

CITY OF PORTLAND, MAINE

PLANNING BOARD



Sean Dundon, Chair
Brandon Mazer, Vice Chair
Bob Dunfey
David Eaton
David Silk
Austin Smith
Maggie Stanley

AGENDA PORTLAND PLANNING BOARD MEETING

The Portland Planning Board will hold a meeting on Tuesday, September 24, 2019, Council Chambers, 2nd Floor, City Hall, 389 Congress Street. **Public comments will be taken for each item on the agenda during the estimated allotted time and written comments should be submitted to planningboard@portlandmaine.gov.**

1. **ROLL CALL AND DECLARATION OF QUORUM**
2. **COMMUNICATION AND REPORTS**
3. **REPORT OF ATTENDANCE AT THE MEETING HELD ON SEPTEMBER 10, 2019**
Workshop and Public Hearing: Dundon, Mazer (late to the 1st afternoon workshop item), Dunfey, Smith, Eaton and Stanley present; Silk absent.
4. **REPORTS OF DECISIONS AT THE MEETING HELD ON SEPTEMBER 10, 2019**
 - i. Hotel Inclusionary Zoning Conditional Use; 121 Middle Street, 123 LLC., Applicant. Mazer moved and Stanley seconded a motion to approve the Hotel Inclusionary Zoning Conditional Use application for 121 Middle Street, with the financial contribution of \$38,060 for 10 additional guest rooms. Vote: 6-0, Silk absent.
5. **NEW BUSINESS**

AFTERNOON WORKSHOP - 4:30 PM

- i. Level III Site Plan and Subdivision; 33-37 Montreal Street; 37 Montreal Street, LLC., Applicant. (estimated time 4:30 - 5:30 p.m.) The Planning Board will hold an AFTERNOON WORKSHOP to consider the construction of a four (4) story, nine (9) unit residential development. The development is located in the Munjoy Hill Neighborhood Conservation Overlay District and is zoned R6. The proposal is subject to review under the City's Site Plan, Subdivision and R6 zoning standards.

EVENING WORKSHOP - 6:00 PM

- i. Coastal Resiliency Overlay; City of Portland, Applicant. (estimated time 6:00 p.m.) The Planning Board will hold an EVENING WORKSHOP to consider a zoning amendment for the adoption of a Coastal Resiliency Overlay. The overlay would set forth additional standards, including alternative height calculations and resilient building requirements, for development in areas of the City of Portland projected to be affected by sea level rise and storm surge.



Memorandum Planning and Urban Development Department Planning Division

To: Sean Dundon, Chair and Members of the Portland Planning Board
From: Andrew Tufts, Planner
Date: September 20, 2019
Re: Redevelopment, 33 Montreal Street, 33 Montreal, LLC
Project #: PL-000807-2019 CBL: 015 B022
Meeting: September 24, 2019



Figure 1: Parcel outline - Source: CONNEXplorer

I. INTRODUCTION

37 Montreal Street LLC., has submitted a Level III Site Plan, Subdivision, and Conditional Use application for the development of a four (4) story, nine (9) unit residential building with basement level structured parking at 33-37 Montreal Street. The subject property is a 10804 square foot parcel located at the corner of Montreal Street and Willis Street. The immediate surrounding neighborhood is predominantly residential, is zoned R-6 and is within the Munjoy Hill Neighborhood Conservation Overlay District.

A total of 213 notices were sent to property owners within 500 feet of the site and a legal notice ran in the September 14th & September 15th 2019 editions of the Portland Press Herald.

Applicant: 37 Montreal Street LLC

Consultants:

- Richard Lo, AIA (Kaplan Thompson Architecture)
- Dustin Roma, P.E. (DM Roma Consulting Engineers)
- John Swan, Surveyor (Owen Haskell Inc)

II. REQUIRED REVIEWS

<i>Review</i>	<i>Applicable Standards</i>
Site Plan	<i>Section 14-526</i>
Subdivision	<i>Section 14-497</i>
Inclusionary Zoning (IZ)	<i>Section 14-474, Section 14-487</i>

III. PROJECT DATA

Existing Zoning	R-6 Zone & Munjoy Hill Conservation Overlay District
Existing Use	3 single family homes
Proposed Use	9-unit multi-family building
Bedroom Mix	8 three-bedroom units, 1 two-bedroom unit
Parcel Size	10,804 sf

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	2,240 sf	5,800 sf	+ 3,560 sf
Building Floor Area	3,775 sf	29,200 sf	+ 25,425 sf
Impervious Surface Area	4,724 sf	8,000 sf	+ 3,276 sf
Parking Spaces	4	13	+ 9
Bicycle Parking Spaces	0	5	+ 5



Figure 2: Existing axonometric perspective - Source: CONNECTexplorer

IV. BACKGROUND & EXISTING CONDITIONS

The proposed development site is located on the northern corner of Montreal and Willis Streets in Portland's Munjoy Hill neighborhood and is developed with three (3) existing single-family homes. All of the existing buildings are currently vacant. The site is bordered by the MacArthur Gardens Apartment complex (NE), and single-family homes (ESW). Additionally, the Promenade East Condominiums Tower is located approximately 200' ft to the north, across Walnut Street, which neighbors the Island View Apartment complex. Both are large-scale developments. The sidewalks along both Montreal and Willis Streets are in need of repair. There are three established street trees along Montreal and Willis Streets; these include, Sweet Gum, Honey Locust, and Sugar Maple varieties. A fourth street tree exists along Willis Street, but is in poor condition and should be replaced. The nearest open space is the Eastern Promenade, an approximately 3-minute walk down Montreal Street. Fort Sumner Park is an approximately 4-minute walk South-West. There are two community gardens: the Casco Bay Community Garden (NE), and the North Street Community Garden (W), both an approximately 5-minute walk. METRO Bus Route 1 has a stop on the corner of the East End Community School, an approximately 6-minute walk.

Owen Haskell, Inc. completed a boundary and topographic survey of the site in August of 2017. There were no existing or proposed easements identified.



Figure 3: Conceptual rendering - Montreal Street looking west - Source: Kaplan Thompson Architects

V. PROPOSED DEVELOPMENT

The proposed development is a four-story, nine-unit residential building approximately 23,400 square-feet in size. To facilitate this development, three existing single-family structures would be demolished. The building would include a basement-level structured parking garage of approximately 5,800 square-feet in size, and would contain 13 parking spaces, storage, mechanical rooms, trash room, and bike storage. The garage would be accessed via a driveway off Montreal Street, at the rear of the building. The driveway would replace an existing driveway. The proposed building would contain (9) nine dwelling units with a total enclosed area of approximately 23,400 SF. The ground floor is proposed to include one 2-bedroom unit, two 3-bedroom units, an entrance lobby, and package room. Floors 2-4 are each proposed to include two 3-bedroom units. A series of terraces are proposed to address the grade change on site. A landscape plan illustrates the planting palette to be incorporated with the terraces.

VI. PUBLIC COMMENT AND NEIGHBORHOOD MEETING

The neighborhood meeting was held on Friday, September 13, 2019 at 5:30-6:45 pm at the East End Community School. Thirteen members of the public were in attendance along with Tim Wells, representing the applicant, along with Jesse Thompson and Richard Lo from Kaplan Thompson Architects. The majority of comments received were in response to the proposed building's design, scale and neighborhood context.



Figure 4: Proposed elevation - front of building – Source: Kaplan Thompson Architects

VII. RIGHT, TITLE, & INTEREST AND FINANCIAL & TECHNICAL CAPACITY

The owner of the property is 37 Montreal Street, LLC. The applicant has provided a copy of the warranty deed, recorded at the Cumberland County Registry of Deeds (Book 8708, Page 61), which demonstrates their right, title and interest in the property.

As evidence to demonstrate sufficient financial and technical capacity, the applicant has provided a letter from Camden National Bank indicating that between the applicant's funds and bank financing, the applicant has sufficient financial capacity to complete the proposed project. Similarly, information has been provided on the development team demonstrating the capacity to design and construct the project.

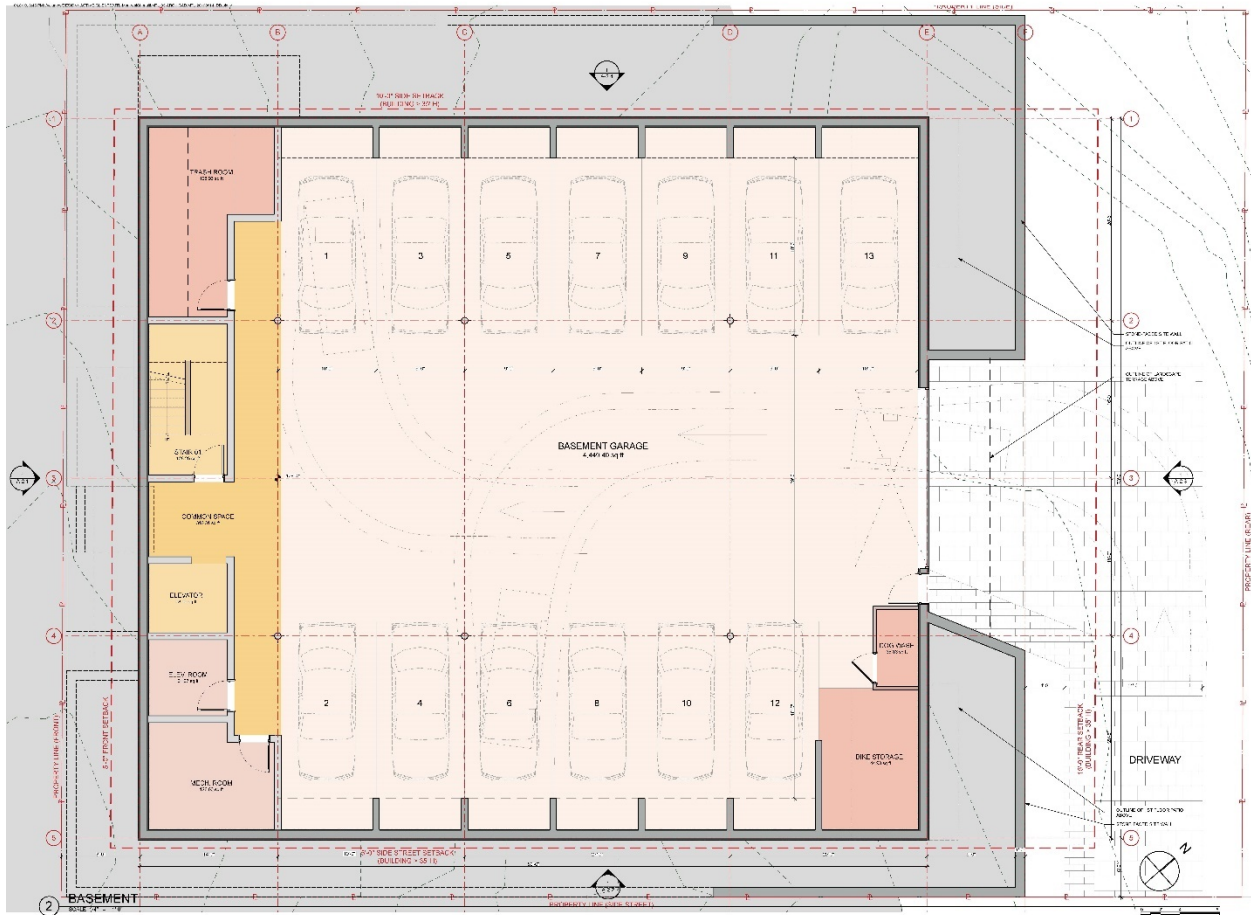


Figure 5: Plan - basement parking garage - Source: Kaplan Thompson Architects

VIII. ZONING ANALYSIS

The property lies within the R-6 zone and within the Munjoy Hill Neighborhood Conservation Overlay District. The following dimensional and parking requirements apply to the R-6 Zone:

R-6 Zone Summary Dimensional and Parking Requirements Applied to 33 Montreal Street		
	Required	Proposed
Minimum Lot Size	2000 sf	10,800 sf
Area Per Dwelling Unit	725 sf	1,200 sf
Minimum Street Frontage	20' ft	90' ft Willis St
Front Yard Minimum	5' ft	5' ft
Rear Yard Minimum	15' ft	30' ft
Yard Left Minimum	10' ft	10' ft
Side Street Setback	5' ft (>35' height)	5' ft/ 3' ft
Step Back	15' ft rear/ 10' ft side	>30' ft rear/ 10' ft side
Maximum Lot Coverage	60%	53%
Maximum Height	45' ft above avg. grade	44'-6"
Landscape Open Space	20%	26%
Off-Street Parking	1 space per unit	1.4 per unit



Figure 6: Proposed elevation - northeast (downhill) - Source: Kaplan Thompson Architects

IX. DEVELOPMENT REVIEW

A. SITE PLAN SUBMISSION REQUIREMENTS (Section 14-527) and SUBDIVISION PLAT AND RECORDING PLAT REQUIREMENTS (Section 14-496)

The applicant has submitted a recording plat. The final plat will need to be revised to reflect any waivers and conditions of approval that relate to the subdivision plan. Any waivers granted must be recorded at the Registry of Deeds within two years of a Planning Board decision.

B. SUBDIVISION (Section 14-496)

The proposed development has been reviewed by staff for conformance with the relevant review standards of Portland's Subdivision Ordinance and applicable regulations. Staff comments are listed below.

1. Will Not Result in Undue Water and Air Pollution (Section 14-497 (a) 1), and Will Not Result in Undue Soil Erosion (Section 14-497 (a) 4)

The existing site is approximately 44% developed and slopes from the south side of the property (Willis Street) to the north side of the property (MacArthur Gardens Apartments). Stormwater runoff from the project site drains either to the northeast along the curblin in Montreal Street or to the north to the abutting property. The existing site contains approximately 4,724 square feet of impervious surface, with three separate roof lines. Redevelopment of the project site would result

in an increase of approximately 3,276 square feet of impervious area and a total impervious surface of 8000 square feet.

The stormwater management plan includes the construction of an underground storage and treatment system that consists of a Stormtech Chamber System designed to infiltrate the required water quality volume. The system has been designed to effectively collect, infiltrate and provide treatment of approximately 97% of the total new impervious area and approximately 88% of the total new developed area, exceeding the requirement as indicated in the General Standards of MDEP Chapter 500.

Lauren Swett, P.E. of Woodard and Curran Engineering, Third-Party Reviewer, has reviewed the erosion and sediment control plans and details, and inspection and maintenance requirements and offers the following comments:

- Typically, to meet the General Standards using a subsurface chamber system, additional treatment measures are required. For example, a filter sand layer could be installed beneath the subsurface chambers. When a treatment measure is added, the Applicant should provide information from the chamber manufacturer to verify that the system is adequately designed per the manufacturer's requirements. We suggest that the applicant review the methodology for modeling the subsurface filter. No flow is indicated to be discarded as infiltration. As the system is modeled, the only discharge out of the subsurface system is over the weir.
- A proposed foundation drain is shown discharging directly onto an adjacent property, with no surface improvements proposed to mitigate impacts of flow that may come from this pipe. While flows from a foundation drain are generally low, consideration of the impact of discharge onto the abutter should be made. The Applicant should also consider whether flow directly out of the retaining wall may impact the wall itself.
- The need for a field inlet at the northern corner of the site should be considered. It appears based on the grading that the corner of the site will drain towards the retaining wall, but the wall will extend above grade by over a foot, preventing the surface flow of water over the wall.

2. Sufficient Water Available (Section 14-497 (a) 2 and 3)

Ability to serve letter from Portland Water District has been received and provided.

3. Will Not Cause Unreasonable Traffic Congestion (Section 14-497 (a) 5)

The proposed development is not adding significant vehicular traffic to the site, and a traffic analysis is not required.

4. Will Provide for Adequate Sanitary Sewer and Stormwater Disposal (Section 14-497 (a) 6), and Will Not Cause an Unreasonable Burden on Municipal Solid Waste and Sewage (Section 14-497 (a) 7)

The applicant is proposing to utilize existing combined storm sewer main lines in both Montreal and Willis Streets. If the services are to be combined, this should be done within the right of way. This will allow for future separation within the street.

The applicants have received and submitted a Wastewater Capacity Authorization Letter.

5. Comprehensive Plan (Section 14-497 (a) 9)

The development has been designed to be consistent with the City's Master Plan, adopted in June of 2017. The development has been designed to be consistent with the City's Master Plan, adopted in June of 2017. Sited in the Housing section of the City's Policy Guide's Local Goals, it states: *Increase, preserve, and modify overall supply of housing city-wide to meet the needs, preferences and financial capabilities of all Portland residents.*

C. **SITE PLAN STANDARDS** (Section 14-526)

The proposed development has been reviewed by staff for conformance with the relevant review standards of Portland's site plan ordinance and applicable regulations. Staff comments are listed below.

1. Transportation Standards

a. Impact on Surrounding Street Systems and Access and Circulation

ADA compliance is provided at all door locations. The parking will be accessed from Montreal Street by a driveway between the proposed building and the adjacent property. The residential lobby for the proposed building will be located at the ground level on the southern side and be accessed from the Willis Street sidewalk.

Mike Tremblay P.E., Senior Engineer, has provided the following comment:

- The curb ramp at the corner of Montreal and Willis Street along the project frontage must be reconstructed per ADA and City of Portland standards. The existing ramp is non-conforming as it does not have a sufficient level landing at the top of the ramp; there may be other deficiencies as well. It is not likely that this ramp will be able to be replaced in its current orientation and achieve compliance; a blended transition ramp (detail attached) or another design will likely be required. The ramp shall be reconstructed in brick per the City's sidewalk material policy.

b. Public Transit Access

The public transit requirements do not apply to this project.

c. Parking

Per ordinance requirements in the R6 Zone, the proposed project is required to have a total of 9 spaces. The applicant is proposing to include 13 internal parking spaces within the garage, thus meeting the requirement.

d. Bicycle Parking

Five bicycle parking spaces are proposed for the project, meeting the minimum requirement of four spaces.



Figure 7: Photo - existing street trees – Source: Andrew Tufts

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

A landscaping plan was submitted as part of the application. The plan shows a variety of trees, shrubs, and perennials, all listed in the City of Portland Recommended Tree List.

There are three well established and significant street trees along Montreal and Willis Streets. The applicant is currently exploring ways to mitigate the impact of utility connections and is working with the city arborist.

Based upon the city's street tree requirements, a total of nine (9) trees are required. The applicant will contribute to the City's Street Tree Fund in place of the five (5) trees that will not be planted.

c. Water Quality, Storm Water Management and Erosion Control

The stormwater management plan includes the construction of an underground storage and treatment system that consists of a Stormtech Chamber System designed to infiltrate the required water quality volume. The system has been designed to effectively collect, infiltrate and provide treatment of approximately 97% of the total new impervious area and approximately 88% of the total new developed area, exceeding the requirement as indicated in the General Standards of MDEP Chapter 500.

Lauren Swett has reviewed the applicants plans and project details, and comments are included in the attachments.

3. Public Infrastructure and Community Safety Standards

a. Public Safety and Fire Prevention

Mike Thompson, Division Chief of the Fire Prevention and Community Outreach Division, has reviewed the submitted plans and found them to be acceptable, noting the following points (Attachment 1):

- *The correct address for this property shall be determined by the City E-911 Addressing Officer.*
- *The street address shall be marked at the main building entrance.*

b. Availability and Adequate Capacity of Public Utilities

The project will be served by Central Maine Power, the Portland Water District, City Department of Public Works. Evidence of utility capacity has been provided by the applicant.

4. Site Design Standards

a. Snow and Ice Loading

The project design and layout provides an area of approximately 300 square feet located adjacent to the proposed driveway near the northwesterly corner of the site. Snow storage will not conflict with pedestrian access. Snow melt runoff will be treated with the subsurface chamber system.

b. View Corridors

This site is not within a Protected View Corridor as per the "View Corridor Protection Plan" approved by the Portland City Council in 2001.

c. Historic Resources

The project site is not within 100' feet of a historic district and therefore is not subject to a historic preservation review.

d. Exterior Lighting

The applicant has submitted a lighting and photometric plan.

e. Noise and Vibration

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

f. Signage and Wayfinding

All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.

g. Zoning Related Design Standards

A preliminary design review for the proposed new construction of a multi-family project at 33 Montreal Street was performed by Planning and Urban Development staff. The project, because the lot is over 10,000 sf, was reviewed against the *Multiple-Family* Standards (City of Portland Design Manual). The design review finds that a number of the principles and standards have not been met by the proposed design and the applicant will need to amend the plans accordingly.

h. Construction Management Plan

The applicant has submitted a construction management plan which is undergoing review by staff.

X. **CONDITIONAL USE**

33-37 Montreal Street proposes the creation of 9 residential units within the Munjoy Hill Neighborhood Conservation Overlay District. The height of the building will be greater than 35'. Subsequently, the project triggers Section 14-140.5 (c), Maximum Height and is required to include one workforce housing unit for rent or sale. The workforce unit shall be no smaller than 50% of the average size of the other units in the development and shall be deed restricted for affordability for the longest term possible under state and federal law. The applicant is currently working with staff to meet the requirements.

XI. NEXT STEPS

1. Address staff comments
2. Address additional comments of the Planning Board
3. Prepare final plan submission, including subdivision and site plan submittal for review by the Planning Authority and Planning Board
4. Schedule Public Hearing

XII. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. 33 Montreal Street Review Comment Letter
2. Public Comment
3. Design Review Workshop
4. Neighborhood Meeting Notes

APPLICANT'S SUBMITTALS

- A. Application Checklist
- B. Project Description
- C. Right, Title & Interest
- D. Financial & Technical Capacity
- E. Zoning Assessment
- F. Construction Management Plan
- G. Transportation
- H. Stormwater
- I. Utilities
- J. Solid Waste Disposal
- K. Public Infrastructure and Safety
- L. Design Review Site Design
- M. 15_Design Review_R6 Design Principles
- N. Wastewater Capacity

PLANS

- Plan 1. Boundary Survey
- Plan 2. Design Review Context
- Plan 3. Architectural Drawings
- Plan 4. Architectural_A1.1_BasementPlan_20190828
- Plan 5. Existing Conditions & Demolition Plan
- Plan 6. Site Plan
- Plan 7. Subdivision Plan
- Plan 8. Grading & Utility Plan
- Plan 9. Details – 1
- Plan 10. Details – 2
- Plan 11. Details – 3
- Plan 12. Watershed Map – Existing Conditions
- Plan 13. Watershed Map – Developed Conditions
- Plan 14. Construction Management Plan
- Plan 15. Landscape Plan

**Planning and Urban Development Department
Planning Division**



August 20, 2019

37 Montreal Street, LLC
Portland, Maine

Acorn Engineering, LLC
65 Hanover Street
Portland, Maine

RE: Comments for Proposed Development – Level III Review

Project Name: 33 Montreal Street – Multi-Family
Address: 33 Montreal Street
Applicant: Saint John's Valley, LLC
Planner: Andrew Tufts

Project ID: PL-000807-2019
CBL: 015 B022

Dear Kaplan Thompson,

Thank you for submitting a level III site plan and subdivision application for the demolition of three existing single-family homes and redevelopment of the site into a four-story, 9-unit multi-family building with 13 below grade parking spaces. The project is being reviewed subject to the following applicable Land Use Code provisions:

- R6 District
- Munjoy Hill Neighborhood Conservation Overlay District
- Conditional Use – Inclusionary Zoning

The proposed development is also subject to relevant standards in the City of Portland Technical Manual.

Current Review Comments

Andrew Tufts, Planner, Planning Department

- The file sizes of the uploaded plans are too large and need to be compressed. Staff are unable to efficiently review based on file size.

Mike Tremblay, DPW P.E. Senior Engineer

- The sidewalks on Willis and Montreal streets are in poor condition. All sidewalks should be reconstructed along the frontage of the site, as should the curb ramp at the corner of Montreal and Willis streets.
- Tipdowns are not needed with 2' radius pieces at driveways.
- Brick driveways should be reconstructed with bricks running widthwise, matching the adjacent sidewalk. Border courses are allowed. See attached detail. Note that bricks are shown in the incorrect orientation on the subdivision plat.
- The curb ramp at the corner of Montreal and Willis Street along the project frontage must be reconstructed per ADA and City of Portland standards. The existing ramp is non-conforming as it does not have a sufficient level landing at the top of the ramp; there may be other deficiencies as well. It is not likely that this ramp will be able to be replaced in its current orientation and achieve compliance; a blended transition ramp (detail attached) or another design will likely be required. The ramp shall be reconstructed in brick per the City's sidewalk material policy.
- The proposed driveway, is located adjacent to an existing driveway. Section 1.7.1 of the Technical Manual requires a 20-foot driveway separation. Due to the nonconforming nature of the adjacent driveway/parking area, DPW will consider supporting a waiver for driveway separation.
- The parking layout is acceptable; however, no handicap parking spaces are provided. Fair Housing Act requires accessible spaces for multi-family residential uses with elevators. For a parking area with <25 spaces, one 8'x18' space with an 8'x18' adjacent clear area is required. This space should be located as close to the elevator as possible.
- An underground electric connection is encouraged.
- The proposed overhead utility connection is required to be underground.

- The stormdrain and sewer from the site are proposed to be combined together on the property. If the services are to be combined, this should be done within the right-of-way. This will allow for future separation within the street.
- Drawn CM plans are required, and must be reviewed and approved before construction. The construction management plan document is not sufficient on its own.

Jeff Tarling, City Arborist

Pending

Robert Thompson - Fire

- The correct address for this property shall be determined by the City E-911 Addressing Officer.
- The street address shall be marked at the main building entrance.

Lauren Swett

In accordance with the Maine DEP Chapter 500 Regulations and Section 5 of the City's Technical Manual, the Applicant is required to meet the Basic, General, and Flooding Standards for Stormwater Management. The Applicant has proposed erosion and sedimentation control features to meet the Basic Standard and a subsurface chamber system to help meet the General and Flooding Standards. The following comments should be addressed on the proposed stormwater management plan:

Basic Standard:

- The plans should show the location of the stabilized construction entrance.

General Standard:

Typically, to meet the General Standards using a subsurface chamber system, additional treatment measures are required. For example, a filter sand layer could be installed beneath the subsurface chambers. When a treatment measure is added, the Applicant should provide information from the chamber manufacturer to verify that the system is adequately designed per the manufacturer's requirements.

We suggest that the applicant review the methodology for modeling the subsurface filter. No flow is indicated to be discarded as infiltration. As the system is modeled, the only discharge out of the subsurface system is over the weir.

Flooding Standard:

It is noted that the pre-development model considers a slightly larger total area than the post-development model. The Applicant should clarify; however, this likely will not have a significant impact on the final results.

Additional Comments:

- The Applicant has indicated that utility ability to serve letters pending.
- Pavement repair is proposed at the location of the existing sewer service connection to the main. It is assumed that this sewer service will be abandoned, but additional information should be provided.
- **The stormdrain and sewer from the site are proposed to be combined together on the property. If the services are to be combined, this should be done within the right-of-way. This will allow for future separation within the street.**
- A driveway paving repair detail has been provided. Separate details for roadway repair, sidewalk repair, and driveway apron should be provided in accordance with details in the City's Technical Manual.
- It is noted that on the construction management plan drawings, a dumpster is proposed on a steeply sloped area at the northern corner of the site. This should be reviewed, and if

the area needs to be leveled for placement of the dumpster, there may be impacts onto the adjacent property.

- A proposed foundation drain is shown discharging directly onto an adjacent property, with no surface improvements proposed to mitigate impacts of flow that may come from this pipe. While flows from a foundation drain are generally low, consideration of the impact of discharge onto the abutter should be made. The Applicant should also consider whether flow directly out of the retaining wall may impact the wall itself.
- The need for a field inlet at the northern corner of the site should be considered. It appears based on the grading that the corner of the site will drain towards the retaining wall, but the wall will extend above grade by over a foot, preventing the surface flow of water over the wall.
- A serviceberry tree is proposed on the northern corner of the site over the end of the proposed subsurface chambers and overlapping the area identified on the plans as snow storage.
- The landscape plan does not match the site plan relative to driveway shape and materials. Please clarify the propose intent.

Google Groups

historic district questions

Kirsten Platt <kirstenplatt@gmail.com>

Sep 2, 2019 1:08 PM

Posted in group: **Planning and Urban Development**

Can you tell me where the process is at regarding declaring Munjoy Hill an historic district? I live on Montreal Street and I thought there was a moratorium on new buildings. Is that still in effect? I am opposed to a new giant building replacing the 2 houses on 31-37 Montreal. I am not opposed to all new buildings but the fancy 5 floor condo buildings that go right to the edge of the sidewalk seem out of place and seem to be crowding out single family homes and affordable housing. Please let me know what is the current policy.

Kirsten Platt
61 Montreal St

Google Groups

33 Montreal Street Neighborhood Meeting - Written Comments

Mike Hoover <chzstk@gmail.com>

Sep 11, 2019 7:22 PM

Posted in group: **Planning Board**

Chair Dutton:

I am unfortunately unable to attend the neighborhood meeting for this planning board site plan application this Friday evening. I have provided written comments to be included in the public record for this meeting.

My position is clear. I strongly oppose the proposed development at this site. The attached letter details my reasons for this position.

Thank you very much for your consideration

Regards Michael Hoover

**Michael Hoover
40 Melbourne Street
Portland, ME 04101**

September 10, 2019

Sean Dutton, Chair
City of Portland Planning Board
389 Congress St
4th Floor
Portland, ME 04101

VIA EMAIL: planningboard@portlandmaine.gov

RE: Level III Site Plan Review Neighborhood Meeting
33 Montreal Street Application PL-000807-2019

Chair Dutton:

I am writing in response to the notice I received for the neighborhood meeting for the proposed condominium building located at 33-37 Montreal Street. For the planning board site plan review record, I would like to state that I strongly oppose the development of this proposed structure on this property.

I do not believe that the development is consistent with the character, scale, or massing of the existing neighborhood. As stated in the current site plan development regulations, the proposed development "shall integrate with and respect the character of surrounding residential development in terms of architectural form, landscaping and open space, façade materials, roof pitch, massing and height"¹. I have considerable professional experience in land planning and municipal development reviews and approvals. In my professional opinion, I believe that the development as proposed shows absolutely no respect or consistency with existing development in the immediate neighborhood. The scale, massing, and design characteristics of the building shows no relationship or compatibility with the existing building characteristics present in the immediate vicinity.

At this time, I would also strongly suggest that the members of the planning board closely review the public comments received for all of the public hearings that were recently held by the Historic Preservation Board for the application for the Determination of Conformance with Historic Preservation Ordinance New Construction Standards at the 33-37 Montreal Street site. While the HPB ultimately ruled by a majority that the proposed structure did conform to standards, the overwhelming majority of public comments the hearings were from neighbors who submitted written and verbal comments stating that the structure was not in conformance with standards due to the incompatibility of the size, massing, and design characteristics of the proposed structure. It is clear that many neighborhood residents did not approve of this type of development on Montreal Street. The public record to date for this application is important for the Planning Board to thoroughly consider.

¹ Portland Site Plan standards at Section 14-526 (a)(9)(a)(v).

Thank you very much for this opportunity to comment.

Regards,

/s/

Michael Hoover

Cc: atufts@portlandmaine.gov
bsr@portlandmaine.gov
jpi@portlandmaine.gov
estrimling@portlandmaine.gov

Google Groups

33-37 Montreal street

bill chittick <flst1987@hotmail.com>

Sep 12, 2019 9:18 AM

Posted in group: **Planning Board**

Good morning,

My name is bill chittick and I reside at 15 Melbourne street in 04101.i have lived now on the hill since 2005.plse help to keep it as is for now.

My self and my wife are against this project.

I am sorry for the late response but have been away for work.

Regards,

Bill.

Begin forwarded message:

From: "Alerts@tdbank.com" <Alerts@tdbank.com>

Subject: Transaction Complete

Date: September 11, 2019 at 4:08:48 AM EDT

To: flst1987@hotmail.com

Reply-To: Alerts@tdbank.com

Dear William,

The funds transfer referenced below has completed.

Item #: 953350013

Amount: \$3,000.00

From: KeyBank *****4291

To: TD Bank, TD CONVENIENCE CHECKING *****9083

Service: Standard Inbound

As of, September 10, 2019, the funds have been credited to the destination account and deducted from the account from which you requested the funds be transferred.

You may always review this transfer request via the Activity page.

Sincerely,

TD Bank

tdbank.com

This email was sent to flst1987@hotmail.com as part of the services of TD Bank. If you have received this email in error, call 1-800-493-7562 and a TD Bank Customer Service Representative will be happy to help you.

To protect your privacy, messages from TD Bank, N. A. will not ask you for any information through unsecure e-mail that would uniquely identify you. Please do not respond to this message. Replies to this message are routed to an unmonitored mailbox.

Email ID: TN203

31-37 Montreal question

Kirsten Platt <kirstenplatt@gmail.com>

Sep 14, 2019 6:54 PM

Posted in group: **Planning and Urban Development**

I went to the neighborhood meeting last night about the proposed building on 31-37 Montreal. I was stunned by the size of the building they intend to put up. Isn't there anything in the planning regulations about having buildings fit in with the houses on the street? How could anyone think that a 4 story +parking level building fits in on Montreal and Willis Streets? Unless you compare it to the Soviet Bloc Promenade Towers, there is nothing of a similar height. It will dwarf the homes around it and then be the reason that another gets built a block away. There are some 3 floor buildings further up Montreal. Maybe 3 stories should be the limit. I would appreciate someone getting back to me to clarify what the existing rules say about fitting in with the neighborhood and if anyone from the planning board has stood at the corner of Willis and Montreal to suss out how it fits. Thank you.

Kirsten Platt
61 Montreal

Google Groups

Montreal Street Development

Rebecca Russell <rebecca.howe.russell@gmail.com>

Sep 16, 2019 10:32 AM

Posted in group: **Planning and Urban Development**

Good Morning,

I hope this email finds you all well.

I am very concerned about the proposed building on the corner of Willis and Montreal street. As a homeowner on the street, I feel this building will not fit in with the surrounding buildings and the authenticity of the neighborhood.

I am not against any developments. I believe change is inevitable, and necessary for growth. For example, the city has done an exceptional job with the development on Washington Ave along the Eastern Prom, which have added so much to our neighborhood.

As it states in the [Portland Plan](#) "Portland has an extraordinarily rich history." Although I support change, I agree with the plan that it should be thoughtfully managed, so that the unique character of historic buildings, parks, and neighborhoods is retained. I recognize that Munjoy Hill is still being assessed as a historic district, but I would still like to encourage you to consider the local goal to "Ensure an appropriate balance of continuity and change as Portland grows and evolves," as you make your decision.

Thank you for taking this into consideration.

Best,
Rebecca

207.712.4296

Google Groups

33-37 Montreal

Margaret Hillman <peghillman57@gmail.com>

Sep 16, 2019 5:48 PM

Posted in group: **Planning Board**

Hello

I attended the neighborhood meeting for this condo project on Sept. 13. I had previously attended meetings regarding this project when it was first being proposed.

The revisions of a smaller number of units is favorable. However the new building has no character. As it borders 2 streets, I feel it should have architectural interest on both the Willis Street side and the Montreal Street side. Currently the Montreal St side reminds me of a mill. Many of the 3 decker buildings I have looked at that abut a street have character. Mostly they have bay windows.

I own the house across Montreal St, 9 Willis St. With the latest revisions, I find the building industrial and ugly. The original plan with the butterfly roof and side entrance was far more appealing to look at. I worry that such an ugly building will affect the value of my home. Please encourage the developers to soften the sides by adding some bays, curves or other architectural components that will make the building more appealing to look at. And as the planning board, please do not restrict them to such stark lines.

Thank you
Margaret Hillman
9 Willis St
Portland

Google Groups

33-37 Montreal Street Proposed Condo Development

Patricia Ryan <pryan2@maine.rr.com>

Sep 18, 2019 1:28 PM

Posted in group: **Planning and Urban Development**

Dear Sean Dundon and members of the planning board:

As a close neighbor, I am dismayed that the developer has so blatantly disregarded guidelines regarding mass, scale, height and has instead put forth a design that is totally inappropriate to the architecture of this street. It is even more disturbing that the planning board has allowed this to go forward, given that "This building is not in the spirit of neighborhood conservation in the new R6 Conservation Overlay District for Munjoy Hill." Other things that concern me include taking down 3 beautiful mature trees, and the increase in traffic on the street.

I am asking that you uphold city regulations that clearly state the parameters that this builder has totally ignored. Please do the right thing by this street and by Munjoy Hill and for the City of Portland.

Sincerely yours,

Patricia Ryan LCSW
60 Montreal St.
Portland, Me 04101
207-749-8385

Google Groups

33-37 Montreal st.

kathleen bender <kabendr@yahoo.com>

Sep 19, 2019 9:24 AM

Posted in group: **Planning and Urban Development**

Dear Chair and Staff,

Please note: This building is not in the spirit of neighborhood conservation in the new R6 Conservation Overlay District for Munjoy Hill. The surrounding buildings are mostly 1 1/2 stories. Perhaps I was lulled into believing our neighborhood would at last be restrained with an eye to historic preservation and mass/scale.

Thank you for your attention to this matter.

Regards,

Kathleen Bender, resident and landlord
11 North St.



Andrew Tufts <atufts@portlandmaine.gov>

33-37 Morning St

2 messages

kathleen bender <kabendr@yahoo.com>

Thu, Sep 19, 2019 at 9:34 AM

To: planning@portlandmaine.gov

Cc: cdg@portlandmaine.gov, atufts@portlandmaine.gov

Good Morning Chair and Board Members,

It seems the issues of scale and mass in our neighborhood are ongoing, while the City is recommending historic preservation. This building is not in the spirit of neighborhood conservation in the new R6 Conservation Overlay District for Munjoy Hill.

Please drive the Hill and notice;

where will the people live who will send their children to our neighborhood grammar school?

Regards,

Kathleen Bender, resident and landlord,
11 North St.

Andrew Tufts <atufts@portlandmaine.gov>

Thu, Sep 19, 2019 at 9:43 AM

To: kathleen bender <kabendr@yahoo.com>

Hi Kathleen,

Thanks for your email. We appreciate the time you have taken to offer your thoughts, and will include your comments in the materials and as part of the public record.

If you have any questions, please contact our office, or feel free to reach out to me directly.

Best,

[Quoted text hidden]

--

Andrew Tufts

Planner

Planning and Urban Development Department

389 Congress Street 4th Floor

Portland, ME 04101

atufts@portlandmaine.gov

(207) 874-8724

**Andrew Tufts** <atufts@portlandmaine.gov>

Fwd: 33-37 Montreal St.

2 messages

Debby Murray <debbym@gwi.net>

Wed, Sep 18, 2019 at 10:00 PM

To: planning@portlandmaine.gov

Cc: cdg@portlandmaine.gov, atufts@portlandmaine.gov

>> 9/18/19

>> Dear Planning Department,

>>

>> I am writing to object to the revised plans for the project at 33-37 Montreal St. At first I was optimistic because I assumed the project had been scaled down from 13 to 9 units. But then I saw the plans and the building appears to be the same size, despite the smaller no. of units and is missing the details the planning board found so 'attractive' before, ie some green space, a faux mansard roof and townhouse look fronting onto Willis St.

>>

>> Hello? What is being torn down is currently the tallest building on Montreal St. This project will literally tower over the smaller homes and apartments in the area. I do not buy, and either should you, that Promenade East is a comparable building as far as heights go. Everyone agrees that building was an unfortunate mistake, allowed only to be built when no one was paying attention.

>>

>> Lob off a story and add some interest to the project if you want my support. It is not the only project that I object to on the Hill but it is in my immediate neighborhood and I think there's a better way to create density up here. In fact, one could restore the three houses slated for demo

>> (one of which has been designated "preferably preserved") and 5 families could easily live there.

>> Thanks for considering my opinion,

>> Debby Murray

>> 104 North St.

>> Portland. ME 04101

>

Andrew Tufts <atufts@portlandmaine.gov>

Thu, Sep 19, 2019 at 9:43 AM

To: Debby Murray <debbym@gwi.net>

Hi Debby,

Thanks for your email. We appreciate the time you have taken to offer your thoughts, and will include your comments in the materials and as part of the public record.

If you have any questions, please contact our office, or feel free to reach out to me directly.

Best,

[Quoted text hidden]

--

Andrew Tufts

Planner

Planning and Urban Development Department

389 Congress Street 4th Floor

Portland, ME 04101

atufts@portlandmaine.gov

(207) 874-8724



Andrew Tufts <atufts@portlandmaine.gov>

33-37 Montreal Street proposal

2 messages

Ann <alandsberg@aol.com>

Wed, Sep 18, 2019 at 7:20 PM

To: planning@portlandmaine.gov

Cc: cdg@portlandmaine.gov, atufts@portlandmaine.gov

Attached please find my letter outlining my concerns regarding the proposed building for 33-37 Montreal Street. Residents, both in the immediate and extended area have very serious concerns which deserve to be heard and included in any discussion about approving this construction.

Thank you for your attention to this important issue.

Ann S. Landsberg
105 North Street, #2
[Portland, ME 04101](#)

**Montreal Street.docx**

13K

Andrew Tufts <atufts@portlandmaine.gov>

Thu, Sep 19, 2019 at 9:44 AM

To: Ann <alandsberg@aol.com>

Hi Ann,

Thanks for your email. We appreciate the time you have taken to offer your thoughts, and will include your comments in the materials and as part of the public record.

If you have any questions, please contact our office, or feel free to reach out to me directly.

Best,

[Quoted text hidden]

--

Andrew Tufts
Planner
Planning and Urban Development Department

389 Congress Street 4th Floor
Portland, ME 04101
atufts@portlandmaine.gov
(207) 874-8724

September 18, 2019

Dear Chair Sean Dundon and members of the Planning Board,

I am writing to you to express my deep concerns over the proposed building of a nine-unit structure to be sited at the corner of Willis and Montreal Streets on Munjoy Hill. The developers have said that this building fits in with many other similar buildings in the “downtown area.” But Munjoy Hill is not “downtown.” It is strictly a residential neighborhood with the exception of some shops on Congress Street. A long, slow walk around the immediate neighborhood today has again convinced me that the revised proposal for 33-37 Montreal Street is still simply a terrible fit for the neighborhood and for Munjoy Hill in general.

Here’s why:

1. The proposed building is completely out of proportion – both in scale and massing -with the surrounding properties. It does not in any way fit into a residential area of single or two family homes or a complex of separate two-story brick apartment building. Most of the homes are no more than 2 ½ stories tall and some are truly quite small overall.
2. The building is being touted as “only” a four-story building but if one is coming up Montreal Street from the Eastern Promenade what you would actually see, given the slope of the hill, is a five-story building, with the “ground floor” being the garage entrance. This makes the building loom over everything around it, completely out of character with an otherwise low profile residential area.
3. In addition, the proposed building fails to meet the intended spirit of the R6 Overlay District even if it meets the letter of the residential zoning guidelines.

In summary, this building, as currently proposed, is jarringly out of “fit” with the neighborhood in both in scale and massing.

Respectfully submitted,

Ann S. Landsberg

105 North Street, #2

Portland, ME 04101

Google Groups

Proposed building at 33-37 Montreal St.

Tim Baehr <tbaehr@aol.com>

Sep 19, 2019 5:46 PM

Posted in group: **Planning and Urban Development**

Hello,

I am writing to object - strongly - to the size and bulk of this building as currently proposed. It is four stories tall at the uphill end of the property on Montreal, and five stories tall (including garage access) on the downhill end. The neighborhood consists, other than the patently non-compliant gray monster at the corner of Walnut and the Eastern Prom, almost exclusively of pitched-roof houses of one and a half to two and a half stories.

The proposed building will loom over its neighbors within a couple of blocks, and it will be an eyesore.

It has been argued that the neighborhood is part of "downtown Portland." Nothing could be farther from the truth. This is a residential neighborhood, about a mile from the commercial center of town.

If there's any way to ruin a neighborhood, it is to put a gigantic box in the middle of it.

By the way, the rendering of the building conveniently omits any context, that is, the houses in its vicinity. A wider view would reveal how enormous and imposing the building is.

Sincerely,
Tim Baehr
105 North St.
899-1943

Against Building Proposal 33-37 Montreal St.

Liz Hays <lizchays@gmail.com>

Sep 19, 2019 6:07 PM

Posted in group: **Planning and Urban Development**

Dear Chair Dunn and Members of the Planning Board,

My name is Liz Hays and I am a homeowner at 107 North Street, 500 ft. from the building proposal at 33-37 Montreal Street.

I am strongly against the present design of the proposed building at 33-37 Montreal Street. The mass and height of the building is significantly out of proportion to the neighboring buildings and drastically changes the historic character of the neighborhood. This historic character is what has brought people to live here on Munjoy Hill, thus making it a thriving neighborhood.

To support the intent of the new R6 Conservation Overlay District, I encourage you to reject this present design and ask the developer to come up with a design with less mass and height and an architectural style that is congruent with the neighborhood's historic appearance.

Thank you for your consideration.

Liz Hays

107 North Street
Portland, ME
lizchays@gmail.com

Fwd: 33-37 Montreal Street

Lorien Connor <connorlorien@yahoo.com>

Sep 19, 2019 8:33 PM

Posted in group: **Planning and Urban Development**

Re-sending. Corrected address

> Dear Chair Sean Dunedin and members of the Planning Board,

>

> I am writing you in regards to the building proposed for 33-37 Montreal St.

> This building does not fit our neighborhood. Not only is the design industrial/warehouse like, it is massive with the height/scale more than double the surrounding homes.

> Couldn't something better be built in that space? Something that is in the spirit of the neighborhood? This does not fit in with the neighborhood conservation in the new R6 Conservation Overlay District for Munjoy Hill.

> Please do not allow this new design and continue to erode the integrity, beauty, and historic value of this now prime and very special neighborhood.

> Thank you for your time.

> Sincerely,

> Lorien Andrews

>

>

> Sent from my iPhone

Google Groups

33-37 Montreal on Munjoy Hill

Vana Carmona <vanacarmona@gmail.com>

Sep 19, 2019 10:53 AM

Posted in group: **Planning Board**

Attn. Planning Board,

I recently attended yet another meeting regarding development of this property on Munjoy Hill. The developers' representative, Tim Wells, presented the latest proposal.

It was very disappointing. Obviously, they have not heard us.

Not even taking into consideration the design of the building (which leaves much to be desired since it does not fit at all with the neighborhood), the fundamental issue of mass and scale has continued to be ignored.

This building is still too big!

On the lower side, it is still 5 stories. On the Willis side, it is still 4 stories. We do not have buildings of this mass and scale here.

One cannot take the Promenade East development as support for such a new project. The 33-37 Montreal is in a residential area where the majority of homes are 1 and a half stories.

The Planning Board must make these people accountable to change the mass and scale since the developers in question are not getting our message.

Please take notice before Munjoy Hill is no longer the beautiful, history place that brought us here in the first place.

Thank you.

Vana Carmona

vanacarmona@gmail.com

207 420 6962

Google Groups

33-37 Montreal Street Level III Workshop Meeting

Mike Hoover <chzstk@gmail.com>

Sep 19, 2019 7:04 PM

Posted in group: **Planning Board**

Good Evening - Attached are two separate letters which I am submitting to the planning board for this meeting.

Could you please confirm that these letters will be included in the information package forwarded to the planing bored members?

Thank you. Mike Hoover

**Michael Hoover
40 Melbourne Street
Portland, ME 04101**

September 10, 2019

Sean Dutton, Chair
City of Portland Planning Board
389 Congress St
4th Floor
Portland, ME 04101

VIA EMAIL: planningboard@portlandmaine.gov

RE: Level III Site Plan Review Neighborhood Meeting
33 Montreal Street Application PL-000807-2019

Chair Dutton:

I am writing in response to the notice I received for the neighborhood meeting for the proposed condominium building located at 33-37 Montreal Street. For the planning board site plan review record, I would like to state that I strongly oppose the development of this proposed structure on this property.

I do not believe that the development is consistent with the character, scale, or massing of the existing neighborhood. As stated in the current site plan development regulations, the proposed development “shall integrate with and respect the character of surrounding residential development in terms of architectural form, landscaping and open space, façade materials, roof pitch, massing and height”¹. I have considerable professional experience in land planning and municipal development reviews and approvals. In my professional opinion, I believe that the development as proposed shows absolutely no respect or consistency with existing development in the immediate neighborhood. The scale, massing, and design characteristics of the building shows no relationship or compatibility with the existing building characteristics present in the immediate vicinity.

At this time, I would also strongly suggest that the members of the planning board closely review the public comments received for all of the public hearings that were recently held by the Historic Preservation Board for the application for the Determination of Conformance with Historic Preservation Ordinance New Construction Standards at the 33-37 Montreal Street site. While the HPB ultimately ruled by a majority that the proposed structure did conform to standards, the overwhelming majority of public comments the hearings were from neighbors who submitted written and verbal comments stating that the structure was not in conformance with standards due to the incompatibility of the size, massing, and design characteristics of the proposed structure. It is clear that many neighborhood residents did not approve of this type of development on Montreal Street. The public record to date for this application is important for the Planning Board to thoroughly consider.

¹ Portland Site Plan standards at Section 14-526 (a)(9)(a)(v).

Thank you very much for this opportunity to comment.

Regards,

/s/

Michael Hoover

Cc: atufts@portlandmaine.gov
bsr@portlandmaine.gov
jpi@portlandmaine.gov
estrimling@portlandmaine.gov

**Jill Terranova
40 Melbourne Street
Portland, ME 04101**

September 19, 2019

Sean Dutton, Chair
City of Portland Planning Board
389 Congress St
4th Floor
Portland, ME 04101

VIA EMAIL: planningboard@portlandmaine.gov

RE: Level III Site Plan Review Workshop
33 Montreal Street Application PL-000807-2019

Chair Dutton:

I am writing in response to the notice I received for the Planning Board Workshop meeting for the proposed condominium building located at 33-37 Montreal Street. For the planning board site plan review record, I would like to state that I strongly oppose the development of this proposed structure on this property.

As a landscape designer, I am very familiar with the visual impacts associated with a structure's size, shape, and massing. The very large size of the proposed building is in no way consistent with the character, scale, or massing of the structures which are present in neighborhood. None of the features of this oversized building has any resemblance what so ever with the existing homes in our neighborhood. In my opinion, the proposed building shows absolutely no consistency with existing homes. If approved as proposed, this structure will destroy the visual fabric of the neighborhood.

Thank you very much for this opportunity to comment.

Regards,

/s/

Jill Terranova

Cc: atufts@portlandmaine.gov
cdg@portlandmaine.gov

Google Groups

33/37 Montreal Level 3 Site Plan

Carol Connor <balsamique@live.com>

Sep 19, 2019 9:30 PM

Posted in group: **Planning Board**

To the Chair and Members of the Planning Board;

I walked the Munjoy Hill neighborhood today from my house at 12 Montreal Street. Over the bumpy bricks, enjoying each glimpse of sparkling sea water, I took in colorful front doors, brilliant fall flowers, houses being lovingly restored and lots of new construction as well. In the mix of new and old there are a few samples of new buildings that actually enhance the neighborhood, but sadly that is the exception. The overwhelming presence of enormous multi-unit structures lacking architectural appeal seem to be the new standard.

Looking up Montreal Street at the 3 homes slated for demolition, I pictured what it would be like when they are gone and the proposed condo-complex sits on their graves. It was an unthinkable looming image more like an institution than a domicile.

The 9 unit construction planned for 33/37 Montreal Street is an example of a vastly out of scale building that will tower over its neighbors dominating both Willis and Montreal Streets.

Its mass and scale bears no relationship to the surrounding homes. Though it is presented as a 4 story building, the downhill height as described by the architects, is roughly 57 and 1/2 feet tall and 5 stories high. There is no current structure on these streets that exceeds 3 stories, and most are only 2. This building is simply too massive for its context.

I am concerned that we are whittling away the iconic housing stock that gives life and meaning to the character of Munjoy Hill. Please give consideration to the design standards and to the out of sync relationship this massive structure would have for the street. I respectfully request that you reject this level 3 site plan for 33/37 Montreal Street.

Regards,

Carol M. Connor
12 Montreal Street
Portland, Maine 04101
207 232 2265

Sent from my iPad

Google Groups

33-37 Montreal Street

Peter Murray <pmurray@gwi.net>

Sep 19, 2019 10:18 PM

Posted in group: **Planning Board**

Dear Planning Board -

Attached please find my written comments in anticipation of the upcoming Workshop on Tuesday, September 24.

Thank you for your consideration of the matters set forth.

Sincerely,

PLM

Peter L. Murray
104 North Street
Portland, ME 04101
pmurray@gwi.net

104 North Street
Portland, Me 04101

September 18, 2019

Portland Planning Board
City Hall
Portland, ME 04101

Re: 33-37 Montreal Street – Level 3 Site Plan Proceedings

Dear Chair and Members of the Portland Planning Board:

This is in anticipation of your September 24 Workshop on the above project. For the reasons set forth below, the project is not in compliance with the requirements of the applicable Design Standards and should not be built as proposed.

The Montreal-Willis Street neighborhood is a relatively intact Munjoy Hill residential neighborhood consisting of 19th century wood frame 1 and 2 family houses on small lots. This building stock bespeaks the Hill's history as a working- and middle-class residential quarter in 19th century Portland. Most of the houses are 1½ - 2½ stories in height.

The proposed project would combine two lots to make one large lot on which the developers propose to erect a 4½ story condominium block with 9 upscale dwelling units over a parking deck that would cover most of the combined lots. This structure would dwarf all of the nearby buildings and dominate the entire Montreal-Willis area. It would destroy the harmonious rhythm of the buildings on the streets.

The Level 3 Site Plan Application should be rejected because the building does not comply with the basic Design Standards requiring the height, size and mass of a new building relate positively to the surrounding building stock. This building is simply too big, too long, too institutional to fit on the corner where it is sited.

The proposed site is the northeast corner of the intersection of Willis and Montreal Streets. On the other corners are 1) on the southwest corner, a 1½ story small 19th century mansard cottage, currently being lovingly restored to approximate its original appearance; 2) on the northwest corner, a small 1½ story 19th century house recently improved with a long dormer in the ell; 3) on the southeast corner, a 2½ story 19th century frame house similar in size and type to the existing house on the northeast corner now slated to be demolished and replaced by this behemoth. There is no way that this full

four story 9-unit condo block with parking underneath can reasonably resonate with housing stock of this kind.

The problem is exacerbated because the developer is not proposing to build on a single Munjoy Hill lot, which would by its small size tend to keep the project in relative proportion with the buildings on the neighboring small lots. Here the developer has combined two existing lots to make a large lot, which will physically accommodate a much larger structure than either of its constituent parts. This physically permits a building of much greater scale than any of its surrounding structures.

Promenade East, cited by the developer as a comparable structure, is not a part of this neighborhood, but is off on a campus of its own where formerly the Munjoy Hill Reservoir was located. The buildings on Montreal and Willis do not in any way relate to this distant structure.

It is time to say "No." The existing R-6 zone, even with the Munjoy Hill overlay affords developers great dimensional latitude in permitting buildings extending upward 45 feet above average grade. However multi-unit residential buildings must also comply the Design Standards, which require that new construction "be compatible with the predominant character defining architectural features of the neighborhood." In some areas of the Hill a building of this height can "fit in" and resonate positively with the surrounding housing stock. Not on the corner of Montreal and Willis. In this part of the neighborhood the Design Standards require that new construction adhere more closely to the relative size and scale of the existing residential structures on all sides.

If this block is permitted to be built it will be one of those buildings of which people will say for years to come, "How did they let that be built!"

It is submitted that the application in its present form must be denied.

Sincerely,

A handwritten signature in black ink, appearing to read 'Peter L. Murray', with a long, sweeping horizontal stroke extending to the right.

Peter L. Murray

Comments on 33-37 Montreal St

nini mc manamy <ninimaine@aol.com>

Sep 20, 2019 9:01 AM

Posted in group: **Planning and Urban Development**

Chair Dundon and members of the Portland Planning Board:

The proposed new construction at 33-37 Montreal St, which is substantially different from the building presented to the Historic Preservation Board, violates the height and mass and compatibility standards of several sections of the Portland code of ordinances. The developer has not demonstrated that this proposal meets either the letter or intent of the ordinances.

The building would be located at the corner of a large block whose other structures range from one and a half to two storeys. Its adjacent neighbors on the three blocks facing it are all one and a half to two storeys, with the exception of one two and a half storey building. **How does this proposal meet the compatibility standards of the Munjoy Hill Conservation District and referenced design standards, as well as the Historic Preservation Ordinance?**

I urge you to find it does not, and to send it back for rework.

The building would be located within 100 feet of a pending Historic District. Its warehouse-like appearance and secluded entrance present a fortress like intrusion to a very coherent neighborhood, where neighbors look out for each other. The building has no "eyes on the street" (an open entrance on Montreal St, with a neighborhood gathering bench and small greenspace were in the proposal approved by the Historic Preservation Board. These have been eliminated in the proposal presented to you.)

How does this proposal meet the compatibility requirements of the "100 foot perimeter sweep" adjacent to a Historic District?

How does it meet the design standards of the Munjoy Hill Conservation District mandating "active living space" on the first floor, as well as the principle of "eyes on the street"?

The proposed building contains a parking deck extending the full length and width of the building—it clearly shares a foundation and walls with the storeys above and comprises a fifth storey for the building. Combined with the elevator shaft extending above the building roof (the Conservation District Ordinance does not allow elevator shafts above allowed maximum building height) **this building exceeds the allowable height for the R6 overlay zone.**

The window configuration for the building violates the window pattern for the typical older building in the neighborhood and in fact throught the peninsula. The typical design has taller windows on the lowest floor, reflecting higher ceilings within, an progressively shorter windows on higher floors, reflecting lower ceilings within. This building has narrow and small windows on the first floor —reflecting, according to the architect, "security concerns about the neighborhood"—and windows becoming larger with each succeeding floor, the largest on the top storey. Aside from being disorienting to the viewer, this contributes to the fortress like feeling of a building that clearly turns its back on the neighborhood. With the Montreal St entrance gone, residents of the building are unlikely to mix with the neighbors in a close knit neighborhood. **This is NOT the building, including window design, which was presented to the Historic Preservation Board. Why has it come before you without going through the HP Board? I urge you to find this huge, unfriendly building incompatible with the neighborhood as a whole and the adjacent Historic District in particular.**

Sincerely,
Jean (Nini) McManamy
10 Willis St
Portland

Sent from my iPad

Google Groups

Comments on 33-37 Montreal St.

tyoung3@maine.rr.com <tyoung3@maine.rr.com>

Sep 20, 2019 11:25 AM

Posted in group: **Planning and Urban Development**

Chair Dundon and members of the planning board:

This proposed building does not fit in with the neighborhood. It does not comply with the city rules for new construction for this neighborhood. It's an eyesore and development of this kind is outrageous. These types of buildings are destroying what makes Portland so attractive to newcomers and longtime residents alike.

I have lived in the neighborhood since 1983 and fell in love with it because of the views, the trees, the buildings, the friendly feel, and the proximity to the ocean. To tamper with this against the existing written rules for development is not only a slap in the faces of taxpaying residents and homeowners like myself who came here because of the charm of the existing neighborhood, it is also illegal and immoral.

I cannot tell you how strongly I object to the proposed building and as strongly urge you to reject this design.

Sincerely,

Marcie Young
53 Melbourne St.
September 20, 2019

Planning and Urban Development Department Planning Division



Subject: Multi-family Design Review – 33 Montreal Street

Written by: Caitlin Cameron, Urban Designer

Date of Review: Tuesday, September 10, 2019

A preliminary design review for the proposed new construction of a multi-family project at 33 Montreal Street was performed by Caitlin Cameron, Urban Designer, Andrew Tufts, Planner, and Deb Andrews, Historic Preservation Program Manager. The project, because the lot is over 10,000 sf, was reviewed against the *Multiple-Family* Standards (City of Portland Design Manual).

The project has been significantly revised since it was reviewed by the Historic Preservation Board during the Demolition review process. From the Site Plan application, it was determined that the lot is over 10,000 sf and therefore the applicable design standards are the Multi-family Standards. The design review authority is with the Planning Board as part of the Level III Site Plan process.

Design Review takes into consideration:

- Compatibility with surrounding buildings and general character of the established neighborhood
- Building type and use
- Unique characteristics of the site

The proposal is on a transitional site between a more recent context of Promenade Towers and MacArthur Gardens – two large/mid-scale apartment complexes –compared with the predominant, traditional fabric found a block away.

The predominant, character-defining elements of residential architecture in the neighborhood context include vertical proportion massing, simple roof forms, vertical windows with local symmetry, two or three-bay façade composition, and simple material palettes – predominantly clapboard with masonry foundation.

Design Review Comments (*red text denotes principles or standards that are not met, request for more information or questions*):

Please provide the following information:

- Neighborhood context plan that shows the footprint of this building compared with those in the surrounding blocks
- Renderings showing the building in context with adjacent buildings
- Material samples or examples
- Smaller file sizes for easier navigation

Multiple-Family Design Standards

- 1) *The exterior design . . . shall be designed to complement and enhance the nearest residential neighborhood. The design of exterior facades shall provide positive visual interest by incorporating appropriate architectural elements.*

The project exemplifies a single design expression in its massing, form, material application, and fenestration and articulation elements.

The overall massing and form of the building is a simple box with flat roof consistent with the simple forms and massing found in neighborhood multi-family buildings. The building has a clear primary and secondary façade – also a predominant characteristic of corner buildings in this context. Scale and visual interest are created through contemporary versions of bays and balconies and articulation elements such as a strong cornice line, window panel details, and balcony railings. These design elements are consistent with and complement the nearest residential neighborhood by referencing common patterns and elements while remaining a contemporary expression.

The roof form is a simple, consistent flat roof – typical of multi-family buildings and not complex. The rooftop appurtenances are centralized, set back from the roof edge and screened.

The project uses a simple material palette of shingle and panel applied consistently throughout the building creating a simple, cohesive design. This is typical of the context and staff agree this contributes to complementing and enhancing the neighborhood. The fine grain of the material is appropriate for a residential building and is compatible with the materials in this context.

The façades generally relate to the context through the regular pattern/rhythm of windows; the window types are limited and placed in a regular rhythm consistent with the traditional residential buildings. The window patterns also help to distinguish the front and side facades; as the project turns the corner, the façade composition is appropriately treated as a more secondary façade.

Staff found the **front façade composition to be awkward in regards to the circulation fenestration – some of which overlaps with the central bay – possible revision to this relationship of façade elements to the use.**

The entryway, though oriented to the street, is not adequately emphasized with appropriate design elements. The approach from the street could be opened up – for example, remove planters, wider steps. The canopy should be more substantial than the bay window overhang. The entrance should have an approachable, residential character.

Stacked balconies typically are aligned with the façade plane. **The balconies extend beyond the roofline and façade plane and exacerbate the scale on the downhill side of the building.** Staff recommend that the balconies be pulled in closer to the building or aligned with the façade plane on the side façade to mitigate the scale impact of the building and create relationships similar to those found in the context.

- 2) *The proposed development shall respect the existing relationship of buildings to public streets. New development shall be integrated with the existing city fabric and*

streetscape including building placement, landscaping, lawn areas, porch and entrance areas, fencing, and other streetscape elements.

The building placement is consistent with residential structures in the neighborhood – placed near the street with a small setback with planted edge. The garage is set back from the street and accessible from a side drive minimizing the impacts of parking on the streetscape.

The building's primary frontage is oriented to Willis Street with Montreal Street treated as a clearly secondary façade. It is typical for the secondary façade to be the longer façade, on the sloping street, and without access points.

The landscape buffer between the building and the sidewalk is appropriate to provide privacy and transition between the public and private realms. The grade change on Montreal Street is challenging and steps/ramp with a retaining wall and planter areas.

However, the introduction of an ADA ramp is a contemporary necessity not often found in the traditional building interface and brings a challenging relationship between the building and sidewalk. *The configuration of planters, steps, and ramp are creating a sense of separation and commercial character – revise the entrance design. The planter between the ramp and the sidewalk is of a different character than the other planters – use a consistent character.*

3) Open Space

Open space is provided primarily through balcony and terrace spaces for each unit.

4) Ample light and air

Adequately met

5) Parking shall be arranged and landscaped to properly screen vehicles from adjacent properties and streets.

Parking for this project is structured below the building and accessed by a side driveway. This driveway is visually screened from the neighboring property with a retaining wall.

6) Multi-family dwellings shall not be converted to lodging houses.

Not applicable

37-33 Montreal Street Neighborhood Meeting Comments

Att. 4

These are the comments collected at the Neighborhood Meeting to discuss the 37-33 Montreal Street Residences. The meeting was held Friday, September 13th at 5:30-6:45 PM at the East End Community School. Thirteen (13) neighbors attended along with Tim Wells, representing the development team, Jesse Thompson and Richard Lo from Kaplan Thompson Architects.

Kirsten Platt- “I don’t find it unpleasant looking. It will dwarf other houses. Portland has been late to the game in figuring out how we want to develop.”

Vana Carmona – “Good that it is smaller but it is still too large and tall to fit into neighborhood”

Peter Murray – “I am very happy with my house designed by the same architects. I know they are capable of good design but they need to work more on this. Design is improved in one sense and worse in another. The last design made an effort to fit in contextually with the separate entrance townhomes along Willis Street. Looks like a prison with an unbroken façade and uninteresting window rhythm along Montreal Street. Windows are too small. Neighboring houses are being restored all around and this is too big. Level III site plan and design standards requires it to meet the context surrounding it in 2 blocks.”

Jean McManamy – “Unlike many of my neighbors, I like modern buildings. I really like the metallic siding on the project on Lafayette Street (Marquis) and I like jumble of styles that add excitement to a neighborhood. But this project is institutional looking and lacks excitement. I don’t want another box but a really nice, different building like you find in Sweden or France. Why can’t you add more definition to the façade along Montreal Street, make the windows bigger and more interesting, put some curves into the building or a glass elevator shaft on the outside of the building. I am also concerned about where trucks will be parking and dust control during demolition to reduce the effects of lead paint, etc. into the air.

Doris Healey – I agree with Mr. Murray. This building has no charm and doesn’t belong in this neighborhood.

Ann Deutsch – “No matter how much you do it is still mass and volume”

Carol Conner - “ You have done gorgeous houses but I really hate this building. It looks institutional. At least there is more space between it and McArthur Gardens.”

Peg Hillman – “I like the front better than the side along Montreal Street. The Montreal Street side needs more relief.. You can’t leave it as one big surface. It is ugly. Adding a bay or two or some side balconies would do a great deal for the beauty of the building. It is just too flat and looks like an old mill building. Windows could be larger. Look too small. The side towards the E. Prom has some visual interest. I like the old version better with the entrance along Montreal and separate entrances along Willis Street.

Jean McManamy – “Balconies along the side where people could grow plants would be nice.”

Peg Hillman – “I like the wrap around balconies. They add character to the building.”

Vana Carmona – “If you walk your dog 6 days a week you would see that the Montreal Street side doesn’t work.”

37-33 Montreal Street

Neighborhood Meeting Comments

Ann Landsberg – “Looks like a cheap industrial building. Can’t you add curved lines? How about making the balconies with curves. How do you break up all the straight lines?”

Patricia Ryan – “ How do you incorporate more design elements that reference the neighborhood?”

Tim Baehr – “Why do architects design buildings that a kid could draw and that look like they were made with lego blocks?”

Jean McManamy – “These look like low income housing. I want people to come and want to live there. That says, “welcome”. People who will live there year round. It just doesn’t have that “Come Live Here” look.”

Ann Landsberg –“ Could you add different color courses of shingles? What can you do to the roof edge to add more interest?”

Vana Carmona – “ Landscaping goes in last and will be the first thing that the HOA will cut out of the budget and then the side gardens will be dirt and gravel.”

Ann Landsberg – “I like Peter’s house. Why can’t you add a steep pitched roof?”

CITY OF PORTLAND
Planning & Urban Development Department

33-37 MONTREAL ST
Aug. 12, 2019

LEVEL II and LEVEL III SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST

Please submit each document as a separate PDF file
Please confirm by electronically checking the boxes to the left

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

1

GENERAL APPLICATION DOCUMENTS

Yes ☒	NA ☐	Project Description Cover Letter with detailed project description
Yes ☒	NA ☐	Completed Checklist – Level I: Site Alteration (this document)
Yes ☒	NA ☐	Right, Title and Interest Deeds, leases, or purchase and sales agreements
Yes ☐	NA ☒	Evidence of State or Federal Approvals Permits or letters of non-jurisdiction, if applicable
Yes ☒	NA ☐	Zoning Assessment Table listing required and proposed uses and dimensional standards Zoning Assessment Table
Yes ☐	NA ☒	Existing and/or Proposed Easements or Covenants, applicable. Evidence of existing easements and any proposed easements
Yes ☐	NA ☒	Waiver Requests Written request for waiver describing request and reason Waiver Table
Yes ☒	NA ☐	Financial Capability Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
Yes ☐	NA ☐	Technical Capability Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

**LEVEL II AND LEVEL III SITE PLAN
STANDARDS AND SUBMISSION CHECKLIST**
Provide assessment of compliance with standards and include
supplemental documentation, as applicable
Please Submit each document as a separate PDF file

2	TRANSPORTATION	
Yes ☐	NA ☒	Transportation Analysis- Traffic Impact (14-526 (a) 1) - Provisions for pedestrian, bicycle, vehicle, and loading circulation and incremental volume of traffic impacts - Traffic Impact Study (Technical Manual, Section 1) if applicable
Yes ☒	NA ☐	Access and Circulation (14-526 (a) 2 a) - Access and internal circulation, addressing ADA access - Access and egress impacts on traffic flows - Description and use of drive-up features, if applicable
Yes ☐	NA ☒	Loading and Servicing (14-526 (a) 2 b) - Loading and servicing needs, route and travel way geometrics for deliveries - Turning templates for delivery vehicles, if applicable
Yes ☒	NA ☐	Sidewalks (14-526 (a) 2 c) - Sidewalks and condition along street frontages and internal walkways - Engineered details for ADA ramps and public sidewalk details meeting sidewalk materials policy and ADA ramp construction details as applicable (Technical Manual, Section 1)
Yes ☐	NA ☒	Public Transit (14-526 (a) 3), if applicable - Existing available transit services - Proposed site plan design details, such as easement, pad base, and shelter
Yes ☐	NA ☒	Off-Street Parking: Vehicle & Motorcycle/Scooter) (14-526 (a) 4 a and c) - Expected parking demand, proposed parking supply, ADA parking, and applicable Zoning Requirements - Address Technical Manual standards (Section 1) for curb cut separation and parking lot layout and locate on site plan
Yes ☒	NA ☐	Bicycle Parking (14-526 (a) 4 b) - Address bicycle parking requirements and identify locations on-site - Construction details for bike racks (Technical Manual, Section 1)
Yes ☒	NA ☐	Snow Storage (14-526 (a) 4 d) Management plan for snow removal and locate snow storage areas on plan
Yes ☐	NA ☒	Traffic Demand Management (TDM) (14-526 (a) 5), if applicable Develop TDM with Trip Reduction Targets and Strategies

3	ENVIRONMENTAL AND LANDSCAPE FEATURES		
	Yes ☐	NA ☒	Preservation of Significant Natural Features (14-526 (b) 1), if applicable - Trees, plants, habitats listed on State or Federal list of endangered or threatened - High and moderate value waterfowl and wading habitat - Aquifers on Casco Bay Islands - Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) - Proposed preservation areas and protection measures - Documentation from environmental consultants, determinations from applicable state agencies
	Yes ☐	NA ☐	Landscaping and Landscape Preservation (14-526 (b) 2 a) - Preservation of trees and preservation within required zoning setbacks (Technical Manual, Section 4) - Protection measures of existing vegetation during construction - Protection measures within Shoreland Zone, if applicable
	Yes ☐	NA ☐	Site Landscaping (14-526 (b) 2 b) - Screening and buffering of service areas and between non-residential and residential uses - Planting plans with plant schedule and sizes (Technical Manual, Section 4)
	Yes ☐	NA ☒	Parking Lot Landscaping (14-526 (b) 2 b ii), if applicable Landscaped islands within parking areas (Technical Manual, Section 4)
	Yes ☒	NA ☐	Street Trees (14-526 (b) 2 b iii) - Existing Heritage or Feature Trees on site and measures to preserve - Identify street trees on the plan meeting the site plan and Technical Manual standards (Section 4) or identify alternative measures, if applicable
4	ENVIRONMENTAL AND STORMWATER		
	Yes ☒	NA ☐	Water Quality, Stormwater Management and Erosion Control (14-526 (b)3 a) - Stormwater report in compliance with Section 5 of Technical Manual and DEP Chapter 500 stormwater for basic, general and flooding standards, as applicable - Erosion control plan and measures - Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater, as applicable - Subsurface sanitary sewage disposal and groundwater protection

5	PUBLIC INFRASTRUCTURE AND SAFETY	
	Yes ☐ NA ☐	Consistency with City Master Plans (14-526 (c) 1) - Identify consistency with master plans - Proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable NA
	Yes ☒ NA ☐	Public Safety and Fire Prevention (14-526 (c)) - Address Crime Prevention through Environmental Design (CPTED) (Technical Manual, Section 3) - Emergency vehicle access - Address consistency with public safety standards (Technical Manual, Section 3) - Submit a code summary referring NFPA 1 and all Fire Department standards (Technical Manual, Section 3) – Fire Checklist
	Yes ☒ NA ☐	Availability and Adequacy of Public Utilities (14-526 (c) 3) (Technical Manual, Sections 2 & 9) - Electrical services, including providing underground services - Identify existing and proposed connections for public utilities and required public utility upgrades - Sewer line connections are required, if there is a main within 200 feet - Proposed solid waste management facilities on-site and management for the site - Written evidence of the ability to serve from utility companies, as applicable
6	SITE DESIGN	
	Yes ☒ NA ☐	Massing, Ventilations and Wind Impact (14-526 (d) 1) - NA • Wind and ventilation impacts on adjoining structures and/or adjacent public spaces. Wind study, if applicable - NA • Bulk, location or height impacts on adjoining structures - Identify and locate HVAC equipment and venting away from public spaces and residential properties - NA • Identify screening and manufacturing specifications for noise, if applicable
	Yes ☐ NA ☒	Shadows (14-526 (d) 2), if applicable Shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
	Yes ☒ NA ☐	Snow and Ice Loading (14-526 (d) 3) Building design to prevent snow and ice from loading or falling onto adjacent properties or public ways
	Yes ☐ NA ☒	View Corridors (14-526 (d) 4), if applicable Protection of designated view corridors (Portland Design Manual, Appen. 1)

Yes ☐	NA ☒	Historic Resources (14-526 (d) 5), if applicable - Identify developments within Historic Districts or affecting Designated Landmarks - Certificate of Appropriateness or other evidence - Identify Developments within 100 feet of Historic Districts or affecting Designated Landmarks. Advisory HP review may be required - Address preservation and documentation of Archaeological Resources
Yes ☐	NA ☐	Exterior Lighting (14-526 (d) 6) - Cut sheets of on-site light fixtures and any architectural or specialty lights (Technical Manual, Section 12) - Engineered details for any lights proposed in street right-of-way (Technical Manual, Section 10)
Yes ☐	NA ☒	Noise and Vibration (14-526 (d) 7) Evidence of noise levels for equipment, such as equipment specifications, to demonstrate consistency with zoning requirements
Yes ☐	NA ☒	Signage and Wayfinding (14-526 (d) 8), if applicable - Signage plan showing the location, dimensions, height and setback of all existing and proposed signs. Signs in Historic Districts are reviewed by Historic Preservation staff - Proposed commercial and directional signage on site
Yes ☒	NA ☐	Zone Related Design Standards (14-526 (d) 5) - Address Historic Preservation Design Review, if applicable - Address any applicable design review standards by zone - Address submission requirements from Design Manual, page 1, addressing neighborhood context - Description of exterior materials, color, finish, and samples
7 Construction Management Plan		
Yes ☒	NA ☐	Construction Management Plan Construction Management Document and Plan

**LEVEL II AND LEVEL III SITE PLAN
DRAWINGS CHECKLIST**

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

8

RECENT BOUNDARY SURVEY (stamped by Maine Licensed Surveyor)



Must be in compliance with Technical Manual, Section 13

9

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

Existing Conditions



Approximate location of structures on abutting property



Topography



Locate water courses



Delineate wetlands



Zone lines

Proposed Site Plan



Ground floor area, and grade elevations for all buildings

Access, Circulation, and Parking



Streets and intersections adjacent to site, any proposed geometric modifications



Location, dimensions and materials of all existing and proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines



Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas



Location and dimensions of proposed loading areas



Existing and proposed transit infrastructure with dimensions/ engineering specifications



Location of vehicle and bicycle parking with dimensions and engineering specifications

Site Considerations

- ☐ Identify snow storage areas
- ☒ Location of fire hydrants
- ☐ Location of solid waste management facilities

10

UTILITY PLAN including:

- ☒ Existing utilities on site and within public streets
- ☒ Location, sizing and directional flows of all existing and proposed utilities
- ☐ Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site
- ☒ Electric utility infrastructure

11

GRADING AND DRAINAGE PLAN including:

- ☒ Existing grades and drainage
- ☒ Proposed grades
- ☒ Proposed stormwater management meeting Technical Manual (Section 5), standards
- ☐ Location and proposed alteration of a water course
- ☐ Preservation or alteration of wetlands

12

EROSION CONTROL

- ☒ Must be in compliance with Technical Manual, Section 5

13

LANDSCAPE PLAN including:

- ☐ Existing vegetation to be preserved and preservation measures
- ☒ Proposed landscaping and buffers
- ☒ Planting schedule

14

RECORDING PLAT, if applicable

☐

If Subdivision, must be in compliance with requirements of Section 14-496 (b)

15

ARCHITECTURAL PLANS AND RENDERINGS including:

☒

Exterior building elevations, color renderings, illustrations of all sides

☒

Location and dimensions of all existing and proposed HVAC and mechanical equipment, all proposed screening

☒

Provide context drawings, if applicable (Design Manual, page 1)

☒

Floor plans

August 12, 2019

Att. B

33-37 MONTREAL STREET, PORTLAND

The following outlines how the proposed project has been designed to meet the applicable standards of the City of Portland associated with Level III: Residential Site Plan and Subdivision review.

GENERAL DOCUMENTS - PROJECT DESCRIPTION

The project site is located at the corner of Willis Street and Montreal Street, Munjoy Hill, on land that is combines the two existing lots at 33 and 37 Montreal Street.
(CBL 015 B015001 and CBL 015 B022001)

The new building will contain (9) nine residential apartments with a total enclosed area of approximately 23,400 square feet on four stories above grade. An underground basement parking garage of approximately 5,800 SF will contain 13 car parking spaces, owner's storage, mechanical rooms, trash room, and bike storage space. The building will contain a commercial elevator and be protected by a NFPA 13R sprinkler system.

The residential unit mix is expected to include the following unit mix:

- Ground floor: (1) 2 Bedroom unit, and (2) 3 Bedroom units, plus Entry lobby, and Package Room.
- 2nd floor: (2) 3 Bedroom units
- 3rd floor: (2) 3 Bedroom units
- 4th floor: (2) 3 Bedroom units



SITE LOCATION MAP

37 MONTREAL STREET
PORTLAND, MAINE

FOR:
McTIGUE CONSTRUCTION
184 MOUNTAIN ROAD
FALMOUTH, MAINE 04105

SCALE: 1"=2,000'
DATE: 7-19-2019
JOB NUMBER: 18053

DM ROMA

CONSULTING ENGINEERS

P.O. BOX 1116
WINDHAM, ME 04062
(207) 310 - 0506

Return to:

Saint John's Valley, LLC
33 Montreal Street
Portland, ME 04101

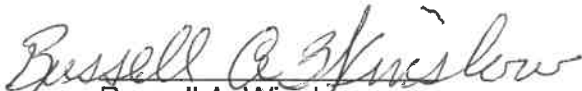
WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS: That I, **Russell A. Winslow**, of 33 Montreal Street, Portland, ME 04101, for consideration paid, grant to **Saint John's Valley, LLC**, of 8 Drew Road, South Portland, ME 04106, with WARRANTY COVENANTS:

SEE ATTACHED EXHIBIT A.

MEANING and INTENDING to describe and convey the same premises conveyed to the grantor herein by deed of Russell A. Winslow. Personal Representative of The Estate of Frances B, Winslow dated 9/13/2005 and recorded at Book 23150, Page 95 in the Cumberland County Registry of Deeds.

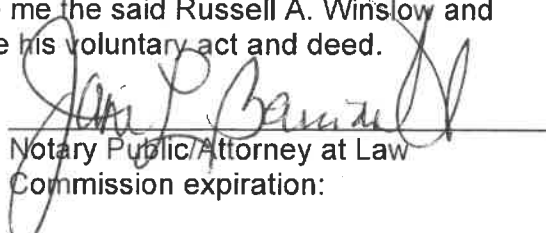
Executed this 7 day of October, 2016


Russell A. Winslow

State of Maine
County of Cumberland

10/7/2016

Then personally appeared before me the said Russell A. Winslow and acknowledged the foregoing to be his voluntary act and deed.


Notary Public/Attorney at Law
Commission expiration:

Jane Barriault Attorney at Law *Tcw*

EXHIBIT A

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

Beginning at a point in said northerly sideline of Montreal Street, distant eighty (80) feet northeasterly from the easterly side of Willis Street, and running northwesterly, parallel with said Willis Street, ninety (90) feet; thence northeasterly, parallel with said Montreal Street, forty (40) feet; thence southeasterly, parallel with the first line, ninety (90) feet to Montreal Street; thence southwesterly on Montreal Street, forty (40) feet to the starting point; being lot numbered fifty-four (54) on A. P. Marshall's Plan, recorded in the Cumberland County Registry of Deeds, Plan Book 1, Page 41.

Back 10/7/16
TLW

WARRANTY DEED
Maine Statutory Short Form

KNOW ALL MEN BY THESE PRESENTS, That **Anne-Marie O'Rourke** of Portland, in the County of Cumberland, and State of Maine, for consideration paid, grant(s) to **Kevin James Carter**, whose mailing address is 7029 Denison Road, Summerfield, NC 27358, with **WARRANTY COVENANTS**, the real property situated in **Portland**, County of **Cumberland**, and **State of Maine**, more particularly described in Exhibit A attached hereto and incorporated herein by reference.

IN WITNESS WHEREOF, this instrument has been executed this 31st day of August, 2017.

Cynthia Chadwick Granger Anne-Marie O'Rourke
Witness to all Anne-Marie O'Rourke

State of Maine
County of Cumberland, ss.

August 31, 2017

Personally appeared before me the above named **Anne-Marie O'Rourke** and acknowledged the foregoing instrument to be her free act and deed.

Cynthia Chadwick Granger
Notary Public/Attorney at Law

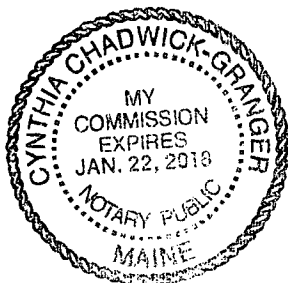


EXHIBIT A
(DEED)

A certain lot or parcel of land, situated in the City of Portland, County of Cumberland, and State of Maine, with the buildings and improvements thereon, and situated on the northerly corner of Montreal Street and Willis Street and bounded and described as follows:

Beginning at said corner formed by the northwesterly side of Montreal Street and the northeasterly side of Willis Street;

thence northeasterly by Montreal Street eighty (80) feet to a point and land now or formerly of Daniel K. Reed;

thence northwesterly by said Reed land ninety (90) feet and to lot numbered thirty-one (31) as shown on A. P. Marshall's Plan of Lots;

thence southwesterly by said lot numbered thirty-one (31) eighty (80) feet to Willis Street;

thence southeasterly by Willis Street ninety (90) feet to the point of beginning.

For title, reference may be had to a deed recorded in the Cumberland Registry of Deeds in Book 8708, Page 61. Mary C. O'Rourke deceased on September 21, 2012, leaving Anne-Marie O'Rourke as surviving joint tenant.

Received
Recorded Register of Deeds
Sep 01, 2017 10:56:24A
Cumberland County
Nancy A. Lane



MARK V. STASIUM
SENIOR VICE PRESIDENT
Direct Dial: 207.699.3392
mstasium@camdennational.com

July 22, 2019

City of Portland Planning Division
389 Congress Street, 4th Floor
Portland, ME 04101

Re: 37 Montreal Street LLC

Dear Planning Board Members:

I am writing regarding the proposed residential building being proposed by 37 Montreal Street LLC located at Montreal and Willis Street in Portland.

I have known the principal member of the LLC for 20+ years and have financed a number of real estate investments for the individual. The principal member is an experienced developer and commercial real estate owner and manager and exhibits strong financial capacity. We provide financing for a number of the individual's properties, and all loan obligations and deposit accounts with Camden have been handled in a fully satisfactory manner.

We have reviewed the preliminary information for the proposed project, and based on our review, Camden is highly interested in providing financing for the project. Our interest remains subject to full credit underwriting by Camden's credit department, approval from Camden's senior loan officers, and receipt of all municipal permits by the developer.

Please do not hesitate to contact me if you have further questions.

Very Truly Yours,

A handwritten signature in blue ink, appearing to read "Mark V. Stasium", is written over a faint, larger version of the signature.

Mark V. Stasium
Senior Vice President





THE PRIVATE BANK

300 N. Greene Street
Suite 600
D0134-065
Greensboro, NC 27401-2167

July 22, 2019

To Whom It May Concern:

I am writing this letter on behalf of 37 Montreal, LLC in reference to the upcoming development of 9 condominiums located on Montreal St in Portland, Maine.

Wells Fargo (WF) has an ongoing lending and wealth banking relationship with several of the principals in 37 Montreal, LLC. WF is currently the lender of the property located at 37 Montreal St. To date, the principals of 37 Montreal, LLC have proven to be a highly qualified, effective and professional team.

We are aware of the new development located at 33-37 Montreal St and would be pleased to entertain financing requests from 37 Montreal, LLC for this project and other projects in the future.

Should you have any questions, please feel free to contact me at (336) 378-4108.

Regards,

Ryan Newkirk

Portland, Maine



Yes. Life's good here.

Planning & Urban Development Department

33-37 MONTREAL ST
Aug. 12, 2019
ZONING ANALYSIS Relevant Zone(s) R6

Munjoy Hill Neighborhood Conservation District Overlay

All Projects:

	Required	Proposed
Lot Size	2,000 sf min.	10,800 sf
Area Per Dwelling Unit	725 sf min.	1,200 sf
Minimum Street Frontage	20' min.	90' Willis St
Front Yard Minimum	5'-0"	5'-0"
Front Yard Maximum		
Rear Yard	15'-0" (>35' ht.)	>30'-0"
Yard Right		
Yard Left	10'-0" (>35' ht.)	10'-0"
Side Street Setback	5'-0" (>35' ht.)	5'-0" / 3'-0"
Step Back	15' rear / 10' side	>30' rear/10' side
Maximum Lot Coverage	60% max.	53%
Minimum Lot Coverage		
Maximum Height	45' above ave. gr.	44'-6"
Open Space	20% min.	26%
Maximum Impervious Area		
Pavement Setback		
Floor Area Ratio		
Off Street Parking Spaces	1 space per unit	1.4 per unit
Loading Bays		
Other 1		
Other 2		
Other 3		

Planned Residential Unit Developments (PRUD) Requirements

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

Affordable Housing Density Bonuses (if applicable)

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

33-37 MONTREAL STREET – CONSTRUCTION MANAGEMENT PLAN – McTIGUE CONSTRUCTION

CONSTRUCTION MANAGEMENT PLAN

The following is the Construction Management Plan (CMP) for the 37 Montreal Street Condominium project located at the NE corner of Montreal Street and Willis Streets. This new building will consist of 9 homes over 4 floors with 13 parking spaces of underground parking. The building site is a tight neighborhood space and will include the demolition of 3 existing structures located at 37 and 33 Montreal. McTigue Construction is using a phased approach to the construction management of this project:

Phase I – Demolition (September/October 2019)

Phase II – Excavation and placement of footings, street openings for utilities (October 2019)

Phase III – Placement of foundation and the completion of the building shell (OCT-NOV 2019)

Phase IV – Completion of interior, exterior cladding, roofing, mechanicals, etc. through final completion of project (14 months from the start of Phase II)

A. Construction Management Principles

All phases of the proposed CMP are designed to minimize impacts from the construction activities on the Munjoy Hill Neighborhood and the immediate neighbors such as noise, vibrations, ground movement, truck traffic, and other construction related factors. The following control measures will be implemented:

- a. **Access Control** - Construction Fencing will be used to control pedestrian access to the site. The temporary fence will remain in place for all phases of the construction process. Signage will be utilized to inform any workers and visitors of safety requirements and risks.
- b. **Traffic Control** –
 - i. At times neighborhood traffic will be impacted by lane closures for the placement of utilities, pouring of concrete, debris removal and delivery of construction supplies. Proper signage (and if necessary active traffic direction) will be provided for appropriate direction of traffic and to insure minimal disruption and proper safety maintained for pedestrians, bikers and vehicles. There is fairly minimal traffic on both of these streets.
 - ii. We anticipate the closure of one lane of Montreal Street for approximately 2 weeks for sewer, water, gas, electricity. Other trenching activities along Willis and Montreal Streets will have proper traffic control on an individual basis and none are projected to last more than a week.
 - iii. Construction activity requires enclosing the street parking spots located immediately in front of the project on Willis and Montreal Streets. This improves safety for pedestrians, drivers and their automobiles. Concrete pumping trucks and heavy equipment will be required for the first three phases of construction. Some of these parking spots can most likely be freed up after Phase III.

B. Development Review of Construction Management Plan

McTigue Construction submits this CMP, which outlines the safety measures and logistics planning being undertaken to protect the City and its' residents and workers during construction of this project for review and approval as part of the Level III Site Plan Process. Minimizing impacts to areas surrounding the building/construction site will be primary considerations in the process.

C. Performance guarantees, inspection fees, preconstruction meeting, and permits

- a. **Street Opening and Street Occupancy Permits:**
 - i. A Street Opening permit will be required. The contractor will mark out for DigSafe and contact the city to schedule the work associated with the street opening for the utility work required to supply the new building.
 - ii. All street work will be performed in accordance with the city of Portland requirements for patching and repairing pavement.
 - iii. A Street Occupancy Permit will be required
- b. **Blasting: None Known to be Required**
- c. **Building Code:** McTigue Construction will employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from IBC 2009.

D. Construction Administration and Communication

- a. 24 Hour Contacts
 - o Site Supervisor: Robert McTigue 207-730-1083
 - o Project Manager: Tim Wells 207-807-3876
- b. Construction Signage posted on the site with Contact Information for Contractor will be posted on the site security fencing along with the safety information upon project start.
- c. Communication strategies
 - 1. McTigue Construction along with the Development team will be sending out correspondence to abutters prior to the start of construction to let them know what date we will be starting, time of day for work and what to expect during the construction process. We will also provide a number to call to report any complaints or concerns during construction.
 - 2. McTigue Construction will provide a communication board on our site fencing that will be updated from time to time to provide the neighborhood with a general sense of what will be happening on the site if it has anything to do with noise or major deliveries from construction vehicular traffic.
 - 3. All construction site signage is temporary and shall be removed at project completion.

E. Construction Schedule

- a. The contractor shall submit a schedule or time line for the construction project, including any Phasing, prior to construction. Construction is anticipated to start in October 2019.

- b. Hours of Construction. Construction may occur during the daytime hours as defined in Section 17-18. Construction Activities for Building permit (Attachment 1) and Section 25-129. Noise, dust and debris (Attachment 2).
- c. Typical hours of operation for the job site will be 7:00am – 7:00pm. From time to time there will be off hours work to maintain schedule or due to items like utility work. This work is intended to be minimal throughout the project.
- c. Extended Hours or Night Work: Pursuant to Section 17-18, this section not apply to emergency utility work or “*Situations where the public works authority or the office of building inspections determines that the construction activity is of a unique character which cannot reasonably be completed or performed during the permitted hours and which is not of a recurring nature, provided that prior to engaging in such activity the contractor or his representatives gives notice of the time and scope of such proposed activity, the notice to be given in a manner approved by the public works authority.*”
- d. Material Deliveries: Material deliveries will be scheduled through McTigue Construction during the hours of construction. Trucks will be directed onsite through the security fencing.

F. Security & Public Safety

- a. The Construction Management Plan will depict all proposed fencing or other barriers and access gates (with knox locking devices) with the intent of separating pedestrian and vehicle circulation from the construction site. *See attached site security and staging plan for details.*
- b. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16. *Safeguarding Construction, Alteration, and Demolition Operations.*
- c. Fire Safety Program. An overall construction of demolition fire safety program shall be developed. Essential items to be emphasized include the following:
 - Good Housekeeping
 - On-site security
 - Installation of new fire protection systems as construction progresses
 - Preservation of existing systems during demolition
 - Organization and training of an on-site fire brigade
 - Development of a pre-fire plan with the local fire department
 - Rapid communication
 - Consideration of special hazards resulting from previous occupancies
 - Protection of existing structures and equipment from exposure fires resulting from construction, alteration, and demolition operations
- d. Blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation of Explosives in Portland’s Technical Manual.
- e. Any proposed temporary security lighting shall be shown on CMP and all fixtures shall be full cutoffs.

G. Construction Permitting and Traffic Control Plans

- a. Construction Activity in Public Streets:
 - Construction activity in the public right-of-way is controlled by Chapter 25 Article VII of the City Code of Ordinances. Required licenses and permits, restrictions on activity, and fees & area are outlined in that Chapter. Rules and Regulations for Excavation Activity are available through the Street Opening Clerk at the Department of Public Works. At no time can construction activity including delivery vehicles close or block streets or affect public safety access without prior notice and approval of the Department of Public Works.
- b. Sewer and Stormwater:
 - Sewer and stormwater water system connections are controlled by Chapters 24 and 32 of the City Code of Ordinance. Required permits for new connections and/or abandonment of existing connections are available through the Street Opening Clerk at the Department of Public Works. Rules and Regulations for these utility systems are available through the City Engineer's office of the Department of Public Works and in Section II of the Technical Manual.
- c. Traffic Control Plans:
 - Construction activity that impacts the existing public street system must be controlled to protect the safety of the construction workers and all modes of the traveling public. Projects are required to submit a satisfactory 'maintenance of traffic' (MOT) plan prior to any site plan, subdivision, or street opening permit approval. MOT plans may be required for projects that have impacts on local streets.
 - Maintenance of Traffic (MOT) plans shall provide for the safe passage of the public through or along the construction work zone. On a case-by-case basis, applicants may be allowed to close a street and/or detour a mode of traffic when absolutely necessary for safety. MOT plans shall employ the appropriate techniques and devices as called for in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:
 - Construction speed signing may be used as needed to slow traffic
 - Traffic Control signs shall not be placed where they are an obstruction to bicycles or pedestrians.
 - In some situations, flaggers may be required.
 - Police details may be required at lighted intersections and may be requested by the City's transportation engineer or his designee.
 - All existing modes of travel in work zone area shall be accommodated if impacted by the activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works. The MOT should also address on-street parking impacts, including deliveries and parking for adjoining businesses and property owners, analysis of roadway capacity or diversion capacity if street closure or change to roadway capacity is required, and coordination with other on-going or future construction or utility projects in the vicinity.

33-37 MONTREAL STREET – CONSTRUCTION MANAGEMENT PLAN – McTIGUE CONSTRUCTION

- Traffic control of bicycle and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready for safe operation. Traffic control will not be removed to allow auto travel at the expense of bicycle and pedestrians.
- Barrier systems utilized to separate the construction activity from the public street and /or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.
- Maintain 16' clear in roadway between fencing or any barricades to permit the passage of fire trucks and other emergency vehicles.

H. Site Management and Controls- The Contractor shall be responsible for maintaining the site in a safe condition including the following:

- a. solid waste dumpster shall be located on site for the disposal of trash and debris.
- b. Montreal and Willis Street right of ways shall be swept regularly to control the tracking of mud to adjacent public streets
- c. Dust controls- The construction shall comply with Portland's requirements under Section 25-129 on Noise, dust and debris (Attachment 2).
- d. Noise: The construction shall comply with Portland's requirements under Section 17- 18 of the City Code (Attachment 1) and Section 25-129 on Noise, dust and debris (Attachment 2).
- e. Rodent Control will be provided, if applicable, by a professional exterminator and consistent with Chapter 22 of the City Code.
- f. Snow Removal: Pursuant to Section 25-173 Contractors to ensure a safe means of travel within the work zone.
 - Snow/Ice removal to commence automatically from 1" of snow and up
 - Remove snow as needed within the work zone, including parking spaces & not to block any driveways or site lines with piles of snow
 - Clear all walks and ramps within the work zone
 - Sand and Salt as needed
 - Clear all basin or drainage to help snow melt
 - This is seven days a week

9. Erosion Control and Preservation of Trees

- a. McTigue Construction shall install all erosion and sedimentation controls as depicted on the approved erosion and sedimentation control plan prior to the pre-construction meeting for inspection by the City. The contractor shall regularly inspect the control measures, no less than weekly and after significant storm events, and maintain any installed temporary or permanent stormwater management systems in working order. The contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection or the U.S. Environmental Protection Agency upon request.
- b. McTigue Construction shall maintain all tree and landscaping preservation measures as depicted on the landscaping plan (Exhibit) within the area of construction.
- c. The storage of materials shall be identified and avoid being located under/near trees.

10. Construction Staging Area

33-37 MONTREAL STREET – CONSTRUCTION MANAGEMENT PLAN – McTIGUE CONSTRUCTION

- a. Please see Construction Site Plan for locations of the material staging areas, the location on onsite truck delivery holding areas, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters and open storage areas.
- b. **Delivery Truck Holding Areas On-Site:** Deliveries will be carefully scheduled so that there is always adequate on-site area for the holding of the trucks until they can be unloaded. Once at the site all vehicles will be brought within the fence line and will make every attempt to avoid queueing on public streets. **Concrete pumping trucks will have to utilize street area to unload.**
- c. **Delivery Truck Holding Areas Off-Site:** In the event that adequate on-site area for holding of trucks is not available, an off-site marshalling area will be utilized for trucking. The designated off-site location will be identified in the construction management plan.

K. Parking During Construction

- a. Construction Parking: Adequate parking for construction workers shall be provided on site. Construction workers shall abide by all posted on-street parking restrictions. The parking arrangements shall be included in the construction management plan.
- b. Truck Routes and Volumes: The Construction Management Plan shall address the designated truck routes and expected truck volumes.

L. Special Measures as Necessary – No special measures are deemed needed



TRANSPORTATION

The following outlines how the proposed project at 33/37 Montreal Street has been designed to meet the applicable standards of the City of Portland associated with Level III: Residential Site Plan and Subdivision review.

Section 14-526 (a)(1) Transportation Analysis – Traffic Impact

The proposed project design and layout considered traffic impact and integrated provisions for traffic improvements through the design. The project site proposes to eliminate the existing curb cut for the driveway at 37 Montreal Street, and will utilize the existing curb cut with proposed driveway improvements at the same location of the existing curb cut for the driveway at 33 Montreal Street. The decision to abandon and eliminate the curb cut at 37 Montreal Street will effectively move the traffic egress and ingress for the site to the north approximately 108 linear feet north of the intersection at Willis Street & Montreal Street. Additionally, the curb cut in Willis Street, serving 37 Montreal Street will also be abandoned and sidewalk and curb will be installed in place.

The project design includes the improvements of a new 14-foot wide driveway, leading to underground parking areas. It is anticipated that the proposed driveway will provide adequate access to the site from Montreal Street and during peak traffic hours the project design should allow for traffic to exit from Montreal Street freely, as the proposed parking area and driveway will provide ample queuing such that Montreal Street will not be congested when vehicles try and enter the site. For vehicles leaving the site, the project layout and design will provide ample queuing on-site during peak traffic times with multiple vehicles trying to exit, and therefore should not impact traffic flow in Montreal Street. Additionally, with the proposed access to the site more than 100-ft from the intersection of Willis Street and Montreal Street, there will be less potential for conflicting turning movements with vehicles exiting the site and vehicles negotiating the four-way intersection.

Section 14-526 (a) (2) (c) – Sidewalks

The existing project site currently has existing sidewalk (brick with granite curbing) along the Willis Street and Montreal Street frontage. The existing sidewalk will be protected in place where possible and any disturbance due to improvements (driveways, site improvements, utility connections, etc.) will be conditioned to re-lay or re-construct the sidewalk in accordance with Section 14-498 and 14-499 of the City of Portland Code.

Additionally, on-site provisions for pedestrian access include extending sidewalk from Montreal Street at the proposed driveway location into the site and to the proposed lower level building entries and parking garage. Along Willis Street, the project proposes to construct the building

main entrance. Improvements along Willis Street include a main building entry stairway and integrated access ramp leading to the first level foyer, an entry/exit to the building's proposed stairwell, elimination of an existing curb cut, and construction of sidewalk to connect proposed improvements to existing sidewalk.

Section 14-526 (a) (4) (d) – Snow Storage

Snow storage for the project site appears adequate, and the project design and layout provide an area of approximately 300 sq. ft. located adjacent to the proposed driveway within the proposed flat yard area near the northwesterly corner of the site. The snow storage will not conflict with the project site access or pedestrian walkways. The snow storage area will be located of lawn/landscaped ground cover and will drain to the proposed catch basin, and will effectively treat any snow melt runoff with the subsurface chamber system (proposed StormTech SC-310 chamber system) prior to discharging from the site.



ENVIRONMENTAL AND STORMWATER

The following outlines how the proposed project at 33/37 Montreal Street has been designed to meet the applicable standards of the City of Portland associated with Level III: Residential Site Plan and Subdivision review.

Section 14-526 (b)(3) Water Quality, Stormwater Management and Erosion Control Standards

Watershed – The project site drains either to the northeast along the curblin in Montreal Street or to the north to the abutting property. To our knowledge this is a combined sewer and storm drain system. The project site is not tributary to an Urban Impaired Stream as defined by Maine DEP Chapter 502.

Sewage Disposal – The building will be connected to the public sewer in Montreal Street.

Soil Conditions – A Medium Intensity Soils Map is included as Attachment D. The soils are classified by the US Department of Agriculture Natural Resources Conservation Service as a Hinckley Loamy Sand, which has a Hydrologic Soil Rating of “A”. A geotechnical investigation was performed by Summit Geoengineering Services for the project site and is contained in Attachment C.

Flooding Standards - The project has been designed to incorporate a formal catch basin and storm drain collection system for stormwater management, which will flow into a Stormtech Chamber System and will retain the 1” storm event allowing the runoff to infiltrate into the ground slowly providing both stormwater treatment and quantity control. The flow generated by the larger storm events will spill over a concrete weir panel within the outlet control structure and will be conveyed in a relatively small storm drain, connecting into the existing sewer system which we believe is a combined system. The existing 10” sewer main should have the capacity to convey this flow due to the relatively steep slope and since it located at the beginning of the sewer main run.

An analysis was prepared to determine if there were any increases in overland peak rates of runoff onto abutting properties. There are two distinct locations of stormwater discharge from the property. Study Point 1 represents the discharge point at the north of the property. Study Point 2 is located along the gutter line of Montreal Street, just downstream of the projects proposed driveway location. As a result of the infiltration of the stormwater collection system and the overflow pipe of this system connecting into the combined sewer system, the peak rates of runoff have effectively been maintained or reduced from the pre-developed condition. The output data from the HydroCAD model has been included in Attachment A and the pre- and post-development watershed maps have been included in the design plan set.

Basic Standards – The plan set includes erosion control measures to be implemented temporarily during construction and permanently upon completion of the project. The erosion control plan was prepared based on the methodology outlined in the Maine Department of Environmental Protection publication titled “Maine Erosion and Sediment Control Best Management Practices Manual for Designers and Engineers” dated October 2016.

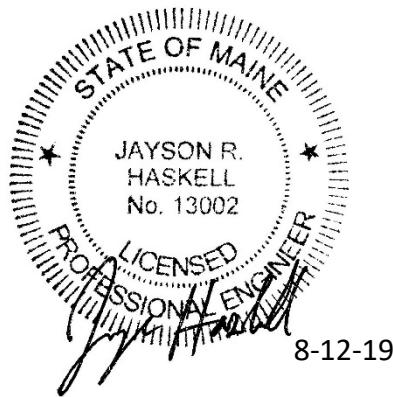
General Standards- The stormwater management plan includes the construction of an underground stormwater storage and treatment system that consists of a Stormtech Chamber System designed to infiltrate the required water quality volume. The system has been designed to effectively collect, infiltrate and provide treatment of approximately 97% of the total new impervious area and approximately 88% of the total new developed area, exceeding the requirement as indicated in the General Standards of MDEP Chapter 500. Calculations for the sizing of the stormwater components are included as Attachment B. Test pit analysis of the subsurface soils in the vicinity of the proposed Stormtech Chamber System is included as Attachment C. An Inspection, Maintenance and Housekeeping Plan has also been prepared for the project and has been included in this report as Attachment E.

Prepared by:

DM Roma Consulting Engineers

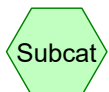
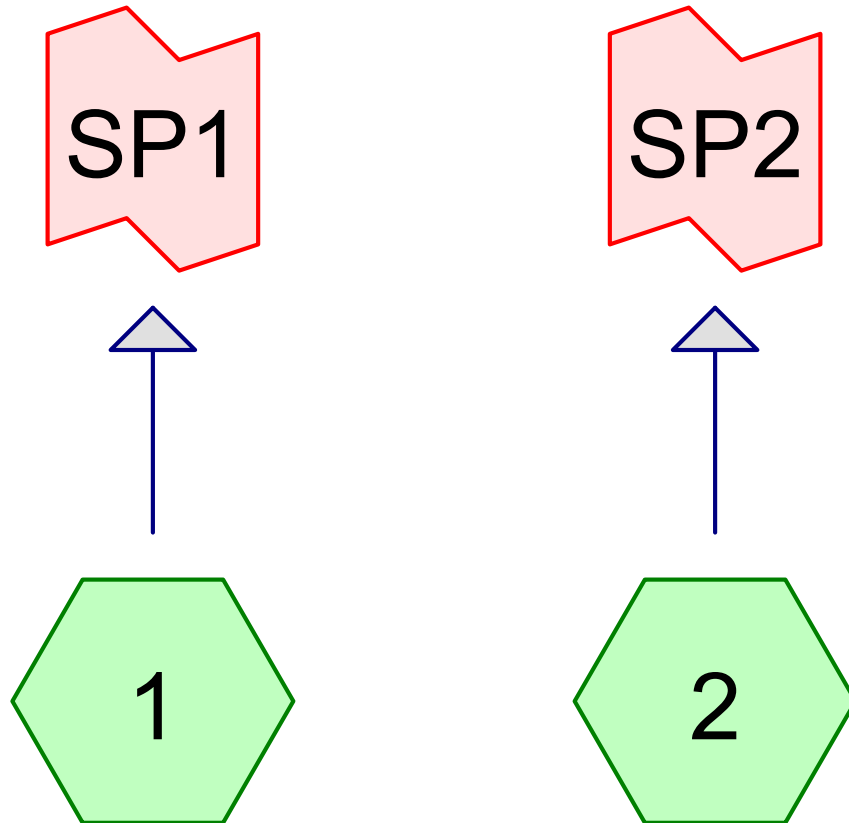


Jayson R. Haskell, P.E.
Southern Maine Regional Manager



ATTACHMENT A

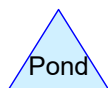
HYDROCAD MODEL OUTPUT



Subcat



Reach



Pond



Link

Routing Diagram for 18053-PRE

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18053-PRE*Type III 24-hr 25-Year Rainfall=5.80"*

Prepared by DM Roma Consulting Engineers

Printed 8/12/2019

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Page 2

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1:

Runoff Area=11,310 sf 49.04% Impervious Runoff Depth=2.47"
Flow Length=129' Tc=6.0 min CN=68 Runoff=0.73 cfs 2,326 cf

Subcatchment2:

Runoff Area=3,595 sf 92.16% Impervious Runoff Depth=4.99"
Flow Length=151' Tc=6.0 min CN=93 Runoff=0.44 cfs 1,494 cf

Link SP1:

Inflow=0.73 cfs 2,326 cf
Primary=0.73 cfs 2,326 cf

Link SP2:

Inflow=0.44 cfs 1,494 cf
Primary=0.44 cfs 1,494 cf

Summary for Subcatchment 1:

Runoff = 0.73 cfs @ 12.10 hrs, Volume= 2,326 cf, Depth= 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	3,540	98	Ex. roofs,
*	366	98	Ex. paved roads & sidewalk
*	1,640	98	Ex. paved driveways
	5,764	39	>75% Grass cover, Good, HSG A
	11,310	68	Weighted Average
	5,764		50.96% Pervious Area
	5,546		49.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	40	0.1215	0.20		Sheet Flow, Seg A to Seg B Grass: Dense n= 0.240 P2= 3.10"
0.2	52	0.0991	5.07		Shallow Concentrated Flow, Seg B to Seg C Unpaved Kv= 16.1 fps
0.3	26	0.0068	1.67		Shallow Concentrated Flow, Seg C to Seg D Paved Kv= 20.3 fps
0.0	11	0.2052	7.29		Shallow Concentrated Flow, Seg D to Seg E Unpaved Kv= 16.1 fps
3.9	129	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2:

Runoff = 0.44 cfs @ 12.09 hrs, Volume= 1,494 cf, Depth= 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	0	98	Ex. roofs,
*	3,313	98	Ex. paved roads & sidewalk
*	0	98	Ex. paved driveways
	282	39	>75% Grass cover, Good, HSG A
	3,595	93	Weighted Average
	282		7.84% Pervious Area
	3,313		92.16% Impervious Area

18053-PRE

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

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Page 4

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	47	0.0731	1.96		Sheet Flow, Seg A to Seg B Smooth surfaces n= 0.011 P2= 3.10"
0.1	62	0.0896	13.28	45.66	Trap/Vee/Rect Channel Flow, Seg B to Seg C Bot.W=0.00' D=0.50' Z= 0.1 & 27.4 ' Top.W=13.75' n= 0.013 Asphalt, smooth
0.0	21	0.0950	13.97	68.79	Trap/Vee/Rect Channel Flow, Seg C to Seg D Bot.W=0.00' D=0.50' Z= 13.0 & 26.4 ' Top.W=19.70' n= 0.013 Asphalt, smooth
0.0	21	0.0892	13.24	43.86	Trap/Vee/Rect Channel Flow, Seg D to Seg E Bot.W=0.00' D=0.50' Z= 0.1 & 26.4 ' Top.W=13.25' n= 0.013 Asphalt, smooth
0.5	151	Total, Increased to minimum Tc = 6.0 min			

Summary for Link SP1:

Inflow Area = 11,310 sf, 49.04% Impervious, Inflow Depth = 2.47" for 25-Year event
 Inflow = 0.73 cfs @ 12.10 hrs, Volume= 2,326 cf
 Primary = 0.73 cfs @ 12.10 hrs, Volume= 2,326 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Summary for Link SP2:

Inflow Area = 3,595 sf, 92.16% Impervious, Inflow Depth = 4.99" for 25-Year event
 Inflow = 0.44 cfs @ 12.09 hrs, Volume= 1,494 cf
 Primary = 0.44 cfs @ 12.09 hrs, Volume= 1,494 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

18053-PRE*Type III 24-hr 2-Year Rainfall=3.10"*

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Page 1

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1:

Runoff Area=11,310 sf 49.04% Impervious Runoff Depth=0.68"
Flow Length=129' Tc=6.0 min CN=68 Runoff=0.17 cfs 640 cf

Subcatchment2:

Runoff Area=3,595 sf 92.16% Impervious Runoff Depth=2.35"
Flow Length=151' Tc=6.0 min CN=93 Runoff=0.22 cfs 704 cf

Link SP1:

Inflow=0.17 cfs 640 cf
Primary=0.17 cfs 640 cf

Link SP2:

Inflow=0.22 cfs 704 cf
Primary=0.22 cfs 704 cf

18053-PRE*Type III 24-hr 10-Year Rainfall=4.60"*

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Page 2

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1:

Runoff Area=11,310 sf 49.04% Impervious Runoff Depth=1.60"
Flow Length=129' Tc=6.0 min CN=68 Runoff=0.46 cfs 1,508 cf

Subcatchment2:

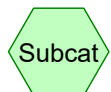
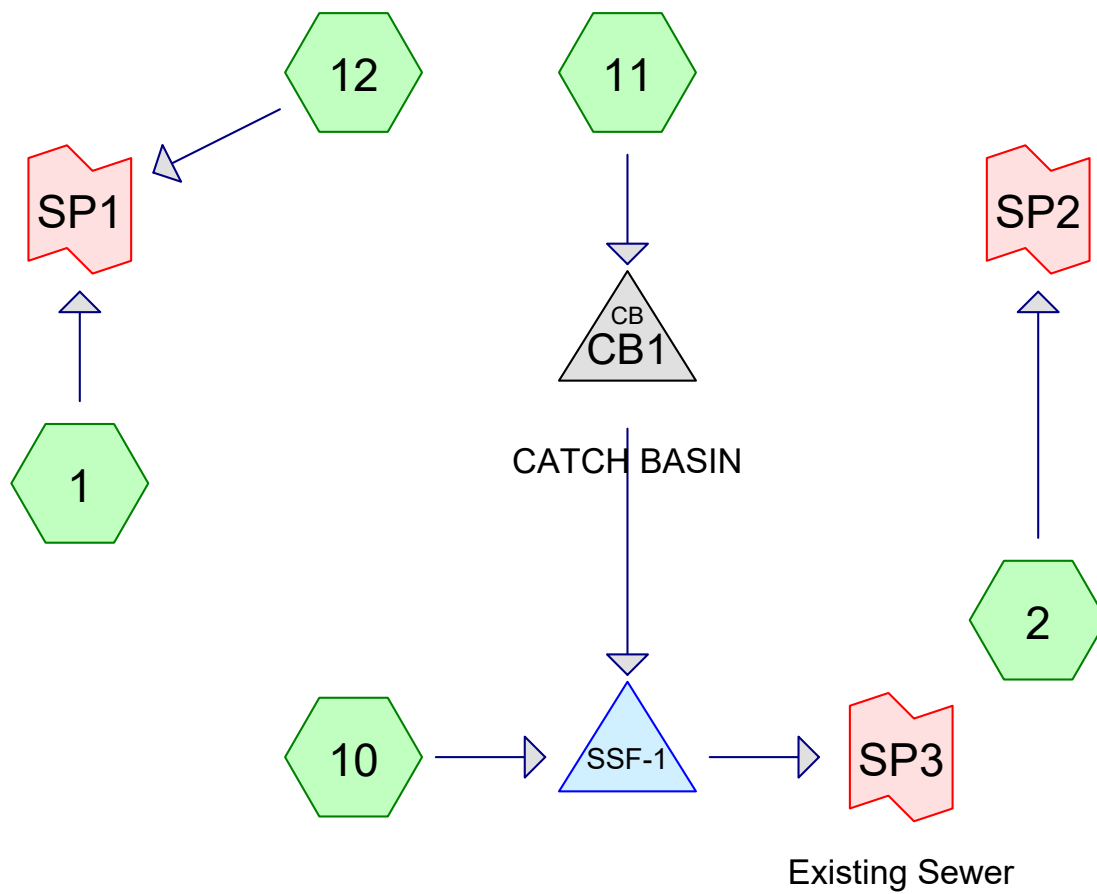
Runoff Area=3,595 sf 92.16% Impervious Runoff Depth=3.81"
Flow Length=151' Tc=6.0 min CN=93 Runoff=0.34 cfs 1,140 cf

Link SP1:

Inflow=0.46 cfs 1,508 cf
Primary=0.46 cfs 1,508 cf

Link SP2:

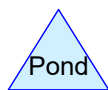
Inflow=0.34 cfs 1,140 cf
Primary=0.34 cfs 1,140 cf



Subcat



Reach



Pond



Link

Routing Diagram for 18053-POST

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18053-POST*Type III 24-hr 25-Year Rainfall=5.80"*

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Time span=0.00-96.00 hrs, dt=0.05 hrs, 1921 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1:	Runoff Area=570 sf 56.32% Impervious Runoff Depth=2.83" Flow Length=83' Tc=6.0 min CN=72 Runoff=0.04 cfs 134 cf
Subcatchment 2:	Runoff Area=3,470 sf 95.48% Impervious Runoff Depth=5.21" Flow Length=151' Tc=6.0 min CN=95 Runoff=0.43 cfs 1,507 cf
Subcatchment 10:	Runoff Area=8,015 sf 81.78% Impervious Runoff Depth=4.33" Flow Length=72' Tc=6.0 min CN=87 Runoff=0.89 cfs 2,889 cf
Subcatchment 11:	Runoff Area=1,598 sf 72.72% Impervious Runoff Depth=3.80" Flow Length=45' Tc=6.0 min CN=82 Runoff=0.16 cfs 507 cf
Subcatchment 12:	Runoff Area=716 sf 5.31% Impervious Runoff Depth=0.55" Flow Length=23' Tc=6.0 min CN=42 Runoff=0.00 cfs 33 cf
Pond CB1: CATCH BASIN	Peak Elev=123.41' Inflow=0.16 cfs 507 cf 10.0" Round Culvert x 2.00 n=0.013 L=1.6' S=0.0437 ' Outflow=0.16 cfs 507 cf
Pond SSF-1:	Peak Elev=124.93' Storage=938 cf Inflow=1.05 cfs 3,396 cf Discarded=0.00 cfs 956 cf Primary=0.92 cfs 2,439 cf Outflow=0.92 cfs 3,396 cf
Link SP1:	Inflow=0.05 cfs 167 cf Primary=0.05 cfs 167 cf
Link SP2:	Inflow=0.43 cfs 1,507 cf Primary=0.43 cfs 1,507 cf
Link SP3: Existing Sewer	Inflow=0.92 cfs 2,439 cf Primary=0.92 cfs 2,439 cf

18053-POST

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

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Summary for Subcatchment 1:

Runoff = 0.04 cfs @ 12.09 hrs, Volume= 134 cf, Depth= 2.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
* 95	98	Existing Pavement
* 226	98	Proposed Concrete
* 179	39	Proposed Landscape A
* 70	39	Existing Landscape
570	72	Weighted Average
249		43.68% Pervious Area
321		56.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	15	0.0199	0.08		Sheet Flow, Seg A to Seg B Grass: Dense n= 0.240 P2= 3.10"
0.6	68	0.0516	1.83		Sheet Flow, Seg B to Seg C Smooth surfaces n= 0.011 P2= 3.10"
3.8	83	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2:

Runoff = 0.43 cfs @ 12.09 hrs, Volume= 1,507 cf, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
* 3,313	98	Existing Pavement
* 157	39	Proposed Landscape A
3,470	95	Weighted Average
157		4.52% Pervious Area
3,313		95.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	47	0.0731	1.96		Sheet Flow, Seg A to Seg B Smooth surfaces n= 0.011 P2= 3.10"
0.1	62	0.0896	13.28	45.66	Trap/Vee/Rect Channel Flow, Seg B to Seg C Bot.W=0.00' D=0.50' Z= 0.1 & 27.4 ' Top.W=13.75' n= 0.013 Asphalt, smooth
0.0	21	0.0950	13.97	68.79	Trap/Vee/Rect Channel Flow, Seg C to Seg D Bot.W=0.00' D=0.50' Z= 13.0 & 26.4 ' Top.W=19.70' n= 0.013 Asphalt, smooth
0.0	21	0.0892	13.24	43.86	Trap/Vee/Rect Channel Flow, Seg D to Seg E Bot.W=0.00' D=0.50' Z= 0.1 & 26.4 ' Top.W=13.25' n= 0.013 Asphalt, smooth

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

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0.5 151 Total, Increased to minimum Tc = 6.0 min

Summary for Subcatchment 10:

Runoff = 0.89 cfs @ 12.09 hrs, Volume= 2,889 cf, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	5,688	98	Proposed Rooftop
*	867	98	Proposed Concrete
*	1,460	39	Proposed Landscape A
	8,015	87	Weighted Average
	1,460		18.22% Pervious Area
	6,555		81.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.0	7	0.0100	2.86	0.56	Pipe Channel, Seg A to Seg B 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.013
0.1	36	0.0833	11.59	6.32	Pipe Channel, Seg B to Seg C 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Corrugated PE, smooth interior
0.1	26	0.0170	5.24	2.86	Pipe Channel, Seg C to Seg D 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Corrugated PE, smooth interior
0.0	3	0.0300	6.96	3.79	Pipe Channel, Seg D to Seg E 10.0" Round Area= 0.5 sf Perim= 2.6' r= 0.21' n= 0.013 Corrugated PE, smooth interior
0.2	72	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 11:

Runoff = 0.16 cfs @ 12.09 hrs, Volume= 507 cf, Depth= 3.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	1,033	98	Proposed Pavement
*	129	98	Proposed Concrete
*	436	39	Proposed Landscape A
	1,598	82	Weighted Average
	436		27.28% Pervious Area
	1,162		72.72% Impervious Area

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

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	5	0.0566	0.10		Sheet Flow, Seg A to Seg B Grass: Dense n= 0.240 P2= 3.10"
0.1	40	0.0600	4.97		Shallow Concentrated Flow, Seg B to Seg C Paved Kv= 20.3 fps
1.0	45	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 12:

Runoff = 0.00 cfs @ 12.29 hrs, Volume= 33 cf, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
* 678	39	Proposed Landscape A
* 38	98	Proposed Concrete
716	42	Weighted Average
678		94.69% Pervious Area
38		5.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	11	0.3300	0.33		Sheet Flow, Seg A to Seg B Grass: Short n= 0.150 P2= 3.10"
1.8	12	0.0200	0.11		Sheet Flow, Seg B to Seg C Grass: Short n= 0.150 P2= 3.10"
2.4	23	Total, Increased to minimum Tc = 6.0 min			

Summary for Pond CB1: CATCH BASIN

Inflow Area = 1,598 sf, 72.72% Impervious, Inflow Depth = 3.80" for 25-Year event

Inflow = 0.16 cfs @ 12.09 hrs, Volume= 507 cf

Outflow = 0.16 cfs @ 12.09 hrs, Volume= 507 cf, Atten= 0%, Lag= 0.0 min

Primary = 0.16 cfs @ 12.09 hrs, Volume= 507 cf

Routing by Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

Peak Elev= 123.41' @ 12.09 hrs

Flood Elev= 126.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	123.27'	10.0" Round Culvert X 2.00 L= 1.6' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 123.27' / 123.20' S= 0.0437 ' S= 0.0437 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=0.16 cfs @ 12.09 hrs HW=123.41' (Free Discharge)

1=Culvert (Inlet Controls 0.16 cfs @ 1.28 fps)

Summary for Pond SSF-1:

Inflow Area = 9,613 sf, 80.28% Impervious, Inflow Depth = 4.24" for 25-Year event
 Inflow = 1.05 cfs @ 12.09 hrs, Volume= 3,396 cf
 Outflow = 0.92 cfs @ 12.13 hrs, Volume= 3,396 cf, Atten= 12%, Lag= 2.5 min
 Discarded = 0.00 cfs @ 7.20 hrs, Volume= 956 cf
 Primary = 0.92 cfs @ 12.13 hrs, Volume= 2,439 cf

Routing by Stor-Ind method, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs / 2

Peak Elev= 124.93' @ 12.13 hrs Surf.Area= 796 sf Storage= 938 cf

Plug-Flow detention time= 520.5 min calculated for 3,396 cf (100% of inflow)

Center-of-Mass det. time= 520.2 min (1,318.2 - 798.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	122.65'	146 cf	4.83'W x 38.80'L x 2.33'H Field A 438 cf Overall - 74 cf Embedded = 364 cf x 40.0% Voids
#2A	123.15'	74 cf	ADS_StormTech SC-310 +Cap x 5 Inside #1 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap
#3B	122.65'	86 cf	2.83'W x 45.92'L x 2.33'H Field B 304 cf Overall - 88 cf Embedded = 215 cf x 40.0% Voids
#4B	123.15'	88 cf	ADS_StormTech SC-310 +Cap x 6 Inside #3 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap
#5C	122.65'	198 cf	4.83'W x 53.04'L x 2.33'H Field C 598 cf Overall - 103 cf Embedded = 495 cf x 40.0% Voids
#6C	123.15'	103 cf	ADS_StormTech SC-310 +Cap x 7 Inside #5 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap
#7D	122.65'	172 cf	4.83'W x 45.92'L x 2.33'H Field D 518 cf Overall - 88 cf Embedded = 429 cf x 40.0% Voids
#8D	123.15'	88 cf	ADS_StormTech SC-310 +Cap x 6 Inside #7 Effective Size= 28.9"W x 16.0"H => 2.07 sf x 7.12'L = 14.7 cf Overall Size= 34.0"W x 16.0"H x 7.56'L with 0.44' Overlap
		955 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Storage Group B created with Chamber Wizard

Storage Group C created with Chamber Wizard

Storage Group D created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	122.65'	0.200 in/hr Exfiltration over Surface area
#2	Primary	122.23'	6.0" Round Culvert-6" OCS outlet L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 122.23' / 120.10' S= 0.0645 ' /' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#3	Device 2	124.25'	Custom Weir/Orifice, Cv= 2.62 (C= 3.28) Head (feet) 0.00 1.00 1.00 1.97 Width (feet) 0.50 0.50 4.00 4.00
#4	Device 3	122.73'	4.0" Vert. 4" Underdrain C= 0.600

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

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#5 Device 3 123.27' **10.0" Vert. 10" Overflow Pipe From Chamber** C= 0.600**Discarded OutFlow** Max=0.00 cfs @ 7.20 hrs HW=122.69' (Free Discharge)↑ **1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.90 cfs @ 12.13 hrs HW=124.92' (Free Discharge)↑ **2=Culvert-6" OCS outlet** (Passes 0.90 cfs of 1.17 cfs potential flow)↑ **3=Custom Weir/Orifice** (Weir Controls 0.90 cfs @ 2.68 fps)↑ **4=4" Underdrain** (Passes < 0.34 cfs potential flow)↑ **5=10" Overflow Pipe From Chamber** (Passes < 2.15 cfs potential flow)**Summary for Link SP1:**

Inflow Area = 1,286 sf, 27.92% Impervious, Inflow Depth = 1.56" for 25-Year event

Inflow = 0.05 cfs @ 12.10 hrs, Volume= 167 cf

Primary = 0.05 cfs @ 12.10 hrs, Volume= 167 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

Summary for Link SP2:

Inflow Area = 3,470 sf, 95.48% Impervious, Inflow Depth = 5.21" for 25-Year event

Inflow = 0.43 cfs @ 12.09 hrs, Volume= 1,507 cf

Primary = 0.43 cfs @ 12.09 hrs, Volume= 1,507 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

Summary for Link SP3: Existing Sewer

Inflow Area = 9,613 sf, 80.28% Impervious, Inflow Depth = 3.05" for 25-Year event

Inflow = 0.92 cfs @ 12.13 hrs, Volume= 2,439 cf

Primary = 0.92 cfs @ 12.13 hrs, Volume= 2,439 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-96.00 hrs, dt= 0.05 hrs

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

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Page 1

Time span=0.00-96.00 hrs, dt=0.05 hrs, 1921 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1:	Runoff Area=570 sf 56.32% Impervious Runoff Depth=0.87" Flow Length=83' Tc=6.0 min CN=72 Runoff=0.01 cfs 41 cf
Subcatchment 2:	Runoff Area=3,470 sf 95.48% Impervious Runoff Depth=2.55" Flow Length=151' Tc=6.0 min CN=95 Runoff=0.22 cfs 737 cf
Subcatchment 10:	Runoff Area=8,015 sf 81.78% Impervious Runoff Depth=1.83" Flow Length=72' Tc=6.0 min CN=87 Runoff=0.39 cfs 1,220 cf
Subcatchment 11:	Runoff Area=1,598 sf 72.72% Impervious Runoff Depth=1.46" Flow Length=45' Tc=6.0 min CN=82 Runoff=0.06 cfs 194 cf
Subcatchment 12:	Runoff Area=716 sf 5.31% Impervious Runoff Depth=0.01" Flow Length=23' Tc=6.0 min CN=42 Runoff=0.00 cfs 0 cf
Pond CB1: CATCH BASIN	Peak Elev=123.36' Inflow=0.06 cfs 194 cf 10.0" Round Culvert x 2.00 n=0.013 L=1.6' S=0.0437 '/' Outflow=0.06 cfs 194 cf
Pond SSF-1:	Peak Elev=124.35' Storage=751 cf Inflow=0.45 cfs 1,414 cf Discarded=0.00 cfs 919 cf Primary=0.05 cfs 496 cf Outflow=0.06 cfs 1,414 cf
Link SP1:	Inflow=0.01 cfs 42 cf Primary=0.01 cfs 42 cf
Link SP2:	Inflow=0.22 cfs 737 cf Primary=0.22 cfs 737 cf
Link SP3: Existing Sewer	Inflow=0.05 cfs 496 cf Primary=0.05 cfs 496 cf

18053-POST*Type III 24-hr 10-Year Rainfall=4.60"*

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Time span=0.00-96.00 hrs, dt=0.05 hrs, 1921 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: Runoff Area=570 sf 56.32% Impervious Runoff Depth=1.89"
Flow Length=83' Tc=6.0 min CN=72 Runoff=0.03 cfs 90 cf

Subcatchment 2: Runoff Area=3,470 sf 95.48% Impervious Runoff Depth=4.02"
Flow Length=151' Tc=6.0 min CN=95 Runoff=0.34 cfs 1,163 cf

Subcatchment 10: Runoff Area=8,015 sf 81.78% Impervious Runoff Depth=3.19"
Flow Length=72' Tc=6.0 min CN=87 Runoff=0.66 cfs 2,132 cf

Subcatchment 11: Runoff Area=1,598 sf 72.72% Impervious Runoff Depth=2.72"
Flow Length=45' Tc=6.0 min CN=82 Runoff=0.11 cfs 363 cf

Subcatchment 12: Runoff Area=716 sf 5.31% Impervious Runoff Depth=0.22"
Flow Length=23' Tc=6.0 min CN=42 Runoff=0.00 cfs 13 cf

Pond CB1: CATCH BASIN Peak Elev=123.39' Inflow=0.11 cfs 363 cf
10.0" Round Culvert x 2.00 n=0.013 L=1.6' S=0.0437 '/' Outflow=0.11 cfs 363 cf

Pond SSF-1: Peak Elev=124.72' Storage=872 cf Inflow=0.78 cfs 2,495 cf
Discarded=0.00 cfs 942 cf Primary=0.53 cfs 1,552 cf Outflow=0.54 cfs 2,494 cf

Link SP1: Inflow=0.03 cfs 103 cf
Primary=0.03 cfs 103 cf

Link SP2: Inflow=0.34 cfs 1,163 cf
Primary=0.34 cfs 1,163 cf

Link SP3: Existing Sewer Inflow=0.53 cfs 1,552 cf
Primary=0.53 cfs 1,552 cf

ATTACHMENT B

STORMWATER TREATMENT CALCULATIONS

Stormwater Treatment Table

33/37 Montreal Street

	Total Watershed Area (SF)	New Driveway and Road Impervious Area (SF)	New Landscaped Area (SF)	Existing/Offsite Impervious Area (SF)	Existing/Offsite Landscaped Area (SF)	Existing Undeveloped Area (SF)	Treatment Provided	New Impervious Area Treated In Treatment Device (SF)	New Landscaped Area Treated In Treatment Device (SF)	Treatment Device
WS-1	570	226	179	95	70	0	No	0	0	None
WS-10	8,015	6,555	1,460	0	0	0	Yes	6,555	1,460	Chamber Syst.
WS-11	1,598	1,162	436	0	0	0	Yes	1,162	436	Chamber Syst.
WS-12	716	38	678	0	0	0	No	0	0	None
WS-2	3,470	0	157	3,313	0	0	No	0	0	None
Total		7,981	2,910					7,717	1,896	

New Impervious Area = 7,981 sf
 Impervious Area Requiring Treatment (95%) = 7,582 sf
 Impervious Area Treatment Provided = 7,717 sf
 97% New Impervious Area Treated

New Developed Area = 10,891 sf
 Developed Area Requiring Treatment (80%) = 8,713 sf
 Developed Area Treatment Provided = 9,613 sf
 88% New Developed Area Treated

Subsurface Storage - 1

Tributary Impervious Area=	7,717 sf	(WS-10 & WS-11 Impervious Area)
Tributary Landscaped Area=	1,896 sf	(WS-10 & WS-11 Landscaped Area)

Water Quality Volume (WQV) Calculation

WQV (Required) = $1.0 \times \text{Impervious Area} + 0.4 \times \text{Landscaped Area}$

WQV (Required) = 706 cf

Chamber Size = SC-310

WQV (Provided)= 715 cf >Required

(See HydroCAD Stage Storage Calculation)

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

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Stage-Area-Storage for Pond SSF-1:

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
122.65	796	0	125.30	796	955
122.70	796	16	125.35	796	955
122.75	796	32	125.40	796	955
122.80	796	48	125.45	796	955
122.85	796	64	125.50	796	955
122.90	796	80	125.55	796	955
122.95	796	96	125.60	796	955
123.00	796	111	125.65	796	955
123.05	796	127	125.70	796	955
123.10	796	143	125.75	796	955
123.15	796	159	125.80	796	955
123.20	796	187	125.85	796	955
123.25	796	216	125.90	796	955
123.30	796	244	125.95	796	955
123.35	796	271	126.00	796	955
123.40	796	299	126.05	796	955
123.45	796	327	126.10	796	955
123.50	796	354	126.15	796	955
123.55	796	381	126.20	796	955
123.60	796	407			
123.65	796	434			
123.70	796	460			
123.75	796	485			
123.80	796	511			
123.85	796	536			
123.90	796	560			
123.95	796	584			
124.00	796	608			
124.05	796	631			
124.10	796	653			
124.15	796	675			
124.20	796	696			
124.25	796	715			
124.30	796	734			
124.35	796	752			
124.40	796	769			
124.45	796	785			
124.50	796	801			
124.55	796	817			
124.60	796	833			
124.65	796	849			
124.70	796	865			
124.75	796	881			
124.80	796	897			
124.85	796	913			
124.90	796	929			
124.95	796	945			
125.00	796	955			
125.05	796	955			
125.10	796	955			
125.15	796	955			
125.20	796	955			
125.25	796	955			

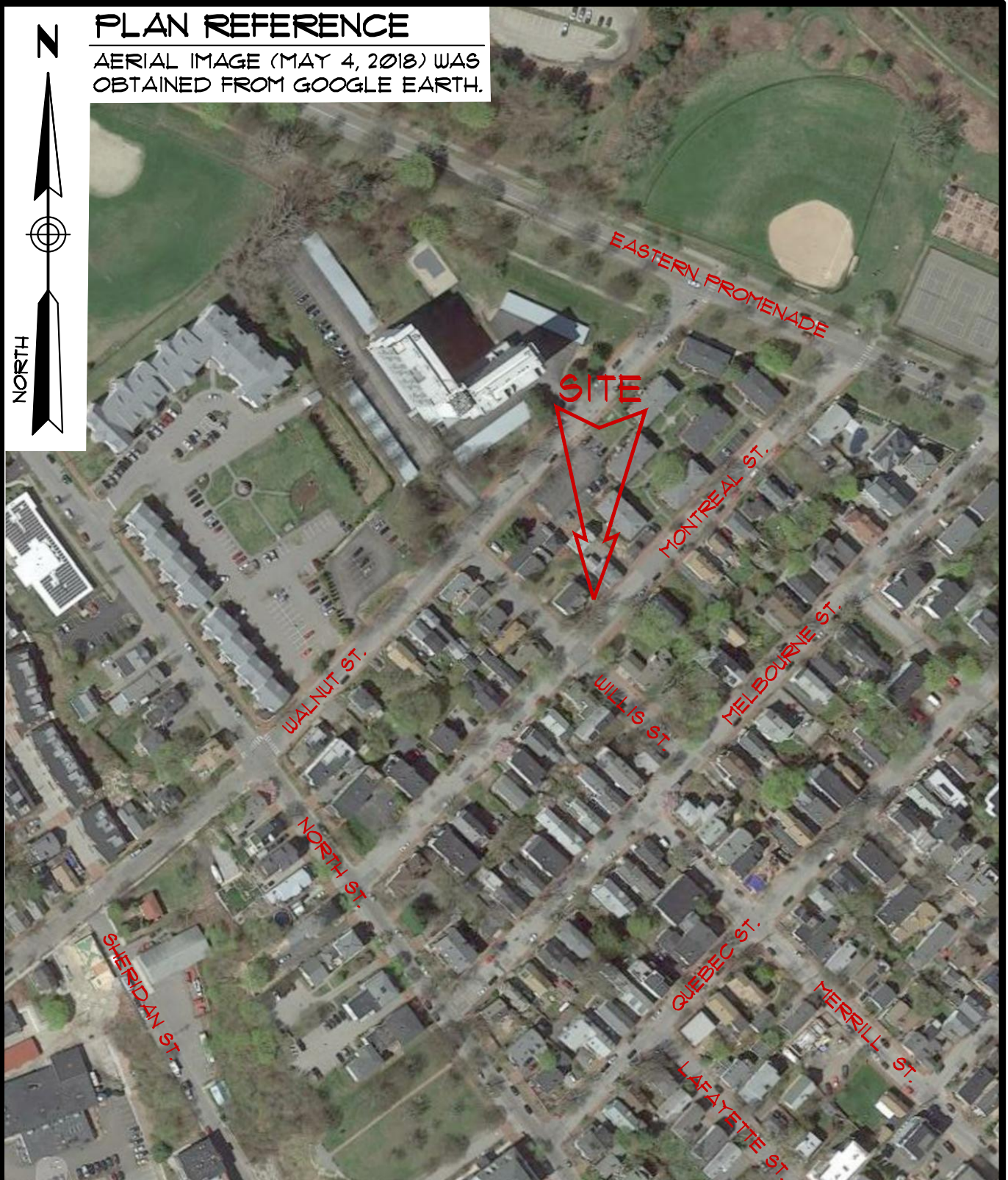
Water Quality Volume Required = 706 cf
 Provided Water Quality Volume = 715 cf

ATTACHMENT C

SOILS TEST PIT LOGS AND MAPS

PLAN REFERENCE

AERIAL IMAGE (MAY 4, 2018) WAS
OBTAINED FROM GOOGLE EARTH.



LOCATION MAP NEW RESIDENTIAL BUILDING

33 MONTREAL STREET - PORTLAND, MAINE
PREPARED FOR
TIM WELLS

145 LISBON ST. - SUITE 101
LEWISTON, ME 04240
Tel.: (207) 576-3313

173 PLEASANT STREET
ROCKLAND, ME 04841
Tel.: (207) 318-1161

SUMMIT
GEOENGINEERING SERVICES
www.summitgeoeng.com

DATE: 4-15-2019	DRAWN BY: KRF	CHECKED BY: ELS
JOB: 17164	SCALE: 1" = 200'	FILE: 17164 BOR

N

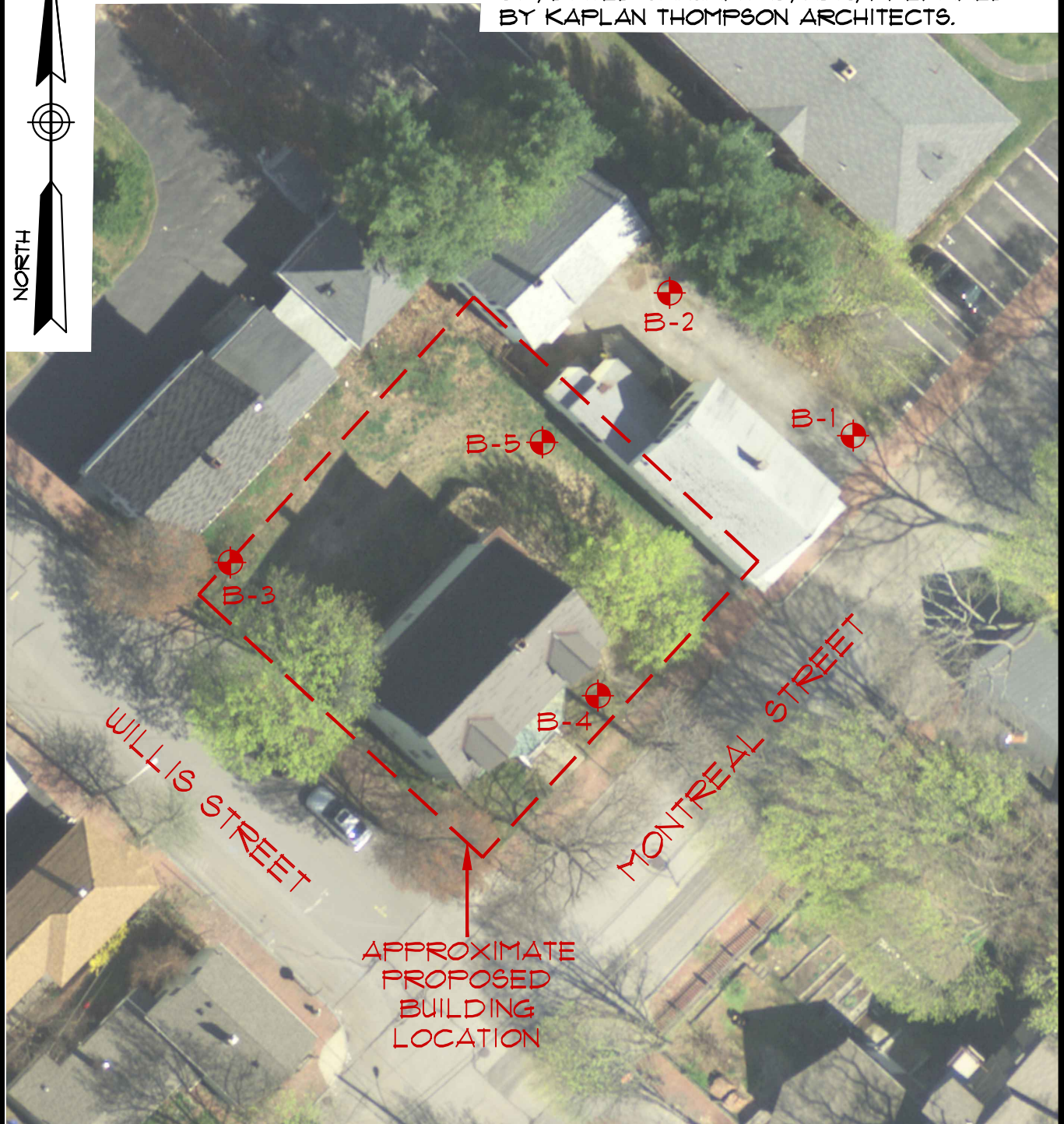
NORTH

LEGEND

● B-1 SUMMIT TEST BORING
(APRIL 5, 2019)

PLAN REFERENCE

PROPOSED BUILDING LOCATION WAS TAKEN
FROM A PLAN SET ENTITLED "MONTREAL
ST", DATED JANUARY 15, 2019, PREPARED
BY KAPLAN THOMPSON ARCHITECTS.



**EXPLORATION LOCATION PLAN
NEW RESIDENTIAL BUILDING**

33 MONTREAL STREET - PORTLAND, MAINE
PREPARED FOR
TIM WELLS

145 LISBON ST. - SUITE 101
LEWISTON, ME 04240
Tel.: (207) 576-3313

173 PLEASANT STREET
ROCKLAND, ME 04841
Tel.: (207) 318-1161

SUMMIT
GEOENGINEERING SERVICES
www.summitgeoeng.com

DATE: 4-15-2019	DRAWN BY: KRF	CHECKED BY: ELS
JOB: 17164	SCALE: 1" = 30'	FILE: 17164 BOR

N

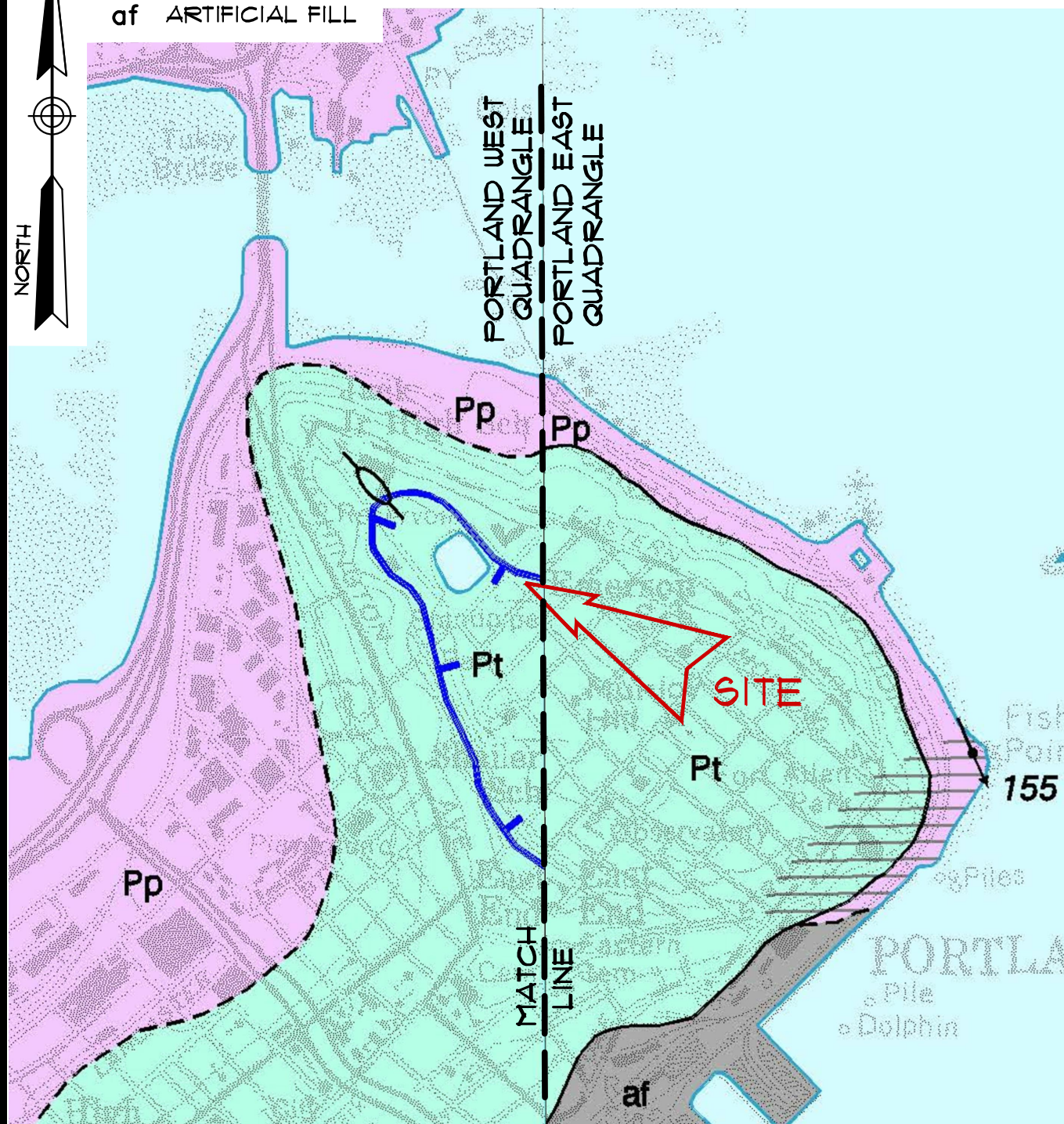


LEGEND

Pt TILL
 Pp PRESUMPTSCOT FORMATION
 af ARTIFICIAL FILL

PLAN REFERENCE

SURFICIAL GEOLOGY MAP, PORTLAND EAST
 & WEST QUADRANGLES, DATED 1993 & 2008,
 PREPARED BY MAINE GEOLOGICAL SURVEY.



SURFICIAL GEOLOGY MAP NEW RESIDENTIAL BUILDING

33 MONTREAL STREET - PORTLAND, MAINE

PREPARED FOR
TIM WELLS

145 LISBON ST. - SUITE 101
 LEWISTON, ME 04240
 Tel.: (207) 576-3313

173 PLEASANT STREET
 ROCKLAND, ME 04841
 Tel.: (207) 318-1161

SUMMIT
 GEOENGINEERING SERVICES
www.summitgeoeng.com

DATE: 4-15-2019	DRAWN BY: KRF	CHECKED BY: ELS
JOB: 17164	SCALE: 1" = 1000'	FILE: 17164 BOR

N

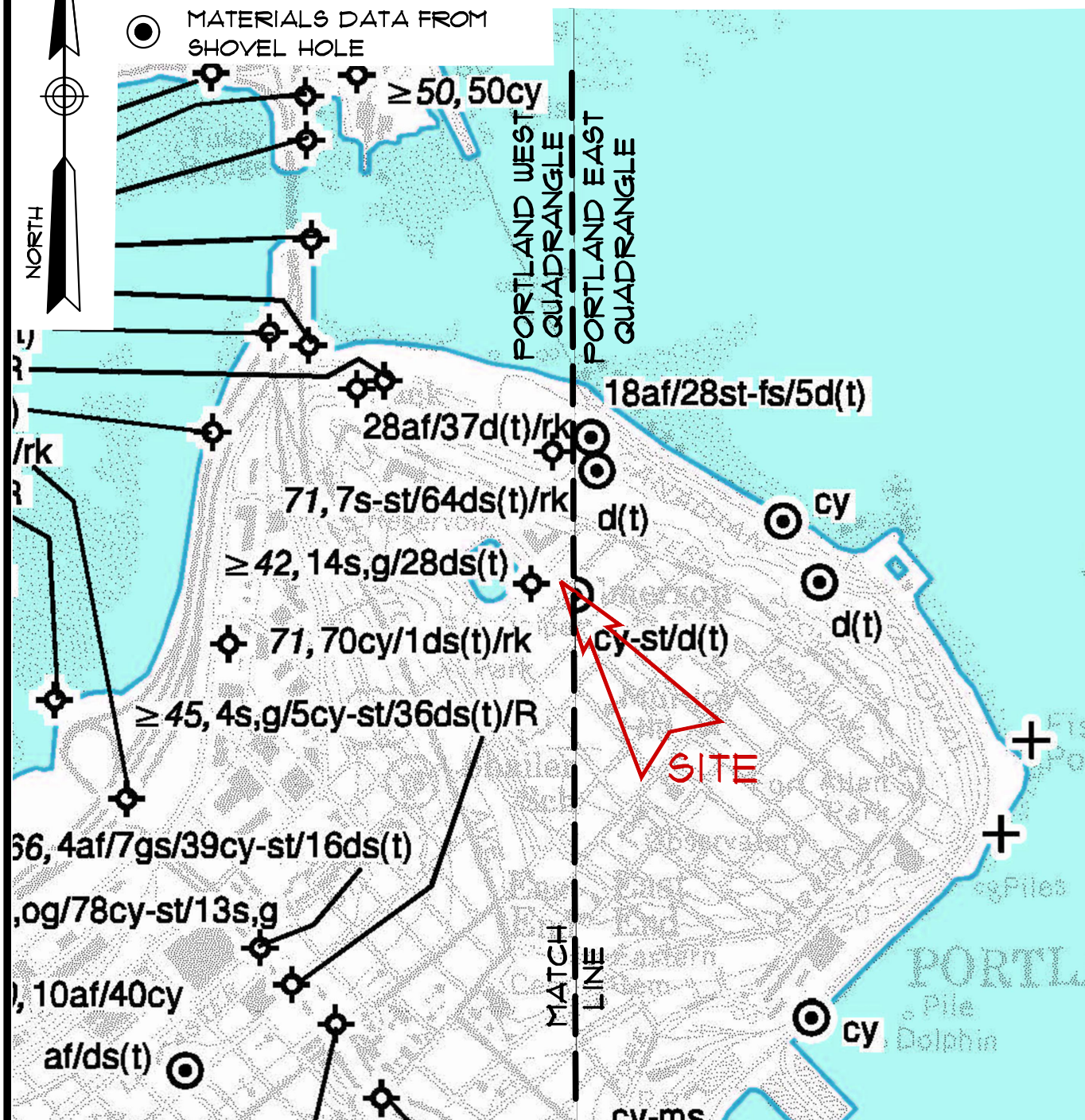
NORTH

LEGEND

- ⊕ TEST BORING w/MATERIALS DATA
- ⊕ BEDROCK OUTCROP
- ⊙ MATERIALS DATA FROM SHOVEL HOLE

PLAN REFERENCE

BEDROCK MATERIALS, PORTLAND EAST & WEST QUADRANGLE, DATED 1999, PREPARED BY MAINE GEOLOGICAL SURVEY.



SURFICIAL MATERIALS NEW RESIDENTIAL BUILDING

33 MONTREAL STREET - PORTLAND, MAINE
PREPARED FOR
TIM WELLS

145 LISBON ST. - SUITE 101
LEWISTON, ME 04240
Tel.: (207) 576-3313

173 PLEASANT STREET
ROCKLAND, ME 04841
Tel.: (207) 318-1161

SUMMIT
GEOENGINEERING SERVICES
www.summitgeoeng.com

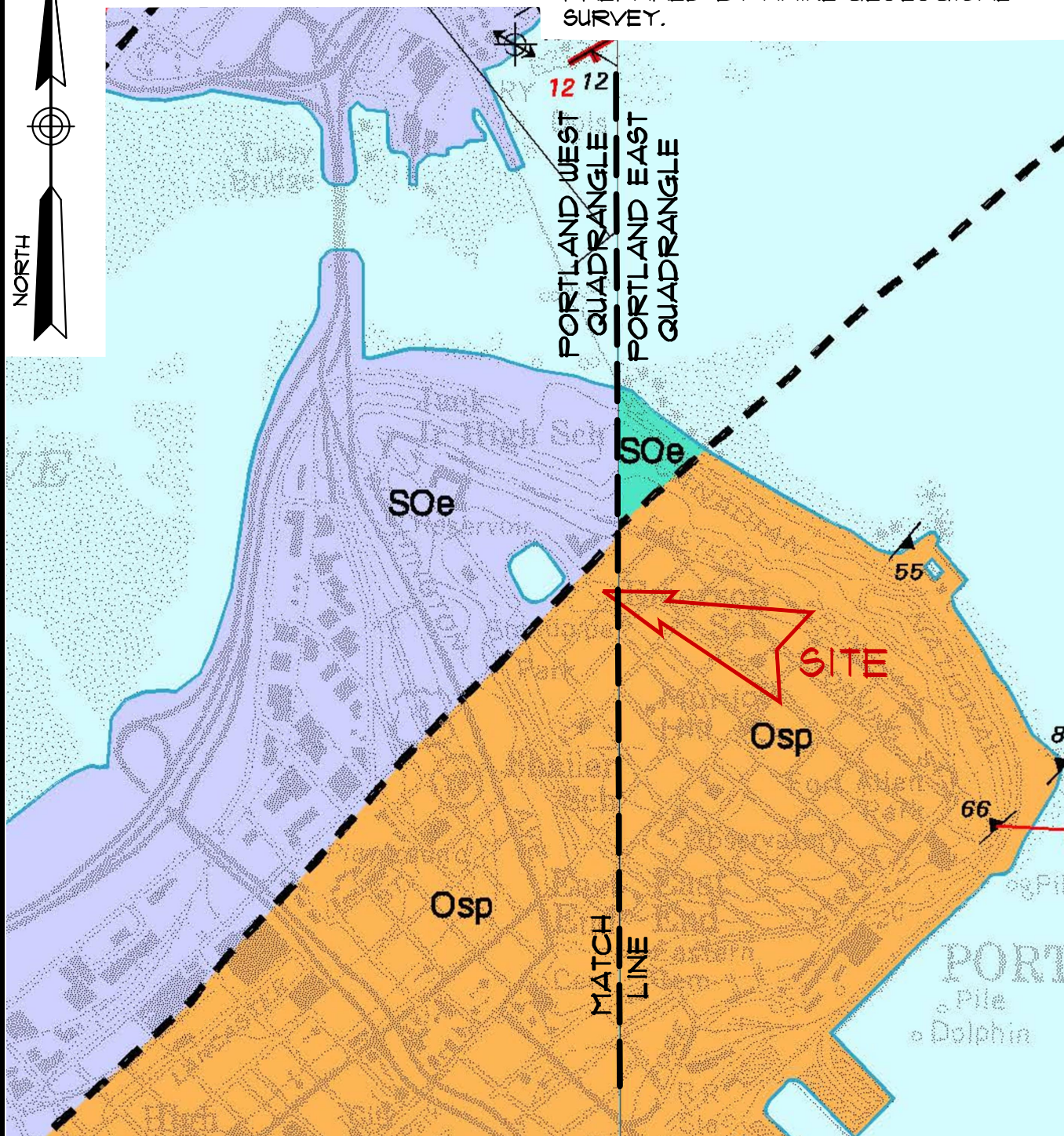
DATE: 4-15-2019	DRAWN BY: KRF	CHECKED BY: ELS
JOB: 17164	SCALE: 1" = 1000'	FILE: 17164 BOR

LEGEND

Osp SPRING POINT FORMATION
Soe ELLIOT FORMATION

PLAN REFERENCE

BEDROCK GEOLOGY, PORTLAND EAST & WEST QUADRANGLE, DATED 2003, PREPARED BY MAINE GEOLOGICAL SURVEY.



BEDROCK GEOLOGY MAP NEW RESIDENTIAL BUILDING

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EXPLORATION COVER SHEET

The exploration logs are prepared by the geotechnical engineer from both field and laboratory data. Soil descriptions are based upon the Unified Soil Classification System (USCS) per ASTM D2487 and/or ASTM D2488 as applicable. Supplemental descriptive terms for estimated particle percentage, color, density, moisture condition, and bedrock may also be included to further describe conditions.

Drilling and Sampling Symbols:

S = Split Spoon Sample	Hyd = Hydraulic Advancement of Drilling Rods
UT = Thin Wall Shelby Tube	Push = Direct Push of Drilling Rods
SSA = Solid Stem Auger	WOH = Weight of Hammer
HSA = Hollow Stem Auger	WOR = Weight of Rod
RW = Rotary Wash	PI = Plasticity Index
SV = Lab Shear Vane (Torvane)	LL = Liquid Limit
PP = Pocket Penetrometer	MC = Natural Moisture Content
C = Rock Core Sample	USCS = Unified Soil Classification System
FV = Field Vane Shear Test	Su = Undrained Shear Strength
SP = Concrete Punch Sample	Su(r) = Remolded Shear Strength

Water Level Measurements:

Water levels indicated on the boring logs are the levels measured in the boring at the times indicated. In pervious soils, the indicated elevations are considered reliable groundwater levels. In impervious soils, the accurate determination of groundwater elevations may not be possible, even after several days of observations. Groundwater monitoring wells may be required to record accurate depths and fluctuation.

Gradation Description and Terminology:

Boulders:	Over 12 inches	Trace:	Less than 5%
Cobbles:	12 inches to 3 inches	Little:	5% to 15%
Gravel:	3 inches to No.4 sieve	Some:	15% to 30%
Sand:	No.4 to No. 200 sieve	Silty, Sandy, etc.:	Greater than 30%
Silt:	No. 200 sieve to 0.005 mm		
Clay:	less than 0.005 mm		

Density of Granular Soils and Consistency of Cohesive Soils:

CONSISTENCY OF COHESIVE SOILS		DENSITY OF GRANULAR SOILS	
SPT N-value blows/ft	Consistency	SPT N-value blows/ft	Relative Density
0 to 2	Very Soft	0 to 4	Very Loose
2 to 4	Soft	5 to 10	Loose
5 to 8	Firm	11 to 30	Compact
9 to 15	Stiff	31 to 50	Dense
16 to 30	Very Stiff	>50	Very Dense
>30	Hard		

						SOIL BORING LOG		Boring #: B-1	
Drilling Co: Summit Geoengineering Services, Inc.						Project: New Residential Building		Project #: 17164	
Driller: C. Coolidge, P.E.						Location: 33 Montreal Street		Sheet: 1 of 1	
Summit Staff: E. Stewart, P.E.						City, State: Portland, Maine		Chkd by: WMP	
Boring Elevation: Unknown									
Reference: N/A									
Date started: 4/5/2019						Date Completed: 4/5/2019			
DRILLING METHOD			SAMPLER			ESTIMATED GROUND WATER DEPTH			
Vehicle:	AMS		Length:	24" SS		Date	Depth	Elevation	Reference
Model:	9500 VTR		Diameter:	2"OD/1.5"ID		4/5/2019	NE	N/A	None observed
Method:	2 1/4-inch HSA		Hammer:	140 lb					
Hammer Style:	Auto		Method:	ASTM D1586					
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data	Geological Stratum
	S-1	24/12	0 - 2	3		Dark brown SILT, little Sand & organics, loose, damp, ML			TOPSOIL
1				3		Dark brown to brown Gravelly SAND, little Silt, loose, damp, SP-SM			0.2' FILL
2				3					
	S-2	24/8	2 - 4	2		Same as above, loose, damp, SP-SM			
3				2		Dark brown to mottled brown Clayey SILT, little Sand, Gravel, and organics, soft, damp, ML			2.5'+/- FORMER TOPSOIL
4				9					
				6		Brown to olive brown and mottled Gravelly SAND, little Silt, compact, damp, SM to SP-SM			3'+/- MARINE NEARSHORE DEPOSIT
5									
	S-3	24/24	5 - 7	7		Same as above, compact, damp, SM to SP-SM (1" mottled sand seam at interface)			
6				17					
7				10		Olive brown SILT, some Sand and Gravel, very stiff, damp, ML			6'+/- GLACIAL TILL
8				8					
9									
10									
	S-4	24/24	10 - 12	12		Olive brown SILT-CLAY, some Sand and Gravel, very stiff, damp, ML		PP > 9,000 psf	
11				13					
12				15					
13				15					
14									
15									
	S-5	24/24	15 - 17	12		Gray SILT, some to little Sand, Gravel, and Clay, very stiff to hard, moist, ML		PP > 9,000 psf	
16				13					
17				16					
18				15					
19									
20									
	S-6	24/24	20 - 22	8		Gray SILT-CLAY, some to little Sand and Gravel, very stiff to hard, moist, ML-CL		PP = 8,000 psf	
21				13					
				16					
22				21					
						End of Exploration at 22', No Refusal			22'
Granular Soils		Cohesive Soils		% Composition		NOTES: PP = Pocket Penetrometer, MC = Moisture Content S = Split spoon sample, LL = Liquid Limit, PI = Plasticity Index			Soil Moisture Condition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487					
0-4	V. Loose	<2	V. soft			Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches Gravel = < 3 inch and > No 4, Sand = < No 4 and > No 200, Silt/Clay = < No 200			Dry: S = 0%
5-10	Loose	2-4	Soft	< 5% Trace					Humid: S = 1 to 25%
11-30	Compact	5-8	Firm	5-15% Little					Damp: S = 26 to 50%
31-50	Dense	9-15	Stiff	15-30% Some					Moist: S = 51 to 75%
>50	V. Dense	16-30	V. Stiff	> 30% With					Wet: S = 76 to 99%
		>30	Hard						Saturated: S = 100%

					SOIL BORING LOG		Boring #: B-2		
Drilling Co: Summit Geoengineering Services, Inc.					Project: New Residential Building		Project #: 17164		
Driller: C. Coolidge, P.E.					Location: 33 Montreal Street		Sheet: 1 of 1		
Summit Staff: E. Stewart, P.E.					City, State: Portland, Maine		Chkd by: WMP		
Boring Elevation: Unknown					Reference: N/A				
Date started: 4/5/2019					Date Completed: 4/5/2019				
DRILLING METHOD		SAMPLER			ESTIMATED GROUND WATER DEPTH				
Vehicle:	AMS	Length:	24" SS		Date	Depth	Elevation	Reference	
Model:	9500 VTR	Diameter:	2"OD/1.5"ID		4/5/2019	NE	N/A	None observed	
Method:	2 1/4-inch HSA	Hammer:	140 lb						
Hammer Style:	Auto	Method:	ASTM D1586						
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data	
	S-1	24/10	0 - 2	1		1" Bituminous Pavement		PAVEMENT	
1				2		Dark brown SAND, some Silt and Gravel, loose, damp, SM		0.1' FILL	
				3					
2				5					
	S-2	24/10	2 - 4	2		Brown Gravelly SAND, little Silt, loose, damp, SM			
3				2					
				3					
4				2					
						Dark brown to mottled brown medium-fine SAND, some to little Silt and Gravel, trace organics at surface, loose, damp, SM		4'+/- MARINE NEARSHORE DEPOSIT	
5									
	S-3	24/18	5 - 7	4					
6				3					
				2					
7				5		Light olive brown to tan fine SAND-SILT, little to trace Gravel, stiff, moist, SM-ML		6'+/- GLACIAL TILL	
8									
9									
10									
	S-4	24/24	10 - 12	8		Olive brown SILT, some Sand, little Gravel and Clay, very stiff, damp, ML		PP > 9,000 psf	
11				9					
				11					
12				12					
13									
14									
15									
	S-5	24/8	15 - 17	6		Same as above, very stiff, damp to moist, ML (Pushed cobble, low recovery. Cobble fragments in spoon tip.)		PP > 9,000 psf	
16				11					
				15					
17				24					
18									
19									
20									
	S-6	24/24	20 - 22	12		Olive gray to gray SILT, some to little Sand, Gravel, and Clay, occasional cobbles, hard, moist, ML (3" cobble at 20.5')			
21				17					
				19					
22				20					
						End of Exploration at 22', No Refusal		22'	
Granular Soils		Cohesive Soils		% Composition		NOTES: PP = Pocket Penetrometer, MC = Moisture Content S = Split spoon sample, LL = Liquid Limit, PI = Plasticity Index Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200		Soil Moisture Condition	
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487				Dry: S = 0%	
0-4	V. Loose	<2	V. soft	< 5% Trace				Humid: S = 1 to 25%	
5-10	Loose	2-4	Soft	5-15% Little				Damp: S = 26 to 50%	
11-30	Compact	5-8	Firm	15-30% Some				Moist: S = 51 to 75%	
31-50	Dense	9-15	Stiff	> 30% With		Wet: S = 76 to 99%			
>50	V. Dense	16-30	V. Stiff			Saturated: S = 100%			
		>30	Hard						

						SOIL BORING LOG		Boring #: B-3	
Drilling Co: Summit Geoengineering Services, Inc.						Project: New Residential Building		Project #: 17164	
Driller: C. Coolidge, P.E.						Location: 33 Montreal Street		Sheet: 1 of 1	
Summit Staff: E. Stewart, P.E.						City, State: Portland, Maine		Chkd by: WMP	
Boring Elevation: Unknown						Reference: N/A			
Date started: 4/5/2019						Date Completed: 4/5/2019			
DRILLING METHOD			SAMPLER			ESTIMATED GROUND WATER DEPTH			
Vehicle: AMS			Length: 24" SS			Date	Depth	Elevation	Reference
Model: 9500 VTR			Diameter: 2"OD/1.5"ID			4/5/2019	NE	N/A	None observed
Method: 2 1/4-inch HSA			Hammer: 140 lb						
Hammer Style: Auto			Method: ASTM D1586						
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data	Geological Stratum
1	S-1	24/12	0 - 2	1		Dark brown SILT, little Sand, rootlets, loose, damp, ML			PAVEMENT
				2		Light brown SAND, trace Silt, loose, damp, SP			0.1' FILL
				6		Brown SAND, some Silt, little Gravel, reclaim pavement, loose, damp, SM			
2				6					
3	S-2	24/6	2 - 4	3		Dark brown SILT, some organics, trace Sand, firm, moist, ML			2.5' FORMER TOPSOIL
4				4					
5									3.5'+/- GLACIAL TILL
6	S-3	24/24	5 - 7	12		Olive brown Sandy SILT, some Gravel, hard/dense, damp, ML		PP = 6,000 to 7,000 psf	
7				21		(Sandy lense/pocket at spoon tip)			
8				21					
9									
10								PP > 9,000 psf	
11	S-4	24/24	10 - 12	10		Olive to olive brown SILT, some Sand and Gravel, little Clay, occasional cobbles, hard/dense, damp, ML			
12				20					
13				30					
14									
15									
16	S-5	24/24	15 - 17	20		Olive gray SILT, some Sand and Gravel, little Clay, hard, damp, ML		PP > 9,000 psf	
17				24					
18				25					
19				41					
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						SOIL BORING LOG		Boring #: B-4		
Drilling Co: Summit Geoengineering Services, Inc.						Project: New Residential Building		Project #: 17164		
Driller: C. Coolidge, P.E.						Location: 33 Montreal Street		Sheet: 1 of 1		
Summit Staff: E. Stewart, P.E.						City, State: Portland, Maine		Chkd by: WMP		
Boring Elevation: Unknown						Reference: N/A				
Date started: 4/5/2019						Date Completed: 4/5/2019				
DRILLING METHOD			SAMPLER			ESTIMATED GROUND WATER DEPTH				
Vehicle: AMS			Length: 24" SS			Date	Depth	Elevation	Reference	
Model: 9500 VTR			Diameter: 2"OD/1.5"ID			4/5/2019	NE	N/A	None observed	
Method: 2 1/4-inch HSA			Hammer: 140 lb							
Hammer Style: Auto			Method: ASTM D1586							
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data	Geological Stratum	
	S-1	24/18	0 - 2	2		Dark brown SILT, little Sand, rootlets, soft, damp, ML			TOPSOIL	
1				6		Brown Silty SAND, some Gravel, trace reclaim, slate, and ash, loose, frozen to damp, SM			0.5'	
				4					FILL	
2				3						
	S-2	24/12	2 - 4	2		Same as above, trace brick, loose, damp, SM				
3				3						
				3		Brown fine SAND-SILT, trace Clay, loose, damp, SM-ML			3' +/-	
4				5						
						Auger refusal on cobble or obstruction at 4.5', offset boring.				
5										
	S-3	24/24	5 - 7	5		Olive brown and mottled Sandy SILT, some Gravel, occasional Sandy lenses/pockets, very stiff, damp, ML (Cobble fragments in spoon tip; pushed cobble.)			5' +/-	
6				9					GLACIAL TILL	
				13						
7				25						
8										
9										
10										
	S-4	24/3	10 - 12	12		Olive brown Silty SAND to Sandy SILT, some Gravel, hard/dense, damp, SM to ML (Cobble in spoon tip; pushed cobble.)				
11				35						
				37						
12				32						
13										
14										
15										
	S-5	24/24	15 - 17	9		Olive brown to olive gray SILT, some Sand and Gravel, little Clay, hard, damp, ML		PP > 9,000 psf		
16				13						
				17						
17				22						
18										
19										
20										
	S-6	24/24	20 - 22	11		Gray SILT, some Sand and Gravel, little Clay, hard, damp, ML				
21				16						
				15						
22				21						
						End of Exploration at 22', No Refusal			22'	
Granular Soils		Cohesive Soils		% Composition		NOTES: PP = Pocket Penetrometer, MC = Moisture Content S = Split spoon sample, LL = Liquid Limit, PI = Plasticity Index Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches Gravel = < 3 inch and > No 4, Sand = < No 4 and > No 200, Silt/Clay = < No 200			Soil Moisture Condition	
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487	Dry: S = 0%					
0-4	V. Loose	<2	V. soft	< 5% Trace	Humid: S = 1 to 25%					
5-10	Loose	2-4	Soft	5-15% Little	Damp: S = 26 to 50%					
11-30	Compact	5-8	Firm	15-30% Some	Moist: S = 51 to 75%					
31-50	Dense	9-15	Stiff	> 30% With	Wet: S = 76 to 99%					
>50	V. Dense	16-30	V. Stiff		Saturated: S = 100%					
		>30	Hard							

						SOIL BORING LOG		Boring #: B-5		
Drilling Co: Summit Geoengineering Services, Inc.						Project: New Residential Building		Project #: 17164		
Driller: C. Coolidge, P.E.						Location: 33 Montreal Street		Sheet: 1 of 1		
Summit Staff: E. Stewart, P.E.						City, State: Portland, Maine		Chkd by: WMP		
Boring Elevation: Unknown						Reference: N/A				
Date started: 4/5/2019						Date Completed: 4/5/2019				
DRILLING METHOD			SAMPLER			ESTIMATED GROUND WATER DEPTH				
Vehicle: AMS			Length: 24" SS			Date	Depth	Elevation	Reference	
Model: 9500 VTR			Diameter: 2"OD/1.5"ID			4/5/2019	NE	N/A	None observed	
Method: 2 1/4-inch HSA			Hammer: 140 lb							
Hammer Style: Auto			Method: ASTM D1586							
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data	Geological Stratum	
	S-1	24/12	0 - 2	3		Dark brown SILT, little Sand, rootlets, soft, damp, ML			TOPSOIL	
1				5		Brown SAND, some Gravel, little Silt, compact, SP-SM			0.5'	
				7		Dark brown SILT, little Sand, Gravel, and organics, firm/compact, damp, ML			FILL (Portions Reworked Native)	
2				4						
3										
4						Brown medium-fine SAND, little Silt, loose, damp, SP to SP-SM			3' +/-	
5										
6	S-2	24/24	5 - 7	6		Olive SILT, some Sand, little Gravel and Clay, very stiff, damp, ML		PP = 7,000 to 9,000 psf	5' +/- GLACIAL TILL	
				9						
				13						
7				18						
8										
9										
10										
11	S-3	24/24	10 - 12	10		Olive brown SILT, some Sand and Gravel, little Clay, occasional small cobbles, hard, damp, ML		PP > 9,000 psf		
				16						
				20						
12				24						
13						(Cobble at 12.5' +/-)				
14										
15										
16	S-4	24/24	15 - 17	15		Olive gray SILT, some Sand and Gravel, little Clay, hard, damp, ML		PP > 9,000 psf		
				19						
				20						
17				26						
18										
19										
20										
21	S-5	24/24	20 - 22	10		Gray SILT-CLAY, some Sand and Gravel, very stiff, damp to moist, ML		PP > 9,000 psf		
				11						
				13						
22				18						
						End of Exploration at 22', No Refusal			22'	
Granular Soils		Cohesive Soils		% Composition		NOTES: PP = Pocket Penetrometer, MC = Moisture Content S = Split spoon sample, LL = Liquid Limit, PI = Plasticity Index Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches Gravel = < 3 inch and > No 4, Sand = < No 4 and > No 200, Silt/Clay = < No 200			Soil Moisture Condition	
Blows/ft. Density		Blows/ft. Consistency		ASTM D2487					Dry: S = 0%	
0-4 V. Loose		<2 V. soft		< 5% Trace					Humid: S = 1 to 25%	
5-10 Loose		2-4 Soft		5-15% Little					Damp: S = 26 to 50%	
11-30 Compact		5-8 Firm		15-30% Some					Moist: S = 51 to 75%	
31-50 Dense		9-15 Stiff		> 30% With		Wet: S = 76 to 99%		Saturated: S = 100%		
>50 V. Dense		16-30 V. Stiff								
		>30 Hard								

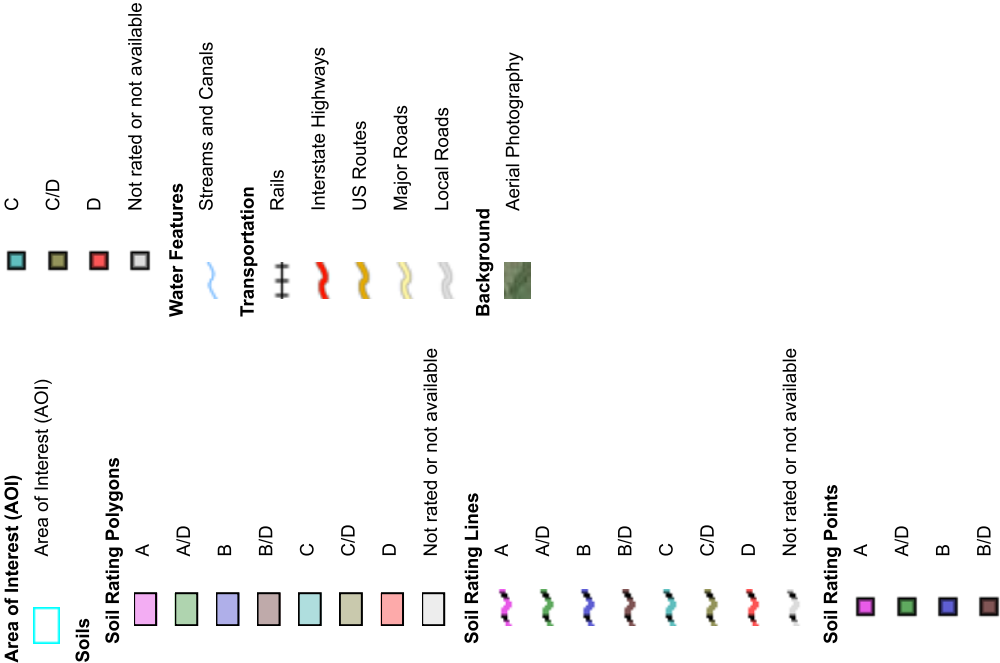
ATTACHMENT D

MEDIUM INTENSITY SOILS MAP

Hydrologic Soil Group—Cumberland County and Part of Oxford County, Maine (37 MONTREAL ST.)



MAP LEGEND



MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.
Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 15, Sep 6, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HIB	Hinckley loamy sand, 3 to 8 percent slopes	A	0.7	100.0%
Totals for Area of Interest			0.7	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

ATTACHMENT E

INSPECTION, MAINTENANCE AND HOUSEKEEPING PLAN



INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN

33/37 MONTREAL STREET DEVELOPMENT PORTLAND, MAINE

Responsible Party

Owner: McTigue Construction
 184 Mountain Road
 Falmouth, Maine 04105

The owner is responsible for the maintenance of all stormwater management structures and related site components and the keeping of a maintenance log book with service records. Records of all inspections and maintenance work performed must be kept on file with the owner and retained for a minimum of five years. The maintenance log will be made available to the City upon request. At a minimum, the maintenance of stormwater management systems will be performed on the prescribed schedule.

The procedures outlined in this plan are provided as a general overview of the anticipated practices to be utilized on this site. In some instances, additional measures may be required due to unexpected conditions. *The Maine Erosion and Sedimentation Control BMP and Stormwater Management for Maine: Best Management Practices* Manuals published by the Maine Department of Environmental Protection (MDEP) should be referenced for additional information.

During Construction

- 1. Inspection and Corrective Action:** It is the contractor's responsibility to comply with the inspection and maintenance procedures outlined in this section. Inspection shall occur on all disturbed and impervious areas, erosion control measures, material storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. These areas shall be inspected at least once a week as well as 24 hours before and after a storm event and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct the inspections.
- 2. Maintenance:** Erosion controls shall be maintained in effective operating condition until areas are permanently stabilized. If best management practices (BMPs) need to be repaired, the repair work should be initiated upon discovery of the problem but no later than the end of the next workday. If BMPs need to be maintained or modified, additional

BMPs are necessary, or other corrective action is needed, implementation must be completed within seven calendar days and prior to any rainfall event.

3. **Documentation:** A report summarizing the inspections and any corrective action taken must be maintained on site. The log must include the name(s) and qualifications of the person making the inspections; the date(s) of the inspections; and the major observations about the operation and maintenance of erosion and sedimentation controls, materials storage areas, and vehicle access points to the parcel. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and location(s) where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to City Staff, and a copy must be provided upon request. The owner shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

Housekeeping

1. **Spill prevention:** Controls must be used to prevent pollutants from construction and waste materials 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.
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:** Approval from the City does not authorize a discharge that is mixed with a source of non-stormwater, other than those discharges in compliance with Section 6 above. Specifically, the City'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.

Post construction

- 1. Inspection and Corrective Action:** All measures must be maintained by the owner in effective operating condition. A qualified third-party inspector hired by the owner shall at least annually inspect the stormwater management facilities. This person should have knowledge of erosion and stormwater control including the standards and conditions of the site's approvals. The inspector shall be certified through the City to inspect the stormwater infrastructure. The following areas, facilities, and measures must be inspected, and identified deficiencies must be corrected. Areas, facilities, and measures other than those listed below may also require inspection on a specific site.
 - A. Vegetated Areas:** Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.
 - B. Culverts:** Inspect culverts in the spring, late fall, and after heavy rains to remove any obstructions to flow; remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit; and to repair any erosion damage at the culvert's inlet and outlet.
 - C. Catch Basins/Outlet Control Structure:** Inspect and, if required, clean out catch basins at least once a year, preferably in early spring. Clean out must include the removal and legal disposal of any accumulated sediments and debris at the bottom of the basin, at any inlet grates, at any inflow channels to the basin, and at any pipes between basins. If the basin outlet is designed to trap floatable materials, then remove the floating debris and any floating oils (using oil-absorptive pads).
 - D. Subsurface Chamber System:** The manufacturer recommends that at a minimum the that an annual inspection is conducted. Initially the system shall be inspected every 6 months for the first year of operation. If inspection indicates that sediment has accumulated, a measurement to determine the depth of sediment shall be performed. When an average depth of 3 inches is exceeded then clean-out shall be performed. The system should drain within 48 hours following a one-inch storm and if a larger storm fills the system to overflow, it shall drain within 72 hours.

- E. Regular Maintenance:** Clear accumulations of winter sand along roadway once a year, preferably in the spring. Accumulations on pavement may be removed by pavement sweeping. Accumulations of sand along pavement shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader.
- F. Documentation:** Keep a log (report) summarizing inspections, maintenance, and any corrective actions taken. The log must include the date on which each inspection or maintenance task was performed, a description of the inspection findings or maintenance completed, and the name of the inspector or maintenance personnel performing the task. If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed after removal. The log must be made accessible to City staff upon request. The permittee shall retain a copy of the log for a period of at least five years from the completion of permanent stabilization. Attached is a sample log.

Re-certification

In order to receive Stormwater Credit toward the City of Portland Stormwater Service Charge, the owner must submit an annual inspection report by June 30 of each year in accordance with Chapter 32, Article III and Chapter 24, Article V of the City of Portland's Code of Ordinances. A qualified 3rd party post-construction inspector must conduct an inspection of the stormwater control system, including all BMPs and associated features, and complete Form 4. If the credit holder does not submit a completed annual inspection report by June 30, or submits a failing inspection report, credits will be suspended.

Duration of Maintenance

Perform maintenance as described.

STORMWATER MAINTENANCE LOG

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The following stormwater management and erosion control items shall be inspected and maintained as prescribed in the Maintenance Plan with recommended frequencies as identified below. The owner is responsible for keeping this maintenance log on file for a minimum of five years and shall provide a copy to the City upon request. Inspections are to be performed by a qualified third-party inspector and all corrective actions shall be performed by personnel familiar with stormwater management systems and erosion controls.

Maintenance Item	Maintenance Event	Date Performed	Responsible Personnel	Comments
Vegetated Areas	Inspect slopes and embankments early in Spring.			
Culverts	Inspect semiannually and after major rainfall.			
	Repair erosion at inlet or outlet of pipe.			
	Repair displaced riprap.			
	Clean accumulated sediment in culverts when >20% full.			
Catch Basins and Outlet Structure	Inspect to ensure that structure is properly draining.			
	Remove accumulated sediment semiannually.			
	Inspect grates/inlets and remove debris as needed.			
StormTech SC-310 Chambers	Inspect every six months and after major rain events to ensure that pond drains within 60 hours			
	Inspect annually for erosion or sediment accumulation and repair as needed.			
Regular Maintenance	Clear accumulation of winter sand in paved areas annually.			

33-37 MONTREAL STREET, PORTLAND

UTILITIES – Ability to Serve letters are currently in process. From current services available in the area the project team does not foresee any issues with the service of any utilities.

OVERVIEW The proposed project will involve installation of new utility services to the building. All new utility services will be provided from the franchise utilities available within Montreal, Willis and Walnut Streets. The proposed locations of the new utility services are shown on the Utility Plan (Sheet C-5.0).

WATER SUPPLY The proposed project will receive its water supply from the Portland Water District's (PWD) public water supply system. Separate fire and domestic services will be installed to the building from PWD's existing main in Montreal Street. The Development team is submitting an ability to serve request to PWD on August 7, 2019. A response from PWD will not be received at the time of submission, but will be provided when it is received.

Total Project Water Usage The total average daily water demand for the proposed project is estimated to be 2,360 gallons per day, based on design flows published in the State of Maine Subsurface Wastewater Disposal Rules.

1 x 2 Bedroom Residential Units at 180 gpd/unit = 180 gpd

8 x 3 Bedroom Residential Units at 270 gpd/unit = 2,160 gpd

WASTEWATER DISPOSAL The proposed project will be connected to the Portland Water District's and City of Portland's wastewater collection and conveyance systems. The City of Portland Wastewater Capacity Application will be completed by August 9, 2019 and forwarded to Mr. Brad Roland.

The overall project is anticipated to generate an average daily flow of approximately 2,360 gpd. Based on the existing sewer system in the area, there appears to be adequate capacity to handle these projected flow amounts.

ELECTRICITY SUPPLY CMP currently maintains overhead and underground utilities in the area including 3 phase power along Walnut Street that currently serves Promenade Towers.

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SOLID WASTE

OVERVIEW The project will generate solid waste both during construction and on an on-going basis after construction is complete. Estimates of solid waste generation, recycling rates, and procedures for the transport and disposal of solid waste that will be generated by the operation of the proposed development are provided below.

The following amount of solid waste associated with the construction and operation of the development have been estimated:

- 147 cubic yards of construction debris related to the new building construction activities (excluding volume of recycled materials).
- 306 pounds per week of solid waste will be generated by the operation of the development. Assuming that 50% of the waste is recycled, it is estimated that the project will generate 7.95 tons of recyclable waste and 7.95 tons of nonrecyclable waste per year.

SOLID WASTE GENERATED DURING THE BUILDING CONSTRUCTION

Approximately 147 cubic yards of construction debris is expected to be generated during construction. Assuming that 80% of construction debris is recycled, construction of the project will generate approximately 83 c.y. of non-recyclable waste.

The waste stream will be transported and disposed of at the following locations:

Hazardous Materials: WMI Crossroads Facility in Norridgewock, Maine

Mixed Construction Material: Riverside Recycling Facility in Portland, Maine; WMI Crossroads Facility in Norridgewock, Maine or Juniper Ridge in Old Town, Maine (Contractor option)

Separated Wood Construction Debris: KTI Biofuels in Lewiston, Maine

Separated Metal/Ferrous Material: One Steel Recycling Inc. in Arundel or Oakland, Maine

The collection, transfer, disposal, and payment of all fees for solid wastes shall be the responsibility of the Contractor, with all waste transferred by a licensed non-hazardous waste transporter.

SOLID WASTE GENERATED FROM THE OPERATION OF THE DEVELOPMENT

Approximately 306 pounds of solid waste and recyclable material is expected to be generated every week by the residents of the project. The operational solid waste and recyclable material will be collected by the City of Portland in accordance with Chapter 12 of the City Code.

ATTACHMENTS Attachment 12-A – Computations of Types and Volumes of Solid Wastes for Construction Project.

ATTACHMENT

SOLID WASTES COMPUTATIONS AND DISPOSAL

A. NEW BUILDING CONSTRUCTION:

Basis of Estimate: 10 c.y./1,500 s.f. of finished space

Area: Approximately 22,000 square feet of finished space

Solid Waste: Approximately 147 c.y.

Other Wastes Associated with Other Site Construction: Cardboard from packaging etc.: Limited Quantity

Total: 147 c.y. before recycling

Net: 30 c.y. if 80% of the material is recycled

Disposition: Assume 10 percent is concrete and brick which can be sent to the approved aggregate recycling facilities operated by Shaw Bros. or R.J. Grondin and Sons for processing into recycled aggregate.

Assume 70 percent is wood or metal which can be transported to KTI Biofuels in Lewiston (for wood) or One Steel Recycling in Oakland, Maine for metals.

Approximately 30 cubic yards of mixed construction debris that will be hauled to the Riverside Recycling Facility in Portland, WMI Crossroads facility in Norridgewock, Maine or the Juniper Ridge Facility in Old Town, Maine.

The contractor should provide dumpsters designated by material type and identify recycling methods and disposal sites prior to construction. All haulers must have a current non-hazardous waste haul license.

B. OPERATIONAL SOLID WASTE:

RESIDENTIAL USE: Basis of Estimate: 17 pounds/wk per individual. Estimate of 2 individuals per residential unit. From Table 14-1 of the CEQR Technical Manual from January 2014 Edition; Source: New York City Department of Sanitation.

Number of individuals: 18

Solid Waste: Approximately 306 pounds/week

PUBLIC INFRASTRUCTURE AND SAFETY

The following outlines how the proposed project at 33/37 Montreal Street has been designed to meet the applicable standards of the City of Portland associated with Level III: Residential Site Plan and Subdivision review.

Section 14-526 (c) 2 – Public Safety and Fire Prevention

The project design and building architecture will provide view corridors along Montreal Street, Willis Street, between the proposed building and the existing residential building at 23 Willis Street, and along the northerly property limits looking through the site to the northwest (towards Walnut Street).

Site access will be limited to the proposed entry/exit doorways on Willis Street and the proposed driveway and parking garage. Site will be improved with landscaped terraces along Montreal Street, which are intended to serve as community areas for the residents and guests which will have access from the existing sidewalk. Along the westerly side of the building, residents and guests will have access to a built-up hardscape patio and additional landscaped terraces that will be accessed from the inside of the building.

The site design layout and landscaping will provide a visual break from the public ROW and the exclusive/community elements of the proposed project. Exclusive use areas will likely be established and will likely provide an opportunity for residents to customize their exclusive use areas, and promote a sense of ownership.

Emergency access to the site will be provided by the existing road frontage along Willis Street and Montreal, as well as via the proposed driveway. The 14-ft wide driveway may not be capable of providing access to larger emergency apparatus but the proposed driveway design (vertical and horizontal) should be adequate to most service level emergency apparatus and vehicles.

Existing facilities such as fire hydrants and water supply also are adequate, with the nearest existing fire hydrant located at the southwesterly corner of the intersection at Willis Street and Montreal.

Section 14-526 (c) (3) – Availability and Adequacy of Public Utilities (Technical Manual, Sections 2 & 9)

The project site location and existing public utility facilities, are available; with existing combined storm sewer main lines (2 separate) in both Montreal Street and Willis Street in the direct vicinity of the project site. Water mains are also located in both Montreal Street and Willis Street and the project will coordinate with the Portland Water District to ensure that the project will be

provided adequate domestic potable water service as well as any fire safety water services. Additionally, underground gas, and overhead electric/telephone/data services are available, and the project will provide new service connections for water, sewer, gas, and overhead electric/telephone/data services.

The project design does not utilize a connection to the existing storm drain system and the existing facilities (in consideration with the proposed storm water facilities on-site) appear adequate based on hydrologic/hydraulic modeling of the project site.

The project proposes less than 20 units and therefore no trash and recycling storage or dumpster areas are proposed. However, the proposed project site has several opportunities to include trash storage areas for the residents either within the proposed underground parking area on adjacent to the proposed driveway within a screened, secure dumpster enclosure.

August 12, 2019

Att. L

33-37 MONTREAL STREET, PORTLAND

The following outlines how the proposed project has been designed to meet the applicable standards of the City of Portland associated with Level III: Residential Site Plan and Subdivision review.

SITE DESIGN

Massing, Ventilation and Wind Impact - Section 14-526 (d) (1):

The bulk, location and height of the proposed building will comply with the minimum allowable setbacks and maximum allowable building height for the zone.

The proposed building will be > 10' away from the nearest existing adjacent structure (23 Willis Street), and > 50' away from the next nearest existing adjacent structure (MacArthur Gardens, on Montreal Street).

The proposed structure is not expected to cause a reduction in ventilation to abutting structures or unsafe wind conditions for users of the site or adjacent public spaces.

Exterior HVAC mechanical equipment will be located on the roof within a screened enclosure, as shown on the Roof Plan. The enclosure will be in the center of the roof to maximize the distance from adjacent properties and minimize the visibility from adjacent properties and public spaces.

The base of the equipment will be supported and raised up above the low-slope roof membrane on racks to minimize performance disruption & maintenance issues caused by winter conditions. A screened enclosure will be provided around the roof-top HVAC equipment, with adequate space around the equipment to allow for air movement.

A decorative parapet/cornice around the perimeter of the building will provide further visual screening from footpath level.

HVAC venting on the exterior of the proposed building will direct exhaust away from public spaces and adjacent residential properties.

Snow and Ice – Section 14-526 (d) (4):

The proposed building has a low slope roof, with internal roof drains. The outer perimeter edge of the roof includes a decorative parapet/cornice to direct snow and ice away from the adjacent properties and public ways.

Zone Related Design Standards – Section 14-526 (d) (5):

A previous version of the project was reviewed by the Historic Preservation Board, as part of the Alternative Design Review process under the Munjoy Hill Neighborhood Conservation Overlay District. That project design received approval from the Board, in December 2018, after a number of public hearings and related design revisions.

While the current project proposal is significantly smaller and less complex than the previous version (ie smaller foot print/lot coverage/overall square foot area, with fewer residential units), the following notes describe how the project addresses the relevant design standards in the MHNCO District.

Roof Forms and Active Living Space - Section 14-140.5 (d) 1:

The proposed building has a low-pitch “flat roof”, as is permitted for buildings with more than 3 units.

The first floor contains active living space with windows comprising 50.0% of the overall façade, and satisfies the minimum requirement for this standard. This active living space does not include common circulation (ie. elevator, entry foyer, or stairs), or storage space within the residential units (eg closets).

R6 Design Principles and Standards:

Refer to separate attachment: R6 Design Standards.

33-37 MONTREAL STREET, PORTLAND

33-37 Montreal Street Apartments**R6 Design Principles and Standards**

New Residential construction within the R6 zone are to relate to the predominant character of the neighborhood. Projects are reviewed for consistency with the R6 Infill Development Design Principles and Standards, which apply to the front façade, and those portions of the building that are readily visible from a public way.

The Review Authority may approve a design not meeting one or more of the individual standards provided that all 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 following notes describe how the proposed building meets these criteria:

Neighborhood context - Two Block Radius Diagram

Principle A - Overall Context

The proposed multifamily residence at Montreal and Willis Streets is uniquely situated in one of the most architecturally and use diverse area on Munjoy Hill. Within a two block radius are three-family homes, single family residences, three major housing developments (including high-rise condos), numerous four story apartment buildings, a senior housing facility, the East End School and community garden, a ball field, parking lot, and the Portland Water District Treatment Facility. In order to understand how a building can act like a stitch between such different areas, while also reflecting the unique culture and architectural character of Munjoy Hill, we have considered the immediate community as well as other residential buildings located in similarly transitional areas in our analysis.

Standard A-1 Scale + Form

Within a two block radius of the site is a wide variety of housing scale including single-family, three-family, and larger-scale housing developments (like the MacArthur Gardens Apartments adjacent to the proposed building and which occupy the other half of the block, and the nearby 14-story Promenade Towers).

The proposed building is a 9-apartment residence at the corner of Willis and Montreal Streets, which will provide an alternative housing option for Munjoy Hill families, within a more intimate mid-scale community model.

The scale of the project is within that of other similarly-sized multifamily buildings within a two block radius such as:

80 North Street	9 Homes	
58 North Street	22 homes	Shailer School affordable housing
101 North Street	5 Homes	
158 North Street	60 units	Bayview Heights affordable senior housing
63 Emerson Street	5 Homes	
135 Sheridan Street	20 homes	

In addition the Munjoy Hill district includes other properties such as:

49 Morning Street	8 homes	
55 Morning Street	8 homes	
63 Morning Street	8 homes	
119 Morning Street	30 units	
13 Emerson Street	22 homes	Munjoy Commons affordable housing

The form of the proposed building has vertically proportioned massing, a simple roof form, vertical windows with local symmetry, a three-bay front facade composition, and simple material palette. This character is similar to the existing “three-decker” multi-family buildings within the two block radius context area (and the “four-deckers” in the wider Munjoy Hill District).

The building has shingled exterior walls capped by a low-pitch “flat roof” with a continuous parapet/cornice at the outer perimeter edges. Exposed concrete foundation walls provide a visual base to the building. Exterior space is provided to all units, with patios to the 3 units on the first floor, and decks at the rear of the building for the other 6 upper floor units.

Standard A-2 Composition of Principal Facades

Willis Street

The primary composition has an overall symmetrical appearance balanced with minor asymmetrical features. The main entrance to the building is prominently located in the center of the façade, using a traditional composition in the neighborhood context. A short flight of steps leads directly from the sidewalk and a ramp provides an ADA accessible route that meets the natural slope of grade. Projecting bay windows emphasize Willis Street as the front face of the building, with Montreal Street as the side-street elevation.

Montreal Street

Elements of the Willis Street facade are repeated as the building turns the corner and extends down Montreal Street. The repeated window rhythm and relative simplicity of the façade identifies it as the secondary face of the building. Exterior decks are located at the rear of the building, similar to the arrangement of the familiar three and four decker multifamily buildings in the district.

Standard A-3 Relationship to the Street

The Willis Street façade is set back enough to provide easy and direct access to the building via either a short flight of steps or a simple ramp arrangement. The steps follow a common arrangement for main entry paths in the neighborhood, being directly aligned between the sidewalk and the entry door. The steps rise approximately 12” in total, enough elevation rise to indicate a clear property threshold, while also being low enough to offer a welcoming entrance to the street.

The first floor has active living spaces with windows from living and bedroom spaces facing both Willis and Montreal streets.

The landscape design includes planted areas around all sides of the building. Street lot lines are defined by stone-faced site walls, with a simple arrangement of terraces in the intermediate space between the sidewalk and the building. The face of the intermediate terraces has a slatted wood lattice treatment that combines with the planted areas to form a continuous landscaped zone between the building and the property boundary.

Principle B - Massing

Standard B-1 Massing

The proposed building massing reflects the traditional character of the neighborhood and takes it's cues from the traditional multi-family buildings in the context area.

The narrow end of the building is clearly expressed as the front face, on Willis Street, using a three-bay composition. A central bay provides overhead weather protection above a slightly recessed main entrance. All three bays extend from second floor level up to roof level and are vertically proportioned.

Exterior decks are located at the rear of the building and occupy an "eroded" corner of the building in a vertical arrangement, in common of the familiar multi-decker typology.

Standard B-2 Roof Forms

The building has a low pitch "flat" roof capped by a decorative parapet/cornice that follows the perimeter of the building, similar to other flat-roofed multi-family buildings in the context area.

Standard B-3 Main Roofs and Subsidiary Roofs

The building has a clear main roof form, without subsidiary roofs.

Standard B-4 Roof Pitch

NA

Standard B-5 Façade Articulation

The Standard requires the front façade and other portions of the building that are readily visible from the public way to use at least two architectural elements from a list provided. The proposed building employs more than two of the listed features including:

- 1) Balconies
- 2) Recessed entries
- 3) Covered porches
- 4) Bay windows

Standard B-6 Garages

Access to the basement garage is provided via a driveway off Montreal Street to a garage door and a pass door discretely located away from the street facade. The garage door is set back more than 30' from the street lot line, is recessed between flanking site walls, and is turned 90 degrees so it does not directly face a public way.

Principle C – Orientation to the street

Standard C-1 Entrances

The main entrance to the building is clearly articulated in the center of the principal façade and faces the street directly. Architectural features such as a covered and recessed entry, plus accent cladding material, are used to highlight the entry point and provide a welcoming and protected transition area between the exterior public realm and the interior private space.

Standard C-2 Visual Privacy

Building occupants are offered a sense of privacy by elevating the first floor at least 24” above the sidewalk elevation, and elevating the first floor window sills at least 48” above the sidewalk grade (the only exception to this is at the corner of Willis and Montreal streets where the first floor is 12” above the sidewalk and one window is 36” above the sidewalk due to the local slope of grade).

A planted buffer zone fills the intermediate space between the building and the sidewalk. A stone-faced landscape wall on the street lot line provides a clear definition of public space close to the building.

Standard C-3 Transition Spaces

Transition spaces are articulated between the sidewalk and the front door through use of architectural and landscaping elements.

Architectural features include a short flight of steps and a ramp, each with approximately 12” total rise to the front door.

Landscaping features include planted areas alongside the steps and ramp. In addition a low wall along the Willis Street lot line defines the edge of the entry ramp and offers an informal seating opportunity for a neighborly conversations.

Principle D - Proportion and Scale

Standard D-1 Windows

All windows are rectangular and vertically proportioned, to reflect the scale and aesthetics of the surrounding neighborhood homes. The majority of windows along both facades are proportionate to commonly used vertically oriented windows, typically measuring approximately 2'-8" wide x 5'-0" high.

Standard D-2 Fenestration

The fenestration in general has a similar proportion to the overall building massing as other neighborhood buildings.

Consistent with the R6 Design Standards, the total area of fenestration of each street-facing facades along Montreal and Willis Streets is greater than 12% of the relevant total facade area.

Standard D-3 Porches

The horizontal extent of the covered entry porch on Willis Street is approximately 20% of the overall façade width.

All balconies have a depth of at least 6', and an area of at least 48 square feet.

Principle E - Balance

Standard E-1 Window and Door Height

The majority of doors and windows on all facades have a head height with a common horizontal datum line, including all primary window and doors.

Standard E-2 Window and Door Alignment

The majority of windows and doors are stacked with centerlines in vertical alignment.

Standard E-3 Symmetricality

Primary windows are composed with vertical symmetry around a discernable local centerline within each façade. The dominant window type is a pair of vertically orientated symmetrical window sashes, arranged symmetrically about a common centerline.

Principle F - Articulation

Standard F-1 Articulation

Primary surface articulation is provided with projecting bay windows on the Willis Street façade, and recessed exterior balconies on the Montreal Street façade. Secondary articulation and shadow lines are provided by the decorative parapet/cornice, and changes in material texture at accent panels.

Standard F-2 Window Types

The building uses consistent window types throughout with a minimum of variation. There are two window types:

- 1) Rectangular operable casement sashes.
- 2) Rectangular fixed sashes.

The dominant window arrangement is a symmetrical pair of vertically proportioned operable casement sashes, with a number of casement sashes arranged in groups of three on the water facing north-east façade. A relatively small number of fixed transom sashes are used on the top floor and the central bay above the main entrance. The egress stair also has a number of fixed sashes.

Standard F-3 Visual Cohesion

The material choices help to further define the primary masses of the structure:

- 1) Wood shingles for the predominant material.
- 2) Accent cladding at the main entrance.
- 3) Accent spandrel panels below some of the windows as part of the overall articulation of the building facades.

Standard F-4 Delineation between Floors

Floors are articulated primarily through fenestration patterns and balconies.

Standard F-5 Porches, etc.

Exterior spaces and balconies are incorporated in to the overall design and building massing. Balustrade railings are provide articulation and add shadow lines to the façade.

Standard F-6 Main Entries

The main entry is emphasized by the arrangement of steps, the composition of projecting window bays and recessed entry alcove, plus some local material articulation.

Standard F-8 Articulation

Architectural articulation features include:

- 1) Projecting bays with an offset depth of approximately 2'-0"
- 2) Recessed balconies with a typical offset depth of approximately 8'-0"
- 3) A decorative parapet/cornice with a projecting depth of between 1'-6" and 2'-0".

Principle G Materials

Standard G-1 Materials

Materials for the exterior walls are similar to those found in the context area of the neighborhood.

The proposed building includes:

- 1) Concrete foundation wall.
- 2) Wood shingles with a paint color.
- 3) Aluminum clad windows with a charcoal grey color.

Standard G-2 Material and Façade Design

The selection of façade materials is consistent with the façade design, with concrete for the foundation wall and visually lighter wood shingle cladding for the upper stories.

Standard G-3 Chimneys

N/A

Standard G-4 Window Types

The building uses consistent window types throughout with a minimum of variation. There are two window types:

- 1) Rectangular operable casement sashes.
- 2) Rectangular fixed sashes.

Window detailing will be consistent throughout.

Standard G-5 Patios and Plazas

The first floor patios will be constructed of masonry unit pavers.



CITY OF PORTLAND
Department of Public Works
Christopher C. Branch, P.E., Director

Date: September 173, 2019

Re: Wastewater Capacity Authorization

Address: 37 Montreal Street

Applicant: Tim Wells

Planner: Caitlan Cameron

Anticipated Wastewater Flow:

Estimate of Anticipated Design Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing flow to be removed				
Single Family Dwelling Units	3-Bedroom	2	270	(540)
Single Family Dwelling Units	5-Bedroom	1	450	(450)
Proposed flow				
Multiple Family Dwelling Units	2-Bedroom	1	180	180
Multiple Family Dwelling Units	3-Bedroom	8	270	2160
Net Change				+ 1350
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				

Comments:

The Department of Public Works, which includes the Water Resource Division, have reviewed and determined that the downstream sewers from the project address have the capacity to convey the estimated dry weather wastewater flows which will be generated from this development.

You are reminded that the sewers you are proposing to connect into convey both sanitary and stormwater (Combined Sewer) and therefore a backflow preventer is suggested.

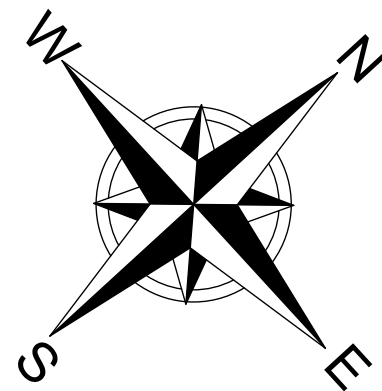
The property has three existing buildings which will require that their individual sewer laterals be abandoned in accordance with City ordinance. This will require either: 1. Digging the lateral from the property line to the sewer main and capping the lateral at the main. Or 2. Using a plug inserted into the lateral and pushed to the interface with the sewer main and then filling the sewer lateral with flowable fill. Either is acceptable.

If the City can be of further assistance, please contact me at all 874-8840 or brad@portlandmaine.gov

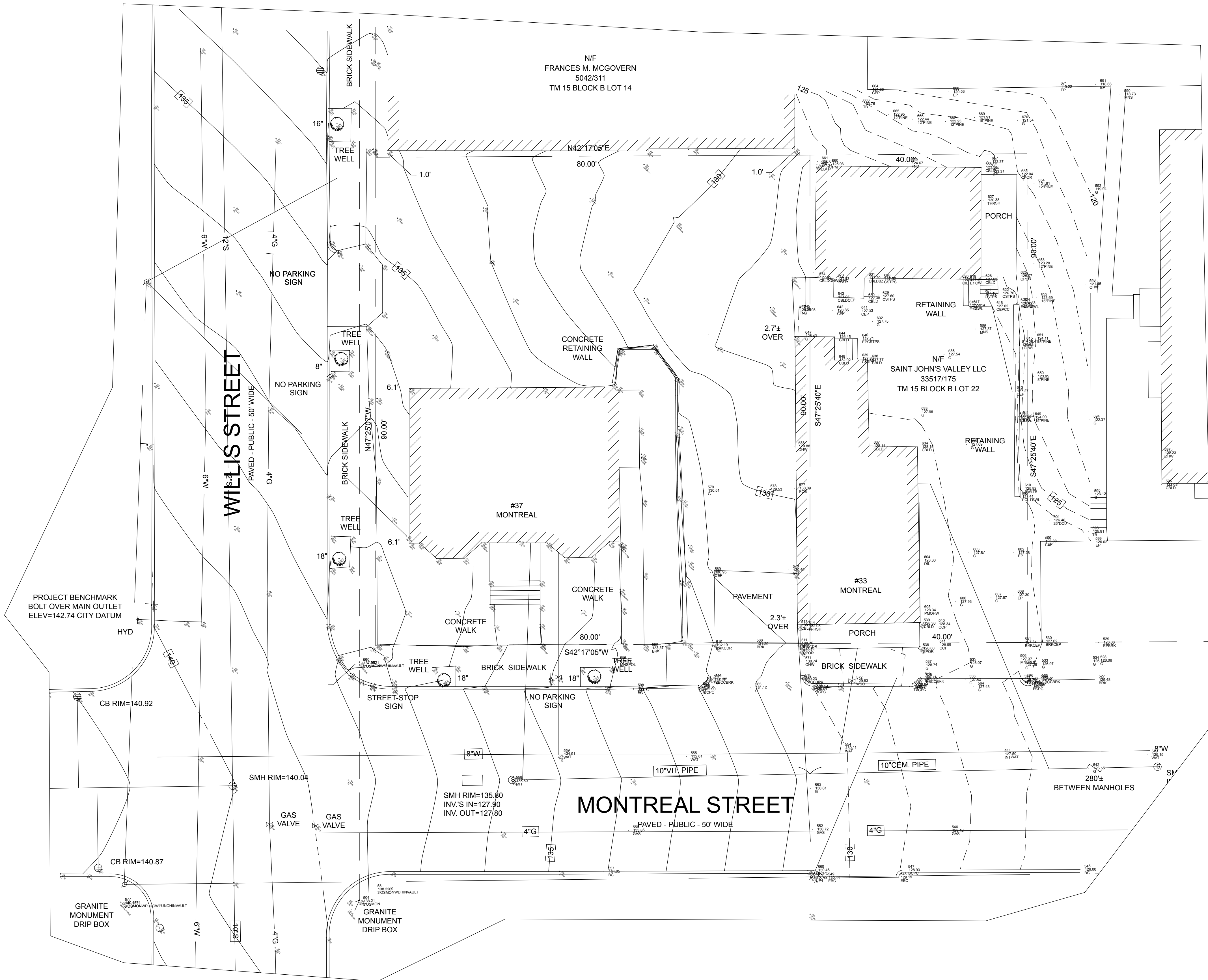
Sincerely,

A handwritten signature in dark ink, reading "Bradley A. Roland". The signature is written in a cursive style with a large, stylized "B" and "R".

Bradley A. Roland, P.E.
Senior Project Engineer



GRID NORTH
MAINE STATE PLANE
NAD 83, 1802 - MAINE
WEST



UTILITY NOTES:

PORTLAND WATER DISTRICT SKETCH OF 33 AND 37 MONTREAL STREET DATED FEBRUARY 20, 2018. 6 INCH CAST IRON WATER LINE (1913) IN WILLIS STREET AND 8 INCH CAST IRON WATER LINE (1913) IN MONTREAL STREET. 37 MONTREAL STREET HAS A 3/4 INCH COPPER WATER SERVICE LINE (1930) AND 33 MONTREAL STREET HAS A 3/4 INCH COPPER WATER SERVICE LINE (1941).

CITY OF PORTLAND DEPARTMENT OF PUBLIC WORKS SEWER TIE CARD FOR 37 MONTREAL STREET AND 31 MONTREAL STREET, 1882 CITY MAP SHEET 15 DEPICTS SEWER LINES IN MONTREAL STREET AS 10" VIT. AND 10" CEM. AS SHOWN. REFERENCE IS MADE TO PLANS ENTITLED "CITY OF PORTLAND, MAINE DEPARTMENT OF PUBLIC WORKS MONTREAL STREET SEWER AS-BUILT DATED 7-75" AND "CITY OF PORTLAND DEPARTMENT OF PUBLIC WORKS WILLIS STREET AS-BUILT" WHICH DEPICTS THE LOCATION OF THE SEWER LINE AND GAS LINE AS SHOWN HEREON.

THERE NO CATCH BASINS OBSERVED IN MONTREAL STREET AT THE TIME OF THE FIELD SURVEY EXCEPT THE TWO SHOWN ON THE OTHER SIDE OF WILLIS STREET.

GAS SERVICE IS PROVIDED BY UTILIT. THE

BOUNDARY SURVEY 37 MONTREAL STREET PORTLAND, MAINE

FOR: **MCTIGUE CONSTRUCTION**

184 MOUNTAIN ROAD
FALMOUTH, MAINE 04105
(CLIENT)

SURVEY BY: **SURVEY, INC.**

P.O. BOX 210
WINDHAM, ME 04062
(207) 892-2556
INFO@SURVEYINCORPORATED.COM

DWN: WCS
DATE: AUGUST 2017

JOB NO. 17111

CHK: BDK

PLAN REFERENCES:

- (1) A.P. MARSHALL'S PLAN OF LOTS DATED MAY 20, 1856 AND RECORDED IN PLAN BOOK 1 PAGE 41 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- (2) BOUNDARY AND TOPOGRAPHIC SURVEY AT 33 MONTREAL STREET PORTLAND, MAINE MADE FOR TIMOTHY WELLS DATED MAY 22, 2017 BY OWEN HASKELL, INC.

SURVEY NOTES:

- (1) THE OWNERS OF RECORD ARE KEVIN JAMES CARTER AS DESCRIBED IN A DEED RECORDED IN BOOK 34283 PAGE 95 AND SAINT JOHN'S VALLEY LLC AS DESCRIBED IN A DEED RECORDED IN BOOK 33517 PAGE 175 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.

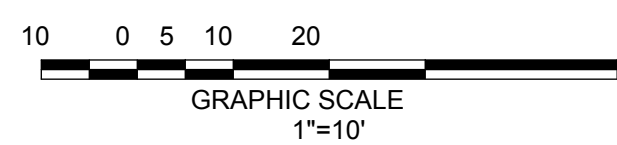
(2) THE PARCELS ARE SHOWN AS LOTS 15 AND 22 BLOCK B

ON THE CITY OF PORTLAND'S ASSESSOR'S MAP 15.

CERTIFICATION:

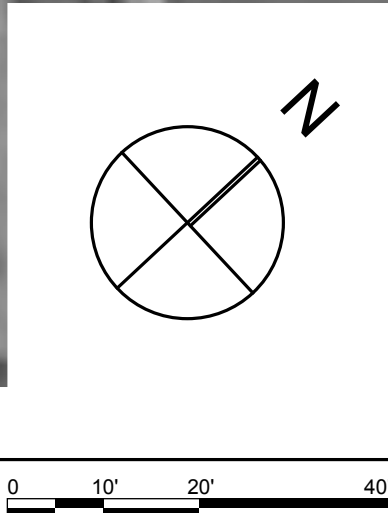
I CERTIFY THAT THIS SURVEY CONFORMS TO THE STANDARDS OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS AND IS CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

WILLIAM C. SHIPPEN P.L.S. 2118





1 NEIGHBORHOOD CONTEXT - 1 BLOCK
SCALE: 1" = 20'



Kaplan
Thompson
Architects

102 Exchange Street
Portland, ME 04101

(207) 842-1888
kaplanthompson.com

PROJECT

MONTREAL ST

Montreal St
Portland, ME 04101

NOT FOR CONSTRUCTION

PROJECT	MTL
DATE	08/06/2018
REVISED 1	
REVISED 2	
DRAWN BY	JT - RL - BB
PHASE	ALTERNATIVE DESIGN REVIEW

NEIGHBORHOOD
CONTEXT

A-0.1



1 NEIGHBORHOOD CONTEXT - 3 BLOCKS

SCALE: 1" = 50'

0 20' 50' 100'

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NEIGHBORHOOD
CONTEXT

A-0.2



101 North Street
MONTREAL STREET ADJACENT West



MacArthur Gardens 13-27
MONTREAL STREET ADJACENT East



89 North Street
MONTREAL STREET FACING West



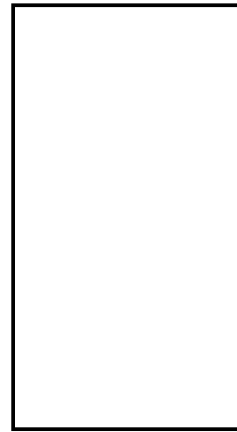
9 Willis Street
MONTREAL STREET FACING East



294 East Promenade



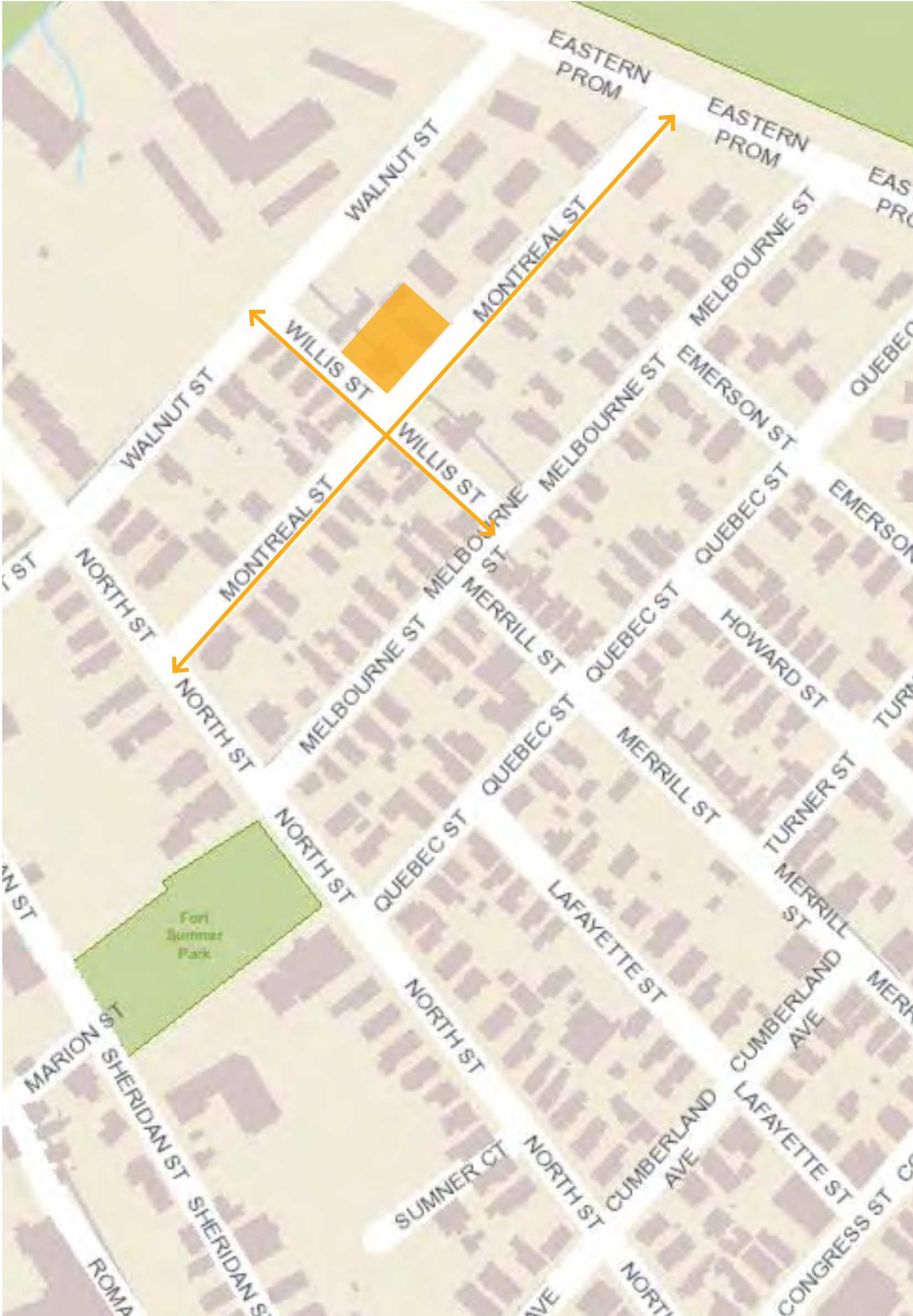
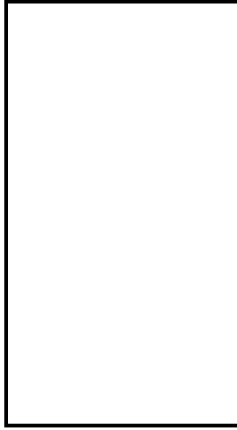
Promenade Towers 340 East Promenade
WILLIS STREET ADJACENT



9



51 Melbourne Street
WILLIS STREET FACING



SITE LOCATION

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NEIGHBORHOOD
CONTEXT -
STREETSCAPE

A-0.3



97 Sheridan Street 71 Quebec Street 59 Lafayette Street 128 Sheridan Street

ROOF FORM PRECEDENTS



118 Congress Street 98 Congress Street 119 Morning Street 16 Emerson Street 16 Cleeve Street 135 Sheridan Street



49 Morning Street 63 Emerson Street 80 North Street 58 North Street 55 Morning Street 63 Morning Street



70 Morning Street 34 Lafayette Street 101 North Street

SCALE PRECEDENTS



PROJECT
MONTREAL ST

Montreal St
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NEIGHBORHOOD
CONTEXT -
PRECEDENTS

A-0.4



Owner: Bartley A. Connolly
Address: 33-37 Montreal Street, East End - Munjoy Hill, Portland, Maine
Use: Dwelling - Single family
Local Code: Block 15B Lot 15 Book 51 Page 1
MMN item number: 63893



1 37 MONTREAL STREET - 1924 TAX PHOTO & JULY 2018 PHOTOS

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Architects

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(207) 842-1888
kaplanthompson.com

PROJECT

MONTREAL ST

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PHASE	ALTERNATIVE DESIGN REVIEW

EXISTING BUILDING
37 MONTREAL ST.

A-0.5



① 33 MONTREAL STREET - FEBRUARY 2018



② 33 MONTREAL STREET - 1924 TAX PHOTO



③ 33 MONTREAL STREET - 1924 TAX PHOTO

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102 Exchange Street
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PROJECT
MONTREAL ST

Montreal St
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EXISTING BUILDING
33 MONTREAL ST.

A-0.6





TWO BLOCK RADIUS



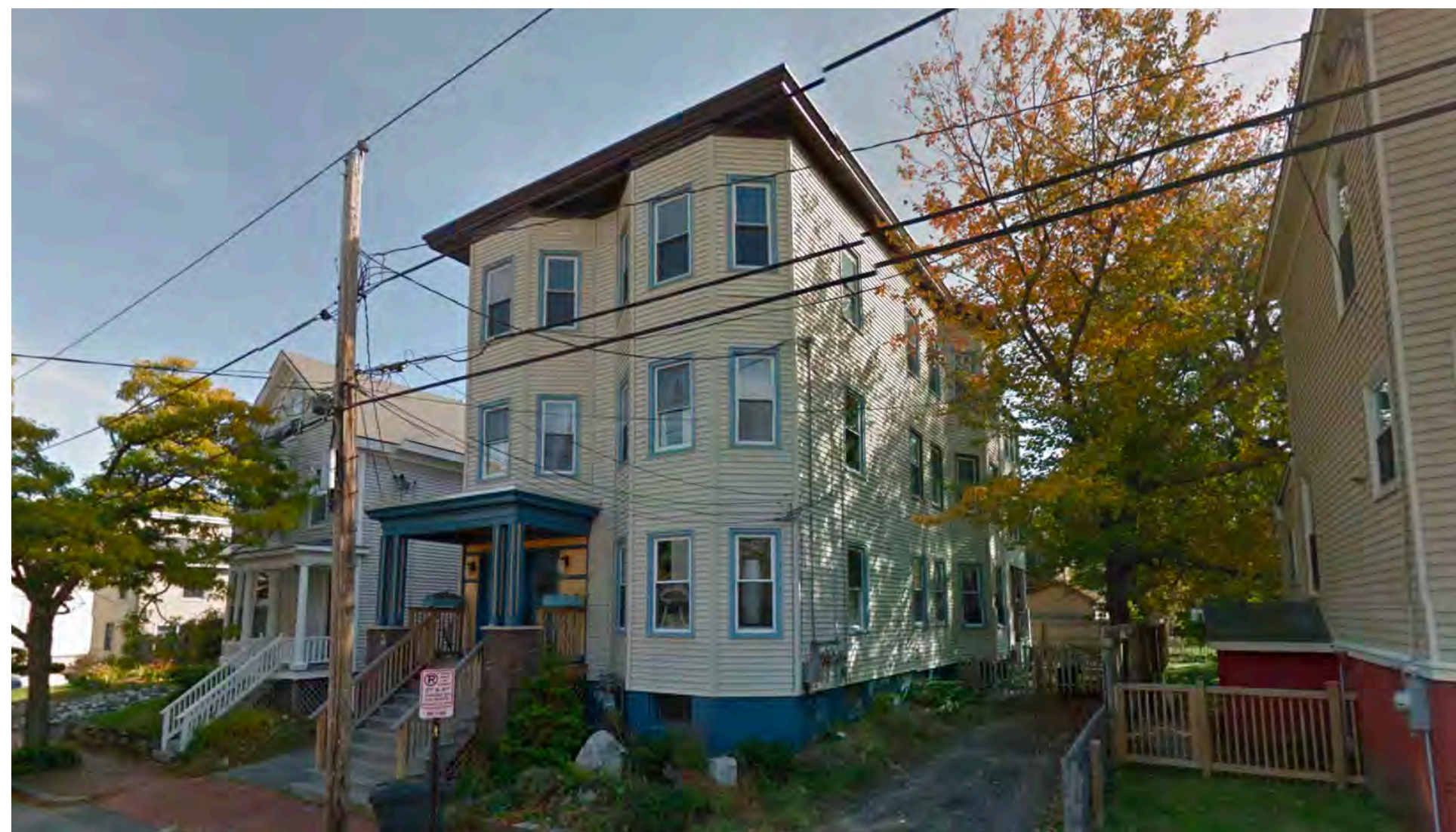
① TURNER STREET #19 & #17



② CORNER OF MONTREAL & WILLIS STREETS



③ MACARTHUR GARDENS & PROMENADE TOWERS



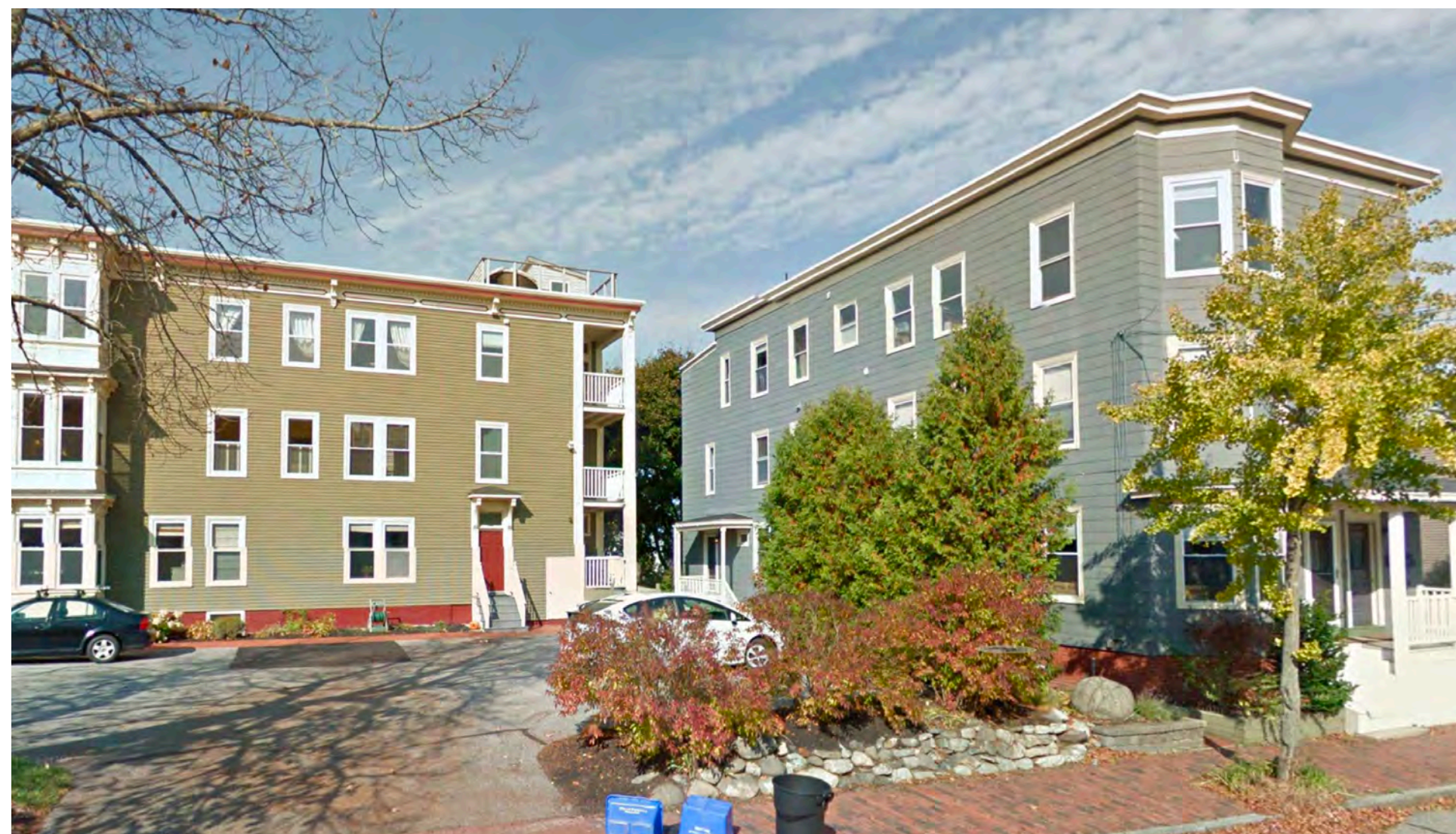
④ MONTREAL STREET #64



⑤ MONTREAL STREET #52 & #49



⑥ EMERSON STREET #60 & # 68



⑦ NORTH STREET #101 & MONTREAL STREET #61



⑧ WALNUT STREET #151 ISLAND VIEW APARTMENTS



⑨ ISLAND VIEW APARTMENTS



① MONTREAL STREET VIEW DOWNHILL



② MONTREAL STREET VIEW UPHILL

EXISTING CONTEXT: MONTREAL

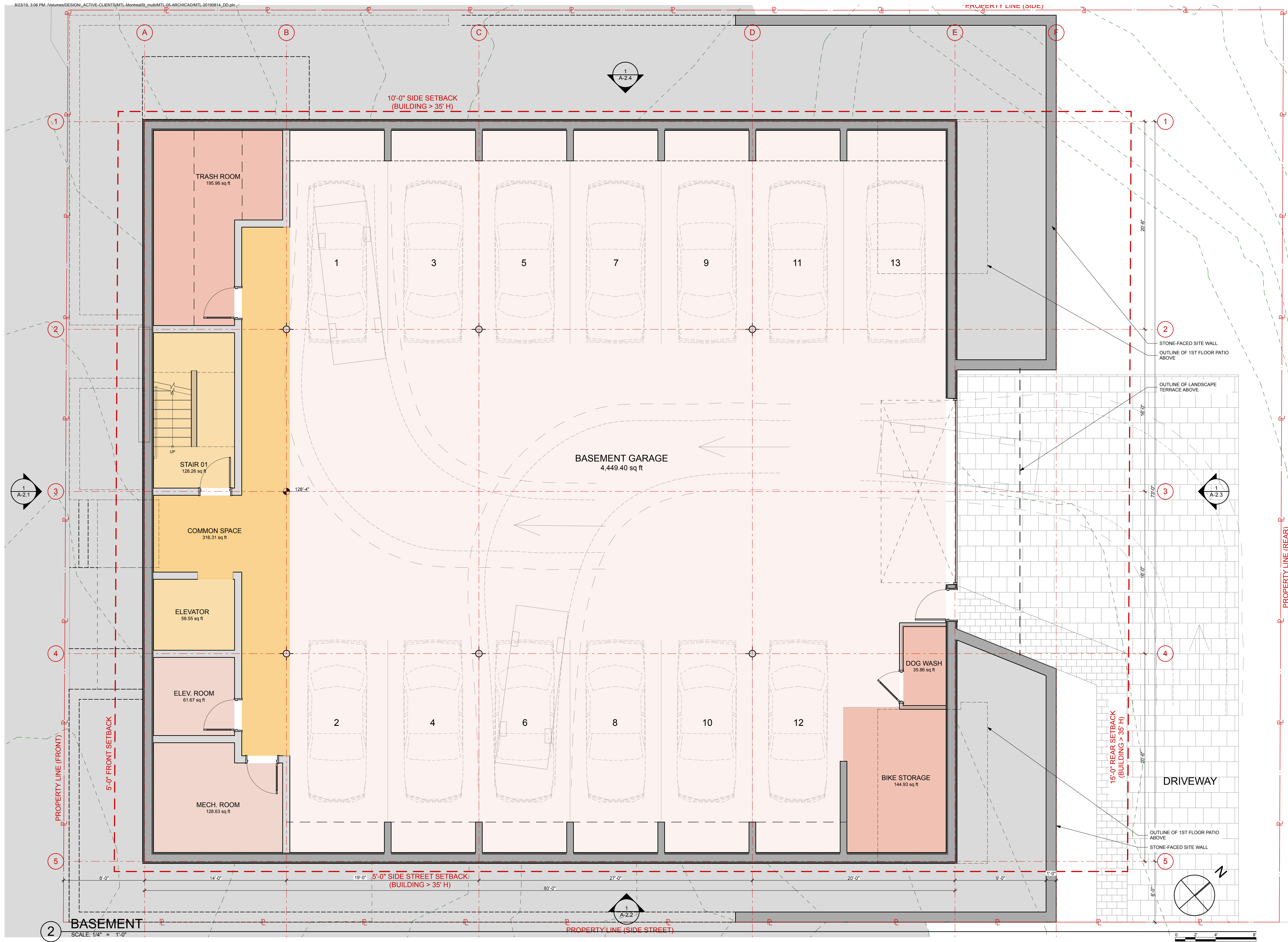


① WALNUT STREET PERSPECTIVE



② MONTREAL STREET PERSPECTIVE UPHILL

EXISTING CONTEXT: WALNUT & MONTREAL ST



33 - 37 MONTREAL STREET
PORTLAND, ME 04101

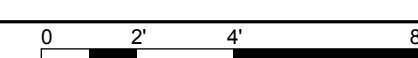
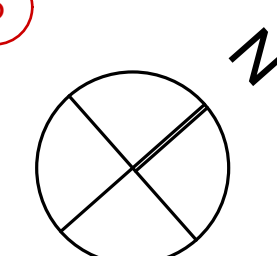
CIVIL
DM Roma
PO Box 1116,
Windham, ME 04062
P: (207) 310-050

LANDSCAPE
**Soren Deniord
Design Studio**
43 Wellwood Road
Portland, ME 04103
P: (207) 400-2450



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DRAWN BY:	BB
PHASE:	DD For Review

A-1.2

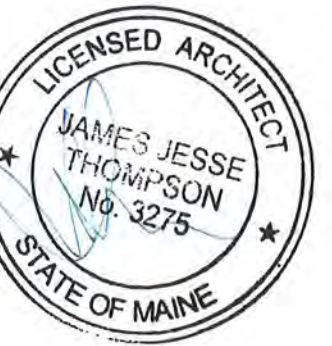


PROJECT
33-37
MONTREAL
STREET
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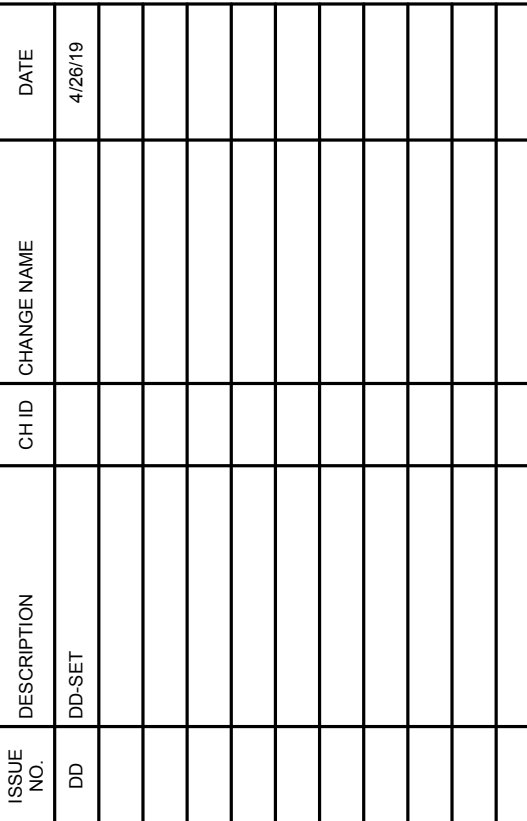
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SECOND FLOOR PLAN

A-1.3





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THIRD FLOOR PLAN

A-1.4

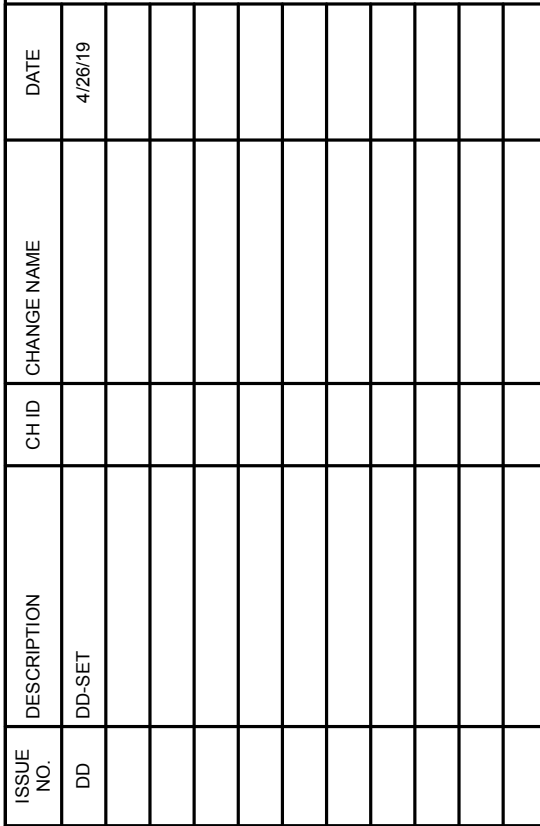


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A-1.5



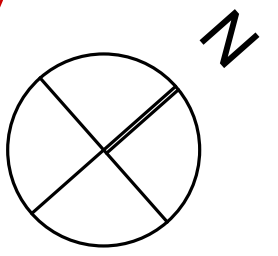


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ROOF PLAN

A-1.6

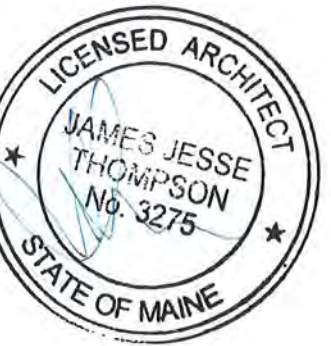


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[illegible]

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PROJECT:	MTL
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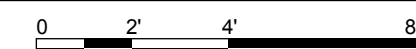
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WILLIS ST ELEVATION

A-2.1



1 WILLIS ST ELEVATION
SCALE: 1/4" = 1'-0"



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MONTREAL ST ELEVATION

A-2.2



[illegible]

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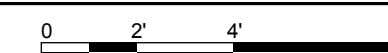
NORTH-EAST
ELEVATION

A-2.3



1 NORTH-EAST ELEVATION (DOWNHILL)

SCALE: 1/4" = 1'-0"



STRUCTURAL
TBA

LANDSCAPE
**Soren Deniord
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43 Wellwood Road
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P: (207) 400-2450

[illegible]

PROJECT:	MTL
DATE:	AUGUST 23, 2019

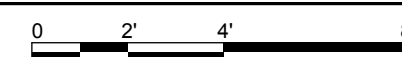
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NORTH-WEST
ELEVATION

A-2.4



1 NORTH-WEST ELEVATION (WALNUT STREET)
SCALE: 1/4" = 1'-0"





VIEW 1
SCALE: 1:1.15

Kaplan
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Architects

2 Exchange Street
Portland, ME 04101
(207) 842-2888
aplantthompson.com

PROJECT

**33-37
MONTREAL
STREET**

33 - 37 MONTREAL STREET
PORTLAND, ME 04101

STRUCTURAL
TBA

CIVIL

DM Roma

PO Box 1116,
Windham, ME 04062
P: (207) 310-050

LANDSCAPE

Soren Deniord
Design Studio

43 Wellwood Road
Portland, ME 04103
P: (207) 400-2450

[illegible]

NOT FOR CONSTRUCTION

PROJECT: MTL

DATE: AUGUST 23, 2019

DRAWN BY: BB

PHASE:	DD For Review
--------	---------------

PERSPECTIVE

A-10.1



1 VIEW 2
SCALE: 1:1.15

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Thompson
Architects

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Portland, ME 04101
(207) 842-2888
kaplanthompson.com

PROJECT

**33-37
MONTREAL
STREET**

33 - 37 MONTREAL STREET
PORTLAND, ME 04101

STRUCTURAL
TBA

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DATE:	AUGUST 23, 2019

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PERSPECTIVE

A-10.2

PROJECT
33-37
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STREET
33 - 37 MONTREAL STREET
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P: (207) 310-050

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Design Studio**
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P: (207) 400-2450

[illegible]

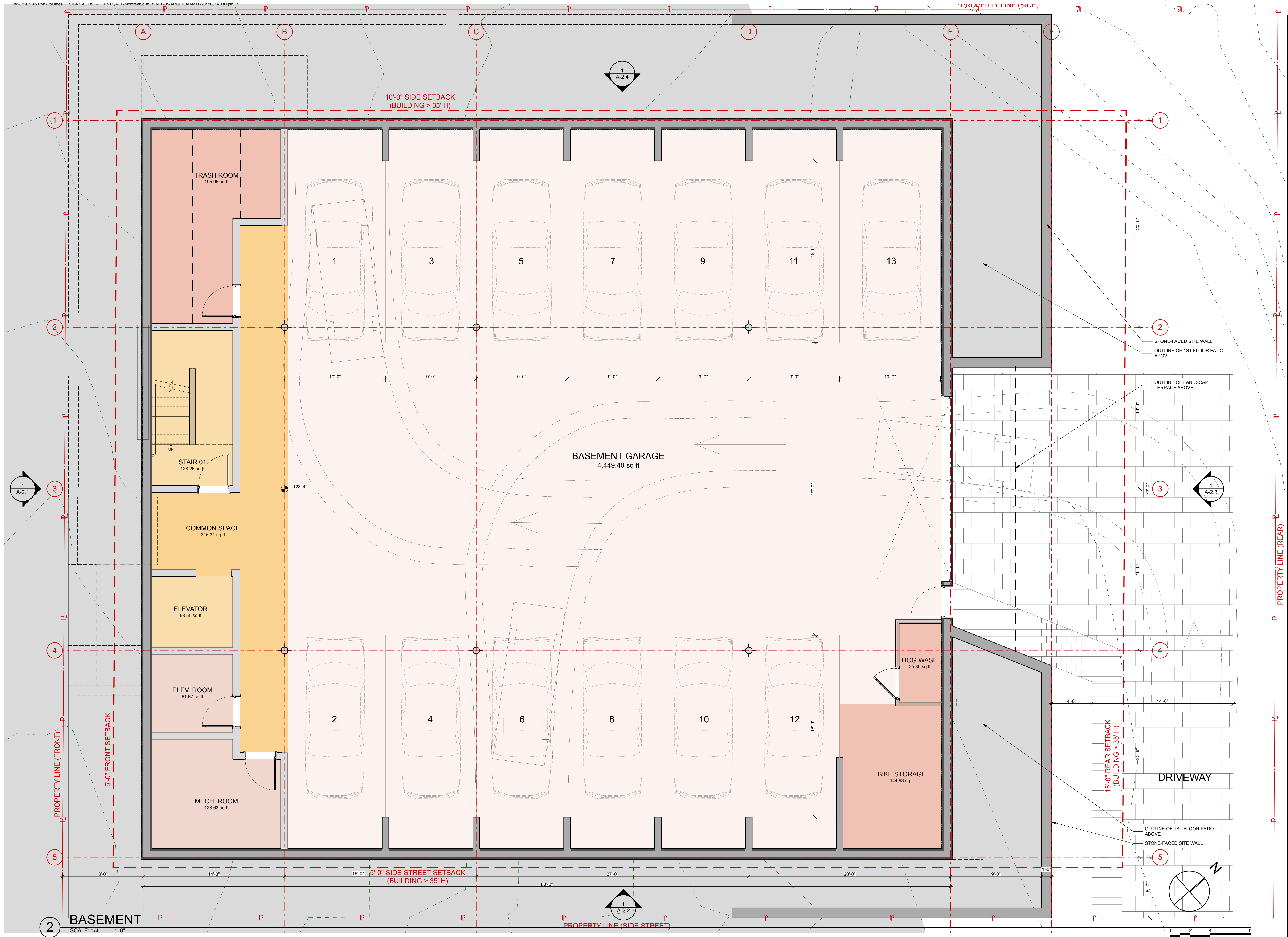
NOT FOR CONSTRUCTION

PROJECT:	MTL
DATE:	AUGUST 28, 2019

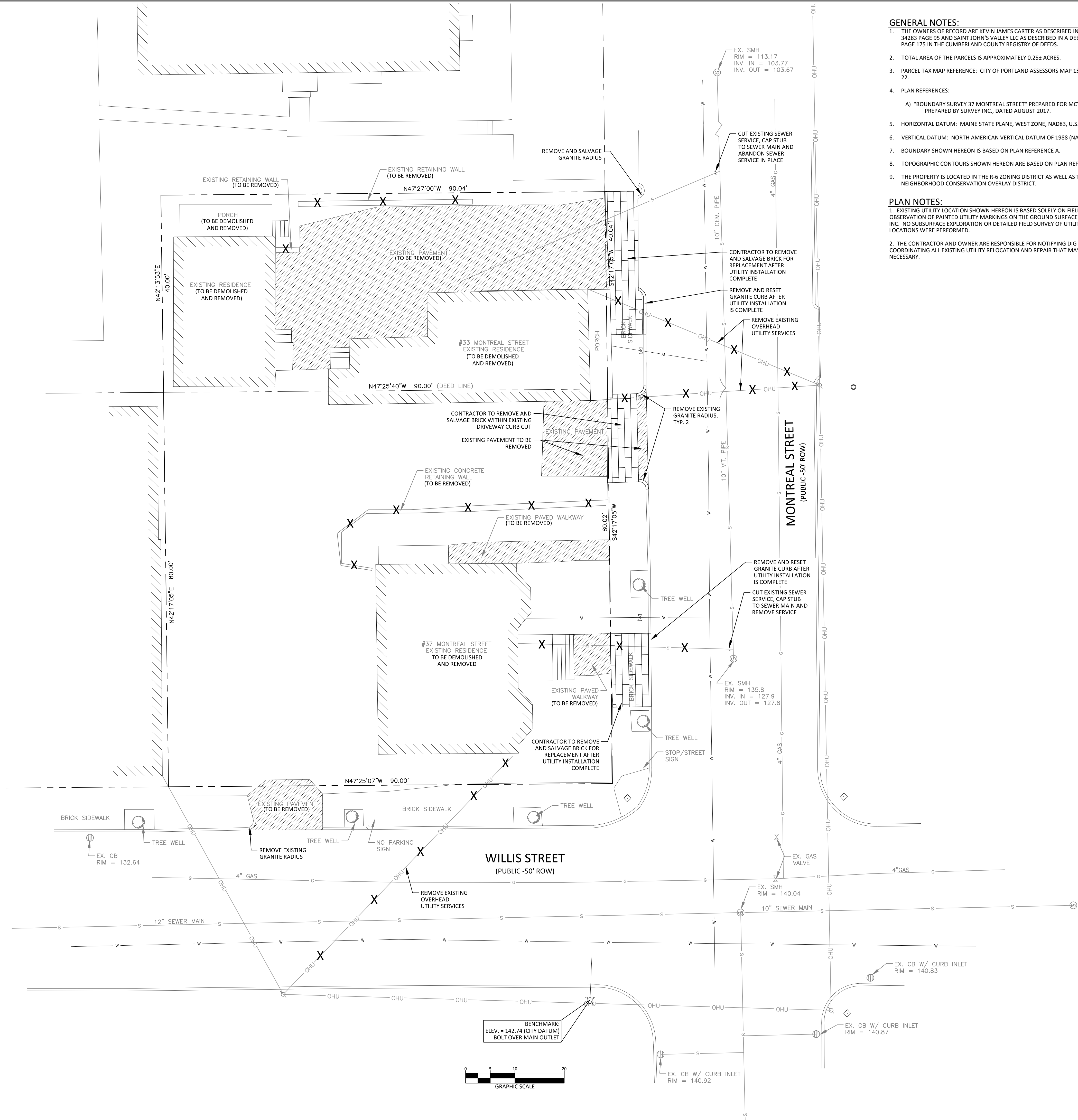
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PHASE:	DD For Review

BASEMENT PLAN

A-1.1

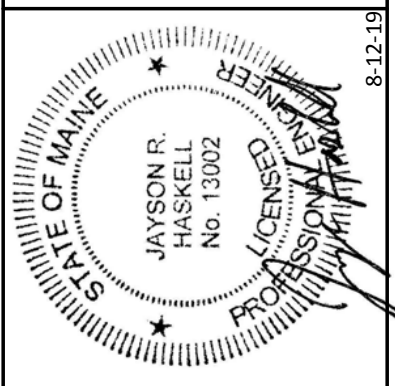
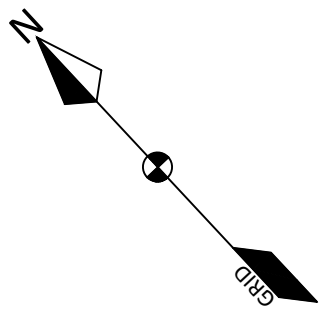


EXISTING	PROPOSED
	PROPERTY LINE/R.O.W.
	ABUTTER PROPERTY LINE
	SETBACK
	EASEMENT LINE
	GRANITE MONUMENT
	IRON PIN/DRILL HOLE
	BUILDING
	EDGE OF PAVEMENT/CURB
	CONTOUR LINE
	CATCHBASIN
	SEWER MANHOLE
	SANITARY SEWER PIPE
	WATER MAIN
	WATER VALVE
	HYDRANT
	UTILITY POLE
	LIGHT POLE
	OVERHEAD UTILITIES
	GAS MAIN
	GAS VALVE
	PAVEMENT REMOVAL



- GENERAL NOTES:**
- THE OWNERS OF RECORD ARE KEVIN JAMES CARTER AS DESCRIBED IN A DEED RECORDED IN BOOK 34283 PAGE 95 AND SAINT JOHN'S VALLEY LLC AS DESCRIBED IN A DEED RECORDED IN BOOK 33517 PAGE 175 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
 - TOTAL AREA OF THE PARCELS IS APPROXIMATELY 0.25+ ACRES.
 - PARCEL TAX MAP REFERENCE: CITY OF PORTLAND ASSESSORS MAP 15, BLOCK B, PARCELS 15 AND 22.
 - PLAN REFERENCES:
 - A) "BOUNDARY SURVEY 37 MONTREAL STREET" PREPARED FOR MCTIGUE CONSTRUCTION, PREPARED BY SURVEY INC., DATED AUGUST 2017.
 - HORIZONTAL DATUM: MAINE STATE PLANE, WEST ZONE, NAD83, U.S. FEET.
 - VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
 - BOUNDARY SHOWN HEREON IS BASED ON PLAN REFERENCE A.
 - TOPOGRAPHIC CONTOURS SHOWN HEREON ARE BASED ON PLAN REFERENCE A.
 - THE PROPERTY IS LOCATED IN THE R-6 ZONING DISTRICT AS WELL AS THE MUNJOY HILL NEIGHBORHOOD CONSERVATION OVERLAY DISTRICT.

- PLAN NOTES:**
- EXISTING UTILITY LOCATION SHOWN HEREON IS BASED SOLELY ON FIELD OBSERVATION OF PAINTED UTILITY MARKINGS ON THE GROUND SURFACE BY SURVEY INC. NO SUBSURFACE EXPLORATION OR DETAILED FIELD SURVEY OF UTILITY LOCATIONS WERE PERFORMED.
 - THE CONTRACTOR AND OWNER ARE RESPONSIBLE FOR NOTIFYING DIG SAFE AND COORDINATING ALL EXISTING UTILITY RELOCATION AND REPAIR THAT MAY BE NECESSARY.

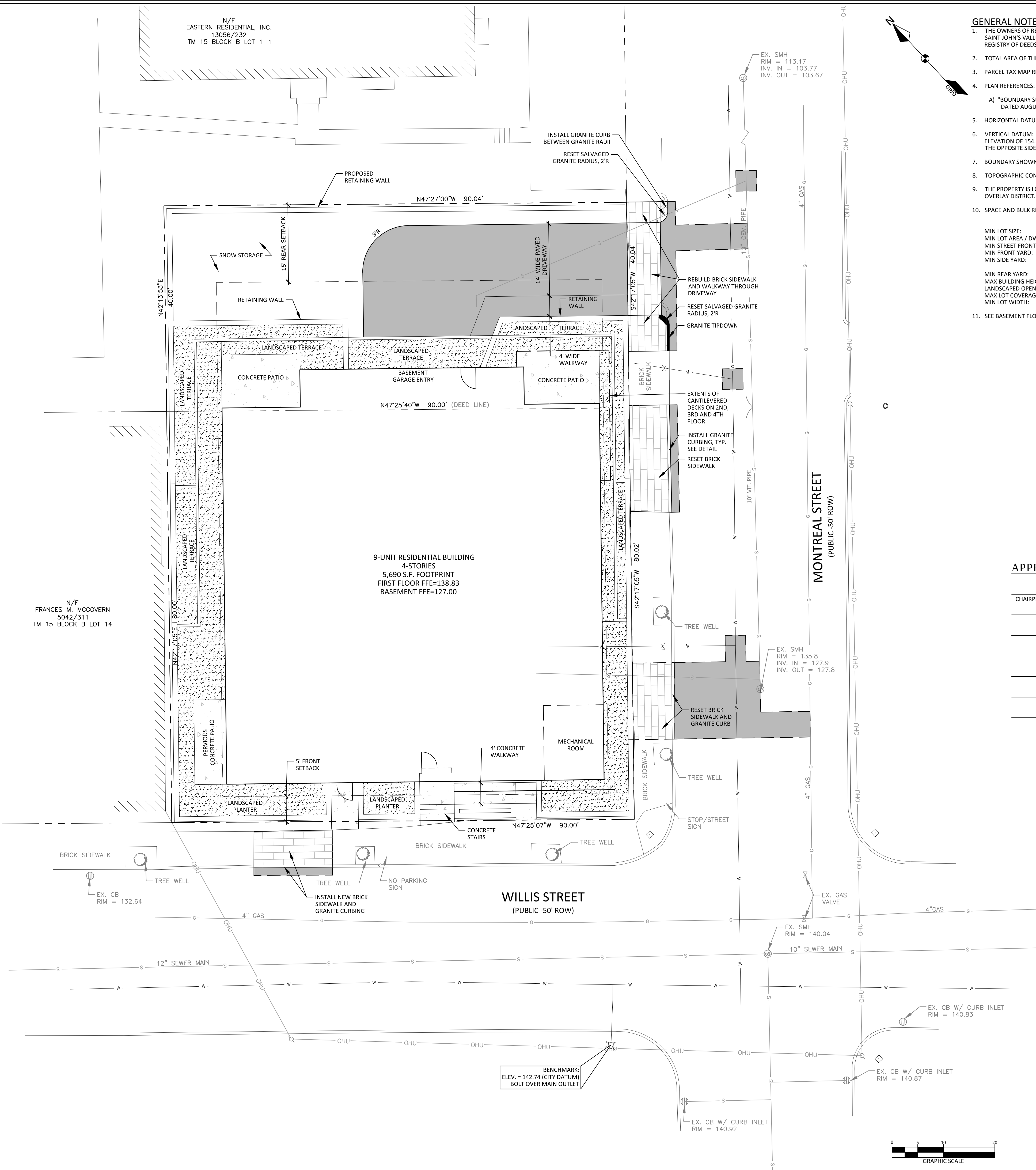


DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 310-0506

REV	DATE	BY	DESCRIPTION
A	8-12-19	DMK	ISSUED FOR PERMITTING

EXISTING CONDITIONS & DEMOLITION PLAN
37 MONTREAL STREET
PORTLAND, MAINE
FOR APPLICANT:
MCTIGUE CONSTRUCTION
284 MOUNTAIN ROAD
PORTLAND, ME, 04106

18053
JOB NUMBER:
1" = 10'
SCALE:
8-12-2019
DATE:
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C0.0



- # GENERAL NOTES:
1. THE OWNERS OF RECORD ARE KEVIN JAMES CARTER AS DESCRIBED IN A DEED RECORDED IN BOOK 34283 PAGE 95 AND SAINT JOHN'S VALLEY LLC AS DESCRIBED IN A DEED RECORDED IN BOOK 33517 PAGE 175 IN THE CUMBERLAND COUNTY REGISTER OF DEEDS.
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 - A) "BOUNDARY SURVEY 37 MONTREAL STREET" PREPARED FOR MCTIGUE CONSTRUCTION, PREPARED BY SURVEY INC., DATED AUGUST 2017.
 5. HORIZONTAL DATUM: MAINE STATE PLANE, WEST ZONE, NAD83, U.S. FEET.
 6. VERTICAL DATUM: CITY OF PORTLAND VERTICAL DATUM BASED ON MONUMENT T-108-73-2 WITH AN ELEVATION OF 154.15'. THE TEMPORARY PROJECT BENCHMARK IS LOCATED ON A HYDRANT BOLT IN THE SIDEWALK ON THE OPPOSITE SIDE OF WILSON STREET. SEE PLAN FOR LOCATION AND ELEVATION.
 7. BOUNDARY SHOWN HEREON IS BASED ON PLAN REFERENCE A.
 8. TOPOGRAPHIC CONTOURS SHOWN HEREON ARE BASED ON PLAN REFERENCE 4A.
 9. THE PROPERTY IS LOCATED IN THE R-6 ZONING DISTRICT AS WELL AS THE MUNJOY HILL NEIGHBORHOOD CONSERVATION OVERLAY DISTRICT.
 10. SPACE AND BULK REQUIREMENTS: R-6 DISTRICT & MHNOD

	<u>R-6 DISTRICT</u>	<u>MHNOD</u>	<u>PROVIDED</u>
MIN LOT SIZE:	2,000 SF (RES. USES)		10,804 SF
MIN LOT AREA / DWELLING UNIT:	725 SF (RES. USES)		1,200 SF/UNIT
MIN STREET FRONTAGE:	20 FT		90 FT (WILDIS)
MIN FRONT YARD:	5 FT		5.0 FT
MIN SIDE YARD:	5 FT	10 FT (BLDG OVER 35' HEIGHT)	10.3 FT
		5 FT (SIDE STREET)	5.0 FT
MIN REAR YARD:	10 FT	15 FT (BLDG OVER 35' HEIGHT)	31.5 FT
MAX BUILDING HEIGHT:	45 FT	45 FT (FOR 3 OR MORE UNITS)	44.5 FT
LANDSCAPED OPEN SPACE:	20%		26%
MAX LOT COVERAGE:	60%		53%
MIN LOT WIDTH:	20 FT		90 FT
 11. SEE BASEMENT FLOOR PLAN FOR PARKING SUMMARY AND DIMENSIONS.

	R-6 DISTRICT	MHNCDO	PROVIDED
MIN LOT SIZE:	2,000 SF (RES. USES)		10,804 SF
MIN LOT AREA / DWELLING UNIT:	725 SF (RES. USES)		1,200 SF/UNIT
MIN STREET FRONTAGE:	20 FT		90 FT (WILLIS)
MIN FRONT YARD:	5 FT		5.0 FT
MIN SIDE YARD:	5 FT	10 FT (BLDG OVER 35' HEIGHT)	10.3 FT
MIN REAR YARD:	10 FT	5 FT (SIDE STREET)	5.0 FT
MIN BUILDING HEIGHT:	15 FT	15 FT BLDG OVER 35' HEIGHT	31.5 FT
LANDSCAPED OPEN SPACE:	45 FT	45 FT (FOR 3 OR MORE UNITS)	44.5 FT
MAX LOT COVERAGE:	60%		26%
MIN LOT WIDTH:	20 FT		90 FT

APPROVED - PORTLAND PLANNING BOARD:

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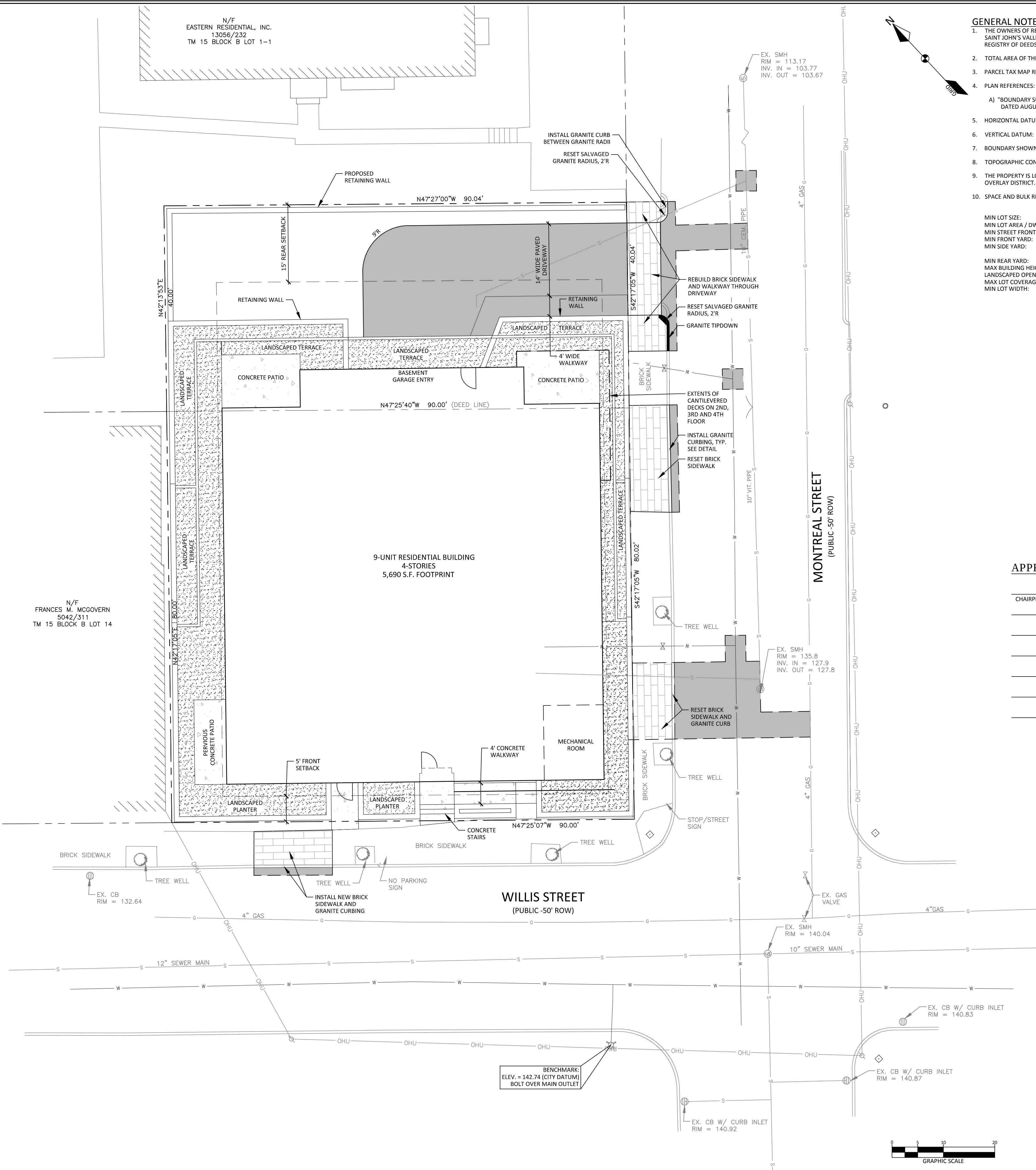
REV	DATE	BY	DESCRIPTION
A	8-12-19	DMR	ISSUED FOR PERMITTING

SITE PLAN

37 MONTREAL STREET
PORTLAND, MAINE

FOR APPLICANT:
McTIGUE CONSTRUCTION
184 MOUNTAIN ROAD
FALMOUTH, ME. 04105

18053 JOB NUMBER:
1" = 10' SCALE:
8-12-2019 DATE:
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C1.0



- GENERAL NOTES:**
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 10. SPACE AND BULK REQUIREMENTS: R-6 DISTRICT & MHNOD

	R-6 DISTRICT	MHNCOD	PROVIDED
MIN LOT SIZE:	22,000 SF (RES. USES)		10,804 SF
MIN LOT AREA / DWELLING UNIT:	725 SF (RES. USES)		12,360 / UNIT
MIN STREET FRONTAGE:	20 FT		90 FT (WILLOW)
MIN FRONT YARD:	5 FT		5.0 FT
MIN SIDE YARD:	5 FT	10 FT (BLDG OVER 35' HEIGHT)	10.3 FT
		5 FT (SIDE STREET)	5.0 FT
MIN REAR YARD:	10 FT	15 FT (BLDG OVER 35' HEIGHT)	31.5 FT
MAX BUILDING HEIGHT:	45 FT	45 FT (FOR 3 OR MORE UNITS)	45.5 FT
LANDSCAPED OPEN SPACE:	26%		26%
MAX LOT COVERAGE:	60%		53%
MIN LOT WIDTH:	20 FT		90 FT

APPROVED - PORTLAND PLANNING BOARD:

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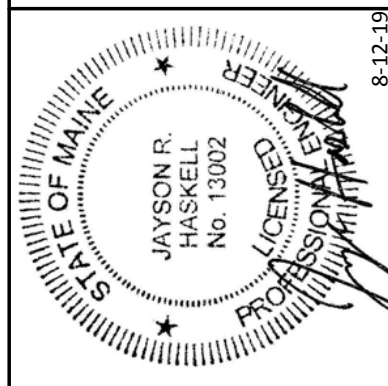
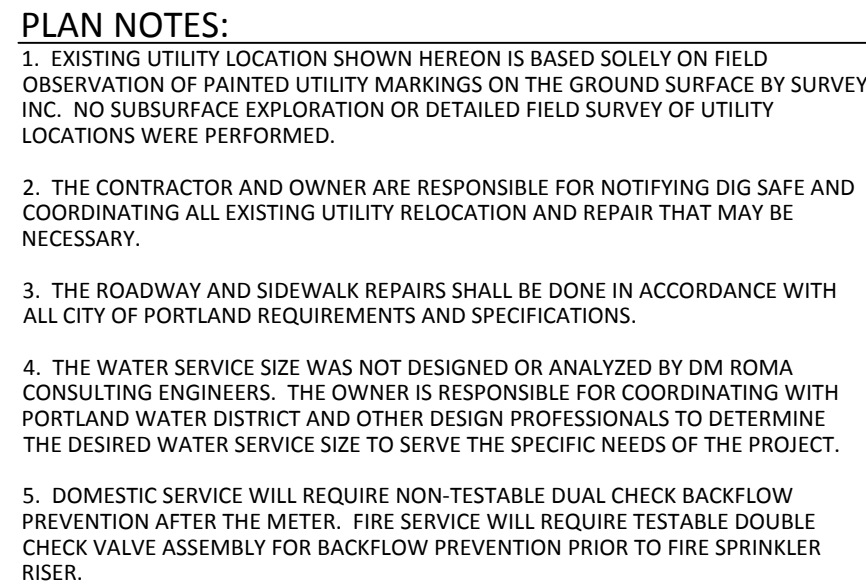
LEGEND		PROPOSED
EXISTING		
—————	PROPERTY LINE/R.O.W.	—————
- - - - -	ABUTTER PROPERTY LINE	—————
———	SETBACK	—————
—————	EASEMENT LINE	—————
□	GRANITE MONUMENT	■
○	IRON PIN/DRILL HOLE	●
=====	BUILDING	=====
=====	EDGE OF PAVEMENT/CURB	=====
——-200'-——-201'——-	CONTOUR LINE	
▣	CATCHBASIN	
⊗	SEWER MANHOLE	
—S—	SANITARY SEWER PIPE	
—W—	WATER MAIN	
~V~	WATER VALVE	
⦿	HYDRANT	
—U—	UTILITY POLE	
—OHU—	OVERHEAD UTILITIES	
—G—	GAS MAIN	
~V~	GAS VALVE	

SITE AND SUBDIVISION PLAN

37 MONTREAL STREET
PORTLAND, MAINE

FOR APPLICANT:
McTIGUE CONSTRUCTION
184 MOUNTAIN ROAD
FALMOUTH, ME, 04105

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(207) 310 - 0506

REV	DATE	BY	DESCRIPTION
A	8-12-19	DMR	ISSUED FOR PERMITTING

GRADING AND UTILITY PLAN

37 MONTREAL STREET
PORTLAND, MAINE

FOR APPLICANT:
McTIGUE CONSTRUCTION
184 MOUNTAIN ROAD
FALMOUTH, ME, 04105

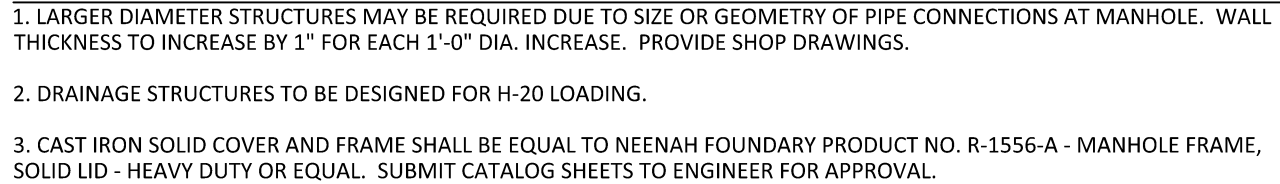
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8-12-2019

DATE: _____

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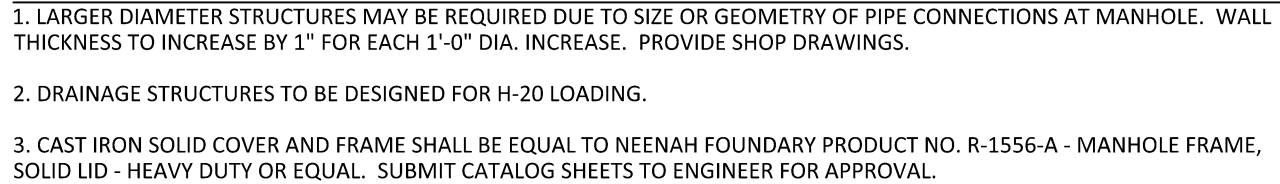


NOT TO SCALE



1. SC-30 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS," OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-30 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
5. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
6. ONCE LAYER C IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER D UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER C OR D. IT IS THE SITE DESIGN ENGINEER'S RESPONSIBILITY TO DETERMINE THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.

NOT TO SCALE



NOT TO SCALE

1. STORMTECH REQUIRES INSTALLING CONTRACTORS TO USE AND UNDERSTAND STORMTECH'S LATEST INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION.
2. OUR TECHNICAL SERVICES DEPARTMENT OFFERS INSTALLATION CONSULTATIONS TO INSTALLING CONTRACTORS. CONTACT OUR TECHNICAL SERVICES REPRESENTATIVE AT LEAST 30 DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE A PRE-INSTALLATION CONSULTATION. OUR REPRESENTATIVES CAN THEN ANSWER QUESTIONS OR ADDRESS COMMENTS ON THE STORMTECH CHAMBER SYSTEM AND INFORM THE INSTALLING CONTRACTOR OF THE MINIMUM INSTALLATION REQUIREMENTS BEFORE BEGINNING THE SYSTEM'S CONSTRUCTION. CALL 1-888-892-2694 TO SPEAK TO A TECHNICAL SERVICES REPRESENTATIVE OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF OUR INSTALLATION INSTRUCTIONS.
3. STORMTECH'S REQUIREMENTS FOR SYSTEMS WITH PAVEMENT DESIGN (ASPHALT, CONCRETE PAVES, ETC.): MINIMUM COVER IS 18" [457 mm] NOT INCLUDING PAVEMENT; MAXIMUM COVER IS 96" [2438 mm] INCLUDING PAVEMENT. FOR INSTALLATIONS THAT DO NOT INCLUDE PAVEMENT, WHERE RUTTING FROM VEHICLES MAY OCCUR, MINIMUM REQUIRED COVER IS 24" [610 mm], MAXIMUM COVER IS 96" [2,438 mm].
4. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE DESIGN ENGINEER.
5. AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE (FILTER FABRIC) MUST BE USED AS INDICATED IN THE PROJECT PLANS.
6. STONE PLACEMENT BETWEEN CHAMBERS ROWS AND AROUND PERIMETER MUST FOLLOW INSTRUCTIONS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
7. BACKFILLING OVER THE CHAMBERS MUST FOLLOW REQUIREMENTS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
8. THE CONTRACTOR MUST REFER TO STORMTECH'S INSTALLATION INSTRUCTIONS FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS OF COVER. THIS INFORMATION IS ALSO AVAILABLE AT STORMTECH'S WEBSITE: WWW.STORMTECH.COM. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE AND APPROPRIATELY LOCATED SIGNS ARE COMMONLY USED TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.
9. THE CONTRACTOR MUST APPLY EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE STORMWATER SYSTEM DURING ALL PHASES OF SITE CONSTRUCTION PER LOCAL CODES AND DESIGN ENGINEER'S SPECIFICATIONS.
10. STORMTECH PRODUCT WARRANTY IS LIMITED. SEE CURRENT PRODUCT WARRANTY FOR DETAILS. TO ACQUIRE A COPY CALL STORMTECH AT 1-888-892-2694 OR VISIT WWW.STORMTECH.COM

1. CHAMBERS SHALL BE STORMTECH SC-310 OR APPROVED EQUIAL.
2. CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN POLYPROPYLENE OR POLYETHYLENE RESINS TESTED USING ASTM STANDARDS.
3. CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCE.
6. ONLY CHAMBERS THAT ARE APPROVED BY THE ENGINEER WILL BE ALLOWED. THE CONTRACTOR SHALL SUBMIT (3 SETS) OF THE FOLLOWING TO THE ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
 - a. A STRUCTURAL EVALUATION BY A REGISTERED STRUCTURAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET. THE 50-YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2922 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
7. CHAMBERS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
8. ALL DESIGN SPECIFICATIONS FOR CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST DESIGN MANUAL.
9. THE INSTALLATION OF CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST INSTALLATION INSTRUCTIONS.

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT

A. INSPECTION PORTS

- A.1. REMOVE/OPEN LID ON NYLOPLAST DRAINAGE STRUCTURE OR 24"x24" F-BASIN
- A.2. REMOVE AND CLEAN FLEXFORM FILTER IF INSTALLED
- A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
- A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

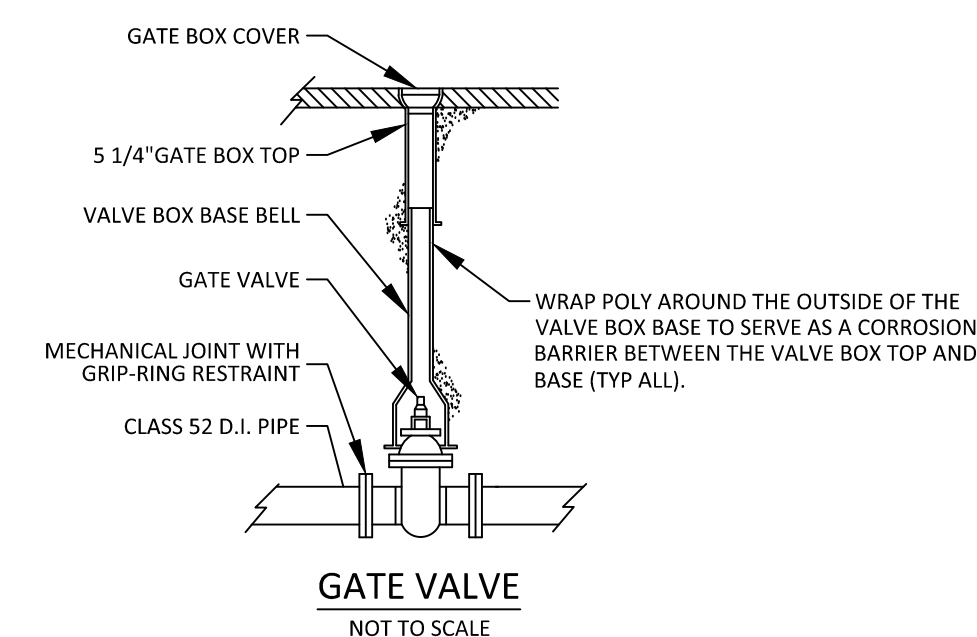
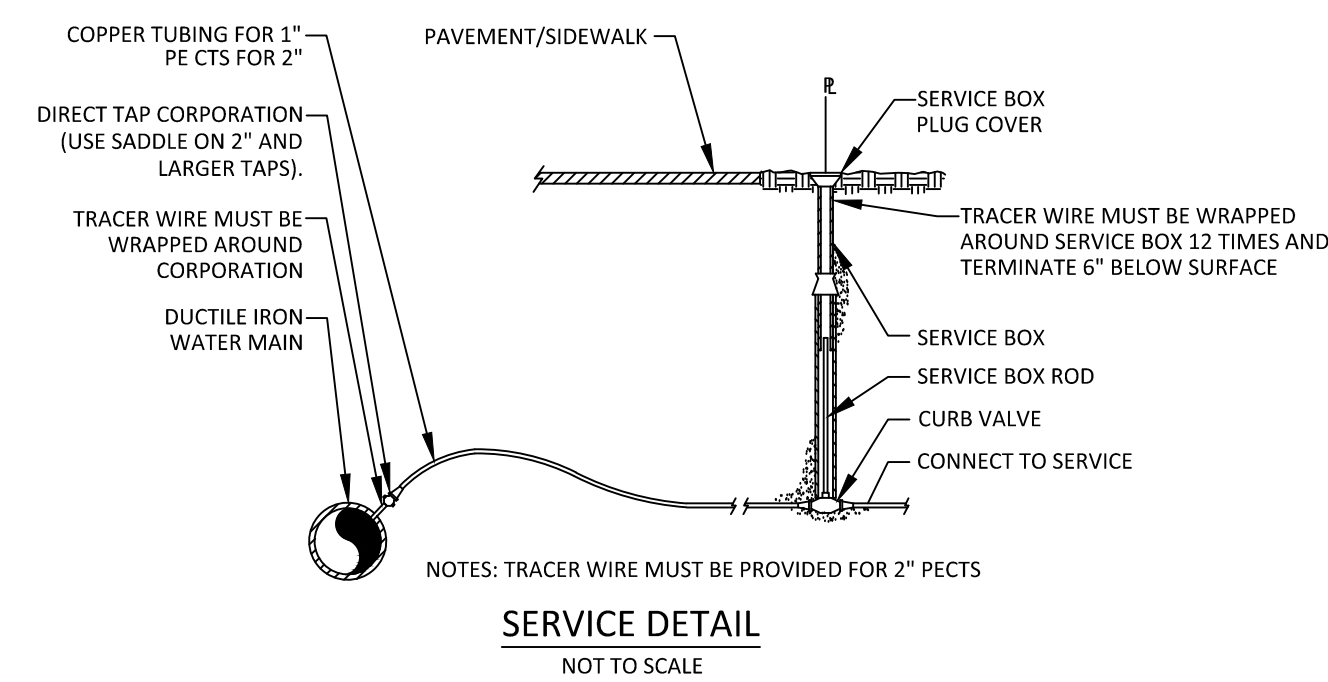
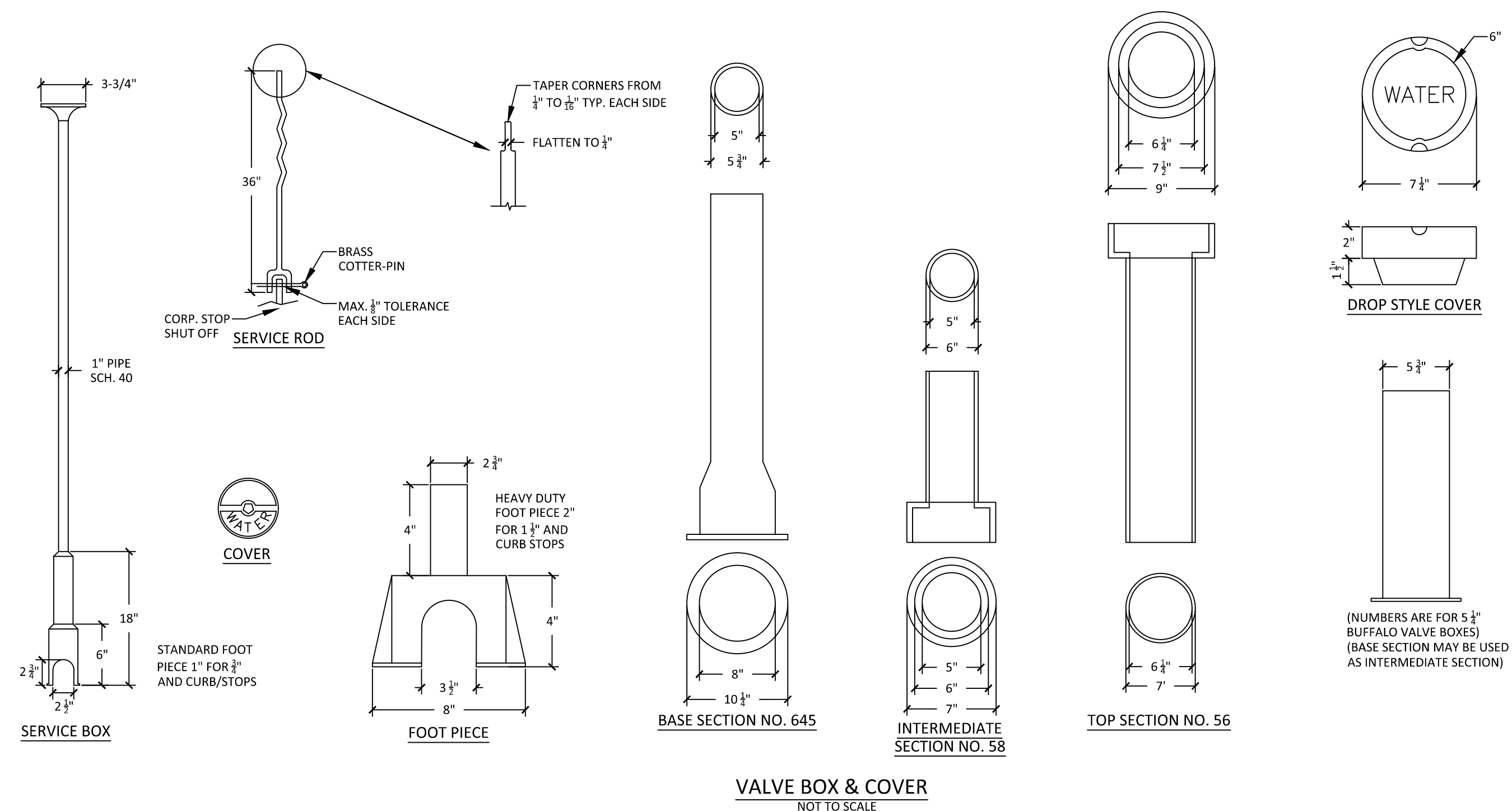
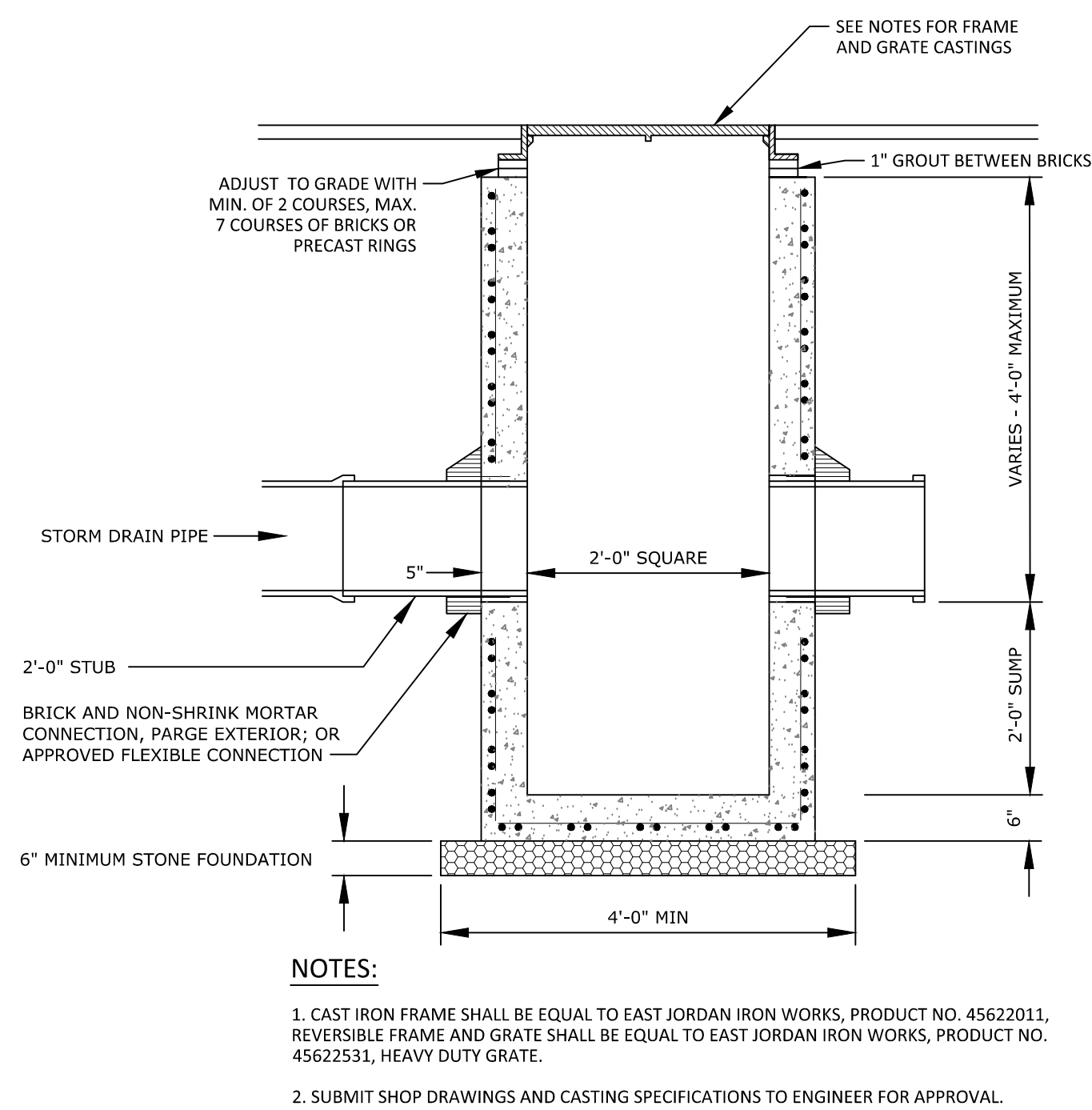
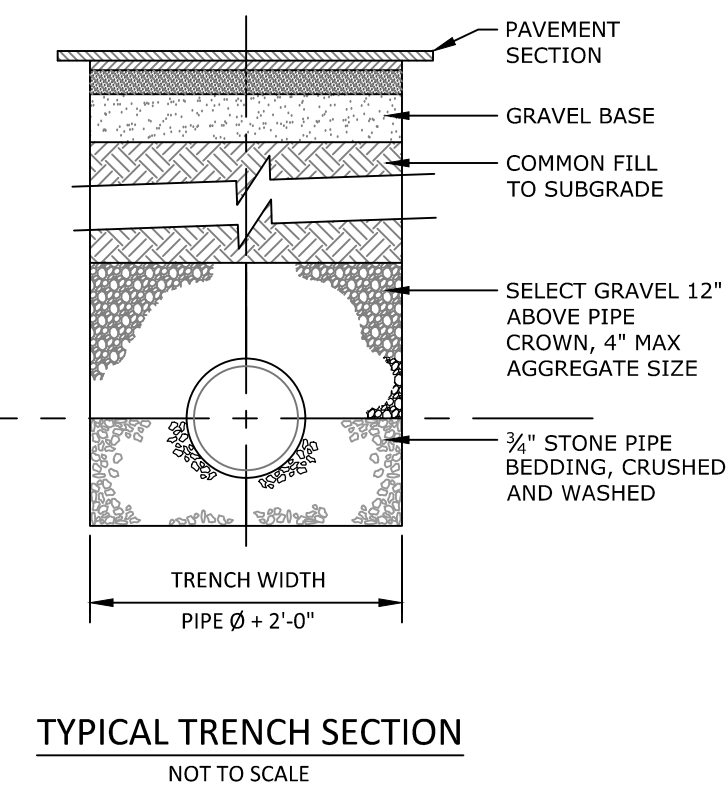
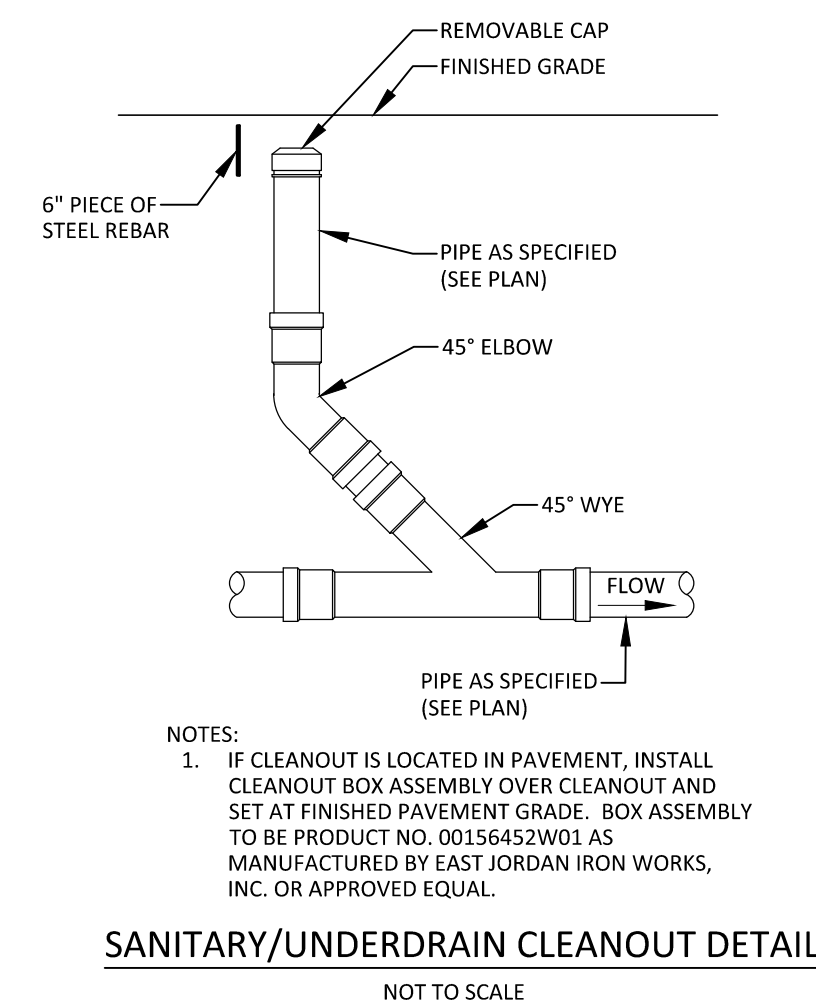
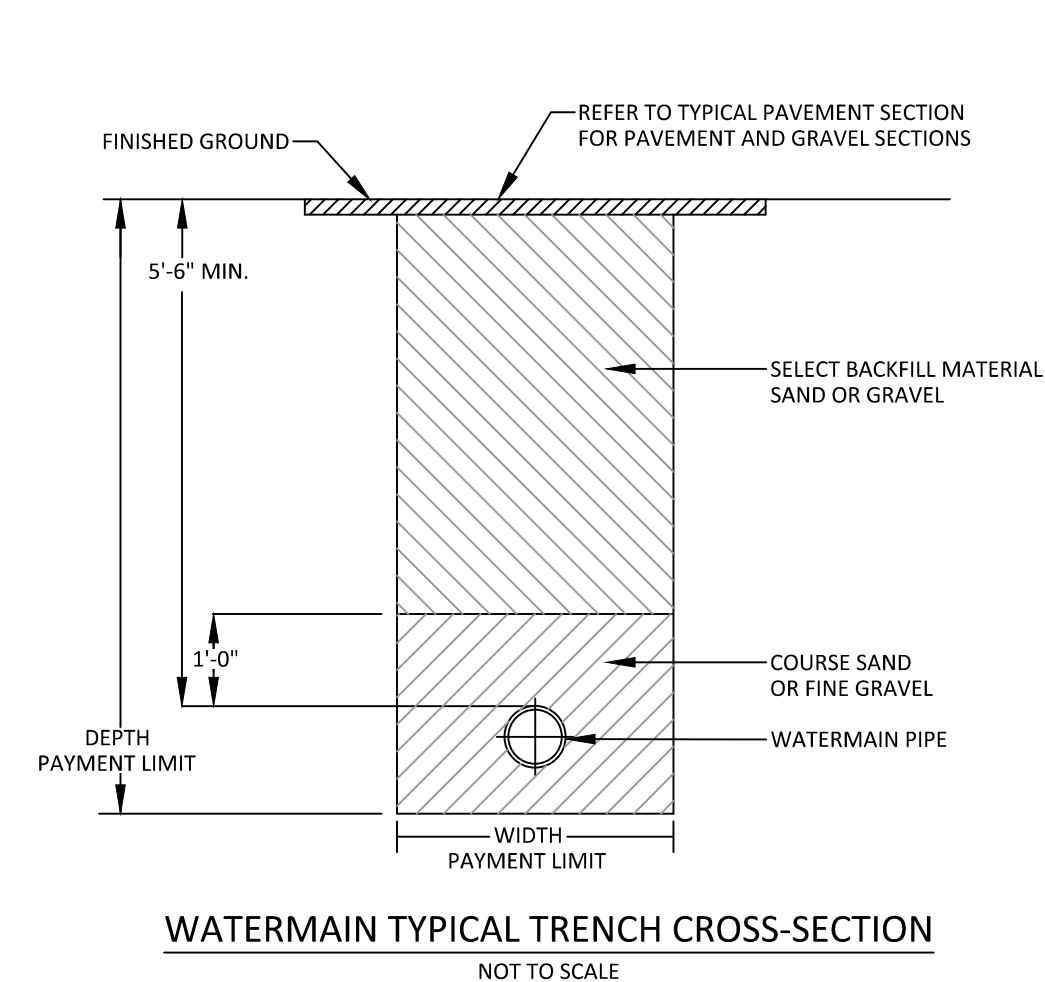
B. ALL ISOLATOR ROWS

- B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
- B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
 - 1) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - 2) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY
- B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM



STATE OF MAINE
JAYSON R.
HASKELL
No. 13002
LICENSED PROFESSIONAL ENGINEER
8-12-19

DM ROMA
CONSULTING ENGINEERS
P.O. BOX 11116
WINDHAM, ME 04062
(207) 310 - 0506

REV	DATE	BY	DESCRIPTION
A	8-12-19	DWR	ISSUED FOR PERMITTING

DETAILS

37 MONTREAL STREET
PORTLAND, MAINE

FOR APPLICANT:
MCTIGUE CONSTRUCTION
184 MOUNTAIN ROAD
FALMOUTH, ME 04105

18053 JOB NUMBER:
AS NOTED SCALE:
8-12-2019 DATE:
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C3.2

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2. THE CONTRACTOR AND OWNER ARE RESPONSIBLE FOR NOTIFYING DIG SAFE AND FOR COORDINATING ALL EXISTING UTILITY RELOCATION AND REPAIR THAT MAY BE NECESSARY.
3. THE ROADWAY AND SIDEWALK REPAIRS SHALL BE DONE IN ACCORDANCE WITH ALL CITY OF PORTLAND REQUIREMENTS AND SPECIFICATIONS.
4. THE WATER SERVICE LINE WAS NOT DESIGNED OR ANALYZED BY DM ROMA CONSULTING ENGINEERS. THE OWNER IS RESPONSIBLE FOR COORDINATING WITH PORTLAND AND WATER DISTRICT AND OTHER SPECIALTIES PROFESSIONALS TO DETERMINE THE DESIRED WATER SERVICE SIZE TO SERVE THE SPECIFIC NEEDS OF THE PROJECT.
5. DOMESTIC SERVICE WILL REQUIRE NON-TESTABLE DUAL CHECK BACKFLOW PREVENTION AFTER THE METER. FIRE SERVICE WILL REQUIRE TESTABLE DUAL CHECK BACKFLOW ASSEMBLY FOR BACKFLOW PREVENTION PRIOR TO FIRE SPRINKLER RISER.

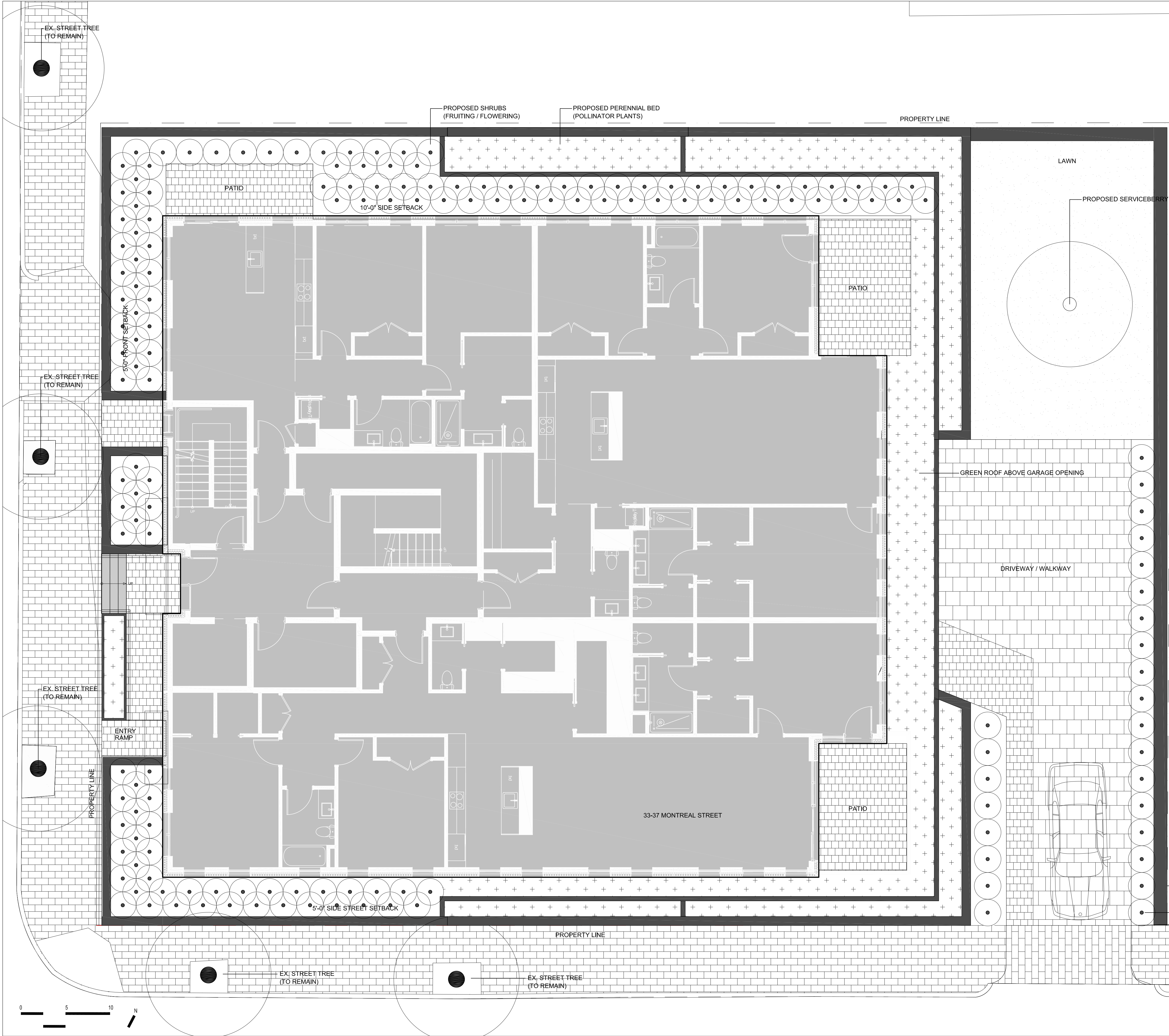


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37 MONTREAL STREET
PORTLAND, MAINE
FOR APPLICANT:
McTIGUE CONSTRUCTION
184 MOUNTAIN ROAD
SALMON FALLS, ME, 04105

C2.0

CONSTRUCTION MANAGEMENT PLAN



PLANT SCHEDULE				
ID	BOTANICAL NAME	COMMON NAME	QTY	SIZE
DECIDUOUS TREES				
AC	AMELANCHIER CANADENSIS	SERVICEBERRY (SINGLE)	12	10'-12'
AR	ACER RUBRUM	ARMSTRONG MAPLE	10	3" CAL
TO	THUJA OCCIDENTALIS	AM.ARB. GREEN GIANT	10	8"
PERENNIALS / GRASSES / GROUND COVER / BULBS				
VC	VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	X	5 GAL.
VA	VACCINIUM ANGUSTIFOLIUM	LOWBUSH BLUEBERRY	X	1 GAL.
CS	CORNUS SERICEA	KELSEY DWARF REDTWIG	X	5 GAL.
IV	ILEX VERICILLATA	WINTERBERRY HOLLY	X	7 GAL.
NR	NEPETA RACEMOSA	CATMINT 'WALKERS LOW'	X	1 GAL.
MS	MISCANTHUS SINENSIS	'GRACILLIMUS' SILVERI	X	2 GAL.
PV	PANICUM VIRGATUM	SWITCH GRASS	X	1 GAL.
PA	PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	X	1 GAL.
TURF LAWN (4" NEW LOAM)				

SYMBOLS LEGEND	
HARDSCAPE	
	MYSTIC MOUNTAIN GRANITE STEPS
	VEHICULAR MASONRY UNIT PAVER
	PEDESTRIAN MASONRY UNIT PAVER
	CITY BRICK SIDEWALK PER CITY OF PORTLAND STANDARDS
	MASONRY RETAINING WALL
PLANTS	
	PROPOSED DECIDUOUS TREE
	EX. DECIDUOUS TREE
	PROPOSED SHRUB
	PERENNIAL PLANTING BED
	LAWN

Soren deNiord Design Studio
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Portland, ME
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T: 207-400-2450
E: soren@sorendeniord.com

33-37 MONTREAL STREET

MUNJOY HILL
PORTLAND, MAINE

PLANNING BOARD REVIEW

No: Revision / Submission Date:

1

2

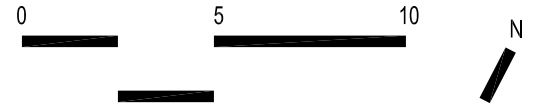
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revisions:
date: AUGUST 07, 2019
scale: As Noted
drawn: XX
checked: XX

L1.0

LANDSCAPE PLAN



NOT FOR CONSTRUCTION

Memorandum

Planning and Urban Development Department

Planning Division



To: Chair Dundon, Members of the Planning Board
From: Christine Grimando, Acting Director, Planning and Urban Development
Christian Roadman, Planner
Date: September 20, 2019
Re: Draft Coastal Resilience Overlay Zone
Meeting: September 24, 2019

Introduction

The City of Portland seeks to facilitate, with a zoning overlay, responsible and forward-thinking development in areas most likely to be impacted by rising sea levels and increased storm surges. While climate change impact estimates vary, the probability of increased inundation and subsequent property damage is well documented. New buildings and renovations to existing buildings should be designed in anticipation of these threats to ensure minimal health, safety, and economic impacts from disruptive climatic events. Such design improves resilience at the site level, and its collective impact increases resilience for the city.

Resilience strategies generally aim to ensure that:

- Critical systems are protected from weather events
- Areas at risk of flooding prevent and/or recover quickly from inundation
- Incompatible, vulnerable, and hazardous uses are not placed in such areas

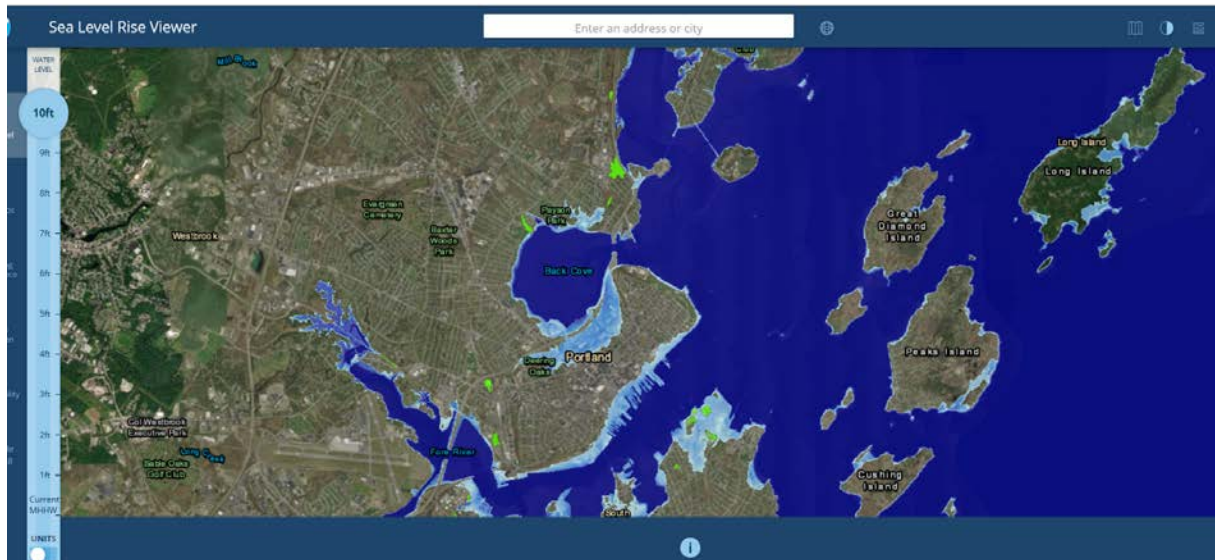
The City of Portland's proposed Coastal Resilience Overlay (CRO) (**attachment 1**) allows for alternate calculation of building heights when threshold climate resilience and mitigation strategies are met. As stated in the current draft language, additional square footage resulting from the alternate calculation must be used directly for inclusion of resilience strategies, and may not exceed total square footage dedicated to ground floor resilience measures.

Planning staff developed the draft CRO with the City's Sustainability Office. A September 10 workshop was held with the Planning Board, as well as a September 18 workshop with the City Council's Sustainability & Transportation Committee. Feedback and public comment from those workshops are reflected in the current draft of the CRO and detailed further below.

Background

Numerous resources highlight the vulnerabilities of coastal Portland to rising sea levels and extreme weather events. The *Municipal Climate Action Plan* of 2008 noted the imperative of reducing greenhouse gas emissions in order to minimize impacts on the local and global environments, stating that "even modest sea level changes may well be catastrophic." The Casco Bay Estuary Partnership's *Casco Bay Climate Change Vulnerability Report* (2017) highlighted risks of primary concern, including: "rising seas make waterfront facilities like piers and other commercial and recreational access points inoperable, or require expensive repairs and investment to maintain functionality, affecting marine industries and quality of life."

Visualization tools from the [National Oceanic and Atmospheric Administration](#) (NOAA) show significant impacts to the Bayside neighborhood, Eastern, Central, and Western Waterfronts, and other coastal areas.



An online tool highlights Portland's vulnerability to sea level rise (image: NOAA)

Currently, the City of Portland is working with the City of South Portland on the [One Climate Future](#) project to develop a joint climate action and adaptation plan. The proposed CRO compliments this effort by encouraging resilience measures on private property, independent of but compatible with anticipated City investments. Portland's Sustainability Coordinator provided a memorandum to the Planning Board in support of the overlay initiative (**attachment 2**).

Proposal Overview

The CRO introduces flexibility for development to include resilience measures by converting height restrictions in feet to maximum number of stories. The maximum story calculation corresponds to the original maximum permitted height. As proposed, the draft ordinance limits a ground-level story to 18 feet in height and any other story to 12.5 feet. While the CRO would supersede other height limits, it would not supersede other overlay requirements such as setbacks, stepbacks, and view protection areas.

This proposed approach facilitates protection from and planning for inundation without inhibiting potential uses and floors above. While the draft CRO increases maximum permitted height, it is designed to do so incrementally and contextually. This reflects the fact that the draft CRO impacts a wide range of neighborhoods and existing developments scales.

In order to qualify for development under the rules of the CRO, projects must demonstrate that additional square footage resulting from the alternate calculation is used directly for inclusion of resilience strategies. Square footage gained under the CRO calculation may not exceed the amount of ground floor area dedicated to resilience measures.

Additionally, development under the CRO must meet several standards to benefit from its provisions. Minimum resilience requirements must be addressed (including wet or flood-proofing the entire ground floor) and proposed projects must choose one of two climate-change mitigation strategies to employ as

part of the project: green infrastructure minimums or roof-mounted solar power generation. Proposed projects must also include strategies to activate the ground floor and engage with pedestrians at the ground level.

The working draft boundary of the CRO is based on NOAA models (see link above) assuming a sea level rise of ten feet. The potential of storm surge (especially in extreme weather events) in addition to sea level rise supports a conservative boundary to ensure and maximize community well-being despite risk uncertainty. Buildings calculating height under the provisions of the CRO would need to be located at least 50% within the CRO boundary.

The draft continues to frame the CRO as an option rather than a requirement. This approach is proposed for several reasons. The proposed approach encourages individuals to make responsible decisions but is mindful of competing urgencies (such as the affordable housing shortage) that could be adversely affected by additional strict regulation. Resilience planning is a relatively young field, and a softer approach may be appropriate to initiate a new regulatory model. Implemented as an option rather than a requirement, the tool does not impose one standard on the varying conditions and uses the overlay encompasses, and allows property owners that require the additional ground floor clearance to opt for this flexibility. The proposed overlay encompasses a range of neighborhoods with a variety of topographies and would apply to many scales of potential development. If policymakers desire widespread utilization of CRO provisions, it is recommended that flexibility be built in to accommodate existing and potential uses within the overlay zone.

Comprehensive Plan

Three of the six themes comprising the vision statement in [Portland's Plan 2030](#) are directly implicated in climate change and resilience planning: the City should be sustainable, secure, and equitable. This underscores the importance of adequately preparing for climate change in Portland and the appropriateness of encouraging private resilience initiatives through City measures. From the Comprehensive Plan:

Sustainable: “we will balance our historic fabric, sound infrastructure, and the best of new technology and design for the future”; “we will recognize our responsibility as a global citizen and that climate change will have significant impacts on our city by prioritizing a transition to a low-carbon economy and adapting to those climate changes we can no longer mitigate.”

Secure: “we will prepare for emergencies and ready for a changing climate.”

Equity: “we will incorporate the needs of all our residents in planning for our future.”



Coastal resilience planning aligns with several City of Portland policy goals (image: Portland's Plan 2030)

Board and Committee Discussion, Public Comment

The Planning Board held a workshop on the draft CRO during its September 10 meeting, and a workshop with the [Sustainability & Transportation Committee on September 18](#). Members of both bodies, as well as members of the public, particularly questioned whether the proposed overlay zone should function as an incentive (as currently drafted). An alternative raised is to simply introduce new requirements on development within the proposed CRO boundary. One member of the Sustainability & Transportation Committee suggested that preparations for a certain level of sea level rise could be mandated, while preparations for higher levels could be incentivized. Additional information was requested regarding: possible incentives and requirements; the potential to tie this proposal to other public improvements; and, details of the zoning districts within the CRO.

In response to public feedback regarding impact on affordable housing projects, staff modified a previous green roof requirement so that one of two sustainable-development strategies may be pursued. The intention of this provision is to marry mitigation with resilience initiatives, ensure that any CRO includes strict requirements beneficial to the public, and reflect the diversity of potential projects and project sites that could fall within the CRO boundary.

Another topic raised at both meetings was the proposed ordinance's interaction with other regulatory layers. A variety of height overlays, restrictions, and density bonuses are already in place within the City. Furthermore, planning for resilience can work against pedestrian-friendly, human-scaled, and ADA design by encouraging elevation of active uses away from ground level. The historic precedent for raised first floors on the waterfront was referenced, as well as the importance of design flexibility to address changing climate conditions. Additional concerns were raised about the impact of increased heights overall and consistency with past planning efforts.

Finally, questions arose regarding flexibility for the data source used for the overlay extent. The NOAA data remains the point of reference, with a requirement that any applicant confirm and document the claim that their proposed project is within the CRO area. Staff anticipate the need to reevaluate the overlay boundary periodically in future years, as conditions and sea level rise modeling methods change. Additional or alternate data sources could be included in future iterations if needed. Appropriate frequency of future updates after an Overlay is adopted are an ongoing point of consideration. Any update would be subject to Planning Board and City Council review and discussion as needed.

Staff addressed some of above concerns by adjusting and adding language in the draft CRO. The current draft clarifies that proposed buildings would not be exempt from view corridor restrictions, setbacks, and setbacks. It also demands accommodations to pedestrian-friendly design via architectural strategies. Compliance with the Americans with Disability Act is required for new development, and is not mentioned specifically in the draft. Staff welcome Board insight and discussion regarding these issues, and will continue to examine potential interactions and consequences between the proposed CRO and existing land use regulations (as requested by members of the public and the Sustainability & Transportation Committee).

Next Steps

The proposed Coastal Resilience Overlay is presented collaboratively by the Planning Department and Sustainability Office. Planning Board feedback will inform any subsequent draft, which will also be discussed at another Sustainability & Transportation Committee meeting. As draft language develops, staff hope to consult with design and engineering professionals to ensure the best possible final ordinance. Any CRO must be adopted by the City Council.

Attachments

1. Coastal Resilience Overlay Zone Draft 9-20-2019
2. Sustainability Office CRO Memo

DIVISION 32. Coastal Resilience Overlay

Section 14-490. Coastal Resilience Overlay

- (a) *Applicability.* Development in lower lying areas of the City of Portland are anticipated to experience increased threat of flooding due to sea level rise and increased storm surge. The Coastal Resilience Overlay (CRO) seeks to facilitate responsibly-designed ground floors, and to create incentives for developing resilient buildings and sites. Applications for new buildings in the CRO are eligible to calculate permitted height using the alternative height calculation method below, provided they meet all applicable requirements.
- (b) *Boundaries.* The CRO is limited to areas which will be demonstrably affected by a 10-foot rise in sea level change from 2019 levels. A depiction of these areas may be found via the National Oceanic and Atmospheric Administration's (NOAA) web viewer: <https://coast.noaa.gov/slr/#/layer/slr/10/-7821746.552156862/5414942.297810043/12/satellite/none/0.8/2050/interHigh/midAccretion>. Applicants shall satisfactorily demonstrate that their site lies within the CRO. The CRO boundary shall be delineated on a site plan or survey stamped by a licensed professional engineer or surveyor. Calculations and assumptions used to determine CRO applicability must be provided for any proposed project within the CRO.
- (c) *Height Calculations in the CRO.* Buildings with a minimum of 50% of their footprint within the CRO, and meeting the requirements of (d) below, are eligible to measure the maximum height of their building(s) in stories rather than feet. CRO height calculations supersede any conflicting permitted height standards, while proposed developments remain subject to all other overlay requirements (including but not limited to stepbacks, view protection areas, and setbacks).

Maximum permitted heights shall be converted to stories as follows:

Permitted Height	Equivalent Stories
≤18	1
19-25	2
26-35	3
36-45	4
46-55	5
56-65	6

The height of stories is limited to a maximum of 18' on the ground level and a maximum of 12.5' on each additional floor.

- (d) *Requirements.* In order to calculate height according to the provisions of the CRO, applicants shall demonstrate that additional square footage resulting from the alternate calculation is used directly for inclusion of resilience strategies, and does not exceed total square footage dedicated to ground floor resilience measures. The application shall document this relationship between usable square footage and implemented resilience strategies, as well as how these strategies are suitable to the site conditions and proposed use. Applications that calculate building height according to (c), above, shall meet the following minimum standards:

1. Resilience requirements:

- (a) The entire first story shall be wet- or flood-proofed
- (b) All critical systems (electrical, mechanical, HVAC) shall be located to remain functional and undamaged by future water inundation
- (c) Backflow preventers shall be installed at sewer connections

2. Mitigation requirements:

- (a) A green roof totaling a minimum of 50% of the total roof area. The 50% area calculation shall not include areas occupied by rooftop appurtenances. Alternatively, on-site permeable pavements, rain gardens, bioretention areas, and other demonstrated green infrastructure techniques may be used to achieve this threshold. However, such measures may not be used to meet other minimum stormwater management requirements; or
- (b) A roof mounted solar energy system totaling at least 50% of the total roof area.

3. Design requirements:

Ground floor facades of buildings proposed under the CRO standards which are readily visible from any street or open space shall incorporate:

- (a) Strong visual connections to the street
- (b) Pedestrian connections and accessibility
- (c) Architectural elements, grading and landscaping, and articulated entries

Buildings in the CRO are subject to the City of Portland Design Manual and requirements of the Historic Preservation Ordinance where applicable.

- (e) In the event of conflict with Flood Plain Management standards, Flood Plain Management standards shall prevail.



CITY OF PORTLAND
Sustainability Office
Troy Moon
Sustainability Coordinator

To: Chair Dundon and Members of the Portland Planning Board
From: Troy Moon, Sustainability Coordinator
Re: Coastal Resilience Overlay
Date: September 9, 2019

The City of Portland has long recognized that parts of the city face a threat from rising sea levels caused by global climate change. The City Council directed staff to complete greenhouse gas inventories in 2001 and 2005 in order to understand how Portland's emissions contribute to climate change and to begin thinking about mitigation measures. In 2007, the Mayor's Sustainable Portland Task Force appointed by Mayor James Cohen and co-chaired by City Councilors Jill Dusen and Nathan Smith pointed out:

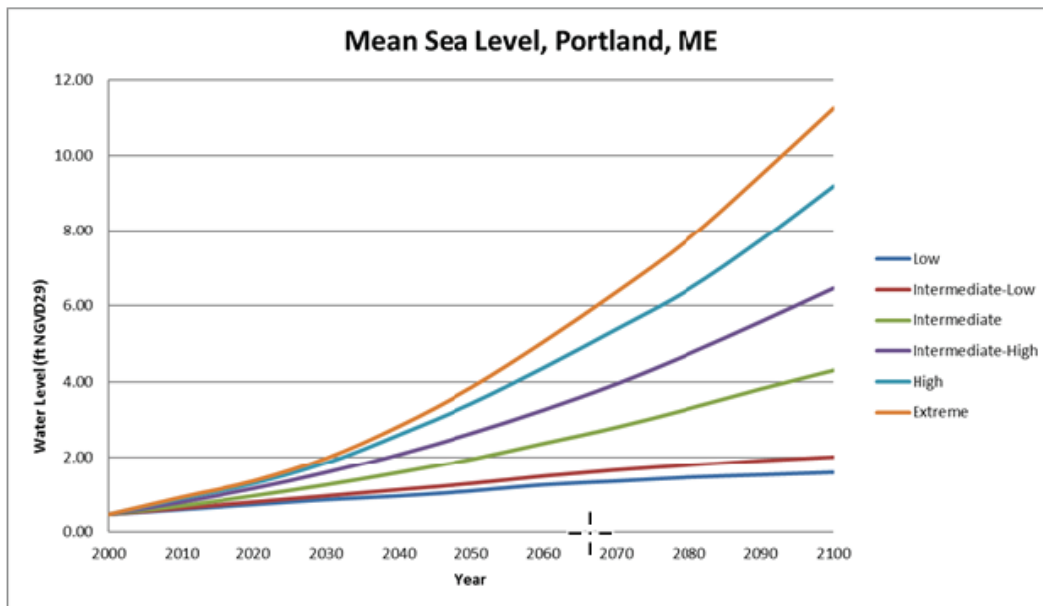
Projections suggest that climate change will result in flooding, infrastructure damage, stresses on already stressed fisheries, and a host of other impacts that we have only started to understand. Given that there are hundreds (or thousands) of Portland homes, parks, roads, and commercial properties that are barely elevated above current flood plain elevations, even modest sea level changes may well be catastrophic. (Final Report of the Mayor's Sustainable Portland Task Force, p.4)

Since that time, the City has participated in several projects to identify hazards created by sea level rise including collaborations with the Urban Land Institute, the Department of Homeland Security, and the Portland Society for Architecture. All have emphasized that low-lying parts of the City of Portland face increased flooding due to rising seas. In 2017, the City conducted Bayside Adapts, a neighborhood-scale resilience project focused on the most vulnerable neighborhood in the City. As part of the project, the City commissioned Woodard and Curran and their consulting partner, RPS ASA to evaluate the impacts of sea level rise on Portland and to recommend planning thresholds.¹

As part of their work, they modeled potential sea level rise scenarios based on data published by the National Oceanic and Atmospheric Administration (NOAA) in 2017. As shown, there is uncertainty about the level of sea level rise as shown in the graph below:

¹ Copies of the documents referenced here are available on the Sustainability Office website:
<http://www.portlandmaine.gov/2387/Climate-Action>

Figure 4-1: Predicted MSL elevations from 2000 to 2100 for Portland, Maine



Note: The predicted elevations in Figure 4-1 are in feet and relative to NGVD29 for all RSL rise scenarios.

The low and intermediate-low scenarios shown assume aggressive global action to curb carbon emissions. The higher scenarios assume slower adoption of climate mitigation measures and begin to account for sea level rise contributions from melting ice in the Arctic and Antarctic. These scenarios capture growing alarm in the scientific community about the pace and extent of climate change in general and sea level rise specifically.

Based on this, the consulting team suggested that the City of Portland commit to manage sea level rise based on the Intermediate scenario, which suggests 1.5 feet of sea level rise by 2050 and 3.8 feet of sea level rise by 2100. Given the level of uncertainty and growing cause for concern that the pace of sea level rise is accelerating, they suggest that the City should prepare to manage sea level rise of 3.4 feet by 2050 and 8.8 feet of sea level rise by 2100.

Year 2050		Year 2100	
	Rise in Sea Level		Rise in Sea Level
Commit to Manage	1.5 ft.	Commit to Manage	3.8 ft.
Prepare to Manage	3.4 ft.	Prepare to Manage	8.8 ft.
		Be Aware of	10.8 ft

Bayside Adapts, recommended planning thresholds for the extent of sea level rise in Portland. (Woodard and Curran. September. 2017)

As you know, the City of Portland and the City of South Portland are collaborating to develop a joint climate action and adaption plan for both cities. The final report, due next

June, will outline steps to mitigate the future impacts of climate change by reducing community wide greenhouse gas emissions 80% by 2050 as directed by the City Council. It will also describe steps the cities need to adapt to the impacts of climate change that we already anticipate. As demonstrated by the work done to date, Portland will face a serious threat from sea level rise.

For this reason, the Sustainability Office has been pleased to collaborate with our colleagues in the Department of Planning and Urban Development in proposing the Coastal Resilience Overlay District. This overlay would incentivize property owners and developers who wish to build in parts of the City that face increasing threat from flooding to make their buildings resilient to flooding. It would also require them to mitigate impacts of climate change by reducing their buildings carbon emissions by using energy efficiently and managing storm water effectively. We look forward to collaborating with them as well as the Planning Board and City Council to refine this concept.