PHASES

C-3.4

STANTEC CONSULTING SERVICES INC.
482 PAYNE ROAD SCARBOROUGH COURT
SCARBOROUGH ME 04074-8929
WWW.STANTEC.COM

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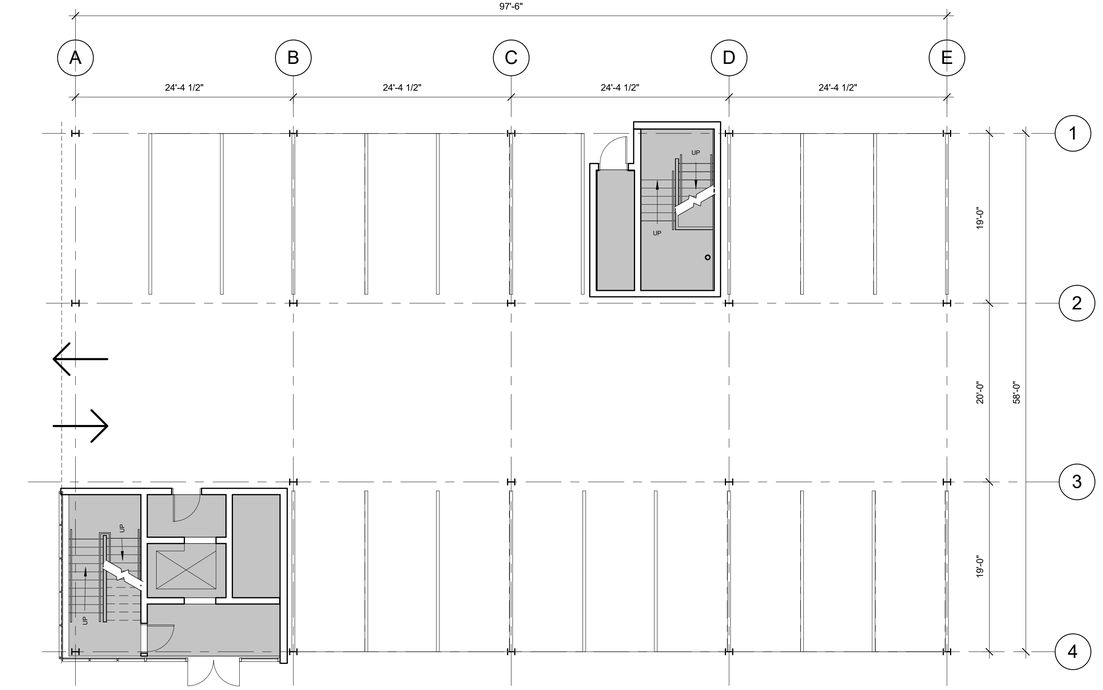
1 | TYPICAL UPPER FLOOR
1/8" = 1'-0"

GROSS: 6,094 SF
FLOOR RENTABLE AREA: 5,497 SF
FLOOR USABLE AREA: 4,622 SF



3 | 3RD FLOOR
1/8" = 1'-0"

GROSS: 6,094 SF
FLOOR RENTABLE AREA: 5,538 SF
FLOOR USABLE AREA: 5,240 SF



2 | LOWER LEVEL
1/8" = 1'-0"

WIDGERY WHARF - BUILDING C

PORTLAND, MAINE

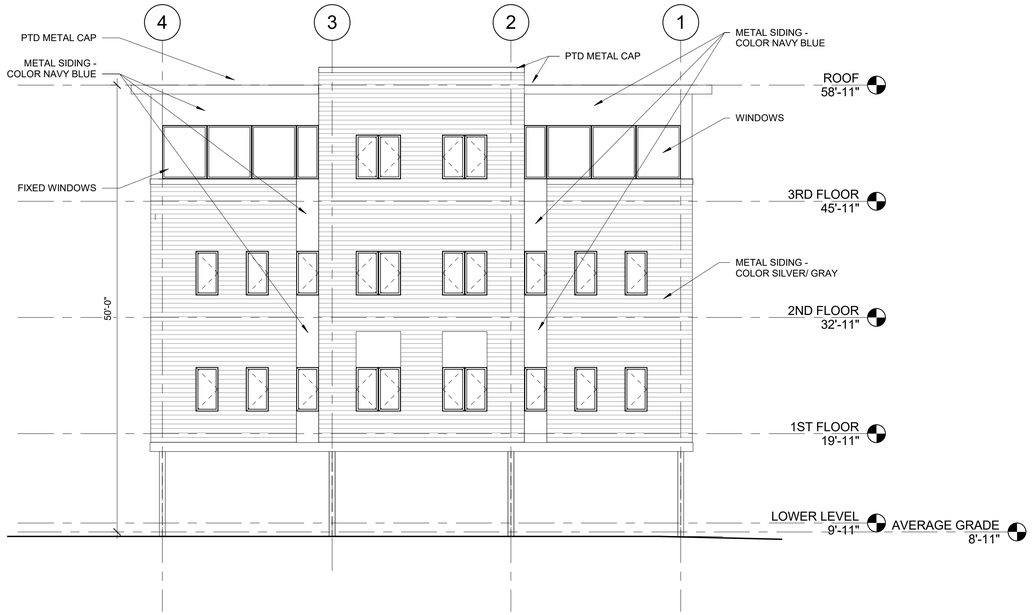
JULY 07, 2016

A1.1

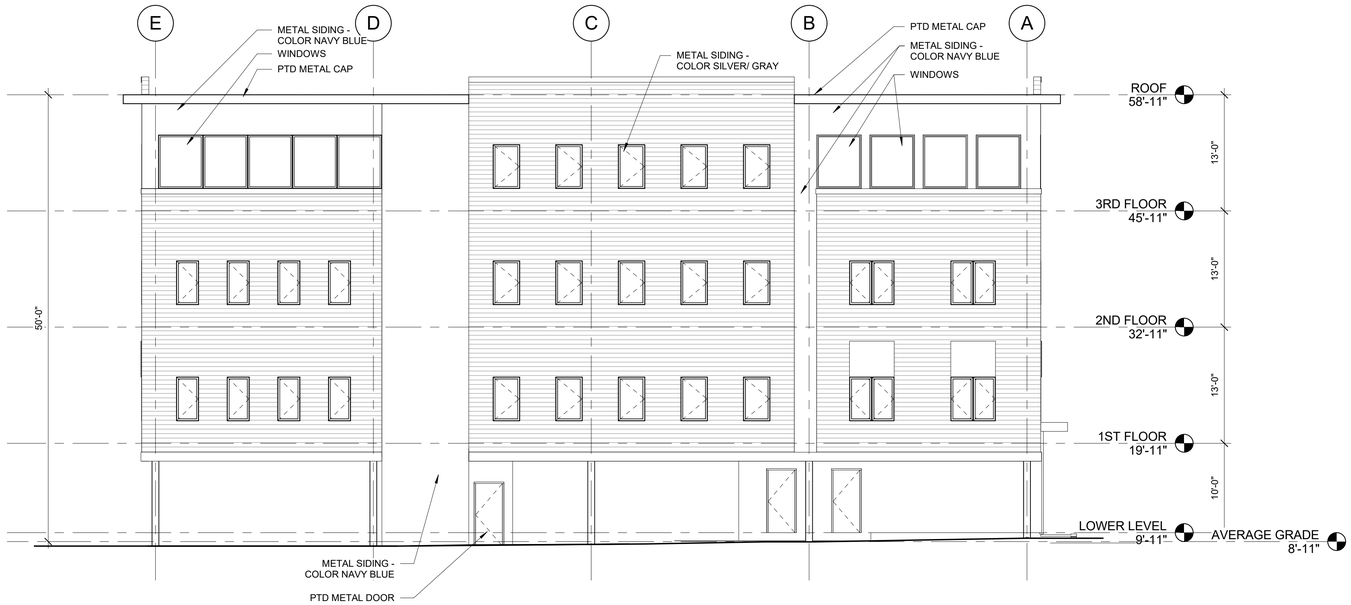
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101



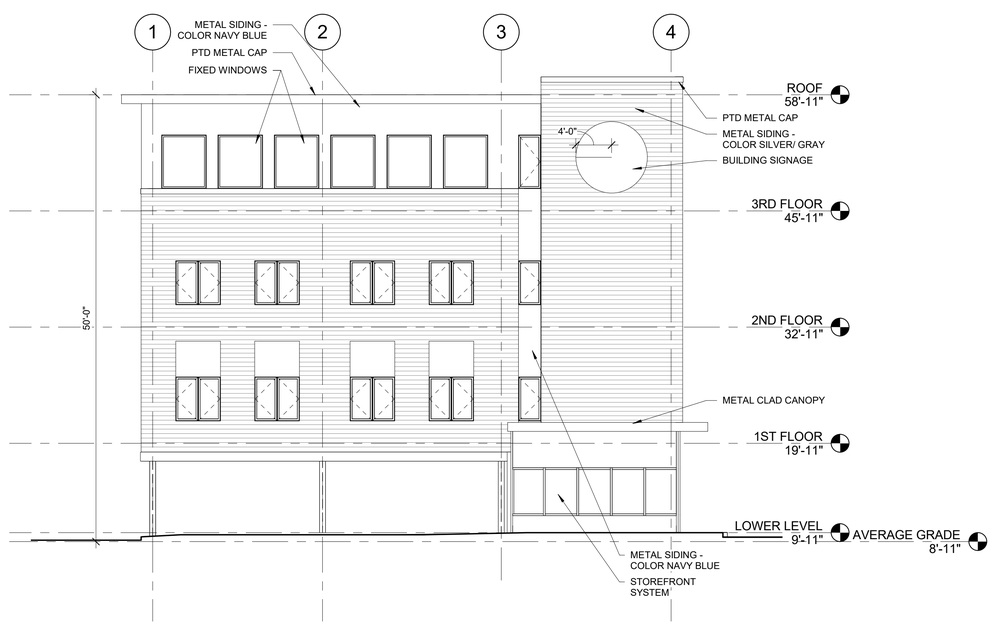
1 S-W ELEVATION
1/8" = 1'-0"
0 2'-0" 4'-0" 8'-0" 16'-0"



3 S-E ELEVATION
1/8" = 1'-0"
0 2'-0" 4'-0" 8'-0" 16'-0"



2 N-E ELEVATION
1/8" = 1'-0"
0 2'-0" 4'-0" 8'-0" 16'-0"



4 N-W ELEVATION
1/8" = 1'-0"
0 2'-0" 4'-0" 8'-0" 16'-0"

GENERAL NOTES:
1. AVERAGE GRADE BY DEFINITION: 4 CORNER AVERAGE GRADE - N 9.7' + E 9.3' + S 9.3' + W 7.4' = 35.7' / 4 = 8'- 11" (AVERAGE GRADE)

2. BUILDING HEIGHT: THE VERTICAL MEASUREMENT AT THE FOUR CORNERS FROM GRADE TO HIGHEST POINT OF ROOF BEAM - 50'-0"

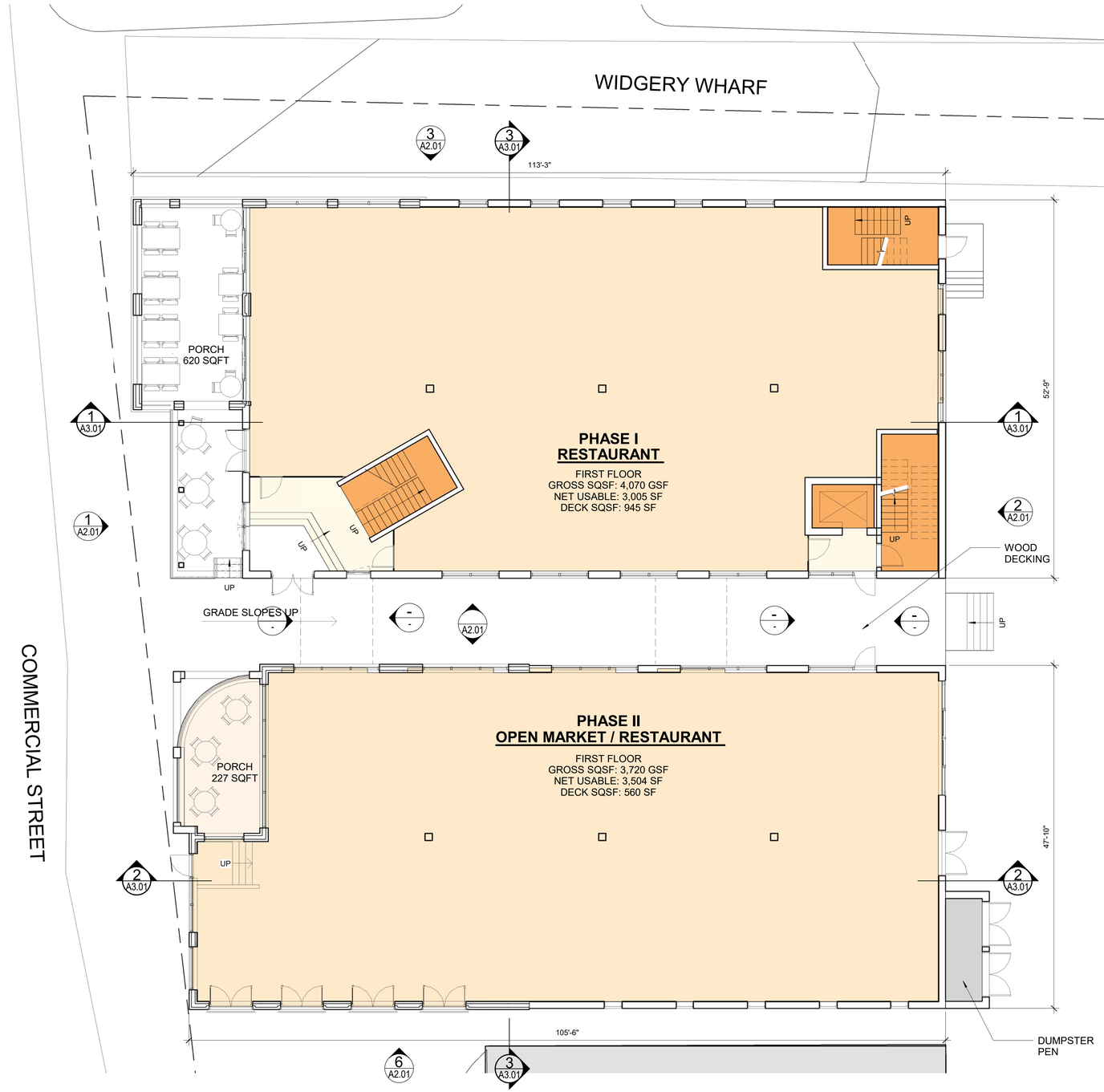
WIDGERY WHARF - BUILDING C

PORTLAND, MAINE

SEPTEMBER 07, 2016

A2.1

ARCHETYPE architects
48 Union Wharf Portland, Maine 04101



1 | 1ST FLOOR PLAN
1/8" = 1'-0"
0 2'-0" 4'-0" 8'-0" 16'-0"

Prepared For: Owner

Consultant:

Architect: ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project: WIDGERY WHARF
PORTLAND, MAINE

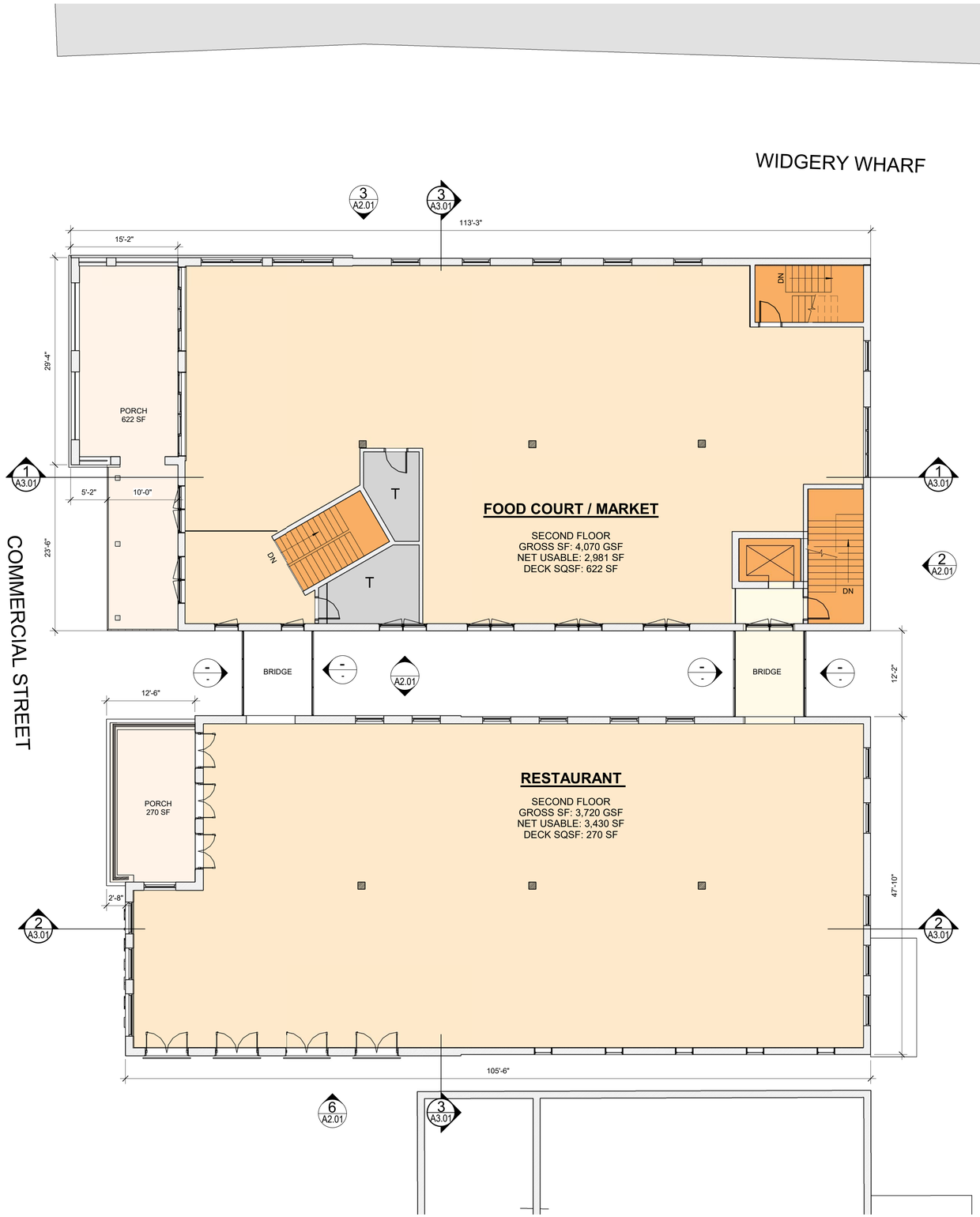
Revisions:

Scale: 1/8" = 1'-0"

Date: OCT 6th, 2016

First Floor

A1.01



1 | 2ND FLOOR PLAN
1/8" = 1'-0"
0 2'-0" 4'-0" 8'-0" 16'-0"

Prepared For: Owner
Address
City, State

Consultant:

Architect: ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project: WIDGERY WHARF
PORTLAND, MAINE

Revisions:

Scale: 1/8" = 1'-0"

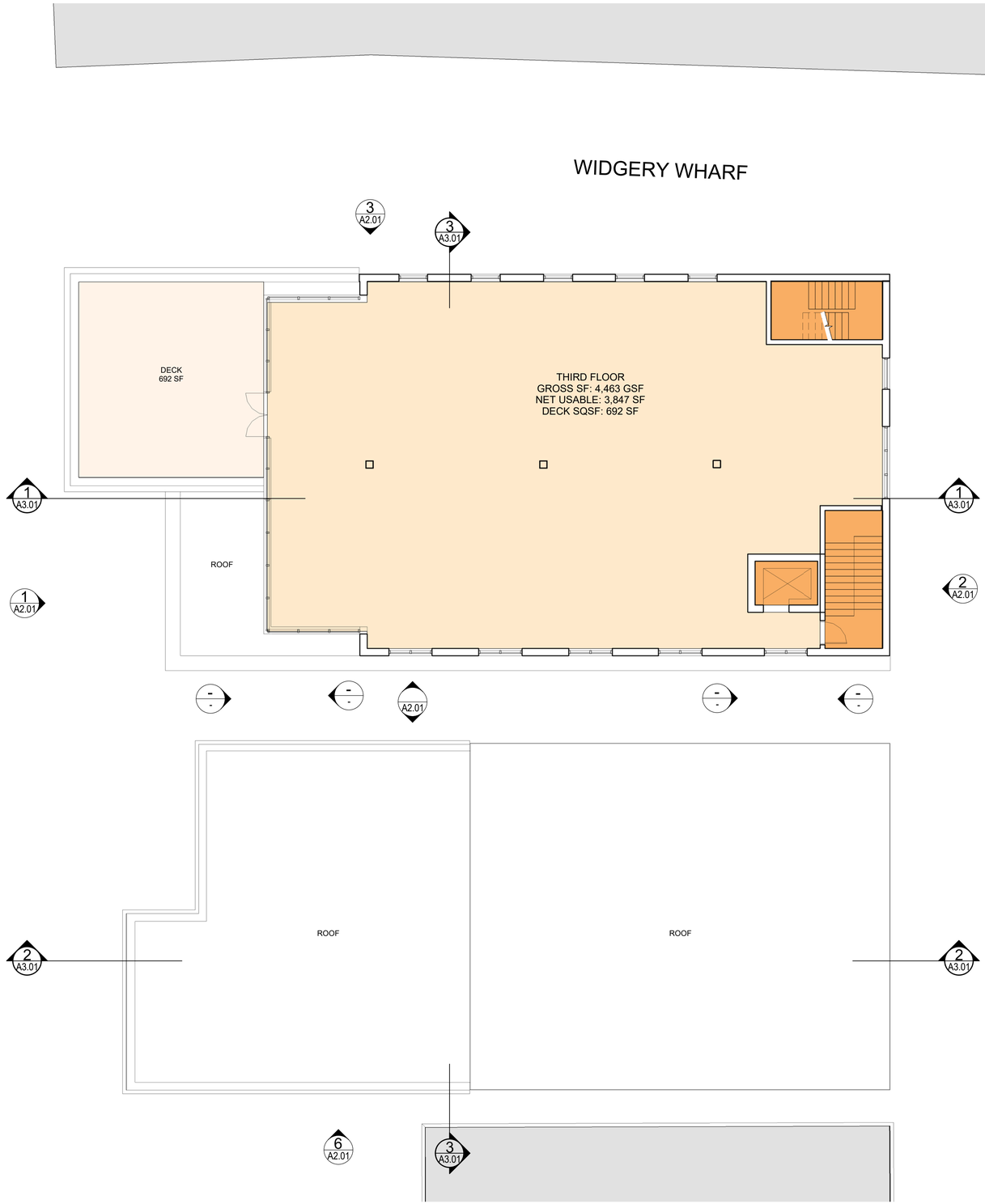
Date: OCT 6th, 2016

Second Floor Plan

A1.02

WIDGERY WHARF

COMMERCIAL STREET



1 THIRD FLOOR PLAN
1/8" = 1'-0"
0 2'-0" 4'-0" 8'-0" 16'-0"

Prepared For:
Owner
Address
City, State

Consultant:

Architect:
ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project:
WIDGERY WHARF
PORTLAND, MAINE

Revisions:

Scale: 1/8" = 1'-0"

Date: OCT 6th, 2016

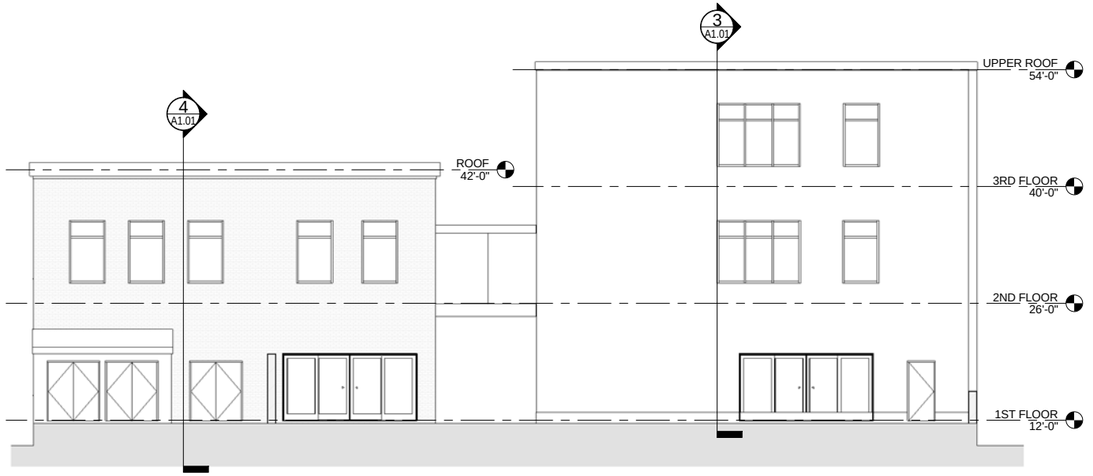
Third Floor Plan

A1.03



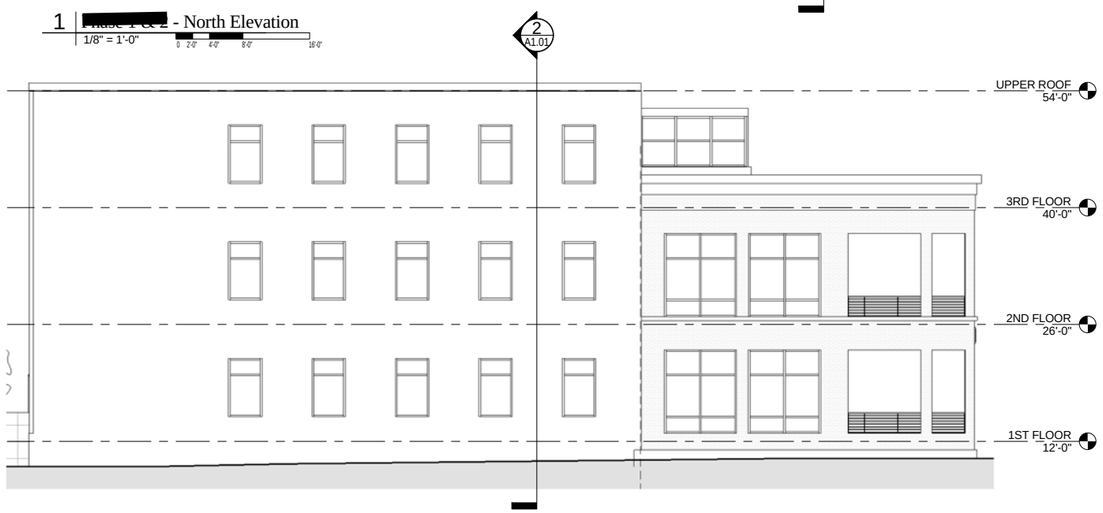
1 [redacted] - North Elevation

1/8" = 1'-0"



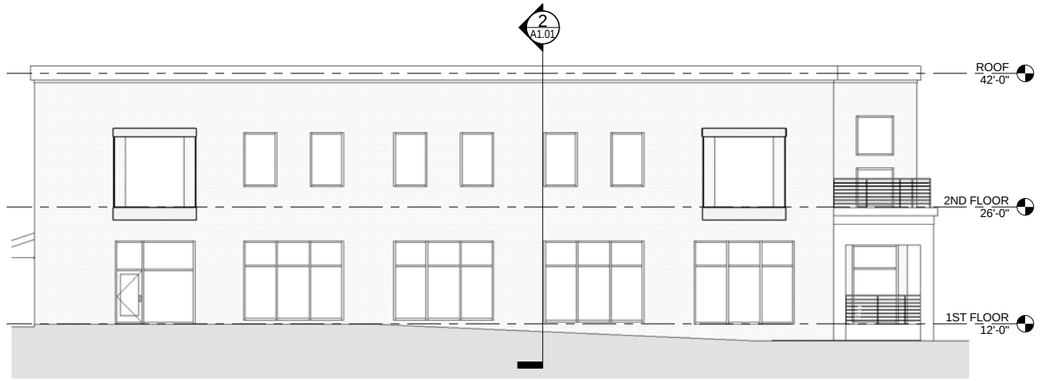
2 [redacted] - South Elevation

1/8" = 1'-0"



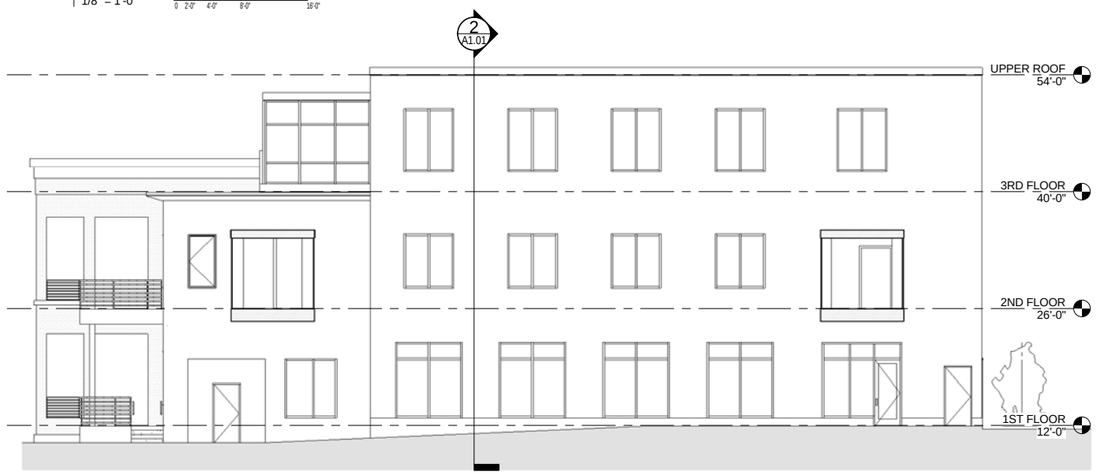
3 [redacted] - East Elevation

1/8" = 1'-0"



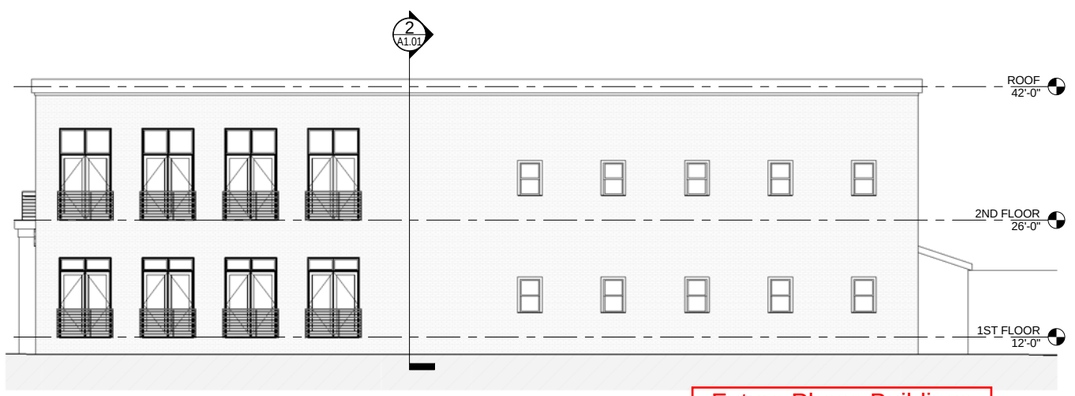
4 [redacted] - East Elevation

1/8" = 1'-0"



5 [redacted] - West Elevation

1/8" = 1'-0"



6 [redacted] - West Elevation

1/8" = 1'-0"

Future Phase Buildings

Prepared for: Owner
Address
City, State

Consultant:

Architect: ARCHETYPE architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM

Project: WIDGERY WHARF
PORTLAND, MAINE

Revisions:

Scale: 1/8" = 1'-0"

Date: OCT 29, 2014

Building Elevations

A2.01




SIG


ARCHETYPE
architects



Future Phase
buildings on
Commercial Street



ARCHETYPE
architects


SIG


ARCHETYPE
architects