

CITY OF PORTLAND, MAINE

PLANNING BOARD



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

AGENDA PORTLAND PLANNING BOARD MEETING

The Planning Board will hold a remote meeting on Tuesday, February 8, 2022, 4:30 p.m. This meeting will take place remotely using Zoom pursuant to the Remote Meeting Policy adopted by the Planning Board and as authorized under 1 M.R.S. 403-B because of the existence of an emergency or urgent issue that requires the committee to meet by remote methods.

Allow your computer to install the free Zoom app to get the best meeting experience.

If you are not able to attend live, a recording will be available following the meeting. For public comment, you will need to use the "raise your hand" feature. To raise your hand via the telephone, please hit *9. You will be unmuted by the host when it is time for public comment.

For more information on how to access the meeting remotely and how to give public comment, please go to <http://www.portlandmaine.gov/remotepud>. 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 or hp@portlandmaine.gov.

Please note that the placement of each item on the agenda is subject to change. Please check the Agenda & Minutes Center prior to the meeting for the item start time.

ZOOM MEETING INFORMATION

You are invited to a Zoom webinar.

When: Feb 8, 2022 04:30 PM Eastern Time (US and Canada)

Topic: Planning Board Workshop and Public Hearing 2/8/2022

Please click the link below to join the webinar:

<https://us02web.zoom.us/j/89597266827>

Or One tap mobile :

US: +13017158592,,89597266827# or +13126266799,,89597266827#

Or Telephone:

Dial (for higher quality, dial a number based on your current location):

US: +1 301 715 8592 or +1 312 626 6799 or +1 929 205 6099 or +1 253 215 8782 or +1 346 248 7799 or +1 669 900 6833

Webinar ID: 895 9726 6827

International numbers available: <https://us02web.zoom.us/j/89597266827>

WORKSHOP - 4:30 PM

- i. One Climate Future Plan Presentation (estimated time 4:30 – 5:15 p.m.) The Planning Board will hold a remote workshop to review and discuss the One Climate Future Plan and the recommendations contained therein, including a presentation by the City's Sustainability Office.
- ii. Major Site Plan and Conditional Use; 392 St. John Street; Bosco Holdings, LLC., Applicant. (estimated time 5:15 – 6:30 p.m.) The Planning Board will hold a remote workshop to consider a 9-unit, 10,726 square foot multifamily building with associated site improvements. The subject property is 11,300 square feet in size and is zoned R-6 Residential.
- iii. Major Site Plan; 102 State Street; NewHeight Redfern, LLC, Applicant. (estimated time 6:30 – 7:30 p.m.) The Planning Board will hold a remote workshop to consider a plan for the development of nine

townhouse condominium units totaling 27,558 square feet of floor area at 102 State Street, along with associated site improvements. The subject property is 45,025 square feet in size and is zoned B-3 Downtown Business.

PUBLIC HEARING - 7:30 PM

1. ROLL CALL AND DECLARATION OF QUORUM

2. COMMUNICATION AND REPORTS

3. REPORT OF ATTENDANCE AT THE MEETING HELD ON JANUARY 25, 2022

Afternoon Workshop

Munjoy Hill Neighborhood Conservation Overlay: Chann, Dundon, Dunfey, Mazer, Smith, and Stanley present; Silk absent.

716 Stevens Avenue: Chann, Dundon, Dunfey, Smith, and Stanley present; Silk absent; Mazer recused.

Evening Hearing

65 McAuley Way: Chann, Dundon, Dunfey, Mazer, Smith, and Stanley present; Silk absent.

477 Congress Street: Chann, Dundon, Dunfey, Mazer, and Smith present; Silk absent; Stanley recused.

4. REPORTS OF DECISIONS AT THE MEETING HELD ON JANUARY 25, 2022

- i. Major Site Plan, Master Development Plan Amendment; 65 McAuley Way; DC Baxter Woods IV LLC, Applicant. Mazer moved and Dunfey seconded a motion to find the plan in conformance with the Master Development Plan standards of the Land Use Code. Vote 6-0, Silk absent. Mazer moved and Dunfey seconded a motion to find the plan in conformance with the Site Plan and Site Location of Development Act standards of the Land Use Code with one condition of approval. Vote 6-0, Silk absent.
- ii. Level III Site Plan; 477-481 Congress Street; TT Maine Venture, LLC., Applicant. Dundon moved and Dunfey seconded a motion to find the Conditional Use for Inclusionary Zoning for Hotel Projects to meet the standards of Section 18.2.5 of the Land Use Code with one condition of approval. Vote 5-0, Silk absent, Stanley recused. Dundon moved and Dunfey seconded a motion to find the plan in conformance with the Site Plan standards of the Land Use Code with six conditions of approval. Vote 5-0, Silk absent, Stanley recused. Dundon moved and Dunfey seconded a motion to approve the changes of traffic schedule to allow for on-street parking spaces along designated portions of Congress Street and Preble Street to be replaced by a 15 minute loading/unloading zone on Congress Street and a hotel valet area and 15 minute loading/unloading zone on Preble Street. Vote 5-0, Silk absent, Stanley recused.

5. NEW BUSINESS

- i. Traffic Movement Permit; 29 Marginal Way; Northland Enterprises & Management Corp., Applicant. (estimated time 7:30 p.m.) The Planning Board will hold a remote public hearing to consider a traffic movement permit application in connection with the fit out of a 1,300 square foot tenant space at 23-29 Marginal Way, pursuant to a condition of approval within a Level II Site Plan application (#2015-027) approved by the Planning Authority on April 14, 2015. The subject parcel is 53,972 square feet in size and is zoned B-7 Mixed Development.

Memorandum

Planning and Urban Development Department



To: Maggie Stanley, Chair and Members of the Planning Board
From: Austen Torres Davis, Planner
Date: February 4, 2022
Re: Major Site Plan & Conditional Use Application – 386-392 Saint John Street
Project #: PL-001684-2021
Meeting Date: February 8, 2022

I. INTRODUCTION

Bosco Holdings, LLC has submitted a Major Site Plan and Conditional Use application to facilitate the construction of a nine-unit, 10,726 square foot, residential building with ground floor office space at 392 Saint John Street, within the Saint John Valley neighborhood.

The application is being referred to the Planning Board for compliance with the City of Portland's Land Use Code Site Plan Standards, Section 14.6, General Conditional Use Standards, Section 6.5.2, and Supplemental Use-Specific Conditional Use Standards for general offices in the R-6 and R-6a zones, Section 6.5.6(C).

In anticipation of this Planning Board Workshop, the Planning and Urban Development Department mailed 53 notices to residences within 500 feet of the subject property. A legal advertisement ran in the January 28, 2022 and October 29, 2022 editions of the *Portland Press Herald*.



Figure 1. 386-392 Saint John Street in Neighborhood Context

Applicant: Alex Coupe, Bosco Holdings, LLC.

Applicant Team: Tracie Reed, Dextrous Creative LLC; Sam Lebel, Acorn Engineering; Will Savage, Acorn Engineering.

II. PROJECT ACTIONS

Applicant's Proposal	Applicable Standards
Major Site Plan	Land Use Code Sec. 14.6 Site Plan Review Standards
General Conditional Use	Land Use Code Sec. 6.5.2
Supplemental Use-Specific Conditional Use	Land Use Code Sec. 6.5.6(C)
Waivers	Citation
Technical Manual 1.7.2.3 Applicant is requesting 4 feet of relief from the standard in order to allow a driveway width of 16 feet.	Any site with driveway access to a street shall have a minimum of 20 foot wide driveway for two-way ingress and egress.
Technical Manual 1.14 Applicant is requesting 3 feet of relief from the standard in order to allow a driveway aisle of 21 feet	Where off-street parking for more than six vehicles is required or provided, the following construction requirements shall apply: Appropriate driveways from streets or alleys, as well as maneuvering areas, shall be provided. Location and width of approaches over public sidewalks shall be approved by the traffic engineer. *Note: standard parking and aisle dimensions are illustrated in Technical Manual Figure: I-27.*

III. PROJECT DATA

SUBJECT	386 Saint John Street
Total area of the site	11,000 square feet
Area of new lot to be created	7,366 square feet
Total Disturbed Area	8,875 square feet
Existing Zoning	R-6 Residential
Existing Use	Parking Area for Adjacent Apartments
Proposed Use	Multifamily Apartment Units and Commercial Office
Impervious Surface Area --Existing --Proposed --Net Change	4,255 square feet 8,705 square feet +4,450 square feet
Building Footprint --Existing --Proposed --Net Change	0 square feet 2,632 square feet +2,632 square feet
Building Floor Area	

--Existing	0 square feet
--Proposed	10,726 square feet (1,192 average square feet per dwelling unit)
-Net Change	+10,726 square feet
Number of Units	9
Parking Spaces	8
Bicycle parking Spaces	4

IV. BACKGROUND AND EXISTING CONDITIONS

Site Conditions

The subject property at 392 Saint John Street consists one lot of 11,000 square feet in size, occupied partially by one multi-family residential structure. The block on which the proposed development would sit is north of a disused railway trestle spanning the intersection of Park Avenue, and south of Interstate 295. Despite this separation from adjacent neighborhoods by transportation infrastructure, 392 Saint John Street is about two blocks from Hadlock Field, and three blocks from Maine Medical Center. The area is characterized by non-residential uses clustered toward Park Avenue that make way for residential buildings further from that intersection along Saint John Street and Washburn Avenue. All but one of the residences in the immediate area are multi-family. No significant natural features or vegetation exist on site. Three street-trees sit within the sidewalk right-of-way fronting the site. The sidewalk itself is greatly deteriorated.



Figure 2. 392 Saint John Street, Existing Conditions

V. PROPOSED DEVELOPMENT

The applicant proposes to split the 392 Saint John Street parcel in order to create a new 7,366 square foot lot with the address 386 Saint John Street; this is the lot on which the new building will be constructed. The existing building occupying 392 Saint John Street would receive minor exterior renovations.

The proposed actions would facilitate the development of a three-story mixed-use building totaling approximately 10,726 square feet with nine residential units intended to be apartments for rent and approximately 606 square feet of ground floor commercial office space at 386 Saint John Street. Because the total number of residential units is below 10, the city's Inclusionary Zoning ordinance is not in effect. The proposed building would rise to a maximum height of approximately 33 feet with HVAC equipment installed on the building's south-facing side wall. All residential units in the structure are proposed to have two bedrooms.

Eight covered parking spaces, including one ADA designated space would be provided at the northern side of the new building located at 386 Saint John Street. Parking would be accessed via a 16 foot curb cut off of Saint John Street, leading to a 21 foot shared driveway.

Associated site improvements proposed in connection with the new building include a rebuilt sidewalk to be constructed of poured concrete with granite curbs, three added street trees, and a rain garden to alleviate stormwater runoff.



Figure 3. Site Perspective from East

VI. RIGHT, TITLE AND INTEREST AND FINANCIAL/TECHNICAL CAPACITY

The owner of the property is Bosco Holdings, LLC, a Maine-based limited liability company. The applicant has submitted a Statement of Financial Capacity letter from their financial institution, Gorham Savings Bank, as demonstration of their financial capacity (Attachment G). A Statement of Technical Capacity has been provided by the applicant's representative, Acorn Engineering, which lists numerous projects completed by the engineering and architectural firms working on this project.

VII. ZONING ANALYSIS

A. DIMENSIONAL AND USE REQUIREMENTS

386-392 Saint John Street (parcel 066 F004001), is located in the R-6 Residential zone. The R-6 dimensional standards are described in Table 7-A of the Land Use Code. Multi-family dwellings are listed as a permitted use in the R-6 zone as described in Table 6-A of the Land Use Code. In addition, the proposed office space is listed as a conditional use in the R-6 zone (Table 6-A of the Land Use Code) and therefore subject to the General Conditional Use Standards, Section 6.5.2 and the Supplemental use-specific conditional use standards for general offices in the R-6 and R-6a zones, Section 6.5.6(C).

As per Article 19, Table 19-A, the minimum off-street parking requirement is calculated as one space per dwelling unit. However, within the R-6 zone, no off-street parking is required for the first three dwelling units as described in Table 19-B. Therefore, the baseline zoning requirement is for a minimum of six parking spaces at 386 Saint John Street, plus one additional space for the conditional office space use. However, off-street parking requirements can be waived for sites within $\frac{1}{4}$ mile of fixed route transit service. Therefore, the applicant is not required to provide any parking on site if they choose to submit a TDM plan to take advantage of this exception, but the program currently calls for eight off-street spaces at the development site.



Figure 4. 386-392 Saint John Street in R-6 Zone Context

The following table shows the dimensional requirements of the R-6 zone which are met by this proposal:

<i>Standard</i>	<i>R-6 Zoning Requirement</i>	<i>386 Saint John Street</i>
Minimum Lot Area	2,000 square feet	7,366 square feet
Minimum Lot Area Per Dwelling Unit	725 square feet	818.4 square feet
Minimum Street Frontage	20 feet	64.91 feet
Minimum Front Setback	5 feet	5.84 feet
Minimum Rear Setback	10 feet	11.16 feet
Minimum Side Setback (>2.5 stories)	5 feet	5.12 feet
Maximum Lot Coverage	60%	56.1%
Minimum Lot Width	20 feet	64.91 feet
Maximum Structure Height	45 feet	33.62 feet
Minimum Landscaped Open Area	20%	20.1%
Minimum Off-Street Parking	7	8 spaces
Minimum Off-Street Bicycle Storage	2 Spaces (per 5 units)	4 Spaces

VIII. **CONDITIONAL USE REVIEW**
 A. **GENERAL CONDITIONAL USE STANDARDS – SECTION 6.5.2**

1. The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone.

The proposed conditional use, a ground floor office space, requires one off-street parking space. The volume of traffic this use will generate is proportionately less than what will be generated by the approved residential use on the site, and is not anticipated to cause negative impacts.



Figure 5. Non-Residential Uses near 386-392 Saint John Street

2. The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter.

The ground floor space that is the subject of the conditional use review is 606 square feet in area and is anticipated to be used as professional office space. No noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter are anticipated.

3. The design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.

The proposed conditional use fits within the footprint of the proposed building in a manner that is not anticipated to have greater impacts than similar allowable uses in the zone. Signage should be clarified when a tenant is found for the space.

4. The proposed use will meet any additional zone or use-specific standards identified in Tables 6-A to 6-F and Subsections 6.5.6 and 6.5.7.

The proposed office use is listed as a conditional use in the R-6 and R-6A zones in Table 6-A, and is subject to use-specific standards identified in Section 6.5.6(C).

B. **USE-SPECIFIC STANDARDS GENERAL OFFICE IN THE R-6 AND R-6A ZONES – SECTION 6.5.6(C)**

1. Offices shall serve a member of a recognized profession and be maintained for the conduct of that profession. Professional office uses do not include veterinary offices.

Applicants to make tenants aware of this standard.

2. For the use of any building designed or constructed for residential use, which was in use as a residence on April 18, 1984, or thereafter:
The proposed professional office will be sited in a newly constructed residential building.
3. A professional office shall not be located within 500 feet of another as measured along the street line to the respective property lines.
The proposed professional office is not located within 500 feet of another along Saint John Street.
4. A building with one or more professional offices shall have at least 50% of the total floor area of the building devoted to residential uses.
As this building is proposed to have nine residences and one approximately 606 square foot professional office space, the site meets this standard.
5. The total number of individuals working in a building of professional offices shall not exceed the equivalent of four full time employees.
Applicants to make tenants aware of this standard.
6. Any additions or exterior alterations shall be compatible with the architecture of the building and maintain the residential appearance of the surrounding area.
No additions or exterior alterations are proposed.
7. The scale and surface area of parking, driveways, and paved areas shall be arranged and landscaped to be compatible in size and scale with neighboring properties in the area and to properly screen vehicles from adjacent properties and streets.
The proposed professional office shall have one parking space that is clearly marked so as to distinguish it from the adjacent residential parking.

IX. DEVELOPMENT REVIEW

A. SITE PLAN REQUIREMENTS

The applicant has submitted a recording plat for review by the City Surveyor and Corporation Counsel. Comments from Corporation Counsel are forthcoming for this item. As is customary, the final plat will need to be revised to reflect any waivers and conditions of approval that relate to the site plan. Any waivers granted must be recorded at the Registry of Deeds within two years of a Planning Board decision.

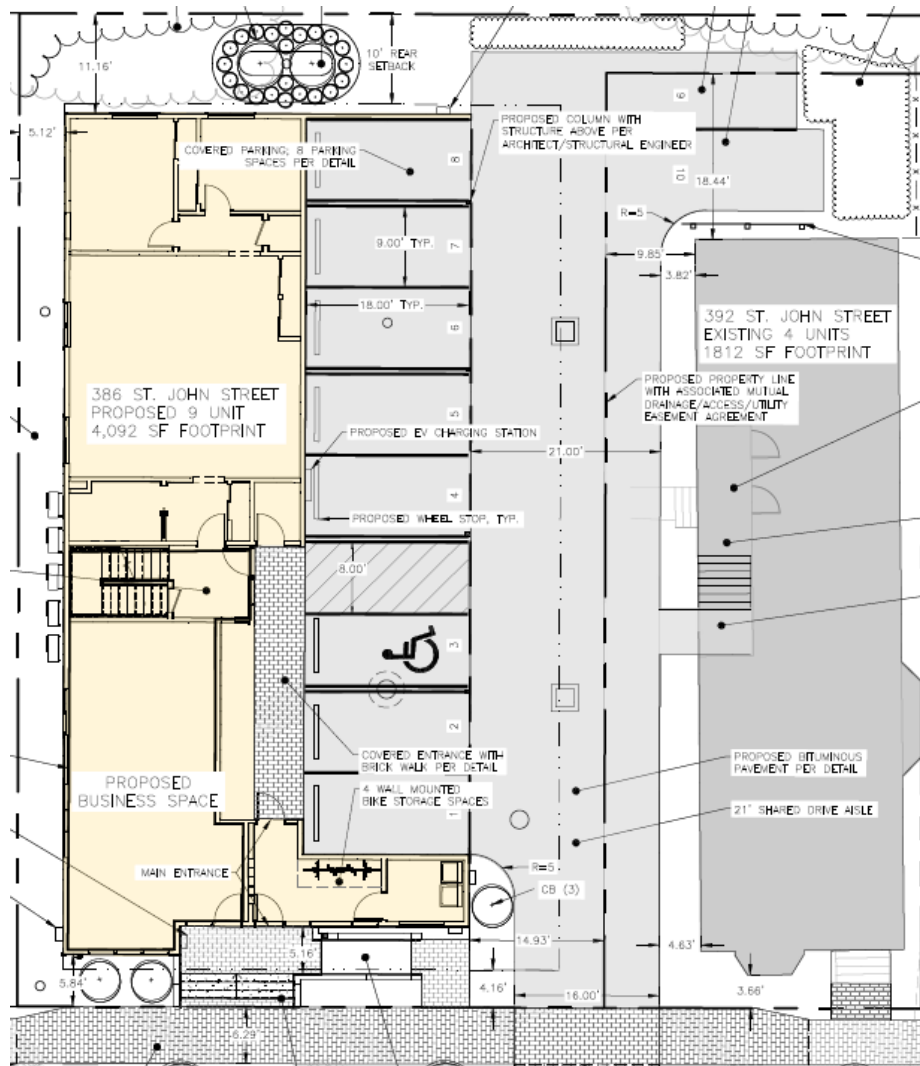


Figure 6. Site & Landscape Plan of 386-392 Saint John Street

B. SITE PLAN REVIEW STANDARDS (Section 14.6)

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

a) Transportation Standards**1. Impact on Surrounding Street Systems**

The proposed project is located on Saint John Street, which is a minor arterial, and the applicant is proposing to provide eight parking spaces for a nine unit residential building with 606 square foot office space. The site is accessible to public transit and it is not anticipated to adversely affect surrounding street systems.

2. Access and Circulation

The applicant proposes a shared driveway on the property line between the existing building at 392 Saint John Street and proposed building on the newly created lot, 386 Saint John Street. New sidewalk and curbs would be built, as well as a new curb cut for the driveway and walkway to the front entrance. At less than 20 feet in width, the driveway does not conform to the width standards of the *Technical Manual*, and the applicant has submitted a Technical Manual waiver to allow for reduced width of 16 feet. At less than 24 feet, the driveway aisle does not conform to standards of the *Technical Manual*, and the applicant has submitted a Technical Manual waiver to allow for reduced width of 21 feet.

The submitted turning template shows vehicles close to the adjacent building and its landscaped area. A barrier or guard rail should protect the adjacent building from automobiles utilizing the driveway.

Traffic engineering peer reviewer Tom Errico has offered the following comments:

The applicant should specifically identify site constraints that prevent the project from meeting the minimum driveway width of 20 feet. There appears to be space available to meet the minimum width requirement. I would note that St. John Street is classified as a minor arterial and carries significant traffic volumes and this is a factor in the consideration of a waiver. Additionally, the building columns in the vicinity of the parking area should be included on the plans.

3. Public Transit Access

All residential developments consisting of 20 or more dwelling units shall provide a transit shelter adjacent to or within the public right-of-way along its frontage. The proposed project provides a total of 9 units, therefore this standard is not applicable.

4. Parking: Vehicle and Bicycle

This development proposes seven parking spaces that are to be used by residents of the new building and one to be used by potential tenants of the office space, yielding a parking ratio of 0.78 spaces per unit, with no changes to on-street parking. This amount is greater than the six parking spaces which are required for this development per zoning. The applicant proposes to include four bicycle parking spaces. All vehicle parking is located on the ground floor tucked under the new building.

Staff is seeking additional clarity from the applicant on how they intend to operate the parking spaces between tenants of the office space and residents of the building.

b) Environmental Quality Standards

1. Preservation of Significant Natural Features

This is an urban infill site; aside from the existing building on site, the lot currently consists of denatured land devoid of significant natural features.

2. Landscaping and Landscape Preservation

The applicant proposes to plant three new street trees as well as plantings and shrubbery near the building's front entrance. In addition the applicant intends to retain three existing street trees. With nine residential units proposed the applicant is required to plant nine street trees or may utilize a street tree alternative as described in the City's Technical Manual Section 4.6.4 to meet the requirement.

3. Water Quality, Storm Water Management and Erosion Control

The Applicant has provided a detailed Stormwater Management Report (Attachment J), as well as an Erosion and Sedimentation Control Report to meet the Basic Standards.

Public Infrastructure and Community Safety Standards

1. Consistency with City Master Plans

This development is consistent with the goals and policies outlined in *Portland's Plan 2030*. The new housing development aligns with the City's vision statements and goals by increasing the overall housing supply in a contextual manner in a walkable, transit accessible location, which has the ability to enable people who work in Portland to have the option to live in Portland. In addition, the inclusion of a small office space furthers the shared goal of establishing complete neighborhoods. Relevant vision statements and goals are provided below:



Figure 7. Vision Statement from Portland's Plan 2030

Goals:

- Housing: Increase, preserve, and modify the overall supply of housing city-wide to meet the needs, preferences and financial capabilities of all Portland residents.
- Housing: Encourage additional contextually appropriate housing density in and proximate to neighborhood centers, concentrations of services, and transit nodes and corridors as a means of supporting complete neighborhoods.
- Housing: Pursue policies to enable people who work in Portland to have the option to live in Portland.
- Environment: Adopt sustainable land use and transportation policies that support connectivity, walkable neighborhoods, and multi-modal transportation.

2. Public Safety and Fire Prevention (CPTED and Fire)

The Crime Prevention through Environmental Design (CPTED) standards in the site plan ordinance addresses the principles of natural surveillance, access control and territorial reinforcement so that the design of developments enhance the security of public and private spaces and reduce the potential for crime. The site's landscaping reinforce ownership while its windows and relation to neighboring buildings promote natural surveillance. The lighting is sufficient to promote visibility and security.

Comments from the Life Safety Reviewer are forthcoming.

3. **Availability and Adequate Capacity of Public Utilities**

The Applicant has received a Wastewater Capacity Authorization from the Department of Public Works. Staff is awaiting the submittal of documentation of capacity to provide water.

c) **Site Design Standards**

1. **Massing, Ventilation and Wind Impact**

The new building proposed is not anticipated to impact any adjacent structures as it relates to bulk or diminution of available light and air to abutting properties. The building does not differ substantially from adjacent and nearby structures regarding massing so negative impacts are not anticipated. The proposed building rises up to a height of approximately 33 feet, which is below the maximum 45 feet permitted in the R-6 zone.

2. **Shadows**

As an infill development that conforms to dimensional standards and setbacks, negative impacts regarding shadows are not anticipated.

3. **Snow and Ice Loading**

The applicant is proposing on-site snow storage; a snow removal plan that will be utilized in larger snow storm events should be prepared.

4. **View Corridors**

Not applicable.

5. **Historic Resources**

The site is not within an established historic district, nor within 100 feet of a historic landmark.

6. **Exterior Lighting**

Applicants have submitted an exterior site lighting plan and cut sheets that show compliance with lighting standards. Staff is requesting that any lighting proposed for the ground-floor office space be clarified before final submission.

The proposed project does not currently include any street lighting, but will need to comply with street lighting standards of Technical Manual Section 10.2.

7. **Noise and Vibration**

All heating, ventilation and air conditioning equipment (HVAC), air handling units (AHU), emergency generators, and similar equipment will be required to meet state and federal emissions requirements. This mechanical equipment will be located on the south-facing exterior wall.

Clarification on how this equipment will be shielded from view should be included in final submissions.

8. **Signage and Wayfinding**

No signage or wayfinding is proposed in this development.

Signage dedicating a single parking space required for the ground-floor business should be included in final submissions.

9. **Zoning Related Design Standards**

As this development is located within the R-6 zone, a design review was conducted according to the City of Portland Design Manual Standards. Planning staff and the city's Urban Designer reviewed site plans and renderings against the R-6 Residential Zone Standards (Appendix 7 of the Design Manual). This process led to revisions that are incorporated into the current application materials.

In response to preliminary design review comments from staff (Attachment 1), the architect added trim details including corner boards, and window trim to improve articulation of the façade in a manner typical of neighboring structures.

IX. PUBLIC COMMENT

Notices were sent to 53 property owners within 500 feet of the site on October 18, 2021. A remote Neighborhood Meeting was held on October 28, 2021 with 0 members in attendance.

At the time of writing this memo, the Planning Department has received no public comments.

X. NEXT STEPS

At this time, staff are requesting the Board's feedback on the aforementioned topics related to:

- Waivers
- Site access & internal circulation (ground floor)

The final submission will need to:

- Update plan to include street lighting

XI. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. Preliminary Site Plan Review Comments from Staff
2. Preliminary Design Review Comments from Staff
3. Final Design Review Comments from Staff

APPLICANT'S SUBMITTAL

- A. Cover Letter
- AA. Conditional Use Permit
- AB. Conditional Use Checklist
- B. Major Site Plan Checklist
- C. Right, Title, and Interest
- D. Zoning Assessment
- E. Summary of Written Easements
- F. Waiver Requests
- G. Financial Capacity
- H. Technical Capability
- I. Conformity with Land Use Ordinance
- J. Stormwater Management Report
- K. Erosion & Sedimentation Control Report
- L. Fire Department Letter
- M. Wastewater Capacity
- N. Lighting

- O. Architectural Design Narrative
- P. Utility Cover
- Q. Construction Management Report
- R. Solid Waste Disposal
- S. Parking Analysis
- T. Neighborhood Study
- U. Neighborhood Meeting Certification Letter
- V. St. John Neighborhood Letter
- W. Neighborhood Meeting Sign-In Sheet
- X. Neighborhood Meeting Minutes
- Y. Comment Response Letter
- Y.1 Architectural Comment Response Letter
- Z. Turning Templates

PLANS

- Plan 1 – Cover Sheet
- Plan 2 – General Notes
- Plan 3 – Survey
- Plan 4 – Site and Landscape Plan
- Plan 5 – Utility Plan
- Plan 6 – Grading Plan
- Plan 7 – Site Details - 1
- Plan 8 – Site Details - 2
- Plan 9 – Landscape Details
- Plan 10 – Utility Details - 1
- Plan 11 – Utility Details - 2
- Plan 12 – Drainage Details
- Plan 13 – Focal Point Rail Garden Details
- Plan 14 – Erosion and Sediment Control Details
- Plan 15 – First Floor Plan & Perspectives
- Plan 16 – Second, Third & Basement Floor Plans
- Plan 17 – Elevations
- Plan 18 – Subdivision Plat

PUBLIC COMMENT

Comments from Planning Staff & Peer Reviewers.
 PL-001684-2021 – 392 St. John Street – Multifamily Residential

Compiled by Austen Torres Davis, Planner
 January 7, 2022

General Comments from Planning Staff

Project will need to conform to lighting standards of the Technical Manual (10.2 General Standards: Residential).

Front entrance and interior circulation information should be clarified or revised. It appears that tenants would need to enter vestibule, then exit into covered exterior walkway to access residential stairway. This configuration is not ideal both from a design perspective and from the perspective of shielding tenants from the elements. Additionally, a buffer or guard rail protecting the walkway from the parking area should be included.

Site & Landscape Plan does not match the First Floor Plan, as the doorway adjacent to parking space #4 are shown with slightly different dimensions.

Lighting

- Applicants should provide a photometric plan. One concern is the motion censored light on the left corner (near where the HVAC equipment is proposed). These lights should not encroach on neighboring property. All lights should be full cutoff.

Comments Related to Zoning Standards

Applicant will need to apply for a conditional use permit for office use in R-6 Zone. The planning board will review the conditional use permit application at Public Hearing.

The panhandle lot line should be explained. In this scheme both parking space and snow storage crosses the lot line which would require an easement. Additionally Shared driveways require easement.

The zoning analysis table should note 'right side' and 'left side' instead of simply noting 'side setback'

Applicant needs to add information in Energov about the existing building and its proposed landscaping, etc.

It should be shown on the plans how the applicant is meeting the required 20% open space.

Comments Related to Access & Parking

Waivers will be needed for the 16' driveway width as well as for the 21' parking aisle width.

Applicant needs to submit turning templates.

- Column dimensions should be considered in turning template.
- Graphics need to be representative of column dimensions. Currently columns look small.

The ADA space and aisle should be moved so that there is less conflict with support columns, and so the adjacent doorway does not open into the parking space.

An EV charger should be included in this development but is not shown in plans.

Compiled by Austen Torres Davis, Planner
January 7, 2022

One parking space per residential unit is required, though a waiver can be sought for the first three. For office uses, one space is required for every 400 feet – therefore one parking space is required for this use.

The doorway accessed via Parking Space #4 and its aisle should not be located to open or be accessed directly from the parking area, it should have more space or be relocated.

General Comments from DPW Staff

Deed descriptions that match the plans should be included for each lot.

The site surveys need to be stamped and signed.

Applicant should confirm whether they have reached out to DPW to confirm address of the new lot, as assessing needs to create a new tax lot number.

Comments Regarding Stormwater, Runoff, & Impervious Surface Cover

Applicant needs to replace manhole/manhole cover.

Footing, setback, and elevation information should conform to safe construction standards as the development is proposed close to adjacent building. This should be included in construction management report. These standards should include Supportive excavation to ensure development does not harm neighboring property. This documentation should be included in foundation-plan.

Sewer laterals should be indicated in utility plan. The utility plan shows where this is located but not where it is connected to the house.

Applicant to provide documentation regarding screening and noise related to HVAC equipment.

Applicant to provide clarification on snow storage.

- 386: Diagrams only show snow storage location for 392 but not 386. Diagram instead shows arrow suggesting snow storage atop focal-point rain catchment. This should not be the case.
- 392: Diagrams shows snow storage at location that is above grade of driveway and parking. Clarify any runoff concerns.

Stormwater runoff information is calculated for entire lot prior to subdivision. This should likely be done for each individual lot after subdivision.

Planning and Urban Development Department



Subject: R-6 Design Review – 392 St. John Street

Written by: Sean King, Urban Designer

Date of Review: Friday, January 28, 2022

A design review according to the City of Portland Design Manual Standards was performed for the proposed new construction of a 9-unit apartment with general office on ground floor building adjacent to the existing 4-unit structure at 392 St. John Street.

Reviewers: Sean King – Urban Designer, Austen Torres Davis - Planner, Jimmy Dealaman - Planner, and Kevin Kraft - Deputy Director.

The project was reviewed against the **R6 Residential Zone Standards (Appendix 7 of the Design Manual)**.

SMALL RESIDENTIAL LOT DEVELOPMENT LOCATED IN THE R-6 ZONE

(1) **STANDARDS.** Small residential lot development located in the R-6 zone on lots of ten thousand (10,000) square feet or less shall provide a high degree of architectural quality and compatibility with the surrounding neighborhood as demonstrated by compliance with the principles and standards of the R-6 Infill Development Principles and Standards, promulgated by the Planning Board and contained in Appendix 7 of this manual. Any proposal required to obtain a certificate of appropriateness under Portland's historic preservation ordinance is exempt from the R-6 design review standard.

Design Review Comments (*red text denotes standards that are not met*):

R-6 Infill Development Design Principles & Standards - Appendix 7

PRINCIPLE A - Overall Context. A building design shall contribute to and be compatible with the predominant character-defining architectural features of the neighborhood.

STANDARD A-1 - Scale and Form:

- Scale and form relates to nearby residential structures that contribute to and are compatible with the predominant residential neighborhood character.

STANDARD A-2 - Composition of Principal Facades:

- The rhythm, size, orientation and proportion of window and door openings is compatible of neighborhood, placement throughout the project is symmetrical and simple.

STANDARD A-3 - Relationship to Street:

- The building's main entry is oriented toward the street and is slightly setback to allow for a shared stoop for the general office and residential entries. A narrow

buffer for landscaping is provided. The building placement is consistent with the spacing and rhythm of the residential fabric.

PRINCIPLE B - Massing – The massing of the building reflects and reinforces the traditional building character of the neighborhood through a well composed form, shape and volume. Met

STANDARD B-1 - Massing

- The building's massing is appropriate in relationship to size, scale and shape within the existing neighborhood. **The applicant provided street-facing façade width of neighboring buildings for comparison to the proposed building. In addition to the projection and receding building elements at the ground floor and upper floors, the delineation of floors via trim detail assists to relate to neighborhood context.**

STANDARD B-2 - Roof Forms

- The project uses a simple flat roof that is compatible with the existing context.

STANDARD B-3 - Main Roofs and Subsidiary Roofs

- The building has one main roof form that is clearly evident.

STANDARD B-4 - Roof Pitch – Met

- The flat roof is typical of nearby multi-family buildings.

STANDARD B-5 - Façade Articulation – Met

- Project proposes a canopy above a shared entry stoop.

STANDARD B-6 - Garages – A garage is not proposed at the street-facing façade. **Addition of wheel stops creates protection between vehicular parking and pedestrian walk.**

PRINCIPLE C - Orientation to the Street – The building façade shall reinforce a sense of the public realm of the sidewalk while providing a sense of transition into the private realm of the home.

STANDARD C-1 - Entrances

- Main entrance is oriented toward the street and articulated with a raised stoop and ADA ramp.

STANDARD C-2 - Visual Privacy

- Finished floor elevation shown a minimum of 24" above sidewalk with the incorporation of elevated shared stoop along the front side of the building façade.

STANDARD C-3 - Transition Spaces

- The project includes a front stoop with a landscape buffer area which acts as a transition space.

PRINCIPLE D - Proportion and Scale – Building proportions must be harmonious and individual building elements shall be human scaled.

STANDARD D-1 - Windows

- All windows and doorways have a proportional relationship to the overall massing of the building.

STANDARD D-2 - Fenestration

- Windows and doorways scaled appropriately and meet at least 12% of total façade area.

STANDARD D-3 - Porches

- Porch, as it is identified through the main entry stoop, meets standards.

PRINCIPLE E – Balance – The building façade elements must create a sense of balance by employing local or overall symmetry and by appropriate alignment of building forms, features and elements.

STANDARD E-1 - Window and Door Height

- The majority of window and door head heights align along a common horizontal datum.

STANDARD E-2 - Window and Door Alignment

- The majority of windows stack to express a vertical alignment.

STANDARD E-3 - Symmetricality

- The primary window composition relates to the floor plan organization with bedrooms facing the street.
-

PRINCIPLE F – Articulation – The design of the building is articulated to create a visually interesting and well composed residential façade. – Met

STANDARD F-1 - Articulation

- **Addition of nominal 4” trim provides articulation.**

STANDARD F-2 - Window Types

- Two window types and sizes are used on the street-facing façade.

STANDARD F-3- Visual Cohesion

- The visual cohesion of siding material is consistent with arrangement of masonry materials shown below lighter material. **The proposed reinforced concrete foundation with 18” maximum visibility is screened by proposed planting.**

STANDARD F-4- Delineation Between Floors

- Delineation between floors is assembled by fenestration pattern set by window alignment in upper floors. **Addition of nominal 4” trim provides acceptable delineation.**

STANDARD F-5 - Porches, etc.

- Entryway stoop is architecturally integrated into the overall design of the building. **Balusters not required per standard.**

STANDARD F-6 - Main Entries

- The main pedestrian entry is facing St. John Street and integrated architecturally into the overall design of the building. **Applicant confirmation of materiality, adjustment to canopy height, and clear ADA path of travel are acceptable.**

STANDARD F-8 - Articulation

- The following features shall be on all facades facing and adjacent to the street:

- i. Eaves and rakes shall have a minimum projection of 6 inches. **The applicant has met this standard.**
- ii. All exterior façade trim such as that used for windows, doors, corner boards, and other trim, shall have a minimum, width of 4 inches except for buildings with masonry exteriors. **The applicant has met this standard.**
- iii. If there are off sets in building faces or roof forms, the off sets shall be a minimum of 12 inches. **The applicant met this standard.**
- iv. Pronounced and decorative cornices. **The applicant has met this standard.**

Principle G - Materials – Building facades shall utilize appropriate building materials that are harmonious with the character defining materials and architectural features of the neighborhood. Met

STANDARD G-1 - Materials

- Materials and treatments appear compatible with architectural features of the neighborhood. The applicant proposes fiber cement clapboard-style siding, cedar textured in dark blue/gray color.

STANDARD G-2 - Material and Façade Design

- The project uses materials that are harmonious with the surroundings. Simple, consistent material placement. Foundation is differentiated with a change in material. **The surrounding neighborhood includes a mix of material types visible at the foundation. The proposed reinforced concrete foundation with 18" maximum visibility is screened by proposed planting.**

STANDARD G-3 - Chimneys

- No chimneys are visible, standard not applicable.

STANDARD G-4 - Window Types

- The window types include only two types on the front façade. The predominant character in this context is vertical proportioned windows with one or two types visible from the street.

STANDARD G-5 - Patios and Plazas

- Not applicable.

Planning and Urban Development Department



Subject: R-6 Design Review – 392 St. John Street

Written by: Sean King, Urban Designer

Date of Review: Wednesday, December 29, 2021

A design review according to the City of Portland Design Manual Standards was performed for the proposed new construction of a 9-unit apartment with general office on ground floor building adjacent to the existing 4-unit structure at 392 St. John Street.

Reviewers: Sean King – Urban Designer, Austen Torres Davis - Planner, Jimmy Dealaman - Planner, and Kevin Kraft - Deputy Director.

The project was reviewed against the **R6 Residential Zone Standards (Appendix 7 of the Design Manual)**.

SMALL RESIDENTIAL LOT DEVELOPMENT LOCATED IN THE R-6 ZONE

(1) **STANDARDS.** Small residential lot development located in the R-6 zone on lots of ten thousand (10,000) square feet or less shall provide a high degree of architectural quality and compatibility with the surrounding neighborhood as demonstrated by compliance with the principles and standards of the R-6 Infill Development Principles and Standards, promulgated by the Planning Board and contained in Appendix 7 of this manual. Any proposal required to obtain a certificate of appropriateness under Portland's historic preservation ordinance is exempt from the R-6 design review standard.

Design Review Comments (*red text denotes standards that are not met*):

R-6 Infill Development Design Principles & Standards - Appendix 7

PRINCIPLE A - Overall Context. A building design shall contribute to and be compatible with the predominant character-defining architectural features of the neighborhood.

STANDARD A-1 - Scale and Form:

- Scale and form relates to nearby residential structures that contribute to and are compatible with the predominant residential neighborhood character.

STANDARD A-2 - Composition of Principal Facades:

- The rhythm, size, orientation and proportion of window and door openings is compatible of neighborhood, placement throughout the project is symmetrical and simple.

STANDARD A-3 - Relationship to Street:

- The building's main entry is oriented toward the street and is slightly setback to allow for a shared stoop for the general office and residential entries. A narrow

buffer for landscaping is provided. The building placement is consistent with the spacing and rhythm of the residential fabric.

PRINCIPLE B - Massing – The massing of the building reflects and reinforces the traditional building character of the neighborhood through a well composed form, shape and volume. - **Not Met**

STANDARD B-1 - Massing

- The building's massing is appropriate in relationship to size, scale and shape within the existing neighborhood. **The form composition of the new building façade deviates along street-facing façade due to the frontage width (44'9") of structure. Provide greater volume variation along street-facing façade (e.g. façade setback, projecting or receding building elements) to a maximum width of fifteen (15) feet consistent with the massing of existing buildings in the two-block radius.**

STANDARD B-2 - Roof Forms

- The project uses a simple flat roof that is compatible with the existing context.

STANDARD B-3 - Main Roofs and Subsidiary Roofs

- The building has one main roof form that is clearly evident.

STANDARD B-4 - Roof Pitch – Met

- The flat roof is typical of nearby multi-family buildings.

STANDARD B-5 - Façade Articulation – Met

- Project proposes a canopy above a shared entry stoop.

STANDARD B-6 - Garages – A garage is not proposed at the street-facing façade. **For the parking proposed, provide distinctive separation at "covered entrance with brick walk" to protect and buffer the pedestrian circulation from parked automobiles.**

PRINCIPLE C - Orientation to the Street – The building façade shall reinforce a sense of the public realm of the sidewalk while providing a sense of transition into the private realm of the home.

STANDARD C-1 - Entrances

- Main entrance is oriented toward the street and articulated with a raised stoop and ADA ramp.

STANDARD C-2 - Visual Privacy

- Finished floor elevation shown a minimum of 24" above sidewalk with the incorporation of elevated shared stoop along the front side of the building façade.

STANDARD C-3 - Transition Spaces

- The project includes a front stoop with a landscape buffer area which acts as a transition space.

PRINCIPLE D - Proportion and Scale – Building proportions must be harmonious and individual building elements shall be human scaled.

STANDARD D-1 - Windows

- All windows and doorways have a proportional relationship to the overall massing of the building.

STANDARD D-2 - Fenestration

- Windows and doorways scaled appropriately and meet at least 12% of total façade area.

STANDARD D-3 - Porches

- Porch, as it is identified through the main entry stoop, meets standards.

PRINCIPLE E – Balance – The building façade elements must create a sense of balance by employing local or overall symmetry and by appropriate alignment of building forms, features and elements.

STANDARD E-1 - Window and Door Height

- The majority of window and door head heights align along a common horizontal datum.

STANDARD E-2 - Window and Door Alignment

- The majority of windows stack to express a vertical alignment.

STANDARD E-3 - Symmetricality

- The primary window composition relates to the floor plan organization with bedrooms facing the street.
-

PRINCIPLE F – Articulation – The design of the building is articulated to create a visually interesting and well composed residential façade. – **Not Met**

STANDARD F-1 - Articulation

- Surface articulation in the building should include detailed consistency on the façade visible from the public right of way through dimensional trim (minimum width of 4”), window reveals, or similar elements appropriate to style of building.

STANDARD F-2 - Window Types

- Two window types and sizes are used on the street-facing façade.

STANDARD F-3- Visual Cohesion

- The visual cohesion of siding material is consistent with arrangement of masonry materials shown below lighter material. Address the materiality in foundation wall as cladded brick for compatibility with the predominant architectural features of the neighborhood.

STANDARD F-4- Delineation Between Floors

- Delineation between floors is assembled by fenestration pattern set by window alignment in upper floors. Delineation of first floor and second floor is not evident, especially along garage façade visible from street. Provide architectural feature (such as belt course or similar) to express first floor from second floor and raise front entry canopy to assist as delineation feature.

STANDARD F-5 - Porches, etc.

- Entryway stoop is architecturally integrated into the overall design of the building. **Use of railings at steps and ramp shall be consistent to include a more defined vertical rail system with appropriate openings.**

STANDARD F-6 - Main Entries

- The main pedestrian entry is facing St. John Street and integrated architecturally into the overall design of the building. **Provide materiality of main entry and confirm design details for canopy feature that does not inhibit pedestrian access at main entry ramp.**

STANDARD F-8 - Articulation

- **The following features shall be on all facades facing and adjacent to the street:**
 - i. Eaves and rakes shall have a minimum projection of 6 inches.
 - ii. **All exterior façade trim such as that used for windows, doors, corner boards, and other trim, shall have a minimum, width of 4 inches except for buildings with masonry exteriors.**
 - iii. If there are off sets in building faces or roof forms, the off sets shall be a minimum of 12 inches. (This building's offset is 2'6")
 - iv. Pronounced and decorative cornices. **Confirm material and distances.**

Principle G - Materials – Building facades shall utilize appropriate building materials that are harmonious with the character defining materials and architectural features of the neighborhood. **Not Met**

STANDARD G-1 - Materials

- Materials and treatments appear compatible with architectural features of the neighborhood. **Provide exterior material selection for clarity of type and color.**

STANDARD G-2 - Material and Façade Design

- The project uses materials that are harmonious with the surroundings. Simple, consistent material placement. Foundation is differentiated with a change in material. **Address the materiality in foundation wall as cladded brick for compatibility with the predominant architectural features of the neighborhood – (From STANDARD F-3).**

STANDARD G-3 - Chimneys

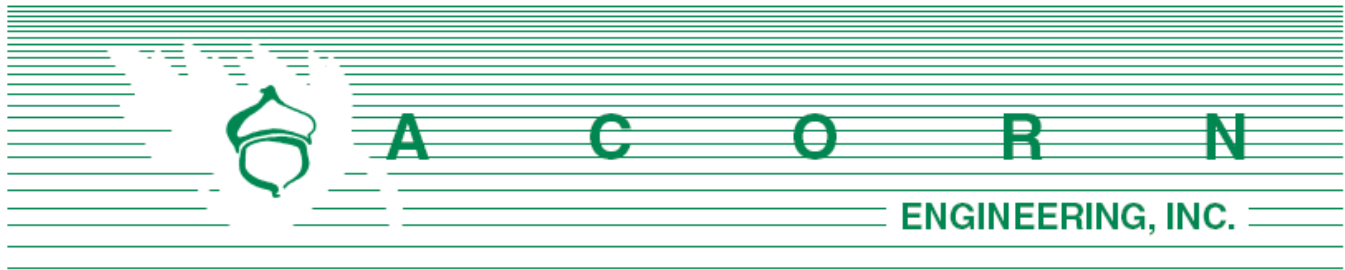
- No chimneys are visible, standard not applicable.

STANDARD G-4 - Window Types

- The window types include only two types on the front façade. The predominant character in this context is vertical proportioned windows with one or two types visible from the street.

STANDARD G-5 - Patios and Plazas

- Not applicable.



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

December 22, 2021

Subject: Major Site Plan & Subdivision Application
Redevelopment of 392 St. John Street – Portland, Maine

To Whom It May Concern,

On behalf of Alex Coupe, we are pleased to submit the accompanying package of materials related to the proposed redevelopment of 392 St. John Street. The existing parcel is 11,000 square feet and contains an existing 4-unit building that will be maintained with several site improvements as a result of the proposed 9-unit building with ground floor business space. The project proposes to divide the existing property line into two separate conforming parcels with a shared driveway and utility corridor.

The proposed development includes nine two-bedroom units that are anticipated to be long term leases. The project proposes to utilize and expand the existing curb cut and driveway to a shared driveway with a 21' wide access aisle. A reciprocal mutual easement agreement will be developed to allow each parcel to share the driveway, utilities, etc. while laying out the expectations for property management. This infill project intends to improve the streetscape by rebuilding the sidewalk, curb, and esplanade which are in poor condition while maintaining the three existing street trees.

This application package is intended to meet the City's Submission requirements as outlined in the Major Site Plan Application procedures. If you have any questions regarding these materials or the completeness of the application materials, please contact us within the next five (5) days.

Sincerely,

Sam Lebel, P.E.
Project Manager
Acorn Engineering, Inc.

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

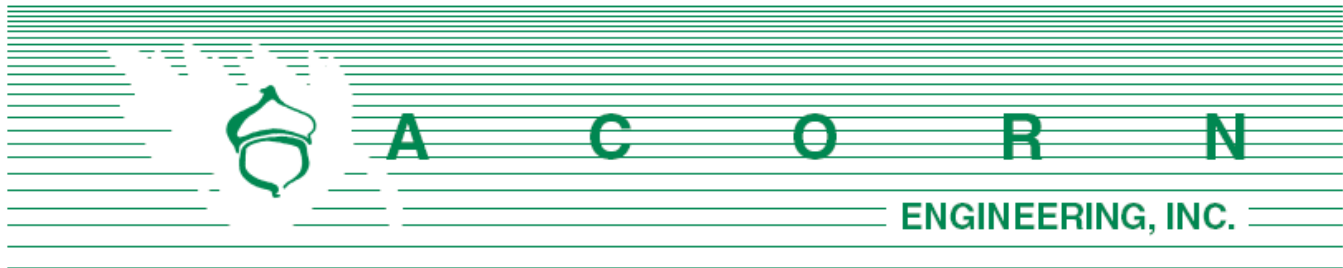
Documents:

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

Drawings:

- Civil Site Plan Set dated 12/22/2021.
- Architectural Plan Set dated 12/21/2021.





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

January 17th, 2022

Subject: Conditional Use Permit
 Redevelopment of 392 St. John Street – Portland, Maine

Austen,

On behalf of Alex Coupe, we are pleased to submit the accompanying package of materials related to the proposed redevelopment of 392 St. John Street. The existing parcel is 11,000 square feet and contains an existing 4-unit building that will be maintained with several site improvements as a result of the proposed 9-unit building with ground floor business space. The project proposes to divide the existing property line into two separate conforming parcels with a shared driveway and utility corridor.

The proposed ground floor professional office space is a conditional use within the R6 zoning district and as such is subject to Land Use Code section 6.5.2 General Conditions Use Standards. We believe the proposed 606 square foot ground floor office space will be an asset to the neighborhood and has been proposed in direct response to feedback from the project's neighborhood meeting. Please see below:

- A.) Traffic: The anticipated volume generated by the proposed office use is minimal due to the small footprint of the space allowing minimal capacity for employees (potentially 3-4 employees max). The city's requirement for office space parking is 1 space per 400sf, thus resulting in 1 parking space required on site. In addition, there is on-street parking on St John Street and there is a transit bus stop within 500 ft of the proposed building.
- B.) The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter.
- C.) The office space use will have minimal impact of the proposed residential programming in regards to design and operation. The office will not affect the landscaping, screening, signs, loading, deliveries, trash, arrangement of structures, and materials storage will not have a greater impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone
- D.) The proposed use will be in compliance with standards identified in tables 6-A to 6-F and subsections of 6.5.6 and 6.5.7

General Office in the R6 Zone

- a. The proposed office space will serve a member of a recognized professions and be maintained for the conduct of that profession. The proposed office space will not be a veterinary space.
- b. See below
 - i. There are no professional offices existing within 500' of the site.
 - ii. The proposed building has approximately 8,512 SF of residential use compared to the proposed 606 SF for office use.
 - iii. The total number of employees working in the proposed office is not anticipated to surpass 3-4 employees.
 - iv. The proposed building will be compatible with the architectural character of the surrounding area. Please refer to architectural plans and narrative for additional information.
- c. The scale of the surface area of parking, driveways, and paved areas is arranged and landscaped in a similar size and scale as neighboring properties in the area. The majority of proposed parking on site is covered and screened from the street and abutting properties.

Sincerely,



Sam Lebel, P.E.
Project Manager
Acorn Engineering, Inc.

In conjunction with the active Major Site Plan/Subdivision application, the following documents and drawings will be uploaded onto the City's electronic submission site per the procedure outlined in the application:

Documents:

- Section AA: Conditional Use Permit Narrative
- Section AB: Conditional Use Checklist
- Section C: Right, Title, Interest



CITY OF PORTLAND
Planning & Urban Development Department

**CONDITIONAL USE – PLANNING BOARD REVIEW
SUBMISSION CHECKLIST**

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

Conditional uses are listed in the land use code for each zone. The applicant must address the general standards as well as any use- or zone-based conditional use standards contained in Article 6.5 of the land use code in the written application.

GENERAL APPLICATION DOCUMENTS

☒	N/A	Project Description Cover letter with detailed project description
☒	N/A	Completed Checklist – Conditional Use (this document)
☒	N/A	Evidence of Right, Title and Interest Deeds, leases, or purchase and sales agreements

CONDITIONAL USE STANDARDS AND CRITERIA

☒	N/A	Traffic Demonstrate that the volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the zone.
☒	N/A	Environmental Impacts Demonstrate that the proposed use will not create any unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter.
☒	N/A	Design and Operation Demonstrate that the design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.
☒	N/A	Use- and Zone-Specific Criteria Address any use- or zone-specific standards in Sections 6.5.6 and 6.5.7 of the land use code.

CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN GENERAL DOCUMENT AND DRAWINGS CHECKLIST Please submit each document as a separate PDF file. Please confirm by electronically checking the boxes in the left-hand column. ** PLEASE FILL OUT AND UPLOAD THE ZONING ASSESSMENT TABLE AND WAIVER TABLE SEPARATELY AS NOTED BELOW ** At the time of application submission, please contact the Department of Public Works regarding E-911 addressing for your project.		
GENERAL APPLICATION DOCUMENTS		
<u>Yes</u>	NA	Project Description Cover letter with detailed project description
<u>Yes</u>	NA	Completed Checklist (this document)
<u>Yes</u>	NA	Evidence of Right, Title, and Interest Deeds, leases, or purchase and sales agreements
Yes	<u>NA</u>	Evidence of State or Federal Approvals Permits or letters of non-jurisdiction, if applicable
<u>Yes</u>	NA	Zoning Assessment (see Zoning Assessment Table) Summary of compliance with use and dimensional standards of the land use code
<u>Yes</u>	NA	Site Plan Standards Assessment (see Section 14.6 of the land use code) Summary of project compliance with site plan standards of the land use code
<u>Yes</u>	NA	Summary of Existing and/or Proposed Easements or Covenants, applicable. Evidence of existing easements and any proposed easements, covenants, public or private rights-of-way
<u>Yes</u>	NA	Waiver Requests (see Waiver Table) Written request for waiver describing request and compliance with applicable waiver standards
<u>Yes</u>	NA	Financial Capability Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
<u>Yes</u>	NA	Technical Capability Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

MAJOR SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

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

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

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

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

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

MAJOR SITE PLAN DRAWINGS CHECKLIST

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

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

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

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

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

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

Existing Conditions Plan with the following:

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

Proposed Site Plan with the following:

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

• Location of solid waste management receptacles • Location of all proposed HVAC and mechanical equipment, including proposed screening, where applicable • Location of proposed easements and rights-of-way, including dimensions • Please utilize color-coding and/or hatches and shading to delineate changes between the pre and post development condition as needed
UTILITY PLAN including:
• Proposed electrical infrastructure • Location, sizing and directional flows of all proposed sewer and stormwater infrastructure • Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site • Electric utility infrastructure
GRADING AND DRAINAGE PLAN including:
• Proposed grades • Proposed stormwater management measures meeting Technical Manual (Section 5) standards • Any proposed alteration of a watercourse or wetlands • Any groundwater protection measures • Proposed buffers and preservation measures for wetlands or significant natural features
LANDSCAPE PLAN including:
• Existing vegetation to be preserved and preservation measures • Proposed landscaping, screening, and street trees, including caliper widths for trees • Planting schedule, including street trees
ARCHITECTURAL PLANS AND RENDERINGS including:
• Exterior building elevations, color renderings, illustrations of all sides • Axonometric and street-level views for structures greater than three stories in height • Provide context drawings, if applicable (Design Manual, page 1) • Floor plans
CONSTRUCTION MANAGEMENT PLAN including:
• Specifics on traffic control, sidewalk sheds, and pedestrian rerouting • Include a drawing and written narrative
OTHER
• Details and cross-sections, as necessary

C. Right, Title, Interest

See attached for the Warranty Deed for the project located at 392 St. John Street.



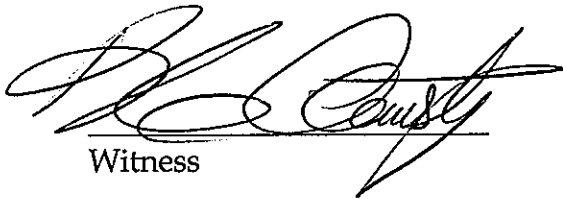
WARRANTY DEED

(Maine Statutory Short Form - 33 M.R.S.A. §§ 761 *et seq.*)

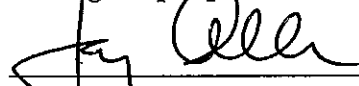
KNOW ALL PERSONS BY THESE PRESENTS, that Six Sigma Properties, LLC, a Maine limited liability company whose mailing address is 14 Higgins Lane-South Portland, Maine 04103, for valuable consideration received, hereby **GRANT** to **Bosco Holdings, LLC**, a Maine limited liability company whose mailing address is 27 Cypress Street-Portland, Maine 04103, with **WARRANTY COVENANTS** a certain lot or parcel of land, together with any buildings or improvements thereupon, situated in the City of Portland, County of Cumberland and State of Maine, and being more particularly described as follows:

See Exhibit A, attached hereto and incorporated herein.

Witness my hand and seal this 23rd day of December, 2020.


Witness

Six Sigma properties, LLC


By: Jay Allen
Its: Member

STATE OF MAINE
COUNTY OF CUMBERLAND, SS.

Then personally appeared this 23rd day of December, 2020, the above named Jay Allen, in his said capacity, and acknowledged the foregoing instrument to be his free act and deed.

Before me,


Notary Public/ Attorney at Law
Printed Name: _____
My Comm. Exp: _____

Kirk Armstrong
Notary Public
State of Maine
My Commission Expires 12/02/2025

EXHIBIT A

(392 St. John Street-Portland, Maine)

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

Beginning on the westerly side of St. John Street at land now or formerly of A. Libby; thence running southerly by said street one hundred (100) feet to land now or formerly of E. Wing; thence running westerly by land of said Wing one hundred ten (110) feet to land formerly of Portland & Kennebec Railroad; thence running northerly by land of said Railroad on hundred (100) feet to land of said Libby; and thence running easterly by said Libby land one hundred ten (110) feet to the point of beginning.

Further reference may be made to a Warranty Deed from NicLar, LLC to Six Sigma Properties, LLC dated June 19, 2019 and recorded in Book 35728, Page 165 in the Cumberland County Registry of Deeds.

* * * * *

Reviewed and Approved JTA



A. Settlement Statement (HUD-1)

B. Type of Loan

1. ☐ FHA	2. ☐ RHS	3. ☒ Conv. Unins.	6. File Number: 20-1427	7. Loan Number:	8. Mortgage Insurance Case Number:
4. ☐ VA	5. ☐ Conv. Ins.				

C. Note: This form is furnished to give you a statement of actual settlement costs. Amounts paid to and by the settlement agent are shown. Items marked "(p.o.c.)" were paid outside the closing, they are shown here for informational purposes and are not included in the totals.

D. Name and Address of Borrower: Bosco Holdings, LLC 27 Cypress St Portland, ME 04103	E. Name and Address of Seller: Maine Exchange Services, LLC Qualified Intermediary For Six Sigma Properties, LLC	F. Name and Address of Lender: Gorham Savings Bank One India Street Portland, ME 04101
G. Property Location: 392 St John Street Portland, ME 04101 Cumberland County, Maine	H. Settlement Agent: Cornerstone Title and Settlement Company Inc 1438 Washington Avenue Portland, ME 04103 Place of Settlement: 1438 Washington Avenue Portland, ME 04103	I. Settlement Date: December 23, 2020 Disbursement Date: December 23, 2020

J. Summary of Borrower's transaction	K. Summary of Seller's transaction
100. Gross Amount Due from Borrower	400. Gross Amount Due to Seller:
101. Contract sales price 695,000.00	401. Contract sales price 695,000.00
102. Personal property	402. Personal property
103. Settlement Charges to Borrower (Line 1400) 7,179.50	403.
104.	404.
105.	405.
Adjustments for items paid by Seller in advance	Adjustments for items paid by Seller in advance
106. City/Town Taxes 12/24/20 to 12/31/20 126.48	406. City/Town Taxes 12/24/20 to 12/31/20 126.48
107. County Taxes to	407. County Taxes to
108. Stormwater 12/24/20 to 12/31/20 5.28	408. Stormwater 12/24/20 to 12/31/20 5.28
109.	409.
110.	410.
111.	411.
112.	412.
120. Gross Amount Due from Borrower 702,311.26	420. Gross Amount Due to Seller 695,131.76
200. Amounts Paid by or in Behalf of Borrower	500. Reductions in Amount Due Seller:
201. Deposit or earnest money 10,000.00	501. Excess deposit (see instructions)
202. Principal amount of new loan(s) 517,000.00	502. Settlement charges to Seller (Line 1400) 33,707.00
203. Existing loan(s) taken subject to	503. Existing loan(s) taken subject to
204.	504. Payoff First Mortgage to TD Bank/2541316-9001 324,102.80
205.	505. Payoff Second Mortgage
206.	506.
207.	507. (Deposit disb. as proceeds)
208.	508.
209.	509.
Adjustments for items unpaid by Seller	Adjustments for items unpaid by Seller
210. City/Town Taxes to	510. City/Town Taxes to
211. County Taxes to	511. County Taxes to
212. Stormwater to	512. Stormwater to
213.	513.
214.	514.
215.	515.
216. Line of Credit Funds 168,000.00	516.
217.	517. Stormwater Billing to City of Portland/705962 4.05
218.	518. Final Water/Sewer to Portland Water District/14215 190.37
219.	519.
220. Total Paid by/for Borrower 695,000.00	520. Total Reduction Amount Due Seller 358,004.22
300. Cash at Settlement from/to Borrower	600. Cash at settlement to/from Seller
301. Gross amount due from Borrower (line 120) 702,311.26	601. Gross amount due to Seller (line 420) 695,131.76
302. Less amount paid by/for Borrower (line 220) (695,000.00)	602. Less reductions due Seller (line 520) (358,004.22)
303. Cash ☒ From ☐ To Borrower 7,311.26	603. Cash ☒ To ☐ From Seller 337,127.54

* Paid outside of closing by borrower(s), seller(s), lender(s), or third party(ies)

The undersigned hereby acknowledge receipt of a completed copy of this statement & any attachments referred to herein

Borrower
Bosco Holdings, LLC
By: Alex P. Coupe
Its: Sole Member

Seller
Maine Exchange Services, LLC as Qualified Intermediary
for Six Sigma Properties, LLC
Six Sigma Properties, LLC

Seen and Agreed to by Six Sigma Properties, LLC
BY: Jay Allen
Its: Member

The Public Reporting Burden for this collection of information is estimated at 35 minutes per response for collecting, reviewing, and reporting the data. This agency may not collect this information, and you are not required to complete this form, unless it displays a current valid OMB control number. No confidentiality is assured. This disclosure is mandatory. This is designed to provide the parties to a RESPA-covered transaction with information during the settlement process.

L. Settlement Charges				Paid From Borrower's Funds at Settlement	Paid From Seller's Funds at Settlement
700. Total Real Estate Broker Fees		\$ 27,800.00			
Division of commission (line 700) as follows:					
701. \$ 13,900.00	to Harborview Properties				
702. \$ 13,900.00	to Harborview Properties				
703. Commission paid at settlement					27,800.00
704.					
705.					
800. Items Payable in Connection with Loan					
801. Our origination charge	\$	(from GFE #1)			
802. Your credit or charge (points) for the specific interest rate chosen	\$	(from GFE #2)			
803. Your adjusted origination charges to	Gorham Savings Bank	(from GFE #A)		0.00	
804. Appraisal fee	to	(from GFE #3)		915.00	
805. Credit Report	to	(from GFE #3)			
806. Tax service	to	(from GFE #3)			
807. Flood certification	to Gorham Savings Bank	(from GFE #3)		20.00	
808. Documentation Fee	to Gorham Savings Bank	(from GFE #3)		1,500.00	
809. EOR Fee	to Gorham Savings Bank	(from GFE #3)		100.00	
810. Wire Fee	to Gorham Savings Bank	(from GFE #3)		25.00	
811.		(from GFE #3)			
900. Items Required by Lender to Be Paid in Advance					
901. Daily interest charges from	12/23/20 to 01/01/21	\$ @ \$/day (from GFE #10)			
902. Mortgage insurance premium for	months to	(from GFE #3)			
903. Homeowner's insurance for	years to	(from GFE #11)			
904.		(from GFE #11)			
905.		(from GFE #11)			
1000. Reserves Deposited with Lender					
1001. Initial deposit for your escrow account		(from GFE #9)			
1002. Homeowner's insurance	months @ \$	per month \$			
1003. Mortgage insurance	months @ \$	per month \$			
1004. Property taxes		\$			
1005.		\$			
1006.	months @ \$	per month \$			
1007.	months @ \$	per month \$			
1008.		\$			
1009.		\$			
1100. Title Charges					
1101. Title services and lender's title insurance		(from GFE #4)		1,679.75	
1102. Settlement or closing fee	to Cornerstone Title and Settlement Company LLC	\$ 650.00			
1103. Owner's title insurance to Chicago Title Insurance Company		(from GFE #5)		1,280.25	
1104. Lender's title insurance to Chicago Title Insurance Company		\$ 1,029.75			
1105. Lender's title policy limit	\$ 517,000.00				
1106. Owner's title policy limit	\$ 695,000.00				
1107. Agent's portion of the total title insurance premium	to Cornerstone Title and Settlement Company Inc	\$ 1,617.00			
1108. Underwriter's portion of the total title insurance premium	to Chicago Title Insurance Company	\$ 693.00			
1109. Deed Preparation	to Cornerstone Title and Settlement Company LLC			200.00	
1110. Discharge Preparation (2)	to Cornerstone Title and Settlement Company LLC			200.00	
1111. Wire/Courier	to Cornerstone Title and Settlement Company LLC			25.00	
1112.		\$			
1113.		\$			
1200. Government Recording and Transfer Charges					
1201. Government recording charges	to Cumberland County Registry of Deeds	(from GFE #7)		92.00	
1202. Deed \$ 24.00	Mortgage \$ 36.00	Releases \$ 44.00	Other \$ 32.00		44.00
1203. Transfer taxes	to Cumberland County Registry of Deeds	(from GFE #8)		1,529.00	
1204. City/County tax/stamps	\$	\$			
1205. State tax/stamps	\$ 3,058.00	\$			1,529.00
1206. E-recording Fee	to Cumberland County Registry of Deeds			13.50	9.00
1207.					
1300. Additional Settlement Charges					
1301. Required services that you can shop for		(from GFE #6)			
1302. 1031 Exchange Services	to Maine Exchange Services, LLC	\$			1,000.00
1303. October RE Taxes	to City of Portland	\$			2,925.00
1304.		\$			
1305.		\$			
1400. Total Settlement Charges (enter on lines 103, Section J and 502, Section K)				1,179.50	33,707.00

* Paid outside of closing by borrower (B), seller (S), lender (L), or third party (T)

The undersigned hereby acknowledge receipt of a completed copy of this statement & any attachments referred to herein.

Borrower
Bosco Holdings, LLC
By Alex P. Coupe
Its: Sole Member

Seller

Cornerstone Title and Settlement Company Inc., Settlement Agent
Maine Exchange Services, LLC as Qualified Intermediary
for Six Sigma Properties, LLC
Six Sigma Properties, LLC

Seen and Agreed to by Six Sigma Properties, LLC
BY Jay Allen
Its: Member

L. Settlement Charges											
700. Total Real Estate Broker Fees										\$ 27,800.00	
Division of commission (line 700) as follows:											
701. \$ 13,900.00 to Harborview Properties										Paid From Donor's Funds at Settlement	
702. \$ 13,900.00 to Harborview Properties										Paid From Seller's Funds at Settlement	
703. Commission paid at settlement											
704										27,800.00	
705											
800. Items Payable in Connection with Loan											
801. Our origination charge										\$ (from GFE #1)	
802. Your credit or charge (points) for the specific interest rate chosen										\$ (from GFE #2)	
803. Your adjusted origination charges to Gorham Savings Bank										(from GFE #A)	
804. Appraisal fee to										(from GFE #3)	
805. Credit Report to										(from GFE #3)	
806. Tax service to										(from GFE #3)	
807. Flood certification to Gorham Savings Bank										(from GFE #3)	
808. Documentation Fee to Gorham Savings Bank										(from GFE #3)	
809. EOR Fee to Gorham Savings Bank										(from GFE #3)	
810. Wire Fee to Gorham Savings Bank										(from GFE #3)	
811.										(from GFE #3)	
900. Items Required by Lender to Be Paid in Advance											
901. Daily interest charges from 12/23/20 to 01/01/21										9 @ \$/day (from GFE #10)	
902. Mortgage insurance premium for months to										(from GFE #3)	
903. Homeowner's insurance for years to										(from GFE #11)	
904.										(from GFE #11)	
905.										(from GFE #11)	
1000. Reserves Deposited with Lender											
1001. Initial deposit for your escrow account										(from GFE #9)	
1002. Homeowner's insurance months @ \$ per month \$											
1003. Mortgage insurance months @ \$ per month \$											
1004. Property taxes \$											
1005.										\$	
1006.										months @ \$ per month \$	
1007.										months @ \$ per month \$	
1008.										\$	
1009.										\$	
1100. Title Charges											
1101. Title services and lender's title insurance										(from GFE #4)	
1102. Settlement or closing fee to Cornerstone Title and Settlement Company \$										600.00	
1103. Owner's title insurance to Chicago Title Insurance Company										(from GFE #5)	
1104. Lender's title insurance to Chicago Title Insurance Company										\$ 1,029.75	
1105. Lender's title policy limit \$ 517,000.00											
1106. Owner's title policy limit \$ 695,000.00											
1107. Agent's portion of the total title insurance premium to Cornerstone Title and Settlement Company Inc \$										1,617.00	
1108. Underwriter's portion of the total title insurance premium to Chicago Title Insurance Company \$										693.00	
1109. Deed Preparation to Cornerstone Title and Settlement Company LLC										200.00	
1110. Discharge Preparation (2) to Cornerstone Title and Settlement Company LLC										200.00	
1111. Wire/Courier to Cornerstone Title and Settlement Company LLC										25.00	
1112.										\$	
1113.										\$	
1200. Government Recording and Transfer Charges											
1201. Government recording charges to Cumberland County Registry of Deeds (from GFE #7)										92.00	
1202. Deed \$ 24.00 Mortgage \$ 36.00 Releases \$ 44.00 Other \$ 32.00										44.00	
1203. Transfer taxes to Cumberland County Registry of Deeds (from GFE #8)										1,529.00	
1204. City/County tax/stamps \$ \$											
1205. State tax/stamps \$ 3,058.00 \$										1,529.00	
1206. F-recording Fee to Cumberland County Registry of Deeds										13.50	
1207.										9.00	
1300. Additional Settlement Charges											
1301. Required services that you can shop for (from GFE #6)											
1302. 1031 Exchange Services to Maine Exchange Services, LLC										\$ 1,000.00	
1303. October RE Taxes to City of Portland										\$ 2,925.00	
1304.										\$	
1305.										\$	
1400. Total Settlement Charges (enter on lines 103, Section J and 502, Section K)										7,179.50	
										33,707.00	

* Paid outside of closing by borrower (B), seller (S), lender (L) or third party (T)

The undersigned hereby acknowledge receipt of a completed copy of this statement & any attachments referred to herein.

Borrower Bosco Holdings, LLC

By Alex P. Coupe
Its: Sole Member

Seller

Carl L. L...
Maine Exchange Services, LLC as Qualified Intermediary
for Six Sigma Properties, LLC
Six Sigma Properties, LLC
Seen and Agreed to by Six Sigma Properties, LLC
By Jay Allen
Its: Member

Section D

Zoning Assessment



ZONING ANALYSIS

Relevant Zone: R-6

392 St. John Street:

	Required	Existing	Proposed
Lot Size	2,000 sf	11,000 sf	3,634 sf
Area Per Dwelling Unit	3,634 sf/725 sf= 5 units	4 units	-
Minimum Street Frontage	20'	100'	35.09'
Minimum Lot width	20'	100'	35.09'
Front Setback Minimum	5'	3.91'	3.66'
Rear Setback	10'	24.29'	18.44'
Side Setback	5'	-.04'	-.04'
Maximum Lot Coverage	60%	16.5%	50%
Maximum Height	45'	< 45'	< 45'
Minimum Landscaped Open Space Ratio	20%	61.4%	24.4%
Maximum Impervious Ratio	80%	38.6%	75.6%
Maximum Lot Coverage Ratio	60%	16.5%	49.9%
Off Street Parking Spaces	1 space/ dwelling unit, after 3 units= 1	-	2

386 St. John Street:

	Required	Proposed
Lot Size	2,000 sf	7,366 sf
Area Per Dwelling Unit	7,366 sf / 725 sf = 10 units	9 units
Minimum Street Frontage	20'	64.91'
Minimum Lot width	20'	64.91'
Front Setback Minimum	4.28 ft (avg. abutters setback)	5.84
Rear Setback	10'	11.16'
Side Setback	5'	5.12'
Maximum Height	45'	33.62'
Minimum Landscaped Open Space Ratio	20%	20.1%
Maximum Impervious Area	80%	79.9%
Maximum Lot Coverage Ratio	60%	56.1%
Off Street Parking Spaces	1 space / dwelling unit after 3 units & subtract 1 space per workforce unit + 1 space / 400 sf of floor area = 7 spaces	8
Bicycle Parking	(2 spaces / 5 units)	4

E. Summary of Written Easements

Existing

The Plan of Property from Stephan J. Martin does not depict any existing easements.

Proposed

As part of this project, a reciprocal mutual easement agreement will be developed and incorporated into the subdivision plat. This document will allowed shared use of infrastructure for access, utilities, drainage while addressing the expectations for property management.



F. Waivers

See the table below regarding the waivers associated with the proposed project located at 392 St. John Street.



Standard to be Waived: Cite Ordinance or Technical Manual Standard	Cite Standard Language: Cite specific language of applicable Ordinance or Technical Manual Standard	Waiver Being Sought: Describe waiver being sought. Ex. – We are requesting a two-way parking lot drive aisle width of 20' feet.	Justification for Waiver: Address specific waiver criteria, if applicable, and document reasons for the waiver request.
Technical Manual 1.7.2.3 Driveway Width	Any site with driveway access to a street shall have a minimum width of 20 feet for two-way ingress and egress	We are requesting a driveway apron to 16'	Due to the existing conditions and low turnover of residential uses, the driveway is anticipated to be functional serving the proposed 10 parking spaces.
Technical Manual 1.14 Parking Lot and Parking Space Design / Figure I-27	Requires that drive aisle width for right-angle parking be 24' wide.	We are requesting a drive aisle of 21'	Due to the existing conditions and low turnover of residential uses, the driveway is anticipated to be functional serving the proposed 10 parking spaces.

G. Financial Capacity

A letter from the Applicant's bank confirming financial capacity is attached to this section.





June 23, 2021

RE: 392 St John Street, Portland

To Whom It May Concern,

Alexander Coupe and his assigns has an established paid as agreed history with Gorham Savings Bank. The Bank financed the purchase of the multi-unit located at 392 St John Street, Portland on 12/23/2020.

The Bank is aware of Mr. Coupe's intent to construct a 10-unit building adjacent to the existing structure on this property. Based on the information provided to the Bank, Mr. Coupe has the financial capacity to develop this project. Final approval will be subject to complete underwriting, commercial appraisal, and environmental due diligence.

If you have any further questions, I can be reached at (207) 221-8454.

Sincerely,

A handwritten signature in black ink that reads "Katie Bellerose".

Katie Bellerose
Assistant Vice President
Gorham Savings Bank

H. Technical Capacity

Acorn Engineering, Inc. and Dextrous Creative have successfully permitted and provided civil/site engineering for over 20 Major Site Plan projects in Portland over the past 5 years. Some examples include:

- Cassidy Point
- 128 North Street
- Munjoy Heights
- 70 Anderson St.
- 89 Anderson St. – East Bayside Lofts
- 667 Congress St – The Hiawatha
- 52 & 82 Hanover Street



I. Conformity with Land Use Ordinance

The following outline is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use.

OVERVIEW

The proposed development includes the construction of a 9-unit residential multi-family building with first floor business space as well as the maintenance of an existing 4-unit building. The developments have been designed to conform to City standards where possible as well as improve upon existing non-conformities. This project conforms with the majority of the applicable standards of Portland's Land Use Ordinance Section 14 as demonstrated in the following narrative.

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

- a. The proposed development for 392 St. John Street will not create or aggravate any significant hazard on the surrounding street network due to the low turnover of the proposed land use.
- b. St. John Street is classified as a minor arterial and currently supports a moderate traffic volume. A negligible traffic increase along St. John Street is expected for this project.

2. Access and Circulation:

a. Site Access and Circulation:

- (i) The proposed development provides safe and reasonable access and internal circulation for all users of the site and complies with Section 1 of the Portland Technical Manual. The site is proposed to be accessed through a 16' driveway apron that flares into a 21' drive aisle.
- (ii) The development provides continuous internal walkways between the public sidewalk and building entrance.
- (iii) The proposed driveway will be in the same location as the existing driveway. Turning movements and traffic flows will not be conflicted.
- (iv) The site does not feature drive up services as mentioned, therefore stacking capacity is not applicable.

b. Loading and Servicing:

- (i) The development is not served by delivery or other service, therefore requirement not applicable.

c. Sidewalks:

- (i) The current brick sidewalk exists along edge of property connecting to St. John Street which is lined with an esplanade and granite curb. A proposed walkway from the entrance is to connect the sidewalk network to the site. The development shall be in accordance with Section 1 of the Technical Manual.
- (ii) The existing sidewalks proposed to be rebuilt will be rebuilt in conformance with Chapter



25 of the City standards as well as with Section 1 of the Technical Manual.

(iii) Waiver regarding sidewalk installation requirements is not applicable.

(iv) Waiver regarding sidewalk installation requirements is not applicable.

3. Public Transit Access:

- a. The residential development does not consist of 20 or more dwelling units, therefore no transit shelter is necessary.
- b. Transit facility connection is not applicable.
- c. Waiver is not applicable.

4. Parking:

a. Vehicular parking:

- (i) The city requirements for off street parking state in the zone-based exceptions that no off street parking is required for the first 3 dwelling units. There after a minimum of 1 space per dwelling unit is required, in accordance with Table 19-A of the City Code. The proposed 10-unit development project will provide 8 parking spaces and the existing 4-unit building will provide 2 parking spaces to meet the City requirements.
- (ii) Transportation demand management strategies employed where a parking study is required, a parking study is not necessary for this project, therefore a transportation demand management plan and strategies are not necessary.
- (iii) The project proposes 10 total parking spaces to support the proposed development, therefore a parking study is not necessary.
- (iv) Parking spaces and aisles meet applicable dimensional standards as outlined in Section 1 of the Technical Manual.

b. Bicycle Parking

- (i) Shall meet parking requirements in Technical Manual and in accordance with Article 19 of the city code. The code states that 2 bicycle parking spaces are needed per 5 dwelling units. The proposed development is to produce 9 dwelling units and a first floor office space providing 4 bicycle parking spaces.
- (ii) The proposed development meets the required spaces per dwelling unit, therefore a waiver to reduce the amount of spaces provided is not necessary.

c. Snow storage:

- (i) The development provides a location for snow storage on site.
- (ii) Storage is not to encroach on areas to meet min parking requirements or on pedestrian walkways.

d. Electric Vehicle (EV) charging

- (i) Section 1 of the Technical Manual states for parking lots of 5 or more spaces energized electrical outlets shall include energized electrical outlets or installed chargers capable of



providing level 2 electric vehicle charging or higher to 20% of parking spaces. Remaining spaces must be served by sufficient conduit, wiring, and electrical service to allow for future installation of electric vehicle supply equipment.

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

- a. The proposed development does not impede on any significant natural features. The proposed location is not within a habitat where endangered species nest or feed, identified by Maine's endangered wildlife habitat source. The location does not house any existing trees or plants as identified on the Official List of Endangered and Threatened plants in Maine. The location does not include any significant water bodies, wetlands, or aquifers and is in accordance with the City Code.
- b. The proposed site is not a part of a larger existing habitat block; therefore, extra preservation precautions are not necessary.
- c. The proposed site does not impede on any significant natural features; therefore, extra preservation precautions are not necessary, granting this waiver not applicable.

2. Landscaping Preservation:

- a. The disturbance of trees and vegetation will be limited as much as possible.
- b. The site plan includes adequate measures to protect vegetation in accordance with the City Code Chapter 14 and the Technical Manual Section 4. These requirements state that per every tree removed greater than 10" in diameter requires one replacement tree. There are no existing trees onsite greater than 10" in diameter therefore replacement trees are not necessary.
- c. The Technical Manual Section 4 states that developments shall preserve a minimum of 30% of existing trees 10" diameter or greater. Given there are no trees on-site that are greater than 10" preservation of at least 30% of trees is not necessary.
- d. Waiver option to contribute to City of Portland Tree Fund is not requested.
- e. Contribution to tree fund may not be applicable.
- f. Site Landscaping and Buffers

(i) Landscaping:

- a. The 392 St. John Street parcel has a site frontage of 100 feet. The proposed development intends to split the parcel into two conforming lots providing a frontage of 65 feet for the proposed 10- unit development, with the renovated development providing 35 feet of frontage. The City of Portland requires a minimum of 1 shaded tree or six plantings per 30 linear feet. The proposed project anticipates planting additional street trees in the existing esplanade to meet the street tree requirement. In the event of removal for construction, they shall be replaced to meet the specifications in Chapter 14 of the City Code as well as meet Section 4 of the Technical Manual.

(ii) Buffers:

- a. Any loading and servicing areas, trash and recycling areas, storage areas, and roof- and ground-mounted utility structures, except for renewable energy systems, will be screened from view from public sidewalks, streets and adjacent properties.



- b. Code not applicable for residential development.
- c. The residential development shall provide and/or preserve evergreen vegetated buffers where necessary to buffer the development from detrimental impacts of existing surrounding development.

(iii) Parking and vehicle display lot landscaping:

- a. The development proposes covered parking for the 8 spaces and 2 space surface parking for the renovated building, therefore the requirements for additional planting are not applicable.
- b. The project will not exceed 40 parking spaces onsite, therefore a landscaped island is not necessary.
- c. The parking lot landscaping requirements conform with the City Land Use Code; therefore, a contribution to the City of Portland Tree Fund is not necessary.

(iv) Street Trees

- a. Section 4 of the Technical Manual required residential developments to provide a minimum of one tree per unit, planted in the City right of way and spaced 30 to 45 ft on center. There are currently 3 existing street trees which are proposed to remain. The in-lieu fee would be applied for the remaining non-planted trees given the limited frontage.
- b. Not applicable.

3. Water Quality, Stormwater Management and Erosion Control:

- a. All development shall be designed to minimize total area of impervious surface on the site and both the volume and rate of runoff from the lot.
 - (i) The site drainage will not be directed to flow or pond onto adjacent lots. The drainage patterns will be altered to intercept the roof runoff as well as the driveway runoff, with the addition of stormwater best management practices to attenuate the flows.
 - (ii) The development implements a design to direct stormwater off the property into an existing combined sewer system on St. John Street. This design will mitigate runoff to adjacent properties.
 - (iii) The development connects the proposed drainage systems to the existing combined sewer system on St. John Street. The proposed developments increased stormwater volume and drainage rate is not anticipated to create downstream problems or to exceed the capacity of the stormwater system.
- b. A site-specific Stormwater Management Plan has been developed for the project to show compliance with Section 5 of the Technical Manual, including the basic standards of MEDEP Chapter 500. Please refer to sections J and K, the Stormwater Management and Erosion & Sedimentation Control Reports, respectively, for more information.
- c. The development is not anticipated to pose a contamination risk to groundwater during or after construction. The project will be serviced by a public wastewater system.



(c) Public Infrastructure and Community Safety Standards

1. Consistency with City Master Plans:
 - a. The project has been designed to be consistent with the City's Zoning Ordinance and off-site infrastructure.
 - b. The site does not connect to any off-premise public infrastructure, therefore section not applicable.
2. Public Safety and Fire Prevention:
 - (i) The site has been designed to promote safe and inviting public access to reduce the potential for crime.
 - (ii) The development provides adequate emergency vehicle access in compliance with the Public Safety Standards of the Technical Manual.
3. Public Utilities:
 - a. Public utilities in the vicinity of the site have capacity to serve the project. Ability to Serve letters have been sent to the respective companies. Responses are forthcoming.
 - b. Proposed electrical service connections will be wired underground.
 - c. The new sewer and stormwater infrastructure will meet the provisions of the Technical Manual.
 - d. The project will be served by a connection to the public sewer system within St. John Street.
 - e. A space allocated for solid waste. The solid waste containers will be fully enclosed and screened from the public view.

(d) Site Design Standards

1. Massing, Ventilation and Wind Impact:
 - a. Please refer to Section O, Architectural Design Narrative.
 - b. Please refer to Section O, Architectural Design Narrative.
 - c. Please refer to Section O, Architectural Design Narrative.
2. Shadows:
 - a. Not applicable.
3. Snow and Ice Loading:
 - a. The structure will not distribute snow and ice onto adjacent properties.

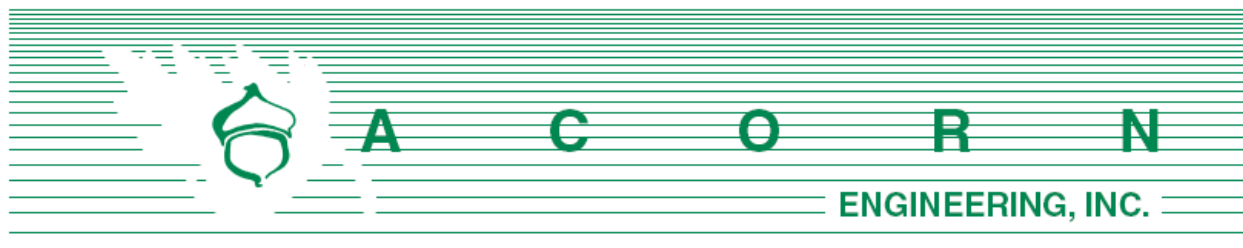


4. View Corridors:
 - a. Please refer to Section O, Architectural Design Narrative.
5. Historic Resources:
 - a. The development is not located in a historic district, historic landscape district or City designated landmark.
 - b. The development is not located adjacent to designated landmarks, historic district, or historic landscape district.
 - c. There are no known archaeological resources on the site.
6. Exterior Lighting:
 - a. Site Lighting.
 - (i) Exterior lighting will be designed to meet the requirements of Section 12 of the Technical Manual.
 - (ii) Where a light is proposed with potential to adversely impact adjacent residential properties, exterior lighting shall employ house-side shielding.
 - b. Architectural and Specialty Lighting.
 - (i) No architectural or specialty lighting is proposed.
 - (ii) No up-lighting is proposed.
 - c. Street Lighting.
 - (i) No new streetlights are proposed.
7. Noise and Vibration:
 - a. The HVAC system will meet the applicable state and federal emissions requirements and will also be screened and directed away from abutters.
8. Signage and Wayfinding:
 - a. All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.
 - (i) The project is not located in a historic district or subject to Article IX.
 - (ii) Signage will complement the subject building and its immediate context.
 - (iii) All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.
9. Zoning Related Design Standards:



- a. The project has been designed to meet the standards set forth in the Residential Zoning district R-6. The developments architectural form, landscaping, roof, open space, massing, and height shall respect and be integrated into the residential development. Please refer to the Site Plan for more information on the Space & Bulk Standards.





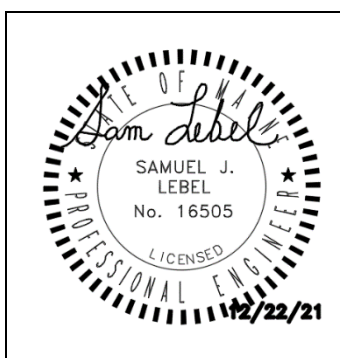
J. STORMWATER MANAGEMENT **REPORT**

Prepared For:

**Alex Coupe
392 St. John Street
Portland, Maine 04101**

Prepared By:

**Acorn Engineering, Inc.-
65 Hanover Street
Portland, Maine 04101**



**July 2021
Rev. December 2021**

INTRODUCTION

Acorn Engineering, Inc. has been retained by Alex Coupe, to provide civil engineering services for the proposed development at 392 St. John Street, Portland, Maine. The property consists of approximately .25 acres of land located in the R-6 residential zoning district.

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

- City of Portland Land Use Ordinance Article 14.6.2.D.
- City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and Maine DEP Chapter 500 Stormwater Management.

EXISTING CONDITIONS

The site is located on St. John Street. A boundary and Topographic Survey plan has been prepared by Stephen J. Martin, dated December 30th, 2020.

The current lot use has an existing 4-unit residential building, with grades ranging from 3 to 20 percent across the site, draining toward the south and east corner of the lot.

PROPOSED DEVELOPMENT

The proposed development includes the construction of a three-story nine-unit structure with first floor business space and maintenance of an existing 4-unit building on site as a result of the proposed development. The project proposes to divide the existing property line into two separate conforming parcels with a shared driveway and utility corridor. There will be eight covered parking spaces and interior bike storage accessed by expanding an existing curb cut on St. John Street.

Through a series of roof drains, gutters, and a downspout, the entirety of the roof is proposed to be routed to a proprietary high-flow media rain garden at the southerly corner of the site. The design is based off a Focal Point system manufactured by ACF Environmental. The footprint of the filter media is 24 square feet and has an infiltration rate of 100 inches per hour. Below the media, 52 maintenance modules will sit above crushed stone to provide storage of the filtered water before being collected by the underdrain and piped to the street. Above the media, the garden will allow for 11 inches of ponding before overflowing into an overflow beehive grate which bypasses the filter media. The runoff generated by the driveway will be routed to catch basins and storm drain lateral directed to the sewer main. The development will be served by the Portland Water District, underground power/cable/communications, natural gas and the municipal sewer system. The project anticipates incorporating Maine DEP approved stormwater Best Management Practices (BMP) to meet the General and Flooding Standards.

GENERAL STANDARDS – WATER QUALITY



The development shall provide water quality treatment for no less than 95% of the new impervious area and 80% of the new developed area. The project includes the redevelopment of existing impervious area including a paved driveway and gravel parking. Water quality treatment shall be provided through the use of a proprietary high-flow filter media rain garden. The proposed system is a Focal Point rain garden with maintenance modules. This system is manufactured by ACF Environmental. There is flexibility within the plans for an approved equal to be used granted it provides the same water quality and quantity benefits.

The system was sized to meet or exceed the requirements set forth within the MDEP Volume III: BMPs Technical Design Manual Section 7. Filtration BMPs have been shown to be very effective at removing a wide range of pollutants from stormwater runoff. Stormwater runoff from the entire roof will be collected by roof drains and gutters before being piped to the rain garden. A downspout will outlet onto a splash stone before entering the BMP.

The treatment of the impervious surface is as follows:

Table 1 - Impervious Treatment Area Table				
Existing Impervious Area (SF)	Proposed Total Impervious Area (SF)	Net Change in Impervious Area (SF)	Proposed Impervious Area with Treatment (SF)	% Overall New Impervious Area Treated
4,247	8,584	4,337	4,133	95.3%

As shown above, the project anticipates meeting and exceeding the required treatment for new impervious surfaces and developed area.

Furthermore, the minimum 80% treatment of new developed area is exceeded as ample stormwater treatment is being provided while the proposed development footprint is negligibly larger than the existing development footprint.

Regarding the water quality volume, this requirement is met by sizing the system to store 1 inch of runoff from the impervious tributary area and 0.4 inches of runoff from the landscaped tributary area.

Table 2 – Water Quality Volume			
Tributary Impervious Area (SF)	Tributary Pervious Area (SF)	Water Quality Volume Required (CF)	System Storage Volume Provided (CF)
4,133	452	359	367

Furthermore, the system is able to pass a 0.95” rainfall without overflowing into the beehive bypass drain as required by Chapter 7 Appendix B.



FLOODING STANDARD – WATER QUANTITY

The proposed project was modeled using HydroCAD to verify that the post-development conditions do not exceed the pre-development conditions. A 24-hour SCS Type III storm distribution for the 2, 10, and 25-year storm events were used. The corresponding rainfall amounts for these storms are 3.1”, 4.60”, and 5.80” respectively.

Due to the numerous variables, and inherent inaccuracies with the modeling program used to calculate stormwater runoff it is custom at Acorn Engineering, Inc. to round to the nearest whole number. However due to the small size of the project and the minimal existing flows, the stormwater runoff shall be rounded to the nearest tenth of a cubic feet per second (cfs).

Time of Concentration (T_c)

Time of concentration values were derived by calculating a combined T_c from the flow segments within subcatchment 2 in the pre-condition. Associated with these flow segments is the classification of stormwater flow and the corresponding surface. Refer to the attached HydroCAD calculations for a break-down of the T_c calculations.

Given the urban environment and the short flow paths for the rest of the subcatchments, a minimum T_c of 6 minutes was used.

Curve Number

The stormwater calculations used the following Curve Number (CN) values in the pre- and post- development conditions as follows:

Pre-Development

- Pavement, Roofs – CN 98
- 50-75% Grass Cover – Fair, HSG A – CN 49
- Wood/grass comb – Fair, HSG A – CN 43

Post-Development

- Pavement, Roofs – CN 98
- 50-75% Grass Cover – Fair, HSG A – CN 49
- Brush – Good, HSG A – CN 30

Pre-development Calculations

The pre-development model was broken into two separate subcatchments.

- Subcatchment 1 – This tributary includes the street side section of the property on St. John Street. This area includes a portion of the existing paved driveway, a portion of the gravel parking area, a portion of the abutting properties roof and green space,



along with the existing structure located on St. John Street. This subcatchment drains toward St. John Street.

- Subcatchment 2 – This tributary includes the rear section of the site. This area includes a portion of the existing paved driveway, and a portion of the gravel parking area, a portion of the abutting properties roof and green space, along with the existing structure located on St. John Street. This subcatchment drains toward the southern corner of the lot.

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

Peak flow rates for the storm events are as follows:

Table 3 – Pre-Development Peak Stormwater Flows			
Drainage Area	2 – Year Storm Event (cfs)	10 – Year Storm Event (cfs)	25 – Year Storm Event (cfs)
Total Runoff	0.20	0.51	0.79

Post-development Calculations:

The post-development model was broken into two separate subcatchments.

- Subcatchment 1.1 – This tributary includes the entirety of the roof, and a small amount of green space all flowing to the high-flow rain garden. The rain garden would include a 1.7" orifice on the outlet.
- Subcatchment 1 – This tributary includes the driveway with two catch basins, green space flowing to field inlets, and a portion of the abutting property's runoff including roof and landscape area.

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

The post-development calculations include changes to the land use, and the compensation provided by the stormwater BMP. The following table represents comparison of pre-development and post-development condition peak runoff rates for the proposed development and tributary area.

Table 4 – Comparison of Peak Flows						
Drainage Area	2 – Year Storm Event (cfs)		10 – Year Storm Event (cfs)		25 – Year Storm Event (cfs)	
	Pre	Post	Pre	Post	Pre	Post
Total Runoff	.2	.3	.5	.6	.8	.8

As shown in Table 4, the net impact of the post development peak flows will result in a minimal increase from the predevelopment levels and when rounded to the nearest cubic foot per second, shows no change. The pre-development flows are low due to most of the



site containing pervious area that is conservatively classified as type “A” soils. It is likely that the soil onsite is urban fill with drainage properties lesser than the USDA soil map classification of “A”. The Medium Intensity Web Soil Survey shows the existing site containing 100% type A soils can be viewed in Attachment D of this report. A copy of the HydroCAD calculations is included within Attachment C of this report.

SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County

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

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

Table 5 - “K” Value		
Soils Type	Subsurface	Substratum
Hinkley loamy sand	.17	.17

The soil “K” value for the soil, listed above, shows a low to medium susceptibility to erosion. The site’s susceptibility to erosion is sourced from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although the soil “K” value shows a low to medium susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance given the sustained slope throughout the site.

CONCLUSION

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

ATTACHMENTS

Attachment A: Pre-Development Watershed Map



Attachment B: Post-Development Watershed Map
Attachment C: HydroCAD Calculations



1. REFER TO STORMWATER REPORT AND SHEET C-30 FOR MORE INFORMATION.



GIVEN THE URBAN ENVIRONMENT AND THE SHORT FLOW PATHS FOR SUBCATCHMENT 1 & SUBCATCHMENT 2, A MINIMUM TC OF 6 MINUTES WAS USED FOR STORMWATER CALCULATIONS. REFER TO THE STORMWATER REPORT FOR MORE INFORMATION.

[illegible]

392 ST. JOHN STREET REDEVELOPMENT

ALEX COUPE
PORTLAND, ME

DRAWING NAME:

PROJECT NAME:

ENGINEERING, INC. 3

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PO BOX 3372, PORTLAND MAINE 04104
(207) 775-2655

FILE: 1156 CIVIL

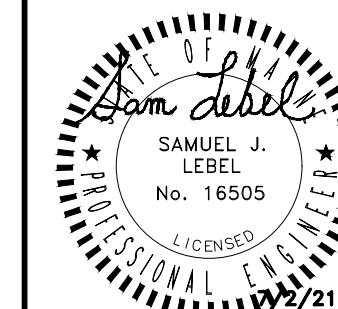
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SCALE: AS NOTED

DESIGNED BY: SJL

DRAWN BY: ZMS

CHECKED BY: SJL



DRAWING NO.

PRE

FLOW LINE

GIVEN THE URBAN ENVIRONMENT AND THE SHORT FLOW PATHS FOR SUBCATCHMENT 1 & SUBCATCHMENT 1.1, A MINIMUM TC OF 6 MINUTES WAS USED FOR STORMWATER CALCULATIONS. REFER TO THE STORMWATER REPORT FOR MORE INFORMATION.

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DRAWING NAME: POST DEVELOPMENT WATERSHED MAP

392 ST. JOHN STREET REDEVELOPMENT

ALEX COUPE
PORTLAND, ME

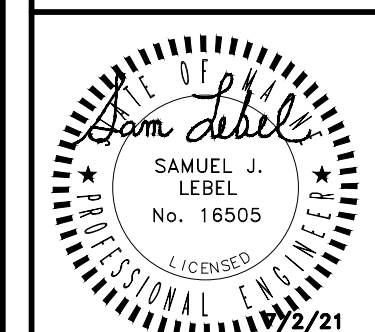
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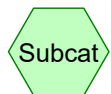
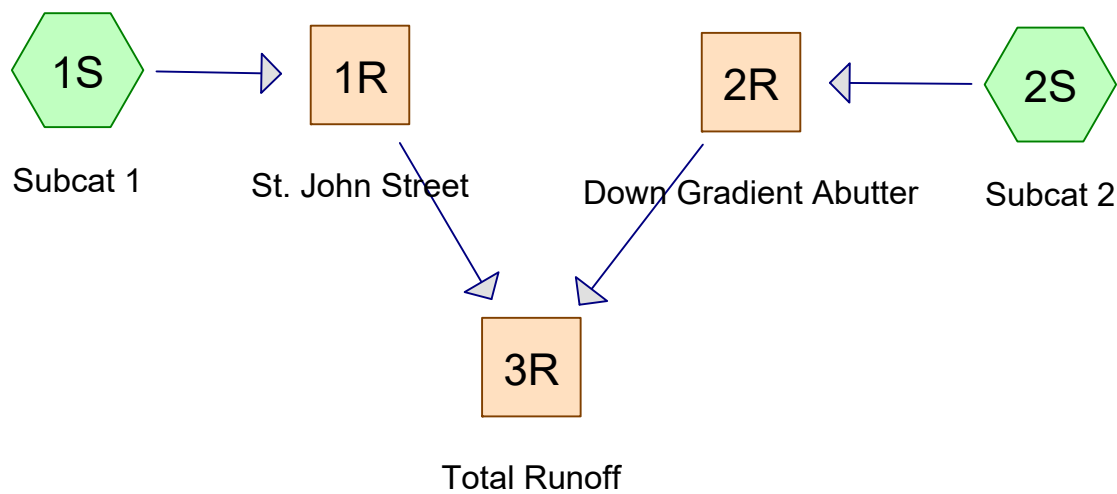
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FILE:	1156_CIVIL
JN:	1156
SCALE:	AS NOTED
DESIGNED BY:	SJL
DRAWN BY:	ZMS
CHECKED BY:	SJL



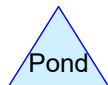
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Subcat



Reach



Pond



Link

Routing Diagram for PRE 7.7.21
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PRE 7.7.21

Prepared by HP

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.147	49	50-75% Grass cover, Fair, HSG A (1S, 2S)
0.004	49	Abutting Landscaped, HSG A (1S, 2S)
0.015	98	Abutting roofs, HSG A (1S, 2S)
0.042	98	Roofs, HSG A (1S, 2S)
0.034	98	Unconnected Impervious, HSG A (2S)
0.021	98	Unconnected pavement, HSG A (1S, 2S)
0.008	43	Woods/grass comb., Fair, HSG A (2S)
0.271	69	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.271	HSG A	1S, 2S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
0.271		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.147	0.000	0.000	0.000	0.000	0.147	50-75% Grass cover, Fair	1S, 2S
0.004	0.000	0.000	0.000	0.000	0.004	Abutting Landscaped	1S, 2S
0.015	0.000	0.000	0.000	0.000	0.015	Abutting roofs	1S, 2S
0.042	0.000	0.000	0.000	0.000	0.042	Roofs	1S, 2S
0.034	0.000	0.000	0.000	0.000	0.034	Unconnected Impervious	2S
0.021	0.000	0.000	0.000	0.000	0.021	Unconnected pavement	1S, 2S
0.008	0.000	0.000	0.000	0.000	0.008	Woods/grass comb., Fair	2S
0.271	0.000	0.000	0.000	0.000	0.271	TOTAL AREA	

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

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Time span=1.00-36.00 hrs, dt=0.05 hrs, 701 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Subcat 1

Runoff Area=4,291 sf 52.16% Impervious Runoff Depth=1.03"
Tc=6.0 min CN=75 Runoff=0.11 cfs 0.008 af

Subcatchment2S: Subcat 2

Runoff Area=7,517 sf 35.41% Impervious Runoff Depth=0.59"
Flow Length=85' Tc=6.4 min CN=66 Runoff=0.09 cfs 0.009 af

Reach 1R: St. John Street

Inflow=0.11 cfs 0.008 af
Outflow=0.11 cfs 0.008 af

Reach 2R: Down Gradient Abutter

Inflow=0.09 cfs 0.009 af
Outflow=0.09 cfs 0.009 af

Reach 3R: Total Runoff

Inflow=0.20 cfs 0.017 af
Outflow=0.20 cfs 0.017 af

Total Runoff Area = 0.271 ac Runoff Volume = 0.017 af Average Runoff Depth = 0.75"
58.50% Pervious = 0.159 ac 41.50% Impervious = 0.112 ac

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

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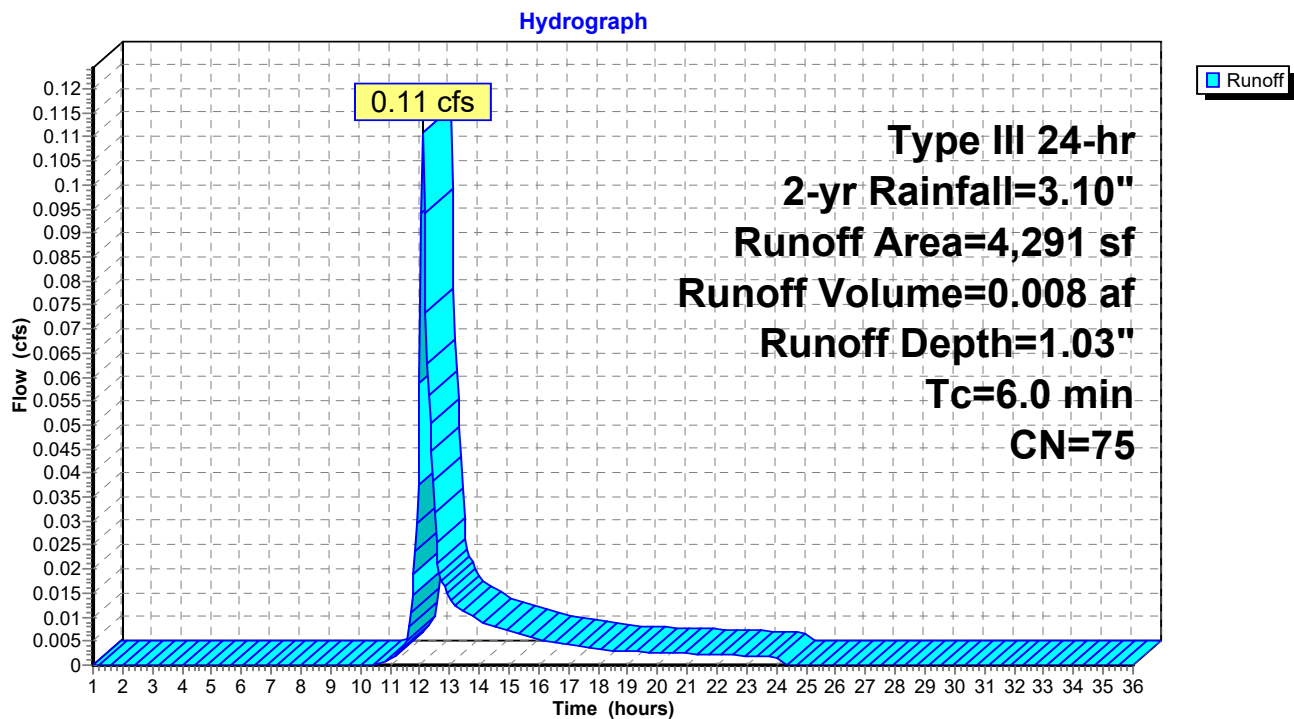
Summary for Subcatchment 1S: Subcat 1

Runoff = 0.11 cfs @ 12.10 hrs, Volume= 0.008 af, Depth= 1.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.10"

Area (sf)	CN	Description
868	98	Unconnected pavement, HSG A
839	98	Roofs, HSG A
1,951	49	50-75% Grass cover, Fair, HSG A
38	98	Unconnected pavement, HSG A
* 493	98	Abutting roofs, HSG A
* 102	49	Abutting Landscaped, HSG A
4,291	75	Weighted Average
2,053		47.84% Pervious Area
2,238		52.16% Impervious Area
906		40.48% Unconnected

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

Subcatchment 1S: Subcat 1

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

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Summary for Subcatchment 2S: Subcat 2

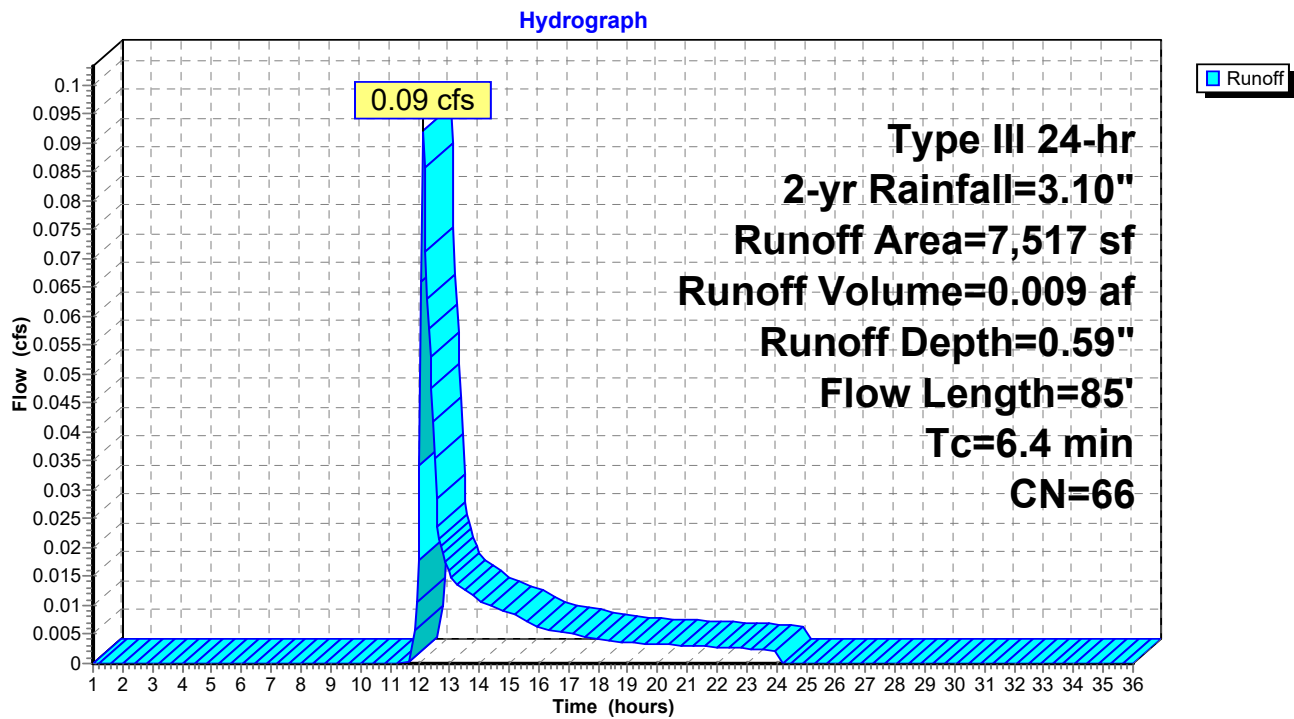
Runoff = 0.09 cfs @ 12.12 hrs, Volume= 0.009 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.10"

	Area (sf)	CN	Description
*	1,501	98	Unconnected Impervious, HSG A
	973	98	Roofs, HSG A
	4,455	49	50-75% Grass cover, Fair, HSG A
	28	98	Unconnected pavement, HSG A
*	160	98	Abutting roofs, HSG A
*	53	49	Abutting Landscaped, HSG A
	347	43	Woods/grass comb., Fair, HSG A
	7,517	66	Weighted Average
	4,855		64.59% Pervious Area
	2,662		35.41% Impervious Area
	1,529		57.44% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	7	0.0830	0.17		Sheet Flow, A-B SHEET Grass: Short n= 0.150 P2= 3.10"
0.4	36	0.0380	1.43		Sheet Flow, B-C SHEET Smooth surfaces n= 0.011 P2= 3.10"
5.3	42	0.0167	0.13		Sheet Flow, C-D SHEET Grass: Short n= 0.150 P2= 3.10"
6.4	85	Total			

Subcatchment 2S: Subcat 2

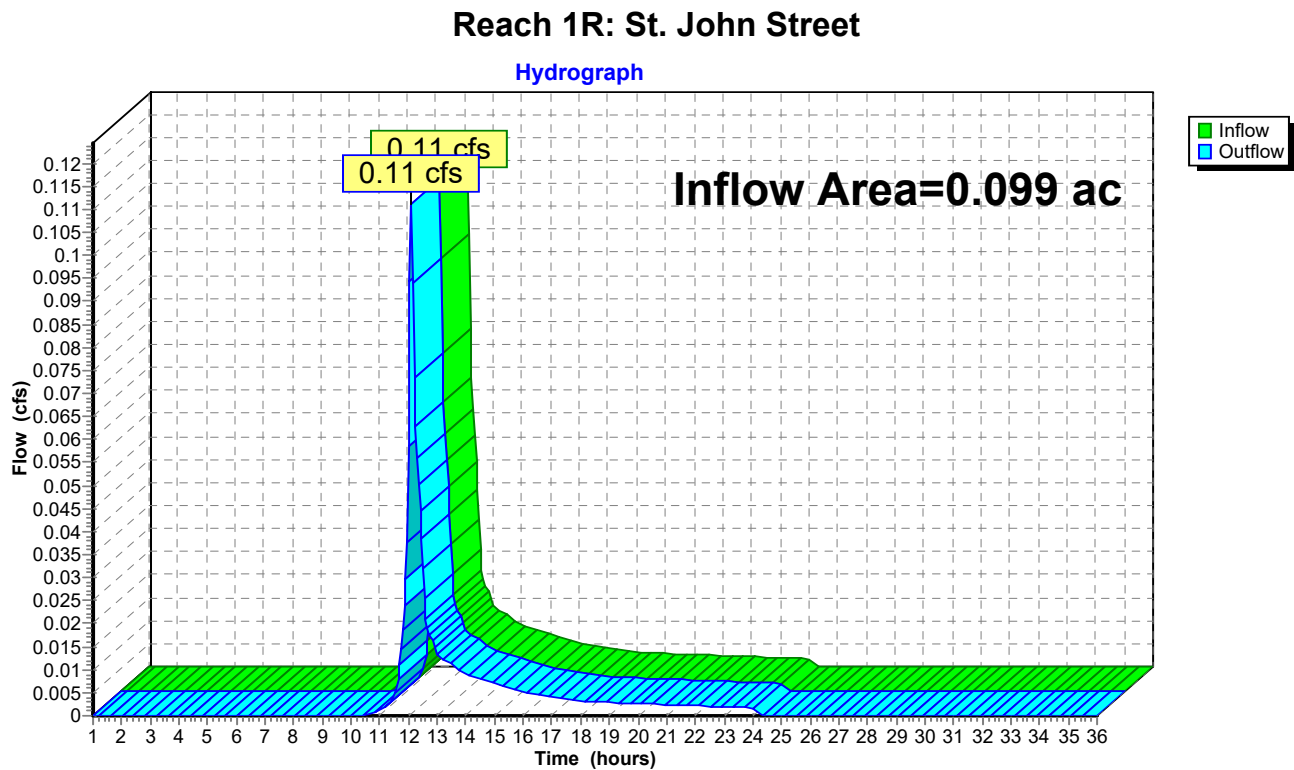


Summary for Reach 1R: St. John Street

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.099 ac, 52.16% Impervious, Inflow Depth = 1.03" for 2-yr event
 Inflow = 0.11 cfs @ 12.10 hrs, Volume= 0.008 af
 Outflow = 0.11 cfs @ 12.10 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs



Summary for Reach 2R: Down Gradient Abutter

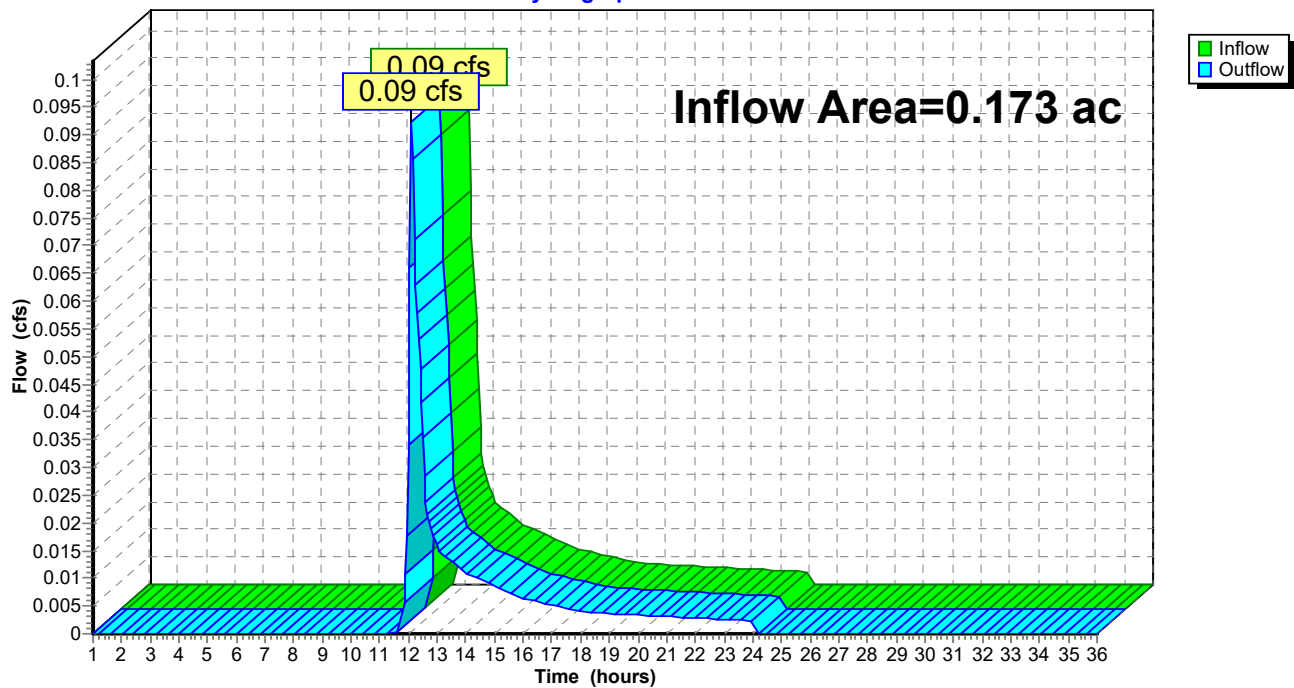
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.173 ac, 35.41% Impervious, Inflow Depth = 0.59" for 2-yr event
Inflow = 0.09 cfs @ 12.12 hrs, Volume= 0.009 af
Outflow = 0.09 cfs @ 12.12 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Reach 2R: Down Gradient Abutter

Hydrograph

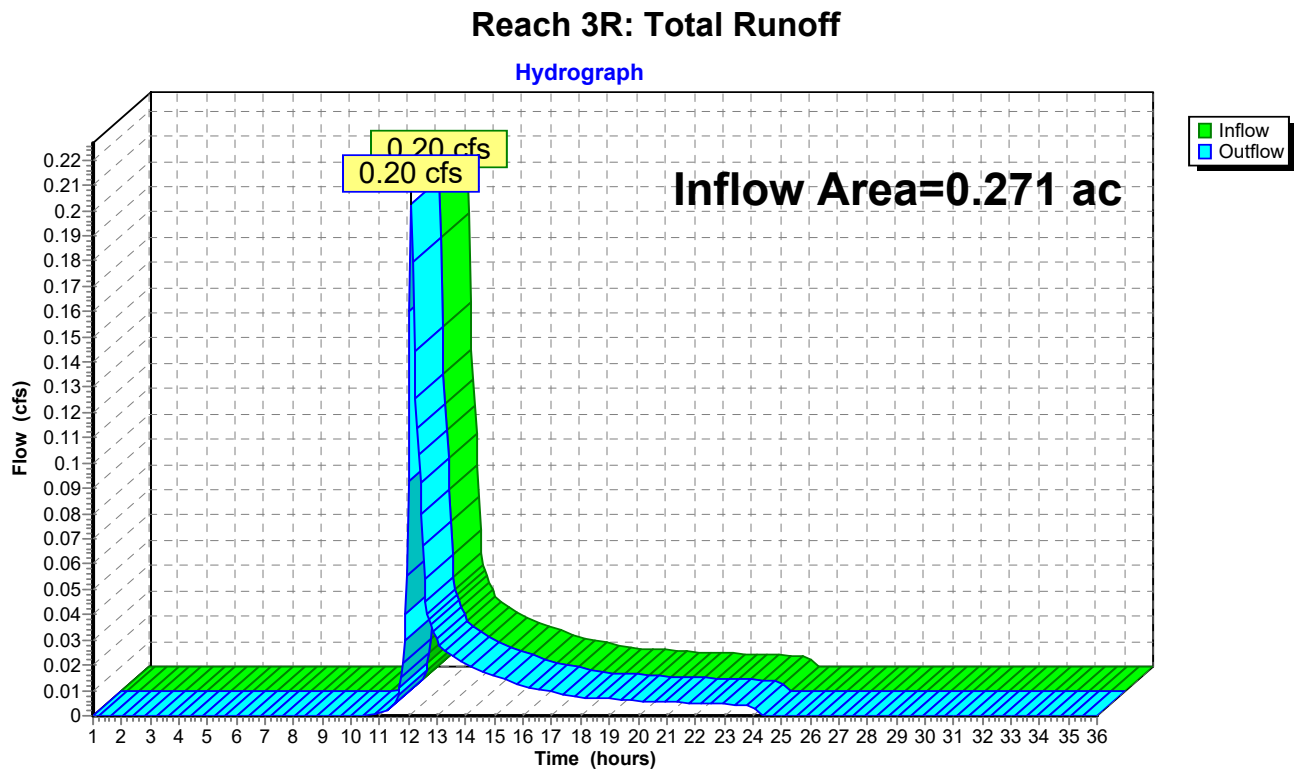


Summary for Reach 3R: Total Runoff

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.271 ac, 41.50% Impervious, Inflow Depth = 0.75" for 2-yr event
Inflow = 0.20 cfs @ 12.11 hrs, Volume= 0.017 af
Outflow = 0.20 cfs @ 12.11 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs



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Type III 24-hr 10-yr Rainfall=4.60"

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Time span=1.00-36.00 hrs, dt=0.05 hrs, 701 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Subcat 1

Runoff Area=4,291 sf 52.16% Impervious Runoff Depth=2.13"

Tc=6.0 min CN=75 Runoff=0.24 cfs 0.017 af

Subcatchment2S: Subcat 2

Runoff Area=7,517 sf 35.41% Impervious Runoff Depth=1.46"

Flow Length=85' Tc=6.4 min CN=66 Runoff=0.27 cfs 0.021 af

Reach 1R: St. John Street

Inflow=0.24 cfs 0.017 af

Outflow=0.24 cfs 0.017 af

Reach 2R: Down Gradient Abutter

Inflow=0.27 cfs 0.021 af

Outflow=0.27 cfs 0.021 af

Reach 3R: Total Runoff

Inflow=0.51 cfs 0.038 af

Outflow=0.51 cfs 0.038 af

Total Runoff Area = 0.271 ac Runoff Volume = 0.038 af Average Runoff Depth = 1.70"
58.50% Pervious = 0.159 ac 41.50% Impervious = 0.112 ac

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Type III 24-hr 10-yr Rainfall=4.60"

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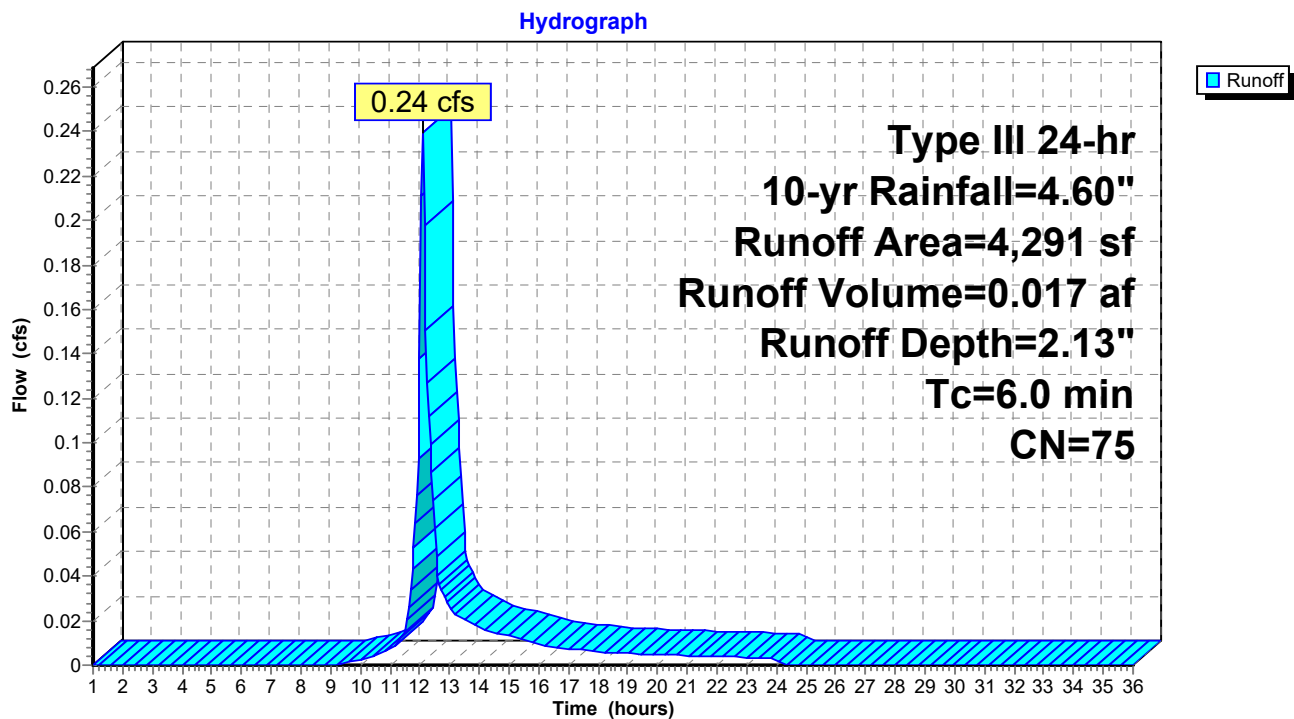
Summary for Subcatchment 1S: Subcat 1

Runoff = 0.24 cfs @ 12.10 hrs, Volume= 0.017 af, Depth= 2.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.60"

Area (sf)	CN	Description
868	98	Unconnected pavement, HSG A
839	98	Roofs, HSG A
1,951	49	50-75% Grass cover, Fair, HSG A
38	98	Unconnected pavement, HSG A
* 493	98	Abutting roofs, HSG A
* 102	49	Abutting Landscaped, HSG A
4,291	75	Weighted Average
2,053		47.84% Pervious Area
2,238		52.16% Impervious Area
906		40.48% Unconnected

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

Subcatchment 1S: Subcat 1

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Type III 24-hr 10-yr Rainfall=4.60"

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Summary for Subcatchment 2S: Subcat 2

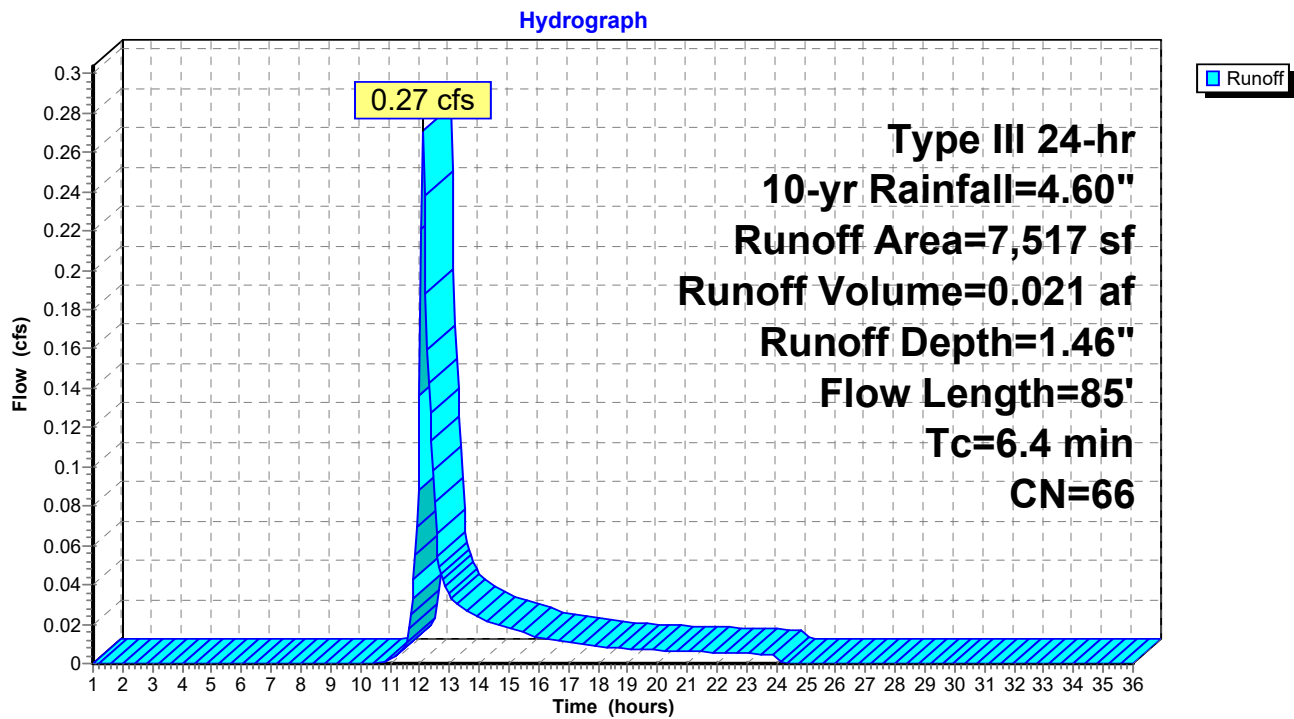
Runoff = 0.27 cfs @ 12.11 hrs, Volume= 0.021 af, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.60"

	Area (sf)	CN	Description
*	1,501	98	Unconnected Impervious, HSG A
	973	98	Roofs, HSG A
	4,455	49	50-75% Grass cover, Fair, HSG A
	28	98	Unconnected pavement, HSG A
*	160	98	Abutting roofs, HSG A
*	53	49	Abutting Landscaped, HSG A
	347	43	Woods/grass comb., Fair, HSG A
	7,517	66	Weighted Average
	4,855		64.59% Pervious Area
	2,662		35.41% Impervious Area
	1,529		57.44% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	7	0.0830	0.17		Sheet Flow, A-B SHEET Grass: Short n= 0.150 P2= 3.10"
0.4	36	0.0380	1.43		Sheet Flow, B-C SHEET Smooth surfaces n= 0.011 P2= 3.10"
5.3	42	0.0167	0.13		Sheet Flow, C-D SHEET Grass: Short n= 0.150 P2= 3.10"
6.4	85	Total			

Subcatchment 2S: Subcat 2



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Type III 24-hr 10-yr Rainfall=4.60"

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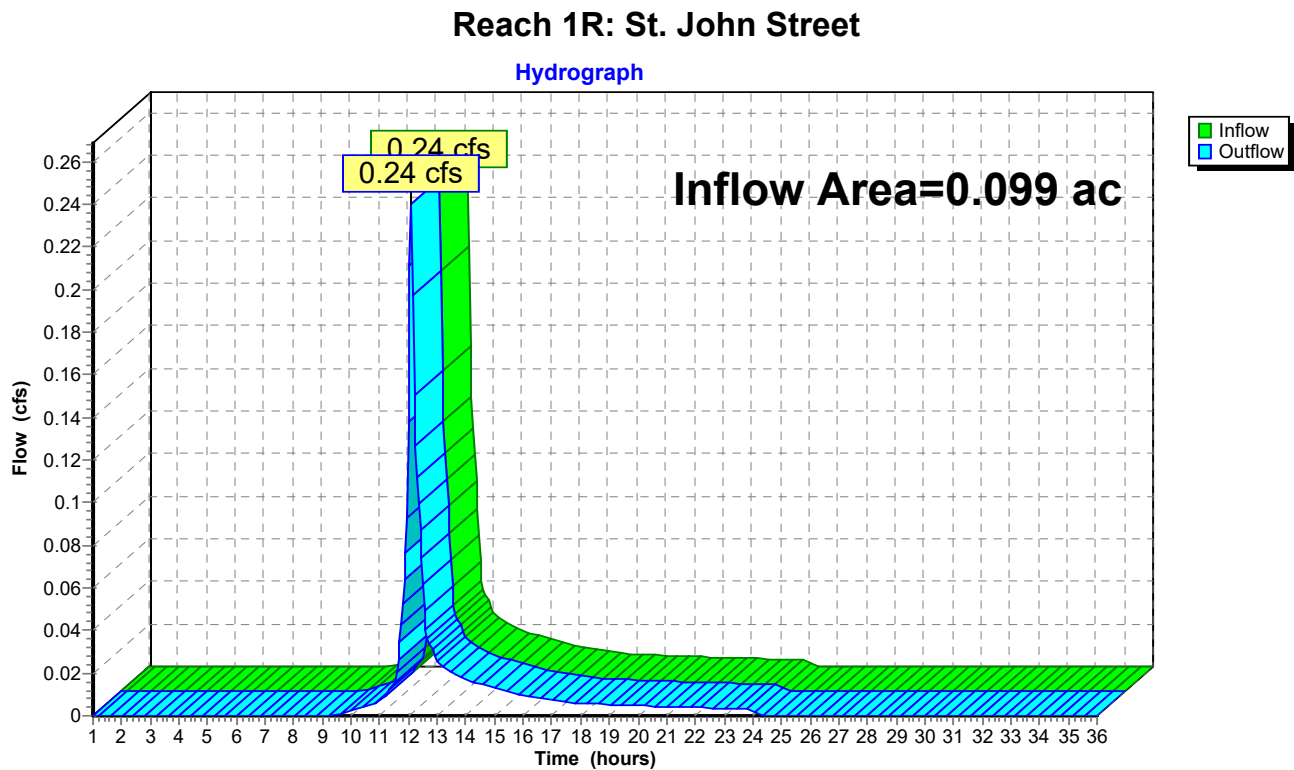
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Summary for Reach 1R: St. John Street

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.099 ac, 52.16% Impervious, Inflow Depth = 2.13" for 10-yr event
Inflow = 0.24 cfs @ 12.10 hrs, Volume= 0.017 af
Outflow = 0.24 cfs @ 12.10 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs



Summary for Reach 2R: Down Gradient Abutter

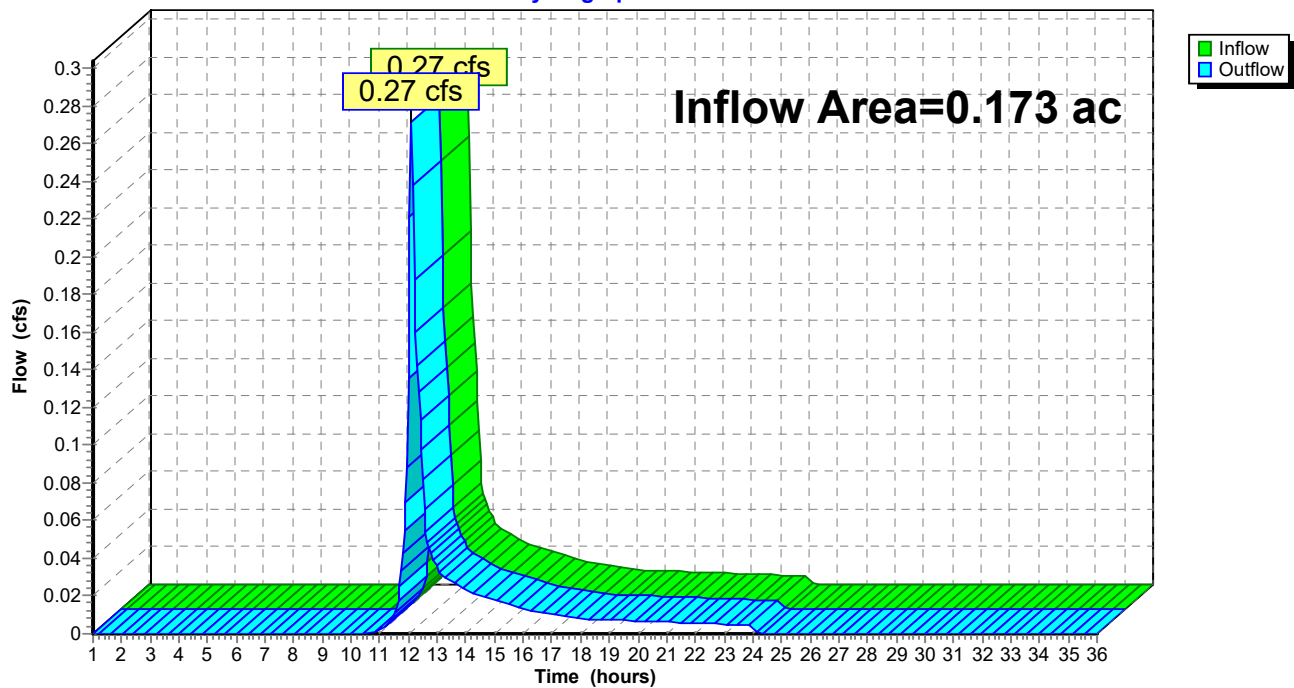
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.173 ac, 35.41% Impervious, Inflow Depth = 1.46" for 10-yr event
 Inflow = 0.27 cfs @ 12.11 hrs, Volume= 0.021 af
 Outflow = 0.27 cfs @ 12.11 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Reach 2R: Down Gradient Abutter

Hydrograph

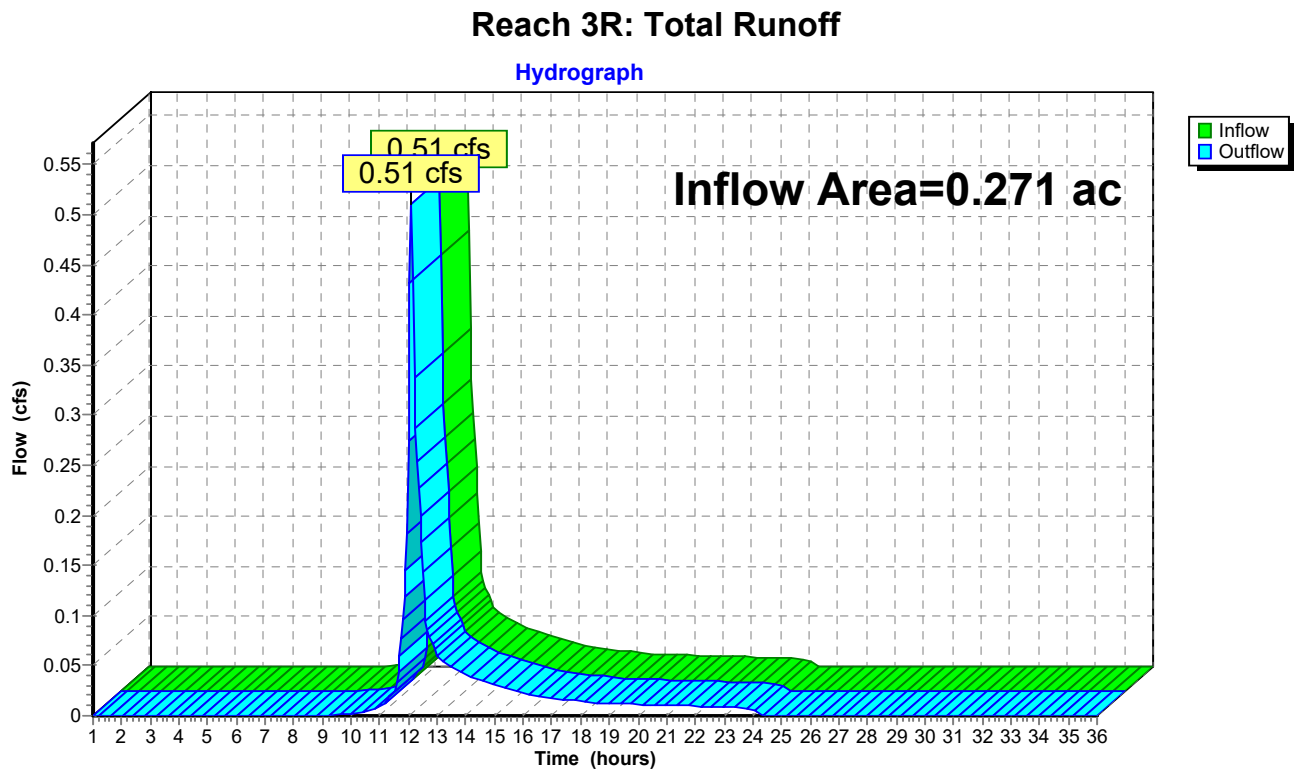


Summary for Reach 3R: Total Runoff

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.271 ac, 41.50% Impervious, Inflow Depth = 1.70" for 10-yr event
 Inflow = 0.51 cfs @ 12.10 hrs, Volume= 0.038 af
 Outflow = 0.51 cfs @ 12.10 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs



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

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Time span=1.00-36.00 hrs, dt=0.05 hrs, 701 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Subcat 1

Runoff Area=4,291 sf 52.16% Impervious Runoff Depth=3.11"
Tc=6.0 min CN=75 Runoff=0.35 cfs 0.026 af

Subcatchment2S: Subcat 2

Runoff Area=7,517 sf 35.41% Impervious Runoff Depth=2.29"
Flow Length=85' Tc=6.4 min CN=66 Runoff=0.44 cfs 0.033 af

Reach 1R: St. John Street

Inflow=0.35 cfs 0.026 af
Outflow=0.35 cfs 0.026 af

Reach 2R: Down Gradient Abutter

Inflow=0.44 cfs 0.033 af
Outflow=0.44 cfs 0.033 af

Reach 3R: Total Runoff

Inflow=0.79 cfs 0.059 af
Outflow=0.79 cfs 0.059 af

Total Runoff Area = 0.271 ac Runoff Volume = 0.059 af Average Runoff Depth = 2.59"
58.50% Pervious = 0.159 ac 41.50% Impervious = 0.112 ac

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

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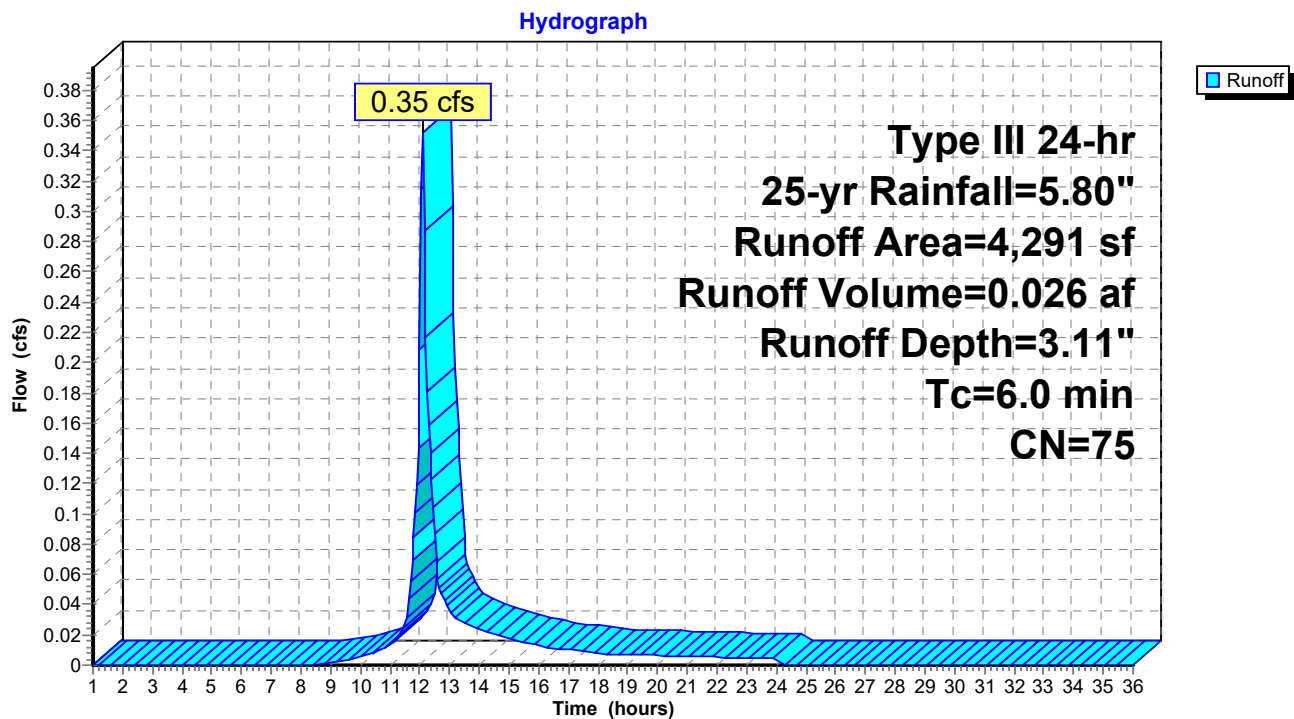
Summary for Subcatchment 1S: Subcat 1

Runoff = 0.35 cfs @ 12.09 hrs, Volume= 0.026 af, Depth= 3.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.80"

Area (sf)	CN	Description
868	98	Unconnected pavement, HSG A
839	98	Roofs, HSG A
1,951	49	50-75% Grass cover, Fair, HSG A
38	98	Unconnected pavement, HSG A
* 493	98	Abutting roofs, HSG A
* 102	49	Abutting Landscaped, HSG A
4,291	75	Weighted Average
2,053		47.84% Pervious Area
2,238		52.16% Impervious Area
906		40.48% Unconnected

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

Subcatchment 1S: Subcat 1

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

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Summary for Subcatchment 2S: Subcat 2

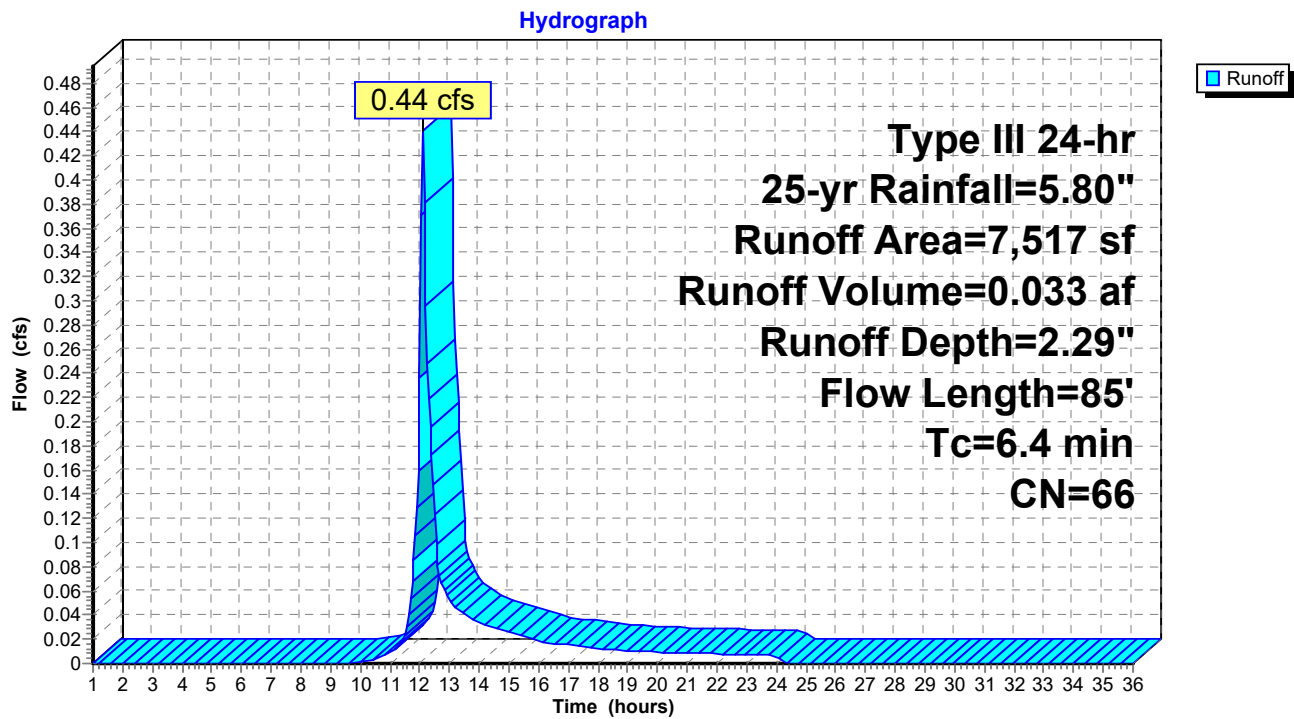
Runoff = 0.44 cfs @ 12.10 hrs, Volume= 0.033 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.80"

	Area (sf)	CN	Description
*	1,501	98	Unconnected Impervious, HSG A
	973	98	Roofs, HSG A
	4,455	49	50-75% Grass cover, Fair, HSG A
	28	98	Unconnected pavement, HSG A
*	160	98	Abutting roofs, HSG A
*	53	49	Abutting Landscaped, HSG A
	347	43	Woods/grass comb., Fair, HSG A
	7,517	66	Weighted Average
	4,855		64.59% Pervious Area
	2,662		35.41% Impervious Area
	1,529		57.44% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	7	0.0830	0.17		Sheet Flow, A-B SHEET Grass: Short n= 0.150 P2= 3.10"
0.4	36	0.0380	1.43		Sheet Flow, B-C SHEET Smooth surfaces n= 0.011 P2= 3.10"
5.3	42	0.0167	0.13		Sheet Flow, C-D SHEET Grass: Short n= 0.150 P2= 3.10"
6.4	85	Total			

Subcatchment 2S: Subcat 2

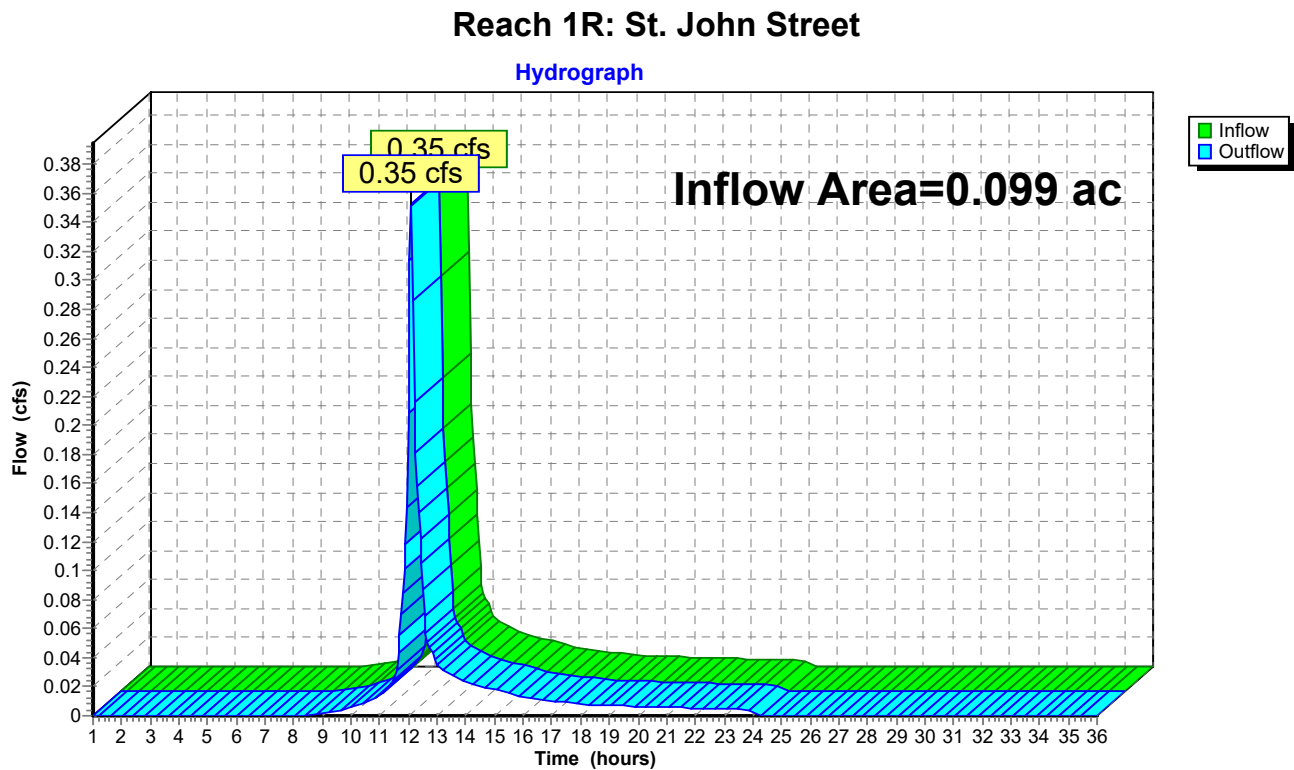


Summary for Reach 1R: St. John Street

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.099 ac, 52.16% Impervious, Inflow Depth = 3.11" for 25-yr event
Inflow = 0.35 cfs @ 12.09 hrs, Volume= 0.026 af
Outflow = 0.35 cfs @ 12.09 hrs, Volume= 0.026 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs



Summary for Reach 2R: Down Gradient Abutter

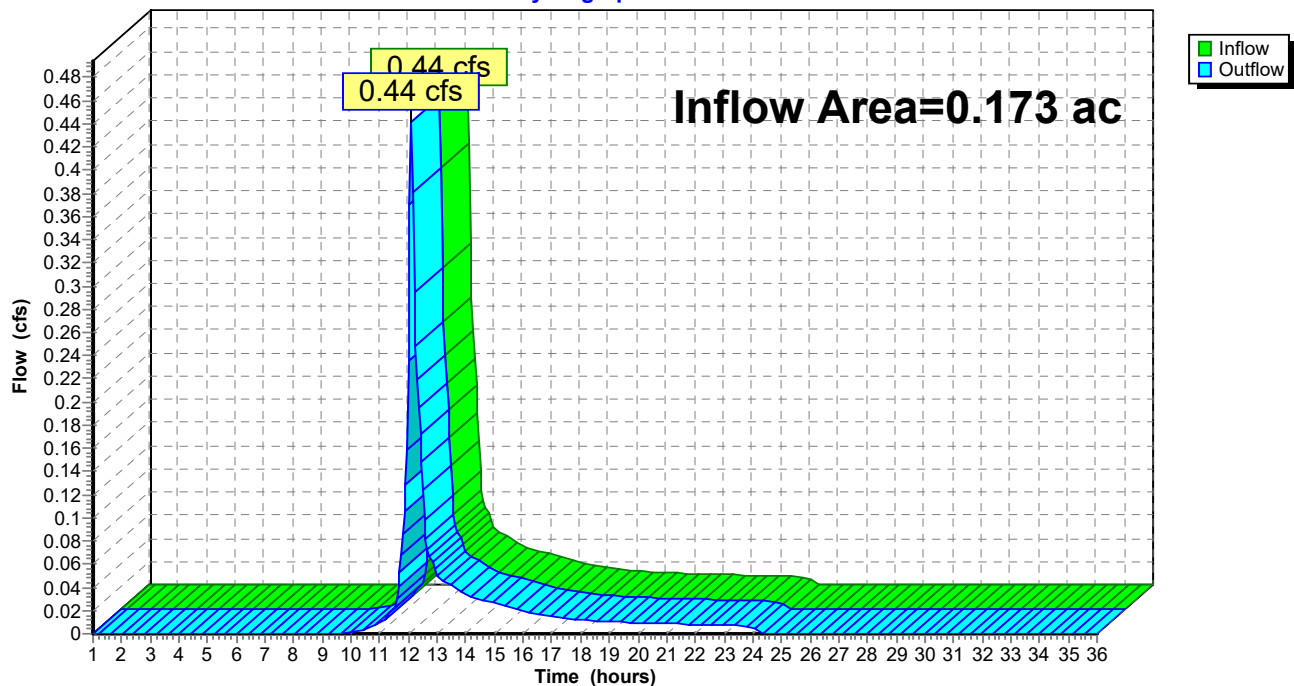
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.173 ac, 35.41% Impervious, Inflow Depth = 2.29" for 25-yr event
Inflow = 0.44 cfs @ 12.10 hrs, Volume= 0.033 af
Outflow = 0.44 cfs @ 12.10 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Reach 2R: Down Gradient Abutter

Hydrograph

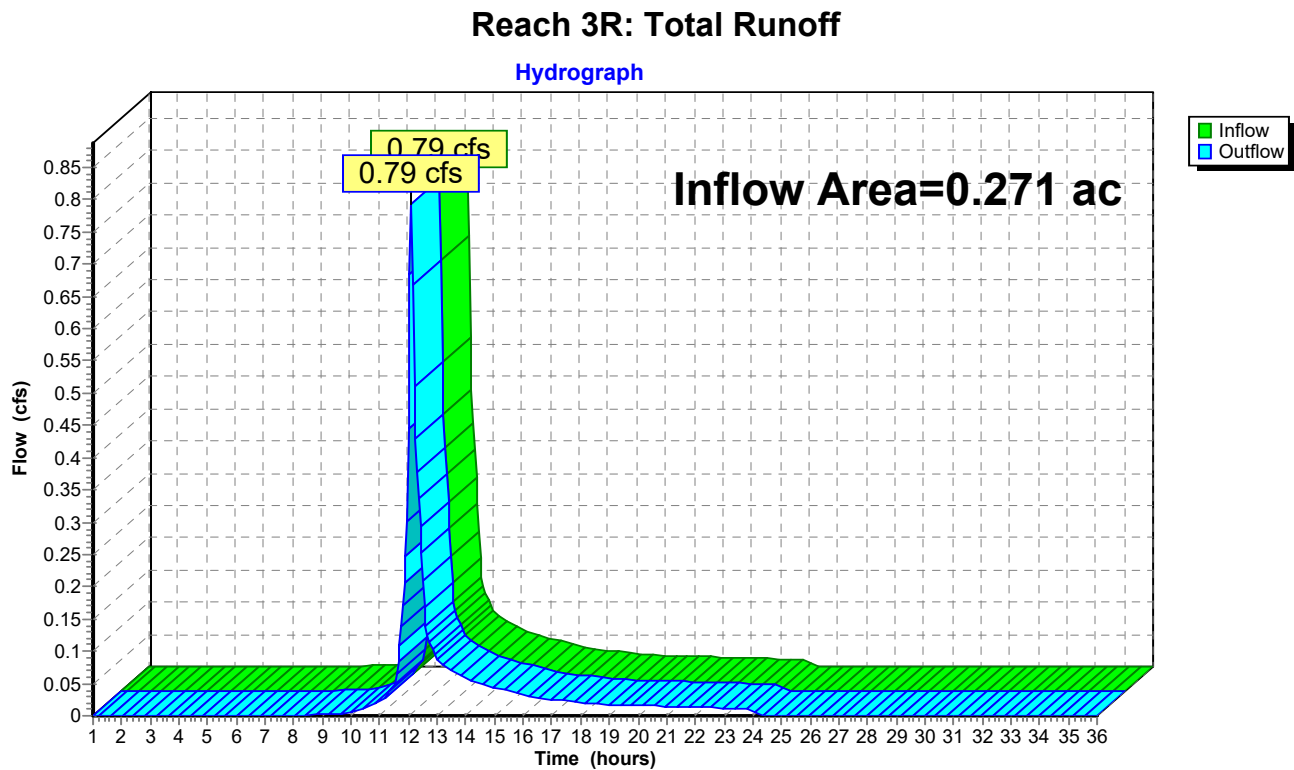


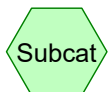
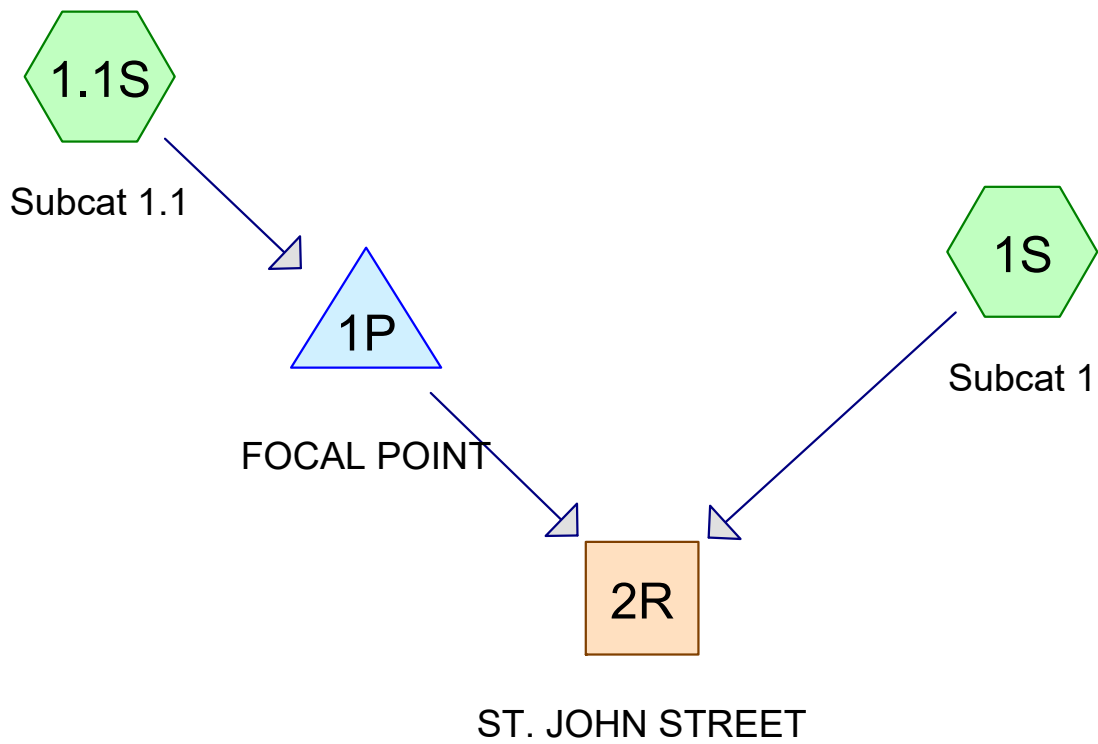
Summary for Reach 3R: Total Runoff

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.271 ac, 41.50% Impervious, Inflow Depth = 2.59" for 25-yr event
Inflow = 0.79 cfs @ 12.10 hrs, Volume= 0.059 af
Outflow = 0.79 cfs @ 12.10 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

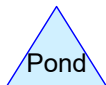




Subcat



Reach



Pond



Link

Routing Diagram for POST 7.8.21
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.004	49	Abutting Landscape, Fair, HSG A (1S)
0.015	98	Abutting roofs, HSG A (1S)
0.059	30	Brush, Good, HSG A (1.1S, 1S)
0.057	98	Paved parking, HSG A (1S)
0.136	98	Roofs, HSG A (1.1S, 1S)
0.271	83	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.271	HSG A	1.1S, 1S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
0.271		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.004	0.000	0.000	0.000	0.000	0.004	Abutting Landscape, Fair	1S
0.015	0.000	0.000	0.000	0.000	0.015	Abutting roofs	1S
0.059	0.000	0.000	0.000	0.000	0.059	Brush, Good	1.1S, 1S
0.057	0.000	0.000	0.000	0.000	0.057	Paved parking	1S
0.136	0.000	0.000	0.000	0.000	0.136	Roofs	1.1S, 1S
0.271	0.000	0.000	0.000	0.000	0.271	TOTAL AREA	

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	27.50	27.00	41.0	0.0122	0.010	6.0	0.0	0.0

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Type III 24-hr 2YR Rainfall=3.10"

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Time span=1.00-36.00 hrs, dt=0.05 hrs, 701 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 1.1S: Subcat 1.1

Runoff Area=4,585 sf 90.14% Impervious Runoff Depth=2.16"
Tc=6.0 min CN=91 Runoff=0.26 cfs 0.019 af

Subcatchment 1S: Subcat 1

Runoff Area=7,223 sf 68.71% Impervious Runoff Depth=1.14"
Tc=6.0 min CN=77 Runoff=0.21 cfs 0.016 af

Reach 2R: ST. JOHN STREET

Inflow=0.30 cfs 0.035 af
Outflow=0.30 cfs 0.035 af

Pond 1P: FOCAL POINT

Peak Elev=29.31' Storage=162 cf Inflow=0.26 cfs 0.019 af
Outflow=0.10 cfs 0.019 af

Total Runoff Area = 0.271 ac Runoff Volume = 0.035 af Average Runoff Depth = 1.54"
22.97% Pervious = 0.062 ac 77.03% Impervious = 0.209 ac

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Type III 24-hr 2YR Rainfall=3.10"

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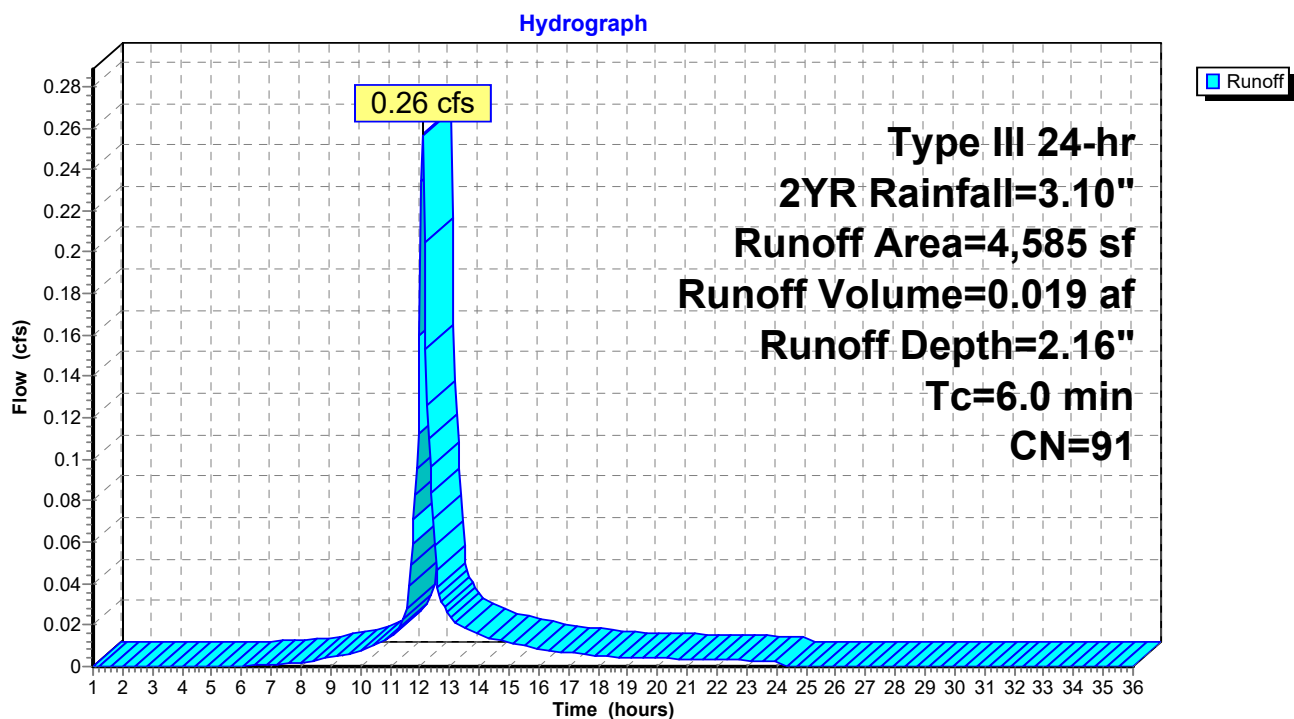
Summary for Subcatchment 1.1S: Subcat 1.1

Runoff = 0.26 cfs @ 12.09 hrs, Volume= 0.019 af, Depth= 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2YR Rainfall=3.10"

Area (sf)	CN	Description
4,133	98	Roofs, HSG A
452	30	Brush, Good, HSG A
4,585	91	Weighted Average
452		9.86% Pervious Area
4,133		90.14% Impervious Area

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

Subcatchment 1.1S: Subcat 1.1

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Type III 24-hr 2YR Rainfall=3.10"

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Summary for Subcatchment 1S: Subcat 1

Runoff = 0.21 cfs @ 12.10 hrs, Volume= 0.016 af, Depth= 1.14"

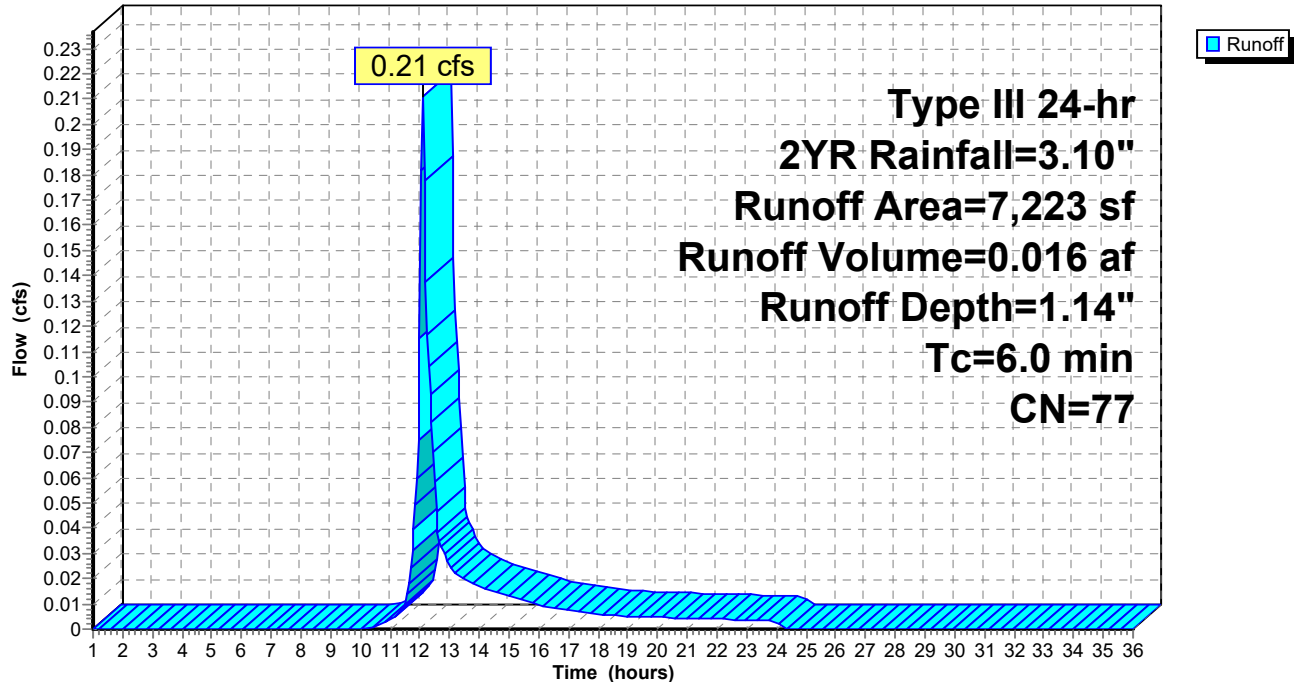
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2YR Rainfall=3.10"

Area (sf)	CN	Description
1,812	98	Roofs, HSG A
2,498	98	Paved parking, HSG A
2,105	30	Brush, Good, HSG A
* 653	98	Abutting roofs, HSG A
* 155	49	Abutting Landscape, Fair, HSG A
7,223	77	Weighted Average
2,260		31.29% Pervious Area
4,963		68.71% Impervious Area

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

Subcatchment 1S: Subcat 1

Hydrograph



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Type III 24-hr 2YR Rainfall=3.10"

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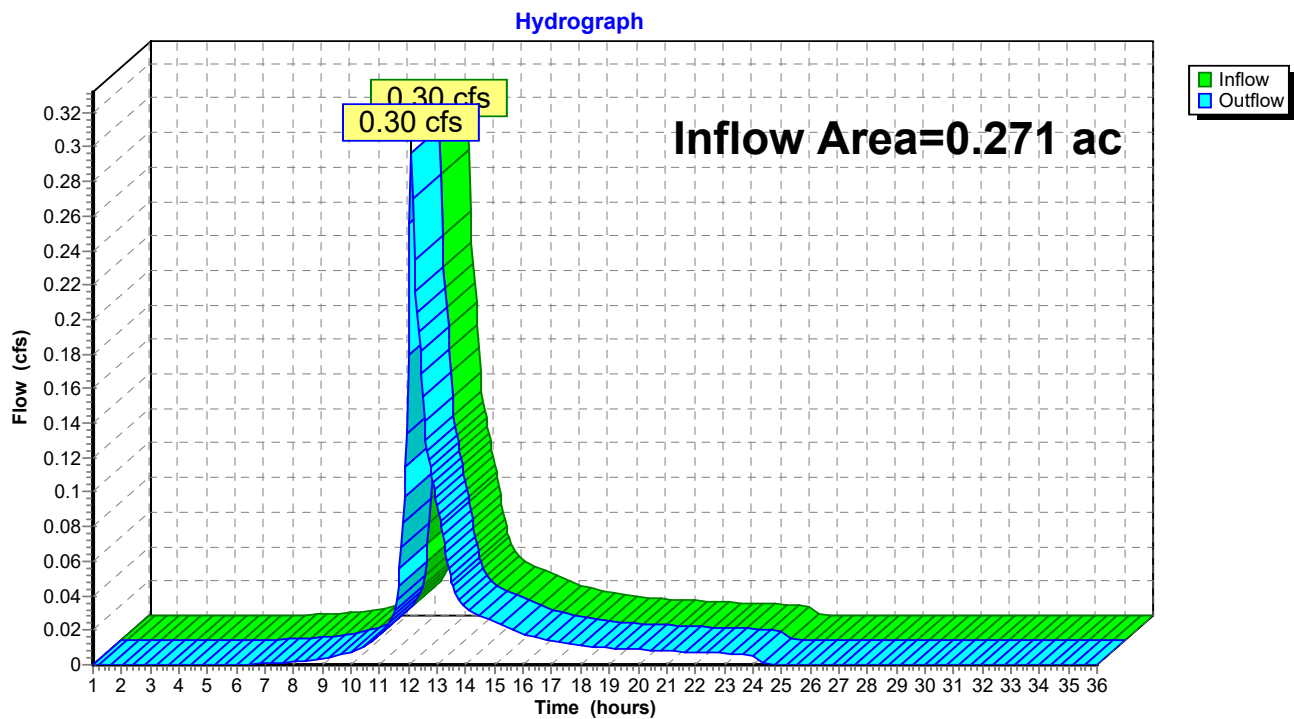
Summary for Reach 2R: ST. JOHN STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.271 ac, 77.03% Impervious, Inflow Depth = 1.54" for 2YR event
Inflow = 0.30 cfs @ 12.11 hrs, Volume= 0.035 af
Outflow = 0.30 cfs @ 12.11 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Reach 2R: ST. JOHN STREET



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Type III 24-hr 2YR Rainfall=3.10"

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Summary for Pond 1P: FOCAL POINT

Inflow Area = 0.105 ac, 90.14% Impervious, Inflow Depth = 2.16" for 2YR event
 Inflow = 0.26 cfs @ 12.09 hrs, Volume= 0.019 af
 Outflow = 0.10 cfs @ 12.34 hrs, Volume= 0.019 af, Atten= 61%, Lag= 14.7 min
 Primary = 0.10 cfs @ 12.34 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 29.31' @ 12.34 hrs Surf.Area= 150 sf Storage= 162 cf

Plug-Flow detention time= 14.7 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 14.7 min (818.3 - 803.7)

Volume	Invert	Avail.Storage	Storage Description
#1	27.50'	148 cf	Crushed Stone (Prismatic) Listed below (Recalc) 600 cf Overall - 231 cf Embedded = 369 cf x 40.0% Voids
#2	28.11'	219 cf	1.31'W x 2.35'L x 2.88'H TANKS x 26 Inside #1 231 cf Overall x 95.0% Voids
#3	31.50'	7 cf	3.00'W x 8.00'L x 1.50'H FOCAL POINT 36 cf Overall x 20.0% Voids
#4	33.00'	77 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
		451 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
27.50	150	0	0
31.50	150	600	600

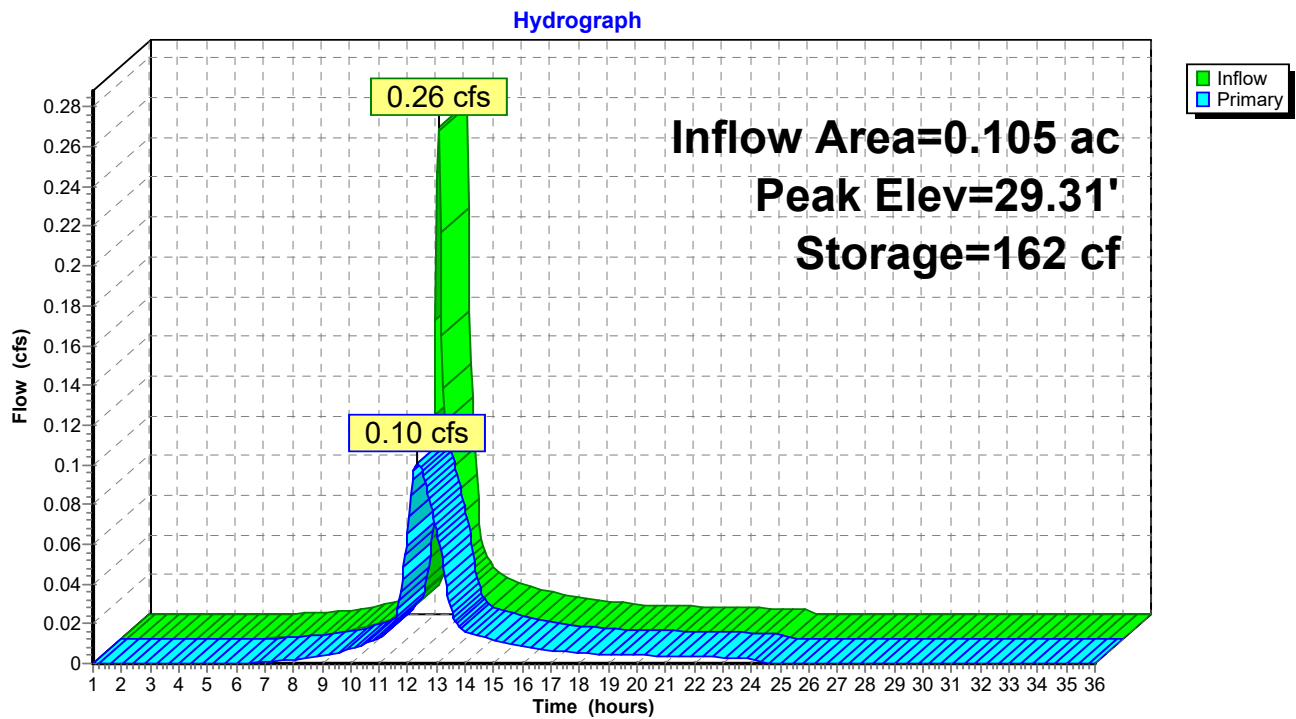
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
33.00	24	0	0
34.00	130	77	77

Device	Routing	Invert	Outlet Devices
#1	Primary	27.50'	6.0" Round 6" storm drain L= 41.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.50' / 27.00' S= 0.0122 ' / S= 0.0122 ' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#2	Device 1	27.50'	1.7" Vert. Orifice/Grate C= 0.600
#3	Device 2	27.50'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#4	Device 1	33.90'	8.0" Horiz. Overflow Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.10 cfs @ 12.34 hrs HW=29.31' (Free Discharge)

- 1=6" storm drain (Passes 0.10 cfs of 0.93 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.10 cfs @ 6.35 fps)
- 3=Exfiltration (Passes 0.10 cfs of 0.35 cfs potential flow)
- 4=Overflow Grate (Controls 0.00 cfs)

Pond 1P: FOCAL POINT



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Type III 24-hr 10-YR Rainfall=4.60"

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Time span=1.00-36.00 hrs, dt=0.05 hrs, 701 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 1.1S: Subcat 1.1

Runoff Area=4,585 sf 90.14% Impervious Runoff Depth=3.59"
Tc=6.0 min CN=91 Runoff=0.42 cfs 0.032 af

Subcatchment 1S: Subcat 1

Runoff Area=7,223 sf 68.71% Impervious Runoff Depth=2.29"
Tc=6.0 min CN=77 Runoff=0.44 cfs 0.032 af

Reach 2R: ST. JOHN STREET

Inflow=0.55 cfs 0.063 af
Outflow=0.55 cfs 0.063 af

Pond 1P: FOCAL POINT

Peak Elev=30.81' Storage=317 cf Inflow=0.42 cfs 0.032 af
Outflow=0.14 cfs 0.032 af

Total Runoff Area = 0.271 ac Runoff Volume = 0.063 af Average Runoff Depth = 2.80"
22.97% Pervious = 0.062 ac 77.03% Impervious = 0.209 ac

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Type III 24-hr 10-YR Rainfall=4.60"

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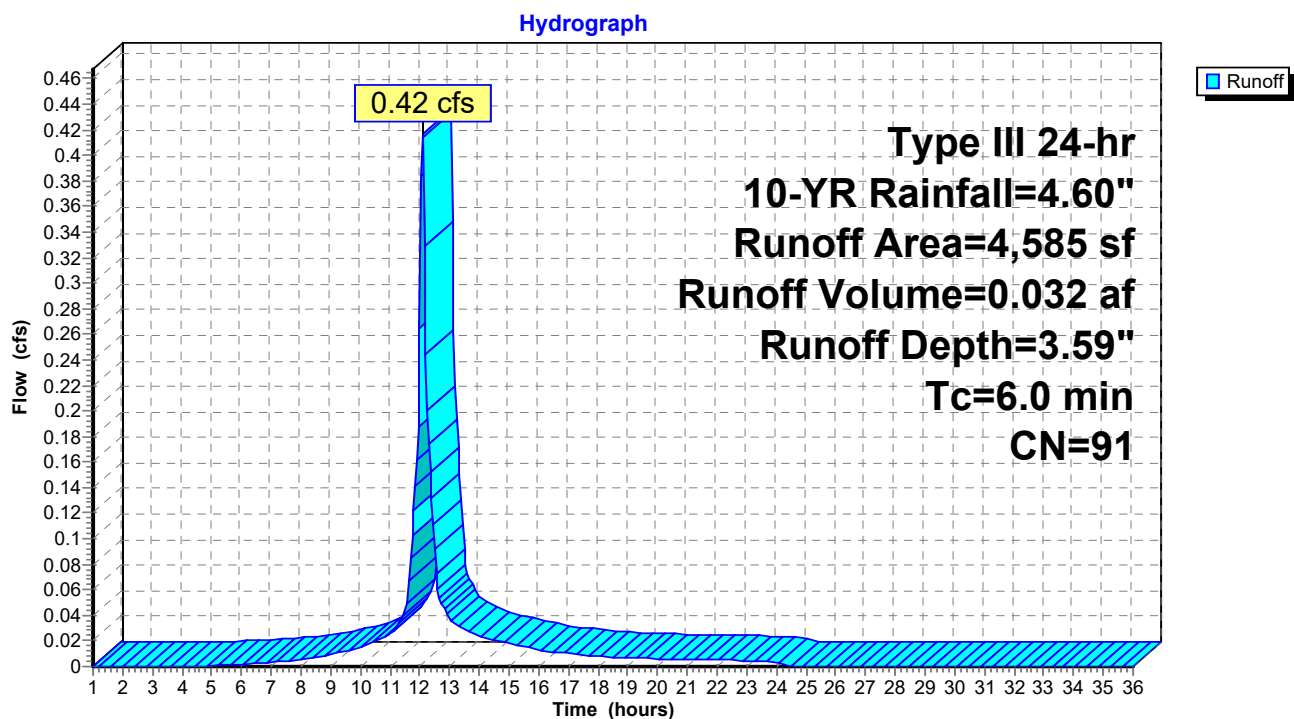
Summary for Subcatchment 1.1S: Subcat 1.1

Runoff = 0.42 cfs @ 12.09 hrs, Volume= 0.032 af, Depth= 3.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
4,133	98	Roofs, HSG A
452	30	Brush, Good, HSG A
4,585	91	Weighted Average
452		9.86% Pervious Area
4,133		90.14% Impervious Area

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

Subcatchment 1.1S: Subcat 1.1

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Type III 24-hr 10-YR Rainfall=4.60"

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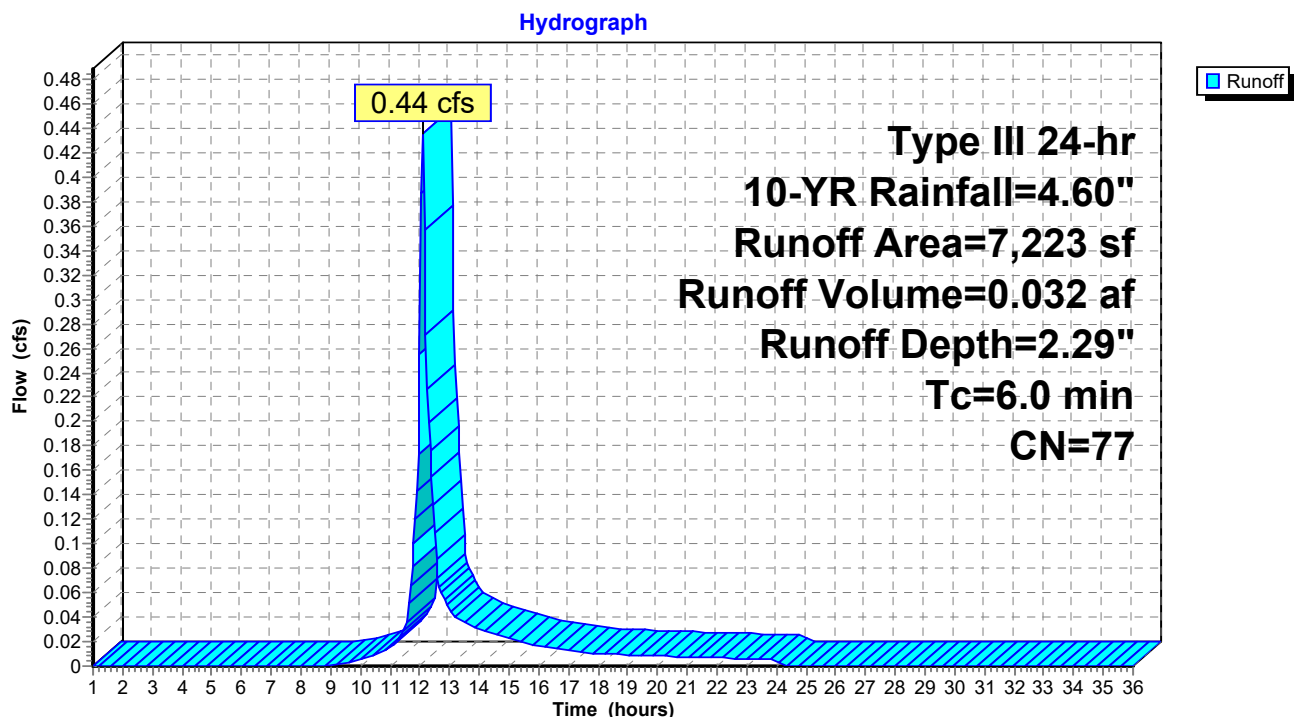
Summary for Subcatchment 1S: Subcat 1

Runoff = 0.44 cfs @ 12.09 hrs, Volume= 0.032 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
1,812	98	Roofs, HSG A
2,498	98	Paved parking, HSG A
2,105	30	Brush, Good, HSG A
* 653	98	Abutting roofs, HSG A
* 155	49	Abutting Landscape, Fair, HSG A
7,223	77	Weighted Average
2,260		31.29% Pervious Area
4,963		68.71% Impervious Area

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

Subcatchment 1S: Subcat 1

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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Reach 2R: ST. JOHN STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.271 ac, 77.03% Impervious, Inflow Depth = 2.80" for 10-YR event

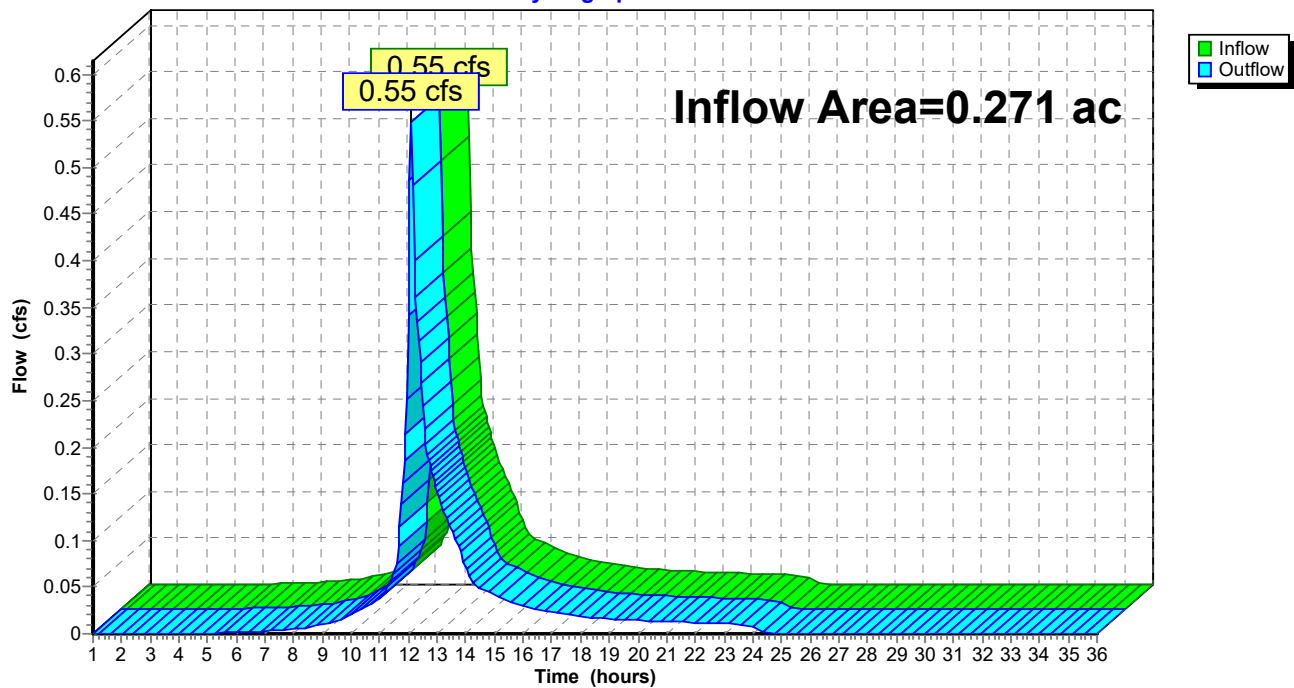
Inflow = 0.55 cfs @ 12.10 hrs, Volume= 0.063 af

Outflow = 0.55 cfs @ 12.10 hrs, Volume= 0.063 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Reach 2R: ST. JOHN STREET

Hydrograph



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Pond 1P: FOCAL POINT

Inflow Area = 0.105 ac, 90.14% Impervious, Inflow Depth = 3.59" for 10-YR event
 Inflow = 0.42 cfs @ 12.09 hrs, Volume= 0.032 af
 Outflow = 0.14 cfs @ 12.39 hrs, Volume= 0.032 af, Atten= 67%, Lag= 18.0 min
 Primary = 0.14 cfs @ 12.39 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 30.81' @ 12.39 hrs Surf.Area= 150 sf Storage= 317 cf

Plug-Flow detention time= 19.6 min calculated for 0.031 af (100% of inflow)
 Center-of-Mass det. time= 19.6 min (809.2 - 789.6)

Volume	Invert	Avail.Storage	Storage Description
#1	27.50'	148 cf	Crushed Stone (Prismatic) Listed below (Recalc) 600 cf Overall - 231 cf Embedded = 369 cf x 40.0% Voids
#2	28.11'	219 cf	1.31'W x 2.35'L x 2.88'H TANKS x 26 Inside #1 231 cf Overall x 95.0% Voids
#3	31.50'	7 cf	3.00'W x 8.00'L x 1.50'H FOCAL POINT 36 cf Overall x 20.0% Voids
#4	33.00'	77 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
		451 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
27.50	150	0	0
31.50	150	600	600

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
33.00	24	0	0
34.00	130	77	77

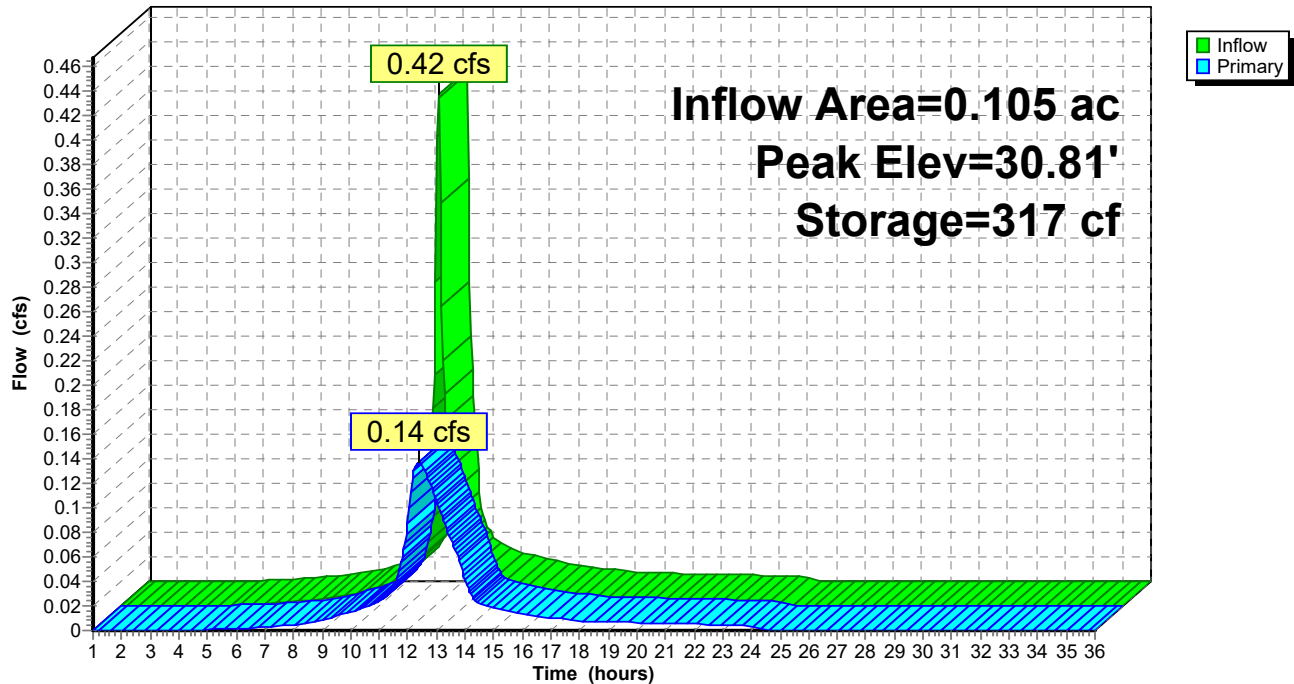
Device	Routing	Invert	Outlet Devices
#1	Primary	27.50'	6.0" Round 6" storm drain L= 41.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.50' / 27.00' S= 0.0122 ' / ' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#2	Device 1	27.50'	1.7" Vert. Orifice/Grate C= 0.600
#3	Device 2	27.50'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#4	Device 1	33.90'	8.0" Horiz. Overflow Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.14 cfs @ 12.39 hrs HW=30.81' (Free Discharge)

- 1=6" storm drain (Passes 0.14 cfs of 1.30 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.14 cfs @ 8.66 fps)
 3=Exfiltration (Passes 0.14 cfs of 0.35 cfs potential flow)
 4=Overflow Grate (Controls 0.00 cfs)

Pond 1P: FOCAL POINT

Hydrograph



POST 7.8.21*Type III 24-hr 25-YR Rainfall=5.80"*

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Time span=1.00-36.00 hrs, dt=0.05 hrs, 701 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 1.1S: Subcat 1.1

Runoff Area=4,585 sf 90.14% Impervious Runoff Depth=4.76"
Tc=6.0 min CN=91 Runoff=0.54 cfs 0.042 af

Subcatchment 1S: Subcat 1

Runoff Area=7,223 sf 68.71% Impervious Runoff Depth=3.31"
Tc=6.0 min CN=77 Runoff=0.63 cfs 0.046 af

Reach 2R: ST. JOHN STREET

Inflow=0.76 cfs 0.087 af
Outflow=0.76 cfs 0.087 af

Pond 1P: FOCAL POINT

Peak Elev=33.83' Storage=430 cf Inflow=0.54 cfs 0.042 af
Outflow=0.19 cfs 0.042 af

Total Runoff Area = 0.271 ac Runoff Volume = 0.087 af Average Runoff Depth = 3.87"
22.97% Pervious = 0.062 ac 77.03% Impervious = 0.209 ac

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

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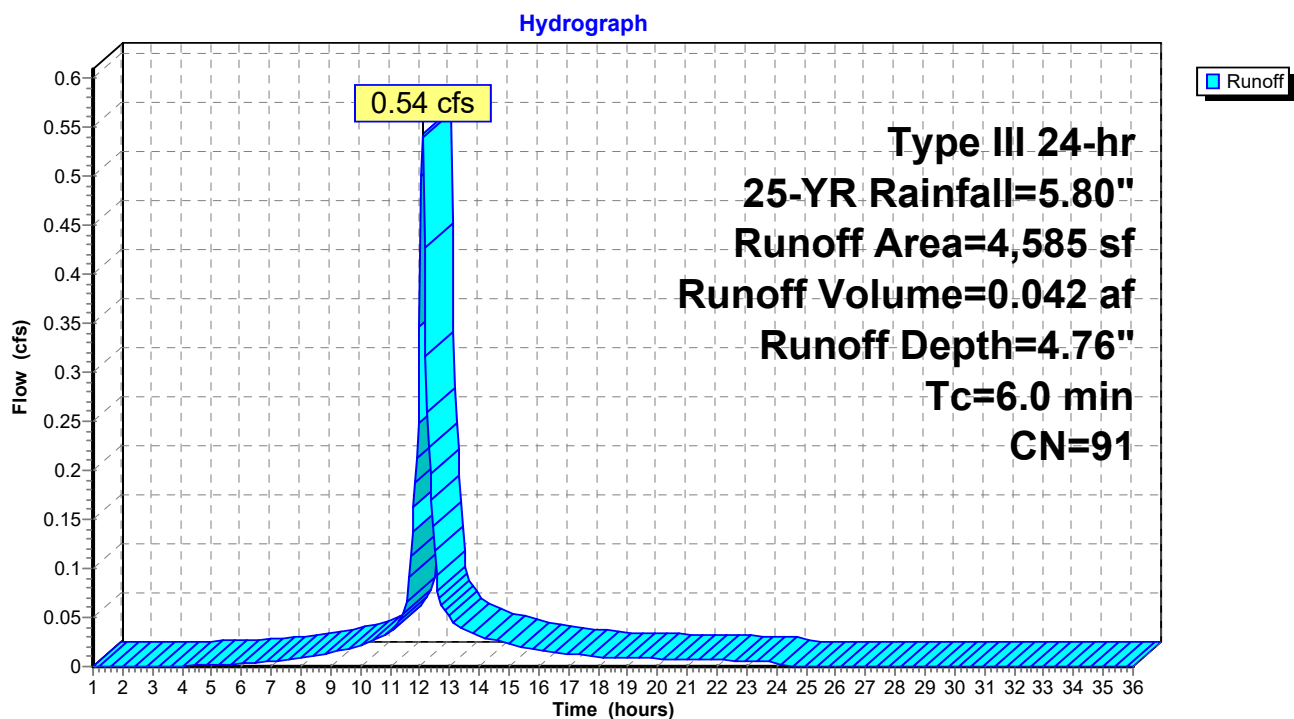
Summary for Subcatchment 1.1S: Subcat 1.1

Runoff = 0.54 cfs @ 12.09 hrs, Volume= 0.042 af, Depth= 4.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
4,133	98	Roofs, HSG A
452	30	Brush, Good, HSG A
4,585	91	Weighted Average
452		9.86% Pervious Area
4,133		90.14% Impervious Area

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

Subcatchment 1.1S: Subcat 1.1

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

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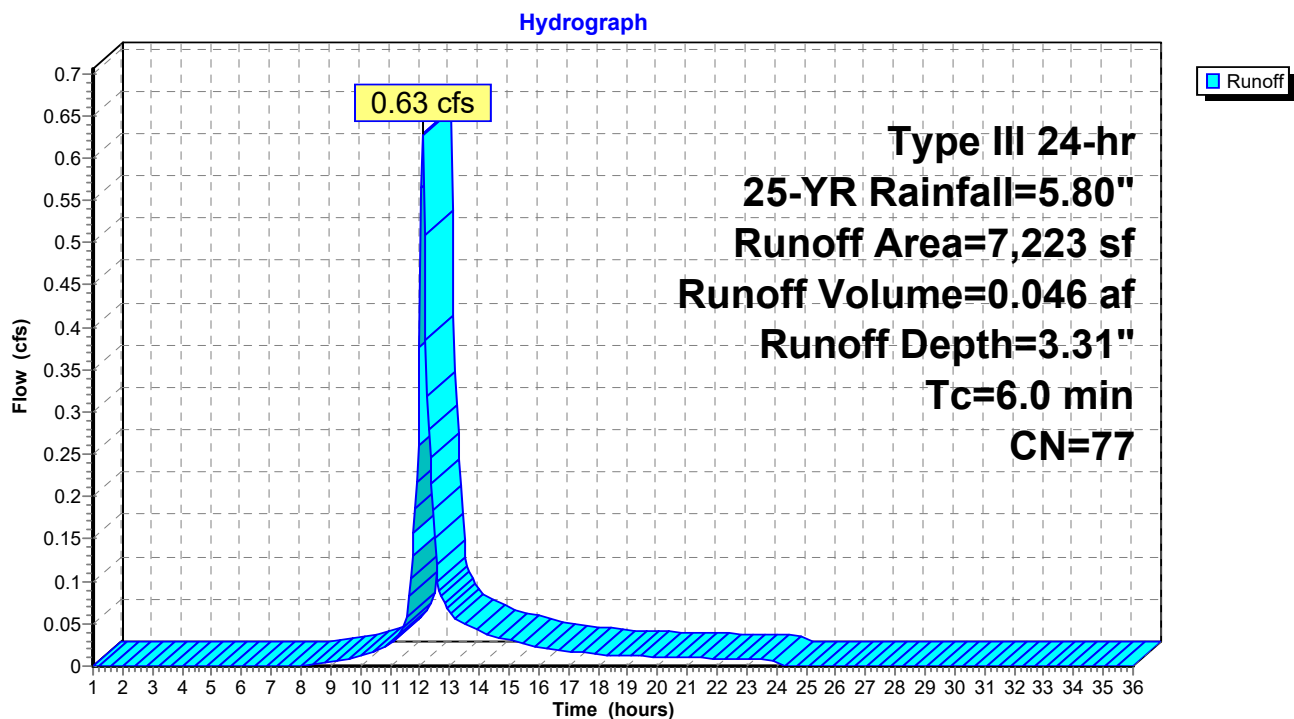
Summary for Subcatchment 1S: Subcat 1

Runoff = 0.63 cfs @ 12.09 hrs, Volume= 0.046 af, Depth= 3.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
1,812	98	Roofs, HSG A
2,498	98	Paved parking, HSG A
2,105	30	Brush, Good, HSG A
* 653	98	Abutting roofs, HSG A
* 155	49	Abutting Landscape, Fair, HSG A
7,223	77	Weighted Average
2,260		31.29% Pervious Area
4,963		68.71% Impervious Area

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

Subcatchment 1S: Subcat 1

Summary for Reach 2R: ST. JOHN STREET

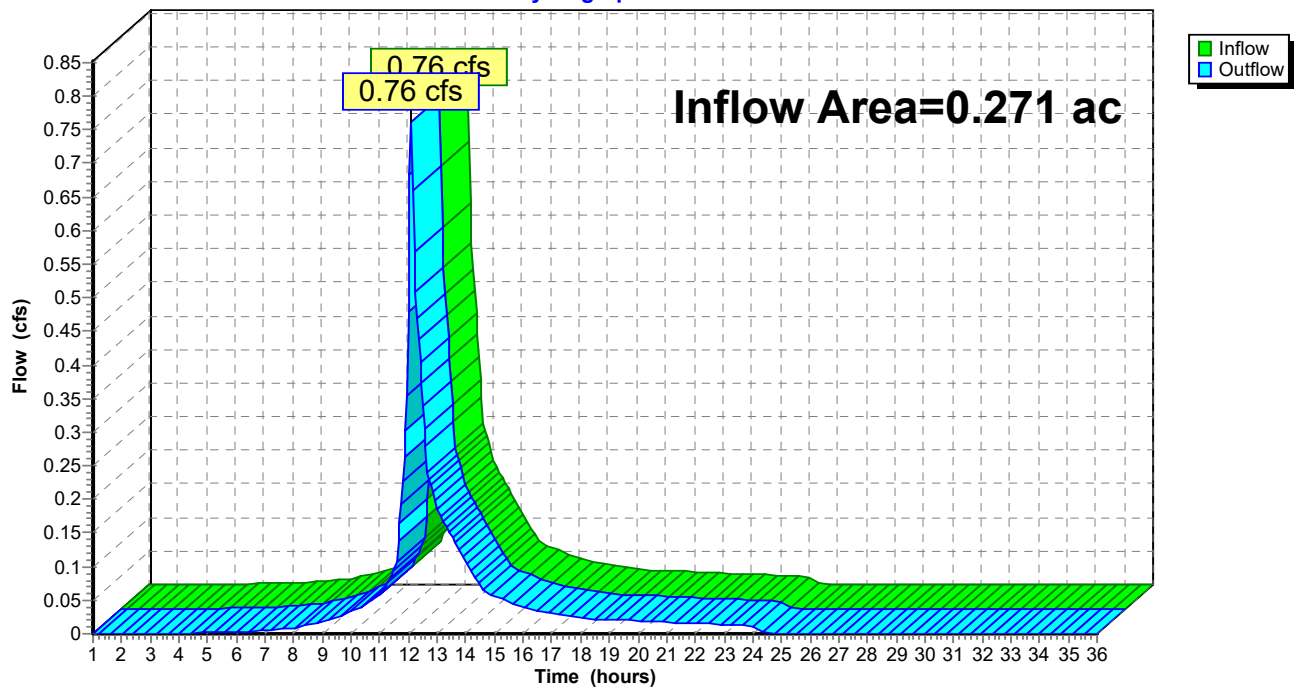
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.271 ac, 77.03% Impervious, Inflow Depth = 3.87" for 25-YR event
 Inflow = 0.76 cfs @ 12.10 hrs, Volume= 0.087 af
 Outflow = 0.76 cfs @ 12.10 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Reach 2R: ST. JOHN STREET

Hydrograph



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

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Summary for Pond 1P: FOCAL POINT

Inflow Area = 0.105 ac, 90.14% Impervious, Inflow Depth = 4.76" for 25-YR event
 Inflow = 0.54 cfs @ 12.09 hrs, Volume= 0.042 af
 Outflow = 0.19 cfs @ 12.36 hrs, Volume= 0.042 af, Atten= 65%, Lag= 16.5 min
 Primary = 0.19 cfs @ 12.36 hrs, Volume= 0.042 af

Routing by Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 33.83' @ 12.36 hrs Surf.Area= 286 sf Storage= 430 cf

Plug-Flow detention time= 21.5 min calculated for 0.042 af (100% of inflow)
 Center-of-Mass det. time= 21.5 min (803.6 - 782.1)

Volume	Invert	Avail.Storage	Storage Description
#1	27.50'	148 cf	Crushed Stone (Prismatic) Listed below (Recalc) 600 cf Overall - 231 cf Embedded = 369 cf x 40.0% Voids
#2	28.11'	219 cf	1.31'W x 2.35'L x 2.88'H TANKS x 26 Inside #1 231 cf Overall x 95.0% Voids
#3	31.50'	7 cf	3.00'W x 8.00'L x 1.50'H FOCAL POINT 36 cf Overall x 20.0% Voids
#4	33.00'	77 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
		451 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
27.50	150	0	0
31.50	150	600	600

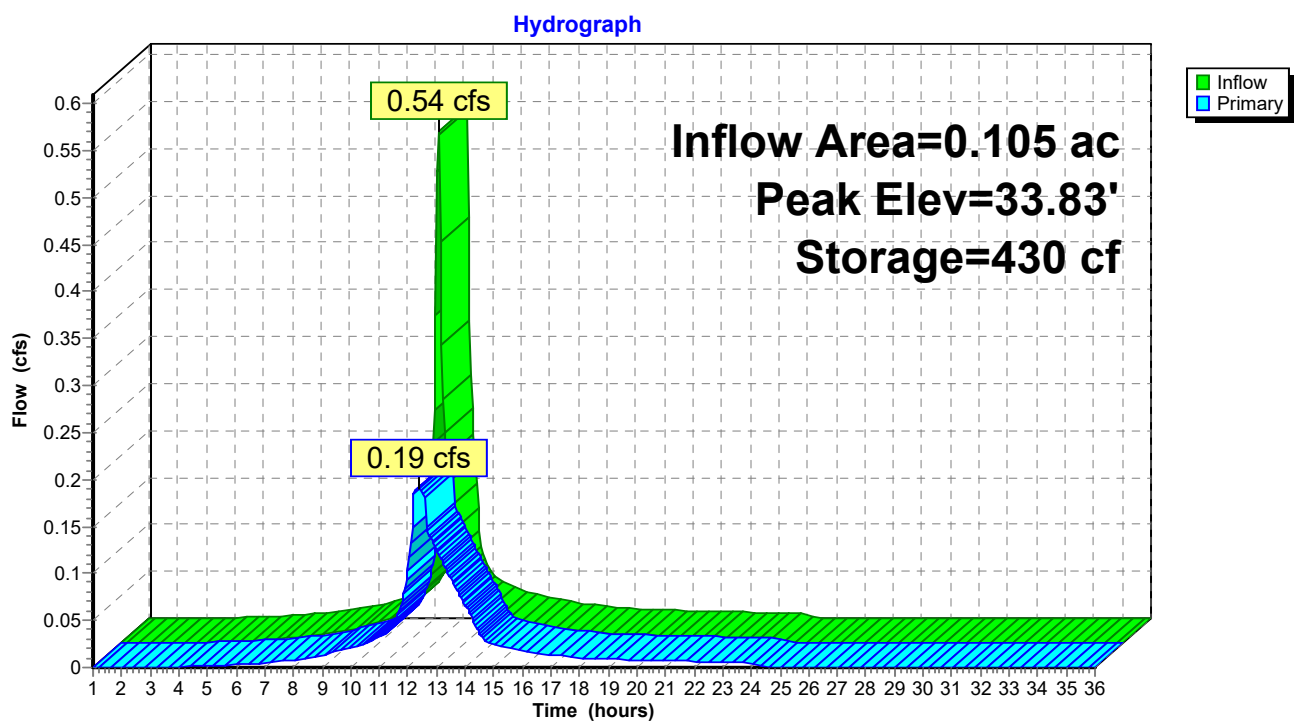
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
33.00	24	0	0
34.00	130	77	77

Device	Routing	Invert	Outlet Devices
#1	Primary	27.50'	6.0" Round 6" storm drain L= 41.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.50' / 27.00' S= 0.0122 ' / ' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#2	Device 1	27.50'	1.7" Vert. Orifice/Grate C= 0.600
#3	Device 2	27.50'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#4	Device 1	33.90'	8.0" Horiz. Overflow Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.19 cfs @ 12.36 hrs HW=33.82' (Free Discharge)

- 1=6" storm drain (Passes 0.19 cfs of 1.84 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.19 cfs @ 12.04 fps)
 3=Exfiltration (Passes 0.19 cfs of 0.66 cfs potential flow)
 4=Overflow Grate (Controls 0.00 cfs)

Pond 1P: FOCAL POINT



POST 7.8.21*Type III 24-hr Custom Rainfall=3.10"*

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Time span=1.00-36.00 hrs, dt=0.05 hrs, 701 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 1.1S: Subcat 1.1

Runoff Area=4,585 sf 90.14% Impervious Runoff Depth=2.16"
Tc=6.0 min CN=91 Runoff=0.26 cfs 0.019 af

Subcatchment 1S: Subcat 1

Runoff Area=7,223 sf 68.71% Impervious Runoff Depth=1.14"
Tc=6.0 min CN=77 Runoff=0.21 cfs 0.016 af

Reach 2R: ST. JOHN STREET

Inflow=0.30 cfs 0.035 af
Outflow=0.30 cfs 0.035 af

Pond 1P: FOCAL POINT

Peak Elev=29.31' Storage=162 cf Inflow=0.26 cfs 0.019 af
Outflow=0.10 cfs 0.019 af

Total Runoff Area = 0.271 ac Runoff Volume = 0.035 af Average Runoff Depth = 1.54"
22.97% Pervious = 0.062 ac 77.03% Impervious = 0.209 ac

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Type III 24-hr Custom Rainfall=3.10"

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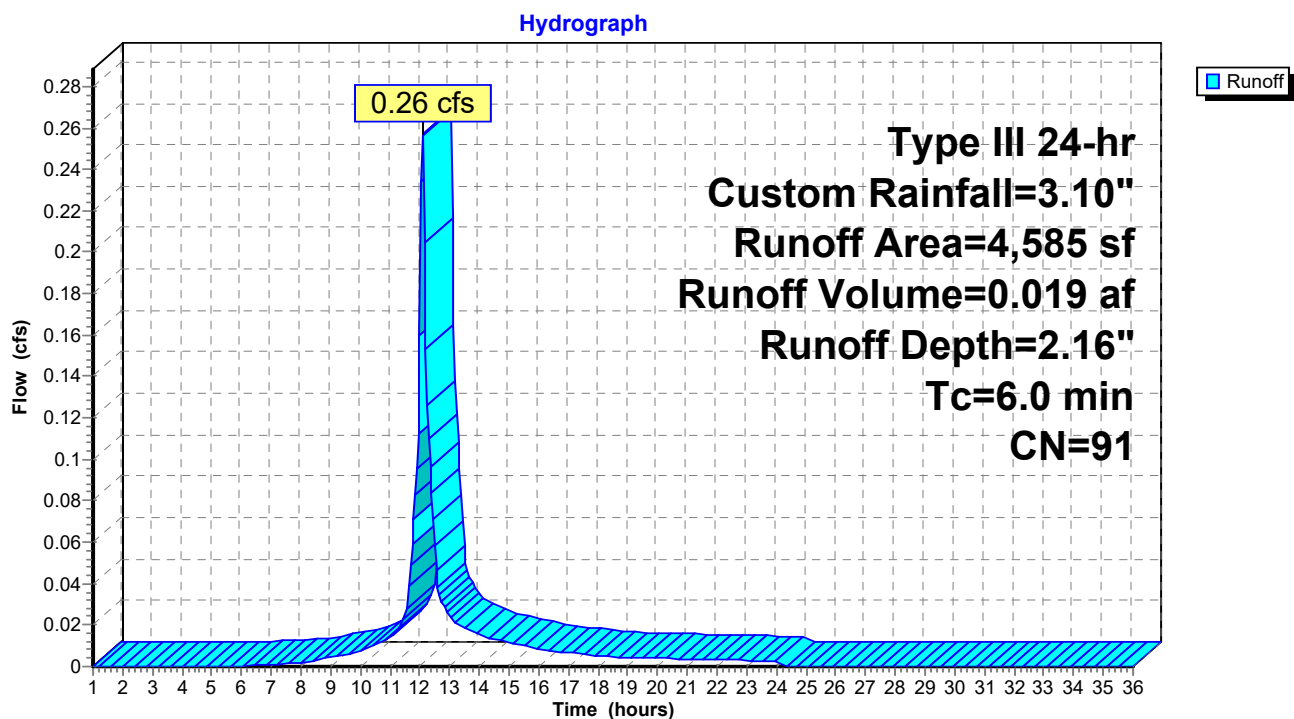
Summary for Subcatchment 1.1S: Subcat 1.1

Runoff = 0.26 cfs @ 12.09 hrs, Volume= 0.019 af, Depth= 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr Custom Rainfall=3.10"

Area (sf)	CN	Description
4,133	98	Roofs, HSG A
452	30	Brush, Good, HSG A
4,585	91	Weighted Average
452		9.86% Pervious Area
4,133		90.14% Impervious Area

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

Subcatchment 1.1S: Subcat 1.1

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Type III 24-hr Custom Rainfall=3.10"

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Summary for Subcatchment 1S: Subcat 1

Runoff = 0.21 cfs @ 12.10 hrs, Volume= 0.016 af, Depth= 1.14"

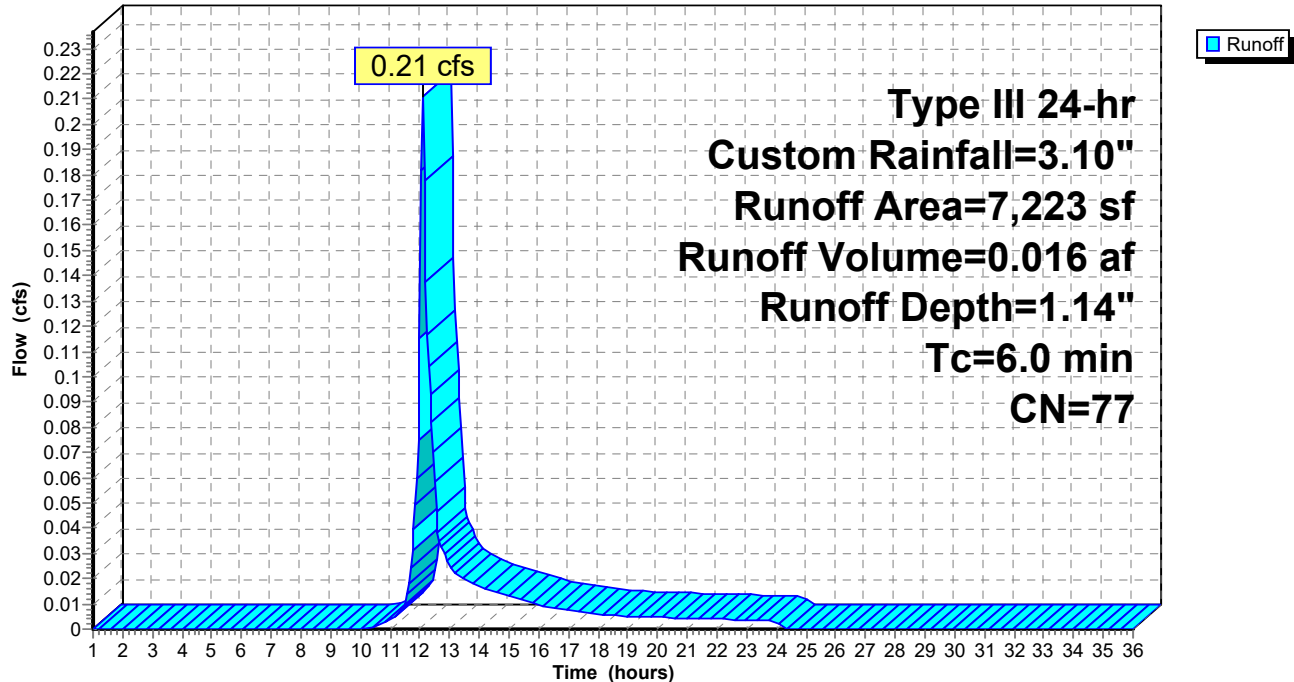
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr Custom Rainfall=3.10"

Area (sf)	CN	Description
1,812	98	Roofs, HSG A
2,498	98	Paved parking, HSG A
2,105	30	Brush, Good, HSG A
* 653	98	Abutting roofs, HSG A
* 155	49	Abutting Landscape, Fair, HSG A
7,223	77	Weighted Average
2,260		31.29% Pervious Area
4,963		68.71% Impervious Area

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

Subcatchment 1S: Subcat 1

Hydrograph



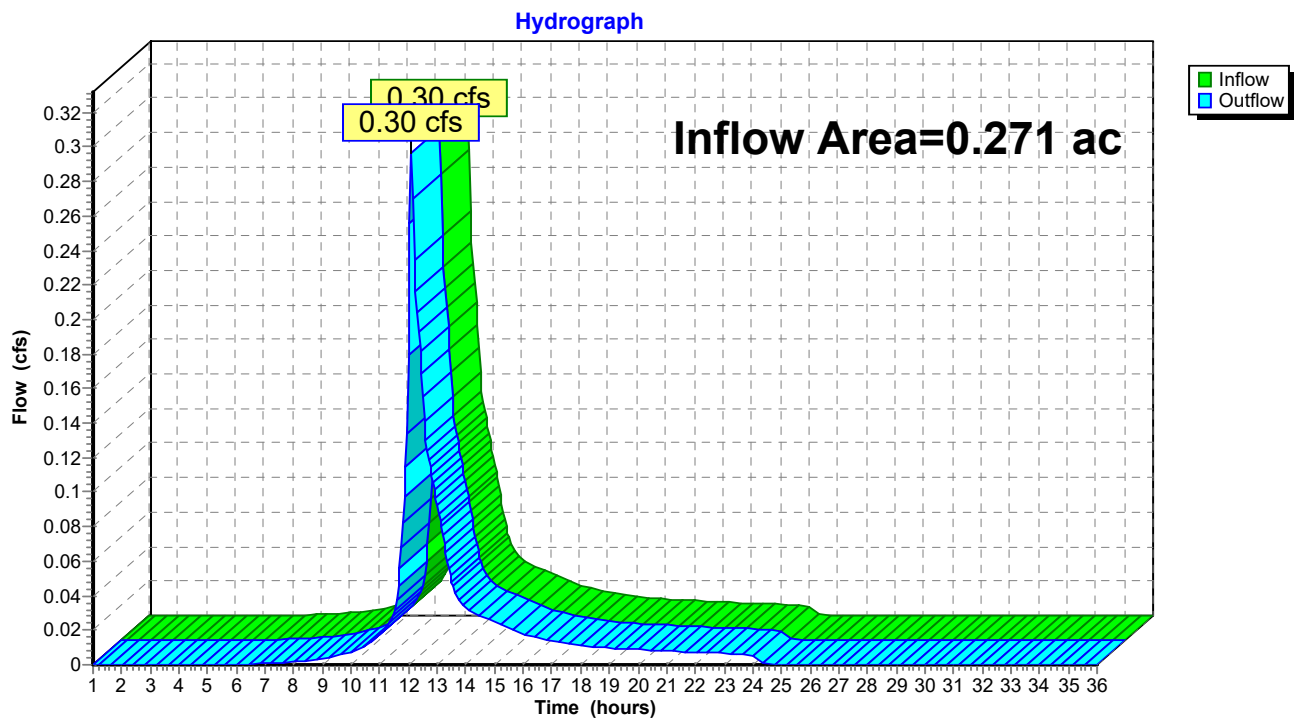
Summary for Reach 2R: ST. JOHN STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.271 ac, 77.03% Impervious, Inflow Depth = 1.54" for Custom event
 Inflow = 0.30 cfs @ 12.11 hrs, Volume= 0.035 af
 Outflow = 0.30 cfs @ 12.11 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Reach 2R: ST. JOHN STREET



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Type III 24-hr Custom Rainfall=3.10"

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Summary for Pond 1P: FOCAL POINT

Inflow Area = 0.105 ac, 90.14% Impervious, Inflow Depth = 2.16" for Custom event
 Inflow = 0.26 cfs @ 12.09 hrs, Volume= 0.019 af
 Outflow = 0.10 cfs @ 12.34 hrs, Volume= 0.019 af, Atten= 61%, Lag= 14.7 min
 Primary = 0.10 cfs @ 12.34 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
 Peak Elev= 29.31' @ 12.34 hrs Surf.Area= 150 sf Storage= 162 cf

Plug-Flow detention time= 14.7 min calculated for 0.019 af (100% of inflow)
 Center-of-Mass det. time= 14.7 min (818.3 - 803.7)

Volume	Invert	Avail.Storage	Storage Description
#1	27.50'	148 cf	Crushed Stone (Prismatic) Listed below (Recalc) 600 cf Overall - 231 cf Embedded = 369 cf x 40.0% Voids
#2	28.11'	219 cf	1.31'W x 2.35'L x 2.88'H TANKS x 26 Inside #1 231 cf Overall x 95.0% Voids
#3	31.50'	7 cf	3.00'W x 8.00'L x 1.50'H FOCAL POINT 36 cf Overall x 20.0% Voids
#4	33.00'	77 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
		451 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
27.50	150	0	0
31.50	150	600	600

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
33.00	24	0	0
34.00	130	77	77

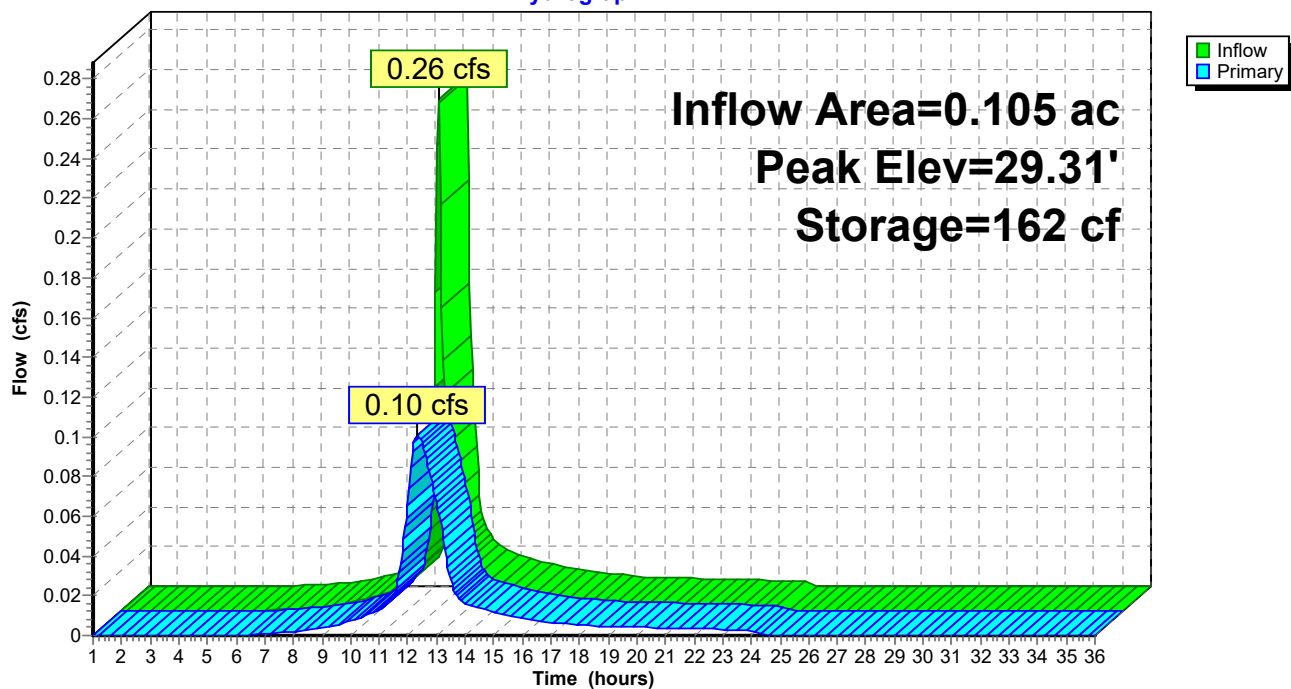
Device	Routing	Invert	Outlet Devices
#1	Primary	27.50'	6.0" Round 6" storm drain L= 41.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.50' / 27.00' S= 0.0122 ' / S= 0.0122 ' Cc= 0.900 n= 0.010, Flow Area= 0.20 sf
#2	Device 1	27.50'	1.7" Vert. Orifice/Grate C= 0.600
#3	Device 2	27.50'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#4	Device 1	33.90'	8.0" Horiz. Overflow Grate C= 0.600 Limited to weir flow at low heads

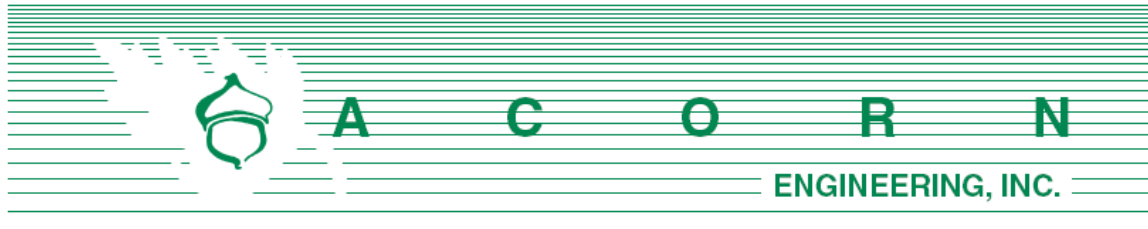
Primary OutFlow Max=0.10 cfs @ 12.34 hrs HW=29.31' (Free Discharge)

- 1=6" storm drain (Passes 0.10 cfs of 0.93 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.10 cfs @ 6.35 fps)
- 3=Exfiltration (Passes 0.10 cfs of 0.35 cfs potential flow)
- 4=Overflow Grate (Controls 0.00 cfs)

Pond 1P: FOCAL POINT

Hydrograph





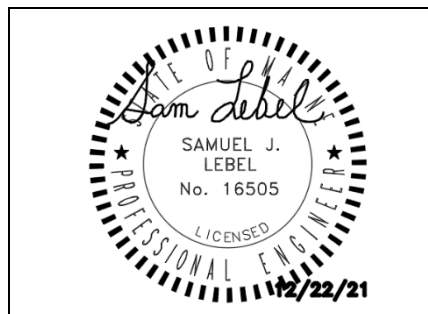
K. EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**392 St. John Street
Portland, Maine 04101**

Prepared By:

**Acorn Engineering, Inc.
65 Hanover Street
Portland, Maine 04101**



**July 2021
Rev. December 2021**

INTRODUCTION

Acorn Engineering, Inc. has been retained by Alex Coupe, to provide civil engineering services for the proposed residential development to be located at 392 St. John Street. The proposed project includes the development of nine, two-bedroom dwelling units with a first-floor business space. The existing parcel is 11,000 square feet and contains an existing 4-unit building that will be maintained as part of the proposed project. The project proposes to divide the existing property line into two separate conforming parcels with a shared driveway and utility corridor.

The following Erosion and Sedimentation Control Report was developed in accordance with the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and the Maine DEP Chapter 500 Stormwater Management Appendix A and B (1), Amended August 12, 2015. This narrative also meets the standards required in the Maine DEP's Erosion & Sediment Control BMP's Manual, revised in 2016.

1.0 EXISTING CONDITIONS

A plan of the property survey has been prepared by Stephan J. Martin, dated December 2020. Soil borings were prepared by Summit Geoengineering services dated January 19th, 2021.

The property is in the R-6 Residential Zone. Abutting Uses include:

- North-West Residential
- South-East Residential

The lot consists of an existing 4-unit structure which is to be maintained with several site improvements as a result of the proposed development, however the potential maintenance is not a part of the scope of work for the proposed development. The remainder of the site consists of a gravel impervious parking area, surrounded by grassy land with some shrubs towards the rear of the property. The site is currently graded South and South-East towards the abutting property located at 384 St. John Street.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County
- Summit Geoengineering Soil Boring Log and Exploration Location Plan

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



Summit Geoengineering services investigated 3 soil boring locations on site with a truck mounted rig. Summit analysis collected 6 samples from each location with a termination depth of 27'. B-1 consisted of soft to firm cohesive soils until reaching the groundwater table at 16.5', followed by still to very still cohesive soils. Locations analyzed to further note include the B-2 and B-3. The location of B-2 consisted of soft to stiff cohesive soils to 15' where it returns to soft soils to then be classified with loose granular soils then after. This location hit the groundwater table at 21' which may result in the looser soils consisted in the 20'-22' sample. The second location of interest is B-3, which consisted of a mixture of very loose granular soils, firm and stiff cohesive soils, the groundwater table was then reached at 20' and was then found to have compacted and denser granular soils until boring terminated at 27'.

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

Table 1 - "K" Value		
Soils Type	Subsurface	Substratum
Windsor Loamy Sand	.17	.17

The soil "K" value for the soil, listed above, shows a low susceptibility to erosion. The site's susceptibility to erosion is from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although the soil "K" value shows a low susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance given the sustained slope throughout the site.

1.2 Existing Erosion Problems

There are no signs of erosion.

1.3 Critical Areas

There are no critical areas that require special attention during construction.

1.4 Protected Natural Resource

The client is not aware of the presence of any existing significant natural features located on the site as listed in Section 14-526 (b) 1. of the Land Use Code. The project is not located within a watershed classified as an Urban Impaired Stream by the Maine DEP.

1.5 Previous Construction Activity (5 years)

Acorn Engineering, Inc. is not aware of any construction related activities within the project limits within the past 5 years.



1.6 Timber Harvesting

Acorn Engineering, Inc. is not aware of any timber harvesting within the past five years.



2.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

As part of the site development, the following temporary and permanent erosion and sedimentation control devices shall be implemented. Devices shall be installed as described in this report or within the plan set. See the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices for further reference.

2.1 Temporary Erosion Control Measures

The following temporary erosion and sedimentation control measures are planned for the project's construction period:

2.1.1 Crushed stone stabilized construction entrances shall be placed at all access points to the project site where there are disturbed areas. The following specifications shall be followed at a minimum:

- Stone size shall be 2-3 inches, or reclaimed or recycled concrete equivalent.
- The thickness of the entrance stone layer shall be no less than 6 inches.
- The entrance shall not be less than 20 feet wide, however not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.
- Geotextile fabric (woven or non-woven) shall be placed over the entire entrance area.
- The entrance/exit shall be maintained to the extent that it will prevent the tracking of sediment onto public road ways.

2.1.2 Siltation fence or erosion control berm shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The silt fence or erosion control berm shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam.

2.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.

2.1.4 At any time of the year, all slopes greater than 3:1 shall be stabilized with Double Net Erosion Control Blanket Bionet SC150BN by North American



Green or Approved Equal, or Erosion Control Mix Slope Protection as detailed within the plans.

- 2.1.5 St. John street shall be swept to control mud and dust from the construction site as necessary. Add additional stone to the stabilized construction entrance to minimize the tracking of material off the site and onto the surrounding roadways.
- 2.1.6 During demolition, clearing and grubbing operations, stone check dams shall be installed at any areas of concentrated flow. The maximum height of the check dam shall not exceed 2 feet. The center of the check dam shall be 6 inches below the outer edges of the dam. The contractor shall mulch the side slopes and install stone check dams for all newly excavated ditch lines within 24 hours of their creation.
- 2.1.7 Silt fence stake spacing shall not exceed 6 feet unless the fence is supported with 14-gauge wire in which case the maximum spacing shall not exceed 10 feet. The silt fence shall be “toed” into the ground.
- 2.1.8 Storm drain inlet protection shall be provided to storm drains using any of the following: hay bale drop inlet structures, silt fence drop inlet sediment filter, gravel and wire mesh drop inlet sediment filter, or curb inlet sediment filter. Barriers shall be inspected after every rainfall event and repaired as necessary. Sediments shall be removed when accumulation has reached $\frac{1}{2}$ the design height.
- 2.1.9 Dust control shall be accomplished using any of the following: water, calcium chloride, stone, or an approved MDEP product. Dust control shall be applied as needed to accomplish dust control.
- 2.1.10 Temporary loam, seed, and mulching shall be used in areas where no other erosion control measure is used. Application rates for seeding are provided at the end of this report.
- 2.1.11 Stockpiles shall be stabilized within 7 days of formation unless a scheduled rain event occurs prior to the 7-day window, in which case the stockpile shall be stabilized prior to the rain event. Methods of stabilization shall be mulch, erosion control mix, or erosion control blankets/mats. Silt fence or a wood waste compost filter berm shall be placed downhill of any soil stockpile location.
- 2.1.12 For disturbance between November 1 and April 15, please refer to winter stabilization plan in this report and the Maine Erosion and Sediment Control BMP manual for further information.
- 2.1.13 It is of the utmost importance that stormwater runoff and potential sediment from the construction site be diverted around the proposed underdrains until the trench is backfilled.



2.2 Permanent Erosion Control Measures

The following permanent erosion control measures are intended for post disturbance areas of the project.

2.2.1 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4" of loam, limed, and mulched. Erosion control blankets or mats shall be placed over the mulch in areas noted in paragraph 4.1 of this report.

2.2.2 All stormwater devices shall be installed and tributary areas stabilized prior receiving stormwater.

2.2.3 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.

3.0 EROSION AND SEDIMENTATION CONTROL PLAN

3.1 The Construction Management & Erosion Control Plan is included within the plan set.

4.0 DETAILS AND SPECIFICATIONS

4.1 Erosion & Sedimentation Control Details and Specifications are included in the plan set.

5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

Winter Construction consists of earthwork disturbance between the dates of November 1 and April 15. If a construction site is not stabilized with pavement, a road gravel base, 75% mature vegetation cover or riprap by November 15, then the site shall be protected with over-winter stabilization. Any area not stabilized with pavement, vegetation, mulching, erosion control mix, erosion control mats, riprap, or gravel base on a road shall be considered open.

The contractor shall limit the work area to areas that work will occur in during the subsequent 15 days and so that it can be mulched one day prior to a snow event. The contractor shall stabilize work areas prior to opening additional work areas to minimize areas without erosion control measures.

The following measures shall be implemented during winter construction periods:

5.1 Sediment Barriers

During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.



5.2 Mulching

All areas shall be considered to be denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

5.3 Soil Stockpiling

Stockpiles of soil or subsoil shall be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. This shall be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

5.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall not be required. During periods of above freezing temperatures finished areas shall be fine graded and either protected with mulch or temporarily seeded and mulched until the final treatment can be applied. If the date is after November 1st and if the exposed area has not been loamed, final grading with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 lbs./1,000 s.f. All areas seeded during the winter shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75% catch) shall be revegetated by replacing loam, seed and mulch. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.



5.5 Over winter stabilization of disturbed soils

By September 15th, all disturbed soils on areas having a slope less than 15% shall be seeded and mulched. If the disturbed areas are not stabilized by this date, then one of the following actions shall be taken to stabilize the soil for late fall and winter:

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.
- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.
- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. on the area so that no soil is visible through the mulch. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

5.6 Over winter stabilization of disturbed slopes

All stone-covered slopes shall be constructed and stabilized by November 15th. All slopes to be vegetated shall be seeded and mulched by September 1st. A slope is considered a grade greater than 15%. If a slope to be vegetated is not stabilized by September 1st, then one of the following action shall be taken to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.
- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. The contractor shall not use late-season sod installation to stabilize slopes having a grade greater than 3H:1V or having groundwater seeps on the slope face.



- Stabilize the soil with erosion control mix – Erosion control mix shall be properly installed by November 15th. The contractor shall not use erosion control mix to stabilize slopes having grades greater than 2H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with stone riprap – Place a layer of stone riprap on the slope by November 15th. A registered professional engineer shall be hired to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.

6.0 INSPECTION AND MAINTENANCE

A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct periodic visual inspections of installed erosion control measures. The frequency of inspection shall occur at least once every two weeks, as well as after a “storm event”. A “storm event” shall consist 0.5 inches of rain within a 24-hour period. The following Erosion and Sediment Control - Best Management Practices (BMP's) shall inspected in the manner as described.

6.1 Sediment Barriers

Hay bale barriers, silt fences and filter berms shall be inspected and repaired for the following if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits should be removed when deposits reach approximately one-half the height of the barrier. Filter berms should be reshaped as needed. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared and seeded.

6.2 Stabilized Stone Construction Entrances

The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way. When the control pad becomes ineffective, the stone shall be removed along with the collected soil material and redistributed on site in a stable manner. The entrance should then be reconstructed. The contractor shall sweep or wash pavement at exits, which have experienced mud-tracking on to the pavement or traveled way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches, or waterways.

6.3 Mulched Areas



All mulched areas must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Nets must be inspected after rain events for dislocation or failure. If washouts or breakage occur, re-install the nets as necessary after repairing damage to the slope. Where mulch is used in conjunction with ornamental plantings, inspect periodically throughout the year to determine if mulch is maintaining coverage of the soil surface. Repair as needed.

6.4 Dust Control

When temporary dust control measures are used, repetitive treatment shall be applied as needed to accomplish control.

6.5 Stormwater Appurtenances

All underdrains, storm drains, and catch basins need to be operating effectively and free of debris.

6.6 Erosion and Sedimentation Control Inspections:

Acorn Engineering has personnel qualified to conduct Erosion and Sedimentation Control Inspections. For further information, contact:

Contact: Will Savage, PE
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #11419
- Maine DEP - Certified in Maintenance & Inspection of Stormwater BMP's Cert #14
- Certified Erosion, Sediment and Storm Water Inspector (CESSWI) Cert #0293
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #4620

The Contractor has sole responsibility for complying with the Erosion and Sedimentation Report/Plan, including control of fugitive dust. The Contractor shall be responsible for any monetary penalties resulting from failure to comply with these standards.



7.0 IMPLEMENTATION SCHEDULE

The following implementation sequence is intended to maximize the effectiveness of the above described erosion control measures. Contractors should avoid overexposing disturbed areas and limit the amount of stabilization area.

1. Install a stabilized construction entrance in all locations where construction traffic will enter and exit the site.
2. Install perimeter silt fence or erosion control berm.
3. Install all other erosion control devices as necessary throughout the remainder of this schedule.
4. Commence installation of drainage infrastructure.
5. Prioritize the downhill side to contain runoff within the site while providing an engineered outlet to the municipal storm drain system within St. John Street.
6. Commence earthwork operations, associated with the parking lot construction.
7. Commence installation of utilities.
8. Continue earthwork and grading to subgrade as necessary for construction.
9. Complete installation of drainage infrastructure, as well as other utility work.
10. Complete remaining earthwork operations.
11. Install sub-base and base gravels in paved areas.
12. Install paving, curbing and brickwork.
13. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
14. Once the site is stabilized and mulching of landscape areas is complete, remove all temporary erosion control measures.
15. Touch up areas without a vigorous catch of grass with loam and seed.
16. Complete site signage and striping.
17. Execute proper maintenance of all temporary and permanent erosion control measures throughout the project.

The above implementation sequence should be generally followed by the site contractor. However, the contractor may construct several items simultaneously. The contractor shall submit to the owner a schedule of the completion of the work. If the contractor is to commence the construction of more than one item above, they shall limit the amount of exposed areas to those areas in which work is expected to be undertaken during the following 30 days.

The contractor shall re-vegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event. The contractor shall incorporate planned inlets and drainage systems as early as possible into the construction phase.

8.0 CONCLUSION

The above erosion control narrative is intended to minimize the development impact by implementing temporary and permanent erosion control measures. The contractor shall also refer to the Maine Erosion and Sediment Control BMP manual for additional information.



9.0 ATTACHMENTS

- Temporary Seeding Plan
- Permanent Seeding Plan
- Medium Intensity Web Soil Survey
- Summit Geoengineering Services Exploration Location Plan and Soil Boring Log



TEMPORARY SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P₂O₅-K₂O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of temporary seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.	Recommended Seeding Dates
Winter Rye	2.57	Aug-15 to Oct-1
Oats	1.84	Apr-1 to Jul-1 Aug-15 to Sep-15
Annual Ryegrass	0.92	Apr-1 to Jul-1
Sudangrass	0.92	May-15 to Aug-15
Perennial	0.92	Aug-15 to Sep-15

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to temporary seeding and mulching.



PERMANENT SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P₂O₅-K₂O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of permanent seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.
Kentucky Bluegrass	0.46
Creeping Red Fescue	0.46
Perennial Ryegrass	0.11
Total	1.03

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

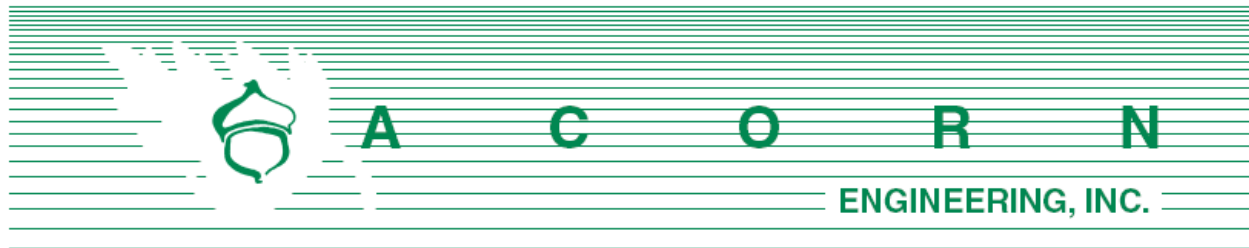
Recommendations

Permanent seeding is recommended to be completed in the spring. Later summer seeding is allowed if completed prior to September 1st. If seeding cannot be accomplished during the periods recommended for permanent seeding, then the contractor shall perform temporary seeding per the temporary seeding plan.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to permanent seeding and mulching.





Chief Keith Gautreau
 City of Portland Fire Department
 380 Congress St.
 Portland, ME 04101

July 9th, 2021

Subject: 392 St. John Street – Fire Department Checklist
 Section L of Application

On behalf of Alex Coupe, the design team is pleased to respond to the Portland Fire Department Site Review Checklist.

1. Name, address, telephone number of applicant

Alex Coupe
 Portland, Maine 04103
 (207) 838-4546

2. Name, address, telephone number of architect

Tracie Reed; Dextrous Creative
 Portland, Maine 04102
 (207) 409-0459

3. Proposed uses of any structures [NFPA and IBC classification]

NFPA: Residential / Apartment Building
 IBC Group: R-2

4. Square footage of all structures, including decks [total and per story]

Proposed Building		
Ground	2,480	sf
2 nd Floor	4,133	sf
3 rd Floor	4,133	sf
Basement	626	sf
Total	11,372	sf

5. Elevation of all structures

The proposed building height is 33.5' which is in accordance with the City of Portland requirements for residential buildings in the R-6 zoning district.



Please refer to the building elevations provided by the Architect for additional information.

6. Proposed fire protection of all structures

The proposed building will be serviced by a 6" sprinkler and 2" domestic service connection to the proposed development. These services will have an associated 6" gate valve and a 2" curb stop. Fire flows and requirements for system storage or booster pumping are subject to the fire professional design which will be performed prior the request for a building permit.

7. Hydrant locations

There are two existing hydrant locations within 310 ft of the proposed structure. The first is along St. John Street, approximately 310 ft Southeast and the other approximately 240 ft North West of the proposed site location. Hydrant flow data from the Portland Water District once received may be made available to the Fire Department upon request.

8. Water main size and location

The development will be serviced by the existing 12" cast-iron deep-water main located within St. John Street. A 6" sprinkler line and a 2" domestic line will serve the proposed development. The building is expected to have internal sprinkler risers and a Fire Department pump connection to St. John Street.

9. Access to all structures [min. 2 sides]

There are 2 proposed entrances to access to the structure. Access is provided directly through the frontage along St. John Street as well as through the proposed drive aisle.

10. A code summary, proved by the Architect, is included in this section.

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

- St. John Street: Approx. 36 feet

Per NFPA 1 – Chapter 18.2.3.3.1, there will be public street access within 50 feet of at least one exterior door. Per NFPA 1 – Chapter 18.2.3.2.2.1, all first story floors shall be located not more than 450 feet from a Fire Department access road.



The access aisle provides an unobstructed width of 21 feet which is not to impede on the parking structure or be adversely affected by any vertical clearance below 13 ft and 6 inches in accordance with NFPA 1 – Chapter 18.2.3.4.

City of Portland Technical Manual – Section 3 Public Safety

3.4.1 Every dead-end roadway more than one hundred fifty (150') feet in length shall provide a turnaround at the closed end. Turnarounds shall be designed to facilitate future street connectivity and shall always be designed to the right (refer to Figure I-5).

Response: The access roadway to site does not exceed 150 ft therefore provisions for the fire apparatus to turn around is not necessary.

3.4.2 Where possible, developments shall provide access for Fire Department vehicles to at least two sides of all structures. Access may be from streets, access roads, emergency access lanes, or parking areas.

Response: As depicted on the site plan, the proposed building layout provides a minimum of two paved access points to the structure: from St. John Street directly and another from the driveway.

3.4.3 Building setbacks, where required by zoning, shall be adequate to allow for emergency vehicle access and related emergency response activities and shall be evaluated based on the following factors:

- *Building Height.*
- *Building Occupancy.*
- *Construction Type.*
- *Impediments to the Structures.*
- *Safety Features Provided.*

Response: The proposed development layout has contemplated emergency access conditions and provides for safe and efficient access along the public street for emergency vehicles.

3.4.4. Fire Dept. access roads shall extend to within 50' of an exterior door providing access to the interior of the structure.

Response: The building will be provided with exterior doors that will be within 50' of a Fire Department access route.

3.4.5. Site access shall provide a minimum of nine (9) feet clearance height to accommodate ambulance access.

Response: The proposed site maintains the required clearance height of nine feet in all cases.



3.4.6. Elevators shall be sized to accommodate an 80 x 24-inch stretcher.

Response: There are no proposed elevators for this development, therefore elevator sizing is not applicable.

3.4.7. All structures are required to display the assigned street number. Numbers shall be clearly visible from the public right of way.

Response: The applicant will work with the City's Public Works Division to assign street addresses and numbering to meet City Standards.

Thank you for your review. Please let me know if you have any additional questions or comments.

Sincerely,



Sam Lebel, P.E.
Project Manager
Acorn Engineering, Inc.



Code Review
392 St. John Street



Project Description

Three-story, ten-unit apartment building in Portland's R-6 zone. The sprinklered and monitored building of light-frame construction will be Fair Housing Compliant.

Applicable Codes/Regulations

- Portland Zoning and Engineering Technical Standards (see Civil)
- MUBEC
 - IBC 2015
 - IECC 2015
 - NFPA-101 2018
 - NFPA 1
- Fair Housing

IBC 2015

- Construction Type: 5B (unprotected wood frame)
- Occupancy Classification: R-2
- Allowable Stories: 3 (504.4)
- Allowable Area: 21,000 SF (506.2)
- Single-means Egress: W/Rescue opening in bedroom (1006.3.2(1))
- Corridor width: 36" for occupant load under 50 persons (1011.2)
- Handrails: 34-38" AFF (1014.2)
- Guardrails: 42" AFF (1015.3)
- Shaft Enclosures: 60 min (712.1.3.1)
- Acoustical Sep. BTW units: 50+ STC rating (1207.2-3)
- Site Arrival Point: Accessible from public street and passenger loading area (1104.1)
- ADA Parking Location: Where covered parking is provided accessible spaces must be within/beneath the building (1106.2.4)
- Vertical Clearance: In R-2 occupancies vehicular entrance min. ver. Clearance = 7'-0" (1106.5)
- 60% of exterior doors/routes accessible:
- 'Type B' accessible units: In structures with four+ units all dwelling unit shall be Type B, except as reduced by 1106.7.7 (1106.5.1.2)
- Min. 1-story accessible: Min. 1-story with Type B units required. (1107.1.1)
- Structures w/out elevators: Where no elevator is provided, only dwelling units located on stories indicated in 1107.1.1-1107.1.1.2 are required to be Type A or B units (1107.7.1)

IEBC 2015

- Climate: Zone 6 (R301.1)
- Wall Insulation Value: 20+5 or 13+10. R-20 in wall + R-5 continuous (R402.1.2)
- Roof Insulation Value: R-49 (R402.1.2)
- Basement Wall: R-15/19 (R402.1.2)
- Slab: R-10 to 4'-0" below grade (R-402.1.2)

- Floor Wall: R-30 (R402.1.2)
- Fenestration: U: 0.32, SHGC: NR (R402.1.2)

NFPA 101-2018 (Chapter 30)

- Exit Enclosures: 1-hr rating (30.2.2.1.2)
- Number of exits: Single-exit permitted for building under 4 stories with 4 or less units per story, travel distance from entrance door to exit does not exceed 35'-0", self-closing doors are provided (30.2.4.6)
- Travel w/in a unit to exit: Shall not exceed 75'-0" (30.2.6.2)
- Emergency lighting: Provided in buildings over 4-stories and 12 units. (30.2.9)
- Unit door rating: 1-hour (30.3.1.1.4)
- Fire Alarm: Required in buildings w/4 or more stories, or more than 11 units (30.3.4.1.1)
- Carbon monoxide alarms: Outside each dwelling unit sleeping area, on each level of a dwelling unit (30.3.5.6.2)
- Sprinklers: A supervised automatic sprinkler system is required in all buildings (30.3.4.1).

M. Wastewater Capacity

The proposed project includes a three story 9-unit residential building with ground floor business space to be constructed. Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules, the project anticipates the following daily flows:

Estimate of Anticipated Daily Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
Multifamily	2-Bedroom	2	180	360
Multifamily	1-Bedroom	2	120	240
Total Gallons per Day (Existing)				600 GPD
Proposed Flow				
Multifamily	2-Bedroom	9	180	1,620
Multifamily	2-Bedroom	2	180	360
Multifamily	1-Bedroom	2	120	240
Business	2-Employee	1	24	24
Total Gallons per Day (Proposed)				2,244 GPD
Net Change				+1,644 GPD
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				

As seen above, the project anticipates an increase in daily flow rate of approximately 1,644 gallons. Please see attached for the formal application template.



N. Lighting

See cut sheets attached for the proposed project located at 392 St John Street. Please refer to Sheet C-10 for preliminary lighting plan.

**Job Name:**

128R NORTH STREET
Distributor: SWANEY LIGHTING
(SCARBOROUGH)

Catalog Number:

TRV-D/24L-27/3K7/4/UNV/**

Type:**WP****Notes:**

SLA19-42917

TRAVERSE SERIES

SURFACE/CEILING/GARAGE

Cat.#

Job

Type

Approvals


BEACON
design - performance - technology
SPECIFICATIONS**Intended Use:**

The Traverse luminaire is a wall surface mounted luminaire with a field replaceable LED light engine & optical bezel system. Internal components are totally enclosed in rain-tight and corrosion-resistant die cast aluminum housing. The TRV Luminaire is suitable for wet locations when ordered as a downlight.

Construction:

- Traverse luminaire consists of a die cast aluminum two-piece housing.
- Die cast main (thermal) housing provides direct heat exchange between the LED light engine and the cool outdoor.
- LED drivers are thermally isolated from the main housing, mechanically attached and heat sunk to the rear housing.
- Shape of the main housing is designed to prevent debris accumulation and as a bird nesting deterrent. The back and main housings are designed to hinge open for easy mounting and easy access.

LED/Optics:

- Optical one piece cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel.
- Cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system.
- A die cut silicone foam gasket ensures a weather-proof seal around each individual LED.
- Optics are held in place without the use of adhesives.
- Cartridge assembly is available in various lighting distributions using TIR designed acrylic optical lenses over each LED.

Electrical:

- 100V through 277V, 50 Hz to 60 Hz (UNV, 347/480V).
- Dimming drivers are standard, but must contact factory to request wiring leads for purpose of external dimming controls.
- Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is certified by UL for use at 600 VAC at 50°C or higher.
- Plug disconnects are certified by UL for use at 600 VAC, 13A or higher. 13A rating applies to primary (AC) side only.
- Surge protection - 20kA

Controls/Options:

- Traverse is available with an optional passive infrared (PIR) motion sensor capable of detecting motion 360° around the luminaire. When no motion is detected for the specified time, the Motion Response system reduces the wattage down to a factory preset level, reducing light level accordingly. When motion is detected, the luminaire returns to full wattage and full light output. Please contact Beacon Products if project requirements vary from the standard configurations.
- Available with Energeni for optional set dimming, timed dimming with simple delay, or timed dimming based on time of night (see Energeni product page for more details www.beaconproducts.com/products/energeni).

- In addition, Traverse can be specified with SiteSync™ wireless control system for reduction in energy and maintenance cost while optimizing light quality 24/7. See ordering information or visit for more details: www.hubbellautomation.com/products/sitesync/

Installation:

- Rear housing (back plate) is designed with various bolt patterns for direct wall mounting or mounting to a recessed junction box.
- Rear housing has three integral 3/4" NPT power feed locations (bottom and each side) for surface mounted conduit applications.
- After mounting the rear housing to the wall or junction box, the main housing is designed to attach and hinge closed after connecting the male and female quick connectors.
- Mounting design permits a simple retrofit to existing wall luminaires that utilize or recessed junction boxes.

Finish:

- IFS polyester powder-coat electrostatically applied and thermocured.
- IFS finish consists of a five stage iron phosphate chemical pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish.
- The finish meets the AAMA 2604 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds.

Listings:

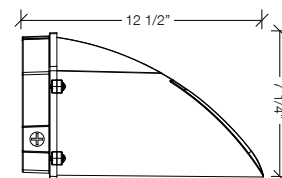
- The luminaire shall bear a CSA label and be marked suitable for wet locations (standard).
- This product is approved by the Florida Fish and Wildlife Conservation Commission. Separate spec available at: <http://www.beaconproducts.com/products/traverse>

Warranty:

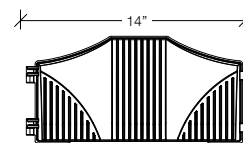
Five year limited warranty for more information visit: www.hubbellighting.com/resources/warranty

PRODUCT IMAGE(S)

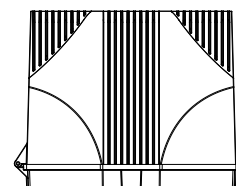
Shown with SiteSync™

DIMENSIONS

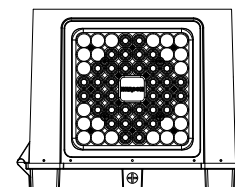
Side View



Front View



Top View



Bottom View

CERTIFICATIONS/LISTINGS

*3000K and warmer CCTs only



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Submitted by Swaney Lighting	Job Name: 128R NORTH STREET Distributor: SWANEY LIGHTING (SCARBOROUGH)	Catalog Number: TRV-D/24L-27/3K7/4/UNV/**	Type: WP
		Notes:	SLA19-42917

ORDERING INFORMATION ORDERING EXAMPLE: TRV-D/60L-136/5K7/5R/UNV/GENIXX/PEC-208/BL

SERIES	ENGINE-WATTS	CCT/CRI ¹¹	OPTICS	CONTROL OPTIONS	FINISH
TRV-D Traverse Down Light	24L-27 27 Watts - LED array	3K7 3000K, 70 CRI	2 Type II	GENI-XX ⁶ Energeni	BL Black textured
TRV-U ¹ Traverse Up Light (lens req.)	24L-55 55 Watts - LED array	4K7 4000K, 70 CRI	3 Type III	SWP ^{7,8} SiteSync Wireless Pre-Commission	DB Dark bronze
	36L-80 80 Watts - LED array	5K7 5000K, 70 CRI	4 Type IV	SWPM ^{7,9} SiteSync Wireless Pre-Commission w/ Occupancy Sensor	GYS Light gray smooth
	48L-110 110 Watts - LED array		5R Type V, rectangular		PS Platinum silver
	60L-136 136 Watts - LED array		2X2 Narrow spot flood		WH White textured
			5X5 Medium flood		Specify standard finish
					ELECTRICAL OPTIONS
					PEC-120 photocell, button 120V
					PEC-208 photocell, button 208V
					PEC-240 photocell, button 240V
					PEC-277 photocell, button 277V
					2PF ^{2,3,10} Dual power feed
					BPC ⁴ Cold weather battery pack
					SENSOR OPTIONS
					MOB ^{3,5,7,9} Occupancy Sensor (33% or 50% dimming)
					VOLTAGE
					UNV 120-277V
					347 347V
					480 480V

¹ Indoor use only

² Not available on 24L-27

³ Not available @ 347V or 480V input

⁴ 36L-80 only, not available with SWP or SWPM control options

⁵ Not available on 48L-110 or 60L-136

⁶ When ordering Energeni, specify the routine setting code (example GENI-04). See Energeni brochure and instructions for setting table and options. Not available with sensor options.

⁷ Not available with other control or sensor options. PEC is available with MOB.

⁸ Specify group and zone. See SiteSync product page www.hubbell-lighting.com/products/sitesync/ for more details.

⁹ Specify time delay; dimming level and mounting height.

¹⁰ Not available with SWP or SWPM control options.

¹¹ This product is approved by the Florida Fish and Wildlife Conservation Commission. Separate spec available at: http://cdn.beaconproducts.com/content/products/specs/specs_files/Traverse_LED_turtle_spec_sheet.pdf

PRECOMMISSIONED SITESYNC ORDERING INFORMATION: When ordering a fixture with the SiteSync lighting control option, additional information will be required to complete the order. The SiteSync Commissioning Form or alternate schedule information must be completed. This form includes Project location, Group information, and Operating schedules. For more detailed information please visit www.hubbell-lighting.com/products/sitesync/ or contact Hubbell Lighting tech support at (800) 345-4928.

SiteSync fixtures with occupancy sensor (SWPM) require the mounting height of the fixture for selection of the lens.

Examples: TRV/24L-55/5K7/3/UNV/SWP/BL
TRV/24L-55/5K7/3/UNV/SWPM-20F/BL

SiteSync only
SiteSync with Occupancy Sensor

MOB ORDERING INFORMATION: When ordering a fixture with a dimming occupancy sensor option (MOB), please specify the appropriate information. These settings are specified in the ordering as shown in the example below.

TRV/24L-55/5K7/3/UNV/MOB - 1 to 30 min. - 33% or 50% - ?? / BL

High to Dim Delay Low Level Mounting Height (ft.)

Accessories and Services (Ordered Separately)

Catalog Number	Description
SWUSB*	SiteSync loaded on USB flash drive (Windows based only)
SWTAB*	SiteSync Windows Tablet
SWBRG*	SiteSync Wireless Bridge Node

*When ordering with SiteSync, one of the following interface options must be chosen and ordered separately. Each option contains the SiteSync License, GUI and Bridge Node.

+ If needed, an additional Bridge Node can be ordered.



SiteSync Lighting Control is available from our most popular brands in a broad range of award-winning product families.



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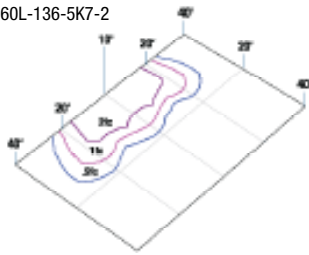
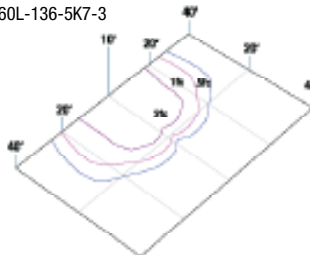
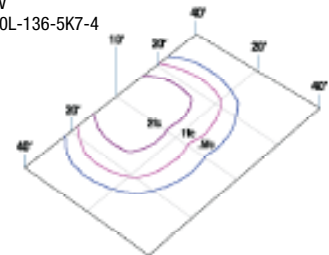
**Job Name:**128R NORTH STREET
Distributor: SWANEY LIGHTING
(SCARBOROUGH)**Catalog Number:**

TRV-D/24L-27/3K7/4/UNV/**

Notes:

Type:**WP**

SLA19-42917

PHOTOMETRICSType II
TRV-60L-136-5K7-2Type III
TRV-60L-136-5K7-3Type IV
TRV-60L-136-5K7-4**PERFORMANCE DATA**

# LED'S	DRIVE CURRENT	SYSTEM WATTS 120-277V	DISTRIBUTION TYPE	5K (5000K nominal, 67 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 80 CRI)				
				LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G
24	700mA	27W	2	3746	139	1	0	1	3783	142	1	0	1	3413	126	1	0	1
			3	3723	138	1	0	1	3760	141	1	0	1	3392	126	1	0	1
			4	3753	139	0	0	1	3791	142	0	0	1	2850	106	0	0	1
			4W	3689	137	1	0	1	3726	140	1	0	1	3360	124	1	0	1
			5R	3809	141	2	0	1	3847	144	2	0	2	3470	129	2	0	1
			5X5	3815	141	N/A	N/A	N/A	3854	144	N/A	N/A	N/A	3476	129	N/A	N/A	N/A
			2X2	4086	151	N/A	N/A	N/A	4127	155	N/A	N/A	N/A	3723	138	N/A	N/A	N/A
24	700mA	55W	2	6243	108	1	0	1	6306	109	1	0	2	5688	98	1	0	1
			3	6204	107	1	0	2	6267	108	1	0	2	5653	98	1	0	2
			4	6273	108	3	0	1	6336	109	3	0	1	5715	99	3	0	1
			4W	6148	106	1	0	2	6210	107	1	0	2	6501	97	1	0	2
			5R	6348	110	3	0	1	6412	111	3	0	1	5784	100	3	0	1
			5X5	6359	110	N/A	N/A	N/A	6423	111	N/A	N/A	N/A	5793	100	N/A	N/A	N/A
			2X2	6810	118	N/A	N/A	N/A	6879	119	N/A	N/A	N/A	6205	107	N/A	N/A	N/A
36	700mA	80W	2	9364	110	1	0	2	9458	111	1	0	2	8531	100	1	0	2
			3	9307	109	1	0	2	9401	110	1	0	3	8480	99	1	0	2
			4	9409	110	3	0	2	9504	111	3	0	2	8573	100	3	0	2
			4W	9221	108	1	0	2	9315	109	1	0	2	8402	98	1	0	2
			5R	9522	111	3	0	2	9618	113	3	0	2	8676	102	3	0	1
			5X5	9538	112	N/A	N/A	N/A	9635	113	N/A	N/A	N/A	8690	102	N/A	N/A	N/A
			2X2	10215	120	N/A	N/A	N/A	10319	121	N/A	N/A	N/A	9308	109	N/A	N/A	N/A
48	700mA	110W	2	12485	114	2	0	2	12611	115	2	0	2	11375	104	2	0	2
			3	12409	113	1	0	3	12534	114	1	0	3	11306	103	1	0	3
			4	12546	114	4	0	2	12672	116	4	0	2	11430	104	4	0	2
			4W	12295	112	2	0	3	12419	113	2	0	3	11202	102	1	0	3
			5R	12696	116	4	0	2	12824	117	4	0	2	11568	105	3	0	2
			5X5	12717	116	N/A	N/A	N/A	12846	117	N/A	N/A	N/A	11587	106	N/A	N/A	N/A
			2X2	13620	124	N/A	N/A	N/A	13758	125	N/A	N/A	N/A	12410	113	N/A	N/A	N/A
60	700mA	136W	2	15606	114	2	0	2	15764	116	2	0	2	14219	104	2	0	2
			3	15511	114	2	0	3	15668	115	2	0	3	14133	104	2	0	3
			4	15682	115	4	0	2	15840	116	4	0	2	14288	105	4	0	2
			4W	15369	113	2	0	3	15524	114	2	0	3	14003	103	2	0	3
			5R	15870	116	4	0	2	16030	117	4	0	2	14459	106	4	0	2
			5X5	15897	116	N/A	N/A	N/A	16058	118	N/A	N/A	N/A	14484	106	N/A	N/A	N/A
			2X2	17026	125	N/A	N/A	N/A	17198	126	N/A	N/A	N/A	15512	114	N/A	N/A	N/A

¹Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.

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**Job Name:**

128R NORTH STREET
Distributor: SWANEY LIGHTING
(SCARBOROUGH)

Catalog Number:

TRV-D/24L-27/3K7/4/UNV/**

Notes:

Type:**WP**

SLA19-42917

PROJECTED LUMEN MAINTENANCE

AMBIENT TEMP.	0	25,000	50,000	TM-21-11 60,000	100,000	Calculated L70 (HOURS)
25°C / 77°F	1.00	0.97	0.96	0.95	0.93	>560,000

¹ Projected per IESNA TM-21-11

Data references the extrapolated performance projections for the base model in a 40°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	OPER. CURRENT (Amps)	SYSTEM POWER (Watts)
24	1	(350mA)	120	0.27	27.0
			277	0.12	
24	2	(700mA)	120	0.55	55.0
			277	0.24	
36	1	(700mA)	120	0.80	80.0
			277	0.35	
48	1	(700mA)	120	1.10	110.0
			277	0.48	
60	1	(700mA)	120	1.36	136.0
			277	0.59	

AMBIENT TEMPERATURE		LUMEN MULTIPLIER
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	1.00
40°C	104°F	0.99
50°C	122°F	0.98

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).



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**Job Name:**128R NORTH STREET
Distributor: SWANEY LIGHTING
(SCARBOROUGH)**Catalog Number:**

CY1-15-4K7-1-WG-UNV-**-R-FPP

Type:

CY

Notes:

SLA19-42917

Cypher™ – CY1 Accent Scale

TYPE

FEATURES

- Integral Battery Backup Option
- 360° Light Distribution
- RGBW or Static White Luminous Front Option
- IES Type I, II, III & IV Distributions
- Wall Graze, Spot and Pencil Distributions
- Multiple Fascia Options and Finishes
- 0-10V dimming
- IP-66 Housing & Optical System
- 120-277V
- 3000K, 4000K & 5000K CCT
- 10kA Surge Protection
- Fascia Forms F, E and T are ADA compliant for use in low mounting height applications (80 inches or less)
- IDA approved, downlight only, 3000K and warmer CCTs



Downlight only, 3000K and warmer CCTs

**ORDERING CODE**

1	2	3	4	5	6	7	8	9	10	11	12
Series-Output	CCT/CRI	Model	Main Distribution	Secondary Distribution	Voltage	Housing Finish	Fascia Form	Luminous Front	Fascia Panel	Control Options	Options

SERIES-OUTPUT (Base)

CY1-15	15w, 1500 nominal lumens
CY1-25	25w, 2500 nominal lumens

CCT-CRI

27K8	2700K, 80CRI
3K7	3000K, 70CRI
3K8	3000K, 80CRI
4K7	4000K, 70CRI
4K8	4000K, 80CRI
5K7	5000K, 70CRI

MODEL (Light Engine)

1	DownLight Only
2	50/50 Down/Up, Down/Up distributions must match
3	90/10 Down/Up
4	25/25/25/25 Split, Down/Up/Side distributions must match
5	70/10/10/10 Split, Top/Side distributions must match

Contact factory for custom distributions,
See Distribution Matrix on page 2 for restrictions.

MAIN DISTRIBUTION (Down)

1	IES Type I
2	IES Type II
3	IES Type III
4	IES Type IV
SP	15° Spot/Column
WG	60° Wall Graze
1D	Type 1 Diffused
2D	Type 2 Diffused
3D	Type 3 Diffused
4D	Type 4 Diffused

SECONDARY DISTRIBUTION (Up, Sides)

1	IES Type I
2	IES Type II
3	IES Type III
4	IES Type IV
SP	15° Spot/Column
WG	60° Wall Graze
PB*	Pencil Beam
1D	Type 1 Diffused
2D	Type 2 Diffused
3D	Type 3 Diffused
4D	Type 4 Diffused

* PB distribution is available for 90/10 and 70/10/10/10 models only. Not all combinations are recommended.
See Distribution Matrix on page 2 for restrictions.

VOLTAGE

UNV	120-277V
-----	----------

BASE HOUSING FINISH**Standard Colors**

AGN	Antique Green
BL	Black
BLT	Matte Black
CRT	Corten
DB	Dark Bronze
DGN	Dark Green
GT	Graphite
LG	Light Grey
MAL	Matte Aluminum
MDB	Metallic Bronze
MG	Medium Grey
TT	Titanium
VBU	Verde Blue
WDB	Weathered Bronze
WH	Arctic White

Specify standard finish**Premium Colors**

SFM	Seafoam
SHK	Shamrock
SPP	Salt and Pepper
WCP	Weathered Copper
RAL	Provide a RAL 4 digit color number
CUSTOM COLOR	Please provide color chip for matching

FASCIA FORM

F	Flat
R	Radius/Curved
T	Triangle/Wedge
E	Rounded Edge
C	Circle/Curved
CB	Cylinder Balanced
CT	Cylinder Tall
CBM	Custom Building Material Mount Ghost Fascia

LUMINOUS FRONT

BLANK	Standard None
RGBW	RGBW Luminous Front
LFSW	Static White Luminous Front

RGBW and LFSW luminous fronts are only available with open, four square and perforated fascia panels

FASCIA PANEL

FPP	Full Panel Painted
FPS	Full Panel Stainless Steel
FPC	Full Panel Copper
OPP	Open Panel Painted
OPS	Open Panel Stainless Steel
OPC	Open Panel Copper
4PP	4-Square Panel Painted
4PS	4-Square Panel Stainless Steel
4PC	4-Square Panel Copper
PPP	Perforated Panel Painted
PPS	Perforated Panel Stainless Steel
PPC	Perforated Panel Copper

Flat and Radius Fascia forms only. Painted panels by default match base housing finish/color. Consult factory for custom panel finishes.

CONTROL OPTIONS

PCU	Universal Button Photocell (120-277V)
-----	---------------------------------------

OPTIONS

EM	Battery Backup Unit -20°C
SF	Single Fuse (120, 277)
DF	Double Fuse (208, 240)

Battery Backup not available with Triangle and Rounded Edge Fascia Forms.



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JOB

TYPE

NOTES

| 1 |

**Job Name:**128R NORTH STREET
Distributor: SWANEY LIGHTING
(SCARBOROUGH)**Catalog Number:**

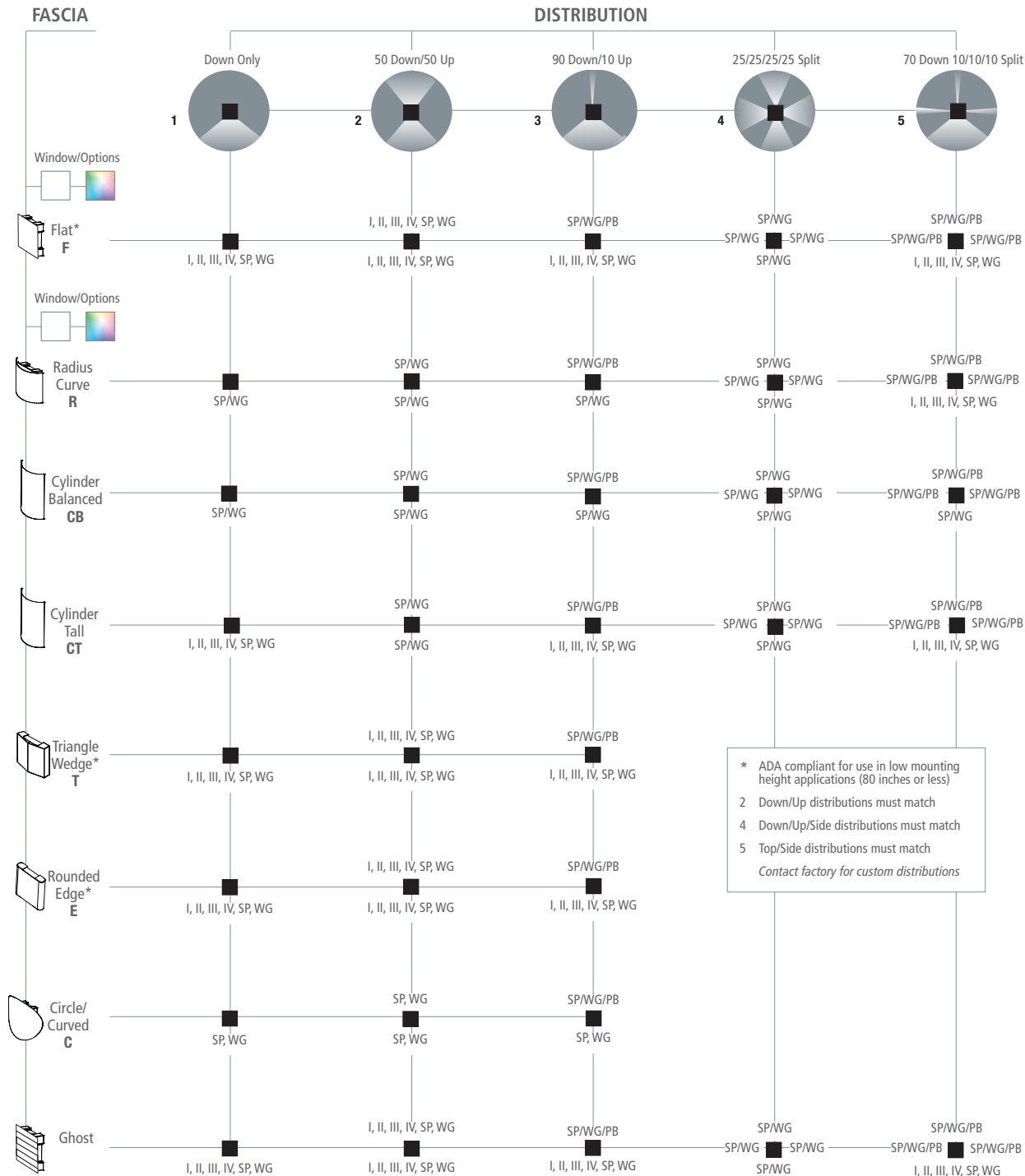
CY1-15-4K7-1-WG-UNV-**-R-FPP

Notes:**Type:****CY**

SLA19-42917

Cypher™ – CY1 Accent Scale

TYPE

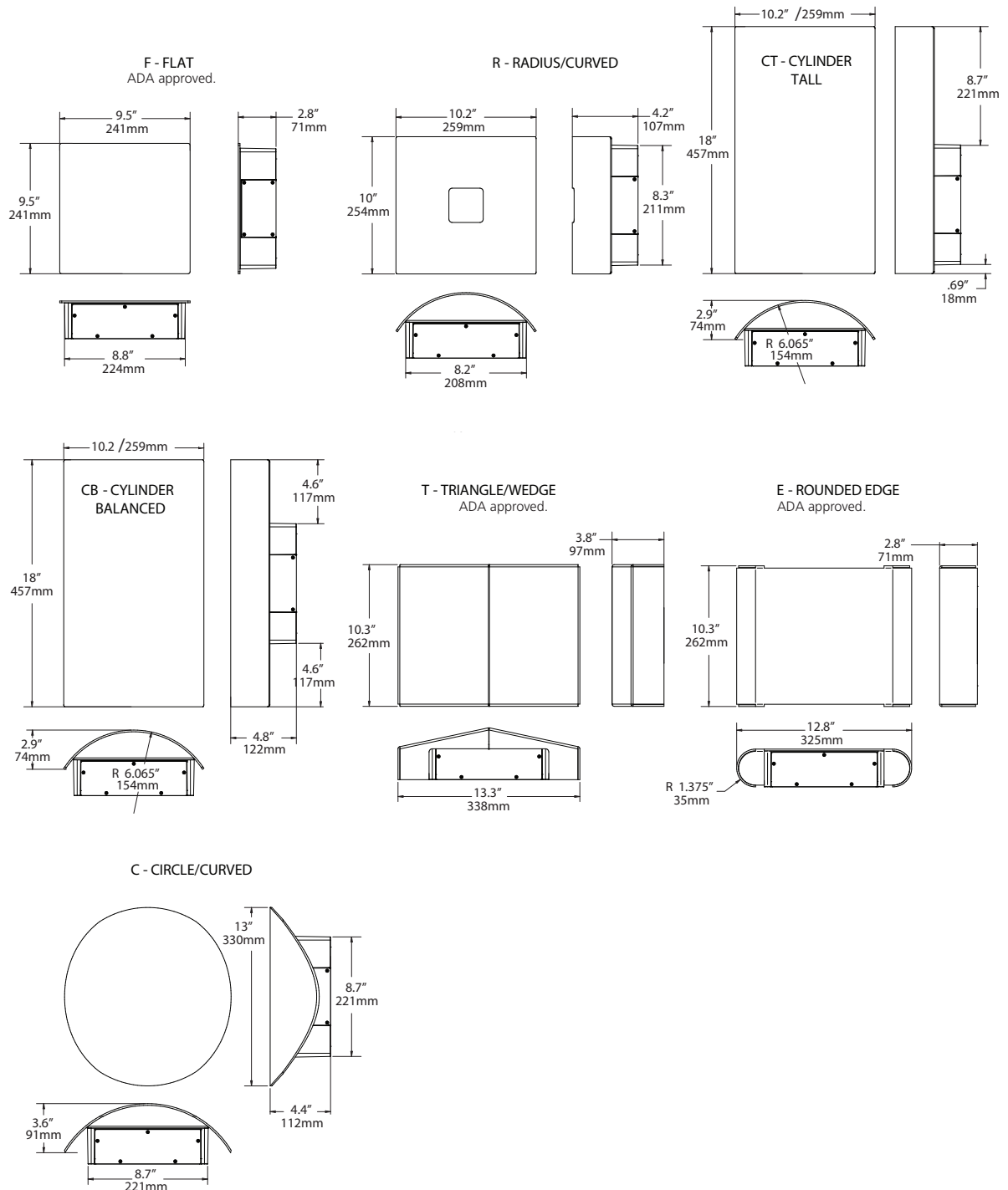
Distribution MatrixARCHITECTURAL AREA LIGHTING
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Copyright © 2017 | September 7, 2018 11:56 AMJOB _____
TYPE _____
NOTES _____

| 2 |

Cypher™ – CY1 Accent Scale

TYPE

Drawings



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JOB _____
 TYPE _____
 NOTES _____

| 3 |



Job Name:
128R NORTH STREET
Distributor: SWANEY LIGHTING
(SCARBOROUGH)

Catalog Number:
CY1-15-4K7-1-WG-UNV-**-R-FPP

Notes:

Type:

CY

SLA19-42917

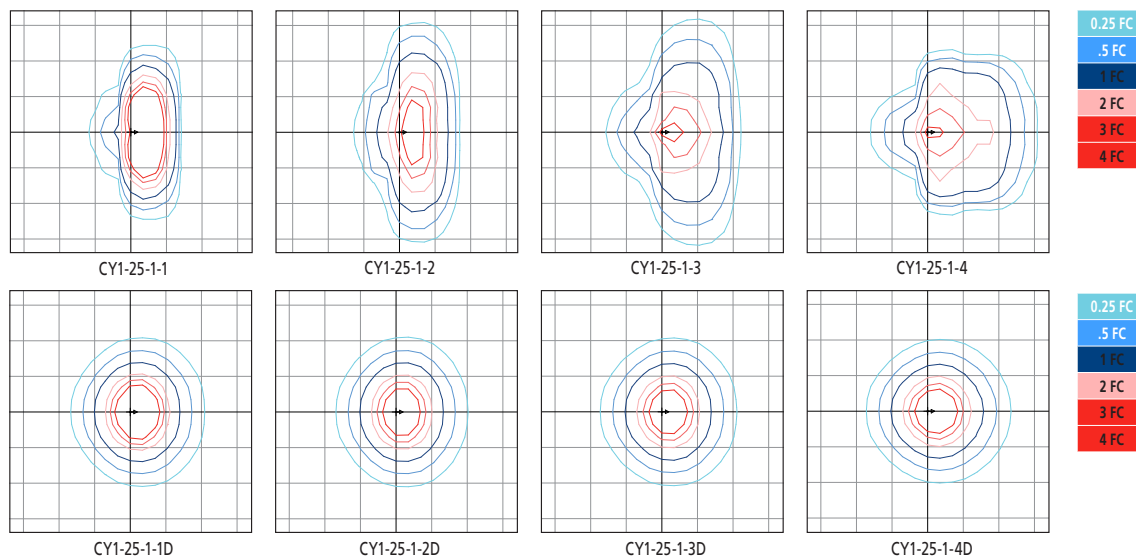
Cypher™ – CY1 Accent Scale

TYPE

LUMINAIRE PERFORMANCE

Downlight only			Configuration																	
Nominal Output (Lm)	Average System Wattage	Distribution	Bright White (5000K)						Neutral White (4000K)						Warm White (3000K)					
			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating					
					B	U	G			B	U	G			B	U	G			
			5000K 70 CRI						4000K 70 CRI						3000K 70 CRI					
1,500	17	Type 1	1923	113	0	0	0	1928	113	0	0	0	1825	107	0	0	0			
		Type 2	1726	102	0	0	0	1730	102	0	0	0	1638	96	0	0	0			
		Type 3	1750	100	0	0	1	1755	103	0	0	1	1661	98	0	0	1			
		Type 4	1757	103	0	0	0	1762	104	0	0	0	1668	98	0	0	0			
		Wall Graze	1971	114	1	0	0	1976	116	1	0	0	1871	110	1	0	0			
		Spot/Column	1792	103	2	0	0	1797	106	2	0	0	1701	100	2	0	0			
		Type 1 Diffused	1629	96	1	0	0	1634	96	1	0	0	1547	91	1	0	0			
		Type 2 Diffused	1573	93	1	0	1	1577	93	1	0	0	1493	88	1	0	0			
		Type 3 Diffused	1425	84	1	0	0	1429	84	1	0	0	1353	80	1	0	0			
		Type 4 Diffused	1602	94	1	0	1	1607	95	1	0	0	1521	89	1	0	0			
			5000K 70 CRI						4000K 70 CRI						3000K 70 CRI					
2,500	26	Type 1	2517	96	0	0	0	2524	97	0	0	0	2390	92	0	0	0			
		Type 2	2233	85	1	0	1	2239	86	1	0	1	2120	82	1	0	1			
		Type 3	2229	85	1	0	1	2236	85	1	0	1	2117	80	1	0	1			
		Type 4	2319	88	1	0	1	2325	89	1	0	1	2201	85	1	0	1			
		Wall Graze	2744	104	2	0	0	2752	106	2	0	0	2605	100	2	0	0			
		Spot/Column	2471	94	2	0	0	2478	95	2	0	0	2346	90	2	0	0			
		Type 1 Diffused	2344	89	1	0	1	2350	90	1	0	1	2225	86	1	0	1			
		Type 2 Diffused	2062	79	1	0	1	2068	80	1	0	1	1958	75	1	0	1			
		Type 3 Diffused	2050	78	1	0	1	2056	79	1	0	1	1946	75	1	0	1			
		Type 4 Diffused	2123	80	1	0	1	2129	82	1	0	1	2016	78	1	0	1			

ISOLINE TEMPLATES 10' Mounting Height, 10' Grid Spacing



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JOB _____
TYPE _____
NOTES _____

| 4 |

**Job Name:**

128R NORTH STREET
Distributor: SWANEY LIGHTING
(SCARBOROUGH)

Catalog Number:

CY1-15-4K7-1-WG-UNV-**-R-FPP

Notes:

Type:**CY**

SLA19-42917

Cypher™ – CY1 Accent Scale

TYPE

ELECTRICAL CHARACTERISTICS

Lumen Package	System Wattage (W)	Line Voltage		Input				Min. Power Factor	Max THD (%)	Dimming Range	Source/Sink Current (mA)		Absolute voltage range on 0-10v (+) Purple	
		VAC	Hz	120	277	347	480				Min.	Max.	Min.	Max.
1,500	17	120	50/60	0.1	0.1	0.0	0.0	>0.9	20	10% to 100%	0 mA	1 mA	0V	10V
2,500	26			0.2	0.1	0.1	0.1							

TM-21 LIFETIME CALCULATION (500mA)

Lumen Package	Ambient Environment °C	Projected Lumen Maintenance (Khrs)						Reported L70
		15	25	50	60 (TM-21)	100		
2,500	25	98%	97%	94%	92%	87%		>60Khrs.
	40	95%	93%	89%	87%	80%		



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JOB _____
TYPE _____
NOTES _____

| 5 |

Submitted by Swaney Lighting	Job Name: 128R NORTH STREET Distributor: SWANEY LIGHTING (SCARBOROUGH)	Catalog Number: CY1-15-4K7-1-WG-UNV-**-R-FPP	Type: CY SLA19-42917
------------------------------	--	--	---

Cypher™ – CY1 Accent Scale

TYPE

SPECIFICATIONS

HOUSING

- Main housing shroud shall be of fabricated 5052-H32 aluminum alloy
- Housing mounting interface shall have a stamped silicone gasket.
- Luminaire housing shall be free of any visible heat fins, hardware or fasteners.
- Bracketry and hardware shall be stainless steel.

OPTICAL ARRAY

- LEDs shall be mounted to a metal printed circuit board assembly (MCPCB) with a uniform conformal coating over the panel surface and electrical features.
- Optical lenses shall be clear injection molded PMMA acrylic.
- Optical array shall be recessed in order to shield each LED optic across the length of the aperture.
- Optical array shall be sealed for IP66 rating.
- Secondary lens is impact resistant 5/32" tempered glass.

ELECTRICAL

- Drivers shall be in direct contact with the die-cast aluminum housing across the entire surface area of the widest face for maximum thermal transfer.
- "Thermal Shield", primary side, thermister provides protection for the sustainable life of LED module and electronic components.
- Drivers shall have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments
- Luminaires shall have integral surge protection that shall be U.L. recognized and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J. Surge protection device shall be wired in series.
- Drivers shall be U.L. recognized.
- Drivers shall not be compatible with current sourcing dimmers, consult factory for current list of known compatible dimming systems approved dimmers include Lutron Diva AVTV, Lutron Nova NDTV and NTFTV.
- Integral battery backup provides emergency path of egress lighting for the required 90 minutes for -20°C ambient environments.

SPECIFICATIONS

- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array shall have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C.
- Luminaires not configured with a control system shall be provided with 0-10 purple and gray dimming leads.



CONTROLS

- Button photocontrol for dusk to dawn energy savings
- PC12 for 120V, PC20 for 208V, PC24 for 240V, PC27 for 277V
- Photocell is factory installed inside the housing with a fully gasketed sensor on the side wall. For multiple fixture mountings, one fixture is supplied with a photocell to operate the others.

BLUETOOTH®

- RGBW option includes integral Bluetooth module, built into driver, that permits the adjustment of luminous front color when paired with Hubbell Remote App via cellular/tablet device.
- Bluetooth Low Energy (BLE) or Bluetooth Smart compatible for both iOS (iOS8 and forward) and Android (Gingerbread and forward) handheld software applications. Compatible with phones and tablets.
- Free Bluetooth Apps are available for Apple iOS and Google Android mobile devices and are downloadable via the internet at Apple App Store or Google Play.

MOUNTING AND INSTALLATION

- JUNCTION BOX: Standard with zinc-plated, quick-mount junction box plate that mounts directly to 4" J-Box
- Mounting plate features a one-piece EPDM gasket on back side of plate to firmly seal fixture to wall surface, forbidding entry of moisture and particulates.
- Fixture attaches by two Allen-head hidden fasteners for tamper resistance.
- Optional mounting arrangements utilize a die-cast mounting adaptor to allow for surface conduit and through branch wiring.

SERVICING

- Housing shall be able to hang freely in an open service position for inspection of internal wire connections. Once in service position, the housing shall be able to be removed for service by lifting the assembly up off the rear mounting plate and disconnecting the wiring plugs.
- Driver assembly shall be mounted to a prewired internal tray with quick disconnects for removal.

FINISH

- Luminaire finish shall consist of a five stage pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish.
- Luminaire finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

CERTIFICATION

- Luminaire shall be listed with UL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250.
- IP66 rated assembly
- IDA approved, 3000K and warmer CCTs only.
- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org.
- ANSI C136.31-2010 4G Vibration tested and compliant.
- Complies with "Americans with Disabilities Act" or "ADA" on select versions for low mounting height applications (fixtures extend maximum of 4 inches from wall for mounting heights of 80 inches or less).

WARRANTY / TERMS AND CONDITIONS OF SALE

Download:
[Five year limited warranty \(for more information visit: http://www.hubbellighting.com/resources/warranty/\)](http://www.hubbellighting.com/resources/warranty/)

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JOB _____
 TYPE _____
 NOTES _____

| 6 |

**Job Name:**128R NORTH STREET
Distributor: SWANEY LIGHTING
(SCARBOROUGH)**Catalog Number:**

LC6SL / 6LCSL18L35K8

Notes:**Type:****CL**

SLA19-42917

**6" LED Downlight****LC6SL**1000/1400/1800 Lumens
120V-277V, 347V
0-10V Dimming**APPLICATIONS:**

LiteFrame Commercial LC6SL is a 6" commercial grade LED downlight with available outputs between 1000-1800 lumens. This is suitable to replace most CFL downlighting applications, while realizing substantial energy and maintenance savings. Rated for a minimum of 50,000 hours life (70% lumen maintenance) with ambient plenum temperatures up to 35°C. Free Air Flow around the fixture is required for optimal life performance. This product is not recommended for use with 3rd party "FIREHAT" or insulation barriers.

HOUSING:

One-piece 22 gauge non-corrosive steel platform. Pre-wired J-box with snap-on cover for easy access. Snap-in connection from driver compartment allows easy installation of light engine/trim assembly and can be upgraded to accommodate technology improvements. Approved for 8 (4 in/4 out) No. 12 AWG conductors rated for 90°C through wiring.

REFLECTOR:

High purity aluminum, Alzak, iridescence suppressed, semi-diffuse reflector. Self-trim standard. Painted white self-trim (WT) available as option.

LED LIGHT ENGINE:

The LC6SL uses mid power Nichia LEDs, specifically mixed to provide a minimum of 80 CRI with 3 SDCM color consistency. The use of multiple mid power LEDs allows for optimal thermal management by effectively spreading the heat over a larger area and eliminating hot spots on the LEDs. A diffuse, yet highly transmissive lens obscures the view of the LEDs and creates a smooth, even look from below. The light engine is available in multiple Kelvin temperatures and the system is designed to provide optimal life and lumen maintenance (50,000 hours at 70% lumen maintenance). The reflector/light engine assembly is mechanically retained to the housing.

LED DRIVER:

The LC6SL utilizes a constant current LED driver. This same driver is capable of running all three different lumen outputs, resulting in a reduction of housing skus and simplified specification. The driver is UL8750, Class II compliant and universal 120V-277V.

DIMMING:

Comes standard with flicker-free 0-10V dimming to 10%. 0-10V to 1% dimming option is also available. See list of compatible dimmers on page (4). For the sizing of the control circuit, the dimming circuit may require up to 2mA of sink current.

INSTALLATION:

Light commercial bar hangers included (not with WWCP option). Universal adjustable mounting brackets also accept 1/2" EMT conduit or 1 1/2" or 3/4" lathing channel (by others) or Prescolite 24" bar hangers (B24 or B6). Wall wash orientation may be field adjusted in 90° increments to housing.

CERTIFICATIONS:

CSA certified to US and Canadian safety standards. Suitable for wet locations (EM, EMR and WW damp location). ENERGY STAR qualified.

WARRANTY:

5 year warranty. See www.prescolite.com for details.

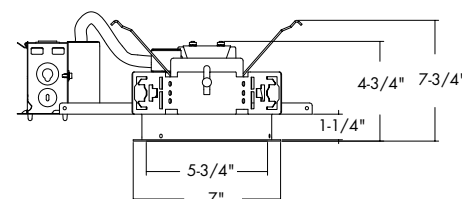
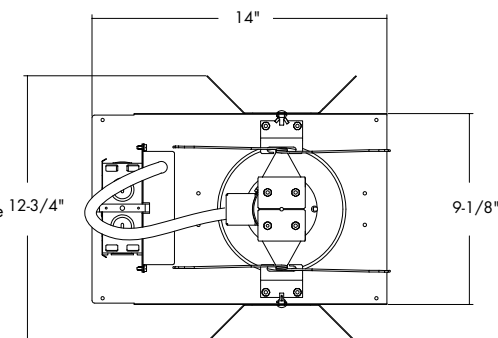
DATE: _____ TYPE: _____

FIRM NAME: _____

PROJECT: _____

LiteFrame

Ceiling Cutout: 6 1/4"
Maximum Ceiling Thickness 1 1/4"
For conversion to millimeters,
multiply inches by 25.4
Not to Scale

**LC6SL 10L & 14L**

*See page 4 for LC6SL 18L line art

*See page 4 for LC6SL EM line art

*See page 4 for LC6SL CP line art

*See page 4 for LC6SL WWCP line art

Order housing, reflector, and accessories separately

CATALOG NUMBER:

EXAMPLE: LC6SL-6LCSL14L35K9WT

HOUSING	DRIVER OPTIONS	VOLTAGE	HOUSING OPTIONS	TRIM APERTURE	OUTPUT	KELVIN	CRI	REF. FINISH/COLOR OPTION	REFLECTOR OPTIONS	ACCESSORIES
☐ LC6SL Standard Lumen 0-10V Dimming to 10% 120V-277V	☐ Standard 0-10V ☐ DM1 0-10V 1% Dimming	☐ Standard 120V-277V ☐ 347V 347V	☐ EM^{2,4,8} Integral Battery Pack ☐ EMR⁴ Remote Battery Pack ☐ CP^{3,6,8} Chicago Plenum ☐ WWCP^{3,9} Wall Wash Chicago Plenum Housing	☐ 6LCSL Standard Lumen Clear Alzak Reflector	☐ 10L 1000 Lumen ☐ 14L 1400 Lumen ☐ 18L 1800 Lumen	☐ 27K 2700 Kelvin ☐ 30K 3000 Kelvin ☐ 35K 3500 Kelvin ☐ 40K 4000 Kelvin ☐ 50K 5000 Kelvin	☐ 80+ CRI ☐ 90+ CRI	☐ Standard Semi-Diffuse Clear Alzak ☐ WH Painted Matte White Reflector and Flange	☐ WT Painted White Flange Only ☐ WF Wide Flange ☐ WW^{4,5,7} Wall Wash ☐ EM^{2,4,8} Integral Battery Pack ☐ CP^{3,6} Chicago Plenum	☐ B24 Set of two(2) 24" bar hangers for T-bar ceilings ☐ B6 Set of two (2) bar hangers for ceiling joist up to 24" centers ☐ SCA6D Sloped ceiling adapter (see note on page 4) ☐ LiteGear¹ Inverter, single phase central lighting, 125VA-250VA ☐ LPS Series¹ LitePower micro-inverter, 20VA- 55VA

¹ See Central Inverter compatibility note and web links on page 4.
² EM must be selected on both the housing and the trim.
³ Not compatible with EM or EMR
⁴ Damp location only
⁵ Compatible with EMR only
⁶ CP must be selected on both the housing and the trim
⁷ Not compatible with CP
⁸ Not available with WW option
⁹ WW must be selected on trim
¹⁰ Not compatible with WWCP



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In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product.
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LFR-LED-041

**Job Name:**128R NORTH STREET
Distributor: SWANEY LIGHTING
(SCARBOROUGH)**Catalog Number:**

LC6SL / 6LCSL18L35K8

Type:**CL****Notes:**

SLA19-42917

PHOTOMETRIC DATA

LiteFrame - 6" LC6SL Downlight

DRIVER DATA	6LCSL10Lxxx	6LCSL14Lxxx	6LCSL18Lxxx
Input Voltage	120-277V	120-277V	120-277V
Input Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Input Current	0.111 (120v)	0.148 (120v)	0.185 (120v)
	0.048 (277v)	0.064 (277v)	0.080 (277v)
Input Power	13.4W	17.8W	22.2W
Constant Current Output	700mA	700mA	700mA
Power Factor	≥0.90	≥0.90	≥0.90
THD	<25%	<20%	<20%
EMI Filtering	FCC 47CFR	FCC 47CFR	FCC 47CFR
	Part 15, Class A	Part 15, Class A	Part 15, Class A
Operating Temperature	-30°C to +35°C	-30°C to +28°C	-30°C to +25°C
Dimming	0-10V	0-10V	0-10V

Over-voltage, over-current, short-circuit protected

When operating in EM mode, the fixture will deliver approximately 30% of the published full lumen output.

Lumen Multiplier Table

Photometrics for the LC6SL are published below at a nominal 3500 Kelvin temperature. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

5000 Kelvin	1.09
4000 Kelvin	1.00
3500 Kelvin	1.00
3000 Kelvin	0.99
2700 Kelvin	0.96

LC6SL 6LCSL18L35K8

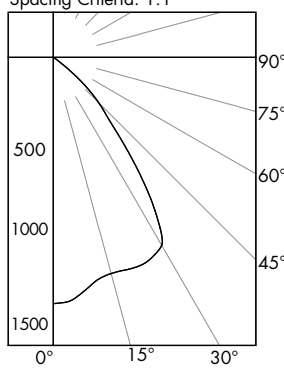
LED Light Engine: 3500K, 80+ CRI

System Wattage: 22.3W

Fixture Delivered Lumens: 1941

Fixture Efficacy: 87.0

Spacing Criteria: 1.1

**CANDELA DISTRIBUTION****DEG CANDELA**

0	1368
5	1345
15	1243
25	1247
35	923
45	357
55	27
65	5
75	1
85	0
90	0

Test No. 16.03178

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-60	1935	99.7
0-90	1941	100.0
90-180	0	0.0
0-180	1941	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	27667
55°	2580
65°	648
75°	212
85°	0

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance											
	80%		70%		50%		30%		10%			
	20% Effective Floor Cavity Reflectance											
	% Wall Reflectance											
	70	50	30	10	70	50	30	10	70	50	30	10
1	113	110	107	105	110	108	105	103	104	102	100	98
2	106	101	97	93	104	99	95	92	96	93	90	88
3	100	93	87	83	98	92	86	82	89	85	82	80
4	94	86	79	75	92	84	79	74	82	77	73	72
5	89	79	73	68	87	78	72	67	76	70	66	65
6	83	73	66	62	82	72	66	61	71	65	61	60
7	78	68	61	56	77	67	61	56	66	59	55	55
8	74	63	56	52	72	62	56	52	61	55	51	51
9	70	59	52	48	68	58	52	48	57	51	47	47
10	66	55	48	44	65	54	48	44	54	48	44	44

LC6SL 6LCSL18L35K8

Test No. 16.03178

LC6SL 6LCSL14L35K8

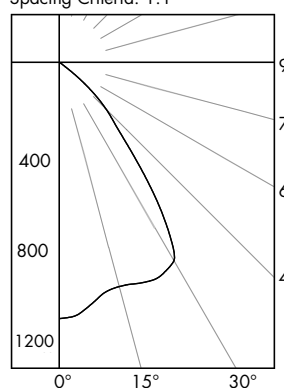
LED Light Engine: 3500K, 80+ CRI

System Wattage: 17.9W

Fixture Delivered Lumens: 1520

Fixture Efficacy: 84.9

Spacing Criteria: 1.1

**CANDELA DISTRIBUTION****DEG CANDELA**

0	1072
5	1050
15	971
25	990
35	721
45	277
55	20
65	4
75	1
85	0
90	0

Test No. 16.03177

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-60	1515	99.7
0-90	1520	100.0
90-180	0	0.0
0-180	1520	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	21467
55°	1911
65°	519
75°	212
85°	0

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance									
	80%		70%		50%		30%		10%	
	20% Effective Floor Cavity Reflectance									
	% Wall Reflectance									
	100	75	50	30	10	100	75	50	30	10
1	113	110	107	105	103	104	102	100	98	97
2	106	101	97	93	89	95	91	87	83	80
3	100	93	87	83	79	86	82	78	74	71
4	94	86	80	75	72	82	77	73	69	66
5	89	79	73	68	67	76	71	67	64	70
6	83	73	66	62	61	71	65	61	64	64
7	78	68	61	56	56	66	60	55	59	58
8	74	63	56	52	52	61	56	51	59	54
9	70	59	52	48	48	57	52	47	55	51
10	66	55	48	44	44	54	49	44	53	48

LC6SL 6LCSL14L35K8

Test No. 16.03177

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**HUBBELL**
Lighting, Inc.



Job Name:
128R NORTH STREET
Distributor: SWANEY LIGHTING
(SCARBOROUGH)

Catalog Number:
LC6SL / 6LCSL18L35K8

Notes:

Type:

CL

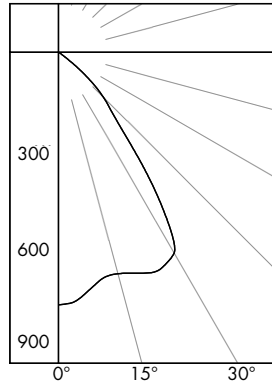
SLA19-42917

PHOTOMETRIC DATA

LiteFrame - 6" LC6SL Downlight

LC6SL 6LCSL10L35K8

LED Light Engine: 3500K, 80+ CRI
System Wattage: 13.5W
Fixture Delivered Lumens: 1106
Fixture Efficacy: 81.9
Spacing Criteria: 1.1



CANDELA DISTRIBUTION

DEG	CANDELA
0	780
5	762
15	708
25	740
35	518
45	196
55	15
65	3
75	1
85	0
90	0

Test No. 16.03179

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-60	1103	99.7
0-90	1106	100.0
90-180	0	0.0
0-180	1106	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	15190
55°	1433
65°	389
75°	212
85°	0

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

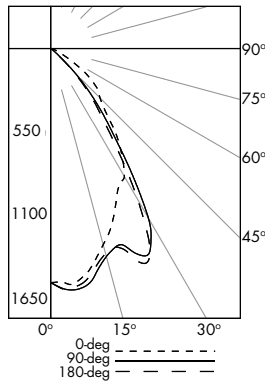
Room Cavity Ratio	% Effective Ceiling Cavity Reflectance												% Effective Floor Cavity Reflectance												% Wall Reflectance															
	80%				70%				50%				30%				10%				80%				70%				50%				30%				10%			
	20% Effective Floor Cavity Reflectance												20% Effective Floor Cavity Reflectance												20% Effective Floor Cavity Reflectance															
	70	50	30	10	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10							
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	96	95	94	94	92	90	88	86	84	81	79	76	72	68	64	60							
2	107	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86	90	88	86	88	85	82	80	78	75	72	69	66	63	60	57	54							
3	100	93	88	83	98	92	87	82	89	85	81	86	83	80	84	81	79	84	81	79	82	79	76	73	70	67	64	61	58	55	52	49	46							
4	94	86	80	75	92	85	79	74	82	77	74	80	76	73	78	75	72	80	76	73	78	75	72	69	66	63	60	57	54	51	48	45	42							
5	89	79	73	68	87	78	72	68	76	71	67	75	70	66	73	69	66	76	71	67	76	71	67	74	69	65	61	58	55	52	49	46	43							
6	83	73	67	62	82	73	66	62	71	65	61	69	65	61	68	64	60	72	67	63	72	67	63	70	65	61	57	54	51	48	45	42	39							
7	78	68	61	57	77	67	61	56	66	60	56	65	60	56	64	59	55	68	62	58	68	62	58	66	61	57	54	51	48	45	42	39	36							
8	74	63	57	52	73	63	56	52	61	56	52	60	55	51	59	55	51	66	60	56	66	60	56	64	59	55	51	47	44	41	38	35	32							
9	70	59	52	48	69	58	52	48	57	52	48	57	51	47	56	51	47	64	58	54	64	58	54	62	57	53	49	45	41	37	33	30	27							
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	60	54	50	60	54	50	58	53	49	45	41	37	33	30	27	24							

LC6SL 6LCSL10L35K8

Test No. 16.03179

LC6SL 6LCSL18L35K8 WW

LED Light Engine: 3500K, 80+ CRI
System Wattage: 22.2W
Fixture Delivered Lumens: 1938
Fixture Efficacy: 87.3



CANDELA DISTRIBUTION

DEG	0	90	180
0	1527	1527	1527
5	1545	1581	1565
15	1324	1404	1383
25	1030	1489	1517
35	792	780	670
45	454	219	189
55	273	8	8
65	64	2	2
75	9	1	1
85	0	0	0
90	0	0	0

Test No. 16.03309

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	0 DEG	90 DEG	180 DEG
45°	38311	18480	15949
55°	28400	832	832
65°	9036	282	282
75°	2075	231	231
85°	0	0	0

MULTIPLE UNITS									
1'	2'	3'	4'	5'	6'	7'	8'	9'	10'

2' DISTANCE FIXTURE MOUNTED OUT FROM WALLS FOOTCANDLE DISTRIBUTION ON WALL SURFACE (DIRECT ONLY)

DISTANCE FROM CEILING IN FEET	15	11	6	2	1	15	5	15	15	1	15
1	40	36	26	13	5	41	27	41	40	10	40
2	36	35	28	18	11	41	36	41	36	22	36
3	22	22	22	19	13	33	39	33	25	27	25
4	14	14	14	14	13	27	30	27	20	25	20
5	10	10	9	9	9	24	22	24	16	19	16
6	7	7	6	6	6	19	18	19	14	14	14
7	5	5	5	4	4	15	15	15	12	11	12
8	4	4	3	3	3	12	13	12	10	9	10

LC6SL 6LCSL18L35K8 WW

Test No. 16.03309



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PHOTOMETRIC DATA

LiteFrame - 6" LC6SL Downlight

Dimming Compatibility Table

Dimming Ballast	Manufacturer	Web Link
DM/DM1	Lutron DTV	http://bit.ly/11jSvZg
DM/DM1	Leviton AWRMG-7xx, AWSMG-7xx, AWSMT-7xx	http://bit.ly/1BJn2R9

Central Inverters

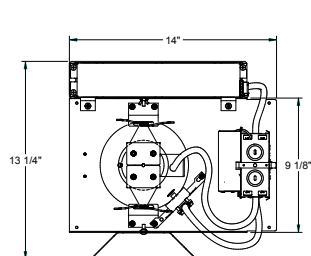
For full fixture output in back-up mode, we recommend you visit www.dual-lite.com for your Central Lighting Inverter options. Please contact your local Hubbell representative for any assistance with proper sizing and loading of your inverter selection. Central lighting inverters must be ordered separately.

LiteGear: www.dual-lite.com/products/litegear_lg_series

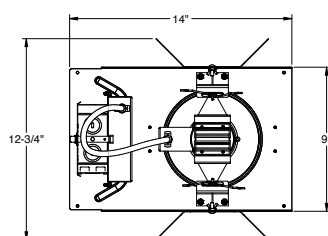
LPS Series: www.dual-lite.com/products/lps

SCA6D

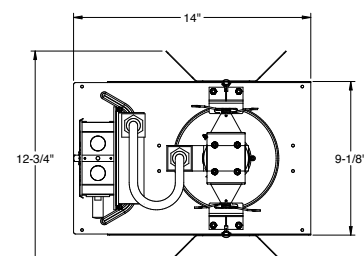
When ordering a sloped ceiling adapter, specify the degree of slope in 1° increments, maximum of 35°. For a more precise degree or wet ceiling applications, please contact factory. Sloped ceiling adapter and housing must be installed at the same time.



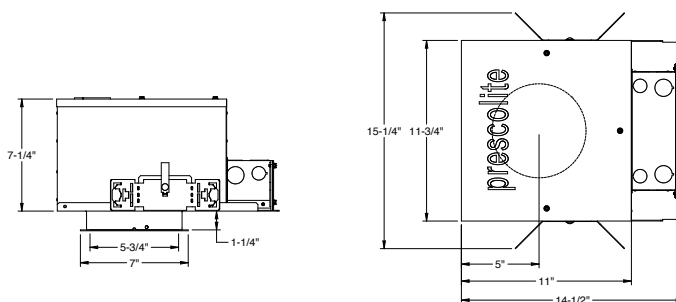
LC6SL EM



LC6SL 18L



LC6SL CP



LC6SL WWCP



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Lighting, Inc.

O. Architectural Design Narrative

Please find attached the design narrative completed by Dexterous Creative.



December 21, 2021



Sean King, ASLA
Urban Designer
City of Portland Maine
389 Congress Street
Portland, Maine 04101

Re: 392 St. John Street - Design Narrative (revision)

This past spring our team presented a three-story, ten-unit apartment building at 392 St. John Street. In response to feedback from neighbors, we are resubmitting our project, enclosed, as a nine-unit with a first-floor business on St. John Street.

The parcel is located in a section of the Oakdale neighborhood bordered by Park Avenue to the South, I-295 to the North, and two diverging railroad corridors to the East and West. The neighborhood includes twenty buildings: including more than a dozen multi-family dwellings, and three commercial buildings.

This Fair Housing compliant project now features nine two-bedroom units intended for long-term rental. Eight covered parking spaces are included for residents of the building as well as enclosed areas for refuse and recycling bin storage. A shared drive will serve residents of the proposed building and spaces for the existing structure (to remain) located on the parcel.

The front first floor unit has now been converted into space for a small business with large windows facing St. John Street. As small business owners ourselves, we realize how difficult it is to find commercial spaces that are accessible. We hope this addition to the neighborhood will expand opportunities for residents to access services near their homes and business owners to better serve their customers and employees.

A neighborhood study with photographs of adjacent properties was included with our previous submission. As shown in this study, many of the adjacent buildings are similar in height and massing as our proposed building. Directly across from our building are three, three-story apartment buildings featuring flat roofs similar in design to what we have proposed. Our building features a broad eave and uniform punched openings like these existing structures.

To comply with Fair Housing Regulations and IBC Chapter 11, our building features an ADA-ramp to compensate for grade changes on the site. We've utilized the ramp and recessed entrance canopy to create a modern and code-compliant front porch, further emphasizing the main entrance with brightly painted doors. The entry porch has been expanded as a result of our resubmission to accommodate the first-floor business entry.

The business unit is differentiated with enlarged fenestrations providing increased visibility from the street. The space will be further distinguished by eventual tenant signage. Inside the residential vestibule, mail, bike, and laundry amenities are provided to keep the front of building activated. With connections to bike lanes and multiple bus routes we hope many residents will opt to park their vehicles and either walk, use public transport, or ride to nearby major employers or educational institutions, thus utilizing this entrance.

The window frame color will complement the clapboard siding and further reinforce the crisp simplicity of the design. The roofing proposed is an EPDM membrane which will not be visible from the street. Building mechanicals will be housed along the side of the building (shown on elevations) and in the building's basement. The fascia trim compliments that of wood-framed, flat-roof structures nearby, and a frieze board is also patterned after traditional wood-framed buildings in the neighborhood.

We are excited to present this building which we hope will help ease our city's housing crisis, and invest in creating business and new housing units in such a well-connected neighborhood. We've worked hard to ensure the building is of compatible massing and scale, seeking to complement its existing neighbors. We appreciated your feedback during the design process and look forward to re-introducing the project to neighbors and the Planning Board soon.

Regards,

A handwritten signature in black ink that reads "Tracie J. Reed". The signature is written in a cursive, flowing style.

Tracie J. Reed, Dextrous Creative, LLC (she/her)

Maine Licensed Architect. Licensed to Practice Architecture in MA, NCARB, AIA

P. Utilities

The project will include the installation of multiple utility services to the proposed residential building. Existing utilities located in the parcel currently service the existing building and are anticipated to remain as a part of this project. A Plan of property survey was prepared by Stephen J. Martin dated December 2020. See Sheet C-20 for additional Information.

Water:

It is proposed to tap a 6" service line off the 12" water main within St. John Street. The 6" line will serve as the sprinkler line with a 2" child connection for a domestic service.

Sewer:

A proposed 6" sewer lateral is anticipated to accept the wastewater from the proposed units and the covered parking area, after draining from an oil water separator. The proposed service will tie into an existing combined sewer main within St. John Street.

Stormwater:

The proposed stormwater drainage plan includes catch basins, field inlets, foundation drain and a high-performance rain garden. The rain garden will capture the runoff from the roof drain providing attenuation and treatment. The remaining stormwater will be caught by the proposed catch basins and field inlets. The stormwater will tie into the existing combined sewer main within St. John Street with a separated lateral.

UGE/T/C:

An underground service along with a pad mounted transformer and riser pole are proposed to service the new development. This connection will be located directly across the street of 387 St. John Street.

Gas:

It is proposed to install a gas service off the existing main within St. John Street to service the proposed building.

Ability to serve letters were sent out to the respective utility companies in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use. Responses from the utility companies can be found attached to this section.



Q. Construction Management Plan

Project Address:

392 St. John Street, Portland, ME

Project Description:

The proposed project includes the construction of a three-story 9-unit building with ground floor business space on the existing 11,000 square-foot parcel located at 392 St. John Street parcel within the City's R-6 Zoning District. The parcel contains an existing 4-unit building that will be maintained with several site improvements as a result of the proposed 9-unit building. The project proposes dividing the current property line into two separate conforming parcels with a shared driveway and utility corridor.

Project Team Summary:

Owner:	Alex Coupe
General Contractor:	TBD
Civil Engineer:	Acorn Engineering, Inc.
Architect:	Dexterous Creative
Structural Engineer:	TBD

The Owner/GC and all subcontractors will work with the City of Portland and adjacent landowners to minimize potential project impacts. Footing, setback, and elevation information should conform to safe construction standards as the development is proposed close to adjacent building.

The GC will remain responsible for enforcement of all compliance with 1) all contract plans and specifications in their scope of work and 2) all site working conditions and safety requirements, day and night, for both persons and property, in each case for the duration of their work. These include OSHA, NIOSH, U.S. EPA, local Ordinances, and any other applicable governmental regulations. Both the Owner/GC and any subcontractors will remain responsible for safeguarding the general public.

The GC shall review all permits and conditions associated with the project. Refer to the Civil/Site Plan Set, Sheet C-03 Construction Management Plan for visual representation of the measures to be taken during construction.

The following outline has been developed in accordance with the City of Portland Construction Management Plan General Template and shall be referenced by the GC during construction.

A. Construction Management Principles

The control of noise, vibrations, ground movement, truck traffic, and other construction-related factors will be of utmost importance. Care shall be taken to minimize these effects in the best interest of neighbors and the general public. GC to ensure that work hours conform to the City of Portland's Ordinance.

B. Development Review of Construction Management Plan



Logistics and safety program shall be submitted at or prior to the pre-construction meeting by the GC with all pertinent information required by the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

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

Guarantees and fees will be paid at the time of the respective application. Prior to scheduling a preconstruction meeting and issuance of permits all requirements from the following sections are to conform; Section 1.5 Enforcement, Section 14.5 Review Procedures, Section 14.11 Post-Approval Procedures, and 14.14 Amendments.

1. Street Opening and Street Occupancy Permits:

Required permits regarding street opening and occupancy will be obtained from the Department of Public Works. The requests shall conform to the approved Construction Management Plan.

2. Blasting:

Although not anticipated, if blasting occurs, it shall conform to Article VIII. In Chapter 14 of the City Code and Section 3.7 in the City's Technical Manual.

3. Building Code:

Employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from the 2009 International Building Code.

D. Construction Administration and Communication

The Contractor will work closely with adjacent abutters, businesses, and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. Communication in order to comply with all agreements, ordinances, and special permits will be of the utmost importance. Contractor contact information shall be posted on a sign on the construction fence along the St. John Street frontage. Additional signage necessary for communication shall be provided but will be temporary and removed upon completion of the project.

The contact information for the project personnel is:

Alex Coupe
Bosco Holdings LLC
(207) 838-4546

GC and Subcontractor information will be posted along the St. John Street frontage once contracted.

E. Construction Schedule

The GC shall submit a construction timeline at or prior to the pre-construction meeting. Construction may occur during the daytime hours as defined in Section 17-18 of the

Construction Activities for Building permit and City Code Section 25-129, Noise, dust, and debris. Between September 1st and May 31st, the following year, no person shall engage in construction activities generating noise exceeding 50 decibels between the hours of 7 pm and 7 am of the following day within 500 feet of any buildings. From June 1st to August 31st, construction activity may continue until 8 pm. No construction activity shall begin before 8 am on a Saturday, Sunday, or legal holiday. Extended hours or night work may be requested for special circumstances and street utility work if needed. These requests will be subject to approval by the Public Works Authority.

Due to the limited space within the project parcel, deliveries will need to be stored in an alternate location, or deliveries must be small enough to fit within the property. Deliveries will be scheduled between 7 am and 5 pm.

It should also be noted that St. John Street is on the Street Moratorium List until June 7, 2022. The work within St. John Street is anticipated to wait until June 7, 2022.

The estimated timeframe of the proposed project is outlined below:

<u>Project Start Date:</u>	Spring 2022
<u>Project End Date:</u>	Spring 2023

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City.

F. Security

1. The Construction Management Plan, Sheet C-03, depicts all proposed fencing and other barriers, with the intent of separating pedestrian and vehicle circulation from the construction site. Construction entrances per detail shall be installed.
2. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16. *Safeguarding Construction, Alteration, and Demolition Operations*.
3. Fire Safety Program: Prior to construction, an overall construction and demolition fire safety program shall be developed. Essential items to be emphasized include the following:
 - Good Housekeeping
 - On-site security
 - Installation of new fire protection systems as construction progresses
 - Preservation of existing systems during demolition
 - Organization and training of an on-site fire brigade
 - Development of a pre-fire plan with the local fire department
 - Rapid communication
 - Consideration of special hazards resulting from previous occupancies
 - Protection of existing structures and equipment from exposure fires resulting from construction, alteration, and demolition operations.
4. Blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation



of Explosives in Portland's Technical Manual.

5. Temporary security lighting shall be shown on the Construction Management Plan, and all fixtures shall be full cutoffs.

G. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets

Construction activity in the public right-of-way shall be compliant with Chapter 25 Article VII of the City Code. At no time will it be permissible for construction activity, including delivery vehicle to close or block streets or affect public safety access without prior notice and approval of the Department of Public Works.

2. Sewer and Stormwater

Sewer and stormwater system connections are controlled by Chapters 24 and 32 of the City Code of Ordinance. Required permits for new connections and/or abandonment of existing connections are available through the Street Opening Clerk at the Department of Public Works. Rules and Regulations for these utility systems are available through the City Engineer's office of the Department of Public Works and in Section II of the Technical Manual. This will apply to the new connections within St. John Street.

3. Traffic Control Plans

Construction activity that impacts the existing public street system must be controlled to protect the safety of the construction workers and all modes of the traveling public. The Contractor shall submit a satisfactory "Maintenance of Traffic" (MOT) plan prior to any street opening permit approval. This document shall contain all pertinent information from the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

The MOT will address the work required for utility connections in St. John Street. Traffic will be channelized utilizing drums and cones. Proper signage will be installed prior to the through work zone. Alternating traffic will be controlled with flaggers. Trenches will be patched with pavement daily.

The MOT plan shall provide for the safe passage of the public through or along the construction work zone. It may be permissible to close a portion of St. John Street during utility connections and/or detour a mode of traffic when absolutely necessary for safety. All requests shall be subject to City approval. MOT plans shall employ the appropriate techniques and devices as called for in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:

- Construction speed signing may be used as needed to slow traffic.
- Traffic Control signs shall not be placed where they would create any obstructions to bicycles or pedestrians.
- Flaggers will be utilized when necessary.

All existing modes of travel in the work zone area shall be accommodated if impacted by



the activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning and laying out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works. The MOT should also address on-street parking impacts, including deliveries and parking for adjoining businesses and property owners, analysis of roadway capacity or diversion capacity if street closure or change to roadway capacity is required, and coordination with other on-going or future construction or utility projects in the vicinity.

- Traffic control bicycle and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready for safe operation. Traffic control will not be removed to allow auto travel at the expense of bicycle and pedestrians.
- Barrier systems utilized to separate the construction activity from the public street and /or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.
- ADA compliance in all capacities shall be maintained.

The blockage of any portion of sidewalk for the purpose of construction activity shall require an occupancy permit and appropriate fee as assessed by the Department of Public Works.

H. Site Management and Controls

1. Regular trash and debris shall be managed appropriately, and its removal shall comply with all local, state, and federal regulations.
2. Street cleaning and sweeping shall be followed as outlined in the erosion and sedimentation control notes and report. Damage to the street shall be avoided and shall be the responsibility of the Contractor.
3. Dust shall be controlled and shall comply with Section 25-129 and the erosion and sedimentation control notes, plan, and details.
4. Noise shall be controlled and shall comply with Section 17-18 and Section 25-129.
5. Rodent Control shall be provided, if applicable, by a professional exterminator and shall be consistent with Chapter 22 of the City Code.
6. Snow and Ice Removal shall be provided. Pursuant to Section 25-173, the Contractor shall ensure a safe means of travel within the work zone by the following steps:
 - a. Snow/ice removal or commence automatically from 1" or greater of snow or ice
 - b. Remove snow as needed within the work zone, including parking spaces. Driveways and site lines shall not be blocked by piles of snow.
 - c. Clear all walks and ramps within the work zone
 - d. Sand or salt as needed
 - e. Clear all basin or drainage to help snow melt
 - f. The above steps shall be carried out Sunday-Saturday including holidays.

I. Erosion & Sedimentation Control



1. The Contractor shall install all erosion and sedimentation controls as depicted on the approved Construction Management Plan, C-03, and the approved erosion and sedimentation control report, prior to the pre-construction meeting for inspection by the City. The Contractor shall regularly inspect the control measures, no less than weekly and after storm events (0.5" or more in 24 hours). Additionally, temporary or permanent stormwater management systems shall be inspected and maintained to ensure working order. The Contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection (MDEP) or the U.S. Environmental Protection Agency (EPA) upon request.
2. Due to the existing sparse landscaping on site, no protection during construction will be necessary.
3. Stored materials shall be identified and avoid being located under/near trees.

J. Construction Staging Area

1. The Contractor shall submit a plan with locations depicted for the location of material staging areas, the location of on-site temporary construction trailers, the location of on-site truck delivery holding areas, the location of on-site truck washing stations, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters. This plan shall be submitted at or prior to the pre-construction meeting. Any open storage areas shall be shown on the plan.
2. Delivery Truck Holding Areas On-Site: The majority of materials delivered to the site will be scheduled such that they are able to be off-loaded immediately. On days when the construction activities require multiple truck deliveries, these deliveries will be carefully scheduled so that there is always adequate on-site area for the holding of trucks until they can be unloaded. Once at the site, all vehicles will be brought within the fence line and will make every attempt to avoid queuing on public streets. If, for any reason, on-site holding of trucks is not feasible, an off-site location must be designated and shown on the submitted plan referenced above in J.1.
3. All deliveries for materials shall comply with the City's noise requirements.

K. Parking During Construction

1. Adequate parking for construction workers shall be provided along St. John Street or arrangements for off-street parking at an off-site location shall be provided.
2. Truck Routes and Volumes: The following quantities are estimated as part of the reconstruction:
 - Gravel & Stone – 260 CY. Earthwork subcontractor(s) pit to project site.
 - Hot Mix Asphalt – 50 tons. Paving subcontractor(s) pit to project site.

L. Special Measures as Necessary

No special measures are necessary for the proposed reconstruction.



R. Solid Waste Disposal

The property management company or Owner shall be responsible for locating the solid waste and recyclable material to the space allocated for solid waste storage determined by the Property Manager.

The solid waste containers will be fully enclosed and screened from the public view within the internal solid waste room.



S. Parking Analysis

Per Land Use Code Section 19 Off Street Parking Table 19-A: Off Street Parking Minimums for Single, Two, or Multifamily units: 1 space is required per dwelling unit. Additionally, Table 19-B Categorical Vehicular Exceptions to Off-Street Parking Minimums Zone R6: No off-street parking required for first three dwelling units. See calculation below for required off street parking for the proposed 10-unit structure and 4-unit building that currently exists on the parcel.

Proposed 386 St. John Street Development:

Required Off Street Parking = 10 units at 1 space per unit – first three units = (10 spaces – 3 spaces)
= 7 Off street parking spaces required.

Proposed Parking = 8 Off street parking spaces

Proposed 392 St. John Street Redevelopment:

Required Off Street Parking = 4 units at 1 space per unit – first three units = (4 spaces – 3 spaces)
= 1 Off street parking spaces required.

Proposed Parking = 2 Off street parking spaces



392 St. John Street





Site Context

- The area immediately surrounding the site was severed from the remainder of the Oakdale neighborhood by I-295 to the North. Washburn Avenue terminates in dust approaching I-295, a visible reminder of a connections violent amputation.
- Park Avenue borders the area to the South with discontinued rail bridge providing transition.
- Two rail lines diverge South of Park Avenue thus entrapping the buildings like an island surrounded by moat of transportation corridors.
- The triangular island is home to 3 commercial buildings and 17 residential apartment buildings (one single-family). It does not appear as though a new structure has been built since I-295's construction in 1971.

Design Context

- Flat roof, wood-framed triple-decker apartments are predominant throughout the neighborhood. Buildings typically feature double-hung windows, broad eaves, fascia and clapboard siding.
- Towards the edge of Washburn Avenue triple deckers give way to larger Victorian-style homes similar to those found on the USM side of Oakdale.





Discontinued rail corridor looking towards 168 Washburn Ave. apartments (above) and 162/168 Washburn (below)





Lock, Stock and Barrel at 369 St. John Street (above) and 393/391 St. John Street below.





392 St. John Street viewed from parcel edge near 384 St. John Street (above), 384 and 382 St. John Street viewed from driveway of parcel (below)





Southern parcel boundary (pin with flag) adjacent to 384 St. John Street. Shadow line is 5'-0" off pin, illustrating setback of building from lot line. Existing building on parcel, to remain is visible at right. The rear boundary of the parcel is adjacent to the tree line. Beyond lies a wide rail corridor between the active rail line and Hood Dairy's warehouses beyond.



382 St. John Street (rear) viewed sidewalk and 384 St. John Street at front. The edge of 392 St. John Street (subject parcel) is visible at right edge.



382 St. John Street (rear) viewed sidewalk and 384 St. John Street at front and 392 St. John Street (subject parcel) at right. Photograph taken from edge of 395 St. John Street parcel looking West. The space at center with blue sedan is the project location.



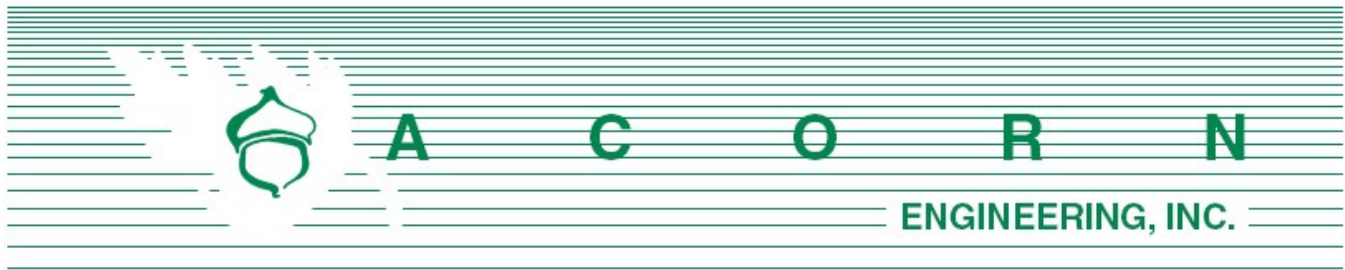
Existing site and proposed building.



Closeup of proposed building and entrance



Closeup of ADA ramp, entrance porch and shared driveway.



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

November 1, 2021

Subject: 392 St John Street redevelopment

Austen,

I, Samuel Lebel, hereby certify that a neighborhood meeting was held on October 28, 2021, remote via Zoom at 5:30 pm.

I also certify that on October 18, 2021, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development.
2. Residents on the “interested parties” list.

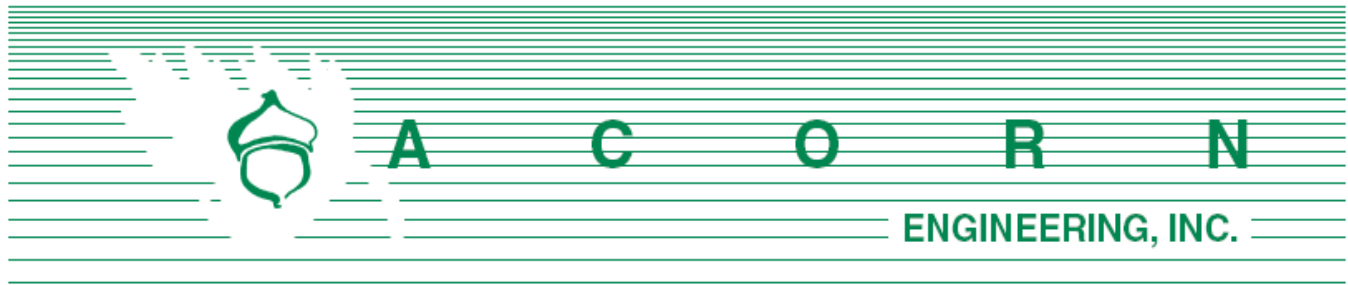
Sincerely,

A handwritten signature in black ink that reads 'Sam Lebel'.

Samuel Lebel, P.E.
Project Manager
Acorn Engineering, Inc.

Included with this certification are:

1. Copy of the invitation sent
2. Sign-in sheet
3. Meeting minutes



Dear Neighbor:

October 18, 2021

On behalf of Alex Coupe, we are pleased to invite you to a virtual neighborhood meeting to discuss a proposed Major Site Plan/Subdivision Application related to the property located at 392 St. John Street. The proposed development includes a three-story building that contains 10 two-bedroom units, 8 covered parking spaces, and indoor bicycle storage. The project proposes to share the driveway with the existing apartment building and improve the streetscape.

Meeting Location: As a safety measure, this meeting will **be held remotely via Zoom**, consistent with the City's Planning Board protocol. **Please email office@acorn-engineering.com to request a link or phone number to join the meeting.** You may also call the office line (listed below) to request this information.

Meeting Date/Time: Thursday, October 28, 2021, at 5:30 p.m.

The City code requires that property owners within 500 feet of the proposed development and residents on an "interested parties list" be invited to participate in a neighborhood meeting. Both the sign-in sheet and recorded meeting minutes will be submitted to the Planning Board. If you have any questions, please do not hesitate to call the office at (207) 775-2655. We look forward to seeing you at the meeting.

Sincerely,

Samuel J. Lebel, P.E.
Acorn Engineering, Inc.

Sign In Sheet

10/28/2021

392 St John Street Portland, ME 04101

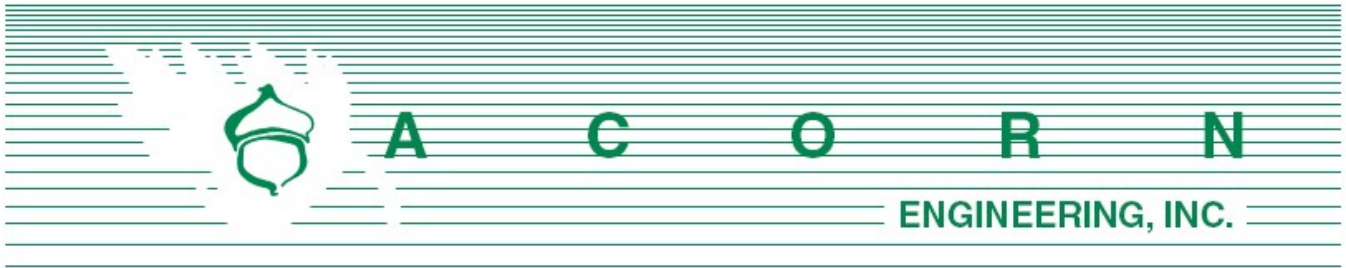
Members of the Public in Attendance:

NAME	E-MAIL
------	--------

There were zero attendees for the neighborhood meeting.

Developer and Consultant Team in Attendance:

NAME	E-MAIL
1. Sam Lebel	slebel@acorn-engineering.com
2. Zachary Stevens	zstevens@acorn-engineering.com
3. Tracie Reed	traciereed@dextrouscreative.com
4. Alex Coupe	alex@danandersonrealestate.com



**392 St John Street
Major Site Plan Submission**

Neighborhood Meeting Minutes

October 28, 2021 / 5:30 pm

Remote meeting via Zoom

Project Team Attendees:

Sam Lebel (SL): Civil Engineer/Presenter (Acorn Engineering)

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

Tracie Reed (TR): Architect/Presenter (Dextrous Creative)

Alex Coupe (AC): Owner/Applicant

The neighborhood meeting started at 5:30pm and the project team waited until 5:45pm before concluding the meeting as a result of zero attendees. There was a single request for the zoom link prior to the meeting and the project team followed up with the neighbor after the meeting.

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

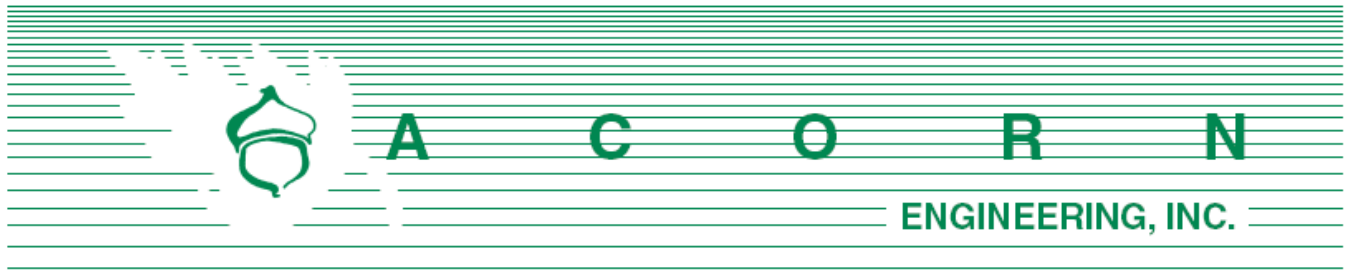
A handwritten signature in cursive script that reads 'Zachary Stevens'.

Zachary Stevens, EI

Design Engineer

Acorn Engineering, Inc.

ZStevens@acorn-engineering.com



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

January 17th, 2022

Subject: Comment Response Letter
 392 St. John Street

On behalf of Alex Coupe, we are pleased to respond to the comments that we received dated January 7th, 2022, related to the proposed multifamily with first floor office space redevelopment located at 392 St. John Street.

General Comments from Planning Staff

Comment – Project will need to conform to lighting standards of the Technical Manual (10.2 General Standards: Residential).

Response – The proposed project does not presently include any street lighting.

Comment – Front entrance and interior circulation information should be clarified or revised. It appears that tenants would need to enter vestibule, then exit into covered exterior walkway to access residential stairway. This configuration is not ideal both from a design perspective and from the perspective of shielding tenants from the elements. Additionally, a buffer or guard rail protecting the walkway from the parking area should be included.

Response – Please refer to the project Architect's response letter for design basis and justification related to the first floor plan layout.

Comment – Site & Landscape Plan does not match the First Floor Plan, as the doorway adjacent to parking space #4 are shown with slightly different dimensions.

Response – The plans have been updated accordingly.

Lighting

Comment – Applicants should provide a photometric plan. One concern is the motion censored light on the left corner (near where the HVAC equipment is proposed). These lights should not encroach on neighboring property. All lights should be full cutoff.

Response – The photometric plan is forthcoming. The proposed lighting will be full cut off and the maximum illumination level at the property line will not exceed 0.1-foot candle

Comments Related to Zoning Standards

Comment – *Applicant will need to apply for a conditional use permit for office use in R-6 Zone. The planning board will review the conditional use permit application at Public Hearing.*

Response – The conditional use permit has been included as part of the resubmission. Please refer to Section AA. For additional information.

Comment – *The panhandle lot line should be explained. In this scheme both parking space and snow storage crosses the lot line which would require an easement. Additionally Shared driveways require easement.*

Response – The lot line has been divided as such to allow conformance with the R6 Zoning standards for both lots. Both parcels will be under common ownership and operation and will be subject to a mutual easement agreement as noted on the Site Plan and Subdivision Plat. This agreement will outline common/shared activities such as snow removal and access.

Comment – *The zoning analysis table should note 'right side' and 'left side' instead of simply noting 'side setback'.*

Response – The space and bulk table located on Sheet C-10 has been updated with left and right setbacks for each lot.

Comment – *Applicant needs to add information in Energov about the existing building and its proposed landscaping, etc.*

Response – The building footprint for the existing building onsite is 1,812sf, (we are unable to update the Energov manually). Please refer to the space and bulk table located on Sheet C-10 for the landscaped open space ratio.

Comment – *It should be shown on the plans how the applicant is meeting the required 20% open space.*

Response – A table has been added to Sheet C-10 that outlines the impervious area coverage for each lot.



Comments Related to Access & Parking

Comment – *Waivers will be needed for the 16' driveway width as well as for the 21' parking aisle width.*

Response – Please refer to section F. Waivers

Comment – *Applicant needs to submit turning templates.*

- *Column dimensions should be considered in turning template.*
- *Graphics need to be representative of column dimensions. Currently columns look small.*

Response – Vehicle turning movements have been conducted for the most restrictive parking spaces, please refer to Section Z. Turning Templates. Column dimensions as shown on the plan are accurate and have been confirmed by structural engineer. The column dimensions are 5.5"x5.5" Hollow Structural Steel (HSS), allowing for a reduced footprint in comparison to concrete.

Comment – *The ADA space and aisle should be moved so that there is less conflict with support columns, and so the adjacent doorway does not open into the parking space.*

Response – The doorway adjacent to parking space 4 has been modified so it no longer impacts the parking space. Refer for architectural plans for additional information.

Comment – *An EV charger should be included in this development but is not shown in plans.*

Response – An EV charger has been implemented into the site design. Please see Sheet C-10 for additional information.

Comment – *One parking space per residential unit is required, though a waiver can be sought for the first three. For office uses, one space is required for every 400 feet – therefore one parking space is required for this use.*

Response – Given the project is within a quarter mile of a transit facility, it's our understanding off-street parking is not technically required. However, because the program can accommodate space for dedicated parking, a total of 10 parking spaces are being provided for both buildings.

Comment – *The doorway accessed via Parking Space #4 and its aisle should not be located to open or be accessed directly from the parking area, it should have more space or be relocated.*

Response – The doorway adjacent to parking space 4 has been modified so it no longer impacts the parking space. Refer for architectural plans for additional information.



General Comments from DPW Staff

Comment – *Deed descriptions that match the plans should be included for each lot.*

Response – Deed descriptions will likely occur upon approval of this project.

Comment – *The site surveys need to be stamped and signed.*

Response – The stamped survey has been provided as part of this resubmission.

Comment – *Applicant should confirm whether they have reached out to DPW to confirm address of the new lot, as assessing needs to create a new tax lot number.*

Response – The project team has reached out to Charles Wordell with DPW and has confirmed that 386 St John Street will be the address of the proposed building. The existing building will remain 392 St John Street.

Comment – *Applicant needs to replace manhole/manhole cover.*

Response – Please provide additional information, we are unsure of what structure this relates to.

Comment – *Footing, setback, and elevation information should conform to safe construction standards as the development is proposed close to adjacent building. This should be included in construction management report. These standards should include Supportive excavation to ensure development does not harm neighboring property. This documentation should be included in foundation-plan.*

Response – The note above has been added to the construction management report. Temporary soil restraint along the basement portion of the proposed building will likely be necessary and is typically a design-build operation by a specialized geotechnical contractor.

Comment – *Sewer laterals should be indicated in utility plan. The utility plan shows where this is located but not where it is connected to the house.*

Response – A sewer lateral connection to the structure has been incorporated. It should be noted that this final location of the sewer lateral will need to be confirmed by MEP. Please see sheet C-20 for additional information.

Comment – *Applicant to provide documentation regarding screening and noise related to HVAC equipment.*

Response – The proposed use will not create unreasonable levels of noise; the projects HVAC system will be standard for residential, and office uses. To provide some background, the noise level will be approximately 52-54dB depending on the model. Our system has not been engineered at this point, so we do not have a specific model or documentation present at this time, but will be forthcoming.



Comment – Applicant to provide clarification on snow storage.

- 386: Diagrams only show snow storage location for 392 but not 386. Diagram instead shows arrow suggesting snow storage atop focal-point rain catchment. This should not be the case.
- 392: Diagrams shows snow storage at location that is above grade of driveway and parking. Clarify any runoff concerns.

Response – Snow storage will be primarily located on the rear of the parcel (west) and potentially along the edge of the existing building located at 392 St John Street. The project team anticipates a mutual drainage, access, and utility easement agreement which will include snow storage and management. To clarify, the rain garden will not be utilized as snow storage. Any additional snow onsite will be the owner's responsibility as indicated on the site plan general notes. There are no runoff concerns as the site has been engineered to be self-contained with drainage routed to catch basins.

Comment – Stormwater runoff information is calculated for entire lot prior to subdivision. This should likely be done for each individual lot after subdivision.

Response – We believe looking at the entire 11,000 sf parcel is appropriate for stormwater runoff. The two parcels effectively function as one site and therefore the hydrology was analyzed comprehensively. The proposed focal point rain garden system will result in an improvement to the existing site's water quality and quantity. Additionally, in regard to the existing lot located at 392 St John Street, a negligible amount (622 sf) of impervious area has been proposed on that parcel which does not trigger local stormwater management rules (1,000 sf of new impervious or greater).

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

Sincerely,



Samuel J. Lebel, P.E.
Project Manager
Acorn Engineering, Inc.



Zachary M. Stevens, E.I
Design Engineer
Acorn Engineering, Inc.



January 17, 2022

Sean King, ASLA
Urban Designer
City of Portland Maine
389 Congress Street
Portland, Maine 04101



Re: 392 St. John Street – Review Comments

Below please find our commentary regarding recent staff feedback on the St. John Street submission.

General Comments

Circulation

The majority of tenants will enter the covered parking area via vehicle and enter their unit directly from the centrally-located entrance stair. In order to activate the front façade, our team placed mail and laundry in this area to increase activity at the street front. Pedestrians and cyclists will enter via this entrance.

The walkway between the front common areas and stair tower is protected from the elements with a 20'-0" overhang, though untempered. The lack of physical separating wall between the two spaces adjacent to the walk allow car drivers to shut their doors and walk forward onto the path instead of behind their cars and completely exposed to the elements.

This Fair Housing compliant project now features nine two-bedroom units intended for long-term rental. Eight covered parking spaces are included for residents of the building, as well as enclosed areas for refuse and recycling bin storage. A shared drive will serve residents of the proposed building and spaces for the existing structure (to remain) located on the parcel. Our team has added wheel stops to protect pedestrians from the two vehicle spaces adjacent to the walk.

We feel this circulation pattern is preferable to forcing tenants to walk around vehicles and outside of cover. It also allows us to conceal recycling bins behind doors adjacent to the walk. If tenants are entering/exiting the building it is expected they would be dressed for the elements. This also protects the walkway from ice and snow.

The doorway adjacent to the stair entrance is for items like salt storage and a snow blower which would be difficult to store in the basement. This slab door will be painted to match adjacent siding and has been relocated so there is not a conflict with parking. The main doorway is a brightly painted full-lite door so we do not feel these two adjacent doors will cause confusion.

Lighting

There are two lights that will be on motion sensors for site security purposes both in areas on the side and back of the building. Our city has had multiple physical attacks on pedestrians over the years, many of which are instigated by perpetrators lurking in narrow passages between buildings that do not have such lighting. These lights will only turn on if there is significant movement in areas where no human should be present. While we hope they are infrequently activated, the safety of tenants and neighbors is paramount.

Column Size

The columns shown are the correct size. They are 5 ½" x 5 ½" steel HSS columns that will be sized to handle at 2,000# impact per code. These sizes are rendered correctly and have been confirmed with our structural engineer. Column sizes have also been considered on our turning template.

The centrally located ADA drive aisle is designed to accommodate two accessible vehicles if present. One of those spaces has a column between the loading and vehicular storage space. The other does not. In addition to locating this aisle to accommodate an extra ADA-vehicle we have placed our EV charger adjacent to that space to ensure it is accessible to someone who needs both the ADA spot and has an EV.

Design Standards

B-1 – Massing

As noted in the neighborhood study accompanying our original submission; within a two-block radius there are numerous buildings with a maximum width over 15'-0". The proposed building's façade is broken into two major sections. One between grid lines 1-2 is 13'-0" wide, which includes a first-floor business occupancy. The remainder (between grid lines 1.5-3) is 32'-0" further broken into a 17'-6" wide canopy and a 15'-6" recessed area. We feel this breaks up the building's massing at the street scale without feeling too disjointed. Buildings in the adjacent two blocks are not broken into narrow segments. They are predominantly wider than 15'-0" as illustrated below:

- 318 St. John Street: 188'-0"+ (along St. John Street)
- 392 St. John Street: façade width 24'-6"
- 396 St. John Street: façade width 26'-3"
- 400 St. John Street: façade width 27'-6"
- 382 St. John Street: façade width 30'-3"
- 377 St. John Street: façade width 40'-0"
- 162 Washburn Ave: façade width 55'-3"

B-6 Garages

See circulation comment. The covered walkway is protected from spaces via wheel stops and delineated with material change.

F-1 Articulation

Nominal 4" trim details including corner boards, and window trim have been added to the model to clarify articulation of the façade which are typical of neighboring structures.

F-3 Visual Cohesion

Our foundation is reinforced concrete. Standard does not suggest a brick foundation is required. All adjacent buildings are clapboard with no structures having a pattern of first floor masonry and upper floor clapboard/shingles. The structure will have exterior insulation outside of shell which will be covered with a smooth fiber cement panel in dark gray similar to LP Smartside Smooth Finish Panel in a cavern steel color. Our team does not feel adding a brick veneer to the exterior, of which a max. of 18" is visible and will be obscured by planting, merits the complexity of introducing such a detail to our project.

F-4 Delineation Between Floors

Raising the entrance canopy in line with the second-floor plate brings the pedestrian entrance out of scale team added a 4" nominal trim detail along the canopy and garage opening at the side of the building. We have raised it slightly from the previous iteration. We believe the open first floor on the side facade with vehicles set under the building is a strong visual delineation from the windows and clapboards on the upper stories; confusion between delineation of floors seems unlikely.

F-5 Porches, etc.

A rail, as required by building code, is provided at steps and the ADA ramp. It will not include balusters.

F-6 Main Entries

The canopy feature does not inhibit pedestrian access at the main entry ramp. A defining and supportive

structural column will provide point of attachment for a required hand rail. Ramp, handrails and extensions, as well as turning radii at top and bottom, meet ADA standards.

F-8 Articulation

All trim shown is 4" nominal trim. The fascia trim is over 6" and the eave extends 1'-0" from the face of the building. Our cornice trim is a flat-stock nominal 4" trim to match the siding.

G-1 Materials

See elevations and renderings. Elevations and renderings depict a dark blue/gray clapboard-style siding which will be fiber cement similar to cedar textured LP Smartside lap siding, color Rapids Blue.

G-2 Materials

Foundation will be differentiated with change in material color. It will not be brick veneered. Note that the foundation will largely be obscured by native plantings (see F-3 notes above).

ADA Review

First Floor Plan Comments

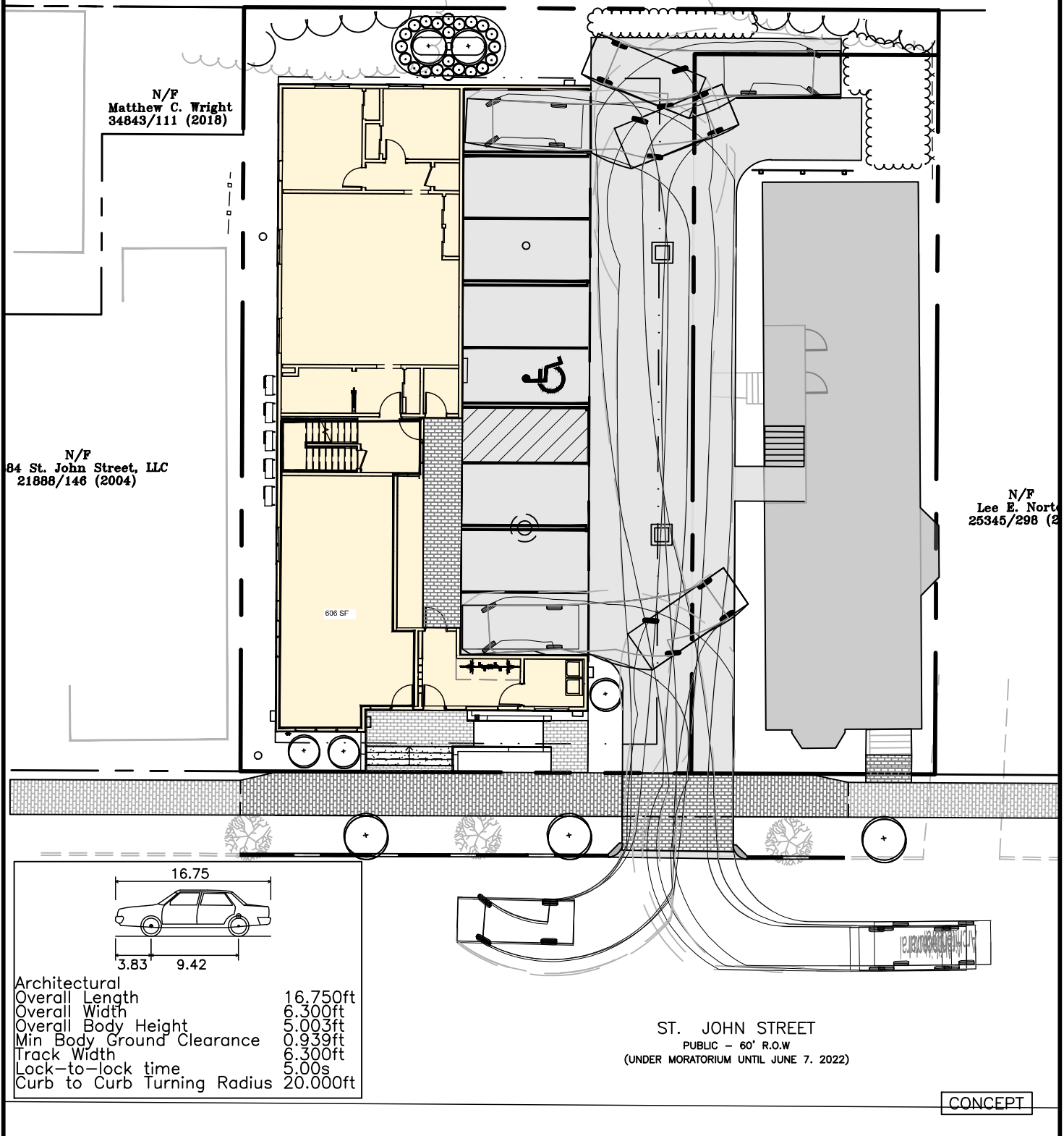
- Parking space: ADA space is between column lines E and D. There is no column obstructing this space. See comments under circulation on page 1.
- Door: The door has also been relocated adjacent to the walkway.
- Bathroom: Note the dashed fixture clearances on plan illustrating compliance. -Turning radius: There are 5'-0" turning radius at bottom and top of ramp.
- Rail: There are handrails on both ramp and stair which include 1'-0" rail extensions at top and bottom per code outside the turning radius.
- Mechanical exhaust: Mechanical engineer will confirm compliance with exhaust standards.
- EV charger placement: EV charger is placed adjacent to the access aisle to prevent non-compliance with amenities provided for accessible spaces inaccessible spaces.
- Basement: No tenant amenities in basement just building sprinkler riser.

Thanks for your feedback.

Regards,



Tracie J. Reed, Dextrous Creative, LLC (she/her)
Maine Licensed Architect. Licensed to Practice Architecture in MA, NCARB



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	DESIGN BY: SJL DRAWN BY: ZMS CHECKED BY: WHS		PROJECT NAME: 392 ST JOHN STREET REDEVELOPMENT		
DRAWING NO. EX			CLIENT: ALEX COUPE PORTLAND, MAINE		REV DATE

392 ST. JOHN STREET REDEVELOPMENT

ALEX COUPE
PORTLAND, MAINE

LEGEND

EXISTING

REFER TO THE
EXISTING
CONDITIONS PLAN
FOR ADDITIONAL
INFORMATION



PROPOSED

UNDERDRAIN
BRICK SIDEWALK
GREEN SPACE
CONCRETE
RESURFACED PAVEMENT
UTILITY PAVEMENT CUTS
STRIPING
SEDIMENTATION BARRIER
EDGE OF EX. PAVEMENT
CURB
SIGN
LAMP OR LIGHT POLE
UTILITY POLE
GUY WIRE
WATER VALVE
FIRE HYDRANT
SEWER MANHOLE
CATCH BASIN
DRAIN MANHOLE
DRAIN INLET
UNDERGROUND ELECTRIC LINE
UNDERGROUND WATER LINE
MINOR CONTOURS (1 FT)
MAJOR CONTOURS (5 FT)
GAS LINE
STORM DRAIN LINE
SEWER LINE
EXISTING/PROPOSED BUILDING
FOUNDATION DRAIN
OVERHEAD ELECTRICAL/TELEPHONE/CABLE
PROPERTY LINE
SETBACKS

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C-47 EROSION CONTROL DETAILS & NOTES

CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

UTILITIES

SEWER

DEPARTMENT OF PUBLIC WORKS (DPW)
250 CANCO ROAD
PORTLAND, MAINE 04101
CONTACT: BRAD ROLAND, PE
(207) 874-8834



WATER

PORTLAND WATER DISTRICT
225 DOUGLASS STREET
PO BOX 3553
PORTLAND, MAINE 04104
ATTN: MEANS DIVISION
(207) 774-5961



ELECTRIC

CENTRAL MAINE POWER COMPANY (CMP)
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PORTLAND, MAINE 04103
CONTACT: JAMIE COUGH
(207) 828-2882



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(207) 745-9363



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(877) 546-0962



NATURAL GAS

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(207) 541-2536



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GEOTECHNICAL ENGINEER

SUMMIT GEOENGINEERING SERVICES
LEWISTON, MAINE
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(207) 576-3313

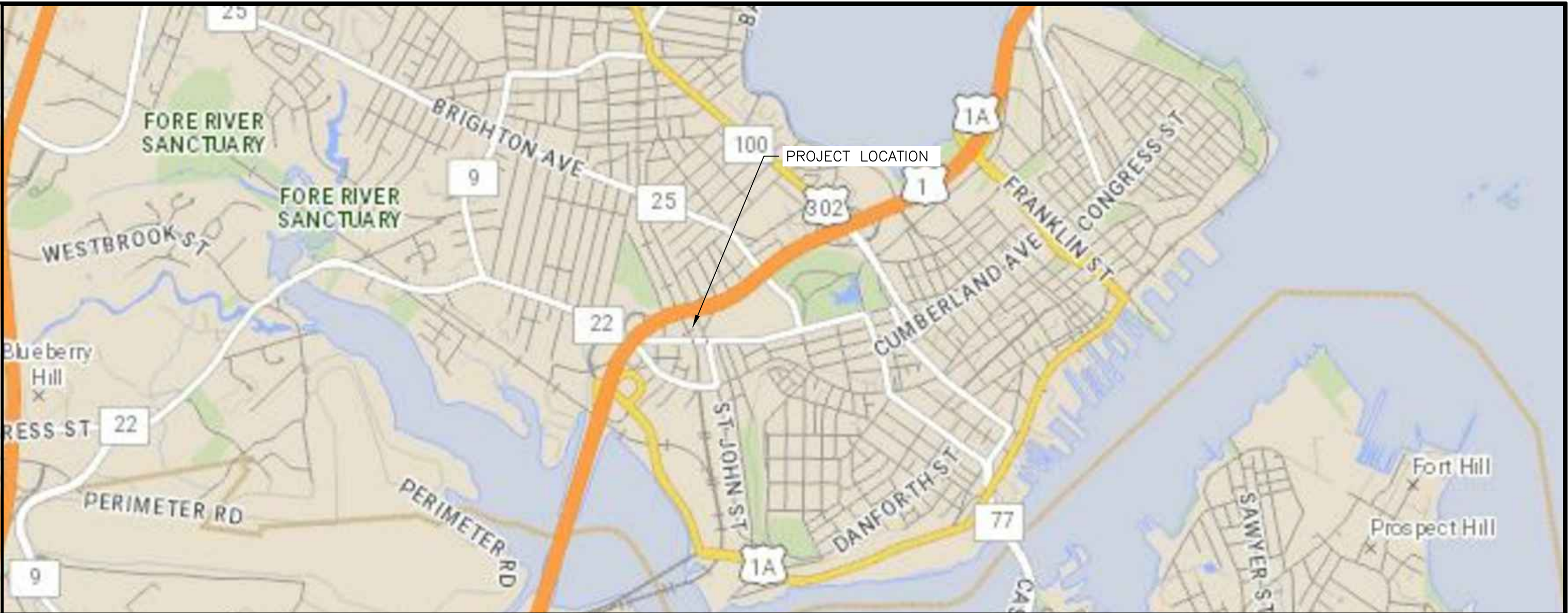


ABBREVIATIONS

PARTIAL LIST OF ABBREVIATIONS AND THEIR CORRESPONDING MEANING. PLEASE CONTACT THE ENGINEER FOR ANY CLARIFICATION

APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CB	CATCH BASIN
CF	CUBIC FOOT
CIP	CAST IN PLACE
CL	CENTERLINE
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARD
DI	DUCTILE IRON PIPE
DIA.	DIAMETER
DIM.	DIMENSION
EA.	EACH
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FT.	FEET
HDPE	HIGH DENSITY POLY ETHYLENE
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
MDEP	MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
M.E.P	MECHANICAL, ELECTRICAL, PLUMBING DESIGNER
MFG.	MANUFACTURED
MH	MANHOLE
MIN.	MINIMUM
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OHE/T/C	OVERHEAD ELECTRIC/TELEPHONE/CABLE
PC	PRECAST
PE	PROFESSIONAL ENGINEER
PL	PROPERTY LINE
PLS	PROFESSIONAL LAND SURVEYOR
PROP.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PWD	PORTLAND WATER DISTRICT
R	RADIUS
RD	ROOF DRAIN
RET.	RETAINING
ROW	RIGHT OF WAY
S	SLOPE
SD	STORM DRAIN
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SMH	SEWER MANHOLE
SPEC.	SPECIFICATION
TC	TOP OF CURB
TW	TOP OF WALL
TYP.	TYPICAL
UD	UNDERDRAIN
UGE	UNDERGROUND ELECTRIC
VIF	VERIFY IN FIELD

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION



VICINITY MAP
NTS

ISSUED FOR
MAJOR SITE/SUB

BY
DATE
S JL
7/2/21

COVER SHEET & LEGEND

PROJECT NAME
392 ST. JOHN STREET REDEVELOPMENT

CLIENT
ALEX COUPE
PORTLAND, ME

ACORN ENGINEERING, INC.

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

FILE: 1156_CIVIL

JN: 1156

SCALE: AS NOTED

DESIGNED BY: SJL

DRAWN BY: ZMS

CHECKED BY: WHS

7/2/21

DRAWING NO.

C-01

1. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.

- CIVIL SITE NOTES:

- SPECIAL INSPECTION NOTES:

- BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

- 5.1. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINE ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
- 5.2. THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT AND ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES. THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, AND NET CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.
- 5.3. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN TEN DAYS OF THE FINAL INSPECTION STATING WHETHER THE WORK REQUIRES A SPECIAL INSPECTION WAS TO THE BEST OF THE INSPECTOR'S KNOWLEDGE AND BELIEF IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE. WORK NOT IN COMPLIANCE SHALL BE NOTED IN THE REPORT.
- 5.4. SPECIAL INSPECTOR SHALL BE EMPLOYED BY OWNER AND COORDINATED BY THE CONTRACTOR.

1. MONUMENTS DELINEATING PROPERTY LINES OR RIGHT OF WAYS SHALL NOT BE DISTURBED DURING CONSTRUCTION OPERATIONS. IN THE CASE A MONUMENT IS DISTURBED, AT THE CONTRACTOR'S EXPENSE, THE MONUMENT SHALL BE RESET TO ITS ORIGINAL LOCATION AND ELEVATION BY A LICENSED PROFESSIONAL LAND SURVEYOR.

- PERMITTING NOTES:

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF SITE PLAN – MAJOR SITE PLAN AND SUBDIVISION PERMIT FROM THE CITY OF PORTLAND.
2. THE CONTRACTOR SHALL REVIEW THE ABOVE REFERENCED PERMITS PRIOR TO SUBMITTING A BID FOR THIS PROJECT, AND INCLUDE COSTS AS NECESSARY TO COMPLY WITH THE CONDITIONS OF THESE PERMITS.
3. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRES A STREET OPENING PERMIT FROM THE CITY OF PORTLAND. ADDITIONALLY, COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS.

1. TOPSOIL STRIPPED FROM THE SITE THAT IS SUITABLE FOR REUSE AS LOAM (MEETS THE REQUIREMENTS WITHIN SECTION 615 OF THE MDOT STANDARD SPECIFICATIONS, MOST RECENT VERSION AND IS FREE OF TRACEABLE AMOUNTS OF CONTAMINANTS) SHALL BE STOCKPILED WITHIN THE PROPOSED LIMIT OF WORK AREA. THE CONTRACTOR SHALL NOT ASSUME THAT ANY STRIPPED TOPSOIL WILL BE ACCEPTABLE FOR REUSE WITH THEIR ESTIMATE.

1. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY; NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING. DEWATERING SHALL INCLUDE TREATMENT OF SILT THROUGH THE USE OF A DIRTBAG BY ACF ENVIRONMENTAL OR APPROVED EQUIVALENT. FLOWS FROM DEWATERING ACTIVITIES SHALL NOT BE DISCHARGED INTO SANITARY SEWERS. SEE BORING LOGS FOR ADDITIONAL INFORMATION.
2. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ANY EASEMENT OR TEMPORARY CONSTRUCTION RIGHTS AS NECESSARY BY PRIVATE ADJACENT LAND OWNERS. THE CONTRACTOR SHALL NOT DISTURB ANY SOIL BEYOND THE PROPERTY LINE WITHOUT NOTIFYING AND OBTAINING SUCH EASEMENT OR TEMPORARY CONSTRUCTION RIGHT FROM THE ADJACENT LAND OWNERS. PRIOR TO THE CONTRACTOR PRICING THE WORK, THEY SHALL PROVIDE ACORN WITH PROOF OF SUCH EASEMENT OR TEMPORARY RIGHTS. SHOULD EASEMENTS OR TEMPORARY RIGHTS NOT BE AVAILABLE, THE CONTRACTOR SHALL INCLUDE COST FOR BRACING AND SHORING AS NECESSARY.
3. THE CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. THE MINIMUM SLOPE SHALL MEET OR EXCEED 0.5% IN ALL CASES. ALL SLOPES SHALL BE AWAY FROM BUILDINGS AND TOP OF PAVEMENT SHALL BE AT OR BELOW EXISTING FINISH FLOOR ELEVATIONS.
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST GEOTECHNICAL REPORT PREPARED BY THE PROJECT GEOTECHNICAL ENGINEER; SUMMIT GEOENGINEERING.
5. NO ADDITIONAL PAYMENT FOR UNSUITABLE MATERIALS.
6. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF $N=0.012$ OR LESS.
7. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
8. NATIVE SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE DISTURBANCE TO SUBGRADE SOILS. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, CONTACT ACORN. THE DISTURBED AREAS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO ADDITIONAL EXPENSE TO THE OWNER.
9. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER; SUMMIT GEOENGINEERING.

1. DISTURBED AREAS ARE DEFINED AS THOSE SURFACES WHERE EXISTING VEGETATION OR STRUCTURES HAVE BEEN REMOVED, EXPOSING NATIVE SOIL TO THE ELEMENTS.

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEST PIT TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES TO COORDINATE WITH THE PROPOSED CONNECTIONS OR CROSSING. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.

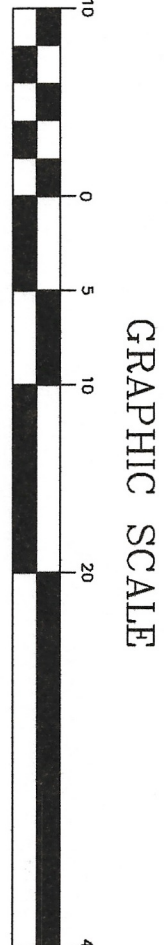
- DEMOLITION NOTES:

- PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

Page 201

Notes:
1) The bearings shown hereon are based on Maine State Plane Coordinate System West (Zone 1802) US Survey Feet, and are based on GPS Observations. Vertical Datum is North American Vertical Datum 1988 (NAVD88).
2) Deed and Plan Book references are to the Cumberland County Registry of Deeds.

Plan References:
1) Maine State Highway Commission Right of Way Map S.H.C. File No. 3-185, Sheet 53 of 73, dated May 1967 recorded in Plan Book 112, Page 55.
2) Boundary Survey 377 Saint John Street, Portland, Maine made for David & Alice Wilson, dated November 14, 2019 by R.W. Baton Assoc. recorded in Plan Book 219, Page 532.
3) St. John Street Right of Way plans on file at City of Portland Engineering Office.



- Legend
- Iron Pipe Found (ipf)
 - Iron Pin Set (5/8" capped rebar) (ips)
 - N/F Now or Formerly of Deed Book & Page
 - Existing Building
 - Utility Pole
 - Edge of Pavement
 - Overhead Elect.
 - 34.83 Spot Elevation
 - Survey Control Point

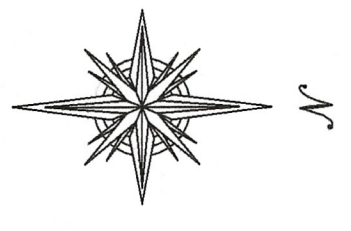
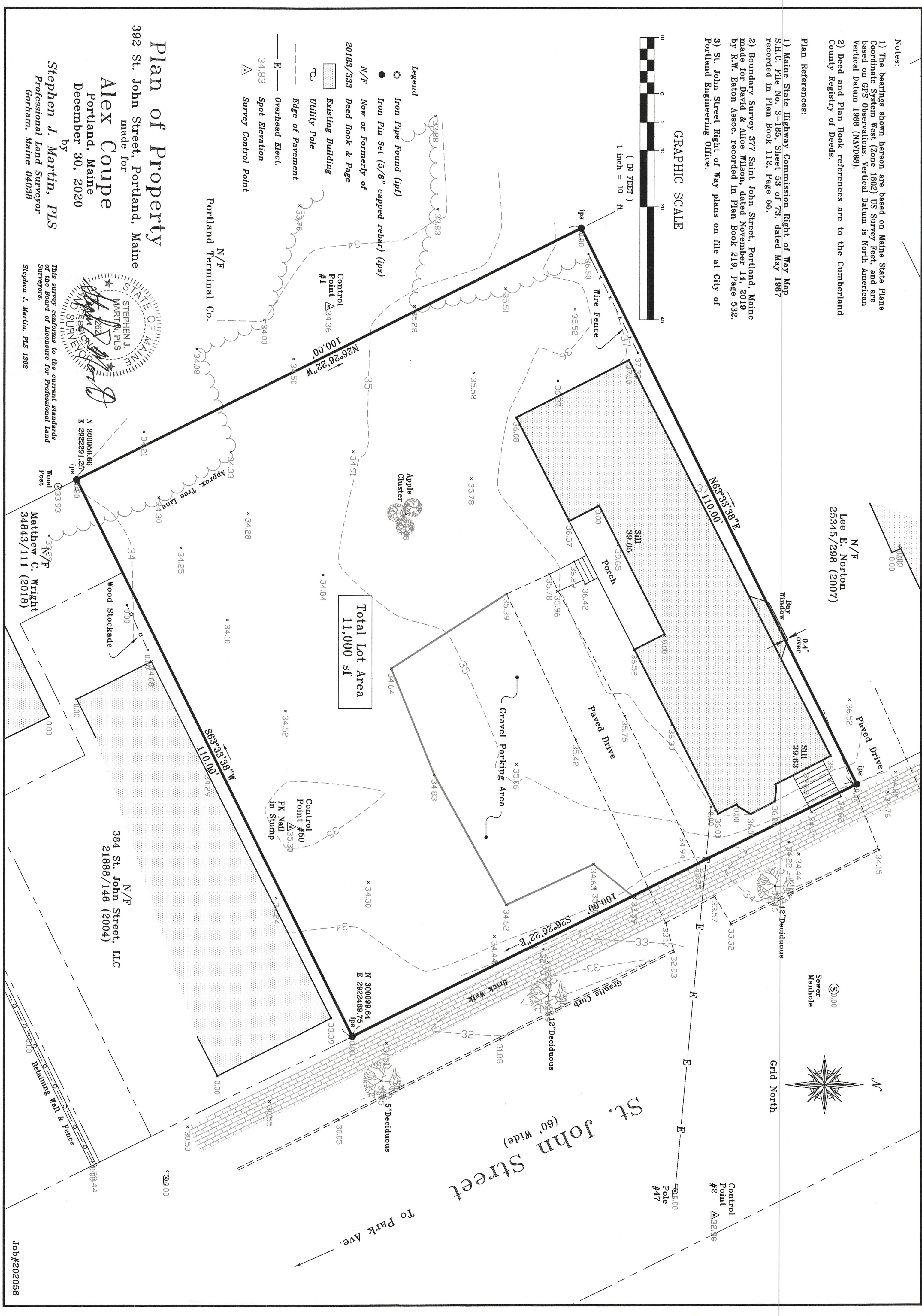
Plan of Property

392 St. John Street, Portland, Maine

Alex Coupe
Portland, Maine
December 30, 2020

by
Stephen J. Martin, PLS
Professional Land Surveyor
Cortiam, Maine 04038

N/F
Lee E. Norton
25345/298 (2007)



Grid North

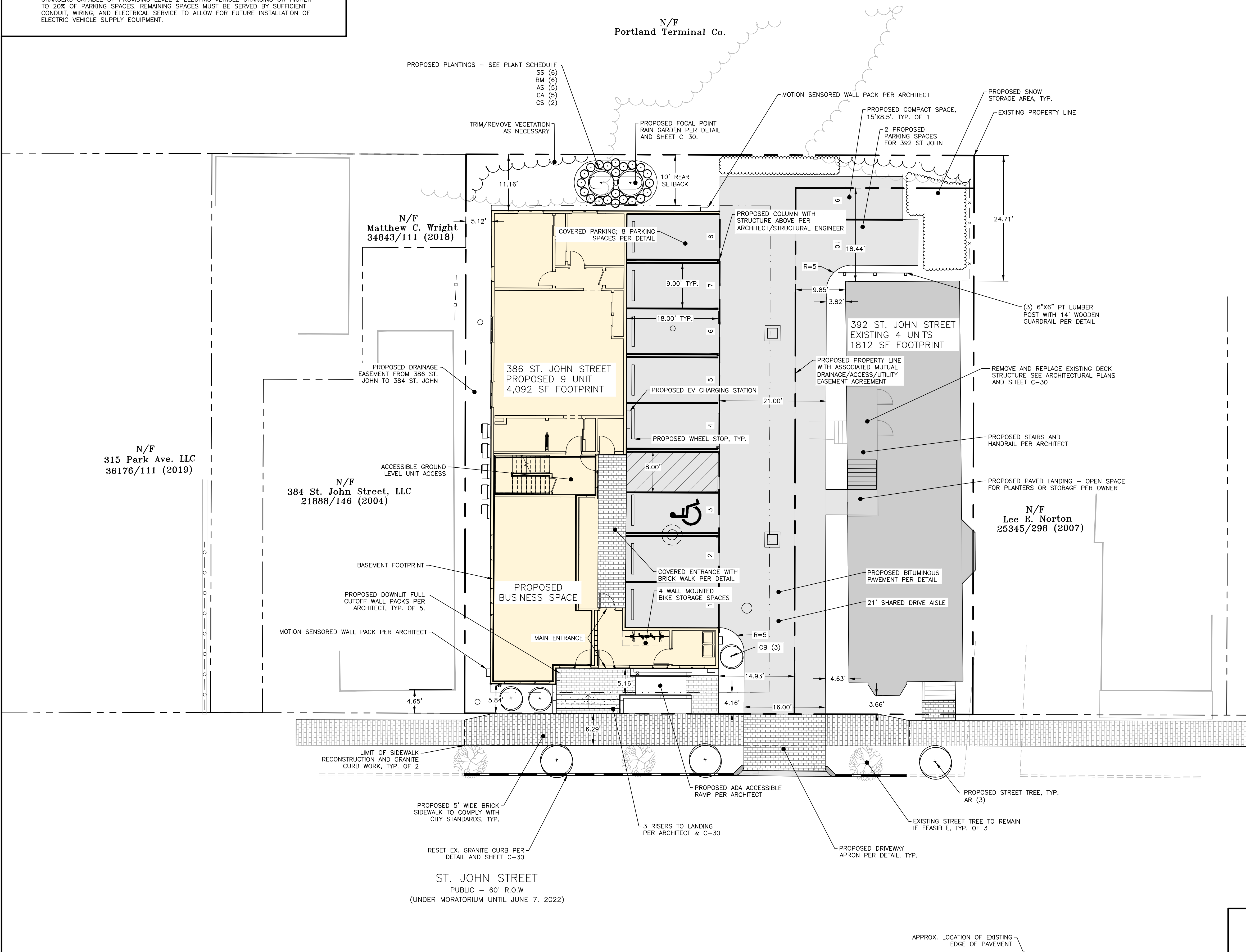
St. John Street
(60' Wide)

To Park Ave.

STATE OF MAINE
STEPHEN J. MARTIN, PLS
MAINE
Professional Land Surveyor
This survey conforms to the current standards of the Board of Licensure for Professional Land Surveyors.
Stephen J. Martin, PLS 1262

GENERAL NOTES:

1. ALL BRICK SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF PORTLAND STANDARD.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF PORTLAND STANDARDS.
3. ANY ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
6. ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.
8. IN ACCORDANCE WITH SECTION 14.6.1 OF THE CITY OF PORTLAND LAND USE CODE, AND SECTION 1.17 OF THE PORTLAND TECHNICAL MANUAL, NEW PARKING LOTS WITH FIVE OR MORE SPACES SHALL INCLUDE ENERGIZED ELECTRICAL OUTLETS OR INSTALLED CHARGERS CAPABLE OF PROVIDING LEVEL 2 ELECTRIC VEHICLE CHARGING OR HIGHER TO 20% OF PARKING SPACES. REMAINING SPACES MUST BE SERVED BY SUFFICIENT CONDUIT, WIRING, AND ELECTRICAL SERVICE TO ALLOW FOR FUTURE INSTALLATION OF ELECTRIC VEHICLE SUPPLY EQUIPMENT.



IMPERVIOUS AREA WITHIN PROPERTY		
LOCATION	386 ST JOHN	392 ST JOHN
ROOF	4,092	1,812
PAVEMENT	1,548	911
BRICK	135	18
RAMP/STAIRS	97	24
TOTAL (SF)	5872	2765
IMPERVIOUS RATIO	79.7%	76.1%

SPACE AND BULK STANDARDS FOR 386 ST. JOHN STREET		
RESIDENTIAL ZONING DISTRICT (R6)	REQUIRED	PROPOSED
MINIMUM LOT AREA	2,000 SF	7,366 SF
MAXIMUM LOT AREA PER DWELLING UNIT	7,366 SF / 725 SF = 10 UNITS	9 UNITS
STREET FRONTAGE	20 FT	64.91 FT
LOT WIDTH	20 FT	64.91 FT
FRONT SETBACK	4.16 FT (AVG. ABUTTERS)	5.84 FT
REAR SETBACK	10 FT	11.16 FT
SIDE SETBACK	5 FT	LEFT: 5.12 FT RIGHT: 14.93 FT
STRUCTURE HEIGHT	45 FT	33.62 FT
MAXIMUM LOT COVERAGE	60 %	56.1%
MINIMUM LANDSCAPED OPEN SPACE RATIO	20 %	20.3%

386 ST JOHN PARKING SUMMARY	
	# PARKING SPACES
REQUIRED RESIDENTIAL PARKING*	1 SPACE / DWELLING UNIT AFTER 3 UNITS & SUBTRACT 1 SPACE PER WORKFORCE UNIT = 5
REQUIRED BUSINESS PARKING*	1 SPACE / 400 SF OF FLOOR AREA = 1 SPACE
STANDARD (9'x18')	7
ADA (8'x18')	1
TOTAL PROPOSED SPACES	8
BIKE PARKING (2 SPACES / 5 UNITS = 4 SPACES)	4
*LAND USE CODE TABLE 19-B: NO OFF-STREET PARKING SHALL BE REQUIRED WITHIN 1/4 MILE OF A FIXED TRANSIT SERVICE	

SPACE AND BULK STANDARDS FOR 392 ST. JOHN STREET			
RESIDENTIAL ZONING DISTRICT (R6)	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	2,000 SF	11,000 SF	3,634 SF
MAXIMUM LOT AREA PER DWELLING UNIT	3,634 SF / 725 SF = 5 UNITS	-	4 UNITS
STREET FRONTAGE	20 FT	100 FT	35.09 FT
LOT WIDTH	20 FT	100 FT	35.09 FT
FRONT SETBACK	5 FT	3.66 FT	3.66 FT
REAR SETBACK	10 FT	24.71 FT	18.44 FT
SIDE SETBACK	5 FT	RIGHT: -0.04 FT LEFT: 9.85 FT	-0.04 FT
STRUCTURE HEIGHT	45 FT	< 45'	< 45'
MAXIMUM LOT COVERAGE	60 %	16.5%	49.9%
MINIMUM LANDSCAPED OPEN SPACE RATIO	20 %	61.4%	23.9%

392 ST JOHN PARKING SUMMARY	
	# PARKING SPACES
REQUIRED*	1 SPACE / DWELLING UNIT AFTER 3 UNITS = 1
STANDARD (9'x18')	1
COMPACT (8.5'x15')	1
TOTAL PROPOSED SPACES	2
*LAND USE CODE TABLE 19-B: NO OFF-STREET PARKING SHALL BE REQUIRED WITHIN 1/4 MILE OF A FIXED TRANSIT SERVICE	

PLANT SCHEDULE				
ID	BOTANICAL NAME	COMMON NAME	QTY	SIZE
TREES				
AR	ACER RUBRUM	RED MAPLE	3	2" CAL
SHRUBS				
CB	CORNUS BAILEYI SERICEA 'FARROW'	ARCTIC FIRE REDTWIG DOGWOOD	3	3 GAL
GS	CORNUS SERICEA	RED TWIG DOGWOOD	2	3 GAL
CA	CLETHRA ALNIFOLIA	RUBY SPICE SUMMERSWEET	5	3 GAL
PERENNIALS				
SS	SALVIA SILVESTRISS	'SAGE 'MAY NIGHT'	6	1 GAL
BM	BRUNNERA MACROPHYLLA	BUGLOSS 'JACK FROST'	6	1 GAL
AS	ASTRANIA	GREAT MASTERWORT 'ABBOT ROAD'	5	1 GAL



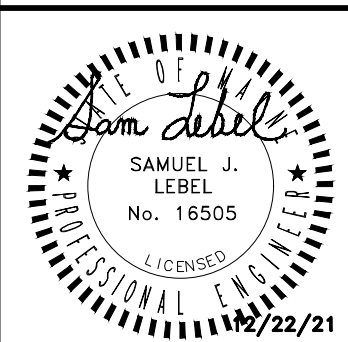
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CONSTRUCTION

ISSUED FOR	BY
MAJOR SITE/SUB	DATE
BUILDING MODIFICATION	SUL
COMMENT RESPONSE	12/22/21
	1/17/22

SITE & LANDSCAPE PLAN	
DRAWING NAME	PROJECT NAME
	392 ST. JOHN STREET REDEVELOPMENT
	CLIENT:
	ALEX COUPE
	PORTLAND, ME

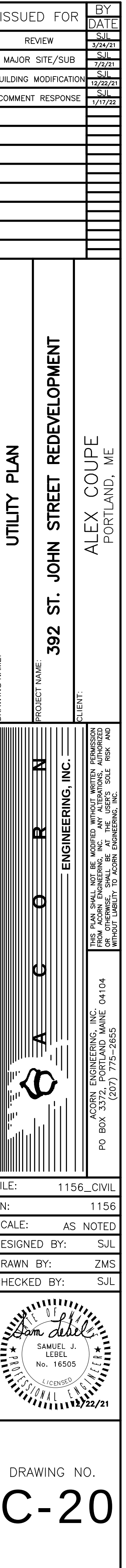
ACORN ENGINEERING, INC.	
ENGINEERING, INC.	
PO BOX 3372, PORTLAND, MAINE 04104	
(207) 775-2655	

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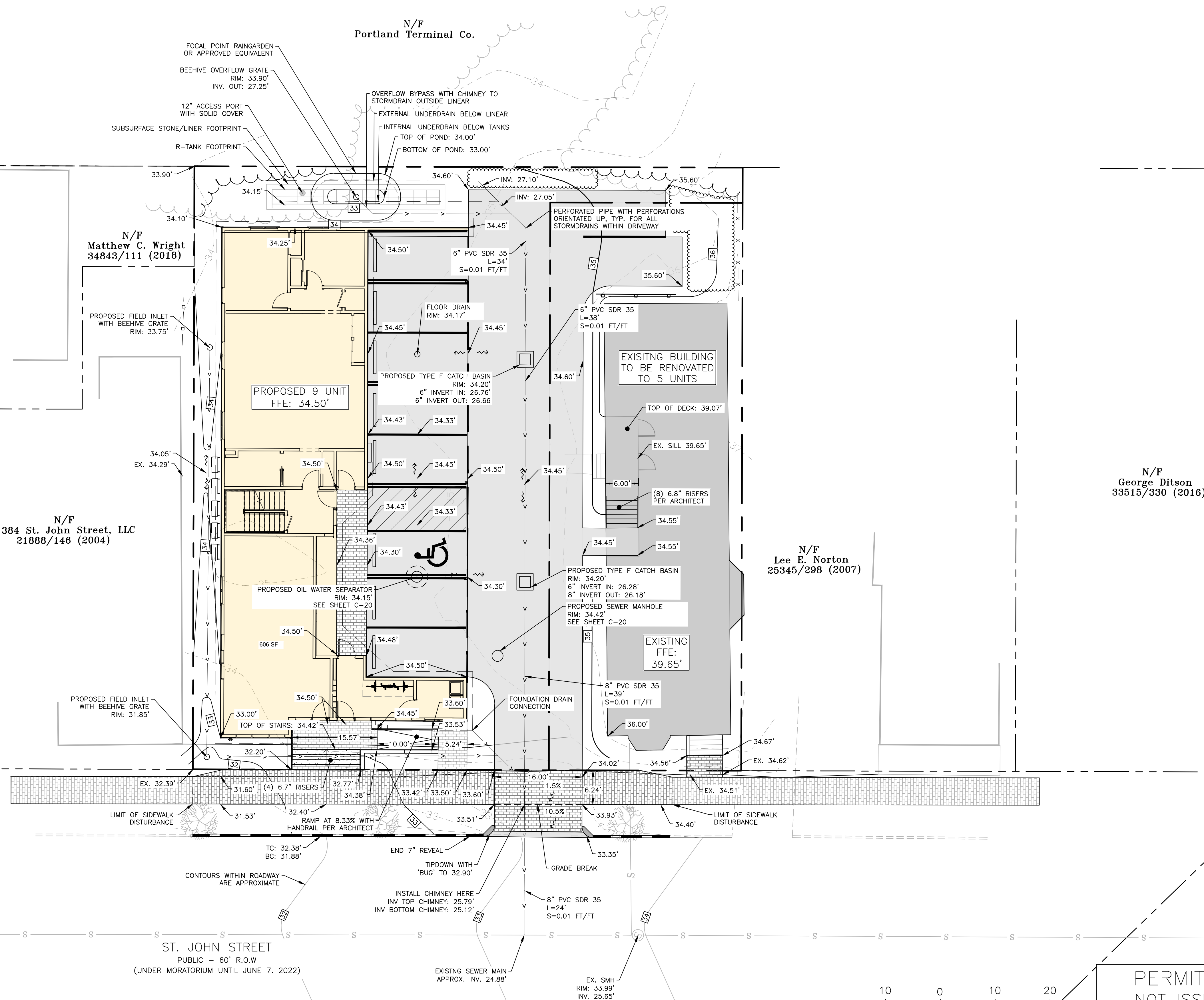
1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR IS TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANIES AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
3. FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
4. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
5. **SEWER UTILITIES:** CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTRACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
6. **WATER UTILITIES:** FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL METER LOCATION. FIRE PROTECTION PIPE SIZES SHALL BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE PORTLAND WATER DISTRICT AND CITY OF PORTLAND.
7. **GAS UTILITIES:** PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E.P. AND IN ACCORDANCE WITH UNTIL.
8. **ELECTRIC UTILITIES:** ELECTRICAL DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO BUILDING. ALL ELECTRIC CONNECTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
9. CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY CHARTER COMMUNICATIONS AND FAIRPOINT TELEPHONE CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.



1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
2. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
3. CONTRACTOR SHALL ENSURE THAT UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONSTRUCTION.
4. CATCH BASIN INLET PROTECTION TO BE INSTALLED WITHIN ANY STRUCTURES DOWNGRADIENT OF ACTIVE CONSTRUCTION.
5. SEDIMENTATION BARRIERS ARE TO BE INSTALLED DOWNGRADIENT OF ALL ACTIVE CONSTRUCTION WORK PER DETAIL. BARRIERS TO NOT EXTEND PAST PROPERTY LINES. BARRIERS SHOWN OFFSET FROM PROPERTY LINES ON PLANS FOR VISUAL PURPOSES ONLY.

AVERAGE GRADE & BUILDING HEIGHT CALCULATIONS - 386	
EASTERLY CORNER:	33.00'
SOUTHERN CORNER:	34.10'
WESTERLY CORNER:	34.65'
NORTHERN CORNER:	33.75'
AVERAGE GRADE:	33.88'
ROOF ELEV:	67.50'
BUILDING HEIGHT:	33.62'

STAGE STORAGE TABLE						
ELE V	AREA (sq. ft.)	DEPT H (ft)	AVG END INC. VOL. (cu. ft.)	AVG END TOTAL VOL. (cu. ft.)	CONIC INC. VOL. (cu. ft.)	CONIC TOTAL VOL. (cu. ft.)
33.0	24.8	N/A	N/A	0	N/A	N/A
33.9	111.3	0.90	61.24	61.24	56.59	56.59



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

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SPADING BLANK

3392 ST. JOHN STREET REDEVELOPMENT

ALEX COUPE
PORTLAND, ME

CLIENT:

ENGINEERING INC.

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

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

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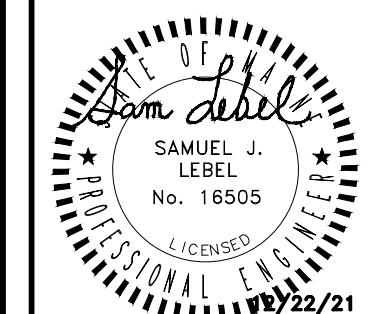
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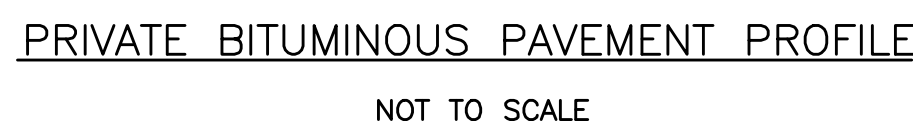
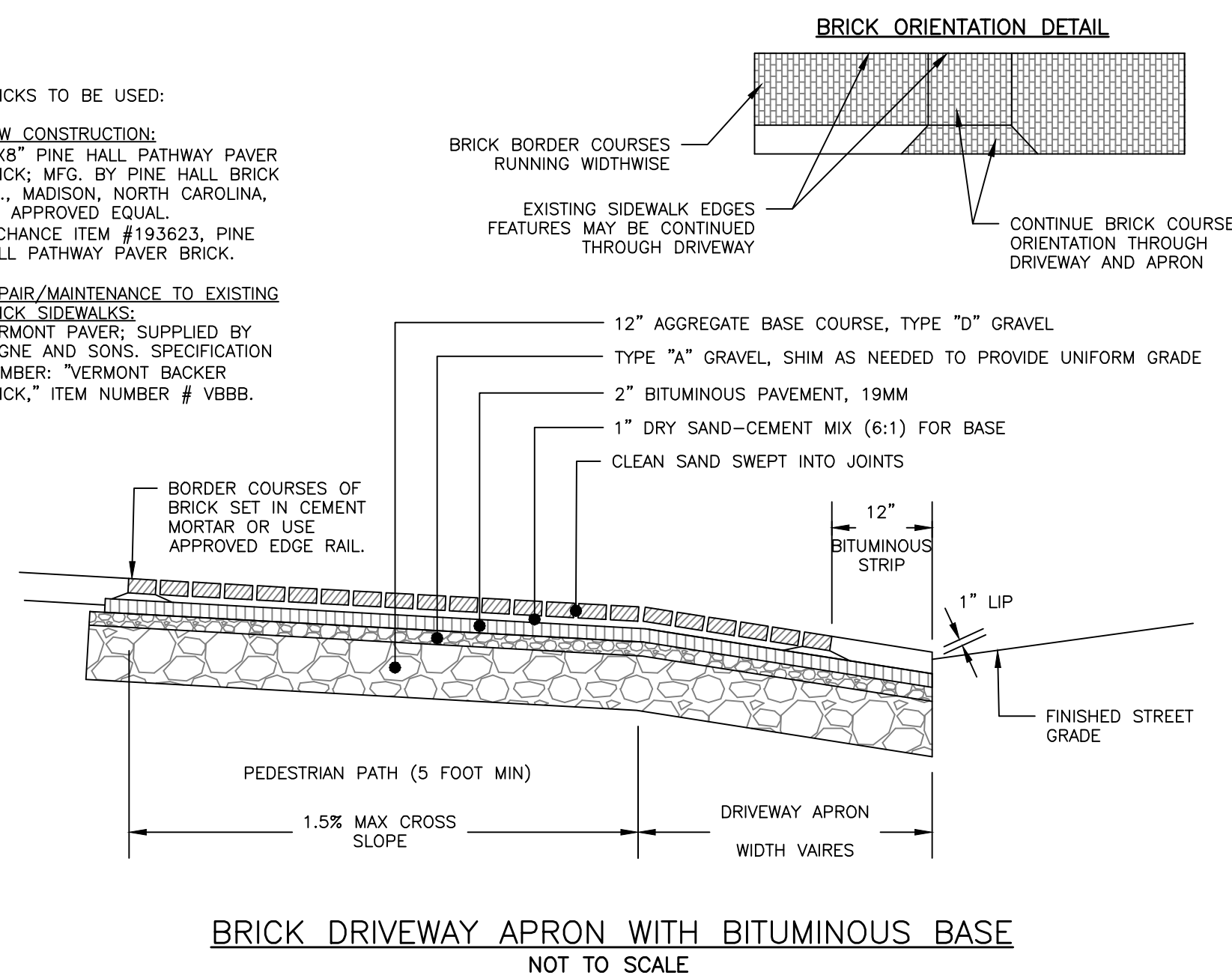
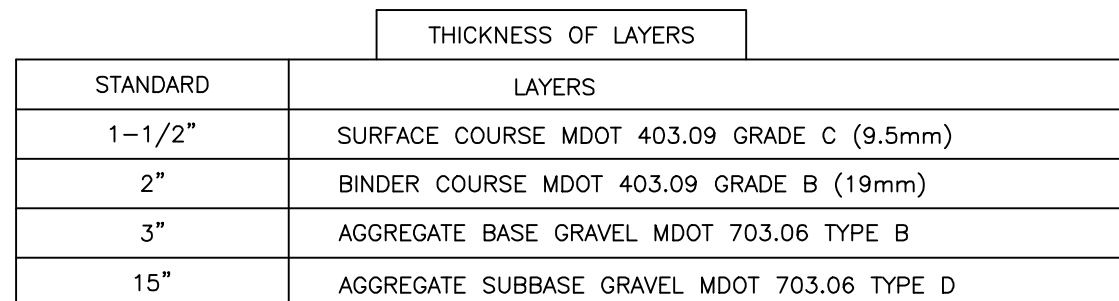
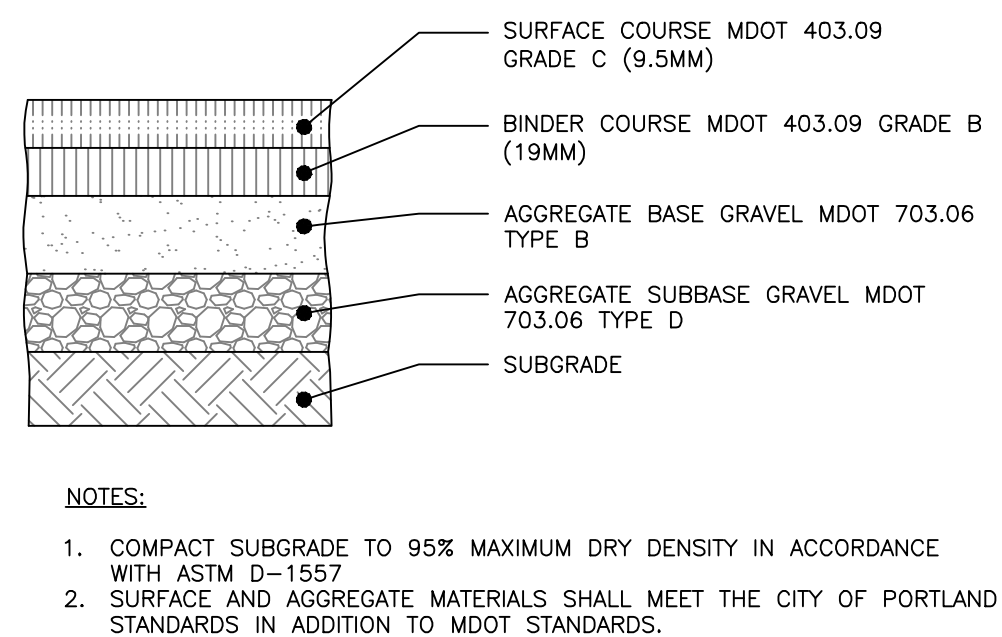
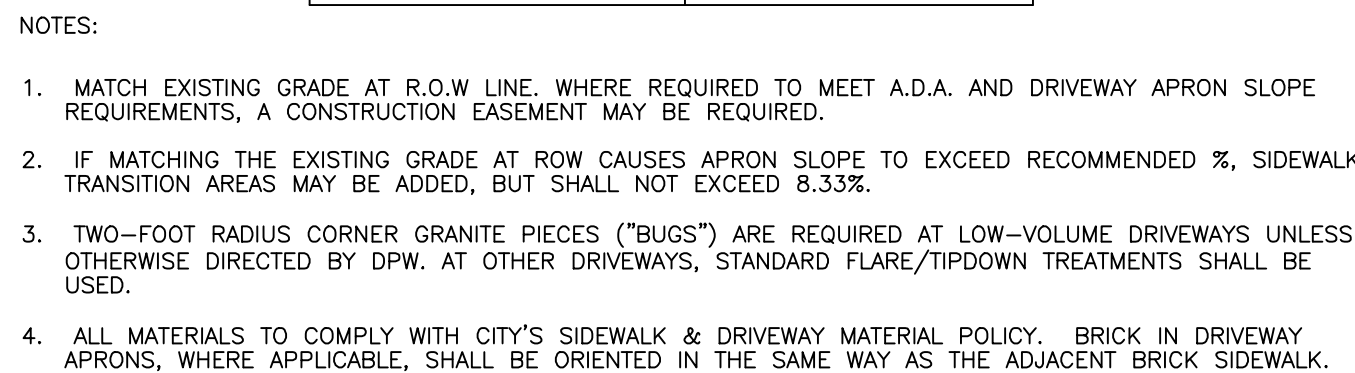
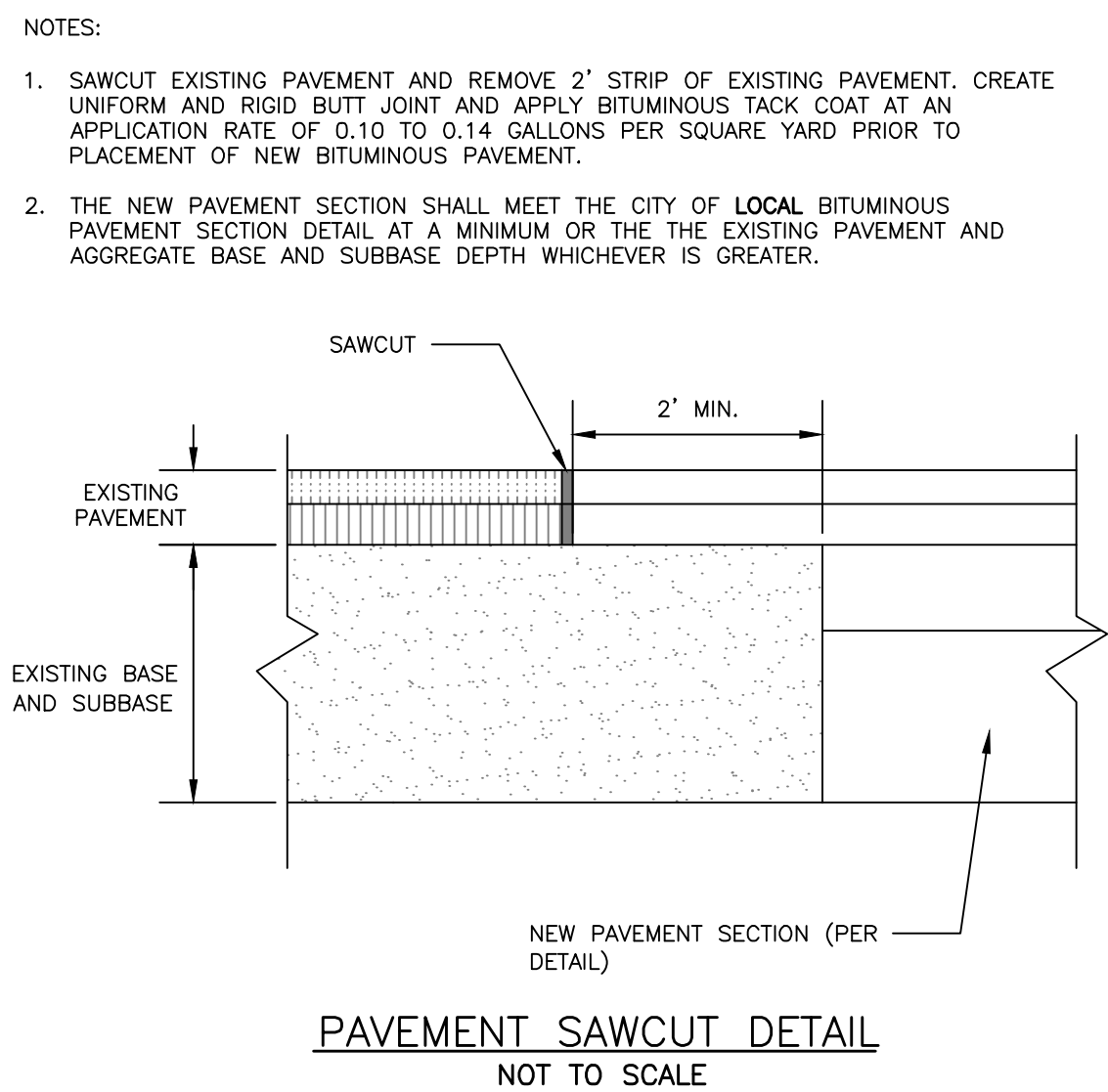
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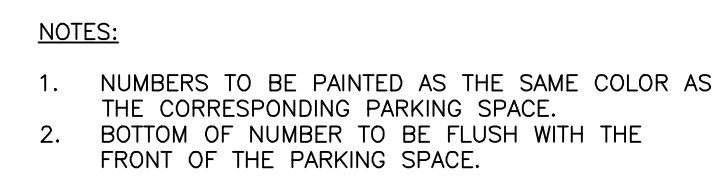


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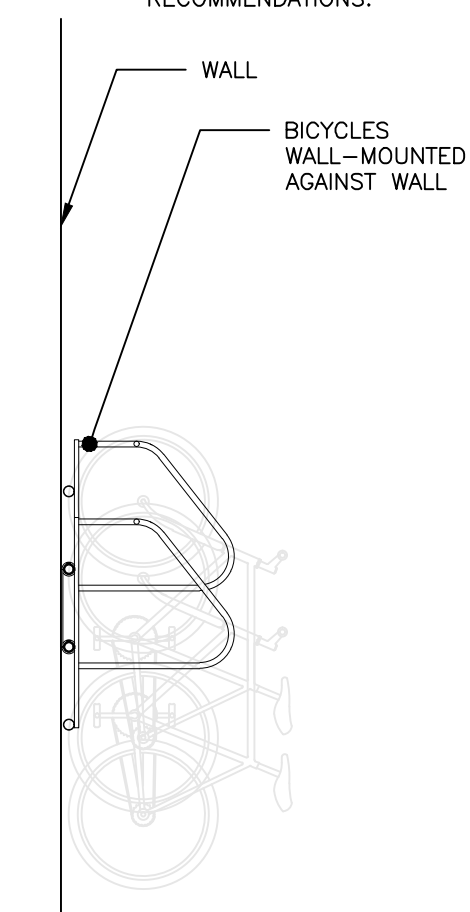


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CONSTRUCTION

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NOTES:

1. FINAL LOCATION OF INTERIOR BICYCLE RACKS SHALL CONFORM TO ALL ARCHITECTURAL DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER AND ARCHITECT WITH ANY DISCREPANCIES.
2. BICYCLE MOUNT SHALL BE ULTRA SPACE SAVER AS MANUFACTURED BY DERO, OR APPROVED EQUAL.
3. BICYCLES SHALL BE WALL MOUNTED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.



BICYCLE RACK INTERIOR
NOT TO SCALE

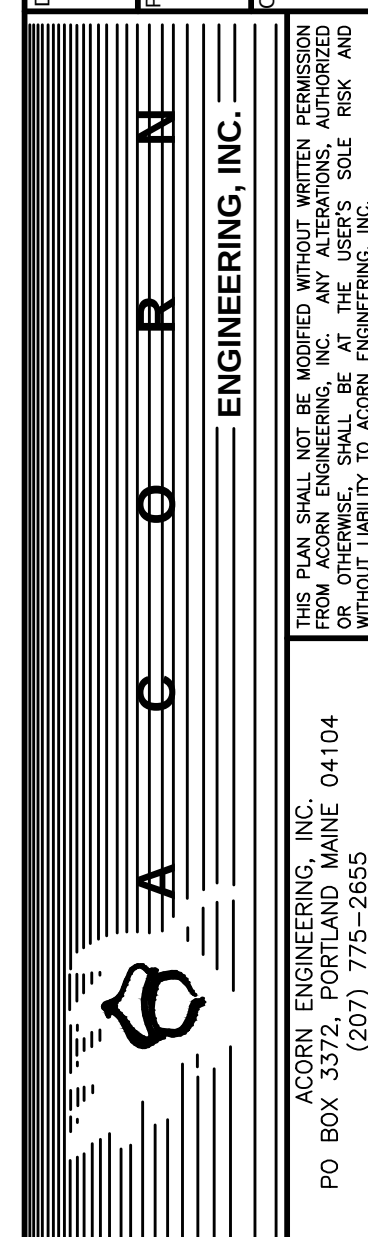
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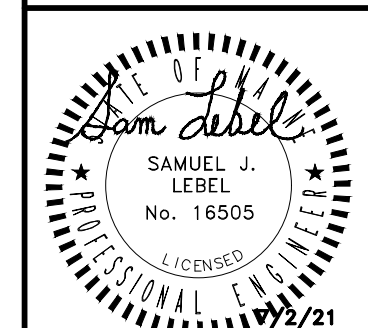
SITE DETAILS - 2

392 ST. JOHN STREET REDEVELOPMENT

ALEX COUPE
PORTLAND, ME

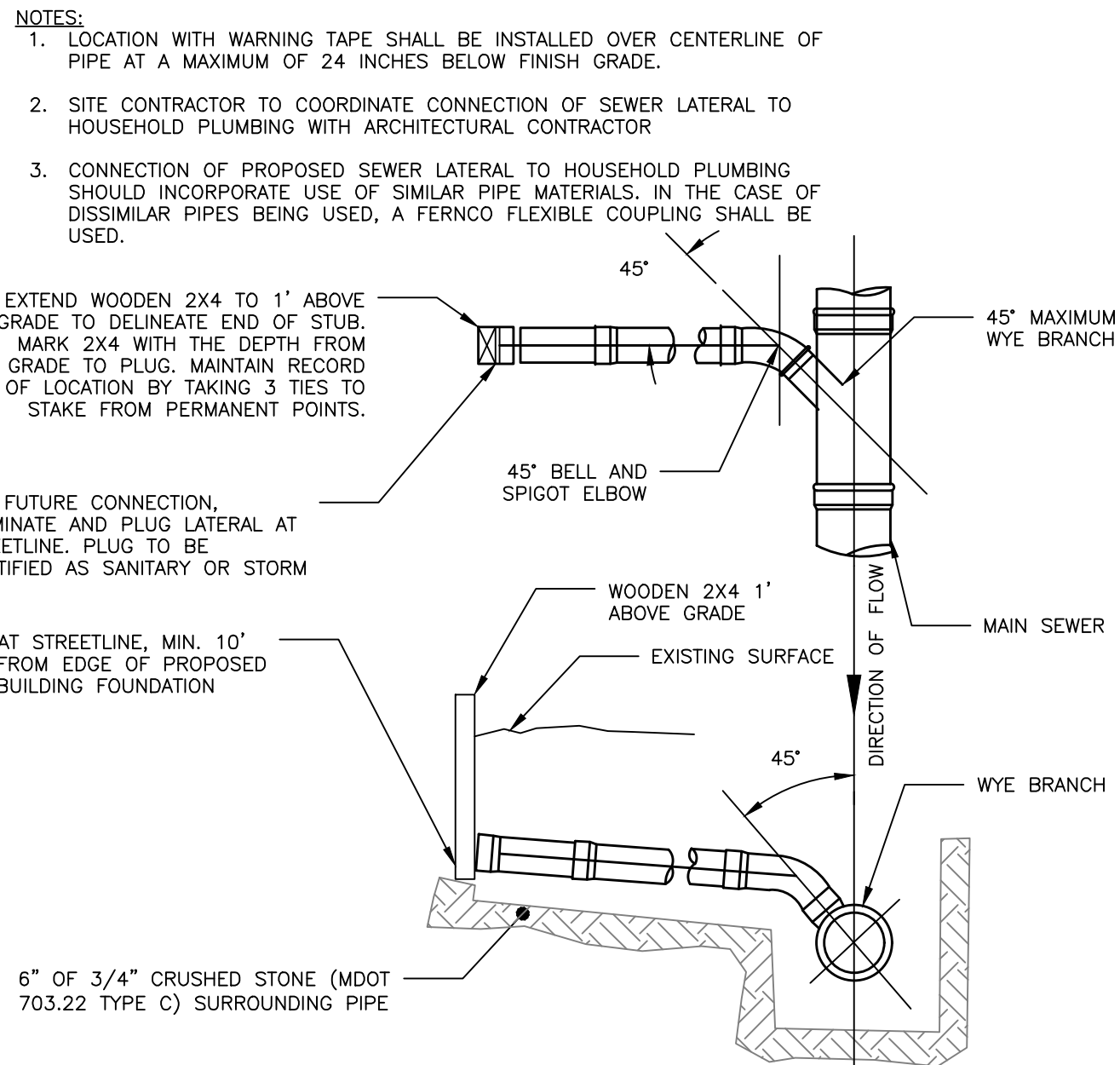


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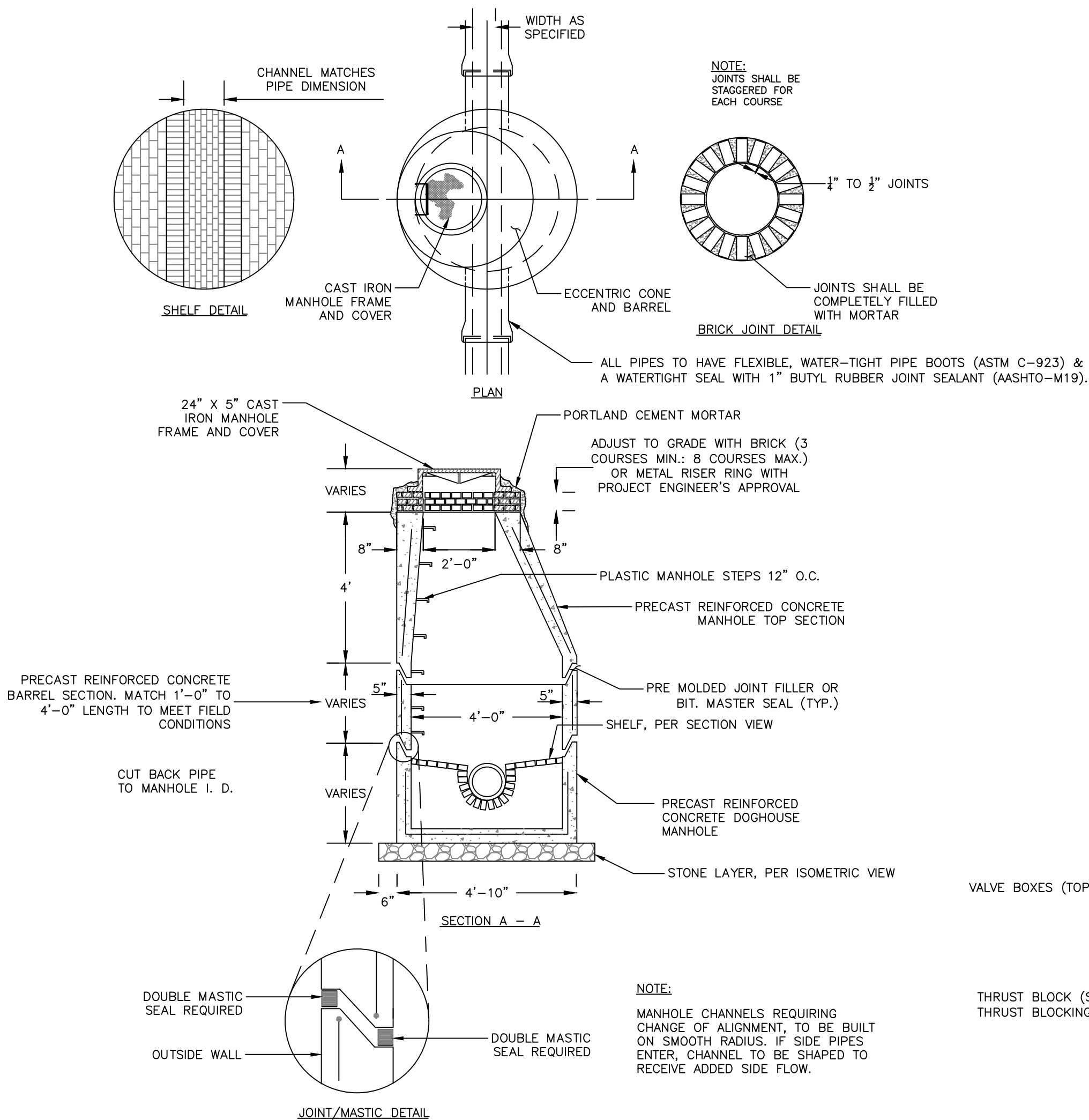


DRAWING NO.
C-41

1. ALL PLANT SELECTION AND INSTALLATION SHALL BE IN COMPLIANCE WITH THE CITY OF PORTLAND TECHNICAL MANUAL (SECTION 4).
2. CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
3. IF THERE IS A DISCREPANCY BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLAN AND THE NUMBER OF PLANTS SHOWN IN PLANT LIST (IF ANY), THE NUMBER OF PLANTS SHOWN ON PLAN WILL TAKE PRECEDENCE.
4. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMAN.
5. ALL DISTURBED AREAS NOT TO BE PAVED OR PLANTED SHALL BE LOAMED AND SEEDED AS SHOWN. THE SEED MIX SPECIFICATIONS ARE AS FOLLOWS: LESCO FINE FESCUE LINKS BLEND OF 35% HARD FESCUE, 35% CREeping REED FESCUE, 20% CHEVINGS FESCUE AND 10% SHEEP FESCUE. ADD 5% LITTLE BLUESTEM AND 5% NORTHEAST WILDFLOWER SEED MIXTURE BY WEIGHT TO THE LINKS BLEND.
6. FOR PRICING PURPOSES, PROVIDE A PER TREE UNIT COST FOR STAKING AND GUYING. IF STAKING AND GUYING IS REQUIRED, REMOVE TREE WRAP, STAKES, AND GUY WIRES AT END OF FIRST GROWING SEASON.
7. FOR TREE PLANTING IN LAWN AREAS, ANY DISTURBED LAWN SHALL BE LOAMED AND SEEDED AS NECESSARY.
8. NEW TREES TO BE INSTALLED WITH A SLOW RELEASE WATERING BAG.
9. CONTRACTOR TO BE HELD RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL PLANT MATERIAL AND LANDSCAPING IMPROVEMENTS FOR AT LEAST 30 DAYS FOLLOWING INSTALLATION. FOLLOWING THIS PERIOD, THE LANDOWNER OR PROPERTY MANAGEMENT SHALL BE RESPONSIBLE FOR CONTINUED WATERING AND MAINTENANCE. CONTRACTOR TO MAINTAIN A ONE YEAR WARRANTY ON ALL PLANTINGS FOLLOWING FINAL INSTALLATION.
10. ALL PROPOSED PLANTS SHALL BE LOCATED AS SHOWN ON THE PLANS. CONTRACTOR TO NOTIFY ENGINEER WHEN PLANTINGS HAVE BEEN MOBILIZED ON SITE. ENGINEER TO INSPECT AND ACCEPT OR REJECT ANY SPECIMENS ON THE BASIS OF APPARENT HEALTH, HARDINESS, AND CONFORMANCE WITH THE PLANTING SCHEDULE. REJECTED SPECIMENS ARE TO BE REPLACED BY THE CONTRACTOR AT NO ADDED COST TO THE OWNER. ACCEPTANCE DOES NOT WAIVE THE REQUIRED ONE YEAR PLANTING WARRANTY.

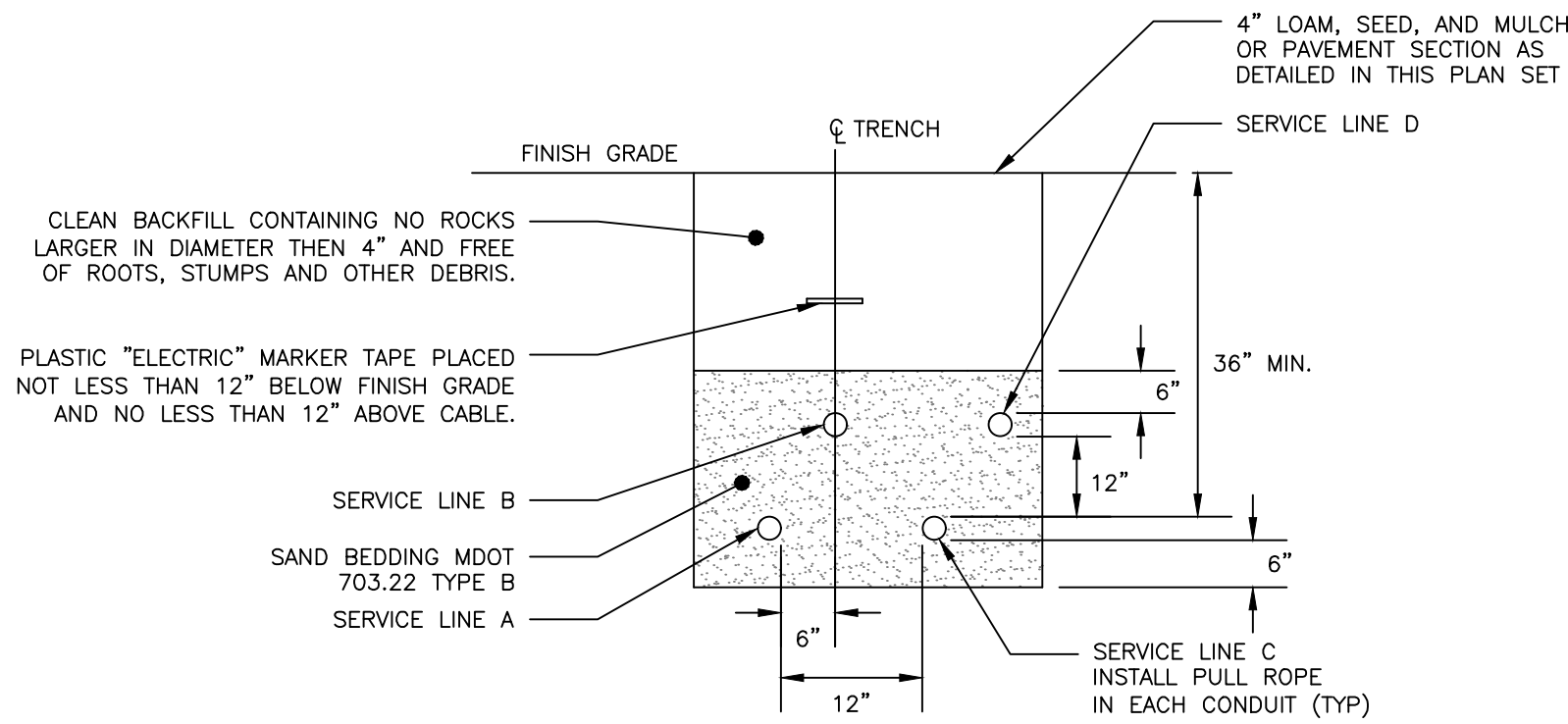


SEWER AND STORM DRAIN TEE/WYE CONNECTION DETAIL
NOT TO SCALE



- NOTES:**
1. UNLESS OTHERWISE SPECIFIED, CONCRETE SHALL BE 4000 PSI @28 DAYS.
 2. RECONSTRUCT INTERIOR MANHOLE INVERT AS NECESSARY TO ACCOMMODATE NEW PIPE.
 3. THIS DETAIL IS INTENDED TO PROVIDE ADDITIONAL INFORMATION TO THE CONTRACTOR IN REGARDS TO THE CONNECTION OF THE DOGHOUSE MANHOLE BASE TO THE EXISTING SANITARY SEWER SYSTEM.
 4. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
 5. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
 6. ALL MANHOLE RISERS SHALL BE ETHERIDGE 24" OR APPROVAL EQUAL.
 7. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE.
 8. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.

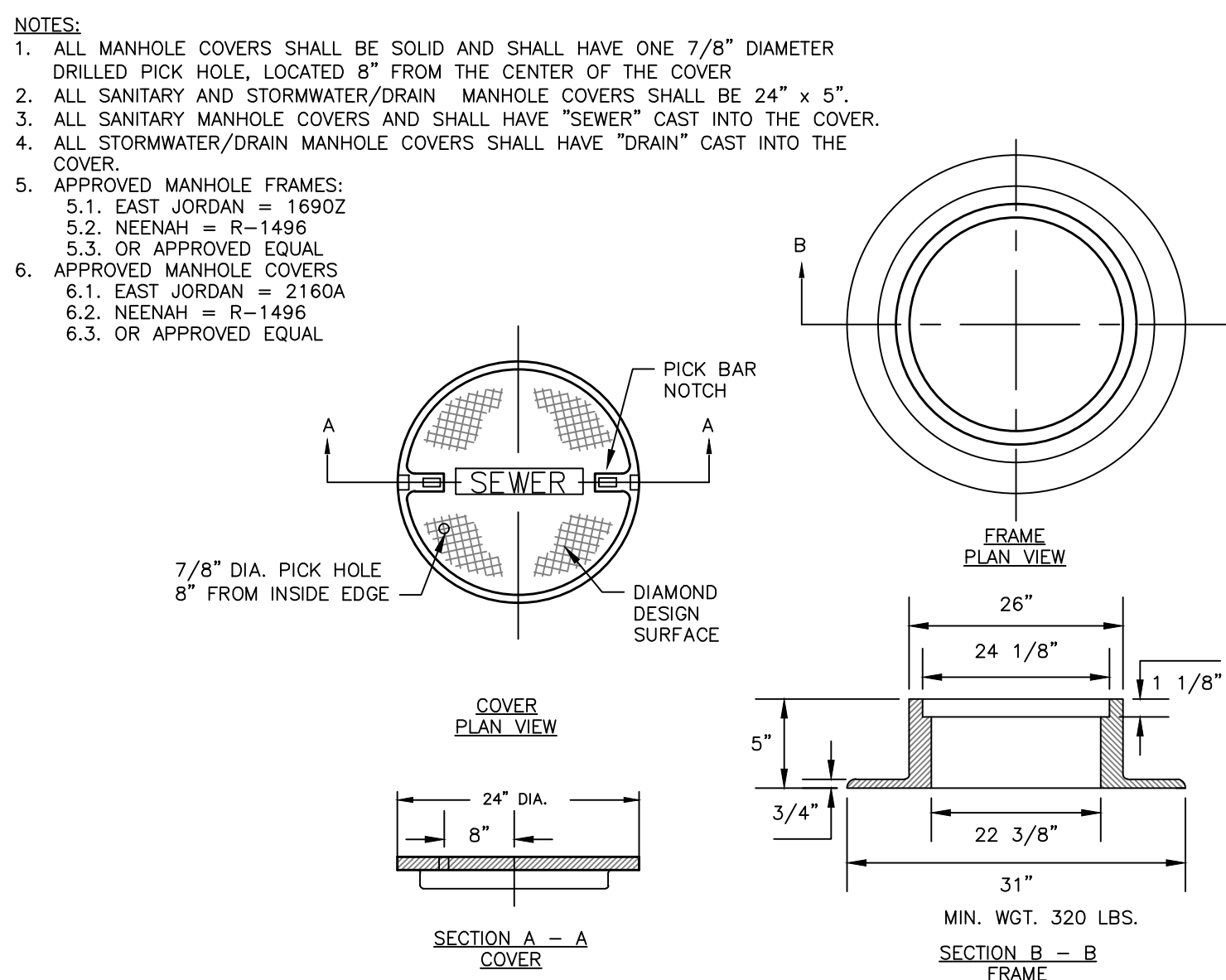
PRECAST CONCRETE MANHOLE - CITY OF PORTLAND
NOT TO SCALE



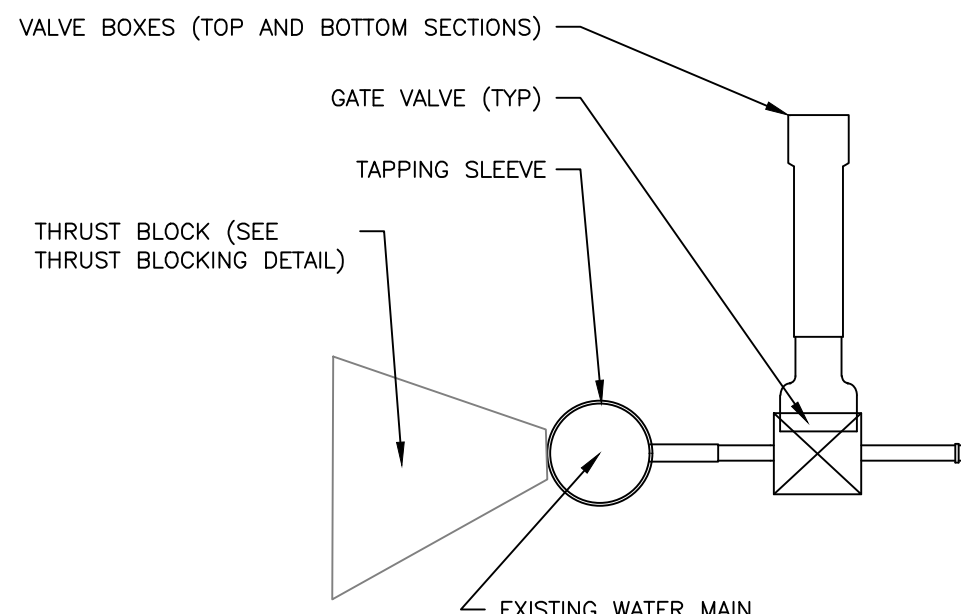
CONDUIT TYPE				
SERVICE	CONDUIT SIZE	GRASS AND PAVED AREAS	UTILITY	REMARKS
A	2-5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
B	2-4"	SCHEDULE 40 PVC	COMMUNICATION	-
C	2-4"	SCHEDULE 40 PVC ELECTRICAL GRADE	SPARE	IF REQUIRED
D	2-4"	SCHEDULE 40 PVC	CABLE	-

- NOTES:**
1. ONE CONDUIT CAPPED FOR SPARE, PROVIDE GALVANIZED STEEL LONG SWEEP AT RISER POLE AND EXTEND GALVANIZED CONDUIT TO 10" ABOVE GRADE AT POLE WITH STAND-OFF BRACKETS.
 2. MINIMUM SEPARATION OF 24 INCHES BETWEEN PRIMARY CABLE/CONDUIT AND GAS LINES SHALL BE MAINTAINED.
 3. CONDUITS WITHIN THE CITY RIGHT-OF-WAY SHALL BE ENCASED IN CONCRETE.

UTILITY TRENCH - PRIMARY AND SECONDARY POWER, TELEPHONE, AND CABLE
NOT TO SCALE

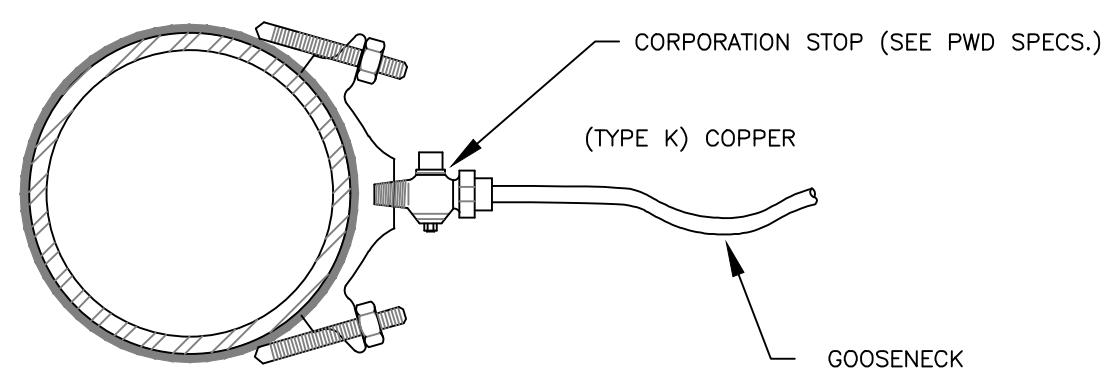


CAST IRON MANHOLE COVER AND FRAME
NOT TO SCALE



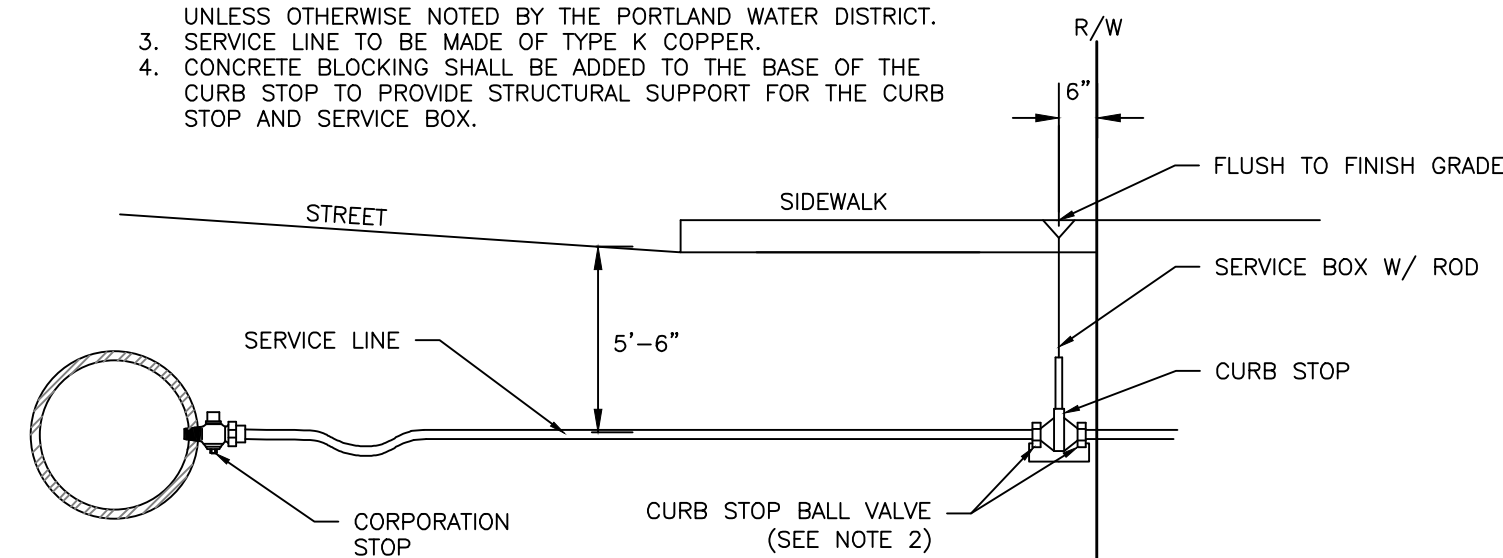
SIDE VIEW

TAPPING SLEEVE AND VALVE
NOT TO SCALE



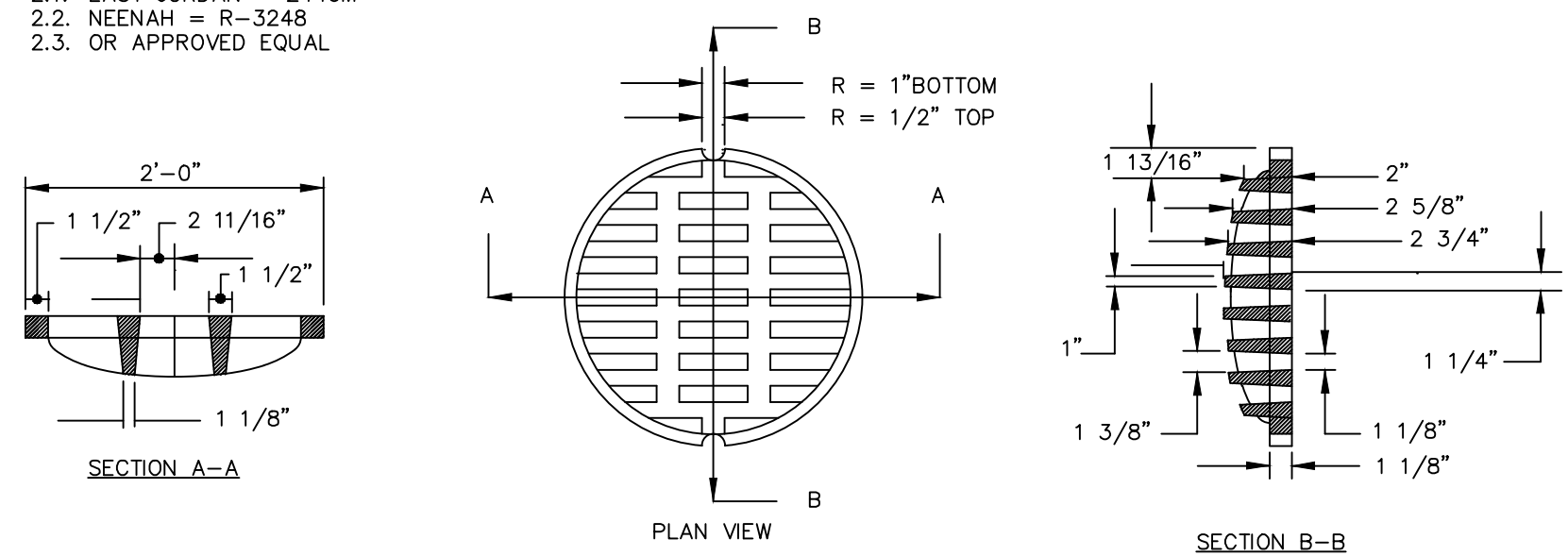
SERVICE SADDLE: 1-1/2" AND 2" C.C. THREAD
NOT TO SCALE

- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES MUST COMPLY WITH THE CITY OF PORTLAND WATER DISTRICT (PWD) SPECIFICATIONS.
 2. CURB STOP BALL VALVE TO BE MADE OF COPPER OR BRASS UNLESS OTHERWISE NOTED BY THE PORTLAND WATER DISTRICT.
 3. SERVICE LINE TO BE MADE OF TYPE K COPPER.
 4. CONCRETE BLOCKING SHALL BE ADDED TO THE BASE OF THE CURB STOP TO PROVIDE STRUCTURAL SUPPORT FOR THE CURB STOP AND SERVICE BOX.

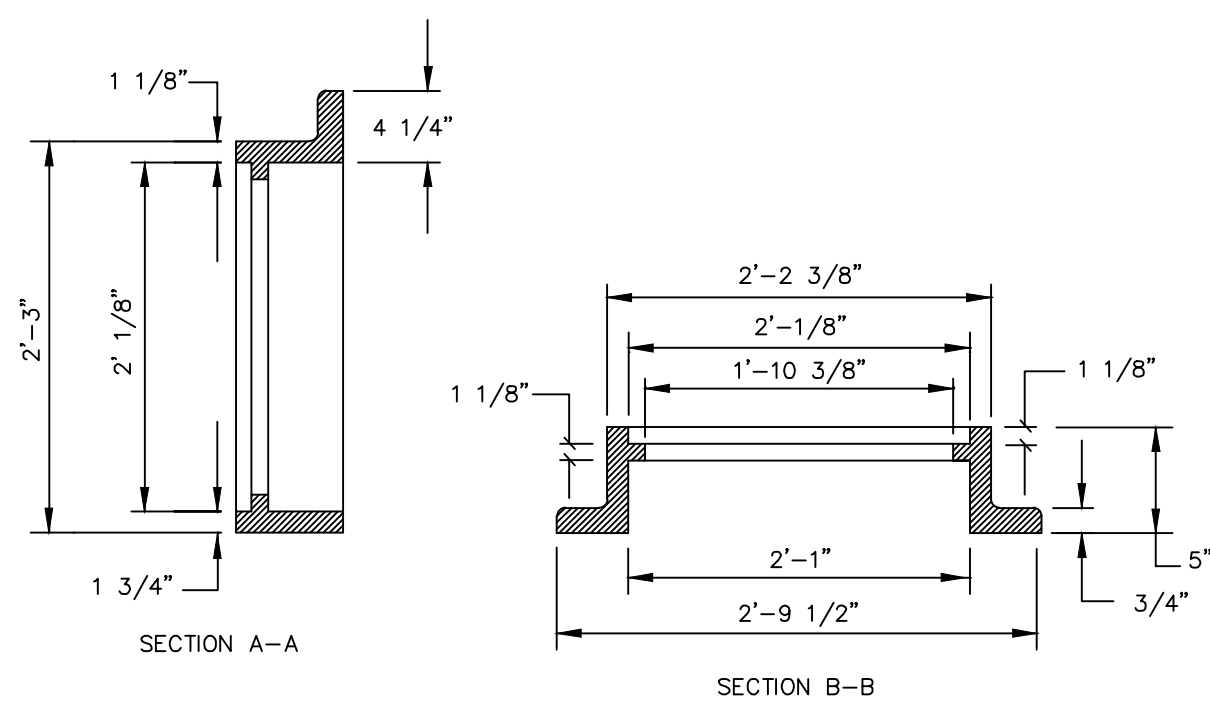


TYPICAL SERVICE CONNECTION
NOT TO SCALE

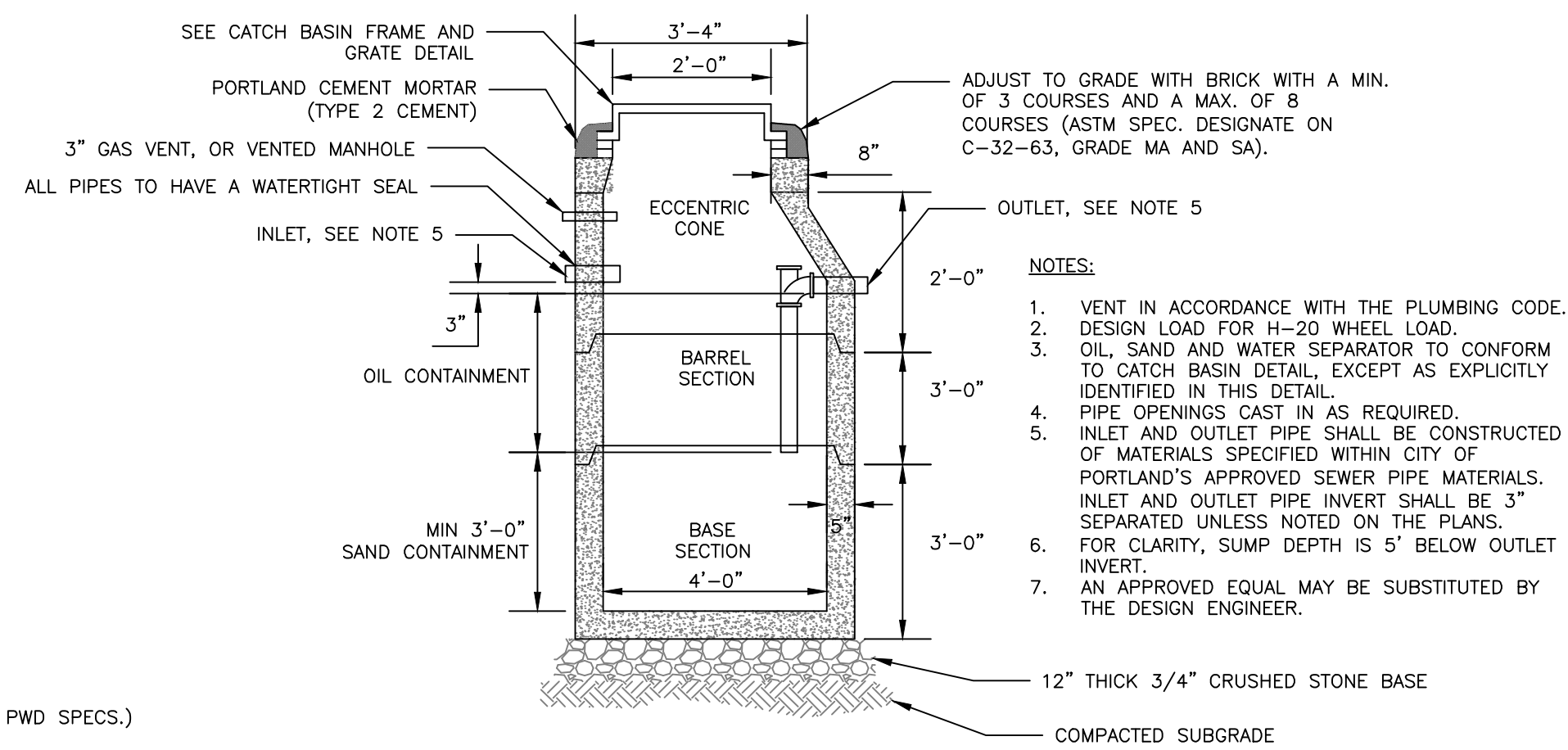
- NOTES:**
1. APPROVED CATCH BASIN FRAMES:
 - 1.1. EAST JORDAN = 7375Z
 - 1.2. NEENAH = R-3248
 - 1.3. OR APPROVED EQUAL
 2. APPROVED CATCH BASIN GRATES:
 - 2.1. EAST JORDAN = 2440M
 - 2.2. NEENAH = R-3248
 - 2.3. OR APPROVED EQUAL



GRATE DETAIL



OIL AND WATER SEPARATOR FRAME & GRATE
NOT TO SCALE



4'-0" DIAMETER PRECAST OIL AND WATER SEPARATOR
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
MAJOR SITE/SUB	DATE
	1/2/21

UTILITY DETAILS - 1

392 ST. JOHN STREET REDEVELOPMENT

ALEX COUPE
PORTLAND, ME

ACORN ENGINEERING, INC.

PO BOX 3372, PORTLAND MAINE 04104

(207) 775-2655

FILE: 1156_CIVIL

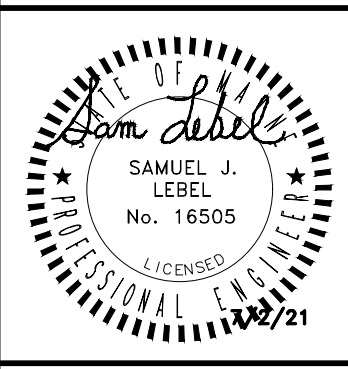
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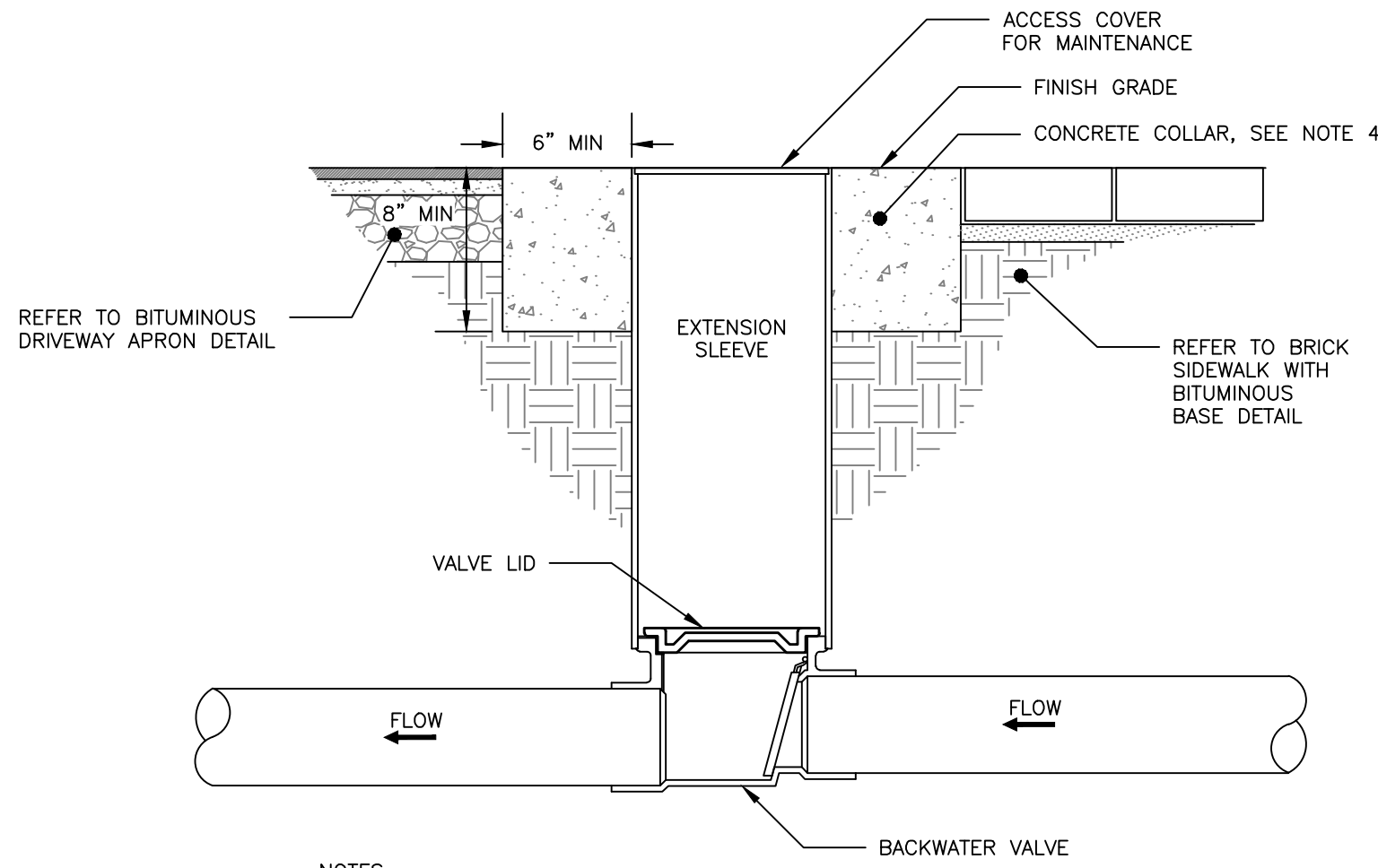
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DRAWN BY: ZMS

CHECKED BY: WHS

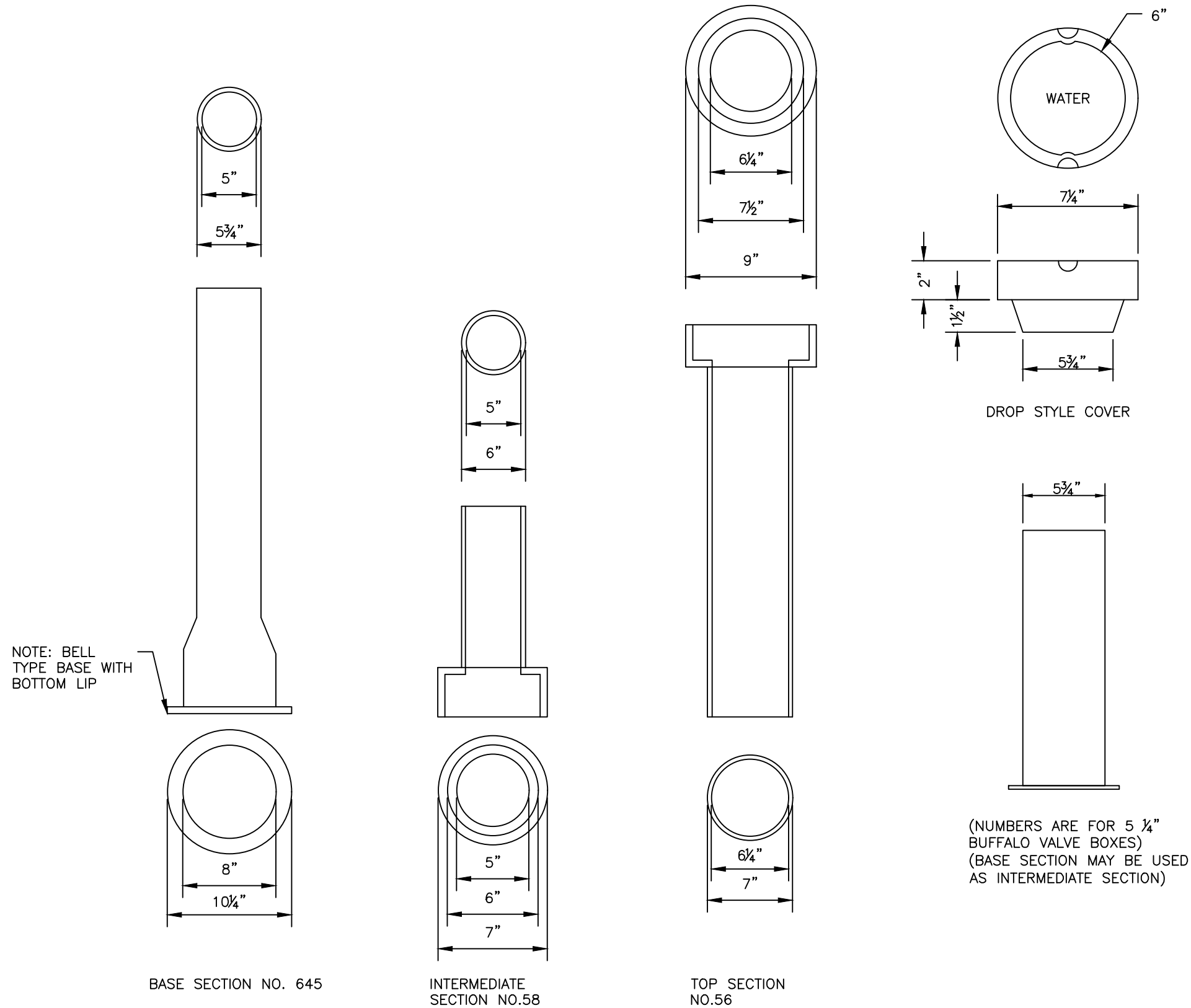


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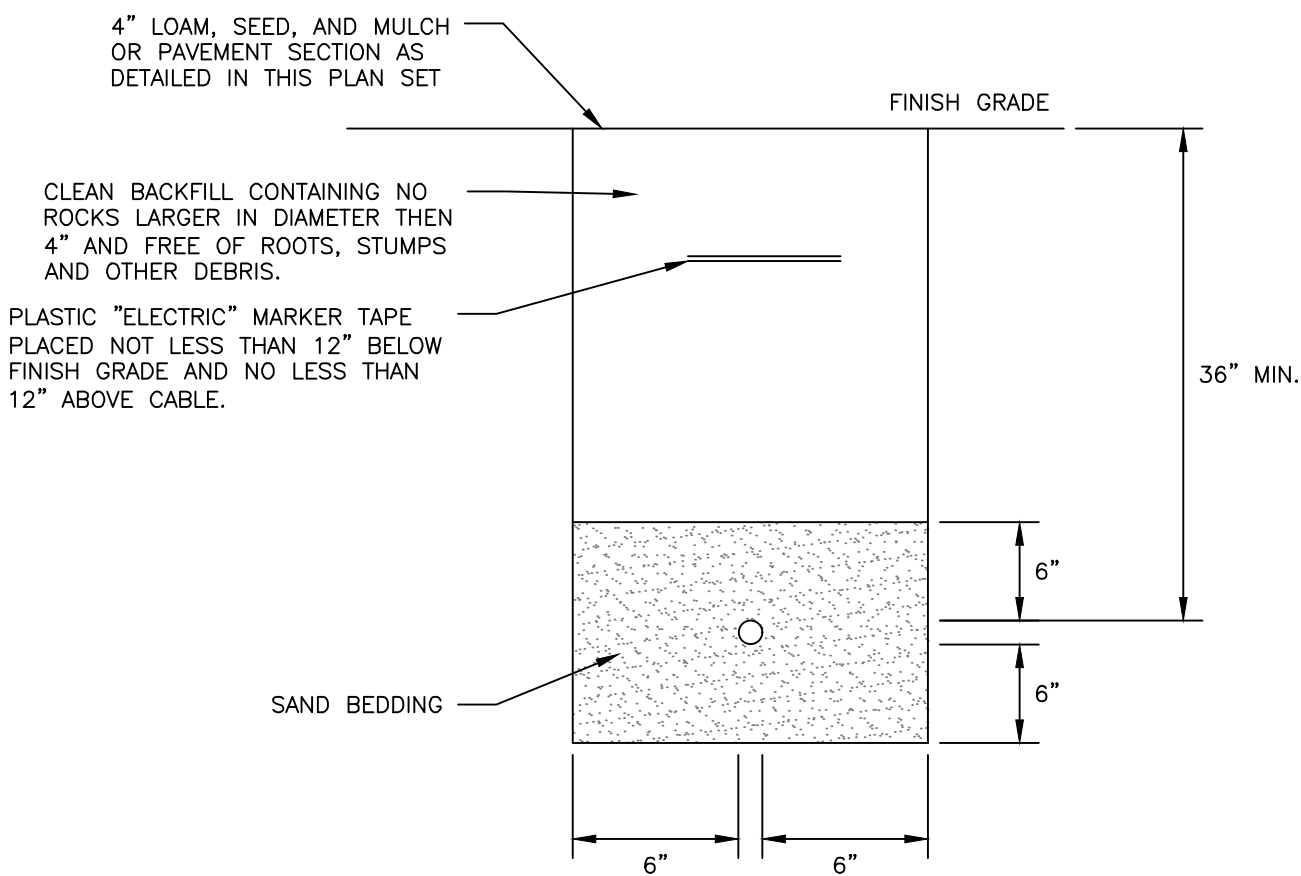


- NOTES:
1. BACKFLOW VALVE TO BE PROVIDED BY AGRI DRAIN CORPORATION OR AN APPROVED EQUAL.
 2. VALVE TO BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS AND COMPLY WITH RULES AND REGULATIONS AS OUTLINED IN SECTION 2 OF THE CITY OF PORTLAND TECHNICAL MANUAL.
 3. VALVE SHALL BE INSTALLED WITH A VALVE BOX AND COVER TO PROVIDE EASY ACCESS AND MAINTENANCE; VALVE COVER SHALL STATE 'SEWER' ON LID FLUSH TO SURFACE. REFER TO VALVE & BOX COVER DETAIL FOR ADDITIONAL INFORMATION.
 4. CONCRETE COLLAR AT A MINIMUM 24-HOUR COMPRESSIVE STRENGTH OF 3,000 PSI.

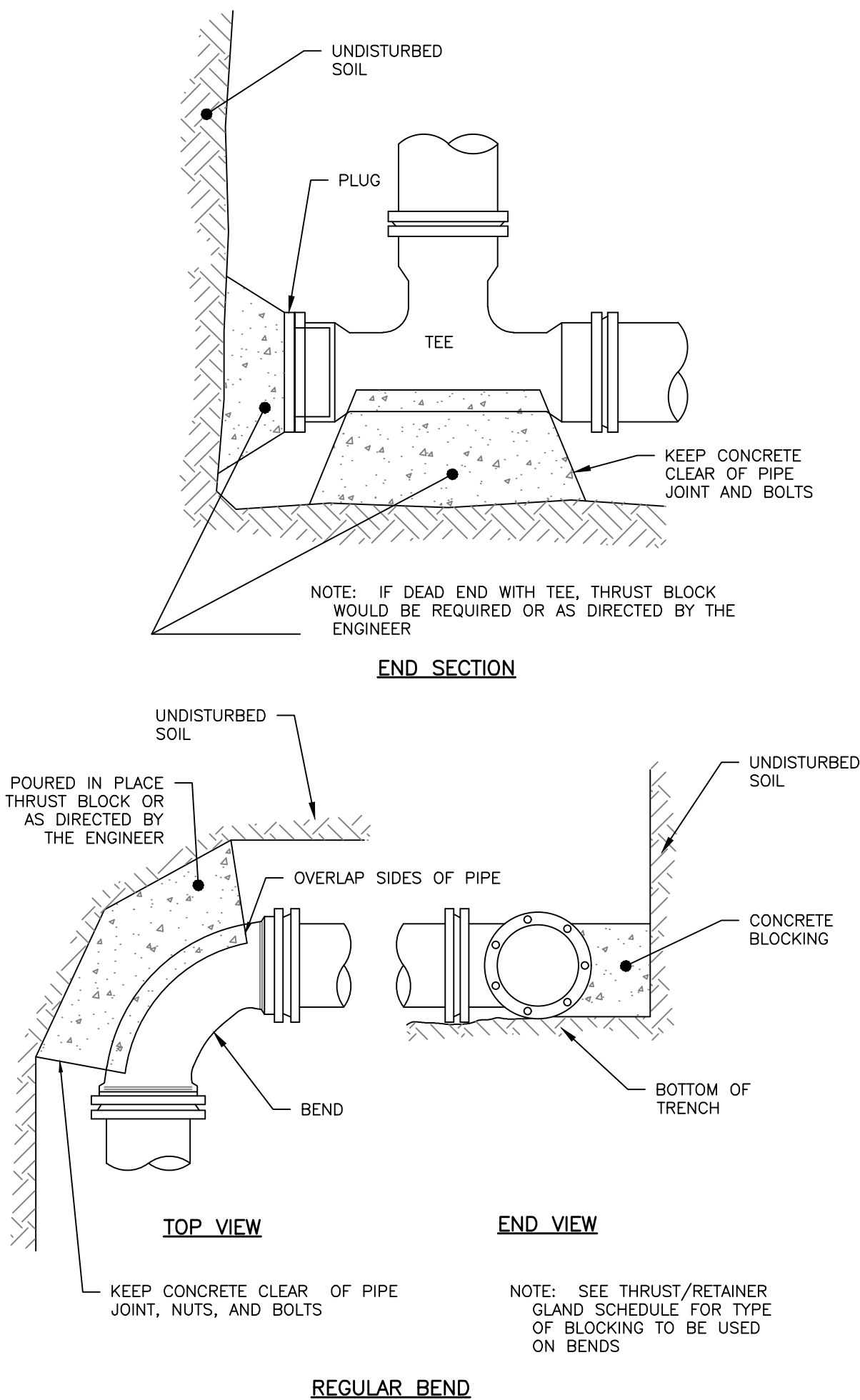
BACKFLOW VALVE ASSEMBLY
NOT TO SCALE



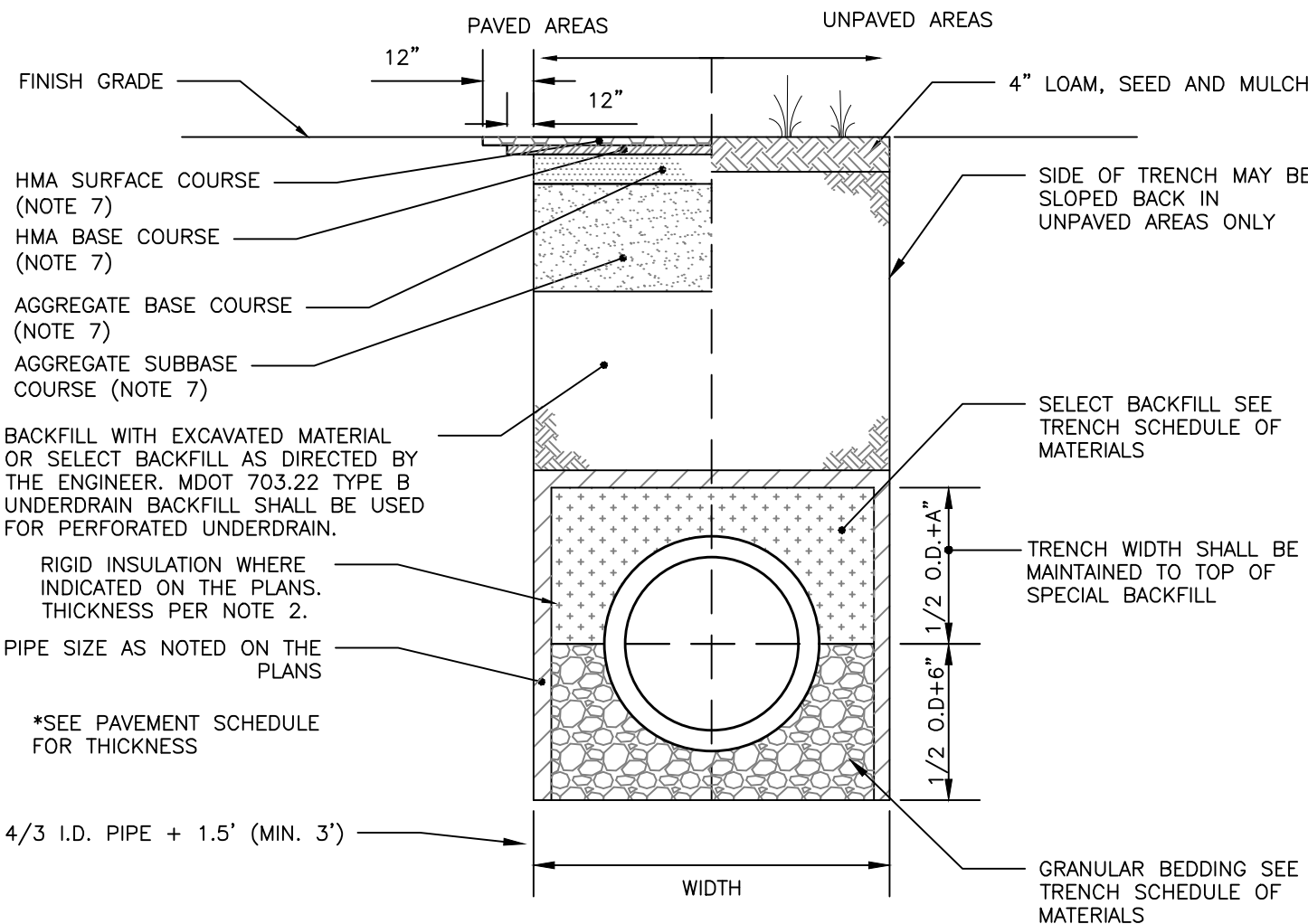
VALVE BOX & COVER
NOT TO SCALE



SECONDARY ELECTRICAL TRENCH
NOT TO SCALE



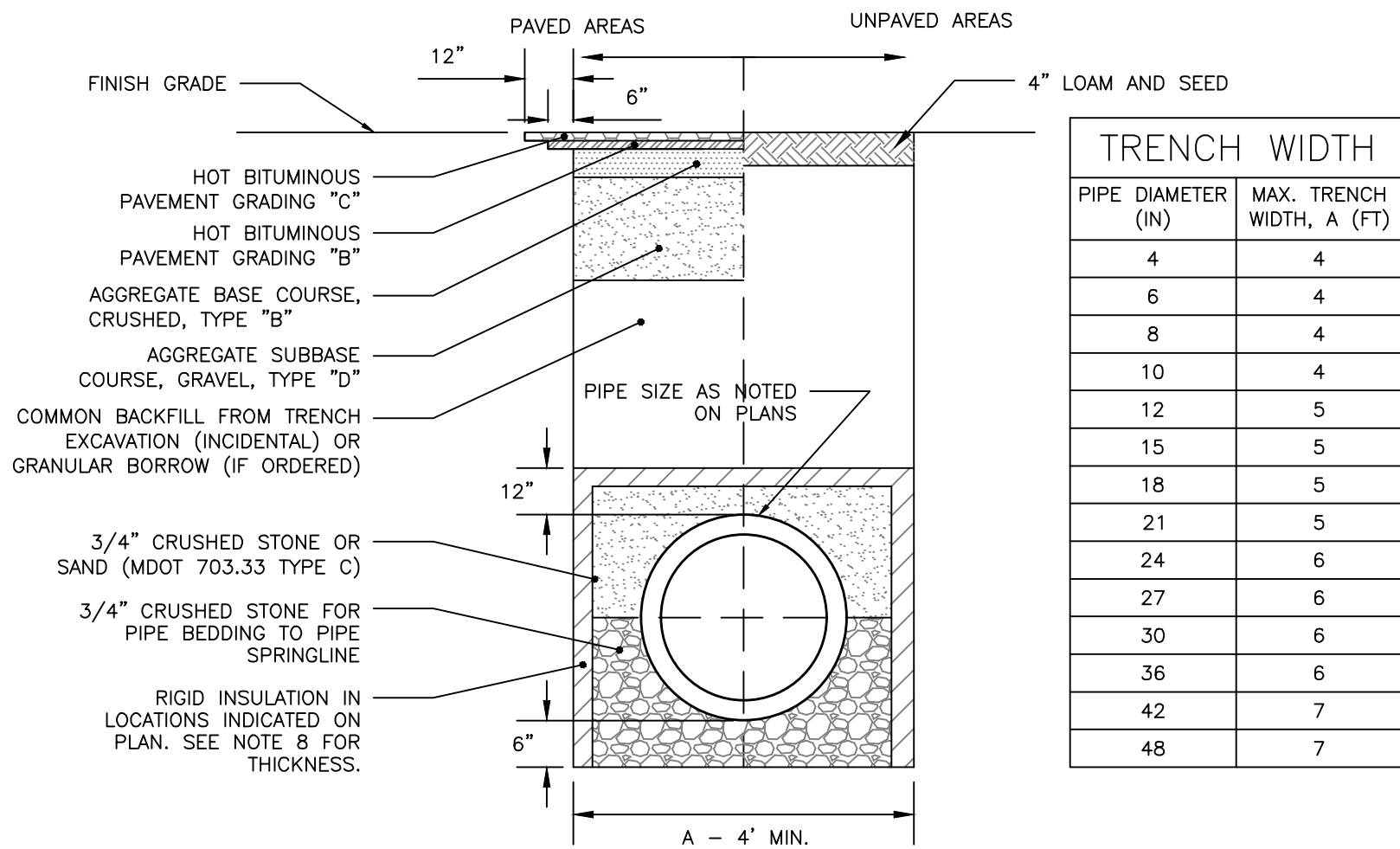
THRUST BLOCKING
NOT TO SCALE



- ALLOWABLE PIPE MATERIALS:
- REINFORCED CONCRETE PIPE (RCP) MIN. STRENGTH OF CLASS III
 - PVC RING TYPE SEWER (SDR 35) OR EQUIVALENT, MIN PS-46 RATING
 - PVC RING TYPE SEWER PIPE MEETING ASTM F 789
 - DUCTILE IRON PIPE (DIP)
 - ADS N-12 HP TRIPLE-WALL MIN PS-46 RATING
 - ADS SANITITE HP MIN. PS-46

INTERNAL STORM DRAIN AND SEWER TYPICAL TRENCH SECTION
NOT TO SCALE

- DESIGN NOTES:
1. ANY ALTERNATE TRENCHING METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
 2. ALL CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL STANDARDS FIGURE II-2.
 3. BRACING & SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 4. WHERE APPLICABLE, PERFORATIONS IN STORM DRAIN (PERF. SD) SHALL BE ORIENTED UP.
 5. ALL STORM DRAINS SHALL BE PVC SDR 35 MIN PS-46 RATING OR IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL MANUAL - SECTION 2 - SANITARY SEWER AND STORM DRAIN - PART 2.5.2
 6. IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
 7. THIS DETAIL SHALL BE APPLIED ONLY TO PIPE TRENCHES WITHIN THE CITY OF PORTLAND R.O.W.
 8. STORM DRAIN COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" OF RIGID INSULATION. COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" RIGID INSULATION. OTHER UTILITIES: ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.
 9. DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.
 10. DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE, BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 9".
 11. DIMENSION A IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE TABLE BELOW.



TRENCH WIDTH	
PIPE DIAMETER (IN)	MAX. TRENCH WIDTH, A (FT)
4	4
6	4
8	4
10	4
12	5
15	5
18	5
21	5
24	6
27	6
30	6
36	6
42	7
48	7

CITY OF PORTLAND TYPICAL PIPE TRENCH DETAIL
NOT TO SCALE

SCHEDULE OF MATERIALS		
TYPE OF PIPE	GRANULAR BEDDING	SELECT BACKFILL
CMP DUCTILE IRON RCP	MDOT 703.22 TYPE B UD BACKFILL	MDOT 703.22 TYPE B UD BACKFILL
PVC/HOPE	MDOT 703.22 TYPE C 3/4" CRUSHED STONE	MDOT 703.22 TYPE B UD BACKFILL
CMP	MDOT 703.22 TYPE C 3/4" CRUSHED STONE	MDOT 703.22 TYPE C 3/4" CRUSHED STONE

- NOTES:
1. BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
 2. STORM DRAIN COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" OF RIGID INSULATION. COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" RIGID INSULATION. OTHER UTILITIES: ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.
 3. INSTALL WARNING TAPE DIRECTLY ABOVE UTILITIES AT THE TOP OF SUBGRADE.
 4. MINIMUM COVER
 - 4.1. 2'-0" - STORM DRAIN
 - 4.2. 5'-0" - SEWER
 5. NO TREES SHALL BE PLANTED WITHIN 5' OF A SEWER PIPE OR SERVICE
 6. THIS DETAIL SHALL BE APPLIED ONLY TO DRAINAGE PIPE TRENCHES OUTSIDE OF THE CITY OF PORTLAND ROW.
 7. THICKNESS AS NOTED BY SURFACE DETAILS

ISSUED FOR

BY

DATE

MAJOR SITE/SUB

S.L.

7/2/21

UTILITY DETAILS - 2

392 ST. JOHN STREET REDEVELOPMENT

ALEX COUPE
PORTLAND, ME

DRAWING NAME

PROJECT NAME

CLIENT

ACORN ENGINEERING, INC.

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

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR UNAUTHORIZED, SHALL BE THE RESPONSIBILITY OF THE USER WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

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JN: 1156

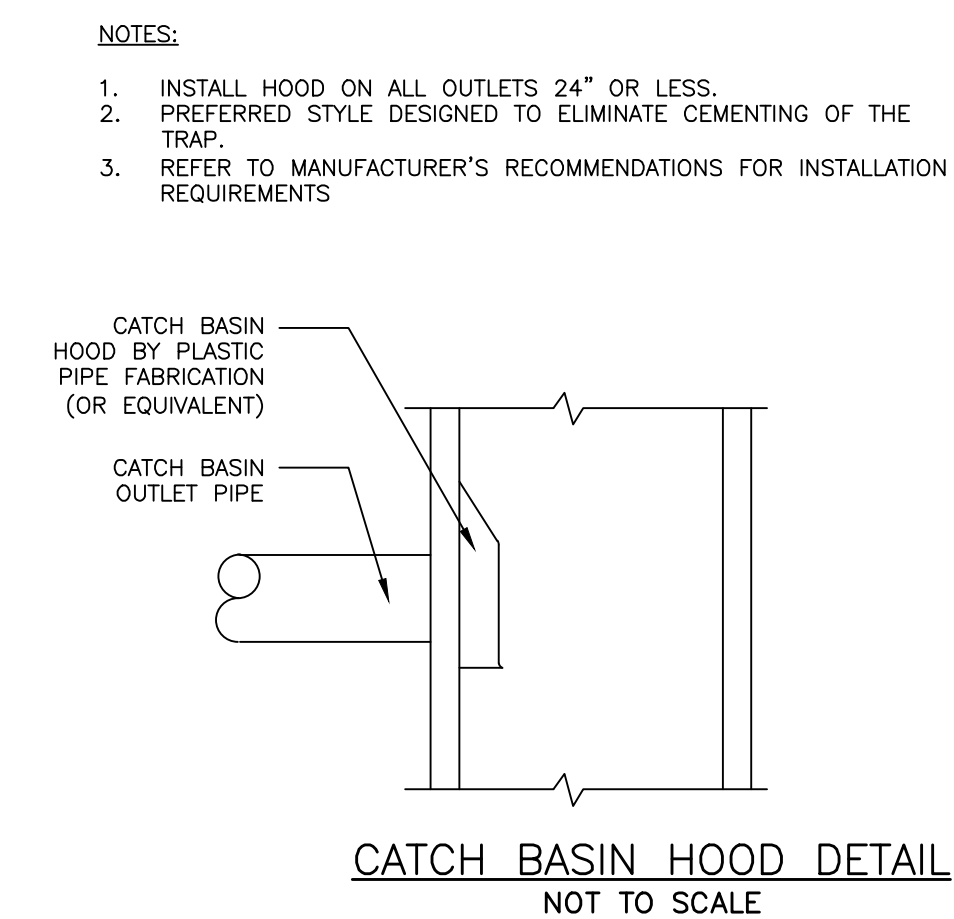
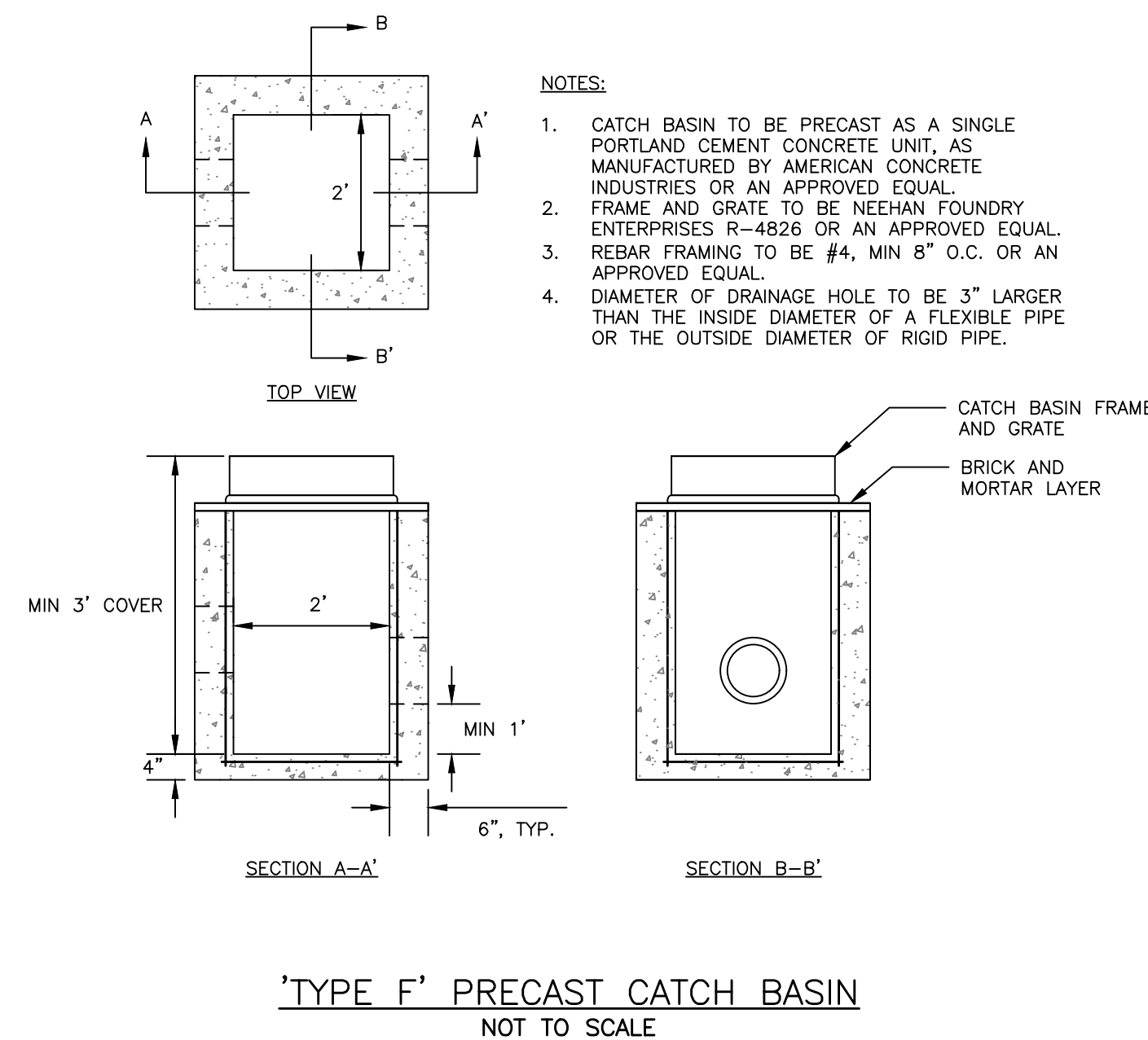
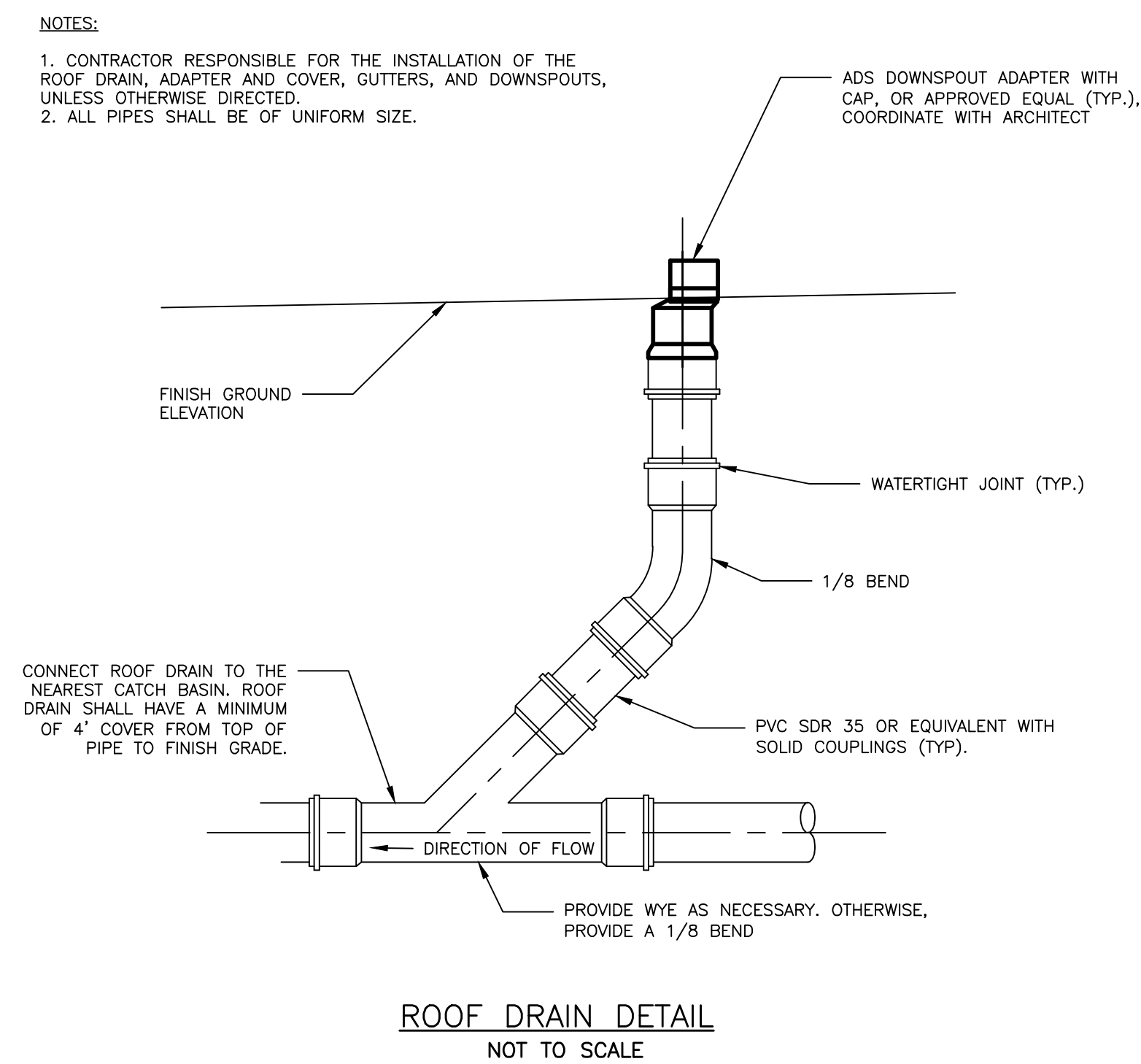
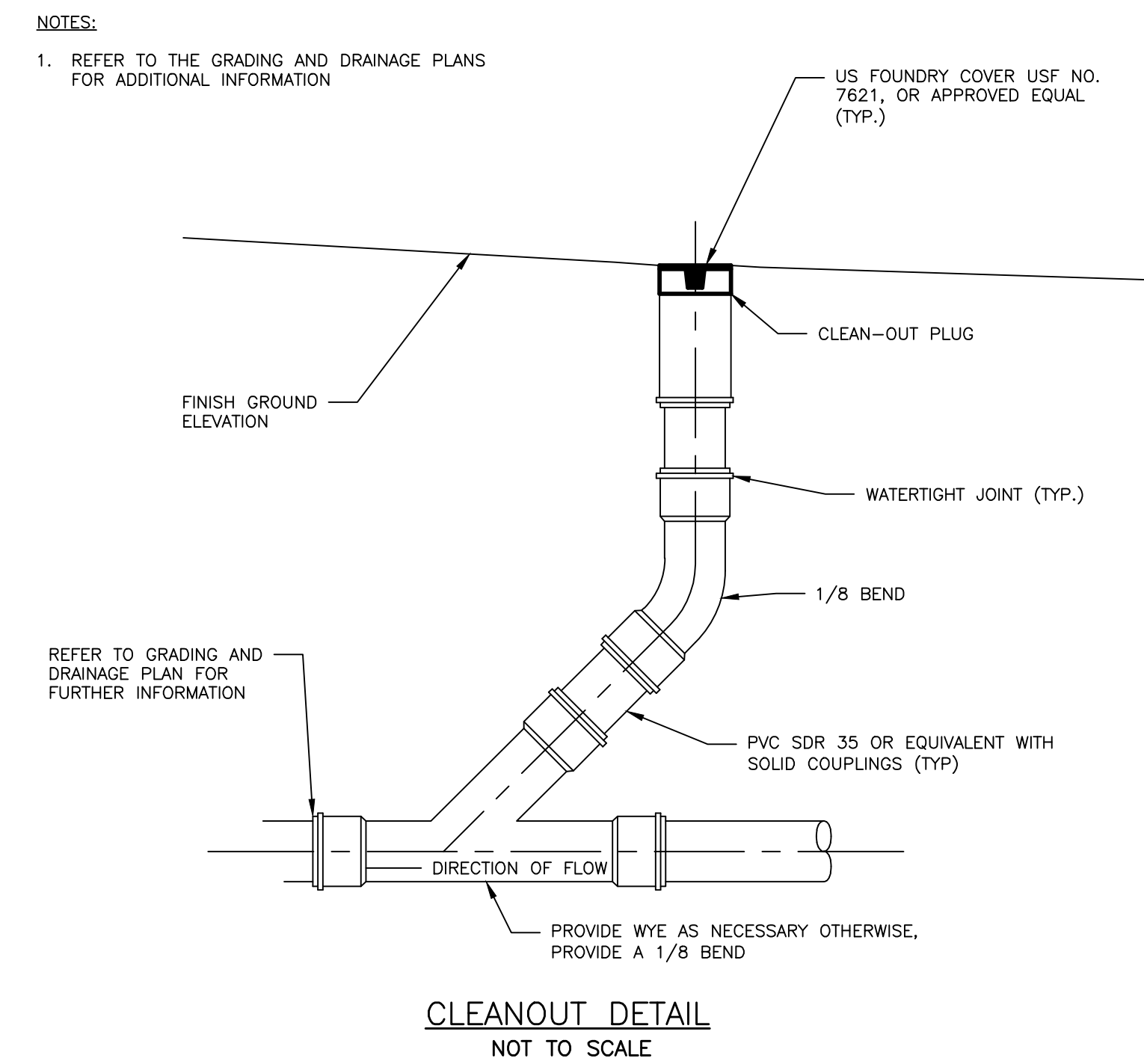
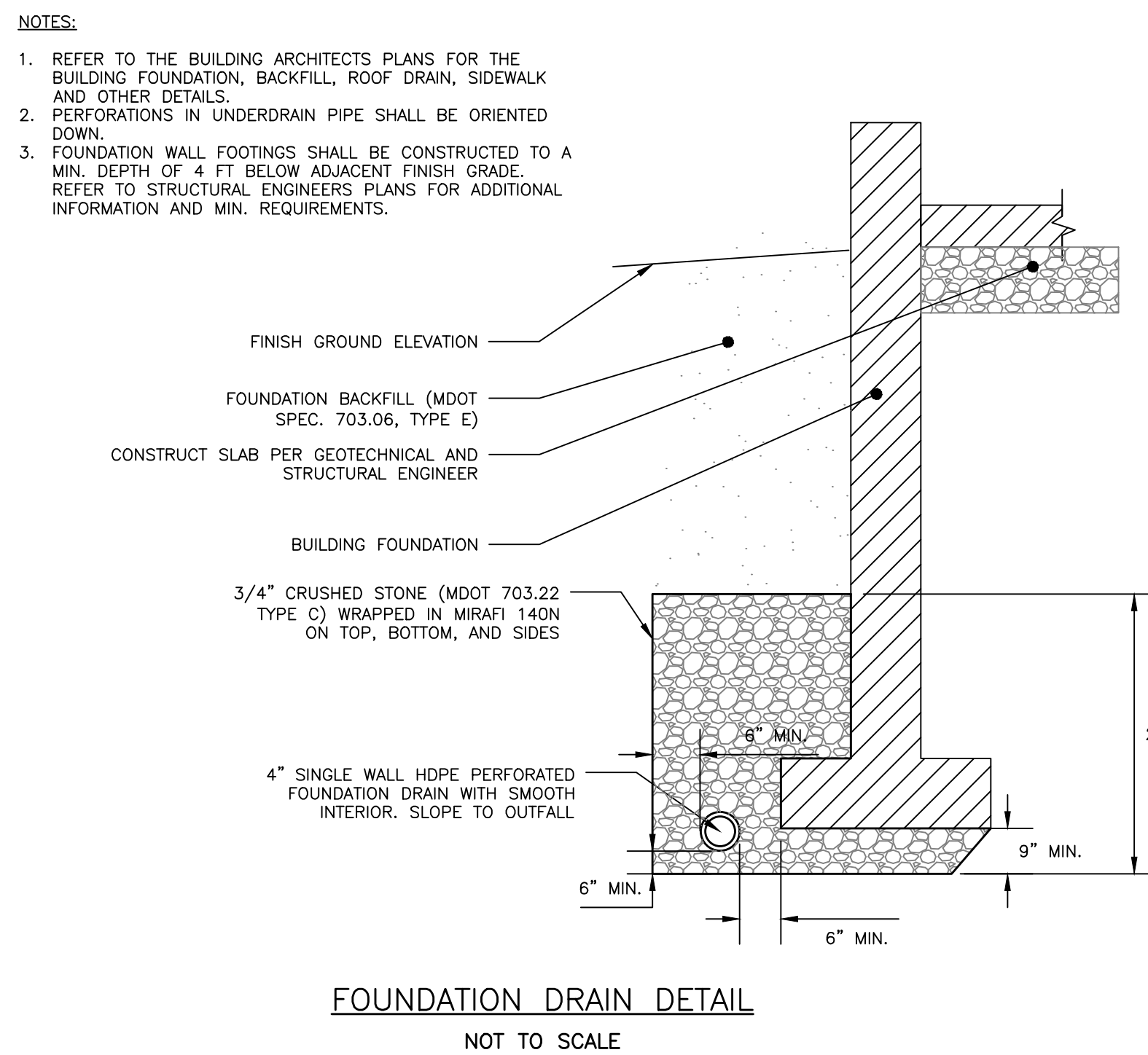
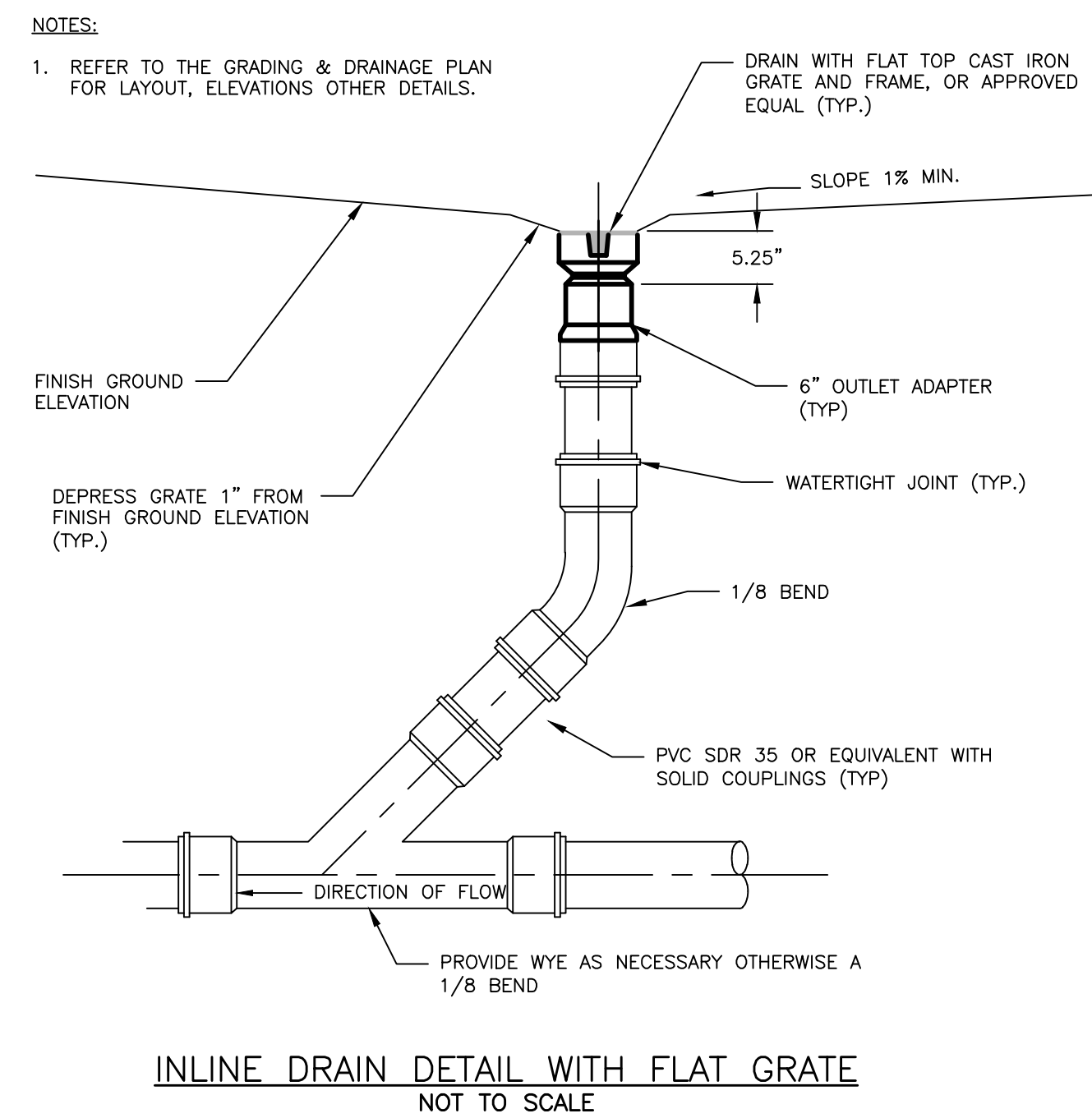
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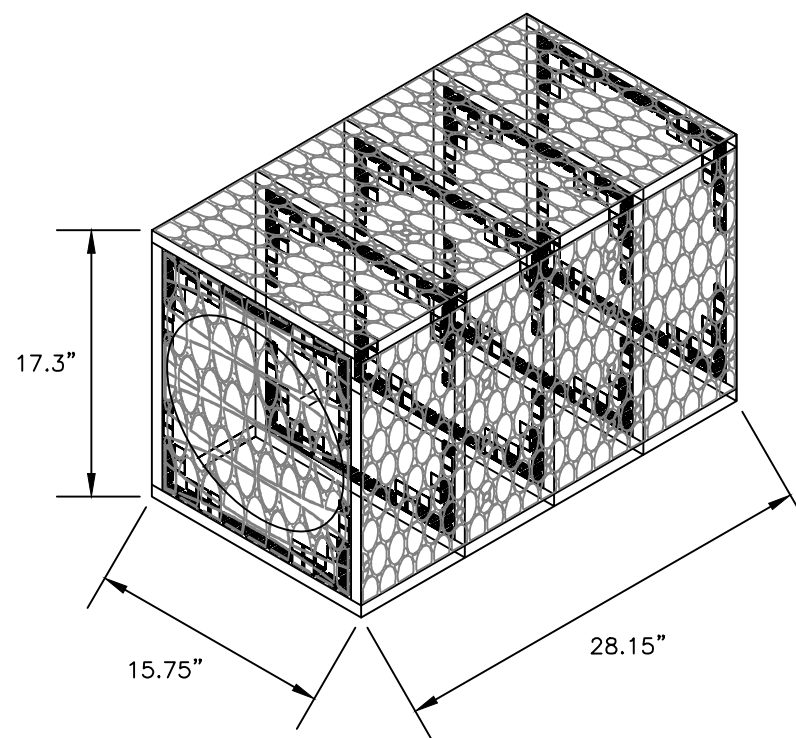
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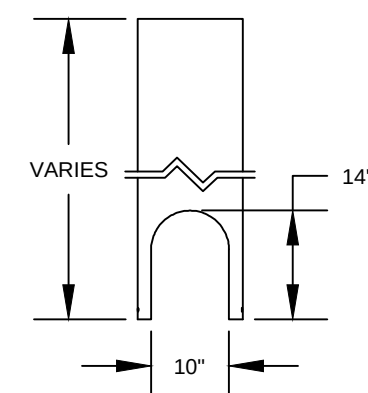


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CONSTRUCTION

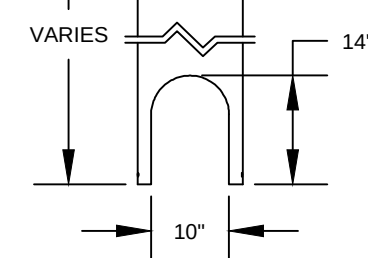


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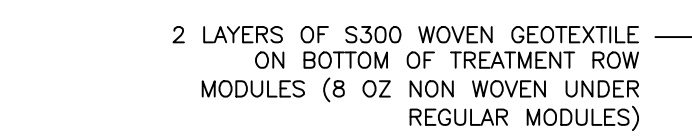
1. THE INSPECTION PORT IS USED IN THE MAINTENANCE MODULE TO INSPECT THE LEVEL OF SEDIMENT ACCUMULATION.
2. MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION DURING THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER. FLUSH MAINTENANCE ROW VIA THE ACCESS STRUCTURE FROM EITHER END AS NEEDED.



NOT TO SCALE



NOT TO SCALE



NOT TO SCALE

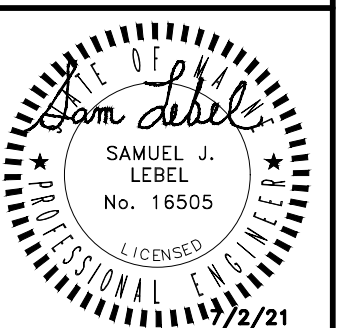
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

PROJECT NAME:	392 ST. JOHN STREET REDEVELOPMENT
CLIENT:	ALEX COUPE PORTLAND, ME

CLIENT:

ACORN ENGINEERING, INC. 04104
 PO BOX 337 FRYLAND MAINE
 (207) 775-1535

FILE:	1156_CIVIL
IN:	1156
SCALE:	AS NOTED
DESIGNED BY:	SDL
DRAWN BY:	ZMS
CHECKED BY:	WHS



DRAWING NO.
C-46

1.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

AS PART OF THE SITE DEVELOPMENT, THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE IMPLEMENTED. DEVICES SHALL BE INSTALLED AS DESCRIBED IN THIS REPORT OR WITHIN THE PLAN SET. SEE THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION BEST MANAGEMENT PRACTICES FOR FURTHER REFERENCE.

1.1 TEMPORARY EROSION CONTROL MEASURES

THE FOLLOWING TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE PLANNED FOR THE PROJECT'S CONSTRUCTION PERIOD:

- 1.1.1 CRUSHED STONE STABILIZED CONSTRUCTION ENTRANCES SHALL BE PLACED AT ALL ACCESS POINTS TO THE PROJECT SITE WHERE THERE ARE DISTURBED AREAS. THE FOLLOWING SPECIFICATIONS SHALL BE FOLLOWED AT A MINIMUM:
 - STONE SIZE SHALL BE 2-3 INCHES, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 - THE THICKNESS OF THE STONE LAYER SHALL BE NO LESS THAN 6 INCHES.
 - THE ENTRANCES SHALL NOT BE LESS THAN 20 FEET WIDE, HOWEVER NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS. THE LENGTH SHALL NOT BE LESS THAN 50 FEET IN LENGTH.
 - GEOTEXTILE FABRIC (WOVEN OR NON-WOVEN) SHALL BE PLACED OVER THE ENTIRE ENTRANCE AREA.
- 1.1.2 THE ENTRANCE/EXIT SHALL BE MAINTAINED TO THE EXTENT THAT IT WILL PREVENT THE TRACKING OF SEDIMENT ONTO PUBLIC ROADWAYS. SILTATION FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED DOWN GRADIENT OF ANY DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL PERMANENT STABILIZATION IS ACHIEVED. THE SILT FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED PER THE DETAILS PROVIDED IN THE PLAN SET AND INSPECTED BEFORE AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE LINE OR BERM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE OR BERM, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM.
- 1.1.3 HAY MULCH INCLUDING HYDRO SEEDING IS INTENDED TO PROVIDE COVER FOR DENuded OR SEEDED AREAS UNTIL REVEGETATION IS ESTABLISHED. MULCH PLACED BETWEEN APRIL 15TH AND NOVEMBER 1ST ON SLOPES OF LESS THAN 15 PERCENT SHALL BE COVERED BY FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. MULCH PLACED BETWEEN NOVEMBER 1ST AND APRIL 15TH ON SLOPES EQUAL TO OR STEEPER THAN 8 PERCENT AND EQUAL TO OR FLATTER THAN 2:1 SHALL USE MATS OR FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
- 1.1.4 AT ANY TIME OF THE YEAR, ALL SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH DOUBLE NET EROSION CONTROL BLANKET BIONET SC150BN BY NORTH AMERICAN GREEN OR APPROVED EQUAL, OR EROSION CONTROL MIX SLOPE PROTECTION AS DETAILED WITHIN THE PLANS.
- 1.1.5 ST. JOHN STREET SHALL BE SWEEP TO CONTROL MUD AND DUST FROM THE CONSTRUCTION SITE AS NECESSARY. ADD ADDITIONAL STONE TO THE STABILIZED CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF MATERIAL OFF THE SITE AND ONTO THE SURROUNDING ROADWAYS.
- 1.1.6 DURING DEMOLITION, CLEARING AND GRUBBING OPERATIONS, STONE CHECK DAMS SHALL BE INSTALLED AT ANY AREAS OF CONCENTRATED FLOW. THE MAXIMUM HEIGHT OF THE CHECK DAM SHALL NOT EXCEED 2 FEET. THE CENTER OF THE CHECK DAM SHALL BE 6 INCHES BELOW THE OUTER EDGES OF THE DAM. THE CONTRACTOR SHALL MULCH THE SIDE SLOPES AND INSTALL STONE CHECK DAMS FOR ALL NEWLY EXCAVATED DITCH LINES WITHIN 24 HOURS OF THEIR CREATION.
- 1.1.7 SILT FENCE STAKE SPACING SHALL NOT EXCEED 6 FEET UNLESS THE FENCE IS SUPPORTED WITH 14 GAUGE WIRE IN WHICH CASE THE MAXIMUM SPACING SHALL NOT EXCEED 10 FEET. THE SILT FENCE SHALL BE "TOED" INTO THE GROUND.
- 1.1.8 STORMDRAIN INLET PROTECTION SHALL BE PROVIDED TO STORMDRAINS THROUGH THE USE OF ANY OF THE FOLLOWING: HAY BALE DROP INLET STRUCTURES, SILT FENCE DROP INLET SEDIMENT FILTER, GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER, OR CURB INLET SEDIMENT FILTER. BARRIERS SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT AND REPAIRED AS NECESSARY. SEDIMENTS SHALL BE REMOVED WHEN ACCUMULATION HAS REACHED 1/2 THE DESIGN HEIGHT.
- 1.1.9 DUST CONTROL SHALL BE ACCOMPLISHED BY THE USE OF ANY OF THE FOLLOWING: WATER, CALCIUM CHLORIDE, STONE, OR AN APPROVED MDEP PRODUCT. DUST CONTROL SHALL BE APPLIED AS NEEDED TO ACCOMPLISH DUST CONTROL.
- 1.1.10 TEMPORARY LOAM, SEED, AND MULCHING SHALL BE USED IN AREAS WHERE NO OTHER EROSION CONTROL MEASURE IS USED. APPLICATION RATES FOR SEEDING ARE PROVIDED AT THE END OF THIS REPORT.
- 1.1.11 STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS OF FORMATION UNLESS A SCHEDULED RAIN EVENT OCCURS PRIOR TO THE 7 DAY WINDOW, IN WHICH CASE THE STOCKPILE SHALL BE STABILIZED PRIOR TO THE RAIN EVENT. METHODS OF STABILIZATION SHALL BE MULCH, EROSION CONTROL MIX, OR EROSION CONTROL BLANKETS/MATS. SILT FENCE OR A WOOD WASTE COMPOST FILTER BERM SHALL BE PLACED DOWNHILL OF ANY SOIL STOCKPILE LOCATION.
- 1.1.12 FOR DISTURBANCE BETWEEN NOVEMBER 1 AND APRIL 15, PLEASE REFER TO WINTER STABILIZATION PLAN IN THIS REPORT AND THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR FURTHER INFORMATION.
- 1.1.13 IT IS OF THE UTMOST IMPORTANCE THAT STORMWATER RUNOFF AND POTENTIAL SEDIMENT FROM THE CONSTRUCTION SITE BE DIVERTED AROUND THE PROPOSED UNDERDRAINS UNTIL THE TRENCH IS BACKFILLED.

1.2 PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES ARE INTENDED FOR POST DISTURBANCE AREAS OF THE PROJECT.

- 1.2.1 ALL DISTURBED AREAS DURING CONSTRUCTION, NOT SUBJECT TO OTHER PROPOSED CONDITIONS, SHALL RECEIVE A MINIMUM 4" OF LOAM AND SHALL BE LIMED, AND MULCHED.
- 1.2.2 EROSION CONTROL BLANKETS OR MATS SHALL BE PLACED OVER THE MULCH IN AREAS NOTED IN PARAGRAPH 4.2 OF THIS REPORT.
- 1.2.3 ALL STORMWATER DEVICES SHALL BE INSTALLED AND TRIBUTARY AREAS STABILIZED PRIOR RECEIVING STORMWATER.
- 1.2.3 REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

2.0 EROSION AND SEDIMENTATION CONTROL PLAN

- 2.1 THE EROSION AND SEDIMENTATION CONTROL PLAN IS INCLUDED WITHIN THE PLAN SET.

3.0 DETAILS AND SPECIFICATIONS

- 3.1 EROSION CONTROL DETAILS AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET.

4.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

WINTER CONSTRUCTION CONSISTS OF EARTHWORK DISTURBANCE BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15. IF A CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15, THEN THE SITE SHALL BE PROTECTED WITH OVER-WINTER STABILIZATION, ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MIX, EROSION CONTROL MATS, RIPRAP, OR GRAVEL BASE ON A ROAD SHALL BE CONSIDERED OPEN.

THE CONTRACTOR SHALL LIMIT THE WORK AREA TO AREAS THAT WORK WILL OCCUR IN DURING THE SUBSEQUENT 15 DAYS AND SO THAT IT CAN BE MULCHED ONE DAY PRIOR TO A SNOW EVENT. THE CONTRACTOR SHALL STABILIZE WORK AREAS PRIOR TO OPENING ADDITIONAL WORK AREAS TO MINIMIZE AREAS WITHOUT EROSION CONTROL MEASURES.

THE FOLLOWING MEASURES SHALL BE IMPLEMENTED DURING WINTER CONSTRUCTION PERIODS:

4.1 SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

4.2 MULCHING

ALL AREAS SHALL BE CONSIDERED TO BE DENuded UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4 INCH THICKNESS. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW SHALL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 1ST, MULCHING AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

4.3 SOIL STOCKPILING

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A FOUR-INCH LAYER OF EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL.

4.4 SEEDING

BETWEEN THE DATES OF OCTOBER 15TH AND APRIL 1ST, LOAM OR SEED SHALL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADUALLY AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND PROTECTED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS NOT BEEN LOAMED, FINAL GRADING WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED.

DORMANT SEEDING MAY BE PLACED PRIOR TO THE PLACEMENT OF MULCH OR EROSION CONTROL BLANKETS. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1,000 S.F. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

4.5 OVER WINTER STABILIZATION OF DISTURBED SOILS

BY SEPTEMBER 15TH, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% SHALL BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS SHALL BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION - BY OCTOBER 1ST, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3LBS PER 1,000 S.F., LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 LBS PER 1,000 S.F., AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1ST, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION.
- STABILIZE THE SOIL WITH SOD - STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
- STABILIZE THE SOIL WITH MULCH - BY NOVEMBER 15TH, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 LBS PER 1,000 S.F. ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

4.6 OVER WINTER STABILIZATION OF DISTURBED SLOPES

ALL STONE-COVERED SLOPES SHALL BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15TH. ALL SLOPES TO BE VEGETATED SHALL BE SEEDED AND MULCHED BY SEPTEMBER 1ST. A SLOPE IS CONSIDERED A GRADE GREATER THAN 15%. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1ST, THEN ONE OF THE FOLLOWING ACTION SHALL BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS - BY OCTOBER 1ST THE DISTURBED SLOPE SHALL BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1,000 S.F. AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1ST, THEN THE CONTRACTOR SHALL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP.
- STABILIZE THE SOIL WITH SOD - THE DISTURBED SLOPE SHALL BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES THE CONTRACTOR ROLLING THE SOD ONTO THE SLOPE WITH THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR SHALL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 3H:1V OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SOIL WITH EROSION CONTROL MIX - EROSION CONTROL MIX SHALL BE PROPERLY INSTALLED BY NOVEMBER 15TH. THE CONTRACTOR SHALL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 2H:1V OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SOIL WITH STONE RIPRAP - PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15TH. A REGISTERED PROFESSIONAL ENGINEER SHALL BE HIRED TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

5.0 INSPECTION AND MAINTENANCE

A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT PERIODIC VISUAL INSPECTIONS OF INSTALLED EROSION CONTROL MEASURES. THE FREQUENCY OF INSPECTION SHALL OCCUR AT LEAST ONCE EVERY TWO WEEKS, AS WELL AS AFTER A "STORM EVENT". A "STORM EVENT" SHALL CONSIST OF 0.5 INCHES OF RAIN WITHIN A 24 HOUR PERIOD. THE FOLLOWING EROSION AND SEDIMENT CONTROL - BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE INSPECTED IN THE MANNER AS DESCRIBED.

5.1 SEDIMENT BARRIERS

HAY BALE BARRIERS, SILT FENCES AND FILTER BERMS SHALL BE INSPECTED AND REPAIRED FOR THE FOLLOWING IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. FILTER BERMS SHOULD BE RESHAPED AS NEEDED. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

5.2 STABILIZED STONE CONSTRUCTION ENTRANCES

THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL AND REDISTRIBUTED ON SITE IN A STABLE MANNER. THE ENTRANCE SHOULD THEN BE RECONSTRUCTED. THE CONTRACTOR SHALL SWEEP OR WASH PAVEMENT AT EXITS, WHICH HAVE EXPERIENCED MUD-TRACKING ON TO THE PAVEMENT OR TRAVELED WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

5.3 MULCHED AREAS

ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, RE-INSTALL THE NETS AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE, WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE. REPAIR AS NEEDED.

5.4 DUST CONTROL

WHEN TEMPORARY DUST CONTROL MEASURES ARE USED, REPETITIVE TREATMENT SHALL BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

5.5 STORMWATER APPURTENANCES

ALL UNDERDRAINS, STORM DRAINS, AND CATCH BASINS NEEDED TO BE OPERATING EFFECTIVELY AND FREE OF DEBRIS.

5.6 EROSION AND SEDIMENTATION CONTROL INSPECTIONS:

ACORN ENGINEERING HAS PERSONNEL QUALIFIED TO CONDUCT EROSION AND SEDIMENTATION CONTROL INSPECTIONS. FOR FURTHER INFORMATION CONTACT:

CONTACT: WILL SAVAGE, PE
TELEPHONE: (207) 775-2655

QUALIFICATIONS:

- 0 MAINE PROFESSIONAL ENGINEERING LICENSE #11419
- 0 MAINE DEP - CERTIFIED IN MAINTENANCE & INSPECTION OF STORMWATER BMP'S CERT #14
- 0 CERTIFIED EROSION, SEDIMENT AND STORM WATER INSPECTOR (CESSWI) CERT #0293
- 0 CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) CERT. #4620

THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR COMPLYING WITH THE EROSION AND SEDIMENTATION REPORT/PLAN, INCLUDING CONTROL OF FUGITIVE DUST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONETARY PENALTIES RESULTING FROM FAILURE TO COMPLY WITH THESE STANDARDS.

6.0 IMPLEMENTATION SCHEDULE

THE FOLLOWING IMPLEMENTATION SEQUENCE IS INTENDED TO MAXIMIZE THE EFFECTIVENESS OF THE ABOVE DESCRIBED EROSION CONTROL MEASURES. CONTRACTORS SHOULD AVOID OVEREXPOSING DISTURBED AREAS AND LIMIT THE AMOUNT OF STABILIZATION AREA.

1. INSTALL A STABILIZED CONSTRUCTION ENTRANCE IN ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL ENTER AND EXIT THE SITE.
2. INSTALL PERIMETER SILT FENCE OR EROSION CONTROL BERM.
3. INSTALL ALL OTHER EROSION CONTROL DEVICES AS NECESSARY THROUGHOUT THE REMAINDER OF THIS SCHEDULE.
4. COMMENCE INSTALLATION OF DRAINAGE INFRASTRUCTURE.
5. PRIORITIZE THE DOWNHILL SIDE TO CONTAIN RUNOFF WITHIN THE SITE WHILE PROVIDING AN ENGINEERED OUTLET WITH SILTATION BARRIER TO THE MUNICIPAL STORMWATER SYSTEM WITHIN ST. JOHN STREET.
6. COMMENCE EARTHWORK OPERATIONS, WALL AND FOUNDATION INSTALLATION.
7. COMMENCE INSTALLATION OF UTILITIES.
8. CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION.
9. COMPLETE INSTALLATION OF DRAINAGE INFRASTRUCTURE, AS WELL AS OTHER UTILITY WORK.
10. COMPLETE REMAINING EARTHWORK OPERATIONS.
11. INSTALL SUB-BASE AND BASE GRAVELS IN PAVED AREAS.
12. INSTALL PAVING, CURBING AND BRICKWORK.
13. LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS AND COMPLETE ALL LANDSCAPING.
14. ONCE THE SITE IS STABILIZED, 90% CATCH OF GRASS HAS BEEN OBTAINED, OR MULCHING OF LANDSCAPE AREAS IS COMPLETE REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
15. TOUCH UP AREAS WITHOUT A VIGOROUS CATCH OF GRASS WITH LOAM AND SEED.
16. COMPLETE SITE SIGNAGE AND STRIPING.
17. EXECUTE PROPER MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES THROUGHOUT THE PROJECT.

THE ABOVE IMPLEMENTATION SEQUENCE SHOULD BE GENERALLY FOLLOWED BY THE SITE CONTRACTOR. HOWEVER, THE CONTRACTOR MAY CONSTRUCT SEVERAL ITEMS SIMULTANEOUSLY. THE CONTRACTOR SHALL SUBMIT TO THE OWNER A SCHEDULE OF THE COMPLETION OF THE WORK. IF THE CONTRACTOR IS TO COMMENCE THE CONSTRUCTION OF MORE THAN ONE ITEM ABOVE, THEY SHALL LIMIT THE AMOUNT OF EXPOSED AREAS TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE FOLLOWING 30 DAYS.

THE CONTRACTOR SHALL RE-VEGETATE DISTURBED AREAS AS RAPIDLY AS POSSIBLE. ALL AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR BEFORE A STORM EVENT. THE CONTRACTOR SHALL INCORPORATE PLANNED INLETS AND DRAINAGE SYSTEMS AS EARLY AS POSSIBLE INTO THE CONSTRUCTION PHASE.

7.0 SEEDING PLAN

7.1 SITE PREPARATION

THE SEEDED AREAS SHALL BE FEASIBLY GRADED OUT TO PROVIDE THE USE OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. IF NECESSARY, THE SITE MAY REQUIRE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL REPORT.

7.2 SEEDBED PREPARATION

FERTILIZER SHALL BE APPLIED TO THE SITE AT A RATE OF 13.8 POUNDS PER 1,000 SQUARE FEET. THE COMPOSITION OF THE FERTILIZER SHALL BE 10-10-10 (N-P205-K20) OR EQUIVALENT.

LIMESTONE SHALL BE APPLIED TO THE SITE AT A RATE OF 13.8 POUNDS PER 1,000 SQUARE FEET.

7.3 SEEDING

THE COMPOSITION AND AMOUNT OF TEMPORARY SEED APPLIED TO A SITE SHALL BE DETERMINED BY THE FOLLOWING TABLE:

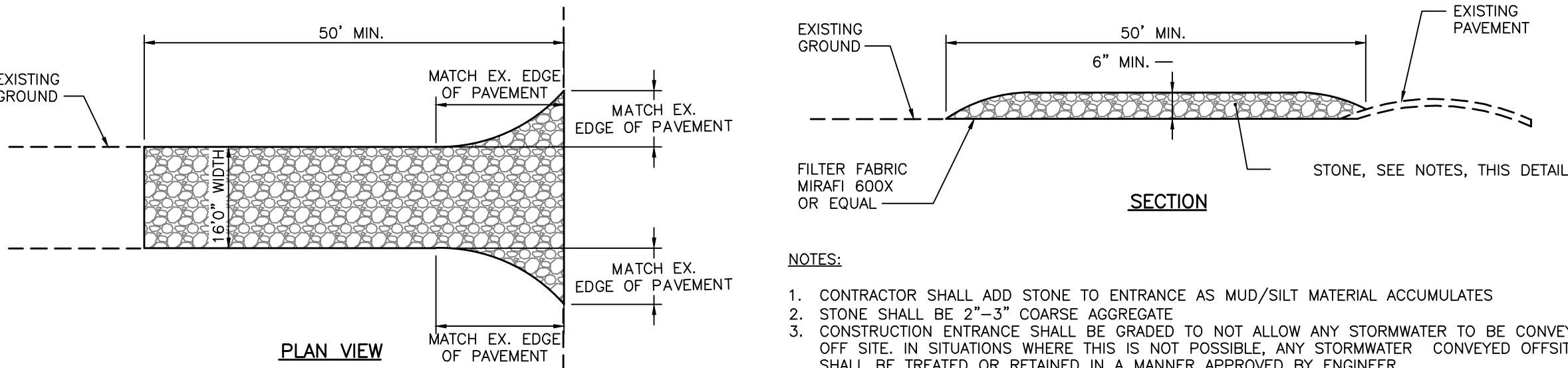
TEMPORARY SEED APPLICATION RATES			
SEED	LBS / ACRE	RECOMMENDED SEEDING DATES	
WINTER RYE	2.57	8/15 TO 10/1	
OATS	1.84	4/1 TO 7/1 8/15 TO 9/15	
ANNUAL RYGRASS	0.92	4/1 TO 7/1	
SUDANGRASS	0.92	5/15 TO 8/15	
PERENNIAL	0.92	8/15 TO 9/15	
TOTAL	7.17 LBS/ACRE		

7.4 MULCHING

MULCH SHALL BE HARDWOOD AND APPLIED AT A RATE OF 70 LBS - 90 LBS PER 1,000 SQUARE FEET. THE MULCH SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4 INCHES. THE SEEDED AREA SHALL BE MULCHED IMMEDIATELY AFTER SEED IS APPLIED. MULCHING DURING THE WINTER SEASON SHALL BE DOUBLE THE NORMAL AMOUNT. REFER TO DETAIL FOR MORE INFORMATION.

8.0 CONCLUSION

THE ABOVE EROSION CONTROL NARRATIVE IS INTENDED TO MINIMIZE THE DEVELOPMENT IMPACT BY IMPLEMENTING TEMPORARY AND PERMANENT EROSION CONTROL MEASURES. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

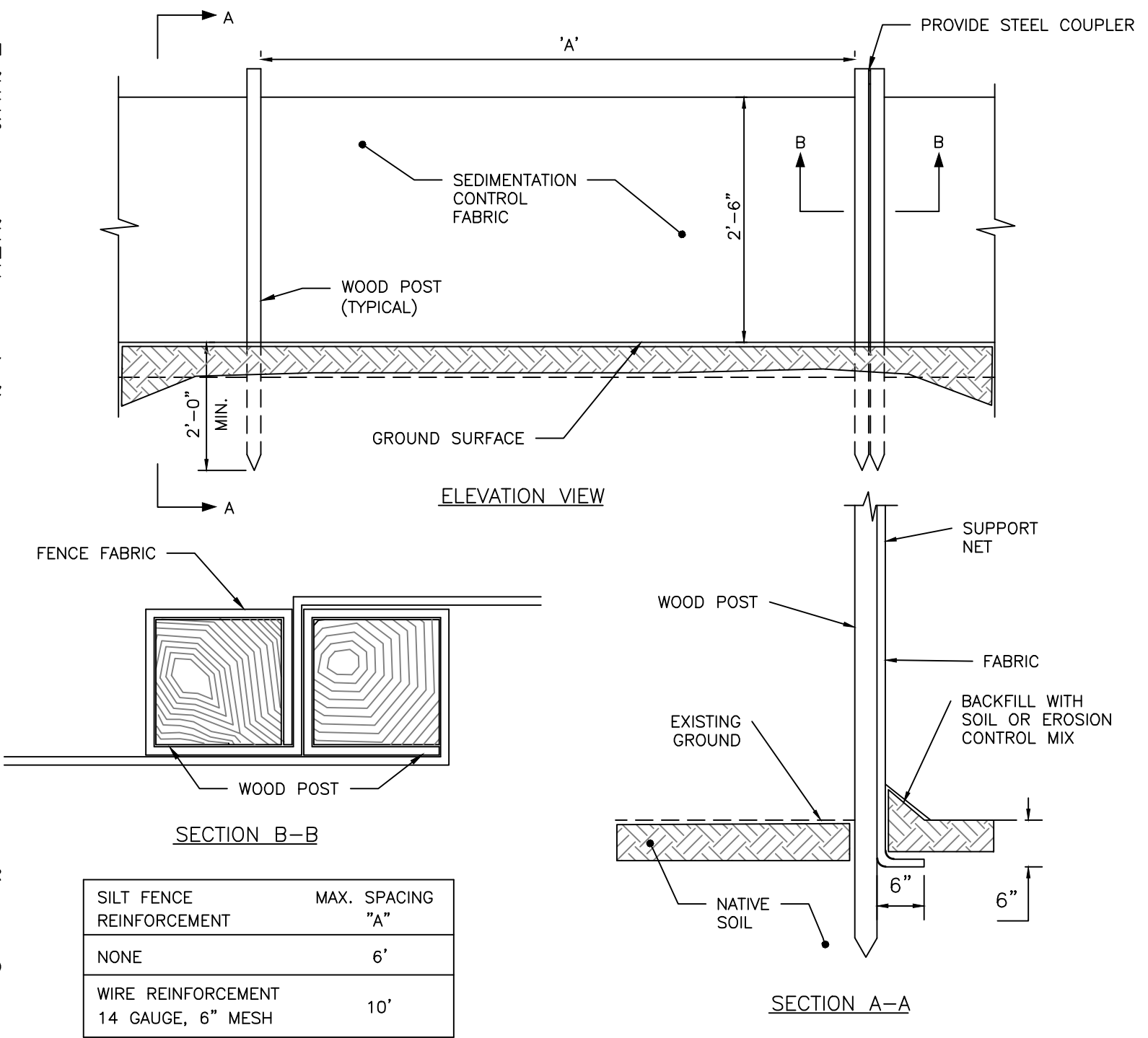


NOTES:

1. CONTRACTOR SHALL ADD STONE TO ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES
2. STONE SHALL BE 2"-3" COARSE AGGREGATE
3. CONSTRUCTION ENTRANCE SHALL BE GRADED TO NOT ALLOW ANY STORMWATER TO BE CONVEYED OFF SITE. IN SITUATIONS WHERE THIS IS NOT POSSIBLE, ANY STORMWATER CONVEYED OFFSITE SHALL BE TREATED OR RETAINED IN A MANNER APPROVED BY ENGINEER.
4. WHEN NECESSARY, ON-SITE VEHICLES SHALL HAVE THEIR WHEELS CLEANED PRIOR TO LEAVING SITE.
5. CONSTRUCTION ENTRANCE SHALL BE GRADED IN A MANNER THAT PREVENTS TRACKING OF SEDIMENTS ONTO PUBLIC RIGHT-OF-WAY

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

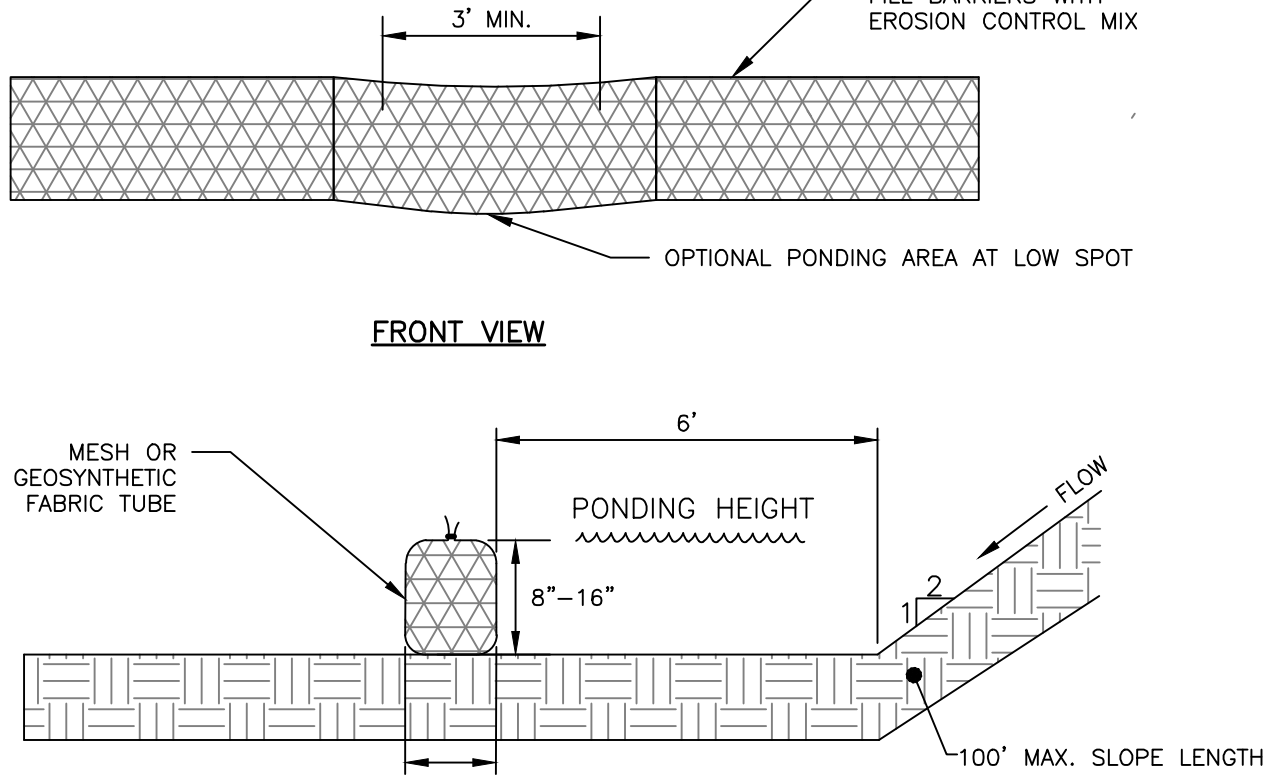


SILTATION FENCE DETAIL

NOT TO SCALE

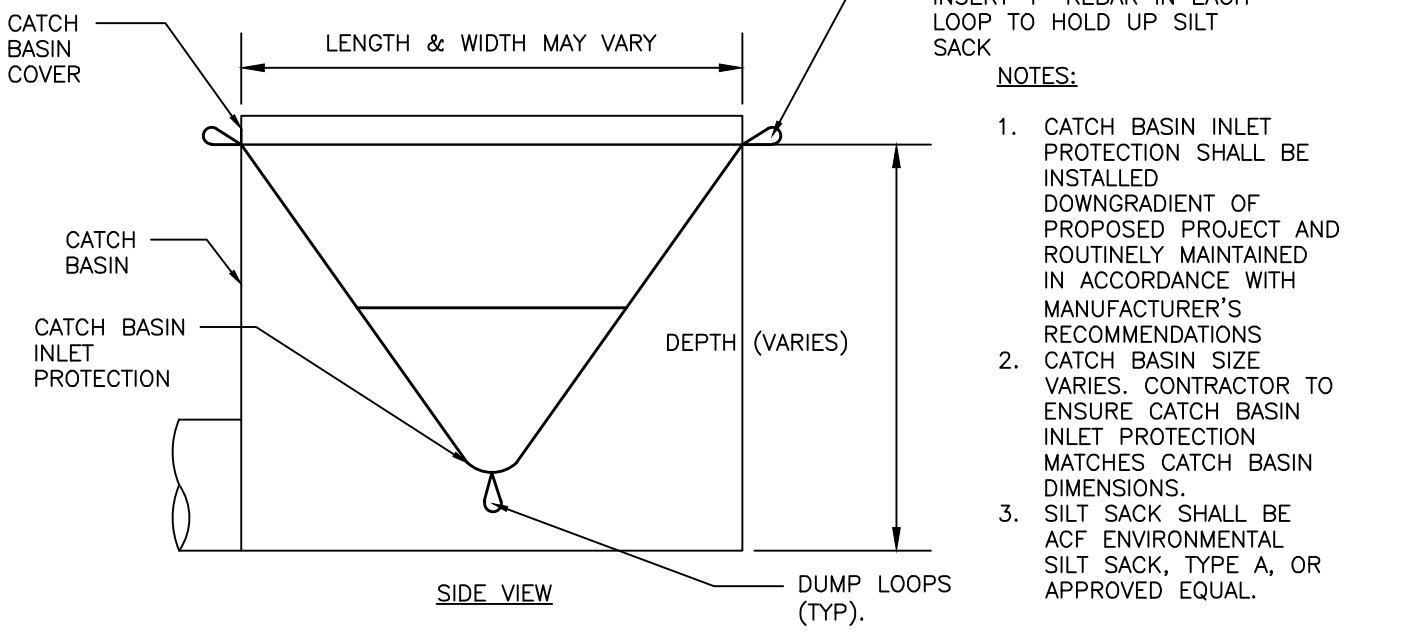
NOTES:

1. FULL CONTACT WITH THE GROUND IS CRITICAL TO PREVENT SHORT CIRCUITING UNDER THE TUBE - THE GROUND SURFACE SHOULD BE SMOOTH AND LEVEL. IN WOODED AREAS, PROTRUDING ROOTS AND DEBRIS MAY NEED TO BE REMOVED. IN GRASSED AREAS, THE GRASS NEEDS TO BE EITHER MOWED OR COMPRESSED DOWN.
2. STAKING MAY BE NECESSARY ON STEEP SLOPES.
3. UPON FINAL STABILIZATION, THE TUBE CAN BE CUT OPEN AND THE MATERIAL SPREAD OUT ONTO THE GROUND. THE MESH MATERIAL SHOULD BE REMOVE.
4. LOOSE COMPOST MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE COMPOST FILTER SOCK, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE DEVICE, IMPROVING FILTRATION AND SEDIMENT RETENTION.



FILTER SOCK DETAIL

NOT TO SCALE



CATCH BASIN INLET PROTECTION

NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR: MAJOR SITE/SUB

BY DATE: JUL 27/21

EROSION & SEDIMENTATION CONTROL NOTES & DETAILS

392 ST. JOHN STREET REDEVELOPMENT

ALEX COUPE
PORTLAND, ME

DRAWING NAME: EROSION & SEDIMENTATION CONTROL NOTES & DETAILS

PROJECT NAME: 392 ST. JOHN STREET REDEVELOPMENT

CLIENT: ALEX COUPE
PORTLAND, ME

FILE: 1156_CIVIL

JN: 1156

SCALE: AS NOTED

DESIGNED BY: SUL

DRAWN BY: ZMS

CHECKED BY: WHS

ACORN ENGINEERING, INC.

PO BOX 3372, PORTLAND, MAINE 04104

(207) 775-2655

Samuel J. Lebel

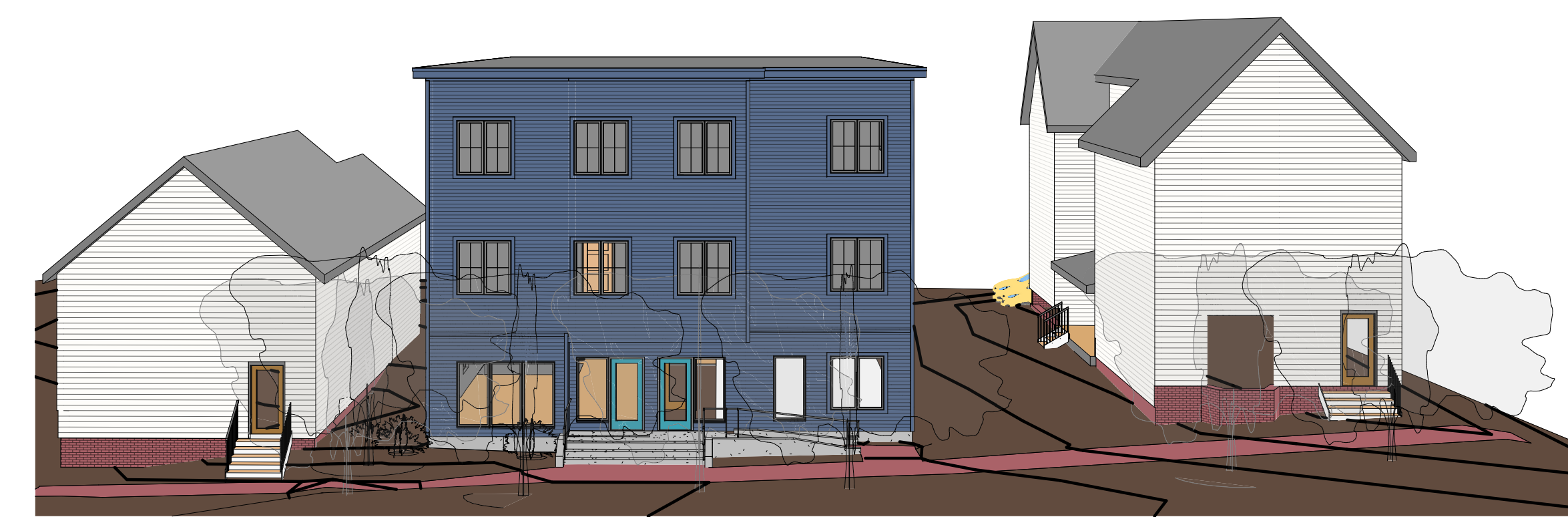
Professional Engineer

1156/27/21

DRAWING NO. C-47



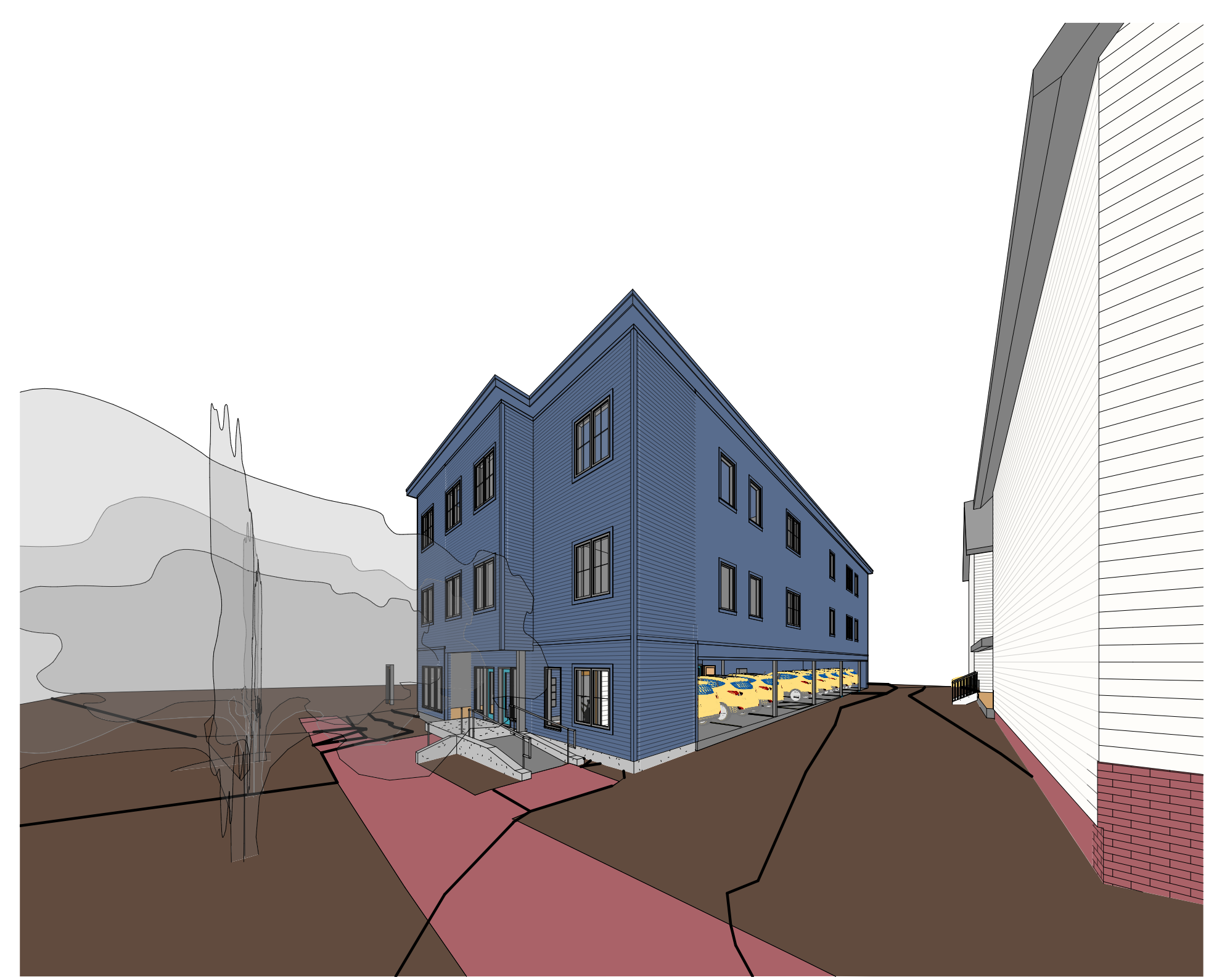
A First Floor
1/8" = 1'-0"



B Raised Street View



C Street View



D Driveway View

392 ST. JOHN STREET



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PROJECT TEAM

No.	Description	Date

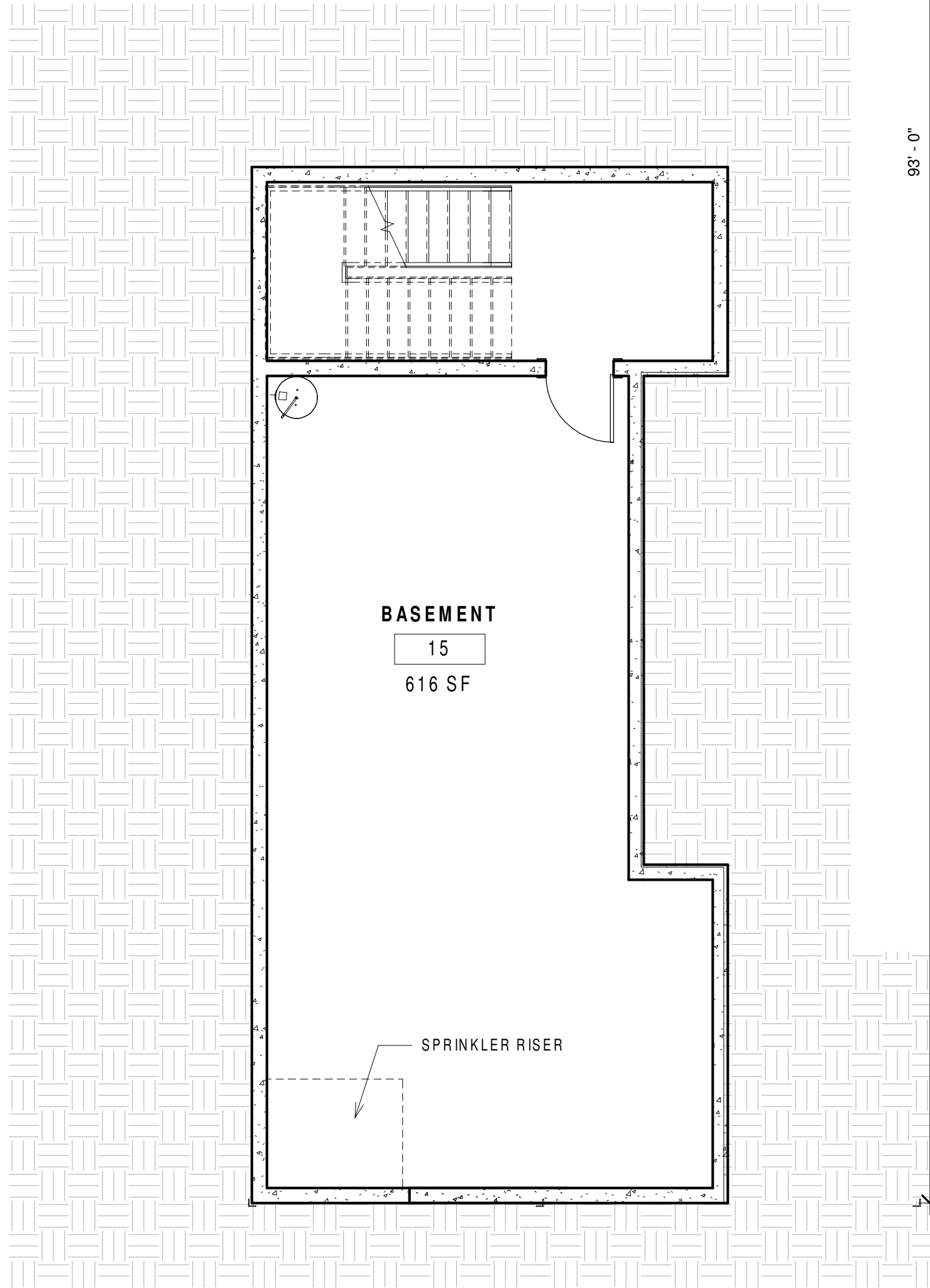
First Plan & Perspectives

Project number 20-36_392 St. John Street

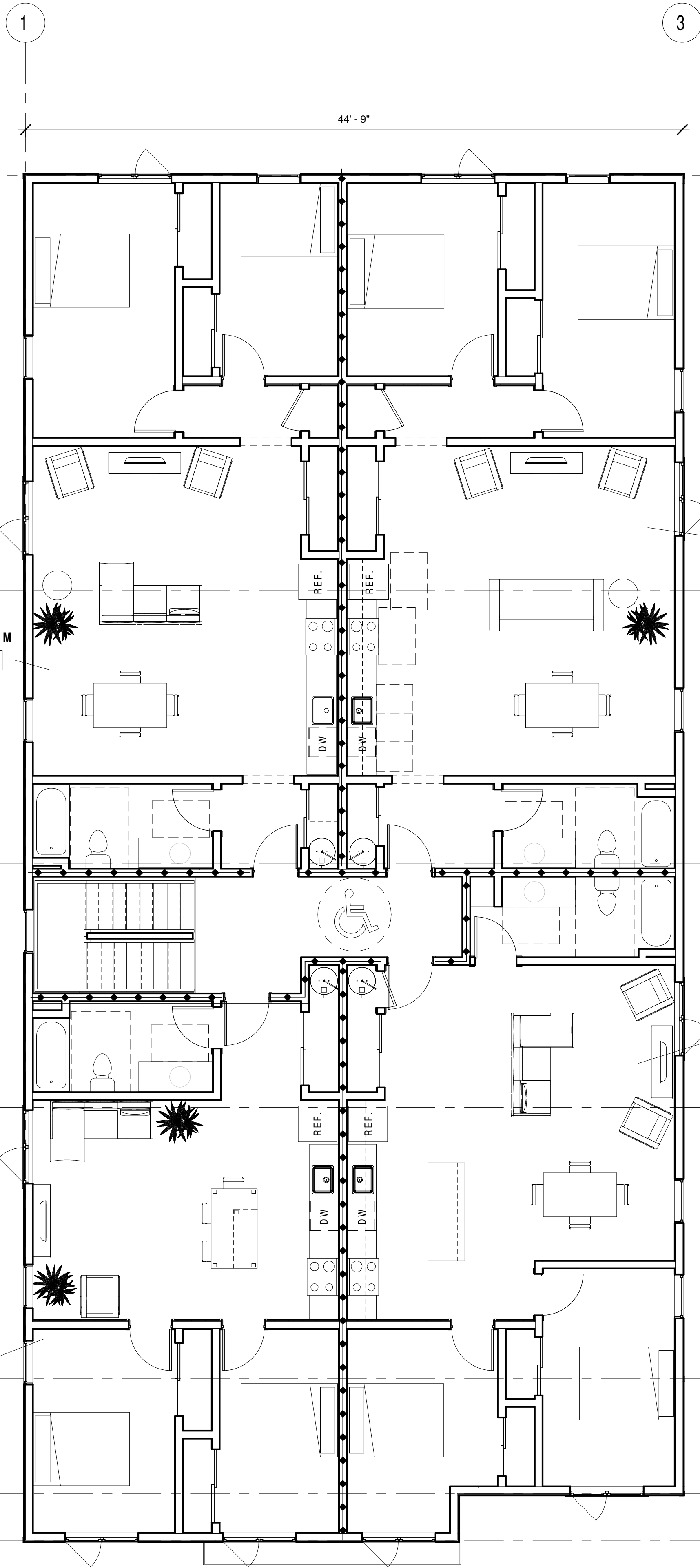
Date Issue Date
Drawn by TJR
Checked by TJR

A-1.1

Scale 1/8" = 1'-0"



83'-0"



A Basement
3/16" = 1'-0"

B Second & Third Floor
3/16" = 1'-0"

392 ST. JOHN STREET



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PROJECT TEAM

No.	Description	Date

Second/Third
& Basement

Project number	20-36_392 St. John Street
Date	Issue Date
Drawn by	TJR
Checked by	TJR

A-1.2

Scale 3/16" = 1'-0"



A East Elevation
1/8" = 1'-0"



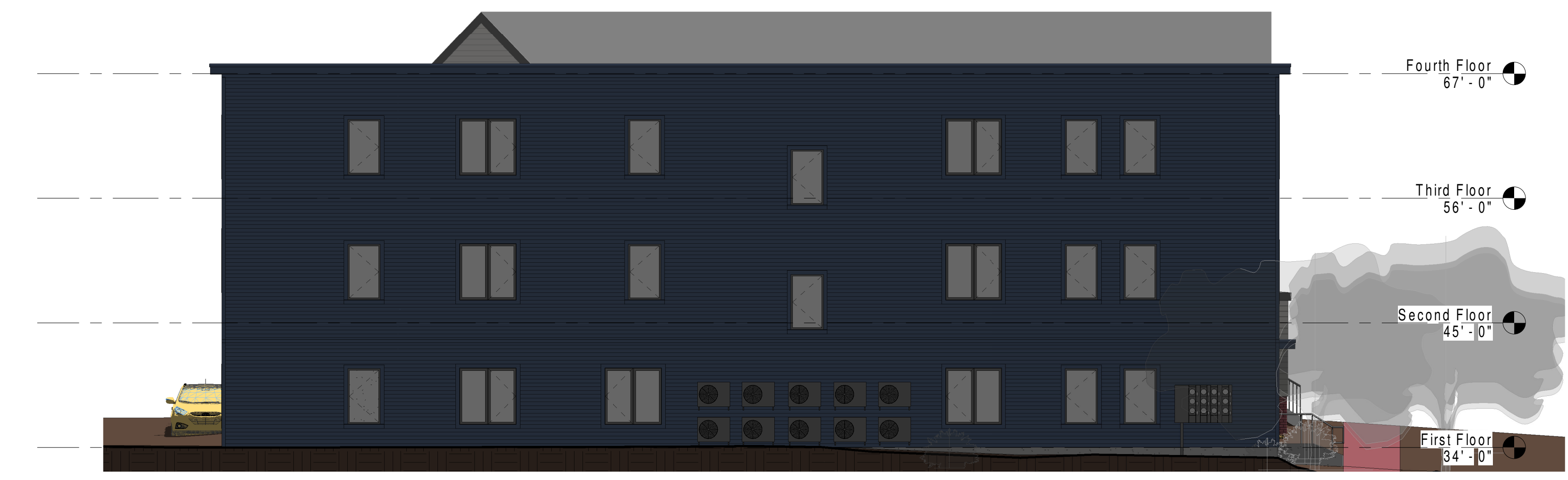
B Raised View From Brighton



C North Elevation
1/8" = 1'-0"



D West Elevation
1/8" = 1'-0"



E South Elevation
1/8" = 1'-0"

392 ST. JOHN STREET



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PROJECT TEAM

No.	Description	Date

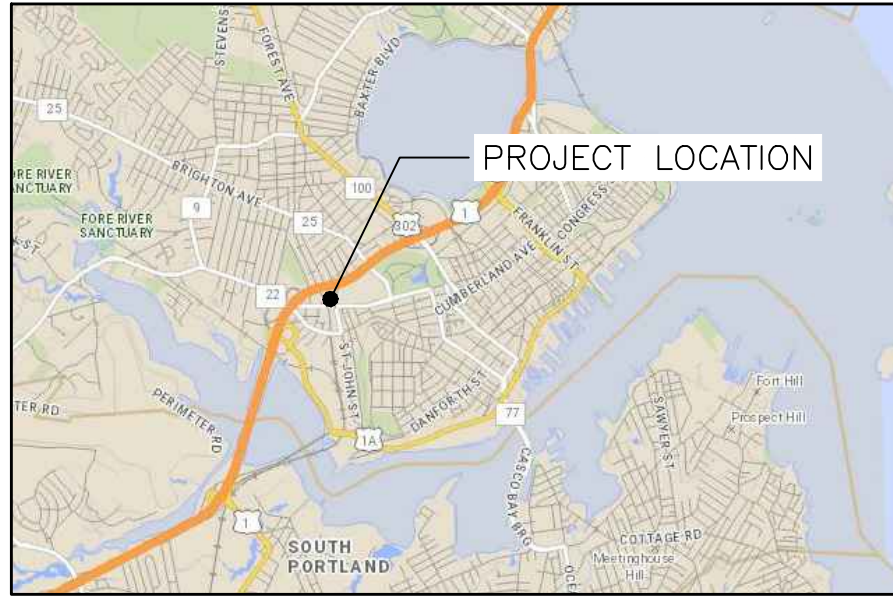
Elevations

Project number 20-36_392 St. John Street

Date Issue Date
Drawn by Author
Checked by Checker

A-2.1

Scale 1/8" = 1'-0"



VICINITY MAP
NOT TO SCALE

SPACE AND BULK STANDARDS FOR 386 ST. JOHN STREET

RESIDENTIAL ZONING DISTRICT (R6)	REQUIRED	PROPOSED
MINIMUM LOT AREA	2,000 SF	7,366 SF
MAXIMUM LOT AREA PER DWELLING UNIT	7,366 SF / 725 SF = 10 UNITS	10 UNITS
STREET FRONTAGE	20 FT	64.91 FT
LOT WIDTH	20 FT	64.91 FT
FRONT SETBACK	4.16 FT (AVG. ABUTTERS)	4.73 FT
REAR SETBACK	10 FT	12.04 FT
SIDE SETBACK	5 FT	5.12 FT
STRUCTURE HEIGHT	45 FT	33.62 FT
MAXIMUM LOT COVERAGE	60 %	56.1%
MINIMUM LANDSCAPED OPEN SPACE RATIO	20 %	20.8%

SPACE AND BULK STANDARDS FOR 392 ST. JOHN STREET

RESIDENTIAL ZONING DISTRICT (R6)	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	2,000 SF	11,000 SF	3,634 SF
MAXIMUM LOT AREA PER DWELLING UNIT	3,634 SF / 725 SF = 5 UNITS	-	4 UNITS
STREET FRONTAGE	20 FT	100 FT	35.09 FT
LOT WIDTH	20 FT	100 FT	35.09 FT
FRONT SETBACK	5 FT	3.66 FT	3.66 FT
REAR SETBACK	10 FT	24.71 FT	18.44 FT
SIDE SETBACK	5 FT	1.93 FT	1.93 FT
STRUCTURE HEIGHT	45 FT	< 45'	< 45'
MAXIMUM LOT COVERAGE	60 %	16.5%	49.9%
MINIMUM LANDSCAPED OPEN SPACE RATIO	20 %	61.4%	24.4%

386 ST JOHN PARKING SUMMARY

REQUIRED	# PARKING SPACES
1 SPACE / DWELLING UNIT AFTER 3 UNITS & SUBTRACT 1 SPACE PER WORKFORCE UNIT = 4	
STANDARD (9'x18')	7
ADA (8'x18')	1
TOTAL PROPOSED SPACES	8
BIKE PARKING (2 SPACES / 5 UNITS = 4 SPACES)	4

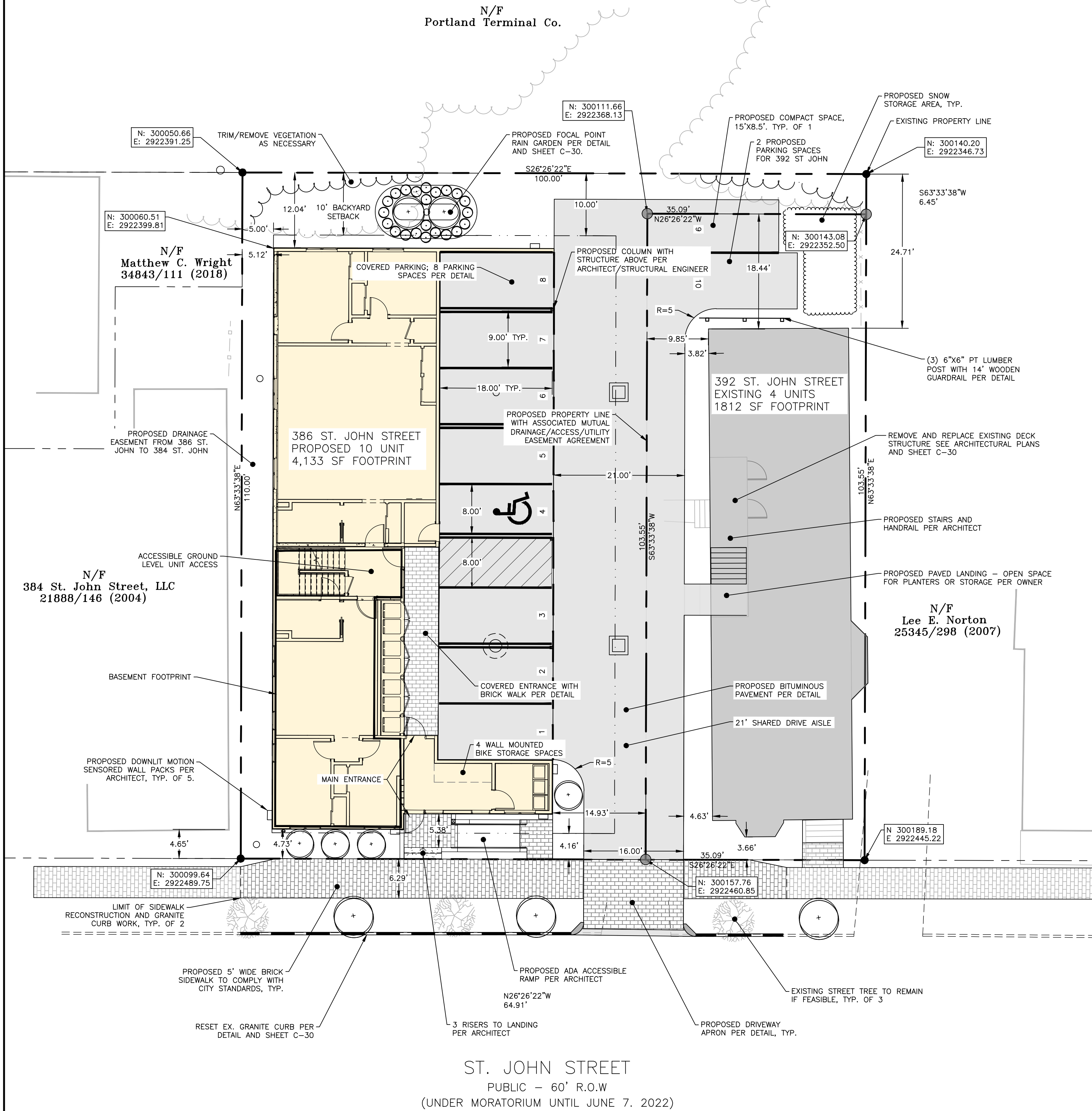
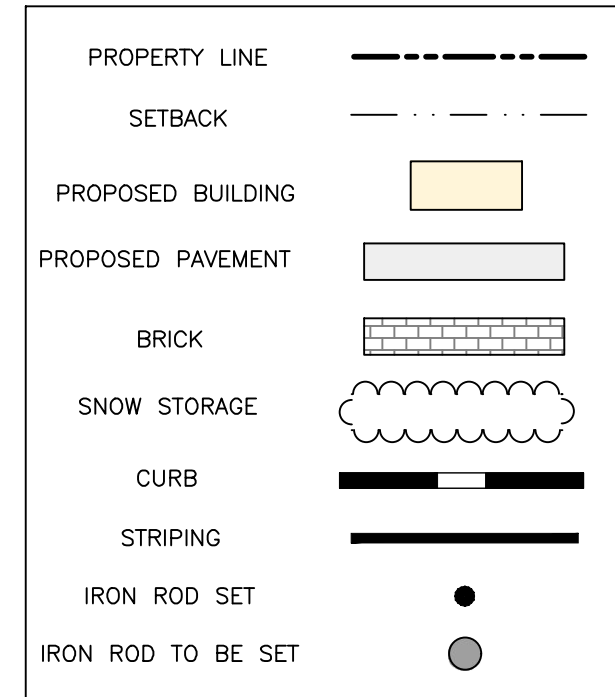
392 ST JOHN PARKING SUMMARY

REQUIRED	# PARKING SPACES
1 SPACE / DWELLING UNIT AFTER 3 UNITS = 1	
STANDARD (9'x18')	1
COMPACT (8.5'x15')	1
TOTAL PROPOSED SPACES	2

UNIT TABULATION

UNIT NUMBER	SIZE (SF)*
BASEMENT	626
1	1,360
2	626
3	800
4	863
5	623
6	631
7	800
8	863
9	623
10	631

*UNIT AREA MEASURED FROM OUTSIDE OF EXTERIOR WALLS TO THE CENTER OF SHARED WALLS



GENERAL NOTES:

- FOR INFORMATION REGARDING THE PROPOSED SITE, REFER TO THE SITE PLAN, C-10, MOST RECENT VERSION.
- FOR INFORMATION REGARDING PROPOSED UTILITIES, REFER TO THE UTILITY PLAN, SHEET C-20, MOST RECENT VERSION.
- FOR INFORMATION REGARDING PROPOSED GRADING AND STORMWATER, REFER TO THE GRADING & DRAINAGE PLAN, SHEET C-30, MOST RECENT VERSION.
- UNIT TABULATION PROVIDED BY DEXTRIOUS CREATIVE; REFER TO ARCHITECTURAL PLANS FOR FLOOR PLANS AND BUILDING HEIGHTS.
- TOTAL SITE AREA INCLUDES 0.22 ACRES (9,787 S.F.). R.O.W. WIDTH FOR ST. JOHN STREET IS 60 FEET PER PLAN OF PROPERTY SURVEY PREPARED BY STEPHEN MARTIN, DATED DECEMBER 30TH, 2020.
- PROPERTY PINS WERE SET BY PROFESSIONAL LAND SURVEYOR.
- AS OF 7/19/2021, THE SITE IS BOUNDED BY THE R-6 ZONE ON EAST, WEST, SOUTH, AND NORTH SIDES PER THE CITY OF PORTLAND GIS WEBSITE.
- PARCEL IS SHOWN ON THE CITY OF PORTLAND ASSESSOR'S MAP 66, BLOCK FF, LOT 4.
- PARCEL DOES NOT FALL IN A SPECIAL FLOOD HAZARD AREA PER FEMA FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 23005100148, DATED 7/17/1986.
- THIS SHEET IS THE SUBDIVISION PLAT FOR THE CREATION OF UP TO TEN (10) DWELLING UNITS ON THE EXISTING SUBJECT PROPERTY.
- FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.

SURVEY NOTES:

- THE BEARINGS SHOWN HEREON ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM WEST (ZONE 1902) US SURVEY FEET, AND ARE BASED ON GPS OBSERVATIONS. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).
- DEED AND PLAN BOOK REFERENCES ARE TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- PLAN REFERENCES:
 - MAINE STATE HIGHWAY COMMISSION RIGHT OF WAY MAP S.H.C. FILE NO. 3-185, SHEET 53 OF 73, DATED MAY 1967 RECORDED IN PLAN BOOK 112, PAGE 55.
 - BOUNDARY SURVEY 377 SAINT JOHN STREET, PORTLAND, MAINE MADE FOR DAVID & ALICE WILSON, DATED NOVEMBER 14, 2019 BY R.W. EATON ASSOC. RECORDED IN PLAN BOOK 219, PAGE 532.
 - ST. JOHN STREET RIGHT OF WAY PLANS ON FILE AT CITY OF PORTLAND ENGINEERING OFFICE.

EASEMENTS:

- THERE ARE NO EXISTING EASEMENTS AS IDENTIFIED BY THE SURVEY TITLED PLAN OF PROPERTY, PREPARED BY STEPHEN MARTIN DATED DECEMBER 30TH, 2020.
- PROPOSED EASEMENTS:
- DRAINAGE / ACCESS / UTILITY EASEMENT TO 386 ST. JOHN STREET FROM 392 ST. JOHN STREET.
 - DRAINAGE EASEMENT TO 384 ST. JOHN STREET FROM 386 ST. JOHN STREET.

WAIVERS & CONDITIONS OF APPROVAL:

TBD.

APPROVED: PORTLAND PLANNING BOARD

CHAIRPERSON: _____ DATE: _____

RECORDING INFORMATION
STATE OF MAINE, CUMBERLAND
COUNTY REGISTRY OF DEEDS

RECEIVED: _____

RECORDED IN: _____

ATTEST: _____

REGISTRAR

OWNER:

CONTACT: ALEX COUPE
ACRE PROPERTIES
27 CYPRESS STREET,
PORTLAND, ME 04103

CIVIL ENGINEER:

ACORN ENGINEERING, INC.
PORTLAND, MAINE
CONTACT: SAM LEBEL, P.E.
(207) 775-2655

SURVEYOR

STEPHEN J. MARTIN INC.
GORHAM, MAINE
CONTACT: STEPHEN J. MARTIN, PLS
(207) 653-3751

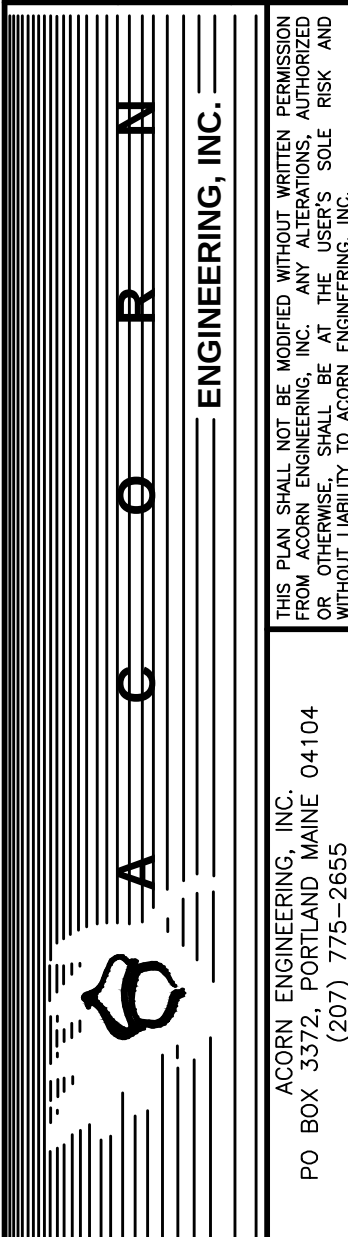
THIS SURVEY CONFORMS TO THE CURRENT STANDARDS OF PRACTICE SET FORTH BY THE MAINE STATE BOARD OF LICENSURE FOR LAND SURVEYORS.

STEPHEN J. MARTIN, MAINE P.L.S. #1262 DATE: _____

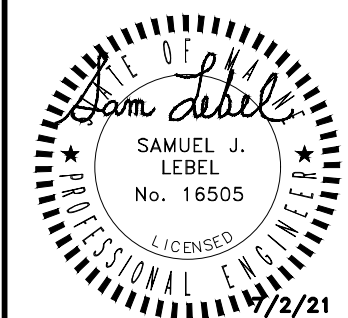


ISSUED FOR	BY
MAJOR SITE/SUB	DATE
	7/2/21

DRAWING NAME	SUBDIVISION PLAT - 386 ST. JOHN STREET, PORTLAND, ME 04101
PROJECT NAME	392 ST. JOHN STREET REDEVELOPMENT
CLIENT	ALEX COUPE PORTLAND, ME



FILE:	1156_CIVIL
JN:	1156
SCALE:	AS NOTED
DESIGNED BY:	SUL
DRAWN BY:	ZMS
CHECKED BY:	SUL



DRAWING NO.
PLAT

Memorandum Planning and Urban Development Department

To: Chair Stanley & Members of the Planning Board
From: Charles Tetelman
Date: February 4, 2022
Re: 102 State Street
Project ID: PL-001840-2021
Meeting Date: February 8, 2022

I. INTRODUCTION

NewHeight Redfern, LLC has submitted a Major Site Plan application to facilitate the development of a four-story residential development including nine townhouse-style condominium units along the Winter Street portion of the lot. This application is being referred to the Planning Board for compliance with the City of Portland's Land Use Code Site Plan Standards, Section 14.6.

The Planning and Urban Development Department mailed 269 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the January 28, 2022 and January 29, 2022 editions of the *Portland Press Herald*.

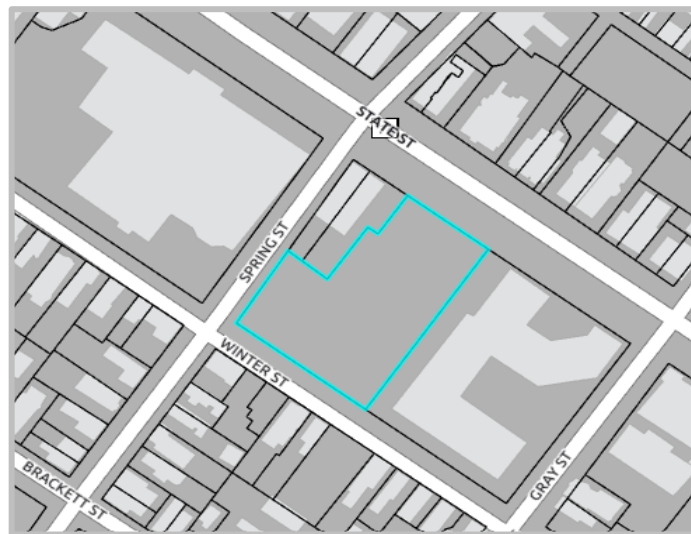


Figure 1: Location of 102 State Street

Applicant: NewHeight Redfern, LLC
Applicant Representatives: Acorn Engineering, Inc.

II. REQUIRED REVIEWS

Review	Applicable Standards
Site Plan	Section 14.6
West End Historic District	Certificate of Appropriateness (for approval by Historic Preservation Board)

III. PROJECT DATA

Existing Zoning	B-3 Downtown Business
Property Size	45,025 sq. ft.
Existing Use	Parking Lot
Proposed Use	Residential

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	o	9,493 sq. ft.	+9,493 sq. ft.
Building Floor Area	o	27,558 sq. ft.	+27,558 sq. ft.
Impervious Surface Area	41,928 sq. ft.	40,985 sq. ft.	-943 sq. ft.
Parking Spaces	144	115	-29
Bicycle Parking Spaces	o	o	o
EV Charging Stations	o	o	o

IV. BACKGROUND

In 2021, the City Council approved a zoning map amendment that rezoned the 102 State Street property and surrounding blocks from R-6 to B-3 (Council Order 164-20/21), along with changes to the Downtown Height Overlay Map (Council Order 165-20/21). This approval began the planning process surrounding the redevelopment of the Northern Light Mercy Hospital campus redevelopment. In 2021, the Planning Board approved Phase I of the adaptive reuse of the existing building at 144 State Street which included residential units, commercial retail space, and self-storage space. Community Housing of Maine and the Portland Housing Authority received approval for Phase II of the redevelopment to build two new residential buildings at 73 and 91 Winter Street.

V. EXISTING CONDITIONS AND SURROUNDING AREA

The location of the proposed project is within the B-3 zone, in the West End neighborhood. Most of the West End is zoned R-4 and R-6; however, there is some variety throughout. Pine and Congress streets are mapped with mixed-use B-1 and B-3 zones, respectively. The surrounding neighborhood is mostly small-scale residential but has seen recent mixed-use, multi-family developments. As mentioned above, major housing projects have been approved that will bring an increase in affordable and market-rate units to the neighboring properties.



Figure 2: Winter Street view of the proposed site

Portland's main thoroughfare Congress Street is approximately two blocks north and provides a variety of mixed-use residential and commercial buildings. Both Congress Street and the West End are characterized by vibrant historic districts – the Congress Street Historic District and the West End Historic District. The proposed projects falls within the bounds of the West End Historic District and is subject to review under the Historic Preservation Ordinance (see below for more information).

The site is directly along METRO Route 8 and is within a ten minute walk to most Routes running along Congress Street and High Street (nearest transfer point located at the corner of Congress Street and Forest Ave.).

VI. PROPOSED DEVELOPMENT

The proposed project will split the parcel Chart 45, Block D, Lot 1 to create two new parcels (Lot 1 28,288 sq. ft. and Lot 2 20,737 sq. ft.) located along State Street and Winter Street. The site currently consists of a surface parking lot with entrances along Spring Street and Winter Street. The proposed Major Site Plan application would facilitate the development of a four-story residential building (9,493 sq. ft. footprint) with nine proposed units facing (27,558 sq. ft. total floor area) Winter Street. The proposed development will have a street wall height of approximately 33 feet, rising to 43 feet on the fourth floor, with a 37.7 foot setback (creating space for a roof deck). Each unit will be allocated three parking spots built into the first floor totaling 27 parking spaces in the Winter Street lot.



Figure 3: Proposed Building Elevations along Winter Street

With the proposed building extending across the entire frontage of Winter Street, the existing entrance to the parking lot along Winter Street will be eliminated and the Spring Street entrance will be the sole entrance for both lots. The applicant is seeking to relocate the electric lines along Winter Street underground and have proposed eight street trees along the Winter Street and Spring Street bounds of the townhome lot. There are no major alterations to the State Street lot as part of this application and will remain as parking. However, the applicant has included some minor utility work along State Street to allow for future development of the parcel. Other minor changes include grading, restriping, and the removal of the ADA spots next to the Spring Street entrance (the applicant noted these spots would have to be located closer to any future structure in the lot).

VII. RIGHT, TITLE, & INTEREST

The applicant submitted a deed transferring two parcels (102 and 144 State Street) from Northern Light Mercy Hospital to NewHeight Redfern, LLC (Attachment C).

VIII. FINANCIAL & TECHNICAL CAPACITY

The applicant submitted a letter dated December 1, 2021 from Machias Savings Bank Senior Vice President Francine V. Cam which demonstrates that the applicant NewHeight Redfern, LLC has adequate financial capacity to complete the proposed project (Attachment G).

The applicant also submitted a document speaking to the technical capacity of the applicant NewHeight Redfern, LLC (Erin Cooperrider of NewHeight Group and Jonathan Culley of Redfern Properties), the architects at Ryan Senatore Architecture, the engineers of Acorn Engineering, and the landscape architects with Aceto Landscape Architecture. This document shows all parties working with and on behalf of the applicant have a diverse and successful project portfolio in Portland and Maine (Attachment H).

IX. ZONING ANALYSIS

The proposed project is located in the B-3 Downtown Business zone and the proposed use (residential) is an allowed use within the zone. The B-3 zone allows a variety of uses including residential housing, medical clinics, schools, commercial retail, restaurants, and hotels. The table below shows the relevant dimensional standards required in as described in Table 7-E Mixed-Use Zone Dimensional Standards:

	Required	Proposed
Minimum Street Frontage	15 ft.	126 ft.
Front Setback Maximum	5 ft.	7 ft.
Step Back	30 ft. State >35 ft. Winter	37.7 ft.
Height	85 ft. 45 ft.	48.4 ft. 37.7 ft.
Maximum Impervious Area	100%	91%
Off Street Parking Spaces	9	27

B-3 Build-to Line: The project proposes to have seven-foot front yard setbacks and therefore is subject to the standards for increasing the setback beyond the build-to-line found in the B-3 Downtown Design Guidelines (within the *City of Portland Design Manual*).

Appendix 1 Standard II B. Standards for increasing setback beyond street build-to-line.

In order for proposed exceptions to this pattern of predominant street wall to be acceptable, the applicant must demonstrate to the Planning Board that the introduction of additional setback at the street level satisfies the following:

1. Open space and amenity: Provide substantial and viable publicly accessible open space or other amenity at the street level that supports and reinforces pedestrian activity and interest.
2. Prevailing character and continuity: Does not substantially detract from the prevailing street wall character by introducing such additional setback at critical building locations such as prominent form-defining corners, nor create a sense of discontinuity in particularly consistent or continuous settings.
3. Support for existing open space: Does not detract from existing publically accessible open space by creating an excessive amount of open space in one area or by diminishing the viability or liveliness of that existing open space.
4. Quality and orientation: The area of setback is of superior quality and character of design and of acceptable orientation to solar access and wind impact as to be attractive to pedestrian activity.

In order to meet the above exception criteria the applicant will be required to submit an analysis demonstrating to the Planning Board that the introduction of additional setbacks at the street level satisfies the above.

X. SITE PLAN REVIEW STANDARDS (Section 14.6)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Site Plan Ordinance, Section 14.6. Staff comments are below.

1. Transportation Standards (Section 14.6.1)

A. Impact on surrounding street systems

The proposed project would not be expected to have a significant traffic or safety impact to the adjacent roadway system. The existing parking lot contains 144 parking spaces utilized for medical and commercial office space. The applicant proposes to reduce the total number of parking spaces on the lot and provide three parking spaces for each condo unit built into the first floor, which minimizes the need for on-street parking spaces for residents. In addition, the applicant proposes to remove the existing driveway entrance on Winter Street.

B. Access and circulation

The applicant is proposing to eliminate the existing entrance to the parking lot along Winter Street making the Spring Street entrance the only way to access (as currently proposed) both lots. The townhomes can be access from Winter Street and from the rear side of the building (internal). The applicant is proposing to reconstruct the sidewalks along all project frontages including Winter Street, Spring Street, and State Street

C. Public transit access

METRO Route 8 runs along the State Street side of the site and there is a bus stop directly adjacent to the site on Spring Street. The site is within a few blocks of other METRO routes and within a 15 minute walk to the transfer station located on the corner of Congress Street and Forest Ave.

D. Parking

Each of the nine new townhomes will have three parking spots allocated totaling 27 for the Winter Street lot.

The existing parking lot contains 110 parking spaces. The new development in the Winter Street lot will eliminate 29 of the existing parking spaces. The 102 State Street lot will retain 81 standard parking spaces. Currently, there are five ADA spaces near the Spring Street entrance which will be removed. The applicant noted these spots were originally used for the neighboring hospital building (as close as possible) and future development of the 102 State Street lot would bring any ADA spots closer to the future building.

Electrical vehicle charging infrastructure and bicycle storage are provided vis-à-vis the garages connected to each unit.

E. Transportation Demand Management (TDM) Plan

A TDM plan is not required.

2. Environmental Quality Standards (Section 14.6.2)

A. Preservation of significant natural features

The site is an existing surface parking lot and there are no significant natural features on site.

B. Landscape preservation

One existing tree is proposed to be preserved on site. The remainder of the site is currently a surface parking lot with little to no vegetation on site.

C. Site landscaping and buffers

The applicant is proposing to underground the electric utility along Winter Street and add eight street trees along Winter Street and Spring Street. The applicant is keeping existing street trees and landscaping along State Street.

The applicant noted that loading and servicing areas, trash and recycling, and roof/ground-mounted utility structures will be located in areas away from the public and screened.

D. Water quality/storm water management/erosion control

The existing site is a surface parking lot and the applicant is proposing only minor grading work on the interior of the lot to accommodate construction. The applicant provided a report stating the project as designed is not anticipated to cause flooding or erosion problems on site, with abutting properties, nor within the right-of-way (Attachment J).

Staff noted that the applicant could look to add additional stormwater storage on site to help alleviate runoff from surrounding sites. However, the applicant is reducing the amount of impervious surfaces on site (~9% | 600 sq. ft.) – there are no significant changes to storm water management.

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

A. Consistency with City Master Plans

The proposed project is in keeping with the stated goals of *Portland Plan 2030* regarding housing and the policy of creating complete neighborhoods. The project takes advantage of a central, downtown location near transit and walkable services.

Livable City: Housing – local goals met by this project:

- Increase, preserve, and modify the overall supply of housing city-wide to meet the needs, preferences, and financial capabilities of all Portland residents.
- Encourage additional contextually appropriate housing density in and proximate to neighborhood centers, concentrations of services, and transit nodes and corridors as a means of supporting complete neighborhoods.
- Pursue policies to enable people who work in Portland to have the option to live in Portland.

A Healthy City: Environment – local goals met by this project:

- Adopt sustainable land use and transportation policies that support connectivity, walkable neighborhoods, and multi-modal transportation.

An Enduring City: Historic Resources – local goals met by this project

- Stabilize and enhance historic areas of the city by ensuring quality investment in existing structures and compatible infill development.
- Ensure an appropriate balance of continuity and change as Portland grows and evolves.

B. Public safety and fire prevention

The applicant has incorporated a variety of Crime Prevention through Environmental Design (CPTED) standards into the site design. The site limits public spaces beyond street frontages and public right of ways. The townhomes will all have a garage providing separation from the parking spaces located in the 102 State Street lot.

Emergency vehicles will be able to readily access the town home sites directly on Winter Street and will be able to access the rear of the building through an entrance along Spring Street

C. Availability and capacity of public utilities

The applicant has reached out to all utility providers and requested ability to serve letters to be provided to the City once received.

The applicant is proposing to underground the existing overhead electric lines along Winter Street. Staff were concerned that the narrow sidewalks and proposed street trees could make this difficult to achieve. Staff suggested the applicant reach out to the Department of Public Works to confirm if the underground electric could be possible given the location of the proposed street trees.

4. Site Design Standards (Section 14.6.4)

A. Massing, ventilation, and wind impact

The architects provided an Architectural Design Narrative (Attachment N) that noted the design reflected the scale and textures of buildings along Winter Street to mirror the surrounding buildings and residential neighborhood. The buildings all have access along Winter Street and the roof top is setback 37.7 ft.

HVAC systems will be located to direct exhaust away from public spaces and abutting properties.

B. Shadows

The project is not adjacent to any public park or open space. The height of the structure is comparable to surrounding buildings along Winter Street and within the wider neighborhood and no shadow impacts are anticipated.

C. Snow and ice loading

The structures will not distribute snow and ice onto adjacent properties. The applicant will need to identify the location of snow storage on site.

D. View corridors

The project is not located in any designated view corridors.

E. Historic resources

The proposed project is located in the West End Historic District and is currently undergoing a Historic Preservation Board review. The Historic Preservation Board public hearing is scheduled for February 16, 2022.

F. Exterior lighting

The applicant has provided a photometric plan (Attachment M) which meets the requirements of Section 12 of the Technical Manual.

Existing street lighting within the public right of way is proposed to remain as existing.

G. Noise and vibration

N/A

H. Signage and wayfinding

N/A

I. Zoning-related design standards

As a project located in the West End Historic District, the project is required to comply with the historic preservation standards and requires a certificate of appropriateness. Staff will provide a more detailed review of the Historic Preservation Board's determination at the Public Hearing.

The applicant noted the City of Portland Design Manual allows for standards for increasing the maximum front setback. The proposed design has a setback of seven feet to allow for ADA access to the front doors. The applicant also believes the additional setback would provide more space for landscaping thus enhancing the street view of the development. Staff have yet to make a determination regarding the additional setback.

XI. NEIGHBORHOOD MEETING & PUBLIC COMMENT

On January 27, 2022, the applicants held a virtual neighborhood meeting with 13 attendees and six members of the applicant team (Attachment R). The applicant introduced the project and guided the neighborhood attendees through the project scope and design. There were a handful of questions regarding future development of the 102 State St. parcel and the applicant clarified that there were no further plans at the moment but there would be future conversations. The attendees also asked clarifying questions regarding sidewalks, underground electric, and street tree maintenance.

No public comment has been submitted to the Planning & Urban Development Department.

XII. NEXT STEPS

1. Planning Board to provide preliminary comments and questions
2. Continue to evaluate proposal against Site Plan Review standards
3. Applicant to address preliminary Staff review comments including:
 - a. Demonstrate need for additional Setback
 - b. Provide further understanding to how 102 State St. lot will be utilized as a construction staging area for other projects
 - c. Determine if traffic analysis is needed
 - d. Provide Ability to Serve letters
4. Prepare Final Plan Submission
5. Schedule and Hold Planning Board Public Hearing

XIII. ATTACHMENTS

APPLICANT SUBMITTAL

- A. Cover Letter
- B. Site Plan Checklist
- C. Right, Title, and Interest

- D. Zoning Assessment
- E. n/a
- F. Waivers
- G. Financial Capacity
- H. Technical Capacity
- I. Conformity With Land Use Ordinance
- J. Stormwater Management Plan
- K. Erosion & Sediment Control Report
- L. Fire Department Letter
- M. Lighting
- N. Architectural Design Narrative
- O. Utilities
- P. Construction Management Plan
- Q. Solid Waste Disposal
- R. Neighborhood Meeting Certification

PLANS

- Plan 1. First Floor Plan
- Plan 2. Second Floor Plan
- Plan 3. Third Floor Plan
- Plan 4. Roof Plan
- Plan 5. Elevations
- Plan 6. Elevations 2
- Plan 7. Perspective Views
- Plan 8. Sections
- Plan 9. Wall Sections
- Plan 10. Privacy Screen Details
- Plan 11. Typical Unit
- Plan 12. Window Schedule
- Plan 13. Architectural Renderings
- Plan 14. Cover Sheet & Legend
- Plan 15. General Notes
- Plan 16. Construction Management Plan
- Plan 17. Site Plan
- Plan 18. Utility Plan
- Plan 19. Grading Plan
- Plan 20. Site Details
- Plan 21. Site Details 2
- Plan 22. Utility Details
- Plan 23. Utility Details 2
- Plan 24. Utility Details 3
- Plan 25. Drainage Details
- Plan 26. Erosion & Sediment Control Notes
- Plan 27. Existing Conditions Plan
- Plan 28. Landscaping Plan
- Plan 29. Materials Plan
- Plan 30. Planing Plan

Plan 31. Landscape Details

Plan 32. Landscape Details 2

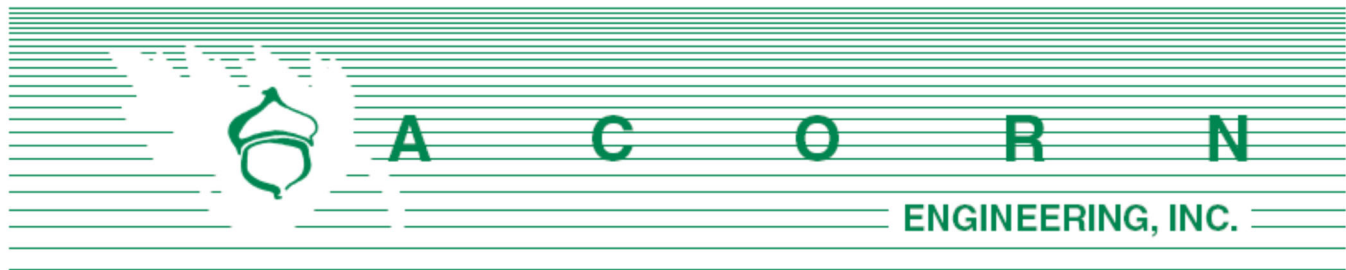
Plan 33. Landscaping Renderings

Plan 34. Photometric Plan

Plan 35. Plat

Plan 36. Street View Plan

Plan 37. Typical Unit Plan



Planning and Urban Development Department
Planning Division, Attn: James Rather
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

December 3, 2021

Subject: Major Site Plan/Subdivision Application – 102 State Street
Winter Street Townhomes

To James,

On behalf of NewHeight Redfern, LLC we are pleased to submit the accompanying package of materials related to the proposed Winter Street Townhomes development at 102 State Street in Portland, Maine.

The proposed project site is Chart 45, Block D, Lot 1, encompassed by State, Spring, and Winter Streets. The lot is located within the B3 Downtown Business District with height limitations along Winter Street. It is abutted on the south, east, and north sides by the R-6 zone. The parcel is approximately 1.03 acres and is currently comprised of a surface parking lot. The project proposes to subdivide the existing lot into two lots. The north lot (102 State Street) will be 0.56 acres (24,288 sf). The south lot (Winter Street lot) will be 0.48 acres (20,7272 sf). The proposed development will construct nine (9) town-house style condos along Winter Street on the Winter Street lot.

The subject site is currently entirely comprised of an impervious surface parking lot, with minimal landscaped areas. The lot slopes east and has a storm drain system that flows north to State Street. The site is bounded by State, Spring, and Winter Streets, and abuts residential condo/apartment buildings to the East and Northwest. There is an existing retaining wall on the east boundary of the lot.

The nine proposed units will have a footprint of 9,493 sf. Each individual unit will have a front entrance with stoops & front entrances on Winter Street. The existing parking lot north of the building will be maintained, and the condos will have garages with driveways on the parking lot side. The existing parking lot driveway will be shifted to be directly across Spring Street from the proposed location of the curb cut for the Mercy Hospital redevelopment. The proposed site layout will have 113 parking spaces. The north lot will retain 81 standard parking spaces & 5 ADA spaces. The Winter Street townhomes will have 18 standard spaces (one in the garage & one in the driveway of each unit) & 9 compact spaces (one in each townhome garage).

We are pleased to submit an application which will increase the available housing stock consistent with the City's Comprehensive Plan, implementing stormwater treatment, improve the Winter Street streetscape, sidewalk reconstruction, street tree plantings and provide housing in a walkable, historic section of the city.

NewHeight Redfern LLC and the design team look forward to your review of this exciting project.

Sincerely,



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

Documents:

- Section A: Cover Letter
- Section B: Major Site Plan Application Checklist
- Section C: Right, Title, Interest (Deed)
- Section D: Zoning Assessment
- Section E: Easements
- Section F: Waivers
- Section G: Financial Capacity
- Section H: Technical Capacity
- Section I: Conformity with Land Use Ordinance
- Section J: Stormwater Management Report
- Section K: Erosion & Sedimentation Control Report
- Section L: Fire Department Letter
- Section M: Lighting
- Section N: Architectural Design Narrative
- Section O: Utilities
- Section P: Construction Management Plan
- Section Q: Solid Waste

Drawings:

- Civil Site Plan Set
- Landscaping Plan Set
- Architectural Plan Set



CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST

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

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

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

GENERAL APPLICATION DOCUMENTS

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

MAJOR SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

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

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

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

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

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

MAJOR SITE PLAN DRAWINGS CHECKLIST

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

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

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

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

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

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

Existing Conditions Plan with the following:

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

Proposed Site Plan with the following:

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

• Location of solid waste management receptacles • Location of all proposed HVAC and mechanical equipment, including proposed screening, where applicable • Location of proposed easements and rights-of-way, including dimensions • Please utilize color-coding and/or hatches and shading to delineate changes between the pre and post development condition as needed
UTILITY PLAN including:
• Proposed electrical infrastructure • Location, sizing and directional flows of all proposed sewer and stormwater infrastructure • Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site • Electric utility infrastructure
GRADING AND DRAINAGE PLAN including:
• Proposed grades • Proposed stormwater management measures meeting Technical Manual (Section 5) standards • Any proposed alteration of a watercourse or wetlands • Any groundwater protection measures • Proposed buffers and preservation measures for wetlands or significant natural features
LANDSCAPE PLAN including:
• Existing vegetation to be preserved and preservation measures • Proposed landscaping, screening, and street trees, including caliper widths for trees • Planting schedule, including street trees
ARCHITECTURAL PLANS AND RENDERINGS including:
• Exterior building elevations, color renderings, illustrations of all sides • Axonometric and street-level views for structures greater than three stories in height • Provide context drawings, if applicable (Design Manual, page 1) • Floor plans
CONSTRUCTION MANAGEMENT PLAN including:
• Specifics on traffic control, sidewalk sheds, and pedestrian rerouting • Include a drawing and written narrative
OTHER
• Details and cross-sections, as necessary

Right, Title, or Interest

The Quitclaim Deed with Covenant is attached to this section providing the applicant with Right, Title and Interest in the property.

DLN: 1002040088241

QUITCLAIM DEED WITH COVENANT

DLN# _____

MERCY HOSPITAL, a.k.a. NORTHERN LIGHT MERCY HOSPITAL, a Maine non-profit corporation with a principal place of business in Portland, Cumberland County, Maine, for consideration paid, grants to **NEWHEIGHT REDFERN LLC**, a Maine limited liability company with a principal place of business in Portland, Cumberland County, with a mailing address of 167 Newbury Street, Suite 503, Portland, ME 04101, Maine, with quitclaim covenant, the land in **Portland**, Cumberland County, Maine, described as follows:

PARCEL 1 (102 STATE STREET): A certain lot or parcel of land, with the buildings thereon, lying on the southerly side of Spring Street in said Portland described as follows

Beginning at a point of intersection of the northeasterly sideline of Winter Street with the southeasterly sideline of Spring Street;

Thence N48°34'00"E along the southeasterly sideline of said Spring Street 125.93 feet to the southerly line of land now or formerly of Town Houses at Eaton Shaw Block Condominiums (Cumberland County Registry of Deeds ("CCRD") Book 27136, Page 174);

Thence the following courses and distances along said Town Houses at Eaton Shaw Block Condominiums:

S38°02'31"E 65.99 feet;

N49°42'19"E 82.20 feet;

S40°38' 15"E 15.59 feet;

N49°21'45"E 63.93 feet to the southwesterly sideline of State Street;

Thence S40°10'00"E along the southwesterly sideline of said State Street 125.89 feet to land now or formerly of State Street Housing Preservation Corporation (CCRD Book 21735, Page 205);

Thence S49°51'30"W along the northerly line of said State Street Housing Preservation Corporation 269.62 feet to the northeasterly sideline of Winter Street;

Thence N40°11'30"W along the northeasterly sideline of Winter Street 203.81

MAINE REAL ESTATE TAX PAID

feet to the point of beginning.

THE ABOVE DESCRIBED PARCEL 1 IS SUBJECT TO the following recorded in CCRD:

1. Rights and easements as set forth in an instrument from Mercy Hospital to Central Maine Power Company and New England Telephone and Telegraph Company dated August 22, 1966, CCRD Book 2978, Page 31.
2. Rights and easements set forth in an instrument from Mercy Hospital to Central Maine Power Company and New England Telephone and Telegraph Company dated March 6, 1968, CCRD Book 3046, Page 716.
3. Easement Deed from Mercy Hospital to Central Maine Power Company dated November 21, 1977, CCRD Book 4171, Page 66.
4. Terms and conditions set forth in a deed from the City of Portland to Mercy Hospital dated December 18, 1980, CCRD Book 4925, Page 317 and noted as: "The Mercy Hospital, its successors and assigns, will not discriminate on the basis of race, color, creed, sex, or national origin in the sale, lease or rental, or in the use or occupancy of the property described herein or any improvements erected or to be erected thereon, or any part thereof. Said covenant is to run with the land in perpetuity."
5. The following matters shown on a plan entitled "ALTA/ACSM Land Title Survey, 102, 120 (AKA 144) & 148 State Street, Portland, Cumberland County, Maine made for Mercy Hospital and Eastern Maine Healthcare Systems," dated February 27, 2013, revised September 20, 2013, prepared by Owen Haskell, Inc.:
 - a. Pavement and curbing encroach .5 feet +/- onto northerly abutter;
 - b. Overhead wires crossing premises from Winter and Spring Streets; and
 - c. Note 3 regarding location of utilities.

PARCEL 2 (120 STATE STREET, A/K/A 144 STATE STREET, AND 148 STATE STREET): A certain lot or parcel of land, with the buildings thereon, lying on the southwesterly side of State Street in said Portland described as follows:

Beginning at a point of intersection of the southwesterly sideline of State Street with the northwesterly sideline of Spring Street;

Thence S48° 56' 10" W along the northwesterly sideline of said Spring Street 270.49 feet to the northeasterly sideline of Winter Street;

Thence N 40° 09' 30" W along the northeasterly sideline of said Winter Street 400.49 feet to land now or formerly of the Portland Club;

Thence N 50° 12' 30" E along land of said Portland Club 272.95 feet to the southwesterly sideline of said State Street;

Thence S 39° 47' 50" E along the southwesterly sideline of said State Street 394.48 feet to the point of beginning

THE ABOVE DESCRIBED PARCEL 2 IS SUBJECT TO the following recorded in CCRD:

1. Rights and easements from Mercy Hospital to Central Maine Power Company and New England Telephone and Telegraph Company as set forth in an instrument dated March 6, 1968, CCRD Book 3046, Page 716.

2. Terms and conditions set forth in a deed from the Portland Renewal Authority to Mercy Hospital dated June 4, 1975, CCRD Book 3692, Page 343, as affected by a Certificate of Completion by the Portland Renewal Authority dated March 22, 1982, CCRD Book 4934, Page 96 and noted as: "FIFTH: The Grantee agrees for itself and any successor in interest not to discriminate upon the basis of race, creed, color, or national origin in the sale, lease, or rental or in the use or occupancy of the property hereby conveyed or any part thereof or of any Improvements erected or to be erected thereon or any part thereof."

3. Easement Deed from Mercy Hospital to Central Maine Power Company dated November 21, 1977, CCRD Book 4171, Page 66.

4. Easement and Memorandum of Agreement by and between Mercy Hospital and Time Warner Cable of Maine dated November 18, 1998, CCRD Book 15936, Page 165.

5. Easement Deed from Mercy Hospital to Central Maine Power Company and Verizon New England, Inc. dated May 24, 2001, CCRD Book 16391, Page 232.

6. Easement from Mercy Hospital to Central Maine Power Company and Northern New England Telephone Operations, LLC dated September 4, 2010, CCRD Book 28512, Page 45.

7. The following matters shown on a plan entitled "ALTA/ACSM Land Title Survey, 102, 120 (AKA 144) & 148 State Street, Portland, Cumberland County, Maine made for Mercy Hospital and Eastern Maine Healthcare Systems," dated February 27, 2013, revised September 20, 2013, prepared by Owen Haskell, Inc.:

- a. Pavement and parking encroach 3 feet +/- onto northerly boundary;
- b. Overhang 3 feet +/- into Spring Street;
- c. Overhead wires cross onto premises from Spring and Winter Streets;
- d. Granite wall encroaches into right of way of State Street; and
- e. Note 3 regarding location of utilities.

For Grantor's source of title, reference may be had to the deeds recited in Exhibit A attached hereto.

EXHIBIT A

For Grantor's source of title to the above-described premises, reference may be had to the following deeds recorded in the Cumberland County Registry of Deeds:

PARCEL 1 (102 STATE STREET):

- a. Deed from Basil Ballides and Katherine Ballides dated February 14, 1957, recorded in Book 2337, Page 148.
- b. Deed from Freda M. Morrill dated November 10, 1961, recorded in Book 2642, Page 436.
- c. Deed from Aman Maria dated December 12, 1961, recorded in Book 2649, Page 180.
- d. Deed from George H. Hinckley, Guardian of Arthena Wiggin, dated February 1, 1962, recorded in Book 2657, Page 71.
- e. Deed from Fernando P. Giobbi and Margaret O. Giobbi dated April 23, 1962, recorded in Book 2669, Page 105.
- f. Deed from Thomas J. Donahue, Charles R. O'Connell, Jr. and Edith M. O'Connell dated November 10, 1964, recorded in Book 2863, Page 456.
- g. Deed from Sigmund S. Dyro and Mary A. Dyro dated July 30, 1965, recorded in Book 2911, Page 334,
- h. Deed from Marie V. Hetu dated September 30, 1965, recorded in Book 2924, Page 259.
- i. Deed from James A. Desmond, Conservator of Bertha Smite, dated November 3, 1965, recorded in Book 2932, Page 500.
- j. Deed from Mary G. Smith, also known as Mary Morgan Smith, dated March 27, 1970, recorded in Book 3121, Page 446.
- k. Deed from Theodore R. Brownlee dated October 31, 1970, recorded in Book 3149, Page 363.
- l. Deed from the City of Portland dated December 18, 1980, recorded in Book 4925, Page 317.

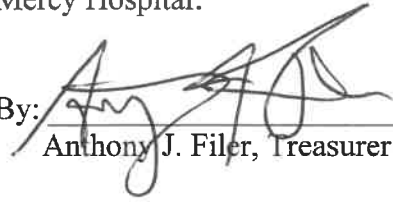
PARCEL 2 (120 STATE STREET, A/K/A 144 STATE STREET, AND 148 STATE STREET):

- a. Deed from Alice A. Oxnard dated June 9, 1948, recorded in Book 1914, Page 495.

- b. Deed from Harriet E. Frates dated October 8, 1948, recorded in Book 1930, Page 450.
- c. Deed from St. Joseph's Convent and Hospital dated January 30, 1950, recorded in Book 1989, Page 3.
- d. Deed from Guy A. Shaw dated October 1, 1952, recorded in Book 2103, Page 238.
- e. Deed from Earle W. Watson and Maybelle C. Watson dated November 30, 1953, recorded in Book 2156, Page 232.
- f. Deed from Raymond L. Baillargeon and Cora M. Baillargeon dated September 5, 1963, recorded in Book 2773, Page 347.
- g. Deed from James B. McKenney and Beatrice M. McKenney dated May 2, 1964, recorded in Book 2821, Page 441.
- h. Deed from John Malconian dated July 1, 1964, recorded in Book 2833, Page 323.
- i. Deed from Samuel Levey and Helen G. Levine dated November 5, 1965, recorded in Book 2932, Page 498.
- j. Deed from Irene L. Fisher dated August 1, 1964, recorded in Book 2942, Page 39.
- k. Indenture with Portland Renewal Authority dated June 4, 1975, recorded in Book 3692, Page 343.
- l. Deed from Robert M. Morrison dated December 2, 1975, recorded in Book 3779, Page 204.

IN WITNESS WHEREOF, Mercy Hospital, has caused the foregoing instrument to be signed in its corporate name and sealed by its undersigned officer, duly authorized, this 25th day of February, 2020.

Mercy Hospital:

By: 
Anthony J. Filer, Treasurer

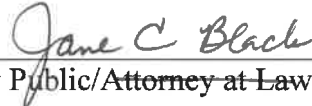
GFE

STATE OF MAINE

Penobscot County

February 25, 2020

Personally appeared before me the above named Anthony J. Filer, Treasurer of Mercy Hospital, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said non-profit corporation.


Notary Public/Attorney at Law

Jane C. Black
Print or type name as signed

Jane C. Black
Notary Public, State of Maine
My Commission Expires September 13, 2023

SEAL

Received
Recorded Register of Deeds
Feb 27, 2020 01:07:06P
Cumberland County
Nancy A. Lane

Zoning Assessment

The development is in accordance with applicable standards consistent with the B3 Downtown Business Zoning District with height limitations along Winter Street. See attached zoning analysis for the B3 zone.



ZONING ANALYSIS Relevant Zone(s) B3

All Projects:

	Required	Proposed
Lot Size	N/A	0.48 Ac
Area Per Dwelling Unit	N/A	0.053 Ac
Minimum Street Frontage	15'	126 ft
Front Yard Minimum	N/A	7.00'
Front Yard Maximum	5'	7.00'
Rear Yard	N/A	34.20'
Yard Right	N/A	0.31'
Yard Left	N/A	4.00'
Side Street Setback	N/A	N/A
Step Back	30'@45' Winter	37.7'
Maximum Lot Coverage	100%	45.8%
Minimum Lot Coverage	0%	45.8%
Maximum Height	85'/45'*	48.4'/37.7'
Open Space	N/A	N/A
Maximum Impervious Area	100%	91%
Pavement Setback	N/A	N/A
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces	9	27
Loading Bays	N/A	N/A
Other 1		
Other 2		
Other 3		

Planned Residential Unit Developments (PRUD) Requirements

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

Affordable Housing Density Bonuses (if applicable)

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

Waivers

No waivers are proposed for this project.



Financial Capacity

A letter from the Applicant's bank confirming financial capacity is attached to this section.





December 1, 2021

Christine Grimando, Director
Planning and Urban Development Department
City of Portland
389 Congress Street
Portland, ME 04101

Dear Ms. Grimando:

I am writing this letter on behalf of NewHeight Redfern LLC in reference to the site application for 9 townhouse units along the Winter Street side of the Mercy parking lot at 102 State Street.

Machias Savings Bank (MSB) provided the lending for the for the group's purchase of the entire Mercy Campus this past winter. Although this project is still in its early stages, MSB has had previous lending experience with the principals of the NewHeight Redfern group on other large commercial construction projects. They have proven to be a highly qualified, effective, and professional development team.

MSB is aware of their current site plan application and would be pleased to entertain financing requests from the group for that project as well as other future projects on this site.

If you have any questions and or concerns, please do not hesitate to contact me at 207-561-3937.

Sincerely,

A handwritten signature in blue ink, reading 'Francine V. Cram', is written over a horizontal line.

Francine V. Cram
Senior Vice President
Business Banking Relationship Manager

Technical Capacity

NewHeight Redfern, LLC is a collaboration between the principals of two Portland-based development firms, Erin Cooperrider of NewHeight Group, and Jonathan Culley of Redfern Properties.

The NewHeight Redfern team, along with the Ryan Senatore Architecture, Acorn Engineering, and Aceto Landscape Architecture have most recently completed permitting of the Mercy Hospital Redevelopment. This project redeveloped the existing Mercy Hospital into a mixed use building including 170 residential units, 70 on-site parking spaces, a medical clinic, a fitness facility, commercial/retail space, office space, a self-storage facility, and tenant amenities. The Mercy Hospital Site is directly next to the site of this project, on the opposite side of Spring Street.

NewHeight Group has also developed multiple high-end condominium projects in Portland, including 118 on Munjoy, Luminato, and Verdante at Lincoln Park. These project have raised the bar for new construction in the city.

Redfern Properties also develops, owns, and operates a portfolio of properties that includes the highest quality rental apartments in Portland. Redfern Properties is committed to developing innovative residential properties, and focuses on infill and other “smart-growth” development in creating unique residences and commercial spaces, while making neighborhoods and communities more vibrant and sustainable.

Ryan Senatore Architecture has designed many residential and mixed-use buildings in Portland and throughout Southern and Central Maine. Multifamily residential projects include 70 Anderson 89 Anderson Street, Munjoy Heights, the Hiawatha, and most recently 200 Federal Street, an 18-story, 180,000 sf mixed use building with 266 residential units & ground floor commercial space.

Acorn Engineering specializes in providing urban redevelopment, civil/site design, environmental services, municipal consulting and construction administration. Together, Acorn Engineering, Inc. and Ryan Senatore Architecture have successfully designed and permitted more than 20 medium to large residential and mixed use projects in Portland during the past 6 years, including five for Redfern Properties: 200 Federal St, Munjoy Heights, East Bayside Lofts, The Hiawatha, and 70 Anderson.

Aceto Landscape Architecture is a process-driven, landscape architecture and urban design firm committed to thoughtful, creative intervention at the intersection of environment, economics, art, and culture. ALA has worked on a number of important projects throughout Maine and the U.S. Locally, ALA has been the prime design consultant for the redevelopment of the 500-acre Scarborough Downs property in addition to numerous public and private development projects across Maine. ALA has also recently teamed with both Ryan Senatore Architecture and Acorn Engineering on the Mercy Hospital Redevelopment as well as 200 Federal Street. ALA’s clients include private developers, housing authorities, and municipalities.

Conformity with Land Use Ordinance

The following outline is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use, Section 14.6 as well as the City of Portland Technical Manual, Chapter 14 Standards for Local Site Location of Development Review.

OVERVIEW

The proposed Winter Street Townhomes residential development at has been designed to conform to City standards. This project conforms with the applicable standards of Portland's Land Use Ordinance Section 14-526 as demonstrated in the following narrative.

14.6.1 Transportation Standards

This project conforms with the design standards of Section 14.6.1 as demonstrated in the following narrative.

A. Impact on Surrounding Street Systems:

The site is located at the corner of State, Spring and Winter Streets. State Street is classified as a minor arterial with an average annual daily traffic volume of approximately 15,550 vehicles per day. Winter and Spring Streets are classified as a local roads. Spring Street with an average annual daily traffic volume of approximately 4,820 vehicles per day and Winter Street has an average annual daily traffic volume of approximately 222 vehicles per day (Maine DOT 2017). The 9 residential units are not expected to cause any significant increase in motorized traffic. The project provides 3 parking spots for each residential unit but decreases total parking on the site by 29. The project design provides 115 on-site parking spaces.

B. Access and Circulation:

1. In general:

- a. The development will provide safe access and internal circulation for both pedestrians and vehicles in conformance with the design standards of the Technical Manual as seen on the Site Plan.
- b. Building entrances on the site will be adjacent to the existing sidewalk on Winter Street, with walkways connecting the entrances to the public sidewalk. Entrances will also be on the rear of the buildings through the garages.
- c. Vehicular access to the site will match the existing drive location. This is also located directly across from the planned entrance to the adjacent development at the Mercy Hospital Site.
- d. The proposed driveway has the ability to stack cars as necessary for the proposed use.



2. Loading and servicing: It is not anticipated that delivery vehicles will be regularly accessing the site.
3. Curbs and sidewalks:
 - a. Sidewalks along the project frontage will be reconstructed per City standards.
 - b. Sidewalks along the project frontage will be reconstructed per City Standards.
 - c. No waiver for sidewalk installation requirements will be requested.
 - d. Existing curbing will be reused where possible for sidewalk reconstruction.

C. Public Transit Access:

1. There is a public metro bus stop directly adjacent to the site on Spring Street. As a result, no public transit facility is required for the project.
2. The existing public metro station is along the sidewalk on Spring Street.
3. No waiver for public transit access will be requested.

D. Parking:

1. Parking for the proposed units will be provided with one compact space in the garage, one standard space in the garage, and one standard space in the driveway. Bicycle parking will be provided in the garages. The 102 State Street lot will retain 81 standard & 5 ADA spaces.
2. Secure bicycle storage is provided by the garage that is part of each individual unit. This exceeds the standard of 2 spaces/5units.
3. Snow will be trucked off-site as necessary .
4. Electrical vehicle infrastructure may be provided to the parking units in the garages.

E. Transportation Demand Management (TDM):

1. A TDM is not required per the City of Portland Land Use Code Chapter 14.

14.6.2 Environmental

A. Preservation of significant natural features:

1. There are no significant natural feature existing on the site.
2. There are no significant natural features on the site.



3. No waivers for significant natural features are requested for this project.

B. Landscape preservation:

1. One existing tree is to be removed for the proposed development. This is the only existing tree on the site.
2. There is little to no existing vegetation on the site.
3. There is no required setback in this zone.
4. No waiver will be requested.
5. The tree proposed to be removed will be replaced by multiple new street trees along Winter and Spring Streets.

C. Site Landscaping & Buffers

1. A landscaping plan has been prepared for the project by Aceto Landscape Architects, and plans are included in the submitted plan set. The landscaping has been designed to meet applicable standards in the Technical Manual.
2. Buffers
 - a. Loading and servicing areas, trash and recycling, storage areas, and roof and ground-mounted utility structures will be located on the rear and roof of building, screened from the public sidewalk by the building itself & site landscaping.
 - b. This is a residential development.
 - c. The residential development is providing landscaping on the east and west sides of the building to allow for adequate buffering for the residential use.
3. Parking and vehicle display lot landscaping
 - a. No new parking rows are proposed as part of the development. The parking rows on the lot are to remain as existing. Each individual driveway will be separated by a landscaped island with one tree.
 - b. The parking rows on the lot are to remain as existing. The maximum length of a parking row on the site is 17 spaces.
 - c. No waiver is requested.



A. Street trees

1. 8 street trees will be provided along the frontages on Winter & Spring Streets.
2. 9 street trees are required per the standards set out in the Technical Manual. The last street tree requirement will be met by the installation of other planted features along the frontage of Winter Street within 10 feet of the right of way per Technical Manual section 4.6.4.

D. Water Quality, stormwater management, and erosion control

1. Overall impervious on the site is reduced by about 600 sf. A stormwater management report is included in this application package which addresses applicable stormwater standards that the project meets.
2. The development complies with all applicable standards of the Technical Manual. Refer to the Stormwater Management Report for further info.
3. There is no proposed subsurface sanitary sewage disposal as part of this project, therefore groundwater protection measures are not required.

14.6.3 Public Infrastructure and Community Safety Standards

A. Consistency with City Master Plans:

1. There is no City-council approved master plan that is applicable to this development.
2. The development utilizes public infrastructure where possible. An easement is to be provided for development of the adjacent subdivided lot at 102 State Street to access the site & utilities.

B. Public Safety and Fire Prevention

1. All development shall incorporate the following public safety principles for Crime Prevention through Environmental Design (CPTED) into site design to enhance the security of public and private spaces and to reduce the potential for crime.
 - a. No public spaces and areas are proposed anywhere except for along the street frontages & public right of ways.
 - b. No access control is proposed at this time. The parking spaces to remain will be leased. The proposed townhomes will be access through the existing parking lot & existing parking lot entrance.
 - c. The proposed driveways north of the garages for the townhomes will provide a sense of ownership for the townhomes & separation from the existing parking lot.



2. Emergency vehicles will be able to access the site from the frontage along Winter & Spring Streets, as well as on the north side of the building though the driveway/parking area.

C. Public Utilities

1. DPW has been contacted regarding ability to serve the development. When DPW has replied regarding their ability to serve, it will be forward on to the City.
2. The site will be service by underground electric. The existing overhead electrical lines on the project frontage along Winter Street will be relocated underground as part of the project.
3. All sewer lines will be designed to be in conformance with the Technical Manual.
4. The project will utilize public sewer.
5. Not applicable

14.6.4 Site Design Standards

A. Massing, Ventilation and Wind Impact:

1. See attached Section O: Architectural Design Narrative
2. See attached Section O: Architectural Design Narrative
3. HVAC systems will locate venting mechanisms to direct exhaust away from public spaces and residential properties.

B. Shadows: See attached Section O: Architectural Design Narrative

C. Snow and Ice Loading: The structures will not distribute snow and ice onto adjacent properties.

D. View Corridors: See attached Section O: Architectural Design Narrative

E. Historic Resources:

1. The development is located in the West End historic district and therefore will conform to the standards set in Appendix 8 of the Portland Maine Design Manual. The building has yet to go through the historic preservation approval process.



2. The development is generally compatible with the character-defining elements of the neighborhood. The development be reviewed and approved by historic preservation staff.
3. There are no known archaeological resources on the site.

F. Exterior Lighting:

1. Site Lighting:
 - a. Exterior lighting will be designed to meet the requirements of Section 12 of the Technical Manual. A photometric plan will be provided under separation cover.
 - b. Proposed lighting will be designed to not adversely impact adjacent residential properties.
2. Architectural and specialty lighting:
 - a. No architectural or specialty lighting is proposed as part of this development.
 - b. No up-lighting is proposed as part of this development.
3. Street Lighting: All existing street lighting in the public right of way is proposed to remain as existing.

G. Noise and Vibration: The HVAC system will meet the applicable state and federal emissions requirement. See Architectural Plans for additional information.

H. Signage and Wayfinding:

1. There is no proposed signage on the site. Existing signage in the Right of Way shall be reset in existing place.
2. There is no proposed signage on the site.

I. Design Standards:

1. The project is located in the B-3 zone. This project is a dense residential development, consistent with design standards and intent of the zoning. The development does exceed the maximum setback of the zoning standards of 5'. It is understood that the City of Portland Design Manual allows for standards for increasing the max front setback beyond the street build to line, including exemptions related to open space, prevailing character and continuity, support for existing open space, and quality and orientation. The proposed building location is required to allow for ADA access to the front doors as well as providing the desired front entry and landscaping which will enhance the street view of the development. The



project is also located within the west end historic zone, and is required to comply with the historic board standards.



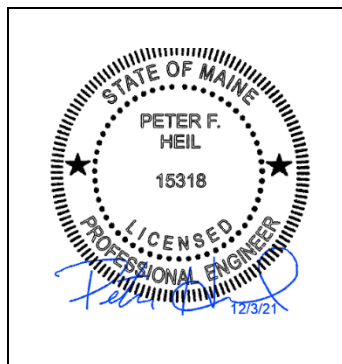
STORMWATER MANAGEMENT **REPORT**

Prepared For:

**NewHeight Redfern, LLC
217 Commercial Street, Suite 205
Portland, ME 04101**

Prepared By:

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



December 2021

INTRODUCTION

Acorn Engineering, Inc. has been retained by NewHeight Redfern, LLC to provide civil engineering services for the proposed work located at 102 State Street, Portland, ME 04101. The site is currently comprised of a surface parking lot that serves as visitor & patient parking for Mercy Hospital. The project proposes to develop nine (9) town-house style condos on the south side of the site along Winter Street.

A stormwater analysis was prepared to demonstrate that the project will meet the following requirements of the City of Portland (the City):

- City of Portland Land Use Ordinance Chapter 14, Section 14.6.2.D. Required Approvals and Applicability (F) Major Site Plan Review.
- City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and Maine DEP Chapter 500 Stormwater Management.

The property consists of approximately 1.03 acres of land in Portland's West End neighborhood. The site is currently comprised of approximately 0.96 acres of impervious area. The proposed project will decrease the impervious area by approximately 600 sf. It will redevelop a non-roof impervious area greater than 5,000 sf.

EXISTING CONDITIONS

The proposed project site is located at 102 State Street, bounded by State Street, Spring Street and Winter Street. A Boundary & Topographic Survey has been prepared by Owen Haskell, Inc., dated August 4, 2020.

The existing property is covered by approximately 93% impervious surfaces, a majority of which is pavement. The existing site slopes to the east, averaging about 4.5% slope. There is a retaining wall on the southwest boundary of the property, abutting the driveway to the neighboring residential development at 100 State Street. Existing storm drains on the site deliver stormwater to the combined sewer on State Street.

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

PROPOSED DEVELOPMENT

The project proposes to build nine town-house style condos along the south property line of the property on Winter Street. The units will be accessed both by front entrances with stoops on Winter Street, as well as by garages that open to the existing parking lot on the north side of the units. The development will be served by Portland Water District, Department of Public Works (sewer/storm), Unutil (natural gas), CMP (electric), Charter (cable), and Fairpoint (telephone).



The proposed project will reduce the site's impervious area by approximately 600 sf. The City's water quality requirement is triggered by the redevelopment of non-roof impervious area greater than 5,000 sf. Water quality treatment will be provided by collecting the runoff through a new storm drain system which leads to a proprietary modular wetland system prior to discharging into the combined sewer within Spring Street. The project has been designed to meet Chapter 500 General Standards.

BASIC STANDARDS – EROSION & SEDIMENT CONTROL

The development shall provide erosion and sediment control, inspection and maintenance, and housekeeping standards as specified in the attached Exhibit K: Erosion and Sediment Control Report and that the grading and construction activity will not impede or otherwise alter drainageways so as to have an unreasonable adverse impact on an adjacent downslope parcel.

GENERAL STANDARDS - WATER QUALITY

The development shall provide water quality treatment in accordance with the DEP Chapter 500 General Standards for no less than 50% of the redeveloped impervious area. Water quality treatment will be provided through the use of proprietary modular wetland system, which is an approved system per Appendix B of the Maine Stormwater BMP Manual. Filtration BMPs have been shown to be very effective at removing a wide range of pollutants from stormwater runoff.

The treatment of the impervious & disturbed areas are as follows:

Table 1 – Impervious Area Treatment Table				
Existing Impervious Area (SF)	Total Proposed Impervious Area (SF)	Redeveloped Impervious Area (SF)	Proposed Impervious Area with Treatment (SF)	Overall New Imp. Area Treated
41,923	41,348	22,684	12,225	53.9%

As shown above, the project anticipates meeting and exceeding the required treatment for 50% of the redeveloped impervious surfaces as ample stormwater treatment is being provided.

SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County

The area within and surrounding the project includes soils types listed in the table below.

Table 2 – Hydrologic Soil Group	
Soils Type	HSG
Hinkley Loamy Sand, 3-8% slopes	A



The HSG for the soils, listed above, show soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained sands, with a high rate of water transmission. Implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance to provide proper stabilization of the site.

Conclusion

The proposed development was designed to meet the requirements implemented by the MDEP under the Stormwater Management Statute (38 M.R.S.A. § 420-D) as well as the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards. The proposed project as designed is not anticipated to cause flooding or erosion problems within the subject site, abutters' sites, nor within the right-of-way.

Attachments

Attachment A: Soils Map

Attachment B: Pre- and Post-Development Plans





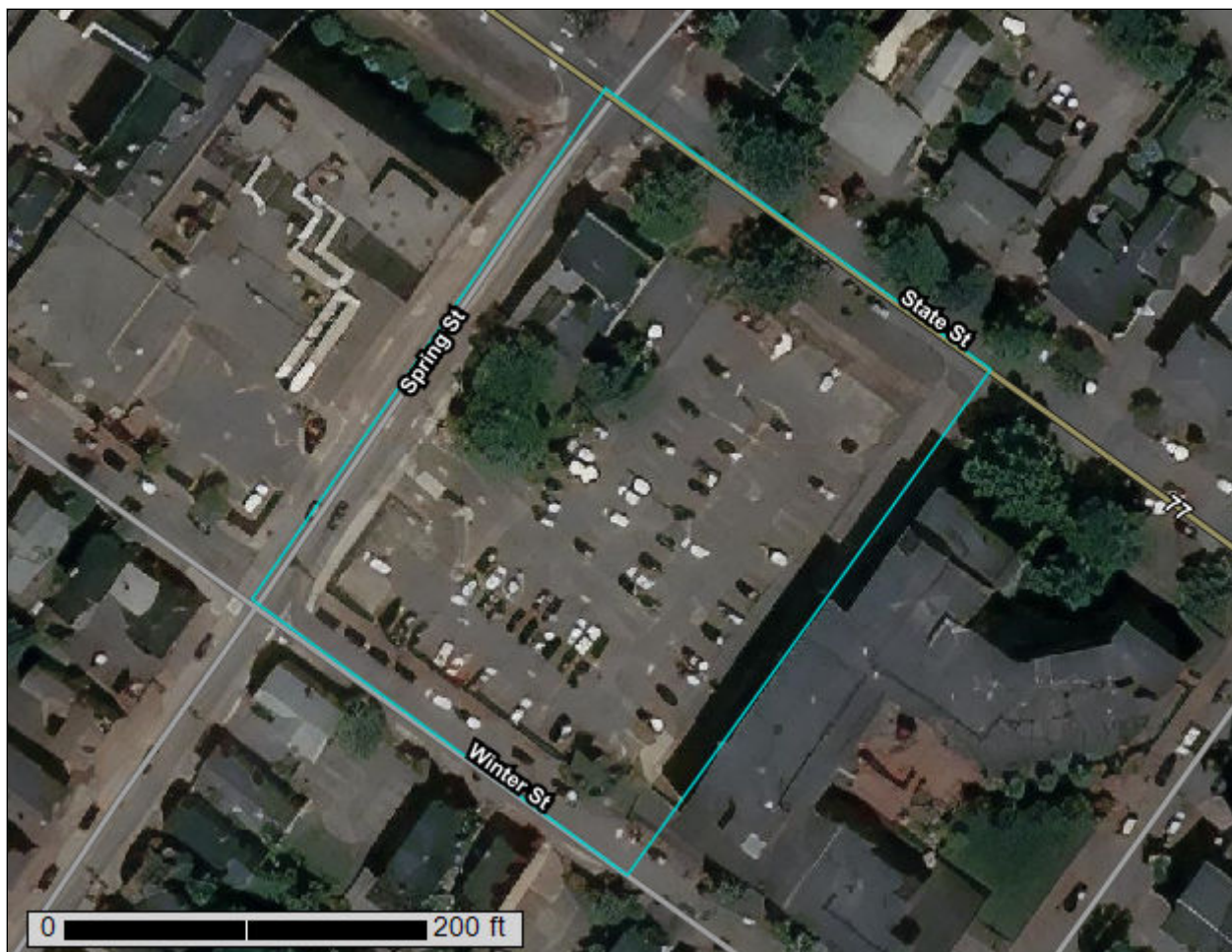
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Cumberland County and Part of Oxford County, Maine



August 31, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

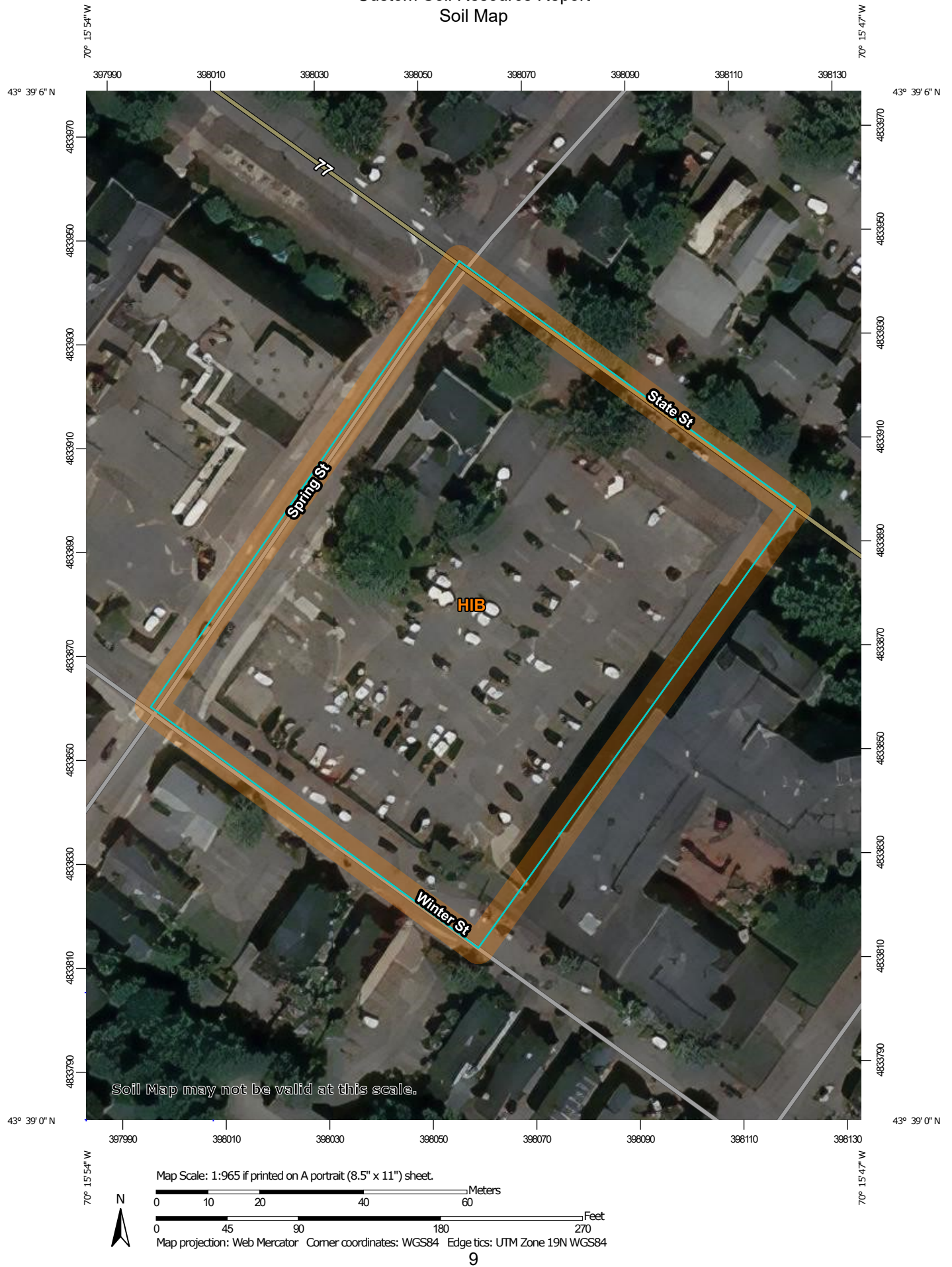
Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

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

Warning: Soil Map may not be valid at this scale.

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

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

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

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

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

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 17, Jun 5, 2020

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HIB	Hinckley loamy sand, 3 to 8 percent slopes	2.1	100.0%
Totals for Area of Interest		2.1	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Cumberland County and Part of Oxford County, Maine

HIB—Hinckley loamy sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2svm8

Elevation: 0 to 1,430 feet

Mean annual precipitation: 36 to 53 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 250 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Hinckley and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash terraces, outwash deltas, outwash plains, eskers, moraines, kame terraces, kames

Landform position (two-dimensional): Summit, shoulder, backslope, footslope

Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread

Down-slope shape: Linear, convex, concave

Across-slope shape: Convex, linear, concave

Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 8 inches: loamy sand

Bw1 - 8 to 11 inches: gravelly loamy sand

Bw2 - 11 to 16 inches: gravelly loamy sand

BC - 16 to 19 inches: very gravelly loamy sand

C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3s

Hydrologic Soil Group: A

Custom Soil Resource Report

Ecological site: F144AY022MA - Dry Outwash

Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 8 percent

Landform: Moraines, outwash terraces, outwash deltas, kame terraces, outwash plains, kames, eskers

Landform position (two-dimensional): Summit, shoulder, backslope, footslope

Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread

Down-slope shape: Linear, convex, concave

Across-slope shape: Convex, linear, concave

Hydric soil rating: No

Sudbury

Percent of map unit: 5 percent

Landform: Outwash terraces, outwash deltas, kame terraces, outwash plains, moraines

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Side slope, base slope, head slope, tread

Down-slope shape: Concave, linear

Across-slope shape: Linear, concave

Hydric soil rating: No

Agawam

Percent of map unit: 2 percent

Landform: Moraines, outwash terraces, outwash deltas, kame terraces, outwash plains, kames, eskers

Landform position (two-dimensional): Summit, shoulder, backslope, footslope

Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread

Down-slope shape: Linear, convex, concave

Across-slope shape: Convex, linear, concave

Hydric soil rating: No

References

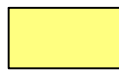
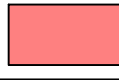
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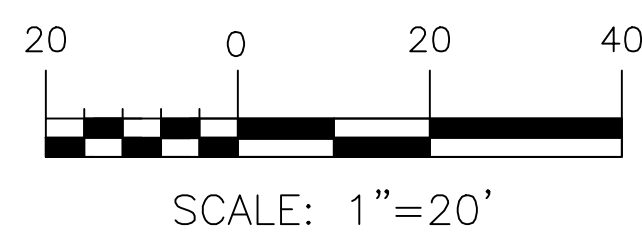
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LAND USE AND POLLUTANT SUMMARY TABLE				
LAND USE	COLOR	POLLUTANT RANKING	EXISTING AREA	WEIGHTED AVE. RANKING
ROADS WHERE IDLING MAY OCCUR PERIODICALLY DUE TO TRAFFIC AND INTERSECTIONS; HIGH USE PARKING LOTS		5	0	0
OTHER ROADS; MEDIUM USE PARKING LOTS		4	0.96 AC	3.84
OTHER PARKING LOTS AND DRIVEWAYS; FLAT ASPHALT ROOFTOPS; ROOFS ON AN INDUSTRIAL FACILITY		3	0	0
OTHER ROOFTOPS; BIKEWAYS; GRASSED AREAS MOWED MORE THAN TWICE PER YEAR; WALKWAYS / FOOT TRAFFIC-ONLY PAVEMENT		2	0.05 AC	0.10
NON-GRASS LANDSCAPED AREAS; STORMWATER TREATMENT / STORAGE SYSTEMS (EXCEPT BUFFERS)		1	0.02 AC	0.02
TOTAL			1.03 AC	3.96



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR
SITE PLAN
SUBMISSION

BY
DATE
12/2/21

DRAWING NAME: STORMWATER REDEVELOPMENT PLAN -
PREDEVELOPMENT

PROJECT NAME: WINTER STREET TOWNHOMES
PORTLAND, MAINE

CLIENT: NEWHEIGHT REDFERN, LLC
167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101



ACOBI ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04104
(207) 775-2655

ENGINEERING, INC.

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

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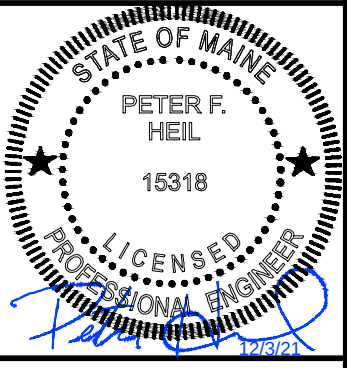
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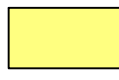
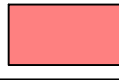
DESIGNED BY: MKT

DRAWN BY: MKT

CHECKED BY: PFH



DRAWING NO.
PRE

LAND USE AND POLLUTANT SUMMARY TABLE				
LAND USE	COLOR	POLLUTANT RANKING	EXISTING AREA	WEIGHTED AVE. RANKING
ROADS WHERE IDLING MAY OCCUR PERIODICALLY DUE TO TRAFFIC AND INTERSECTIONS; HIGH USE PARKING LOTS		5	0	0
OTHER ROADS; MEDIUM USE PARKING LOTS		4	0.63 AC	2.52
OTHER PARKING LOTS AND DRIVEWAYS; FLAT ASPHALT ROOFTOPS; ROOFS ON AN INDUSTRIAL FACILITY		3	0.09	0.27
OTHER ROOFTOPS; BIKEWAYS; GRASSED AREAS MOWED MORE THAN TWICE PER YEAR; WALKWAYS / FOOT TRAFFIC-ONLY PAVEMENT		2	0.26 AC	0.52
NON-GRASS LANDSCAPED AREAS; STORMWATER TREATMENT / STORAGE SYSTEMS (EXCEPT BUFFERS)		1	0.05 AC	0.05
TOTAL			1.03 AC	3.36



PERMIT LEVEL
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CONSTRUCTION

ISSUED FOR
SITE PLAN
SUBMISSION

BY
DATE
PFI
12/3/21

DRAWING NAME: STORMWATER REDEVELOPMENT PLAN –
POST DEVELOPMENT

PROJECT NAME: WINTER STREET TOWNHOMES
PORTLAND, MAINE

CLIENT: NEWHEIGHT REDFERN, LLC
167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

**ACORN ENGINEERING, INC.**

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

PO BOX 3372, PORTLAND MAINE 04104
(207) 775-2655

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SCALE: AS NOTED

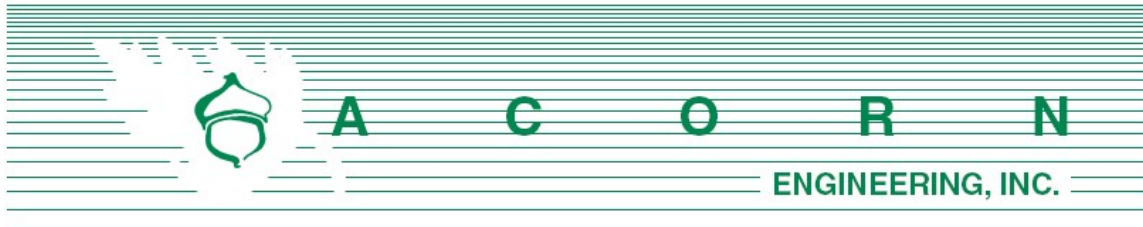
DESIGNED BY: MKT

DRAWN BY: MKT

CHECKED BY: PFI



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POST



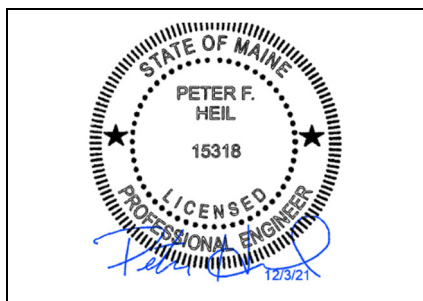
EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**NewHeight Redfern, LLC
217 Commercial Street, Suite 205
Portland, ME 04101**

Prepared By:

**Acorn Engineering, Inc.
P.O. Box 3372
Portland, Maine 04104**



December 2021

1.0 INTRODUCTION

Acorn Engineering, Inc. has been retained by NewHeight Redfern, LLC to provide civil engineering services for the proposed work located at 102 State Street, Portland, ME 04101. The site is currently comprised of a surface parking lot that serves as visitor & patient parking for Mercy Hospital. The project proposes to develop nine (9) town-house style condos on the south side of the site along Winter Street.

The following Erosion and Sedimentation Control Report was developed in accordance with the Maine DEP Chapter 500 Stormwater Management Appendix A and B (1) and the City of Portland Code of Ordinance, Chapter 14, Article V, Section 14-526, as well as the City of Portland Technical Manual. This narrative also meets the standards required in the 2016 Maine DEP's Erosion & Sediment Control BMP's Manual.

2.0 EXISTING CONDITIONS

The proposed project includes a boundary and topographic survey that has been prepared by Owen Haskell, Inc. dated August 4, 2020.

2.1 Existing Soils

Per the attached USDA NRCS Web Soil Survey, the site is mapped with Hinckley loamy sand, 3-8% slopes with a Hydrologic Soil Group A.

2.2 Existing Erosion Problems

The existing site surface is largely impervious and does not show signs of erosion within the property.

2.3 Critical Areas

There were no critical areas identified.

2.4 Protected Natural Resource

There are no known protected natural resources on site.

2.5 Previous Construction Activity (5 years)

Acorn Engineering, Inc. is not aware of any construction related activities or timber harvesting within the project limits within the past 5 years.



2.6 Timber Harvesting

Acorn Engineering, Inc. is not aware of any significant timber harvesting within the past five years.

3.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

As part of the project, the following temporary and permanent erosion and sedimentation control devices shall be implemented. Devices shall be installed as described in this report or within the plan set. See the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices for further reference.

3.1 Temporary Erosion Control Measures

The following temporary erosion and sedimentation control measures are planned for the project's construction period:

- 3.1.1 Construction activities will be performed in a manner to prevent impact to trees and shrubs within and adjacent to the property that are to remain.
- 3.1.2 Siltation fence, erosion control berm, and/or filter socks shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The sediment barrier shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. If there are signs of undercutting at the center or the edges or impounding of large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam.
- 3.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.
- 3.1.4 Winter Street and Spring Street shall be swept to control mud and dust as necessary.



- 3.1.5 If a silt fence is used, silt fence stake spacing shall not exceed 6 feet unless the fence is supported with 14-gauge wire in which case the maximum spacing shall not exceed 10 feet. The silt fence shall be “toed” into the ground.
- 3.1.6 Temporary loam, seed, and mulching shall be used in areas where no other erosion control measure is used, including in any areas where there has been site disturbance, but unworked areas > 7 days. Application rates for seeding are provided at the end of this report.
- 3.1.7 Stockpiles shall be stabilized within 7 days of formation unless a scheduled rain event occurs prior to the 7-day window, in which case the stockpile shall be stabilized prior to the rain event. Methods of stabilization shall be mulch, erosion control mix, or erosion control blankets/mats. Silt fence or a wood waste compost filter berm shall be placed downhill of any soil stockpile location.
- 3.1.8 For disturbance between November 1 and April 15, please refer to winter stabilization plan in this report and the Maine Erosion and Sediment Control BMP manual for further information.

3.2 Permanent Erosion Control Measures

The following permanent erosion control measures are intended for post disturbance areas of the project.

- 3.2.1 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4” of loam, limed, fertilized, seeded, and mulched. Erosion control blankets or mats shall be placed over the mulch in areas noted in paragraph 3.1 of this report.
- 3.2.2 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.

4.0 EROSION AND SEDIMENTATION CONTROL PLAN

The Erosion and Sedimentation Control Plan is included within the plan set.

5.0 DETAILS AND SPECIFICATIONS

Erosion Control Details and Specification are included in the plan set.

6.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

Winter Construction consists of earthwork disturbance between the dates of November 1 and April 15. If the construction site is not stabilized with pavement, a road gravel base, 75%



mature vegetation cover or riprap by November 15, then the site shall be protected with overwinter stabilization. Any area not stabilized with pavement, vegetation, mulching, erosion control mix, erosion control mats, riprap or gravel base on a road shall be considered open.

The contractor shall limit the work area to areas that work will occur in during the subsequent 15 days and so that it can be mulched one day prior to a snow event. The contractor shall stabilize work areas prior to opening additional work areas to minimize areas without erosion control measures.

The following measures shall be implemented during winter construction periods:

6.1 Sediment Barriers

During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

6.2 Mulching

All areas shall be considered to be denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

6.3 Soil Stockpiling

Stockpiles of soil or subsoil shall be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. This shall be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.



6.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall not be required. During periods of above freezing temperatures finished areas shall be fine graded and either protected with mulch or temporarily seeded and mulched until such time as the final treatment can be applied. If the date is after November 1st and if the exposed area has not been loamed, final grading with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 lbs/1,000 s.f. All areas seeded during the winter shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75% catch) shall be revegetated by replacing loam, seed and mulch. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

6.5 Over winter stabilization of disturbed soils

By September 15th, all disturbed soils on areas having a slope less than 15% shall be seeded and mulched. If the disturbed areas are not stabilized by this date, then one of the following actions shall be taken to stabilize the soil for late fall and winter:

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.
- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.
- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. on the area so that no soil is visible through the mulch. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.



6.6 Over winter stabilization of disturbed slopes

All stone-covered slopes shall be constructed and stabilized by November 15th. All slopes to be vegetated shall be seeded and mulched by September 1st. A slope is considered a grade greater than 15%. If a slope to be vegetated is not stabilized by September 1st, then one of the following actions shall be taken to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.
- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. The contractor shall not use late-season sod installation to stabilize slopes having a grade greater than 3H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with erosion control mix – Erosion control mix shall be properly installed by November 15th. The contractor shall not use erosion control mix to stabilize slopes having grades greater than 2H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with stone riprap – Place a layer of stone riprap on the slope by November 15th. A registered professional engineer shall be hired to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.



7.0 INSPECTION AND MAINTENANCE

The Contractor has a responsibility for complying with the Erosion and Sedimentation Report/Plan, including control of fugitive dust. The Contractor shall be responsible for any monetary penalties resulting from failure to comply with these standards. Contractor to inspect after a rainfall event, and at least monthly and shall use the City's ESC inspection form.

8.0 IMPLEMENTATION SCHEDULE

The following implementation sequence is intended to maximize the effectiveness of the above described erosion control measures. Contractors should avoid overexposing disturbed areas and limit the amount of stabilization area.

1. Install perimeter silt fence or erosion control berm and construction entrance.
2. Install all other erosion control devices as necessary throughout the remainder of this schedule.
3. Pave any areas that were disturbed during construction.
4. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
5. Once the site is stabilized and 90% catch of vegetation has been obtained, remove all temporary erosion control measures.
6. Touch up areas without a vigorous catch of grass with loam and seed.
7. Execute proper maintenance of all temporary and permanent erosion control measures throughout the project.

The above implementation sequence should be generally followed by the site contractor. However, the contractor may construct several items simultaneously. The contractor shall submit to the owner a schedule of the completion of the work. If the contractor is to commence the construction of more than one item above, they shall limit the amount of exposed area to those areas in which work is expected to be undertaken during the following 30 days.

The contractor shall revegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within seven (7) days of final grading or before a storm event. The contractor shall incorporate planned inlets and drainage systems as early as possible into the construction phase.



9.0 CONCLUSION

The above erosion control narrative is intended to minimize the development impact by implementing temporary and permanent erosion control measures. The contractor shall also refer to the Maine Erosion and Sediment Control BMP manual for additional information.

10.0 ATTACHMENTS

- Temporary Seeding Plan
- Permanent Seeding Plan
- Housekeeping Plan



TEMPORARY SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P₂O₅-K₂O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of temporary seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.	Recommended Seeding Dates
Winter Rye	2.57	Aug-15 to Oct-1
Oats	1.84	Apr-1 to Jul-1 Aug-15 to Sep-15
Annual Ryegrass	0.92	Apr-1 to Jul-1
Sudangrass	0.92	May-15 to Aug-15
Perennial	0.92	Aug-15 to Sep-15

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to temporary seeding and mulching.



PERMANENT SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P₂O₅-K₂O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of permanent seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.
Kentucky Bluegrass	0.46
Creeping Red Fescue	0.46
Perennial Ryegrass	0.11
Total	1.03

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Recommendations

Permanent seeding is recommended to be completed in the spring. Later summer seeding is allowed if completed prior to September 1st. If seeding cannot be accomplished during the periods recommended for permanent seeding, then the contractor shall perform temporary seeding per the temporary seeding plan.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to permanent seeding and mulching.



HOUSEKEEPING PLAN

The following housekeeping plan has is developed in accordance with Maine DEP Chapter 500 Stormwater Management standards. For additional information, reference Appendix C of Chapter 500.

1. **Spill prevention.** Controls must be used to prevent pollutants from construction and waste materials stored on site to enter stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.

NOTE: Any spill or release of toxic or hazardous substances must be reported to the Department. For oil spills, call 1-800-482-0777 which is available 24 hours a day. For spills of toxic or hazardous material, call 1-800-452-4664 which is available 24 hours a day. For more information, visit the Department's website at: <http://www.maine.gov/dep/spills/emergspillresp/>

2. **Groundwater protection.** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials. Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide for treatment within the infiltration area, in order to prevent the accumulation of fines, reduction in infiltration rate, and consequent flooding and destabilization.

See Chapter 500 Appendix D for license by rule standards for infiltration of stormwater.

NOTE: Lack of appropriate pollutant removal best management practices (BMPs) may result in violations of the groundwater quality standard established by 38 M.R.S.A. §465-C(1).

3. **Fugitive sediment and dust.** Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance (SCE) should be included to minimize tracking of mud and sediment. If off-site tracking occurs, public roads should be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems, should wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.



NOTE: Dewatering a stream without a permit from the Department may violate state water quality standards and the *Natural Resources Protection Act*.

4. **Debris and other materials.** Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source.

NOTE: To prevent these materials from becoming a source of pollutants, construction and post-construction activities related to a project may be required to comply with applicable provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

5. **Excavation de-watering.** Excavation de-watering is the removal of water from trenches, foundations, 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 sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the Department.

NOTE: Dewatering controls are discussed in the “Maine Erosion and Sediment Control BMPs, Maine Department of Environmental Protection.”

6. **Authorized Non-stormwater discharges.** Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:

- (a) Discharges from firefighting activity;
- (b) Fire hydrant flushings;
- (c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);
- (d) Dust control runoff in accordance with permit conditions and Section 3, above;
- (e) Routine external building washdown, not including surface paint removal, that does not involve detergents;



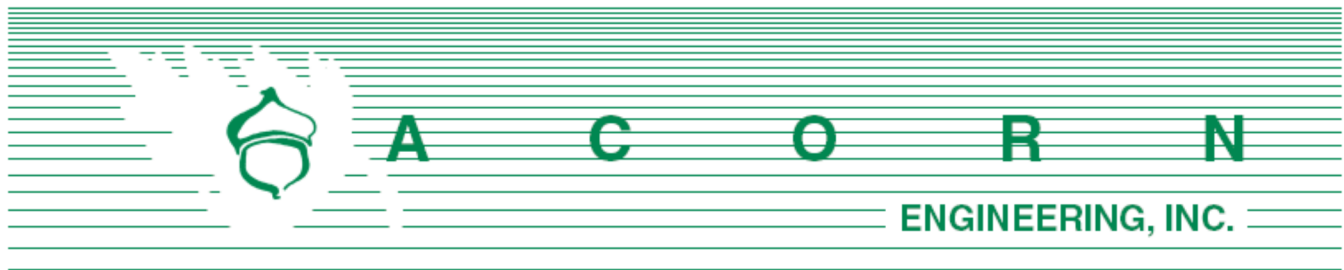
- (f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;
- (g) Uncontaminated air conditioning or compressor condensate;
- (h) Uncontaminated groundwater or spring water;
- (i) Foundation or footer drain-water where flows are not contaminated;
- (j) Uncontaminated excavation dewatering (see requirements in Section 5, above);
- (k) Potable water sources including waterline flushings; and
- (l) Landscape irrigation.

7. Unauthorized non-stormwater discharges. The Department's approval under Chapter 500 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 Department's approval does not authorize discharges of the following:

- (a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;
- (b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;
- (c) Soaps, solvents, or detergents used in vehicle and equipment washing; and
- (d) Toxic or hazardous substances from a spill or other release.

(8) Additional requirements. Additional requirements may be applied on a site-specific basis.





Chief Keith Gautreau
City of Portland Fire Department
380 Congress St.
Portland, ME 04101

December 3, 2021

Subject: Winter St Townhomes
102 State Street, Portland
Fire Department Checklist

On behalf of NewHeight Redfern, LLC, the design team is pleased to respond to the Portland Fire Department Site Review Checklist.

1. Name, address, telephone number of Applicant:
NewHeight Redfern, LLC
erin@newheightgroup.com
(207) 720-0181
2. Name address, telephone number of Architect:
Ryan Senatore Architecture
Ryan Senatore
ryan@senatorearchitecture.com
(207) 650-6414
3. Proposed uses of any structures [R3 Townhomes]
4. Square footage of all structures : The Townhouse footprint is 9,503 sf, the total building square footage is 32,759 sf.
5. Elevation of all structures
Based upon the average grade plane defined by the IBC, the existing building height is 44'-4". For additional information, please refer to the building elevations provided by the Architect.
6. Proposed fire protection of all structures

The building shall have NFPA 13R fire protection system
7. Hydrant locations

One existing hydrant is located directly adjacent to the proposed development on Spring Street, approximately 15 feet north of Winter Street. An additional hydrant is located

along Spring Street approximately 140 feet north of the property corner. Once received, hydrant flow data from Portland Water District may be made available to the Fire Department upon request.

8. Water main size and location

There are existing mains located on Winter Street, Spring Street, and State Street. The proposed building will be serviced off of the existing 8" cast iron main on Spring Street. There will be a 2" tap for domestic service & a 4" tap for a fire suppression line. The Winter Street main is 8".

9. Access to all structures [min. 2 sides]

Access to the proposed structure is provided directly on the south along Winter Street, west along Spring Street, and north within the parking area.

10. The Architect has provided code summaries (attached).

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

The portion of the parcel to be developed has frontage along both State Street, Spring Street and Winter Street, with the following public street widths available:

- State Street (Northeast): 99 feet
- Spring Street (Southeast): 50 feet
- Winter Street (Southwest): 40 feet

Per NFPA 1 – Chapter 18.2.3.3.1, there will be public street access within 50 feet of at least one exterior door. Per NFPA 1 – Chapter 18.2.3.2.2.1, all first story floors shall be located not more than 450 feet from a Fire Department access road.

City of Portland Technical Manual – Section 3 Public Safety

3.4.1 Every dead-end roadway more than one hundred fifty (150') feet in length shall provide a turnaround at the closed end. Turnarounds shall be designed to facilitate future street connectivity and shall always be designed to the right (refer to Figure I-5).

Response: Not applicable, the proposed parking area will have two-way access off Spring Street. A truck will be able to turn around by driving around the existing lanes in the parking area.

3.4.2 Where possible, developments shall provide access for Fire Department vehicles to at least two sides of all structures. Access may be from streets, access roads, emergency access lanes, or parking areas.

Response: As outlined in #9 above, the parcel's geometry allows for at least two sides of access along public streets (Winter Street and Spring Street), as well as access to the north side of the building within the parking area.



3.4.3 Building setbacks, where required by zoning, shall be adequate to allow for emergency vehicle access and related emergency response activities and shall be evaluated based on the following factors:

- *Building Height.*
- *Building Occupancy.*
- *Construction Type.*
- *Impediments to the Structures.*
- *Safety Features Provided.*

Response: The proposed development provides for safe and efficient access along the public street for emergency vehicles.

3.4.4. Fire Dept. access roads shall extend to within 50' of an exterior door providing access to the interior of the structure.

Response: The existing buildings have exterior doors within 50' of a Fire Department access route, along both Winter Street and Spring Street. Access is also provided from the parking lot area.

3.4.5. Site access shall provide a minimum of nine (9) feet clearance height to accommodate ambulance access.

Response: There are no proposed overhead obstructions between the street and proposed building, meeting the required 9-foot clearance height minimum.

3.4.6. Elevators shall be sized to accommodate an 80 x 24-inch stretcher.

Response: See Section O: Architectural Design Narrative

3.4.7. All structures are required to display the assigned street number. Numbers shall be clearly visible from the public right of way.

Response: The applicant will work with the City's Public Works Division to assign street addresses and numbering to meet City Standards.

Thank you for your review. Please let me know if you have any additional questions or comments.

Sincerely,



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

Attachments:

- Code Review
- Fire Truck Turning Exhibit



Code Review

Aug 25, 2021

Winter Street Townhomes

IBC 2015

NFPA 101 2018

4 floors above grade

502.1

903.3.1.2.1

No roofs above balconies and decks - no sprinklers required at these locations

706.1.1

No openings or penetrations for utilities are allowed at unit Party Walls

Sprinklers

NFPA 13R

NFPA 13R

Occupant Load

T 1004.1.1

Largest unit: 4,295 sf (Residential 200 gsf/oc) = 22

24.1.7

No Occupant Load Requirements

Use Group(s)

310.1

R3 - Townhouses

24.1

One and Two Family Dwelling

Construction Type

602.5

5B - combustible unprotected

V (000) combustible unprotected

Building Height

T 504.3, 504.4

Sprinkler increase = 4 stories and 60' max.

Building Area

T 506.2

Unlimited Area per floor

Building Elements

T 601

0 hr Structural Frame

24.1.6

No Minimum Construction requirements

T 601, 602

0 hr Bearing Walls Exterior (sep. dist $\geq$ 10')

T 601, 602

1 hr Bearing Walls Exterior (sep. dist $<$ 10')

T 601

0 hr Bearing Walls Interior

T 601

0 hr Non-Bearing Walls Interior

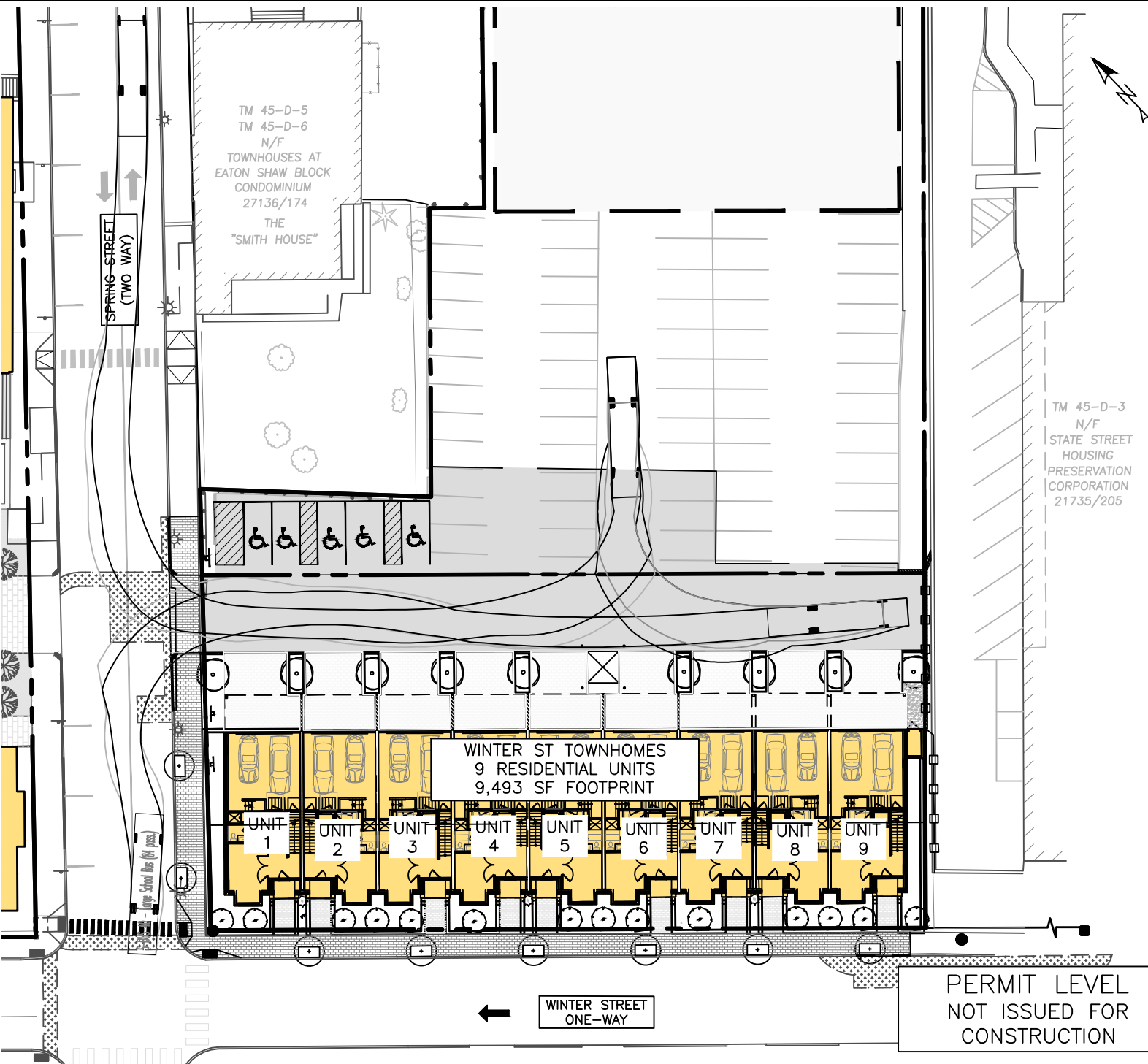
T 601, 602

0 hr Non-Bearing Walls Exterior (sep. dist $\geq$ 10')

		T 601, 602	1 hr Non-Bearing Walls Exterior (sep. dist <10')			
		705.5	Exterior Wall with >10' sep. needs rating only from inside			
		T 601	0 hr Floor Construction			
		T 601	0 hr Roof Construction			
Townhouse		202 - comm.	2 hr Firewalls to separate every other unit (2 units max)	8.2.1.3	Considered Separate Bldgs with 2 hr FireBarrier	
Firewalls		706.3	Exception - materials can be combustible in type 5 const.			
			Fire retardant Plywood is used in wall types E2 and E4			
		T 706.4	R3 firewalls to be 2hr rated			
		706.5 ex. 3	Firewalls can terminate at non-combustible exterior sheathing			
			when both sides of firewall have 13R sprinkler system			
		706.5.2	Horiz. Projecting Elements - firewalls to extend out to balconies			
		706.2	The Area Separation Wall system utilized between units is designed			
			with 'melt away' clips so each unit on each side of the wall is			
			is structurally independent.			
Parapet		706.6 ex. 4	Firewalls can terminate at underside of combustible roof deck			
			if no openings in roof 4' out from firewall AND roof has Class B			
			finish rating AND fire retardant wood sheathing 4' out from each			
			side of firewall			
		705.11	Parapets at fire rated Exterior walls, if wall can have 25%			
			unprotected openings per 705.8 then no parapet required (>5' sep)			
			If sep. is <5' R3 needs class C roofing (use class B) and			
			4' fire rated plywood			
Separations		406.3.4.1	1/2" GWB ceiling minimum between dwelling unit and garage plus			
			1/2 hr between habitable portions of dwelling unit and garage			
		2009 708.2 ex 1	Note: exceptions permitting shaft enclosures not to be used have	8.6.5	2 hr fire rated shafts for a 4 story building	
			been removed from the 2015 version of the IBC			
		708.1, 420.2	1 hr Between Dwelling Units			
		1019.3 ex. 2	Stair shafts not required within individual Dwelling Unit			
		T 509	1 hr Boiler Room or Automatic Fire Suppression System			

Distances and Exits	1006.2.1 ex. 1	Single Exit from and within Dwelling unit when occupancy is under 20	24.2.2.1.2	Second means of escape not required with 13R	
	T 1017.2	250' Travel Distance to exits with Sprinklers	24.1	Not found in 1 and 2 family	
	T 1006.2.1	125' Common Path of Travel	24.1	Not found in 1 and 2 family	
	1020.4	20' Dead End (exceptions do not apply to R3)	24.1	Not found in 1 and 2 family	
Unprotected Openings	T 705.8	10% when exterior wall sep. dist. is 3'>5'			
	T 705.8	25% when exterior wall sep. Dist. Is 5'>10'			
	T 705.8	45% when exterior wall sep. dist. is 10'>15'			
	T 705.8	75% when exterior wall sep. dist. is 15'>20'			
	T 705.8	Unlimited when exterior wall sep. dist. is 25'>30'			
	T 705.8	Unlimited when exterior wall sep. dist. is >30'			
		East facade - 3'>5' separation - 6.58% (1F), 6.36% (2F, 3F), 5.95% (4F)			
Elevator Lobby	3006.2	Not required as Sprinkled with 13R			
Elevator as MoE	1009.2.1	Not required as bldg. is not 4 stories above the level of exit discharge			
Egress Windows	1030.1	Required from Bedrooms in R3	24.2.2.1.2	Second means of escape not required with 13R	
Egress Stairs	1011.2	Occ. Load >50 = 44" min width	24.2.5.4	36" min. stair width	
	1011.2	Occ. Load <=50 = 36" min width	7.2.2.2.1.2(B)	44" min. over 50 occ.	
	1003.3.3 ex	Handrails can protrude into stair 4.5" max	7.2.2.2.1.2	Handrails can protrude into stair 4.5" max	
	1005.7.1 ex 2	Door encroachment into egress path unrestricted in R3 dwelling units			
	1011.3	80" min headroom	7.2.2.2.1.1(a)	6'-8" min. headroom	
	1011.5.2 ex 3	7 3/4" max riser	7.2.2.2.1.1(a)	7" max. riser in means of egress	
	1011.5.2 ex 3	10" min Tread depth	7.2.2.2.1.1(a)	11" min. tread in means of egress	
	1011.8	12' max. total rise between floors or landings	7.2.2.2.1.1(a)	12' max. height between landings	

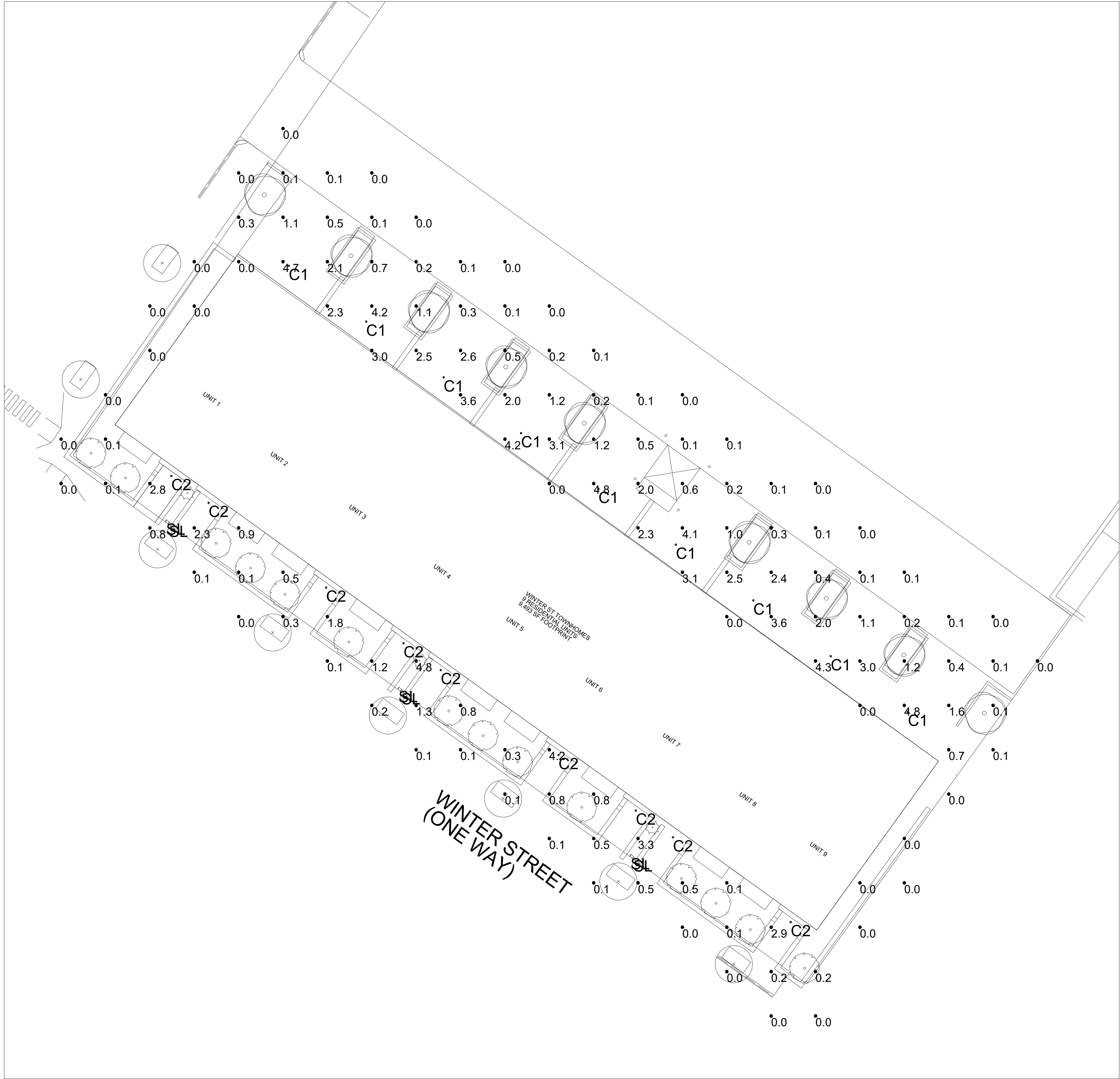
Ramps		1012.2	1:12 (8%) Max slope		7.2.5.3(a)	1:12 max. slope
		1012.6	60" long landings at top and bottom			
		1012.6	2% max slope of landings		7.2.5.3(a)	1:48 max. cross slope
		1012.8	>6" rise must have handrails on both sides of ramp			
Egress Corridors		T 1020.2	44" min. when Occ. >= 50		24.2.6.1	36" min. Hallway width
		T 1020.2	36" min. within a dwelling unit OR when Occ. < 50			
		T 1020.2	24" min. at service corridors to mechanical equipment			
Sound		1207.2	STC >= 50 at walls and floors/ceilings			
		1207.3	IIC >= 50 at walls and floors/ceilings			
Energy IECC 2021		T 402.1.1	0.35 Fenestration U-Factor			
Zone 6			R-49 Ceiling			
			R-20+ 3.8 ci or 13+7.5 ci (h) Framed wall			
			R-38 (g) Floor			
			R-15 Basement wall (c)			
			R-20 to 4ft Slab			
101.2			ComCheck is used for compliance method			
501.2			Design will comply with 502, 503, 504 and 505			
Accessibility		Fair Housing Act Applies because the units have an elevator				
		Maine Human Rights Act Applies				



ISSUED FOR		BY
SITE PLAN		DATE
SUBMISSION		9PH
		12/3/21
		REV
		DATE
DRAWING NAME:		
FIRE TRUCK TURNING EXHIBIT		
PROJECT NAME:		
WINTER STREET TOWNHOMES		
CLIENT:		
NEWHEIGHT REDFERN, LLC		
 ACORN ENGINEERING, INC. ACORN ENGINEERING, INC. P.O. BOX 3372 PORTLAND, MAINE 04104 (207) 775-2655		
FILE: 1140.1 CIVIL		
DATE: 12/3/2021		
JN: 1140.1		
SCALE: 1"=40'		
DESIGN BY: MKT		
DRAWN BY: MKT		
CHECKED BY: PFH		
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.		
DRAWING NO.		
EX-1		

Lighting

Please find attached the photometric plan and cut sheets.



PLAN VIEW

- NOTES:
- 1) EXACT MOUNTING DETAILS TO BE DETERMINED AT JOBSITE BY OTHERS.
 - 2) CALCULATIONS MAY or MAY NOT SHOW THE EFFECT OF SHADOWING CAUSED BY BUILDINGS AND OBJECTS WITHIN THE CALCULATED SPACE OR IN THE SITE AREA.
 - 3) READINGS SHOWN ARE INITIAL HORIZONTAL FOOTCANDLES ON A FLAT SITE WITHOUT REFLECTIONS OR OBSTRUCTIONS UNLESS OTHERWISE INDICATED.
 - 4) THIS CALCULATION IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO SWANEY LIGHTING ASSOCIATES AND STANDARD ASSUMPTIONS OF THE SPACE AND/OR SITE.
 - 5) CONFORMANCE TO CODES AND OTHER LOCAL REQUIREMENTS AS DETERMINED BY THE AHJ ARE THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.
 - 6) THIS LAYOUT DRAWING MUST BE COORDINATED WITH THE SITE LOCATION FOR CORRECT FIXTURE ORIENTATION.
 - 7) DOCUMENTS PRINTED OR PLOTTED FROM ELECTRONIC FILES MAY APPEAR AT OTHER THAN THE DESIRED OR ASSUMED GRAPHIC SCALES. IT IS THE RESPONSIBILITY OF THE RECIPIENT TO VERIFY THAT THE PRINTED OR PLOTTED-TO-SCALE DRAWING IS PRINTED TO SCALE.

Calculation Summary			
Label	Avg	Max	Min
SITE	0.94	4.8	0.0

Luminaire Schedule (note fixture catalogue numbers are not complete)						
Type	Qty	Lumens	LLF	Watts	Mounting Height (FT)	Description
C1	9	1487	0.900	24	12	3021-B1-S-10-LRTD4-9033-C3-30KS-90-NC-120V MOD to 24W
C2	9	803	0.900	12	9	3021-B1-S-10-LRTD4-9033-C3-30KS-90-NC-120V MOD to 12W
SL	6	133	0.850	9.5	1.5	YK-D-LED-A3080-WHP-H-LD-010-MT

WINTER STREET TOWNHOMES
PORTLAND, ME
SITE LIGHTING LAYOUT

GENERATED FOR:
ACETO LANDSCAPE
ARCHITECTURE
SCALE: NOT TO SCALE



NOTICE: THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SWANEY LIGHTING ASSOCIATES. IT IS NOT TO BE REPRODUCED, COPIED, REPRODUCED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF SWANEY LIGHTING ASSOCIATES. THIS DRAWING IS TO BE USED FOR NO PURPOSE OTHER THAN AS DETAILED HEREIN. ANY REUSE OF THIS DRAWING FOR ANY OTHER PROJECT OR FOR ANY OTHER PURPOSE IS EXPRESSLY FORBIDDEN BY SWANEY LIGHTING ASSOCIATES. ANY VARIATION IN FIXTURE PERFORMANCE FROM THAT SHOWN IN THIS DRAWING IS THE RESPONSIBILITY OF THE MANUFACTURER. IT IS THE RESPONSIBILITY OF THE RECIPIENT TO VERIFY THAT THE PRINTED OR PLOTTED-TO-SCALE DRAWING IS PRINTED TO SCALE.

BeveLED Block[®] Surface - BLRD5

Round Downlight

SURFACE MOUNT



usailighting.com/block

CONDUIT CUT OUT



Keep ceiling height right where it is! Specifically designed to work with surface-mounted conduit and junction boxes, BeveLED BLOCK has a modern look that's perfect for lofts, offices, and open architectural spaces. Also available with solid-sides styling shown above, Block also creates a finished look when recessed conduit is possible.

FEATURES

- High performance architectural lighting solution for industrial or exposed concrete ceiling types where recessed lighting is not an option
- Convenient conduit cutouts provide access for surface-mounted conduit to pass through the luminaire
- Smooth, modular solid and keyhole slots are interchangeable and user configurable to allow for simple on site customization in the field.
- BeveLED BLOCK is available in a range of standard and custom colors to complement your project, whether an industrial or refined look is desired.
- Industry leading illumination and craftsmanship

BEVELED BLOCK DOWNLIGHT PERFORMANCE DATA

LED COLOR CHOICES

DELIVERED* PERFORMANCE:	Classic White								Warm Glow Dimming	
	9W		12W		16W		24W		16W	
Coloring Rendering Index:	80+	90+	80+	90+	80+	90+	80+	90+	80+	90+
Source Lumens:	1150	900	1300	1025	1725	1350	2400	1875	1275	1025
Lumens Per Watt:	93	68	86	67	86	67	80	63	69	55
Delivered Lumens:	775	600	1025	800	1375	1075	1925	1500	1100	875

*Performance based on 3000K. See IES files for exact values at usailighting.com.

CORRELATED COLOR TEMPERATURE	Classic White								Warm Glow Dimming			
	2700K		3000K		3500K		4000K		2700K		3000K	
Coloring Rendering Index:	80+	90+	80+	90+	80+	90+	80+	90+	80+	90+	80+	90+
Multiplier for Lumen Output:	0.94	0.78	1.00	0.78	1.00	1.00	1.06	1.06	0.94	0.79	1.00	0.81

BeveLED Block® Surface - BLRD5

Round Downlight with Integral Driver

FAMILY		LED COLOR CHOICES			FIXTURE				
BLRD5									
BeveLED Block Downlight		Wattage Options	LED Color Temperature Options	Beam Options	Lens Options	Body Finish Options	Mounting Options	Voltage Options	Dimming Driver Options
BLRD5 BeveLED BLOCK 5" Round Downlight	Classic White			S Solite (provided standard) BF Borosilicate Frosted SF Solite Frosted	WH White BZ Bronze BL Black GR Grey SC Conduit Silver RAL Custom Color (specify RAL #)	CC Conduit cutout for surface mounted 4" octagonal junction box SJ Surface mounted to surface mounted 4" octagonal junction box	For use with CC and SJ Mounting		
	09C3 9W LED 12C3 12W LED 16C3 16W LED 24C3 24W LED	27KS 2700K, 80+ CRI 27KH 2700K, 90+ CRI 30KS 3000K, 80+ CRI 30KH 3000K, 90+ CRI 35KS 3500K, 80+ CR 35KH 3500K, 90+ CRI 40KS 4000K, 80+ CR 40KH 4000K, 90+ CRI	25 25° beam 50 50° beam 90 90° beam				UNV 120V-277V	For use with Universal Voltage 120V - 277V D2 0-10V dim, 10% (provided standard)	
							120V	For use with 120V only D19 Phase dimming 1%, 120V only (1, 3)	
							For use with RB Mounting Only		
							UNV 120V-277V	For use with Universal Voltage 120V - 277V D2 0-10V dim, 10% (provided standard) D4A Lutron ECO, 0.1% (2, 3, 4) D4H Lutron H ECO, 1% Fade (1, 2, 3) D4P Lutron ECO, 1% (2, 4) D6A EldoLED 0-10V, 0.1% (2) D6B EldoLED 0-10V, 0.1% (2) D6E EldoLED 0-10V, 1% (2) D6F EldoLED 0-10V, 1% (2) D7 EldoLED DALI, 0.1% (2)	
							120V	For use with 120V only D3 Lutron Hi-Lume 1% 2-wire, 120V only (2) D19 Phase dimming 1%, 120V only (1, 3) 1 Not available with 9W 2 For use with RB mounting only 3 Not available for Warm Glow 4 Not available with 24W	
Warm Glow Dimming			30 30° beam 50 50° beam 90 90° beam	RB Surface mounted to recessed mounted 4" octagonal junction box					
16WG2 16W LED	2722KS 2700K-2200K, 80+ CRI 2722KH 2700K-2200K, 90+ CRI 3022KS 3000K-2200K, 80+ CRI 3022KH 3000K-2200K, 90+ CRI								

FINISH OPTIONS



White (WH) Bronze (BZ) Black (BL) Grey (GR) Conduit Silver (SC)

Custom colors also available

BeveLED Block® Surface - BLRD5

Round Downlight with Remote Driver

FAMILY	LED COLOR CHOICES			FIXTURE			
BLRD5							RM
BeveLED Block Downlight	Wattage Options	LED Color Temperature Options	Beam Options	Lens Options	Body Finish Options	Mounting Options	Remote Power Supply
BLRD5 BeveLED BLOCK 5" Round Downlight	 Classic White			S Solite (provided standard) BF Borosilicate Frosted SF Solite Frosted	WH White BZ Bronze BL Black GR Grey SC Conduit Silver RAL Custom Color (specify RAL #)	CC Conduit cutout for surface mounted 4" octagonal junction box SJ Surface mounted to surface mounted 4" octagonal junction box RB Surface mounted to recessed mounted 4" octagonal junction box	RM Remote Power Supply (Specify in table below) USAI Power Supply Must Be Specified
	09C3 9W LED 12C3 12W LED 16C3 16W LED 24C3 24W LED	27KS 2700K, 80+ CRI 27KH 2700K, 90+ CRI 30KS 3000K, 80+ CRI 30KH 3000K, 90+ CRI 35KS 3500K, 80+ CR 35KH 3500K, 90+ CRI 40KS 4000K, 80+ CR 40KH 4000K, 90+ CRI	25 25° beam 50 50° beam 90 90° beam				
	 Warm Glow Dimming						
	16WG2 16W LED	2722KS 2700K-2200K, 80+ CRI 2722KH 2700K-2200K, 90+ CRI 3022KS 3000K-2200K, 80+ CRI 3022KH 3000K-2200K, 90+ CRI	30 30° beam 50 50° beam 90 90° beam				

2. Specify Remote Power Supply

RPC-01				
Remote Power Supply	Wattage Options	Voltage	Remote Dimming Type and Level	Remote Emergency Option
RPC-01 BeveLED Block Remote Power Supply	 Classic White	UNV 120V - 277V	D4A Lutron ECO, 0.1% (2, 3) D4H Lutron H ECO, 1% Fade (1, 2) D4P Lutron ECO, 1% (3) D6A EldoLED 0-10V, 0.1% D6B EldoLED 0-10V, 0.1% D6E EldoLED 0-10V, 1% D6F EldoLED 0-10V, 1% D7 EldoLED DALI, 0.1% D28 EldoLED DMX, 0.1%	EM5 EM battery requires remote enclosure by others, minimum size 11" L x 6.75" W x 3.25" H
	 Warm Glow			
	09C3 9W LED 12C3 12W LED 16C3 16W LED 24C3 24W LED			
	16WG2 16W LED	120V 120V Only	D3 Lutron 2-wire, 1% D19 Hatch Phase 2-wire, 1% (1, 2) <i>1 Not available for 9W</i> <i>2 Not available for Warm Glow</i> <i>3 Not available for 24W</i>	

BeveLED Block® Surface - BLRD5

Round Downlight



KEY ACCESSORIES

CONDUIT CUTOUT KEYS

Each conduit cutout mounting option (CC style) is provided with three conduit cutout keys (KAR-CC-xx) and three solid cover keys (KAR-VK-xx) in the fixture finish specified. For more keys, or for extended length keys, please use the ordering table below.

KEY ACCESSORY ORDERING INFORMATION

Fixture Family	Key Accessory	Finish
KAR Key Accessory Round	CC* Conduit Cutout Key XC Conduit Cutout Key, Extended Length VK* Solid Cover Key	WH White SC Conduit Silver GR Grey BL Black BZ Bronze RAL Custom Color
	*3 provided with each conduit cutout canopy	

ROUND CONDUIT CUTOUT KEY
(STANDARD)
KAR-CC



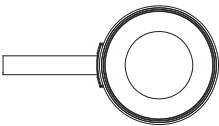
ROUND CONDUIT CUTOUT KEY
EXTENDED DEPTH
KAR-XC



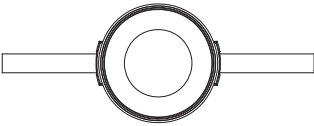
ROUND SOLID COVER KEY
(STANDARD)
KAR-VK



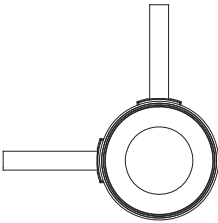
CONDUIT CUTOUT MOUNTING EXAMPLE



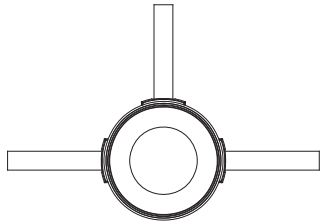
Conduit End



Straight Conduit

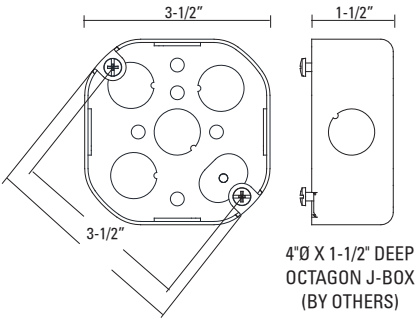


L Conduit



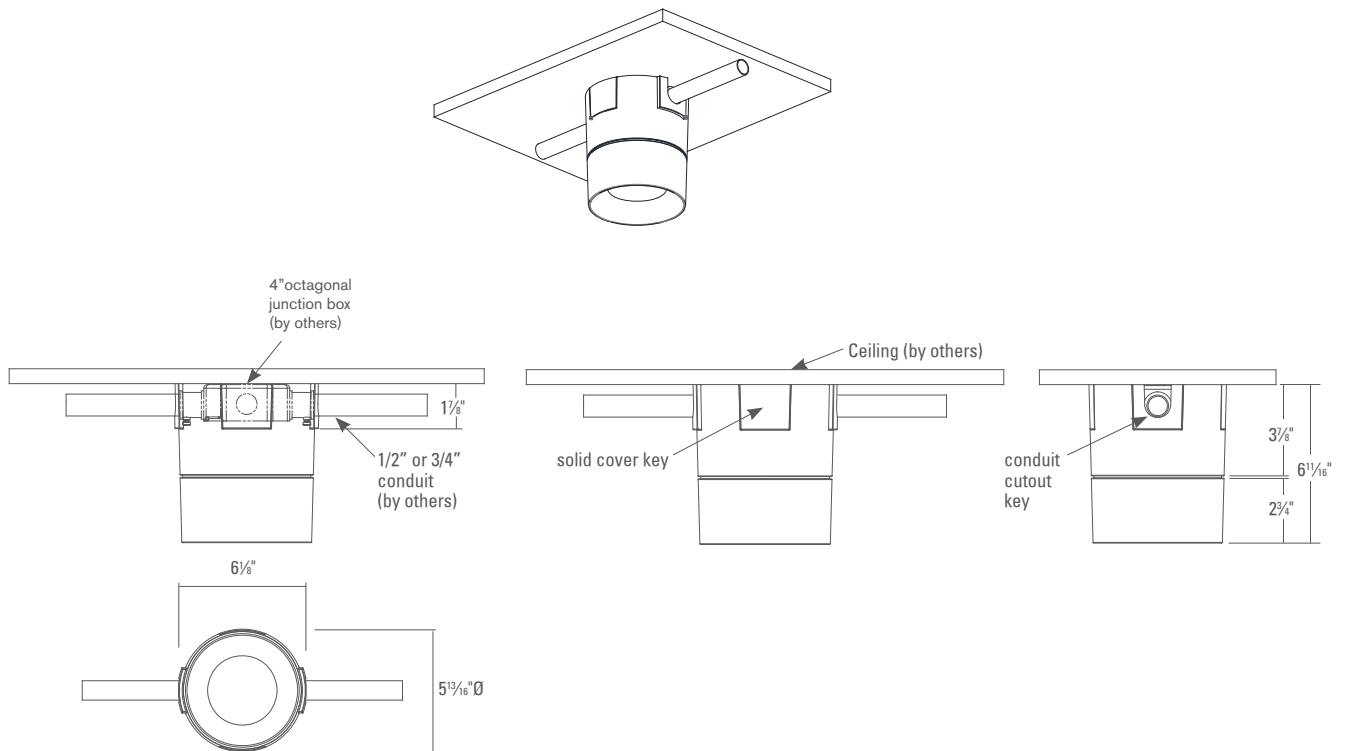
T Conduit

4" OCTAGONAL JUNCTION BOX DETAIL

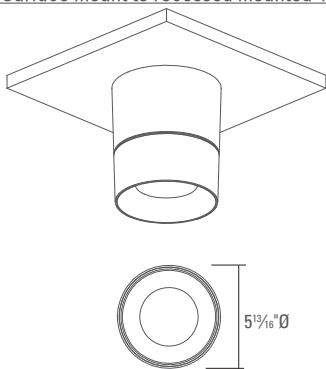


BeveLED Block® Surface - BLRD5 Round Downlight

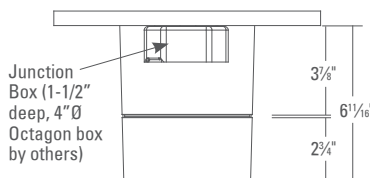
CC - CONDUIT CUTOUT MOUNTED



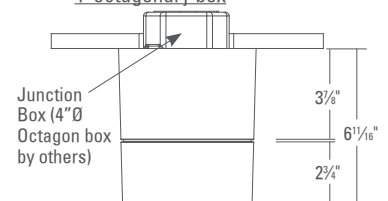
SJ - Surface mount to surface mounted 4" octagonal j-box
RB - Surface mount to recessed mounted 4" octagonal j-box



SJ - Surface mount to surface mounted 4" octagonal j-box



RB - Surface mount to recessed mounted 4" octagonal j-box



See drawing above for junction-box (by others) details.

BeveLED Block® Surface - BLRD5

Round Downlight

BEVELED BLOCK SPECIFICATIONS

FIELD REPLACEABLE LED LIGHT ENGINE

is serviceable without tools. All USAI Lighting Classic White and Warm Glow Dimming light engines feature industry-leading color consistency

FIELD REPLACEABLE DRIVER

0-10V, 100%-10% solid state electronic constant current D2 dimming driver with a high power factor provided standard and sources 2mA. Other dimming drivers optionally available. D6 dimming drivers source 2mA. Driver complies with IEEE C62.41 surge protection. Some on-time delay may be experienced depending on control system used.

REMOTE LOCATION DRIVER

If a remote dimming driver is required, specify "RM" in the fixture part number and proceed to the RP table to complete the dimming driver specification. All remote power supplies must be clearly specified in the "RP" table, with one remote power supply required per fixture. Remote power supplies require enclosures by others that meet local codes and must be located in an accessible service panel within 100ft of the light fixture; see table below for coordination of enclosure sizes. All dimming drivers comply with IEEE C62.41 surge protection.

REMOTE LOCATION EMERGENCY

Remote emergency battery IOTA ILB-CP05 provides 5W to one fixture for 90 minutes. Remote power supplies with EM option require an enclosure by others with minimum size of 11"L x 6.75"W x 3.25"H that meets local codes. Emergency battery remote power supplies cannot be located any more than 50 feet from light fixture.

BEVELED BLOCK REMOTE POWER SUPPLY REQUIREMENTS AND WIRING DIAGRAM

			Minimum Enclosure Size Required (by others)		
Remote Power Supply Dimming Option		Wire Gauge Required*	RP Only	RP with EM Option**	
RPC-01-09C3 RPC-01-12C3 RPC-01-16C3 RPC-01-24C3 RPC-01-16WG2	UNV-D4A	Lutron ECO, 0.1% (2, 3)	14/12	6.25" L x 4" W x 2" H	11" L x 6.75" W x 3.25" H
	UNV-D4H	Lutron H ECO, 1% fade (1, 2)			
	UNV-D4P	Lutron ECO, 1% (3)			
	UNV-D6A	EldoLED 0-10V, 0.1%	18/16	6.25" L x 4" W x 2" H	
	UNV-D6B	EldoLED 0-10V, 0.1%			
	UNV-D6E	EldoLED 0-10V, 1%			
	UNV-D6F	EldoLED 0-10V, 1%			
	UNV-D7	EldoLED DALI, 0%			
	UNV-D18	Moon's DMX 0.1% (2)	18/16	9" L x 4" W x 2" H	
	120V-D3	Lutron 2-wire phase, 1%	14/12	6.25" L x 4" W x 2" H	
120V-D19	Hatch 2-wire phase, 1% (1,2)	14/12	5.75" L X 2.625" W X 2" H		

1 Not available for 9W

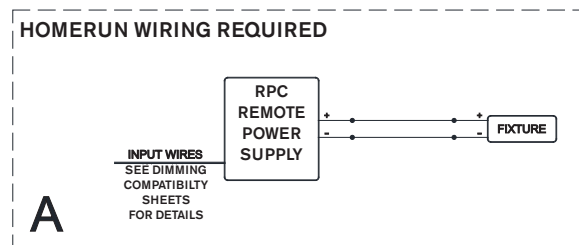
2 Not available for Warm Glow

3 Not available with 24W

* Wire gauge 14/12 = Maximum distance from light fixture to remote power supply is 100' using 12 gauge wire, 50' using 14 gauge wire.

* Wire gauge 18/16 = Maximum distance from light fixture to remote power supply is 100' using 16 gauge wire, 50' using 18 gauge wire.

** Emergency battery remote power supplies cannot be located any more than 50 feet from light fixture.



BeveLED Block® Surface - BLRD5

Round Downlight



BEVELED BLOCK SPECIFICATIONS

FIXTURE WEIGHT

BeveLED Block weighs 5 lbs

BODY

5-13/16" round die cast aluminum body available in a variety of powder coated paint finishes. Custom colors also available (provide RAL #).

MOUNTING

CC: Conduit cutout mounting fixtures are designed to mount to surface-mounted 4"octagonal junction boxes with surface-mounted conduit connections. CC housings have 4 keyslots, one in each side, and ship with one conduit cutout key and three solid cover keys installed in the housing. 2 additional conduit cutout keys are shipped with the fixture, and the different key types are interchangeable in the field. Please see installation instructions for drawings and more details.

RB: Recessed ceiling 4" octagonal junction box mounting fixtures are designed to mount to a ceiling retaining a recessed 4"octagonal junction box. The sides are solid and have no cutouts, please see drawings and installation instructions for more details.

SJ: Surface mounted 4" octagonal junction box mounting fixtures are designed to mount to a surface-mounted junction box that has electrical supply coming from the plenum (no surface-mounted conduit). The sides are solid and have no cutouts, please see drawings and installation instructions for more details

WARRANTY

Based on IESNA LM80-2008, BeveLED Block has a 50,000 hour rated life at 70% lumen maintenance (L70). USAI Lighting Warranty covers replacement parts for 5 years from date of shipment.

LISTINGS

Dry/Damp/Wet for RB and SJ mounting. CC mounting style is dry/damp only. NRTL/CSA-US tested to UL standards. IBEW union made.



NOTES

- Ambient temperatures at fixture location should not exceed 40°C during normal operation.
- Consult factory for video capture applications.

PHOTOMETRICS

Consult factory or website for IES files. Tested in accordance with IESNA LM79. www.usailighting.com/block

DIMMING DRIVER WIRING SCHEMES:

NOTES:

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS

- SAVE THESE INSTRUCTIONS

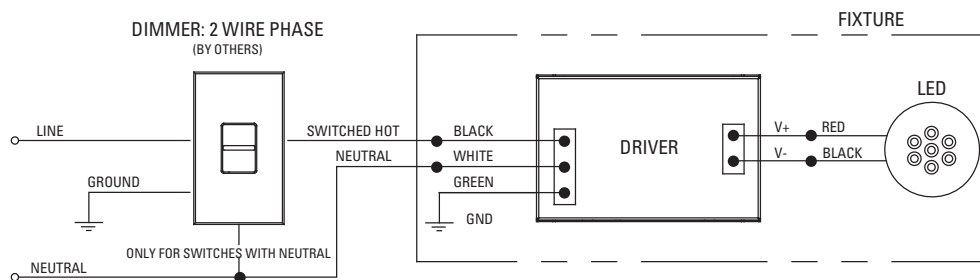
1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

D3 / DIML3 LED: Lutron Hi-Lume A-Series 2 Wire Fwd Phase (with neutral) / LED Dimming Driver Wiring (Dims down to 1%) 120V

D3 / DIML3 Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Dimmer*	
				Fixture Wattage	
120V Only				39W and Less	40W - 80W
ETC	Sensor+ Cabinet	ELV10	100% - 1%	1 – 26	1 – 13
ETC	Unison DRd Cabinet	ELV10	100% - 1%	1 – 26	1 – 13
Lutron	Maestro Wireless® 600W dimmer	MRF2-6ND-120-	100% - 1%	1 – 8	1 – 4
Lutron	Maestro Wireless® 1000W dimmer	MRF2-10ND-120-	100% - 1%	1 – 13	1 – 6
Lutron	HomeWorks® QS adaptive dimmer	HQRD-6NA-	100% - 1%	1 – 8	1 – 4
Lutron	HomeWorks® QS 600W dimmer	HQRD-6ND-	100% - 1%	1 – 8	1 – 4
Lutron	HomeWorks® QS 1000 W dimmer	HQRD-10ND-	100% - 1%	1 – 13	1 – 6
Lutron	Caseta Wireless® Pro 1000W dimmer	PD-10NXD-	100% - 1%	1 – 13	1 – 6
Lutron	Stanza® dimmer	SZ-6ND-	100% - 1%	1 – 8	1 – 4
Lutron	RadioRA® 2 adaptive dimmer	RRD-6NA-	100% - 1%	1 – 8	1 – 4
Lutron	RadioRA® 2 1000 W dimmer	RRD-10ND-	100% - 1%	1 – 6	1 – 3
Lutron	myRoom DIN power module	MQSE-4A1-D	100% - 1%	1 – 6	1 – 3
Lutron	HomeWorks® QS wallbox power module	HQRJ-WPM-6D-120-	100% - 1%	1 – 26	1 – 13
Lutron	Homeworks® DIN power module	LQSE-4A1-D	100% - 1%	1 – 6	1 – 3
Lutron	HomeWorks® wallbox power module	HWI-WPM-6D-120	100% - 1%	1 – 26	1 – 13
Lutron	GRAFIK Eye® QS control unit	QSGR-, QSGRJ-	100% - 1%	1 – 26	1 – 13
Lutron	GRAFIK Eye® 3000 control unit	GRX-3100-, GRX-3500-	100% - 1%	1 – 26	1 – 13
Lutron	RPM-4U module	HW-RPM-4U-120, LP-RPM-4U-120	100% - 1%	1 – 26	1 – 13
Lutron	RPM-4A module	HW-RPM-4A-120, LP-RPM-4A-120	100% - 1%	1 – 26	1 – 13
Lutron	GP dimming panels	Various	100% - 1%	1 – 26	1 – 13
Lutron	Ariadni CL 250W dimmer	AYCL-253P-	100%-1%	1 – 8	1 – 4
Lutron	Diva CL 250W dimmer	DVCL-253P-, DVSCCL-253P-	100%-1%	1 – 8	1 – 4
Lutron	Grafik T CL or RF CL dimmer	GT-250M-, GTJ-250M-	100%-1%	1 – 8	1 – 4
Lutron	Nova T CL 250W dimmer	NTCL-250-	100%-1%	1 – 10	1 – 5

* NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

**D3 / DIML3
2 WIRE PHASE DIMMING**



DIMMING DRIVER WIRING SCHEMES:

NOTES:

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

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4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

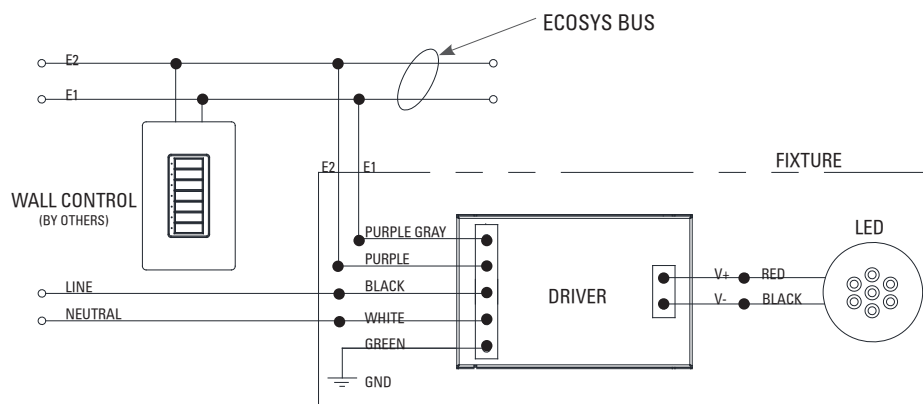
D4A / DIML4A LED: Lutron Hi-Lume Premier EcoSystem LED Driver (Dims down to 0.1%)

D4P / DIML4P LED: Lutron Hi-Lume Premier EcoSystem LED Driver (Dims down to 1%)

D4A / D4P EcoSystem Controls Dimmer Compatibility Chart			
Manufacturer	Product	Part Number	Maximum Quantity Light Fixtures Per Control
120V / 277V			
Lutron	PowPak dimming module	RMJ-ECO32-DV-B	32
		FCJ/FCJS-ECO	3
120V ONLY			
Lutron	Energi Savr Node	QSN-1ECO-S	64
		QSN-2ECO-S	128
	GRAFIK Eye QS/ Homeworks QS control unit	QSGRJ-_ E, QSGR-_ E	64
		QP2-_ 2C	128
	Quantum Hub	QP2-_ 4C	256
		QP2-_ 6C	384
		QP2-_ 8C	512
	HomeWorks QS / myRoom Plus power module	LQSE-2ECO-D	128

* NOTE: Number of fixtures may be higher if wattage is less than maximum values shown. Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

D4A / DIML4A and D4P / DIML4P EcoSystem CONTROLS



DIMMING DRIVER WIRING SCHEMES:

NOTES:

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

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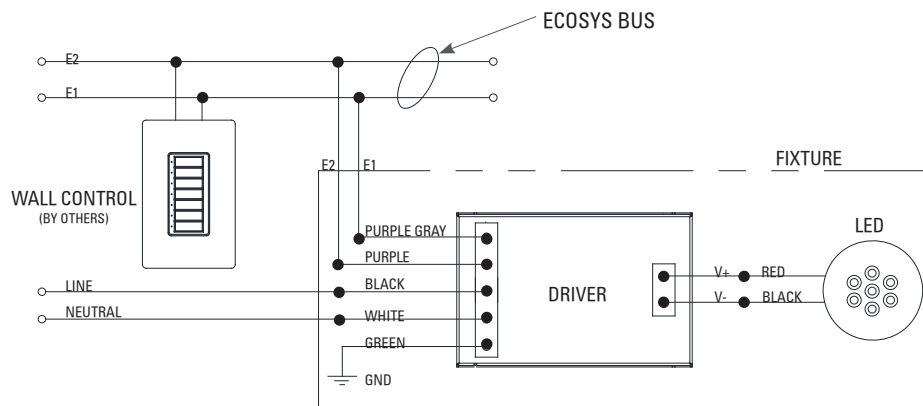
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4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

D4H / DIML4H LED: Lutron H Series EcoSystem LED Driver with Fade to Black (dims down to 1%)

D4H / DIML4H EcoSystem Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Control*	
				Fixture Wattage	
120V / 277V				39W and Less	40W - 80W
Lutron	PowPak dimming module	RMJ-ECO32-DV-B	100%–1%	1–32	1–16
Lutron	Energi Savr Node	QSN-1ECO-S, QSN-2ECO-S	100%–1%	1–64	1–32
Lutron	GRAFIK Eye QS (120V ONLY)	QSGRJ- E, QSGR- E	100%–1%	1–64	1–32
Lutron	Quantum	Various	100%–1%	1–64	1–32

* NOTE: Number of fixtures may be higher if wattage is less than maximum values shown. Refer to dimmer manufacturer's documentation for installation instructions and circuit details.

**D4H / DIML 4H
EcoSystem CONTROLS**



IMPORTANT SAFETY INSTRUCTIONS

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2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

D6A / DIML6A and D6E / DIML6E LED Dimming Compatibility Table

D6A / DIML6A and D6E / DIML6E are linearly programmed dimming drivers for use with the dimming controls listed in the table below.

D6A / DIML6A = EldoLED SOLOdrive 0-10V control dims from 100% to 0.1%

D6E / DIML6E = EldoLED ECOdrive 0-10V control dims from 100% to 1%

D6A / DIML6A and D6E / DIML6E Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range		Qty Fixtures Per Dimmer*
120V & 277V			DIML6A	6E	Refer to manufacturer's dimmer load rating for maximum and minimum fixture quantities per dimmer. Enlighted compatible.
Lutron	Diva	DVTV/NFTV with PP-20	99% - 0.1%	1%	
Lutron	Nova T	NTFTV with PP-20	99% - 0.1%	1%	
Lutron	Energi Savr Node	QSN-4T16-S	100% - 0.1%	1%	
Lutron	GP Dimming Panels	TVM2 Module	99% - 0.1%	1%	
Lutron	Interfaces	GRX-TVI w/ GRX3503	100% - 0.1%	1%	
Sensor Switch	nIO	nIO EZ	100% - 0.1%	1%	
enlighted	Control Unit	CU-3E-1R	100% - 0.1%	1%	

D6B / DIML6B and D6F / DIML6F LED Dimming Compatibility Table

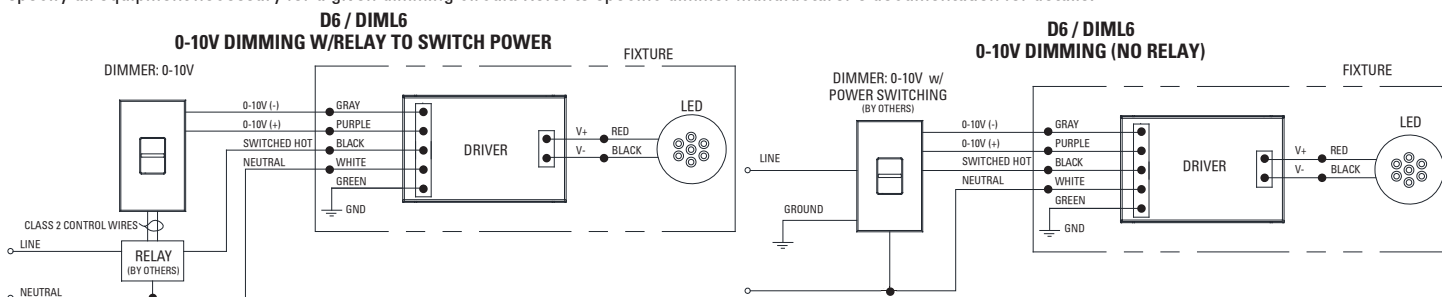
D6B / DIML6B and D6F / DIML6F are logarithmic-programmed dimming drivers for use with the dimming controls listed in the table below.

D6B / DIML6B = EldoLED SOLOdrive 0-10V control dims from 100% to 0.1% D6F / DIML6F = EldoLED ECOdrive 0-10V control dims from 100% to 1%

D6B / DIML6B and D6F / DIML6F Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range		Qty Fixtures Per Dimmer*
120V & 277V			DIML6B	6F	Refer to manufacturer's dimmer load rating for maximum and minimum fixture quantities per dimmer. Enlighted compatible.
Bush-Jaeger	Electronic potentiometer	2112U-101	100% - 0.1%	1%	
Jung	Electronic potentiometer	240-10	100% - 0.1%	1%	
Leviton	Iluma Tech dimmer	IP710-DLX	100% - 0.1%	1%	
Lightolier (Philips)	Momentum (120V ONLY)	ZP600FAM120	100% - 0.1%	1%	
Merten	Electronic potentiometer	5729	100% - 0.1%	1%	
Pass & Seymour	Titan	CD4FB-W	100% - 0.1%	1%	
Watt Stopper	Miro	DCLV1	100% - 0.1%	1%	
Synergy	Wallbox Dimmers	ISD BC	100% - 0.1%	1%	
ABB	i-bus	SD/S 2.16.1	100% - 0.1%	1%	
Crestron	Modules	GLX-DIMFLV8, GLXP-DIMFLV8	100% - 0.1%	1%	
Crestron	Green Light	GLPAC-DIMFLV4-, GLPAC-DIMFLV8-	100% - 0.1%	1%	
Crestron	Green Light Power Pack	GLPP-DIMFLVEX-PM, GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM	100% - 0.1%	1%	
Crestron	DIN Rail Analog Output Module	DIN-A08	100% - 0.1%	1%	
Crestron	DIN Rail 0-10V Fluorescent Dimmer	DIN-4DIMFLV4	100% - 0.1%	1%	
Crestron	iLux 0-10V Dimmer Expansion Module	CLS-EXP-DIMFLV	100% - 0.1%	1%	
enlighted	Control Unit	CU-3E-1R	100% - 0.1%	1%	

DIMMING DRIVER WIRING SCHEMES:

NOTES: Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.



DIMMING DRIVER WIRING SCHEMES:

NOTES:

Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

IMPORTANT SAFETY INSTRUCTIONS

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4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

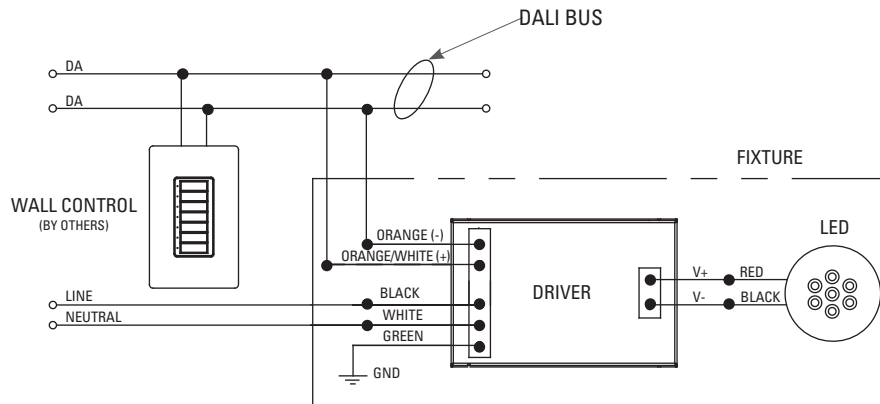
D7 / DIML7 and D7E Dimming Driver Wiring

D7 / DIML7 and D7E are linearly programmed dimming drivers.

D7 / DIML7 = EldoLED SOLOdrive DALI control dims from 100% to 0.1%

D7E = EldoLED ECOdrive DALI control dims from 100% to 1%

**D7 / DIML7 / D7E
DALI CONTROLS**



DIMMING DRIVER WIRING SCHEMES:

NOTES:

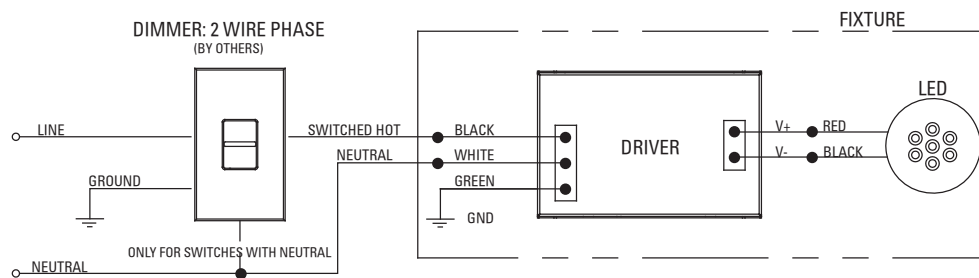
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4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. Cap any wires not used separately (not together).

D19 / DIML19 LED: Hatch XTC series or equivalent - Forward and Reverse Phase Dimming Driver.
Dims down to 1% contingent upon dimmer specification and load. 120V only.

**D19 / DIML19
2 WIRE PHASE DIMMING**



D19 / DIML19 Dimmer Compatibility Chart

120V ONLY		
Forward Phase / TRIAC Dimming		
Manufacturer	Product	Qty Fixtures Per Dimmer
Leviton	IPL06-10Z	Use fixture wattage per
	6613-xxx	fixture specification
Lutron	S-600P	sheet to determine
	S-603P	number of fixtures
	DVSC-603P	per dimmer. Max number
	CT-600P	of fixtures is limited by
	CT-603P	dimmer load rating.

120V ONLY		
Reverse Phase / ELV Dimming		
Manufacturer	Product	Qty Fixtures Per Dimmer
Leviton	6615	Use fixture wattage per
	IPE04-xxx	fixture specification
Lutron	NTELV-300	sheet to determine
	NTELV-600	number of fixtures
	SELV-300P	per dimmer. Max number
	SELV-303P	of fixtures is limited by
	DVELV-300P	dimmer load rating.
	DVELV-303P	

DIMMING DRIVER WIRING SCHEMES:

NOTES:

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5. Cap any wires not used separately (not together).

D28 Dimming Driver Wiring

D28 are programmed dimming drivers.

D28 Eldo DMX control dims from 100% to 0.1%

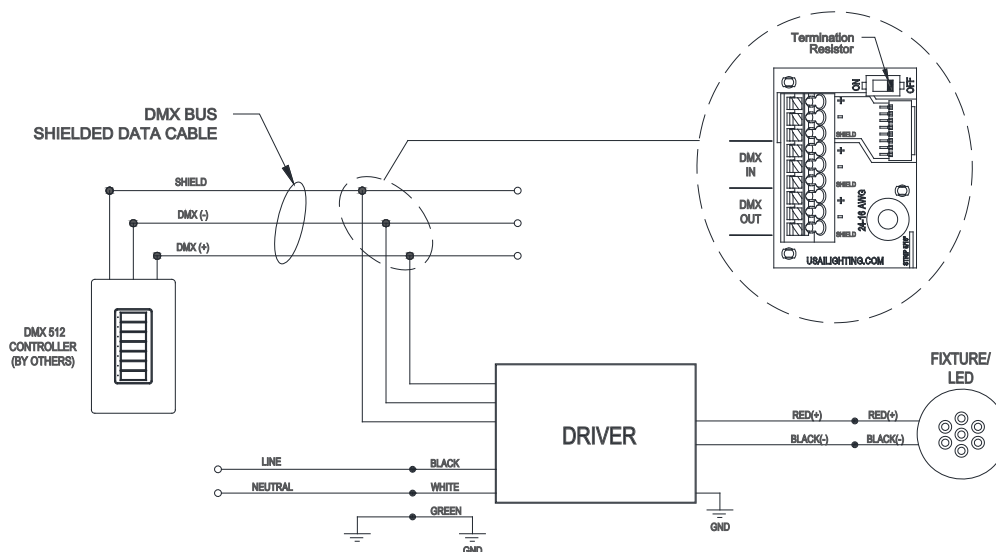
DMX BUS - SHIELDED DATA CABLE

The data cable used must meet the following requirements:

- type: shielded, 2-conductor twisted pair
- maximum capacitance between conductors: 30 pF/ft
- maximum capacitance between conductor and shield: 55 pF/ft
- maximum resistance: 0.02 ohms/ft
- normal impedance: 100-140 ohms
- conductive core: 24 AWG is recommended

If 3-wire data cables are preferred, we suggest a Belden 9841 or equivalent cable which meets the specifications for EIA RS-485 applications. Do not use standard microphone cables: they cannot transmit DMX512 data reliably over long distances. NOTE: DMX link termination device, provided through Dip Switch on connection board, should be used on last fixture in line on a circuit to avoid signal loss.

D28 DMX CONTROLS



YUKON LED (DIRECT)

DATE:

PROJECT:

TYPE:

CATALOG NUMBER LOGIC:



*120V only

Housing may be shipped ahead upon request.

CATALOG NUMBER LOGIC

Example: B - YK - D - LED - A2780 - MAC - V - SD - 010 - MT

MATERIAL

(Blank) - Aluminum B - Brass S - Stainless Steel

SERIES

YK - Yukon Commercial Steplight

STYLE

D - Direct

SOURCE

LED - Linear Array

LED TYPE

A2780 - 10W/2700K/80CRI A2790 - 10W/2700K/90CRI

A3080 - 10W/3000K/80CRI A3090 - 10W/3000K/90CRI

A3580 - 10W/3500K/80CRI A3590 - 10W/3500K/90CRI

A4080 - 10W/4000K/80CRI A4090 - 10W/4000K/90CRI

FINISH (See page 2 for full-color swatches)

Standard Finishes (BZP, BZW, BLP, BLW, WHP, WHW, SAP, VER)

Premium Finish (ABP, AMG, AQW, BCM, BGE, BPP, CAP, CMG, CRI, CRM, HUG, MDS, NBP, OCP, RMG, SDS, SMG, TXF, WCP, WIR)

Also available in RAL Finishes

Brass Finishes (MAC, POL, MIT)

Stainless Steel Finishes (MAC, POL)

ORIENTATION

V - Vertical

H - Horizontal

FACEPLATE

SD - Standard LD - Louvered VR - Visor DO - Deco

CO - Compass RN - Ribbon LY - Layered

CONTROL TYPE

ELV - 10W Dimming Driver (For use with Electronic Low Voltage Dimmer)*

INC - 10W Dimming Driver (For use with Incandescent Dimmer)*

0-10 - 10W Dimming Driver (For use with 0-10 Dimmer)

INPUT VOLTAGE

MT - 120-277 VAC

B-K LIGHTING

MADE IN THE USA

559.438.5800 | INFO@BKLIGHTING.COM | BKLIGHTING.COM

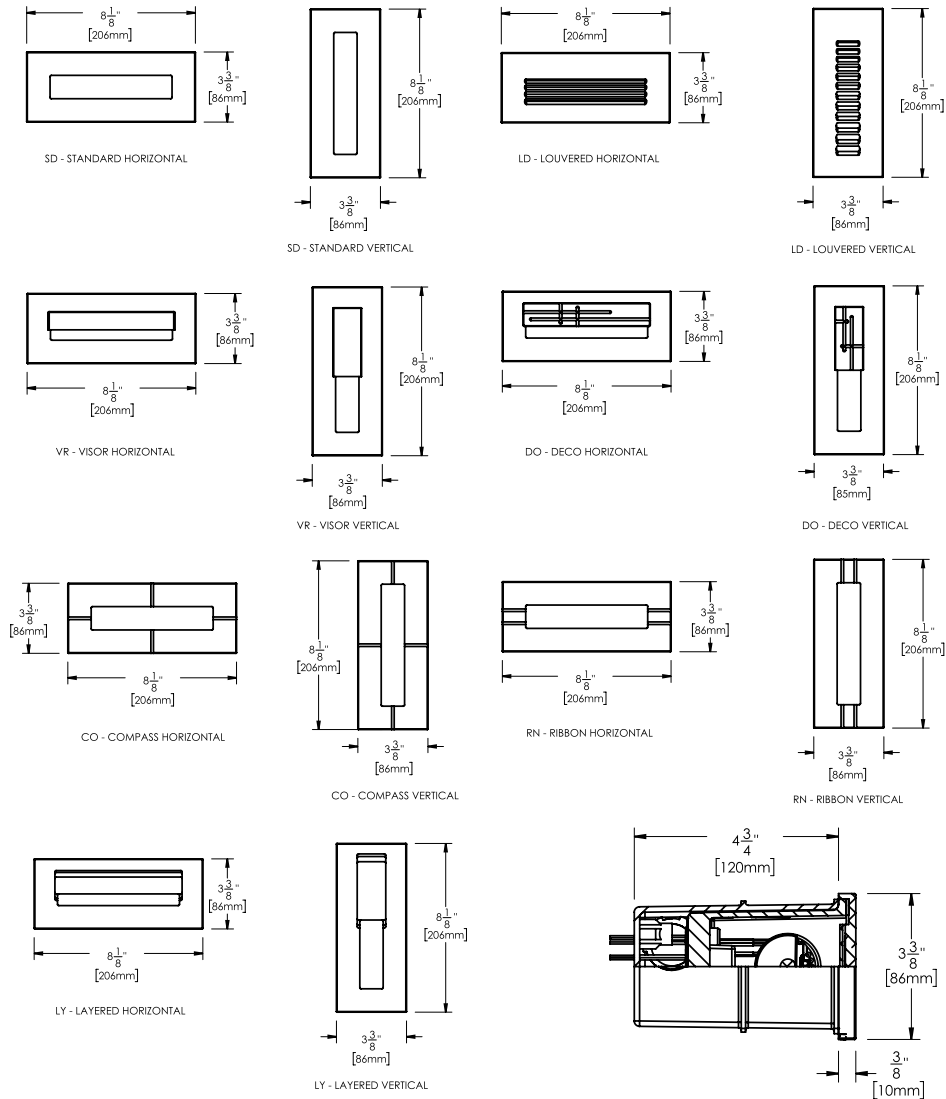
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09/11/2020 SKU-1341
SUB-2819-00

YUKON LED (DIRECT)

DATE:	PROJECT:	TYPE:
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* Fixture Weight $\approx$ 2.88lbs max

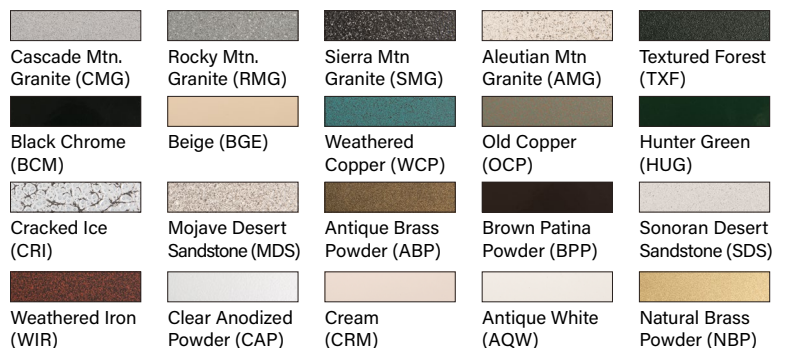


STANDARD FINISHES



[Click Here](#) to view larger, full-color swatches of all available finishes on our website.

PREMIUM FINISHES



B-K LIGHTING

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09/11/2020 SKU-1341
SUB-2819-00

YUKON LED (DIRECT)

DATE:	PROJECT:	TYPE:
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Accessories (Configure separately)

SPECIFICATIONS

ELECTRICAL	WATTAGE	9.5W
	OPERATING VOLTAGE	120-277 VAC
	DRIVER	With [1] 350mA, Class II, constant current integral driver. 50/60 Hz. >0.9 Power Factor, 5A in-rush current (typical at 120 VAC), ≤20%THD (nominal at 120 VAC full load). Output over-voltage, over-current, and short circuit protection with auto recovery. Dimming driver for use with 0-10V, Incandescent, Standard TRIAC, or ELV dimmers. 1-100% range. *TRIAC/ELV dimming at 120 VAC only.
PHYSICAL	MATERIALS	Furnished in copper-free aluminum (6061-T6)
	HOUSING	Corrosion-free composite, made from high strength, thermo-formed, sheet molded polyester compound. Glass reinforced, flame retardant with knockout plugs and four (4) side flats for 1/2" or 3/4" conduit adapters.
	WATER MANAGEMENT	Anti-condensation and corrosion vent equalizes fixture pressure and eliminates potential for damage to internal components.
	FACEPLATE	Fully machined. Offered with non-visible, tamper-resistant set screws.
	WIRING	18GA Stranded, XLPE, 150°C, 600V wire.
	FINISH	StarGuard®, our exclusive RoHs compliant, 15 stage chromate-free process cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating. Brass components are available in powder coat or handcrafted metal finish. Stainless steel components are available in handcrafted metal finish.
	WARRANTY	5-year limited warranty.
	CERTIFICATION & LISTING	UL tested to IESNA LM-79. UL Listed. Certified to CAN/CSA/ANSI Standards. RoHS compliant. Suitable for indoor or outdoor use, in wet locations, and for installation within 4' of the ground. IP66 Rated. Made in the USA.



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09/11/2020 SKU-1341
SUB-2819-00

LAMP & DRIVER DATA (YUKON DIRECT - HORIZONTAL)

DATE: PROJECT: TYPE:

LM79 DATA

BK No.	CCT (Typ.)	CRI (Typ.)	Input Watts (Typ.)	L70 Data
A2780	2700	80	9.5	50,000
A2790	2700	90	9.5	50,000
A3080	3000	80	9.5	50,000
A3090	3000	90	9.5	50,000
A3580	3500	80	9.5	50,000
A3590	3500	90	9.5	50,000
A4080	4000	80	9.5	50,000
A4090	4000	90	9.5	50,000
A2780	2700	80	9.5	50,000
A2790	2700	90	9.5	50,000
A3080	3000	80	9.5	50,000
A3090	3000	90	9.5	50,000
A3580	3500	80	9.5	50,000
A3590	3500	90	9.5	50,000
A4080	4000	80	9.5	50,000
A4090	4000	90	9.5	50,000
A2780	2700	80	9.5	50,000
A2790	2700	90	9.5	50,000
A3080	3000	80	9.5	50,000
A3090	3000	90	9.5	50,000
A3580	3500	80	9.5	50,000
A3590	3500	90	9.5	50,000
A4080	4000	80	9.5	50,000
A4090	4000	90	9.5	50,000
A2780	2700	80	9.5	50,000
A2790	2700	90	9.5	50,000
A3080	3000	80	9.5	50,000
A3090	3000	90	9.5	50,000
A3580	3500	80	9.5	50,000
A3590	3500	90	9.5	50,000
A4080	4000	80	9.5	50,000
A4090	4000	90	9.5	50,000

OPTICAL DATA

Orientation	Faceplate	Accessory/ Optic	Roadway Class	BUG	Del. Lumens	Multiplier
Horizontal	SD	1	Type II	B0 U3 G1	304.5	0.92
Horizontal	SD	1	Type II	B0 U3 G1	252.8	0.83
Horizontal	SD	1	Type II	B0 U3 G1	314.5	0.95
Horizontal	SD	1	Type II	B0 U3 G1	261.0	0.83
Horizontal	SD	1	Type II	B0 U3 G1	334.3	1.01
Horizontal	SD	1	Type II	B0 U3 G1	277.5	0.83
Horizontal	SD	1	Type II	B0 U3 G1	331.0	
Horizontal	SD	1	Type II	B0 U3 G1	274.7	0.83
Horizontal	SD	2	Type III	B0 U3 G1	447.1	0.92
Horizontal	SD	2	Type III	B0 U3 G1	371.1	0.83
Horizontal	SD	2	Type III	B0 U3 G1	461.7	0.95
Horizontal	SD	2	Type III	B0 U3 G1	383.2	0.83
Horizontal	SD	2	Type III	B0 U3 G1	490.9	1.01
Horizontal	SD	2	Type III	B0 U3 G1	407.4	0.83
Horizontal	SD	2	Type III	B0 U3 G1	486.0	
Horizontal	SD	2	Type III	B0 U3 G1	403.4	0.83
Horizontal	LV	1	Type I	B0 U2 G1	122.4	0.92
Horizontal	LV	1	Type I	B0 U2 G1	101.6	0.83
Horizontal	LV	1	Type I	B0 U2 G1	126.4	0.95
Horizontal	LV	1	Type I	B0 U2 G1	104.9	0.83
Horizontal	LV	1	Type I	B0 U2 G1	134.3	1.01
Horizontal	LV	1	Type I	B0 U2 G1	111.5	0.83
Horizontal	LV	1	Type I	B0 U2 G1	133.0	
Horizontal	LV	1	Type I	B0 U2 G1	110.4	0.83
Horizontal	VR	1	Type I	B0 U2 G1	182.2	0.92
Horizontal	VR	1	Type I	B0 U2 G1	151.2	0.83
Horizontal	VR	1	Type I	B0 U2 G1	188.1	0.95
Horizontal	VR	1	Type I	B0 U2 G1	156.1	0.83
Horizontal	VR	1	Type I	B0 U2 G1	200.0	1.01
Horizontal	VR	1	Type I	B0 U2 G1	166.0	0.83
Horizontal	VR	1	Type I	B0 U2 G1	198.0	
Horizontal	VR	1	Type I	B0 U2 G1	164.3	0.83

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LAMP & DRIVER DATA (YUKON DIRECT - VERTICAL)

DATE: PROJECT: TYPE:

LM79 DATA

BK No.	CCT (Typ.)	CRI (Typ.)	Input Watts (Typ.)	L70 Data
A2780	2700	80	9.5	50,000
A2790	2700	90	9.5	50,000
A3080	3000	80	9.5	50,000
A3090	3000	90	9.5	50,000
A3580	3500	80	9.5	50,000
A3590	3500	90	9.5	50,000
A4080	4000	80	9.5	50,000
A4090	4000	90	9.5	50,000
A2780	2700	80	9.5	50,000
A2790	2700	90	9.5	50,000
A3080	3000	80	9.5	50,000
A3090	3000	90	9.5	50,000
A3580	3500	80	9.5	50,000
A3590	3500	90	9.5	50,000
A4080	4000	80	9.5	50,000
A4090	4000	90	9.5	50,000
A2780	2700	80	9.5	50,000
A2790	2700	90	9.5	50,000
A3080	3000	80	9.5	50,000
A3090	3000	90	9.5	50,000
A3580	3500	80	9.5	50,000
A3590	3500	90	9.5	50,000
A4080	4000	80	9.5	50,000
A4090	4000	90	9.5	50,000
A2780	2700	80	9.5	50,000
A2790	2700	90	9.5	50,000
A3080	3000	80	9.5	50,000
A3090	3000	90	9.5	50,000
A3580	3500	80	9.5	50,000
A3590	3500	90	9.5	50,000
A4080	4000	80	9.5	50,000
A4090	4000	90	9.5	50,000

OPTICAL DATA

Orientation	Faceplate	Accessory/ Optic	Roadway Class	BUG	Del. Lumens	Multiplier
Vertical	SD	1	Type II	B0 U3 G1	307.3	0.92
Vertical	SD	1	Type II	B0 U3 G1	255.0	0.83
Vertical	SD	1	Type II	B0 U3 G1	317.3	0.95
Vertical	SD	1	Type II	B0 U3 G1	263.4	0.83
Vertical	SD	1	Type II	B0 U3 G1	337.3	1.01
Vertical	SD	1	Type II	B0 U3 G1	280.0	0.83
Vertical	SD	1	Type II	B0 U3 G1	334.0	
Vertical	SD	1	Type II	B0 U3 G1	277.2	0.83
Vertical	SD	2	Type II	B0 U3 G1	454.5	0.92
Vertical	SD	2	Type II	B0 U3 G1	377.2	0.83
Vertical	SD	2	Type II	B0 U3 G1	469.3	0.95
Vertical	SD	2	Type II	B0 U3 G1	389.5	0.83
Vertical	SD	2	Type II	B0 U3 G1	498.9	1.01
Vertical	SD	2	Type II	B0 U3 G1	414.1	0.83
Vertical	SD	2	Type II	B0 U3 G1	494.0	
Vertical	SD	2	Type II	B0 U3 G1	410.0	0.83
Vertical	LD	1	Type I	B0 U2 G1	149.0	0.92
Vertical	LD	1	Type I	B0 U2 G1	123.7	0.83
Vertical	LD	1	Type I	B0 U2 G1	153.9	0.95
Vertical	LD	1	Type I	B0 U2 G1	127.7	0.83
Vertical	LD	1	Type I	B0 U2 G1	163.6	1.01
Vertical	LD	1	Type I	B0 U2 G1	135.8	0.83
Vertical	LD	1	Type I	B0 U2 G1	162.0	
Vertical	LD	1	Type I	B0 U2 G1	134.5	0.83
Vertical	VR	1	Type I	B0 U2 G1	161.9	0.92
Vertical	VR	1	Type I	B0 U2 G1	134.4	0.83
Vertical	VR	1	Type I	B0 U2 G1	167.2	0.95
Vertical	VR	1	Type I	B0 U2 G1	138.8	0.83
Vertical	VR	1	Type I	B0 U2 G1	177.8	1.01
Vertical	VR	1	Type I	B0 U2 G1	147.5	0.83
Vertical	VR	1	Type I	B0 U2 G1	176.0	
Vertical	VR	1	Type I	B0 U2 G1	146.1	0.83

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November 3, 2021

Deb Andrews
Historic Preservation Program Manager
City of Portland Maine
389 Congress Street
Portland, Maine 04101

Re: Winter Street Townhomes - Design Narrative

The proposed building to be located on Winter Street in Portland's West End Neighborhood consists of 9 residential townhouse units intended. The building is a 3 story structure along Winter street with a daylight basement parking level access from the rear.

Prior to developing the building concept we spent much time walking the streets of the West End, analyzing existing streetscapes, building massing, forms, materials and textures. This approach allowed us to develop a design concept that is grounded by the existing neighborhood context.

The neighborhood is comprised of a diverse palate of Architectural forms, scales and density. Winter Street and the surrounding neighborhood blocks have a variety of Architectural forms and massing.

We designed the building using color, massing and texture to scale the building as reflected on the Winter Street elevation, to create a facade rhythm similar in proportion to the local residential building types. The building is broken along the street wall with projecting facade bays and entries to scale the facade and create visual interest and shadow lines. The punched opening window pattern also helps scale the facade, which is a common pattern throughout the surrounding neighborhood. All of the units have direct access to the sidewalk and street. The roof top program elements consist of an interior lounge space and exterior rooftop deck.

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101

The primary siding material is brick with accents of factory finished composite panel siding, trim and composite lap siding, all chosen for their traditional crisp appearance and long term durability. The windows proposed are dark in color to compliment the siding colors and also further reinforce the crisp simplicity of the design. The roofing proposed is an EPDM roof membrane.

We look forward to discussing the project at the upcoming Historic Preservation Board workshop.

Sincerely,



Ryan Senatore, AIA LEED AP

Principal

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101

Utilities

The proposed project will include installation of multiple utility services to the new building.

Water:

Proposed domestic and fire suppression water services will be tapped individually off of the existing 8" cast iron main in Spring Street. The domestic service will go into a meter pit and then extend into the site, with individual services to each unit. The individual 1" services for each unit will be tapped off of the single 2" service from the meter pit. Each unit will be provided a shut off valve in the driveway. The fire suppression line will have a gate valve in the roadway of Spring Street and will run directly to a sprinkler room on the east side of the building.

Sewer:

Sanitary sewer for each unit will feed into one 6" SDR 35 PVC on the north side of the building. The service will enter the 18" combined sewer main on Spring Street with a doghouse manhole.

Stormwater:

There are three proposed catch basins on the site which will collect stormwater for the proposed parking area and driveway. From the catch basins, the stormwater will be piped to the proposed modular wetland system that will provide proprietary water quality treatment. This system will connect to the combined sewer main in Spring Street with a doghouse manhole. Please see the Stormwater Management Report for more information.

UGE/T/C:

The existing overhead wires on Winter Street are to be relocated underground. Two existing utility poles on Winter Street, just west of the site, and one pole on Spring Street, just south of the intersection of Spring and Winter Streets are proposed to be upgraded. Power will be fed from the upgraded poles to a 38Y manhole on Winter Street and a switchgear MH on Spring Street. From there, power will be run to the proposed 38Y manhole that is located in the sidewalk on Spring Street, which will be constructed as part of the Mercy Hospital redevelopment. From the new Spring Street structure, three phase power will be run to the underground to a 38Y manhole in the parking area/driveway of the development. A service will feed the proposed pad mounted transformer, and will serve each townhome with an individual secondary service.

Gas:

Gas will serve the site by a service off of Winter Street. A meter will be located on the east side of the building and will be routed internally to each unit.

Ability to serve letters were sent out to the respective utility companies on November 29, 2021 in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use, Section 14-527(g)(7). Responses from the utility companies will be forwarded upon receipt.



Construction Management Plan

Project Address: 102 State Street

Project Description:

Acorn Engineering, Inc. has been retained by NewHeight Redfern, LLC to provide civil engineering services for the proposed work located at 102 State Street, Portland, ME 04101. The parcel, Chart 45, Block D, Lot 1, is encompassed by State, Spring, and Winter Streets. The site is currently comprised of a surface parking lot that serves as visitor & patient parking for Mercy Hospital. The project proposes to develop nine (9) town-house style condos on the south side of the site along Winter Street. The existing parking lot north of the proposed building will be retained.

Project Team Summary:

Owner:	NewHeight Redfern, LLC
Owner's Representative:	NewHeight Redfern, LLC
General Contractor (GC):	TBD
Civil Engineer:	Acorn Engineering, Inc.
Structural Engineer:	TBD
Architect:	Ryan Senatore Architecture
Landscape Architect:	Aceto Landscape Architects

The Owner, GC and all subcontractors will work with the City of Portland and adjacent landowners to minimize any project impacts.

The GC will remain responsible for enforcement of all compliance with 1) all contract plans and specifications in their scope of work and 2) all site working conditions and safety requirements, day and night, for both persons and property, in each case for the duration of their work. These include OSHA, NIOSH, U.S. EPA, local ordinance and any other applicable governmental regulations. Both the Owner/GC and any subcontractors will remain responsible for safeguarding the general public.

The GC shall review all permits and conditions associated with the project. Refer to the Civil/Site Plan Set, Sheet C-03 Construction Management Plan for visual representation of measures to be taken during construction.

The following outline has been developed in accordance with the City of Portland Construction Management Plan General Template and shall be referenced by the GC during construction.

A. Construction Management Principles

The control of noise, vibrations, ground movement, truck traffic, and other construction related factors will be of utmost importance. Care shall be taken to minimize these effects in the best interest of neighbors and the general public. GC to ensure that work hours conform to the City of Portland's Ordinance.



**A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104**

B. Development Review of Construction Management Plan

Logistics and safety program shall be submitted at or prior to the preconstruction meeting by the GC with all pertinent information required by the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

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

Guarantees and fees will be paid at the time of the respective application. All necessary permits will be obtained prior to work and compliance with Sections 14-14.11.3 and 14-14.11.4 is required.

1. Street Opening and Street Occupancy Permits:

Required permits regarding street opening and occupancy will be obtained from the Department of Public Works. The requests shall conform to the approved Construction Management Plan.

2. Blasting:

Although not anticipated, if blasting occurs, it shall conform with all measures of Article VIII, and in Chapter 14 of the City Code and Section 3.7 in the City's Technical Manual.

3. Building Code:

Employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from the 2009 International Building Code.

D. Construction Administration and Communication

The Contractor will work closely with adjacent abutters, businesses, and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. Communication in order to comply with all agreements, ordinances, and special permits will be of the utmost importance. Contractor contact information shall be posted on a sign on the construction fence along the Winter Street frontage. Additional signage necessary for communication shall be provided but will be temporary and removed upon completion of the project. The contract information for the project personnel is:

Erin Cooperrider
NewHeight Redfern, LLC
(207) 720-0181

GC and Subcontractor information will be posted along the State Street, Spring Street & Winter Street frontages once contracted.

E. Construction Schedule

The GC shall submit a construction timeline at or prior to the preconstruction meeting. Construction may occur during the daytime hours as defined in Section 17-18. Construction



Activities for Building permit and City Code Section 25-129, Noise, dust and debris. Between September 1 and May 31, the following year, no person shall engage in construction activities generating noise exceeding 50 decibels, between the hours of 7 pm and 7 am of the following day within 500 feet of any buildings. From June 1 to August 31, construction activity may continue until 8 pm. No construction activity shall begin before 8 am on a Saturday, Sunday, or legal holiday. Extended hours or night work may be requested for special circumstances and street utility work if needed. These requests will be subject to approval by the Public Works Authority.

Due to the limited space within the project parcel, deliveries will need to be stored in an alternate location or deliveries must be small enough to fit within the property. Deliveries will be scheduled between 7 am and 5 pm.

The estimated timeframe of the proposed project is outlined below:

<u>Project Start Date:</u>	Spring 2022
<u>Project End Date:</u>	Spring 2023

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City.

F. Security

1. The Construction Management Plan, Sheet C-03, depicts all proposed fencing and other barriers, with the intent of separating pedestrian and vehicle circulation from the construction site. Construction entrance per detail shall be installed.
2. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16. *Safeguarding Construction, Alteration, and Demolition Operations*.
3. Fire Safety Program: Prior to construction, an overall construction and demolition fire safety program shall be developed. Essential items to be emphasized include the following:
 - Good Housekeeping
 - On-site security
 - Installation of new fire protection systems as construction progresses
 - Preservation of existing systems during demolition
 - Organization and training of an on-site fire brigade
 - Development of a pre-fire plan with the local fire department
 - Rapid communication
 - Consideration of special hazards resulting from previous occupancies
 - Protection of existing structures and equipment from exposure fires resulting from construction, alteration, and demolition operations.
4. Blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation of Explosives in Portland's Technical Manual.



5. Temporary security lighting shall be shown on the Construction Management Plan, and all fixtures shall be full cutoffs.

G. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets

Construction activity in the public right-of-way shall be compliant with Chapter 25 Article VII of the City Code. At no time will it be permissible for construction activity including delivery vehicle to close or block streets or affect public safety access without prior notice and approval of the Department of Public Works.

2. Sewer and Stormwater

Sewer and stormwater system connections are controlled by Chapters 24 and 32 of the City Code of Ordinance. Required permits for new connections and/or abandonment of existing connections are available through the Street Opening Clerk at the Department of Public Works. Rules and Regulations for these utility systems are available through the City Engineer's office of the Department of Public Works and in Section II of the Technical Manual. This will apply to the new connections within Winter & Spring Streets.

3. Traffic Control Plans

Construction activity that impacts the existing public street system must be controlled to protect the safety of the construction workers and all modes of the traveling public. The contractor shall submit a satisfactory "Maintenance of Traffic" (MOT) plan prior to any street opening permit approval. This document shall contain all pertinent information from the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

The MOT will address the work required for utility connections in Spring Street. Traffic will be channelized utilizing drums and cones. Proper signage will be installed prior to the through work zone. Alternating traffic will be controlled with flaggers. Trenches will be patched with pavement daily.

The MOT plan shall provide for the safe passage of the public through or along the construction work zone. It may be permissible to close a portion of Winter and Spring Streets during utility connections and/or detour a mode of traffic when absolutely necessary for safety. All requests shall be subject to City approval. MOT plans shall employ the appropriate techniques and devices as called for in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:

- Construction speed signing may be used as needed to slow traffic.
- Traffic Control signs shall not be placed where they would create any obstructions to bicycles or pedestrians.
- Flaggers will be utilized when necessary.

All existing modes of travel in the work zone area shall be accommodated if impacted by the activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning and laying out the work zone; no pre-existing



travel mode may be eliminated without the express approval of the Department of Public Works. The MOT should also address on-street parking impacts, including deliveries and parking for adjoining businesses and property owners, analysis of roadway capacity or diversion capacity if street closure or change to roadway capacity is required, and coordination with other on-going or future construction or utility projects in the vicinity.

- Traffic control for bicycle and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready for safe operation. Traffic control will not be removed to allow auto travel at the expense of bicycle and pedestrians.
- Barrier systems utilized to separate the construction activity from the public street and /or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.
- ADA compliance in all capacities shall be maintained.

Use of public parking spaces or the blockage of any portion of sidewalk for the purpose of construction activity shall require an occupancy permit and appropriate fee as assessed by the Department of Public Works.

H. Site Management and Controls

1. Regular trash and debris shall be managed appropriately and removal of such shall comply with all local, state, and federal regulations.
2. Street cleaning and sweeping shall be followed as outlined in the erosion and sedimentation control notes and report. Damage to the street shall be avoided and shall be the responsibility of the contractor.
3. Dust shall be controlled and shall comply with Section 25-129 and the erosion and sedimentation control notes, plan, and details.
4. Noise shall be controlled and shall comply with Section 17-18 and Section 25-129.
5. Rodent Control shall be provided, if applicable, by a professional exterminator and shall be consistent with Chapter 22 of the City Code.
6. Snow and Ice Removal shall be provided. Pursuant to Section 25-173, the Contractor shall ensure a safe means of travel within the work zone by the following steps:
 - a. Snow/ice removal or commence automatically from 1" or greater of snow or ice
 - b. Remove snow as needed within the work zone, including parking spaces.
Driveways and site lines shall not be blocked by piles of snow.
 - c. Clear all walks and ramps within the work zone
 - d. Sand or salt as needed
 - e. Clear all basin or drainage to help snow melt
 - f. The above steps shall be carried out Sunday-Saturday including holidays.



I. Erosion & Sedimentation Control

1. The Contractor shall install all erosion and sedimentation controls as depicted on the approved Construction Management Plan, C-03, and the approved erosion and sedimentation control report, prior to the pre-construction meeting for inspection by the City. The Contractor shall regularly inspect the control measures, no less than weekly and after storm events (0.5" or more in 24 hours). Additionally, temporary or permanent stormwater management systems shall be inspected and maintained to ensure working order. The Contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection (MDEP) or the U.S. Environmental Protection Agency (EPA) upon request.
2. Due to the existing, sparse landscaping on site, no protection during construction will be necessary.
3. Stored materials shall be identified and avoid being located under/near trees.

J. Construction Staging Area

1. The Contractor shall submit a plan with locations depicted for material staging areas, on-site temporary construction trailers, on-site truck delivery holding areas, on-site truck washing stations, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters. This plan shall be submitted at or prior to the pre-construction meeting. Any open storage areas shall be shown on the plan.
2. Delivery Truck Holding Areas On-Site: The majority of materials delivered to the site will be scheduled such that they are able to be off-loaded immediately. On days when the construction activities require multiple truck deliveries, these deliveries will be carefully scheduled so that there is always adequate on-site area for the holding of trucks until they can be unloaded. Upon arrival to site, all vehicles will be brought within the fence line and will make every attempt to avoid queuing on public streets. If, for any reason, on-site holding of trucks is not feasible, an off-site location must be designated and shown on the submitted plan referenced above in J.1.
3. All deliveries for materials shall comply with the City's noise requirements.

K. Parking During Construction

1. Adequate parking for construction workers shall be provided along Winter Street or arrangements for off-street parking at an off-site location shall be provided.
2. Truck Routes: Trucks will access the site via State Street, Spring Street and Winter Street.



L. Special Measures as Necessary

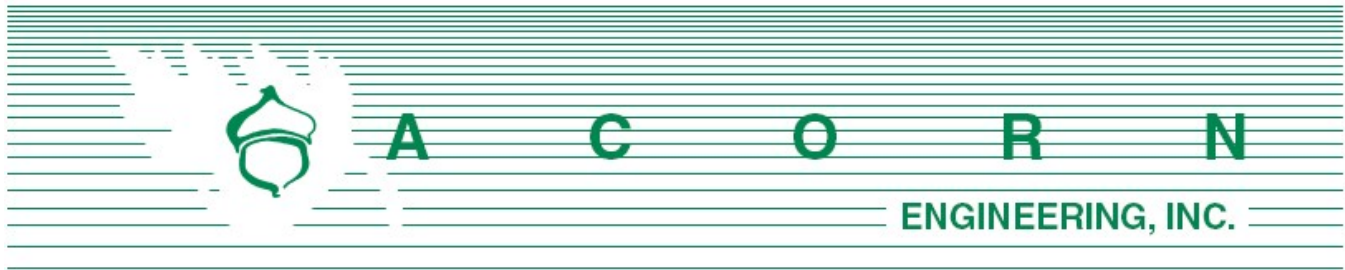
The abutting buildings will be subject to a pre and post construction survey to monitor any effects from construction. The surveys shall consist of photographs of the foundation as viewed from outside and inside if granted permission.



Solid Waste Disposal

The development will utilize City weekly curbside track pickup along Winter Street. The units will be able to utilize garage space for solid waste storage between pickup dates.





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

January 28, 2022

Subject: Winter Street Townhomes Neighborhood Meeting

I, Peter Heil, hereby certify that a neighborhood meeting was held on January 27, 2022 remote via Zoom at 5:30 pm.

I also certify that on January 12, 2022, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development.
2. Residents on the “interested parties” list.

Sincerely,

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

Included with this certification are:

1. Copy of the invitation sent
2. Sign-in sheet
3. Meeting minutes

Sign In Sheet

1/27/2022

Winter Street Townhomes Neighborhood Meeting

Members of the Public In Attendance:

NAME:

Paul Smith
Vivian Smith
Liz Parsons
Kip and Barbara DeSerres
Linda Atherton
Jane Page
Ginger Raspiller
Lauren Ginsberg
Laura Currier
Donna Jones
Pamela Shaw and Kent Redford

EMAIL:

psmith@hakins.com
vlsmith28@hakins.com
lizacline33@gmail.com

l.atherton@twc.com
jpage@sustainmetrix.com
mainelyearth@aol.com
lauren.r.ginsberg@gmail.com
lacurrier@aol.com
donna3569@yahoo.com

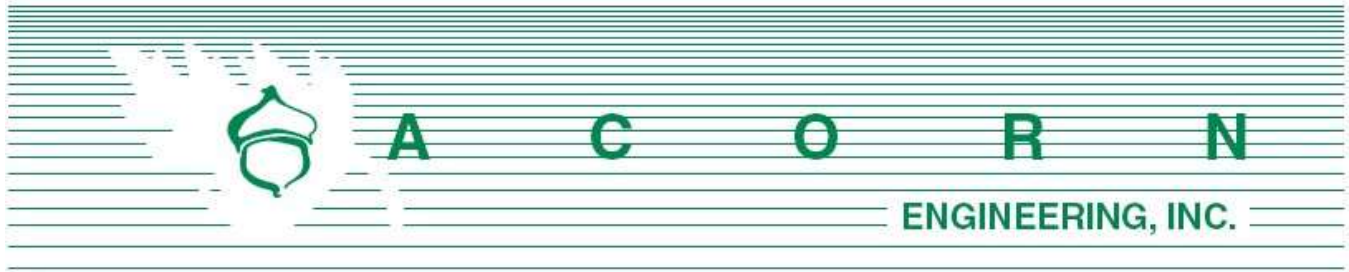
Developer & Consultant Team in Attendance:

Name:

Peter Heil
Mike Triglione
Ryan Senatore
Margo Barajas
Erin Cooperrider
Jonathan Culley

Email:

pheil@acorn-engineering.com
mtriglione@acorn-engineering.com
ryan@senatorearchitecture.com
mb@acetola.com
erin@newheightgroup.com
jonathan@redfernproperties.com



Winter Street Townhomes Major Site Plan Submission

Neighborhood Meeting Minutes

January 27, 2022 / 5:30 pm

Remote meeting via Zoom

Project Team Attendees:

Peter Heil (PH): Civil Engineer/Presenter (Acorn Engineering)
Mike Triglione (MT): Civil Engineer/Note Taker (Acorn Engineering)
Ryan Senatore (RS): Architect/Presenter (RSA)
Margo Barajas (NA): Landscape Architect/Presenter (ALA)
Erin Cooperrider (EC): Owner/Applicant (NewHeight Redfern LLC)
Jonathan Culley (JC): Owner/Applicant (NewHeight Redfern LLC)

Meeting started at approximately 5:30 pm.

Presentation:

Peter Heil:

- Zoom housekeeping

Jonathan Culley:

- Redfern Properties
- Team introduction,
 - o NewHeight Redfern (Developer):
 - Jonathan Culley
 - Erin Cooperrider
 - o Acorn Engineering (Civil Engineer):
 - Peter Heil
 - Will Savage

- Ryan Senatore Architecture (Architect)
 - Ryan Senatore
- Aceto Landscape Architecture
 - Margo Barajas
 - Nick Aceto
- Bigger picture, Mercy campus development with NewHeight Redfern
 - Zoning changes on the site
- Existing & proposed renderings of campus shown. Explanation of 102 State Street site, the large building shown is not planned or permitted as of now
- Mercy hospital patients have been moved out, the active presence of the hospital in the neighborhood is over
- In the coming months, Marcy hospital emergency room & radiology wing will be demolished to make room for Community Housing of Maine (CHOM) buildings
- Explanation of Winter St townhomes,
 - 9-unit condominium, row style townhomes
 - Site history – originally senior living planned for this site. In 2020, Monarch Communities planned to buy the site, but they backed out of the contract. So, NewHeight Redfern sought out other developers, but the requirements of the Green New Deal had a negative impact on the economics of building senior housing here. NewHeight Redfern had to go back to an earlier idea of building townhomes.
 - Planned development is row homes consistent with built environment in the West End. Homes to be targeted towards families living in the city.
 - This project is consistent with NewHeight Redfern's expressed intent to provide a range of housing choice, for renters and homeowners, both affordable and market rate.
 - Townhouses as planned are smaller building height, with an increased front setback for a larger landscape buffer
 - Townhomes to be cream colored brick
 - Of the 9 homes, 5 have already been reserved

Pete Heil:

- Project civil engineer
- West End neighborhood adjacent to Mercy Hospital, nearby Reiche School, One Longfellow Square, Rosemont Market
- Subdivision into two lots
- State Street lot to remain parking for time being
- West End neighborhood & historic district, height limitations along Winter Street
- Site features
 - Compact residential development
 - Growth in housing stock in line with City's comprehensive plan
 - Setback to provide street trees, landscaping along Winter Street
 - Utility upgrades
 - Overhead powerlines to go underground along frontage of Winter Street & also Spring Street into the site



- Access for site across from Mercy Access
- Planning board on February 8th



Ryan Senatore:

- Project Architect
- Rendering of project in streetscape shown
- Façade treatment for projecting bays & to break up streetscape – darker color grey contrasting with cream brick – designed to blend building into historic fabric of neighborhood
- Large windows & natural light into units
- 4 Story, primary mass of building is 3 stories with rooftop deck & stepback on top story
- Integrated landscape design with architecture
- Renderings around structure shown
- Stepping down with groupings of three units along the street line
- Walk through floor plans
 - o 2 car bay parking garage on rear – half level below entry on Winter Street in rear
 - o Units to be handicap accessible from Winter Street
 - o First floor active den on street
 - o Living room on Winter Street, dining in center & deck on the rear
 - o Third floor bedrooms & bathrooms
 - o Fourth floor half story with stepback & roof deck

Margo Barajas:

- Landscape Architect
- Building offset – waiver to increase front setback to seven feet for mature street trees & robust garden plantings
- Rear driveways to have tree wells to further add to urban street canopy
- Plant species with feedback from historic preservation, woody species to fit in with neighborhood
- Along Winter Street: evergreen bands of junipers, chokeberries, sumac, magnolias, arborvitaes, ornamental grasses
- Edges of buildings arborvitaes & sumac
- Rear elms & chokeberries
- Imagery of plant selection & streetscape renderings shown

Pete Heil:

- Planning board & historic preservation board dates, February 8th & February 16th, respectively

Comments, Questions & Answers:

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



Paul & Vivian Smith Expected start and completion date?

- **Jonathan:** Goal is to start construction in May & take 12-14 months. Hope is to be done in mid 2023.

Ginger Raspiller: Changes have happened to the original plan of the campus project, originally it was supported due to the senior housing. Morrison house was sold to another developer. What are the processes for changes to the original plan? Should a comprehensive plan be prepared for the entirety of the parcel?

- **Jonathan:** We never did a master plan. We did a zone change to B3 to accommodate Monarch senior living proposal & CHOM projects, & also change the setback along Winter Street. Sale of the Morrison House did not change the plan, it was sold to another developer. Monarch leaving did change the plan. The best way to approach is to look at the parcels at two separate sites. There is no plan for the 102 State Street parcel yet, that is why the subdivision of the parcel is happening. The townhomes as planned will be less intrusive to neighborhood than the commercial senior living property.

Pamela Shaw: Concerns about brick sidewalks & mobility around the site due to trees. Concerns about tree species due to Ash Bore.

- **Peter:** Project will meet city standards for sidewalks & match neighborhood. They will be ADA compliant. Separation requirements will allow movement along sidewalk.
- **Margo:** Trees not effected by Ash Bores. Are susceptible to Dutch Elm Disease, but the species selected is resistant to Dutch Elm Disease. Size of trees: city has asked trees to be planted smaller to adjust to urban conditions. They will be 2.5 inch caliper, 8-9 feet high when installed.

Liz Parsons: What are the extents to change the asphalt due to underground electric, are there plans to retain cobble along Winter Street? How far down Winter Street will the overhead electric go underground? Will street tree maintenance be part of the condo association responsibilities?

- **Jonathan:** Trees will be maintained by condo association.
- **Peter:** Powerlines to be replaced along frontage of site at the corner of property line & will go to a vault in Winter Street then under the sidewalk along Winter Street from there. Street will not be exposed due to power being in the sidewalk. Utilities in Winter Street will be minimal. Some of the houses will have their power go underground. Overhead powerlines at intersection with Spring Street will be replaced.
- **Erin:** There is three phase power overhead in this location, all those lines will go underground.
- **Margo:** Entryways will have granite stone to go with historic neighborhood.

Lauren Ginsberg: Timing of second parcel development?

- **Jonathan:** There is no plan as of now. We are looking at subsidies for affordable housing, workforce condominiums. Looking at no subsidies where units will be higher end. It is the highest priority once Mercy is constructed. It could be sold off but that is not the intent as of now. We will let you know.



Lauren Ginsberg: Is there similar idea for State Street to what you are doing for Winter Street?

- **Jonathan:** It is not likely. State Street buildings will likely be taller and higher density. State Street is more of a grand boulevard with taller buildings. The plan is to develop more housing in walking distance to downtown amenities.
- **Erin:** The rendering is of the biggest possible building, and we are not saying that that is what is going to happen there.
- **Jonathan:** It is unlikely that the biggest possible building will be most viable.

Ginger Raspiller: Mercy building is rental, will there be more opportunity for home ownership with the rest of the 102 State St Parcel?

- **Jonathan:** Affordable housing along Winter Street in the CHOM buildings is intended for 50-60% of median income. Rental housing in the Mercy building is intended for 80-120% of median income with 10% being deed-restricted workforce housing. So Winter Street development is only high-end development on the campus.

Laura Currier: A 2-3 story building at 116-118 State St (the Smith House) will be dwarfed by the building depicted on the slide.

- **Jonathan:** I understand where you are coming from. Right now, there is no good option to build a taller building, but more conversation will be had before anything happens there.

Closing Comments

Jonathan Culley:

- Planning Board Workshop on 2/8/21
- Comments can be submitted to city & can be shared with the developers as well
- Thanks everyone for joining and the discussion

Peter Heil:

- Meeting minutes will be shared on the city's website, available as early as next week through the city's Citizen Self Service

Meeting concluded at approximately 6:20 pm.

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

Recorded by,



Peter F. Heil, PE

Project Manager, Acorn Engineering, Inc.

pheil@acorn-engineering.com



Dear Neighbor:

January 14, 2022

On behalf of NewHeight Redfern LLC, we are pleased to invite you to a virtual neighborhood meeting to discuss a proposed Winter Street Townhomes development at 102 State Street in Portland, Maine. The project proposes to subdivide the existing lot into two lots. The north lot (102 State Street) will be 0.56 acres (24,288 sf). The south lot (Winter Street lot) will be 0.48 acres (20,7272 sf). The proposed development will construct nine (9) town-house style condos along Winter Street on the Winter Street lot. The nine proposed units will have a footprint of 9,493 sf. Each individual unit will have a front entrance with stoops & front entrances on Winter Street. The existing parking lot north of the building will be maintained, and the condos will have garages with driveways on the parking lot side. The townhomes will have 18 standard spaces (one in the garage & one in the driveway of each unit) & 9 compact spaces (one in each townhome garage).

Meeting Location:

This meeting will be held remotely via Zoom according to state and local requirements around social distancing and will be available for public viewing and participation. Please email office@acorn-engineering.com to request a link or phone number to join the meeting. You may also call the office line (listed below) to request this information.

Meeting Date/Time: Thursday, January 27, 2022 at 5:30 p.m.

The City code requires that property owners within 500 feet of the proposed development and residents on an "interested parties list" be invited to participate in a neighborhood meeting. Both the sign-in sheet and recorded meeting minutes will be submitted to the Planning Board. If you have any questions, please do not hesitate to call the office at (207) 775-2655. We look forward to seeing you at the meeting.

Sincerely,



Peter F. Heil, P.E.
Acorn Engineering, Inc.

WINTER STREET TOWNHOMES
WINTER STREET
PORTLAND, MAINERYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET, SUITE 2
PORTLAND, MAINE 04101
O: 207-747-5159
C: 207-650-6414
senatorearchitecture.com

CONSULTANTS:

REVISIONS

DATE:

PROJECT No. 2139

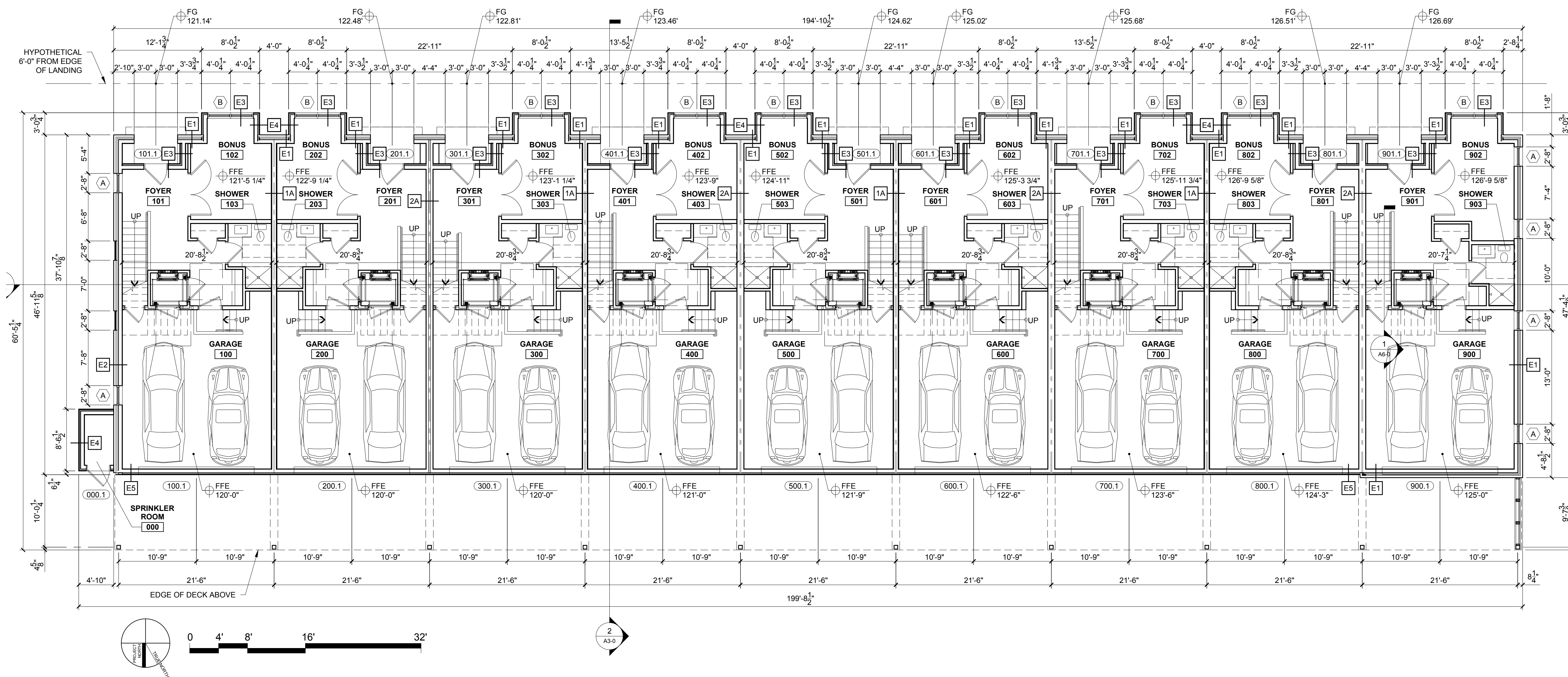
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SCALE: AS NOTED

SHEET TITLE:
FIRST FLOOR PLAN

A1-1



WINTER STREET TOWNHOMES
WINTER STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET, SUITE 2
PORTLAND, MAINE 04101
C: 207-747-5159
C: 207-650-6414
senatorearchitecture.com

CONSULTANTS:

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JANUARY 20, 2022

DATE:

PROJECT No. 2139

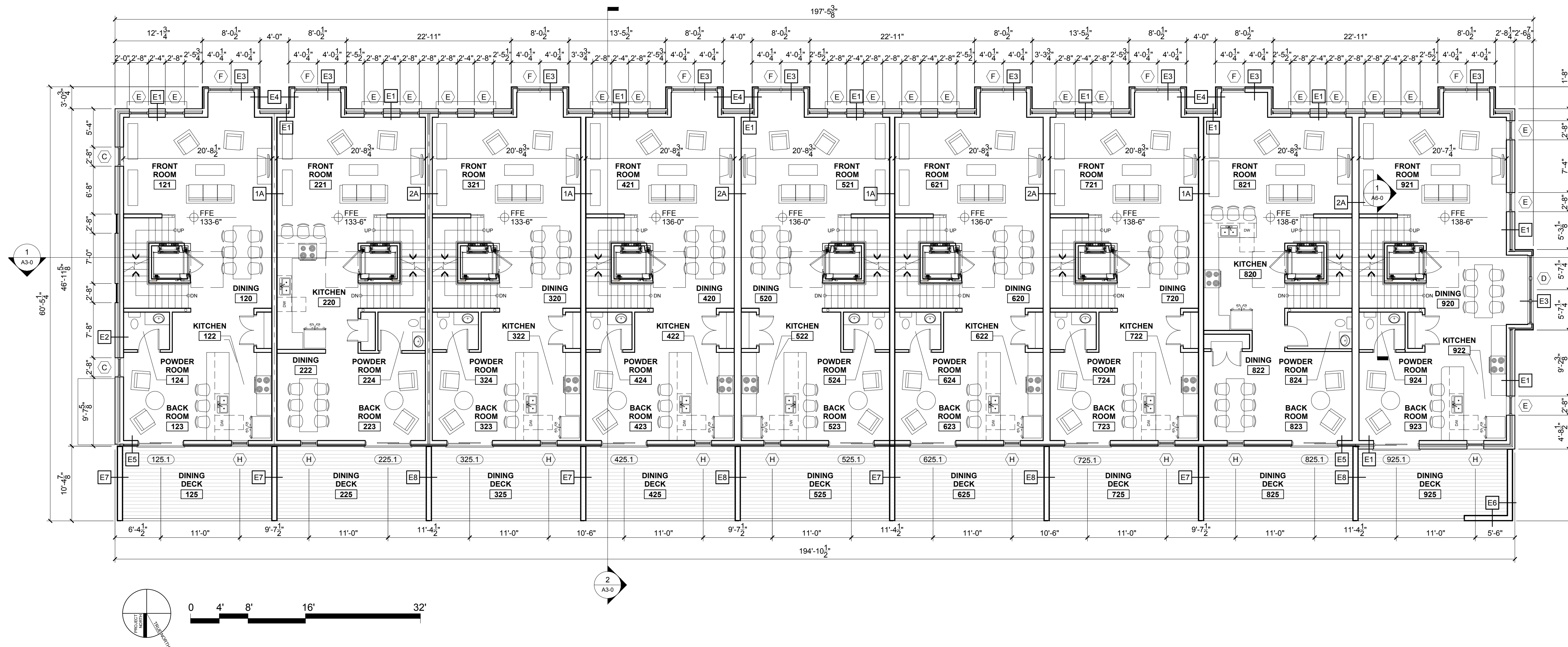
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SCALE: AS NOTED

SHEET TITLE:
SECOND FLOOR PLAN

A1-2





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JANUARY 20, 2022

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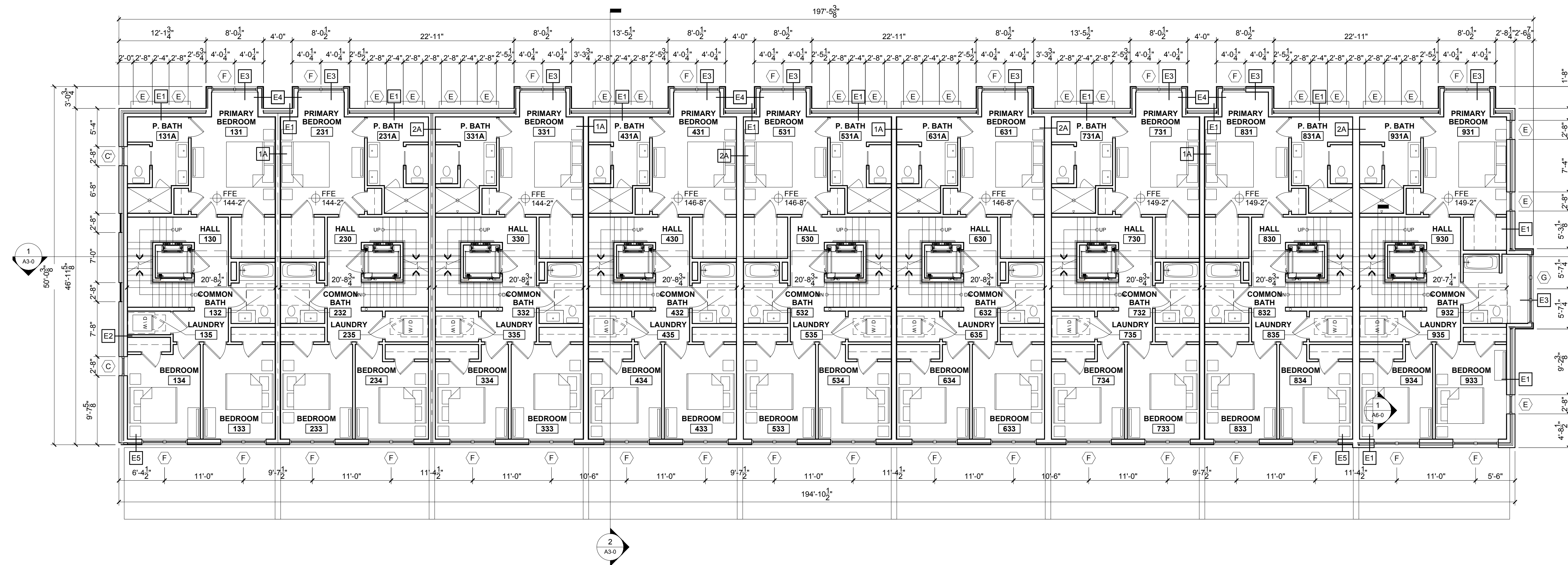
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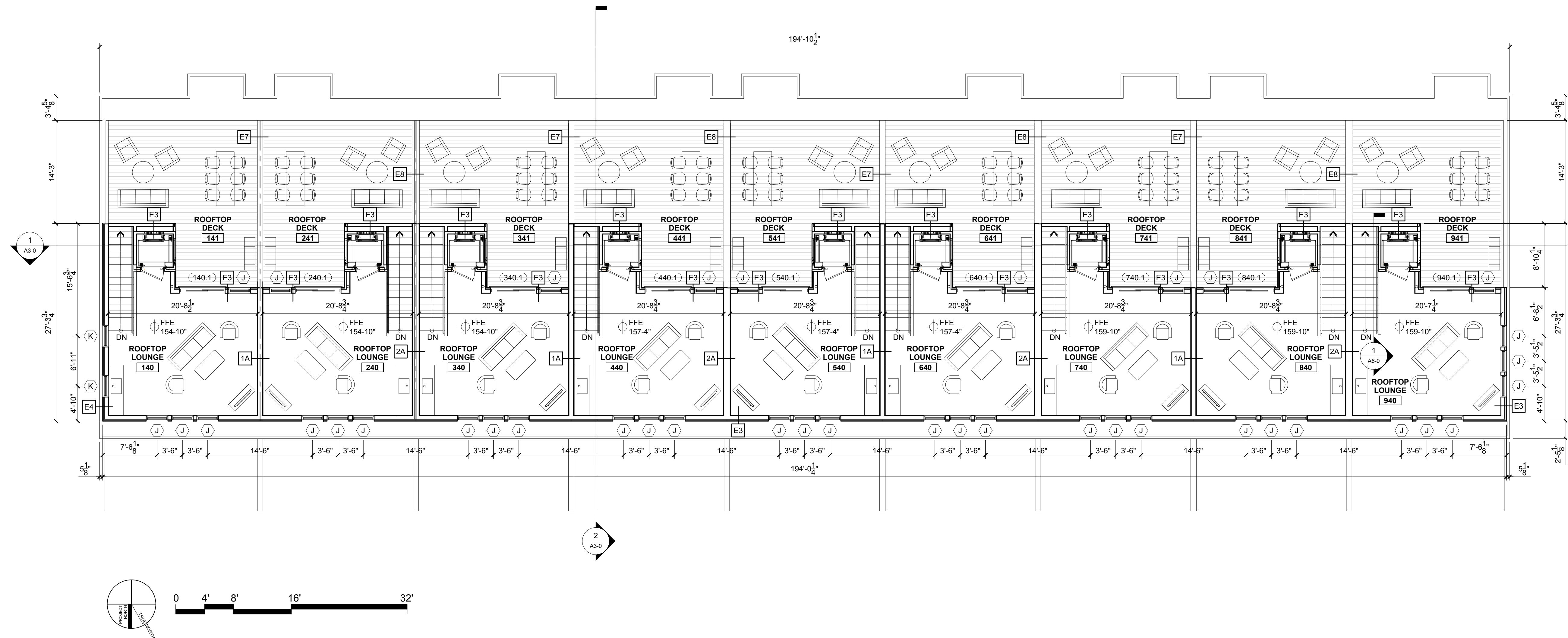
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SHEET TITLE:
THIRD FLOOR PLAN

A1-3



1 THIRD FLOOR PLAN
1/8" = 1'-0"



1 FOURTH FLOOR PLAN
1/8" = 1'-0"

WINTER STREET TOWNHOMES
WINTER STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET, SUITE 2
PORTLAND, MAINE 04101
O: 207-747-5159
C: 207-650-6414
senatorearchitecture.com

CONSULTANTS:

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DATE:	
PROJECT No.	2139
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SCALE:	AS NOTED
SHEET TITLE:	ELEVATIONS



2 WEST ELEVATION
1/8" = 1'-0"



1 SOUTH ELEVATION
1/8" = 1'-0"

WINTER STREET TOWNHOMES
WINTER STREET
PORTLAND, MAINE



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O: 207-747-5159
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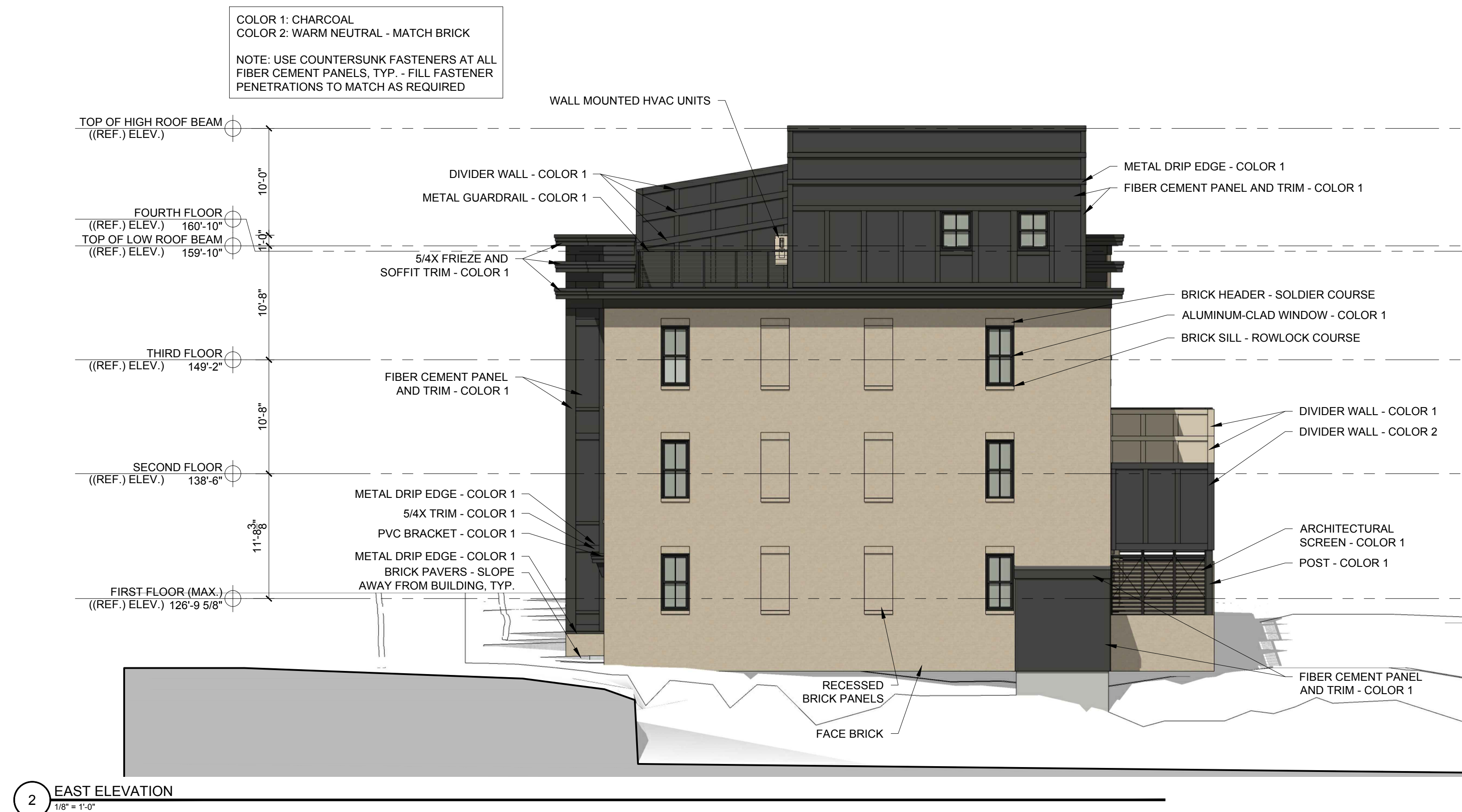
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SHEET TITLE:
ELEVATIONS

A2-1



WINTER STREET TOWNHOMES
WINTER STREET
PORTLAND, MAINE

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JANUARY 20, 2022

DATE:

PROJECT No. 2139

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SCALE: AS NOTED

SHEET TITLE:
PERSPECTIVE
VIEWS

A2-2



4 SOUTHEAST QUARTER VIEW



3 NORTHEAST QUARTER VIEW



2 NORTHWEST QUARTER VIEW



1 SOUTHWEST QUARTER VIEW

WINTER STREET TOWNHOMES
WINTER STREET
PORTLAND, MAINE

RSA
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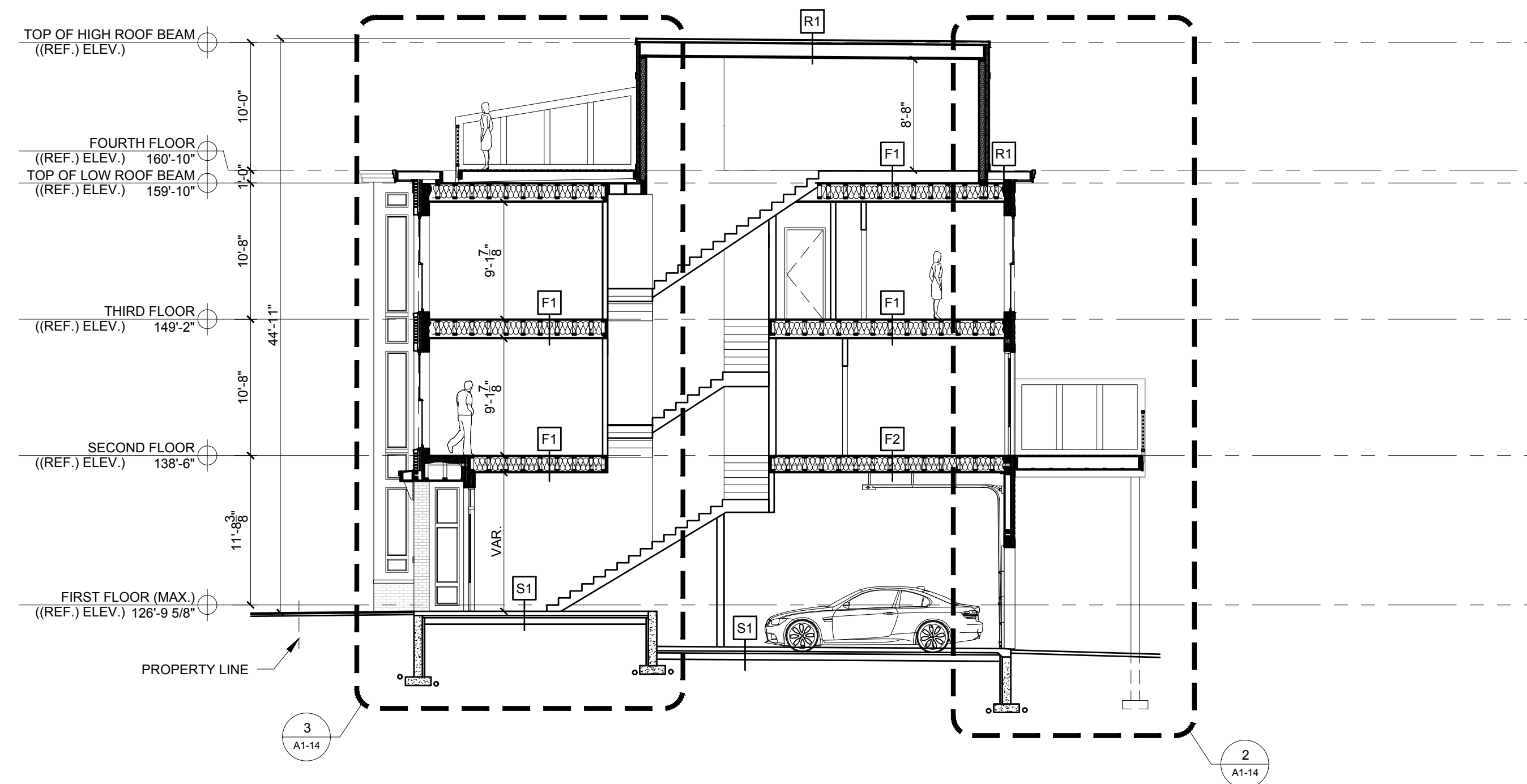
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NOVEMBER 3, 2021

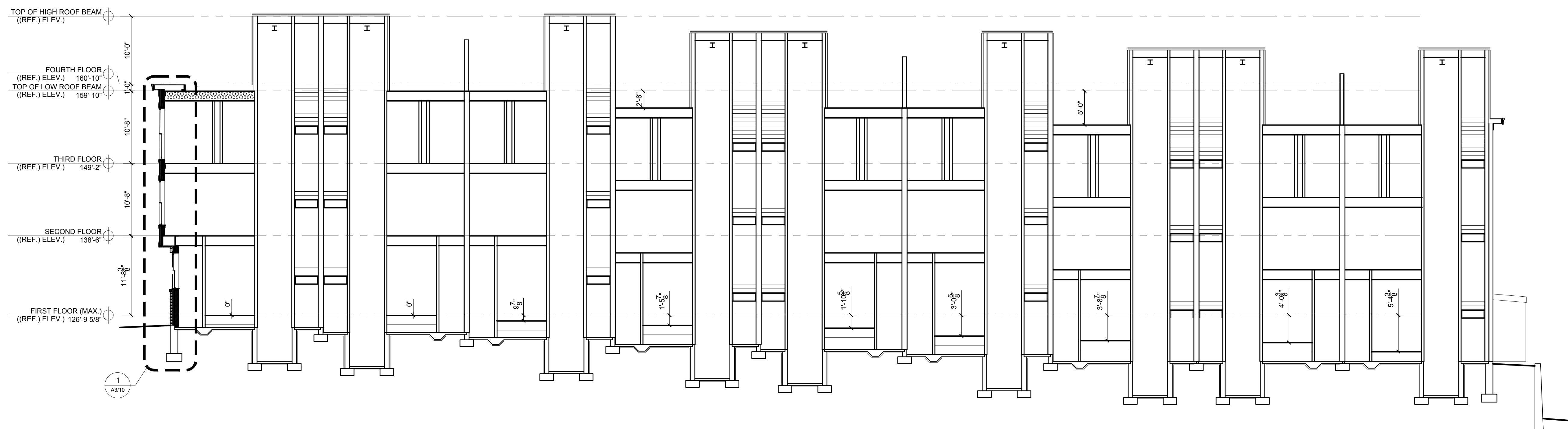
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SHEET TITLE:
SECTIONS

A3-0



2 SECTION
1/8" = 1'-0"



1 SECTION
1/8" = 1'-0"

WINTER STREET TOWNHOMES

WINTER STREET

PORTLAND, MAINE



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REVISIONS:

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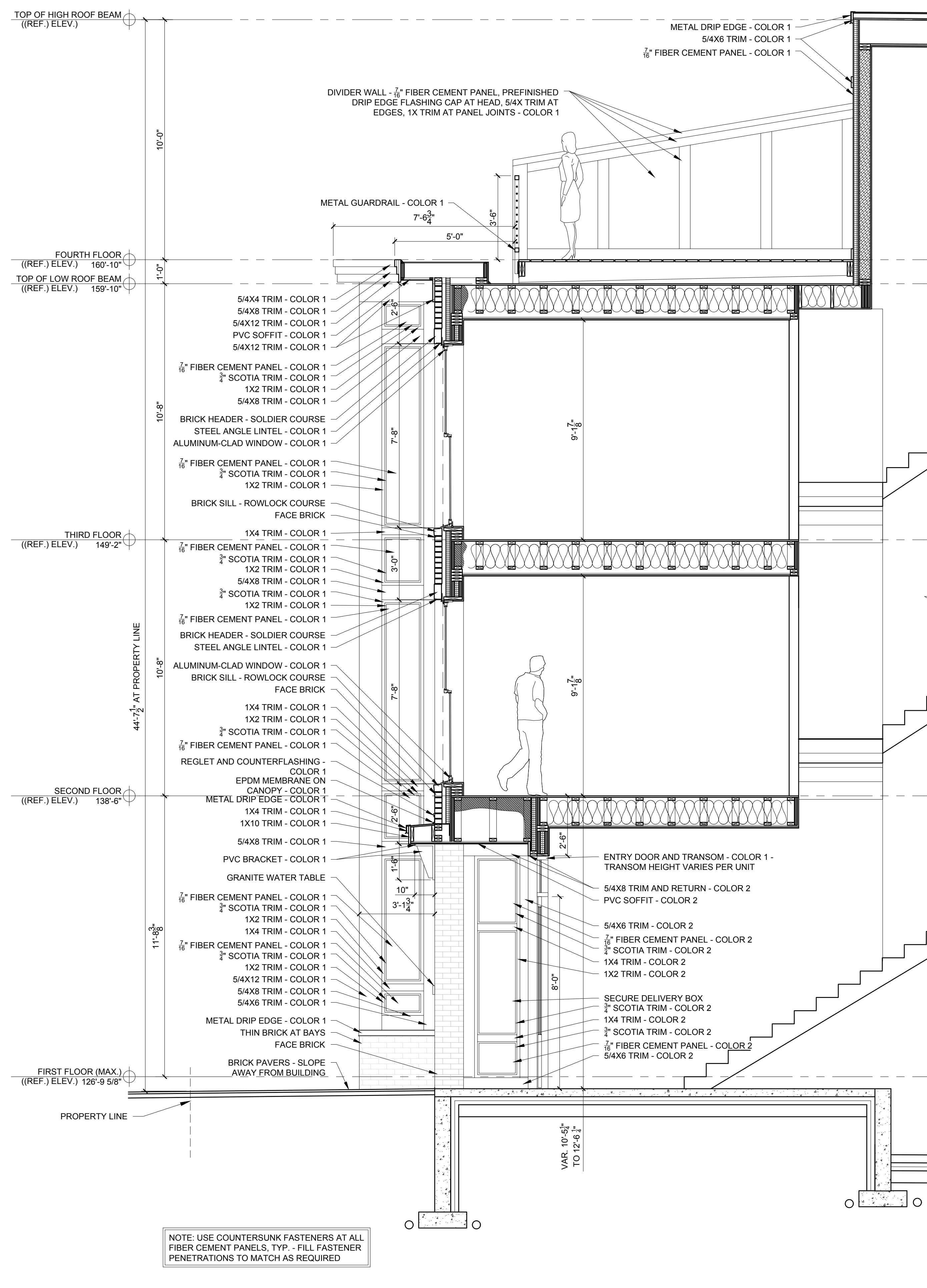
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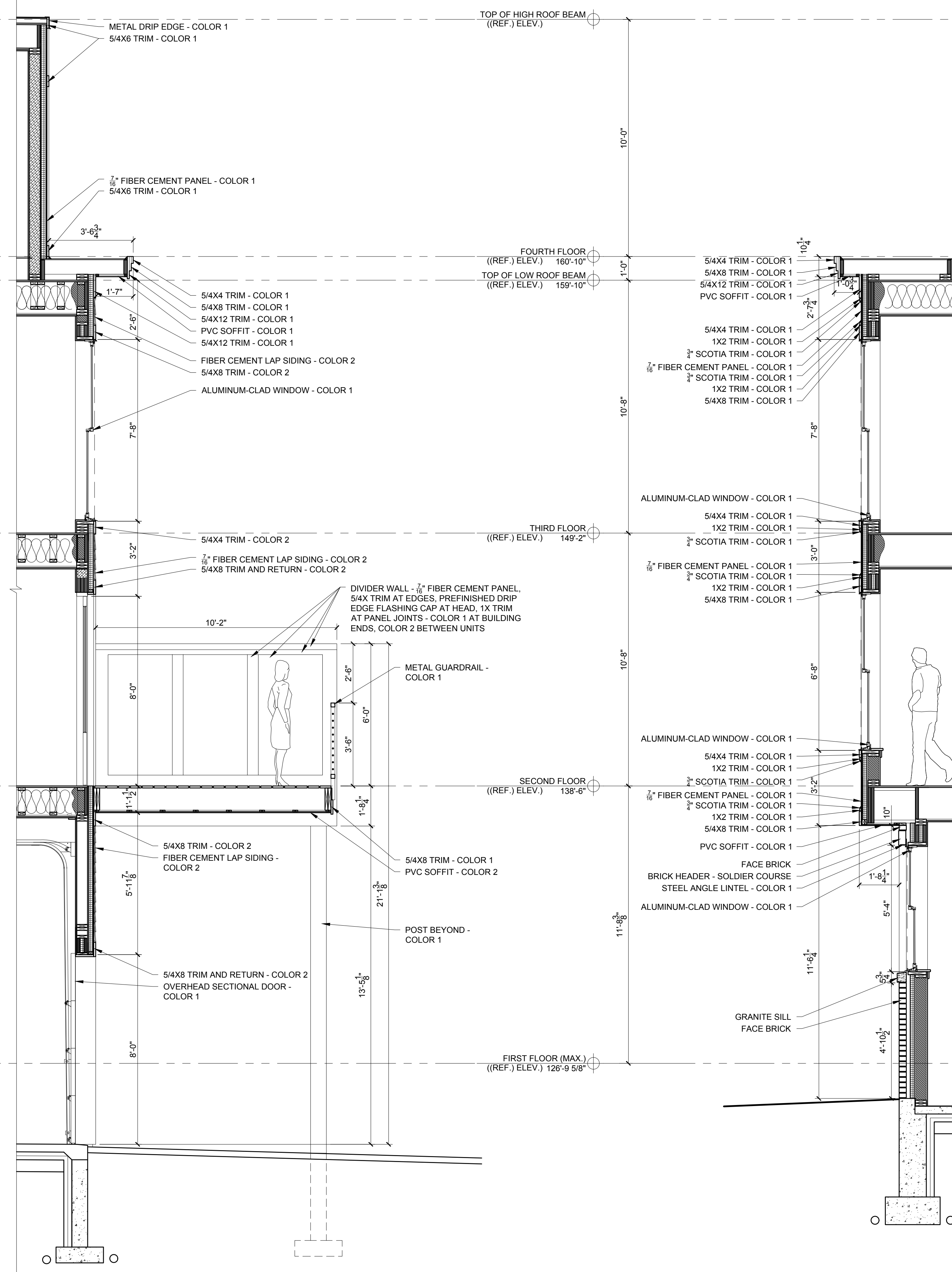
SHEET TITLE:

WALL SECTIONS

A3-10



3 TYP. EXTERIOR WALL SECTION AT WINTER STREET ENTRY
3/8" = 1'-0"



1 EXTERIOR WALL SECTION AT SPRING STREET BAY
3/8" = 1'-0"

WINTER STREET TOWNHOMES
WINTER STREET
PORTLAND, MAINE



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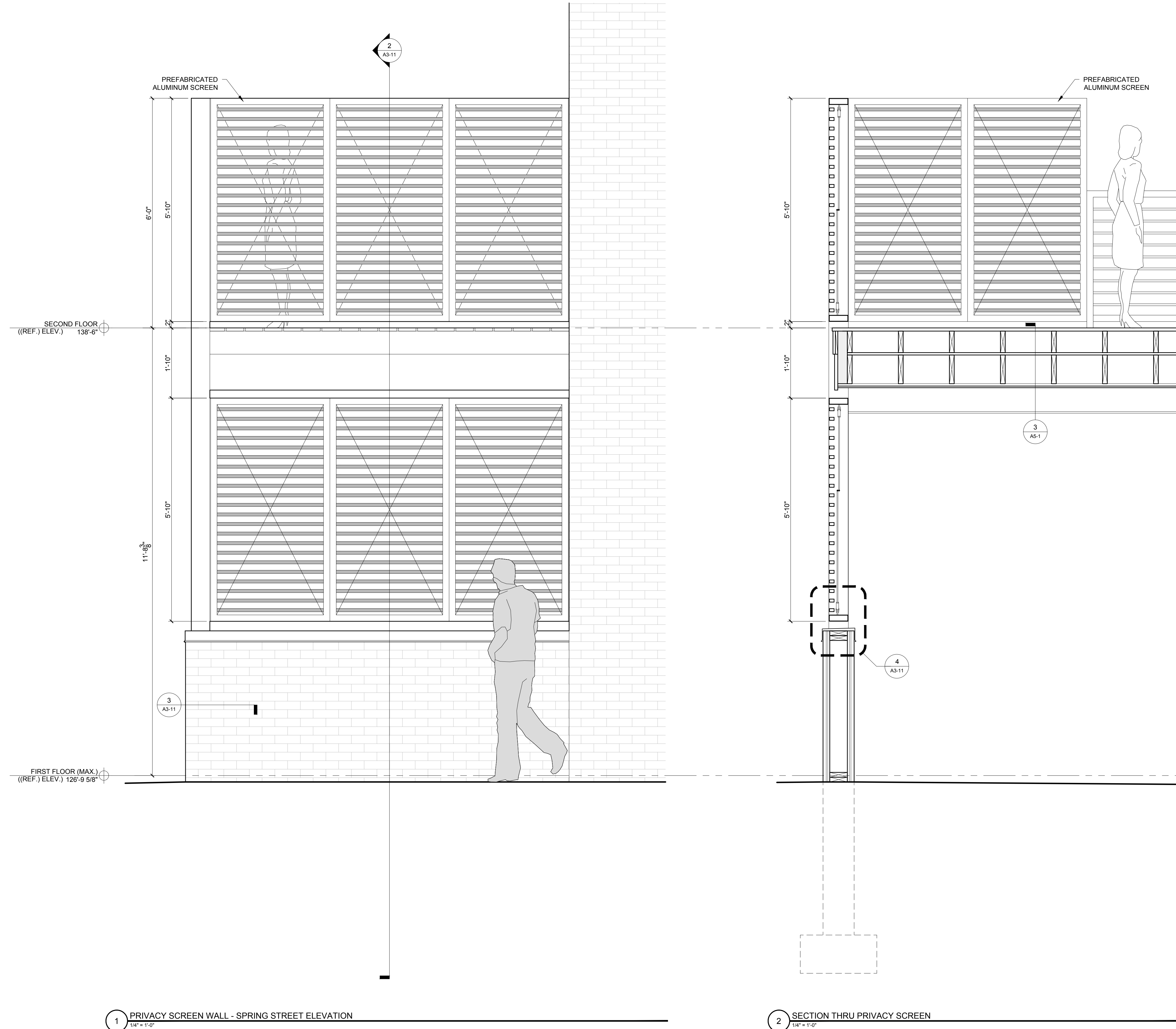
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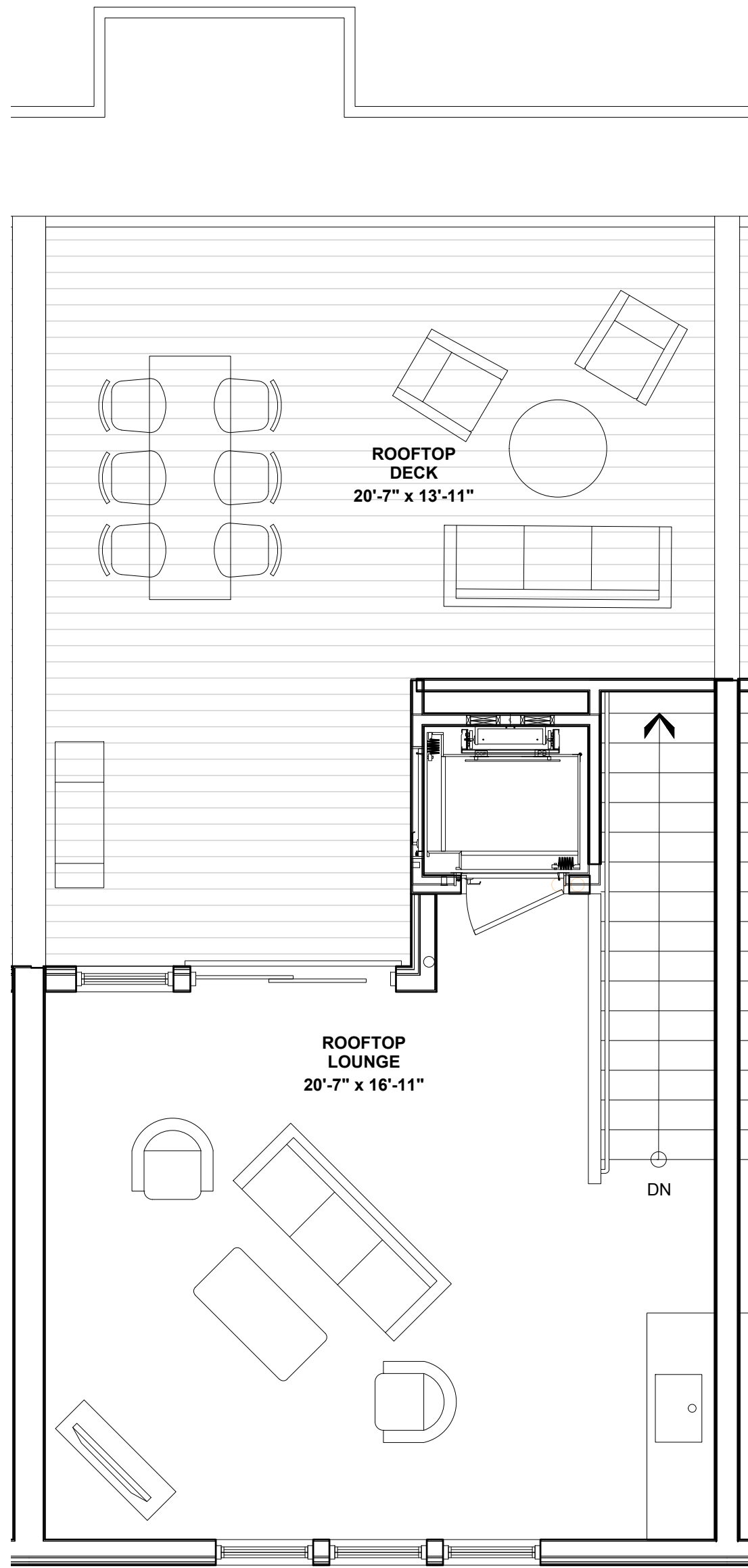
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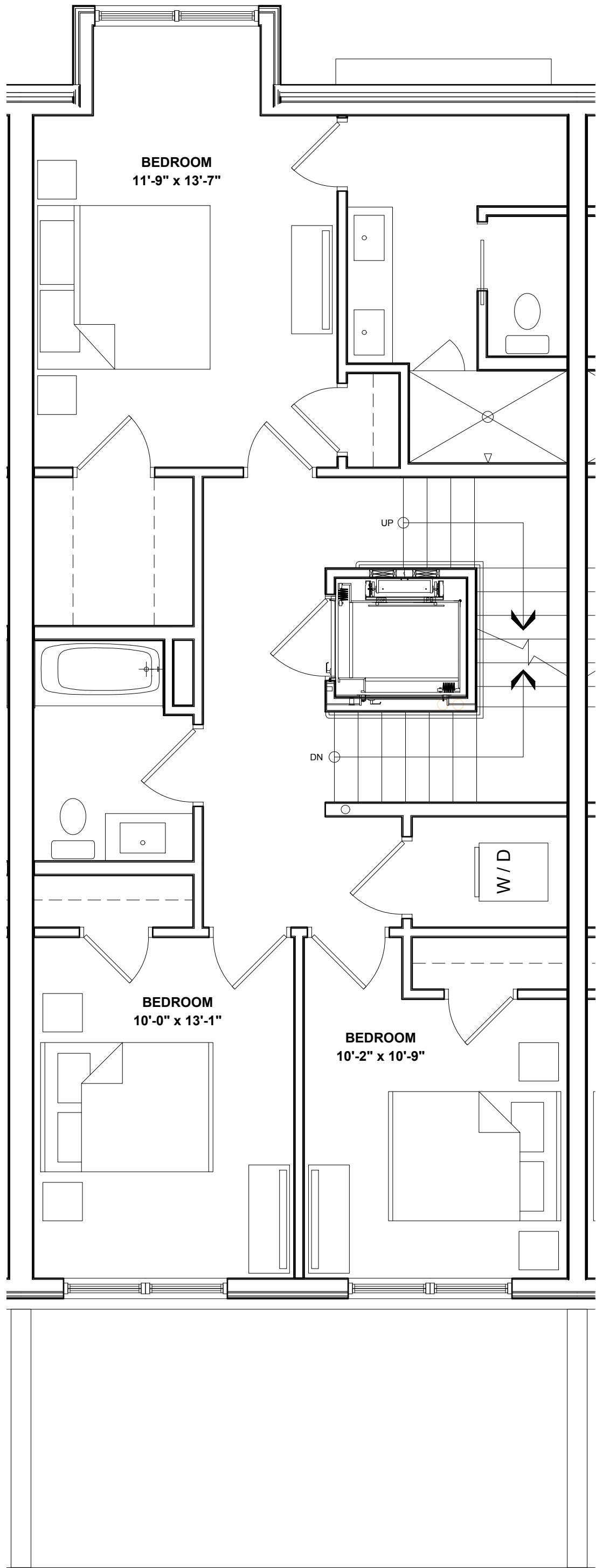
SHEET TITLE:
PRIVACY SCREEN
DETAILS

A3-11

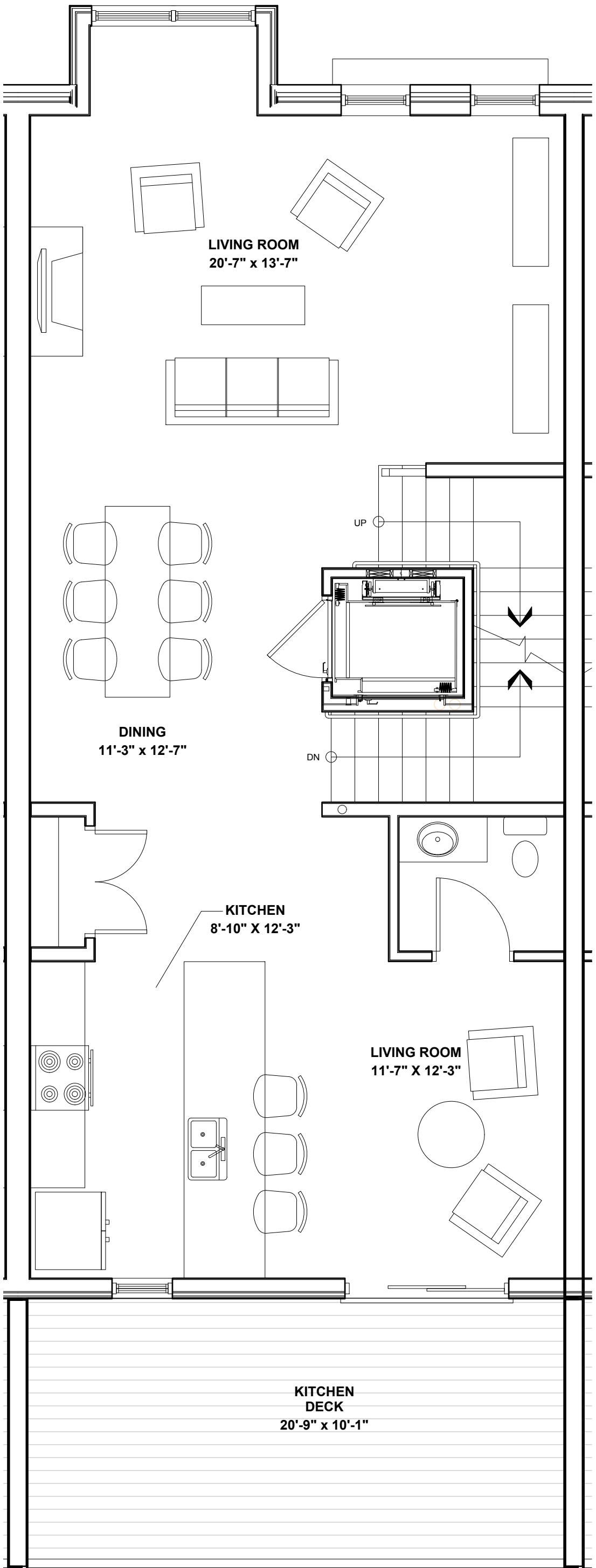




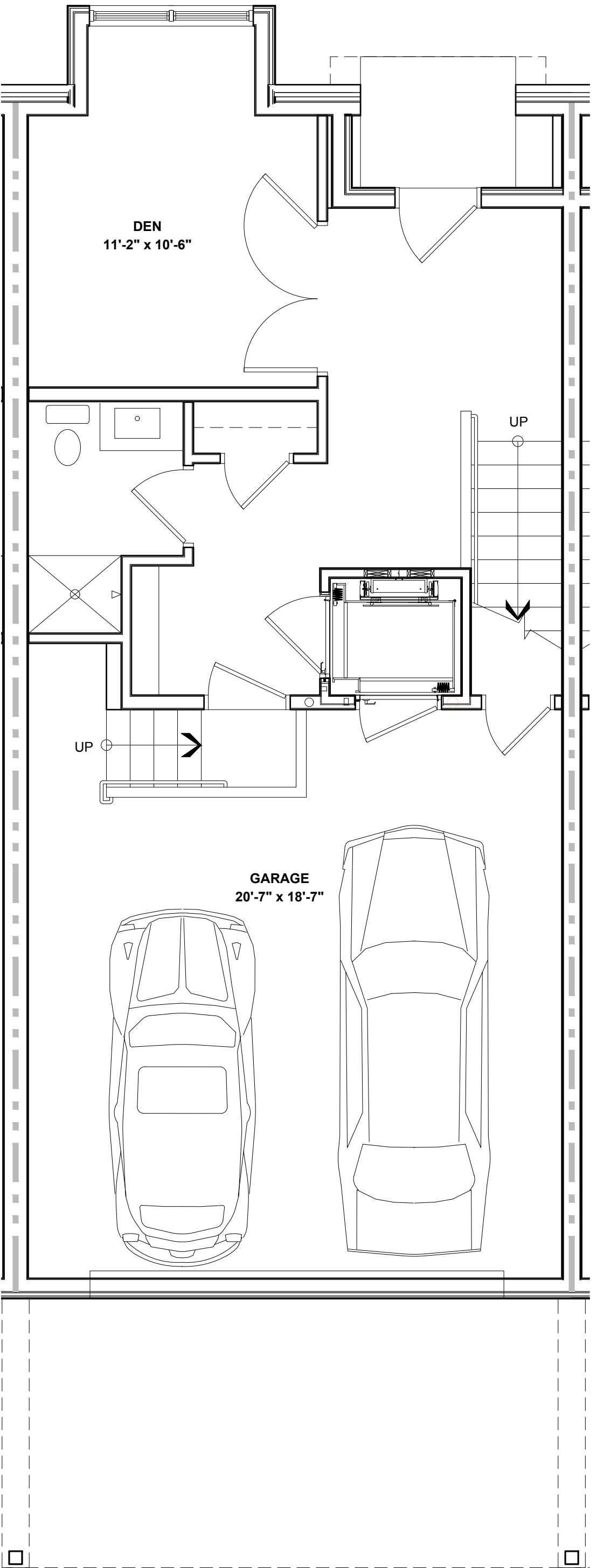
4 FOURTH FLOOR PLAN
1/4" = 1'-0"



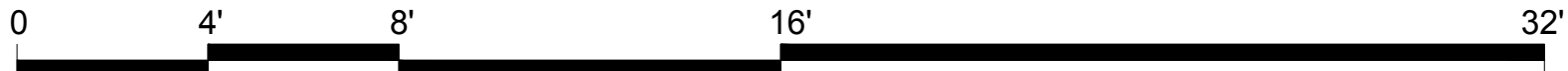
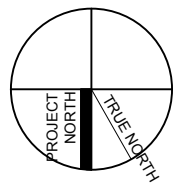
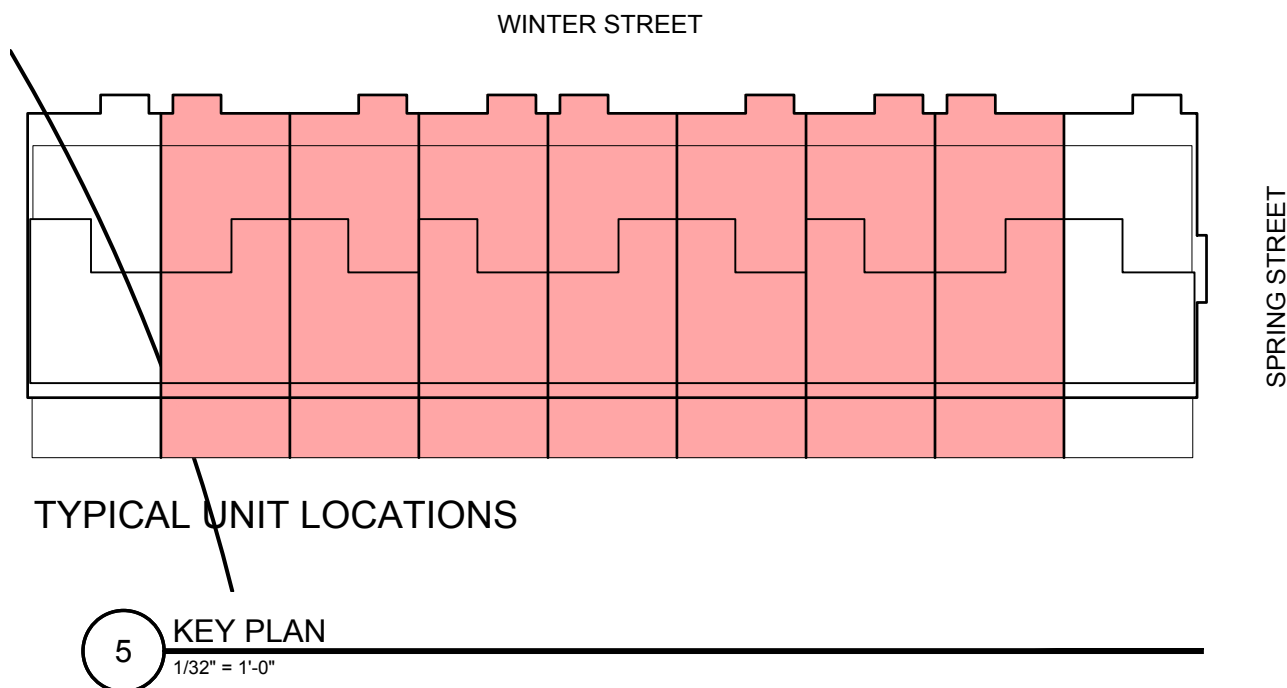
3 THIRD FLOOR PLAN
1/4" = 1'-0"



2 SECOND FLOOR PLAN
1/4" = 1'-0"



1 FIRST FLOOR PLAN
1/4" = 1'-0"



TYPICAL UNIT

PROGRESS PRINT ONLY
Not for Construction



T = TEMPERED GLASS
FG = FIBERGLASS
AL = ALUMINUM
DH = DOUBLE HUNG
AW = AWNING
LV = LOUVER
F = FIXED
GL = GLIDER

[illegible]

WINDOW NOTES:

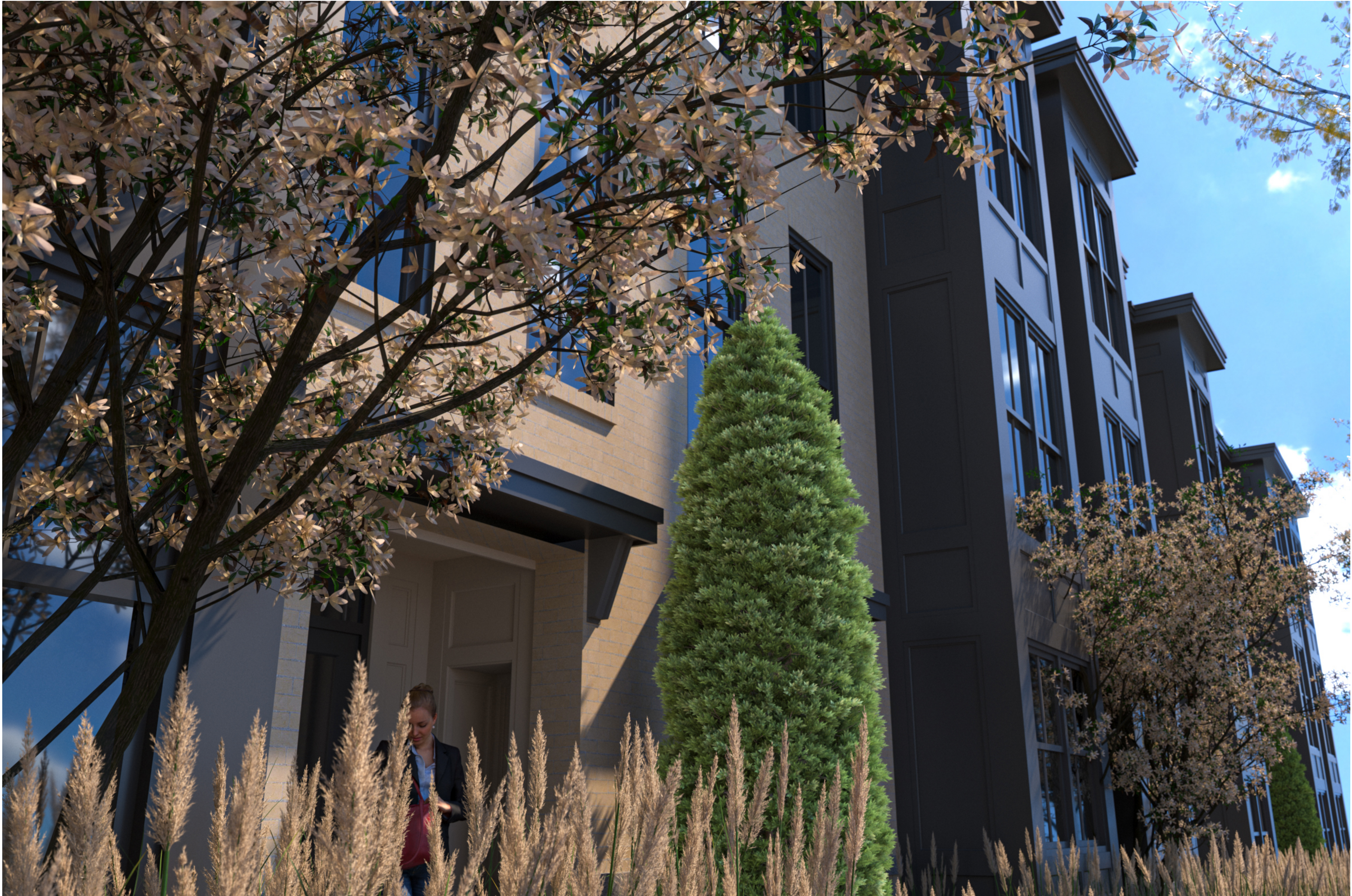
- 1.) COORDINATE AND ADJUST ROUGH OPENING DIMENSIONS TO ACCOMMODATE SILL PAN FLASHING SYSTEM
- 2.) ALL WINDOW UNITS AND MULTI-WINDOW UNIT COMBINATIONS TO MEET OR EXCEED DP-50 RATINGS FOR BOTH STRUCTURAL AND WATER RESISTANCE
- 2.) PROVIDE MULL REINFORCING AT ALL MULTI-UNIT WINDOWS AS REQUIRED TO ACHIEVE DP-50 RATING, WITH INSTALLATION BRACKETS
- 3.) FULL SCREENS ALL OPENINGS
- 4.) CONTRACTOR TO VERIFY THAT ALL EGRESS OPENINGS MEET EGRESS REQUIREMENTS
- 5.) ALL GLAZING LOCATED WITHIN 18" OF FINISHED FLOOR TO BE TEMPERED GLASS
- 6.) ALL EXTERIOR GLAZING TO BE INSULATED
- 7.) FRAME ALL OPENINGS WITH ELEVATIONS
- 8.) SEAL WINDOW TO ROUGH OPENING WITH LOW EXPANDING FOAMINSULATION - SEE DETAILS











WINTER STREET TOWNHOMES

NEWHEIGHT REDFERN, LLC
PORTLAND, MAINE

LEGEND

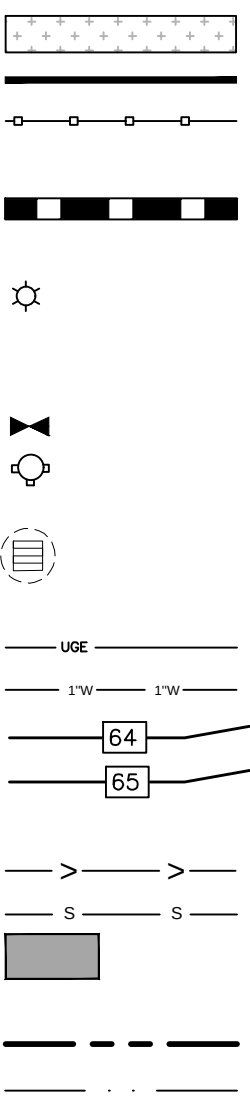
EXISTING

REFER TO THE
EXISTING
CONDITIONS PLAN
FOR ADDITIONAL
INFORMATION



PROPOSED

UNDERDRAIN
UTILITY PAVEMENT CUTS
STRIPING
SEDIMENTATION BARRIER
EDGE OF EX. PAVEMENT
CURB
SIGN
LAMP OR LIGHT POLE
UTILITY POLE
GUY WIRE
WATER VALVE
FIRE HYDRANT
SEWER MANHOLE
CATCH BASIN
DRAIN MANHOLE
UNDERGROUND ELECTRIC LINE
UNDERGROUND WATER LINE
MINOR CONTOURS (1 FT)
MAJOR CONTOURS (5 FT)
GAS LINE
STORM DRAIN LINE
SEWER LINE
EXISTING/PROPOSED BUILDING
OVERHEAD ELECTRICAL/TELEPHONE/CABLE
PROPERTY LINE
SETBACKS



INDEX

- C-01 COVER SHEET & LEGEND
- C-02 GENERAL NOTES
- EX EXISTING CONDITIONS PLAN - BY OWEN HASKELL
- C-03 CONSTRUCTION MANAGEMENT PLAN
- C-10 SITE PLAN
- PLAT SUBDIVISION PLAT
- L-1 LANDSCAPE PLAN BY ACETO LANDSCAPE ARCHITECTURE
- C-20 UTILITY PLAN
- C-30 GRADING & DRAINAGE PLAN
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- C-41 SITE DETAILS - 2
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CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

UTILITIES

SEWER

DEPARTMENT OF PUBLIC WORKS (DPW)
250 CANCO ROAD
PORTLAND, MAINE 04101
CONTACT: KEITH GRAY, P.E.
(207) 874-8834



WATER

PORTLAND WATER DISTRICT
225 DOUGLASS STREET
PO BOX 3553
PORTLAND, MAINE 04104
ATTN: MEANS DIVISION
(207) 774-5961



ELECTRIC

CENTRAL MAINE POWER COMPANY (CMP)
162 CANCO ROAD
PORTLAND, MAINE 04103
CONTACT: JAMIE COUGH
(207) 828-2882



TELEPHONE

CONSOLIDATED COMMUNICATIONS
(FORMERLY FAIRPOINT)
45 FOREST AVENUE
PORTLAND, MAINE 04101
CONTACT: PAT MORRISON
(207) 745-9363



CABLE

SPECTRUM CABLE
118 JOHNSON ROAD
PORTLAND, MAINE, 04102
CONTACT: MARK PELLETIER
(877) 546-0962



NATURAL GAS

UNITIL SERVICE CORP
1075 FOREST AVENUE
PORTLAND, ME 04103
CONTACT: BRIDGET HARMON
(207) 541-2536



PROJECT TEAM

DEVELOPER

NEWHEIGHT REDFERN, LLC
217 COMMERCIAL STREET, SUITE 205
PORTLAND, ME 04101
CONTACT: ERIN COOPERRIDER
(207) 720-0181

CIVIL ENGINEER

ACORN ENGINEERING, INC.
65 HANOVER STREET
PORTLAND, MAINE 04101
CONTACT: WILL SAVAGE, P.E.
(207) 775-2655



ARCHITECT

RYAN SENATORE ARCHITECTURE
500 CONGRESS STREET, SECOND FLOOR
PORTLAND, MAINE 04101
CONTACT: RYAN SENATORE, R.A.
(207) 650-6414



SURVEYOR

OWEN HASKELL, INC.
FALMOUTH, MAINE
CONTACT: JOHN C. SCHWANDA, P.L.S.
(207) 774-0424



OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS

LANDSCAPE ARCHITECT

ACETO LANDSCAPE ARCHITECTURE + URBAN DESIGN
565 CONGRESS STREET, SUITE 310
PORTLAND, MAINE 04101
CONTACT: NICK ACETO, R.L.A.
(207) 221-3390

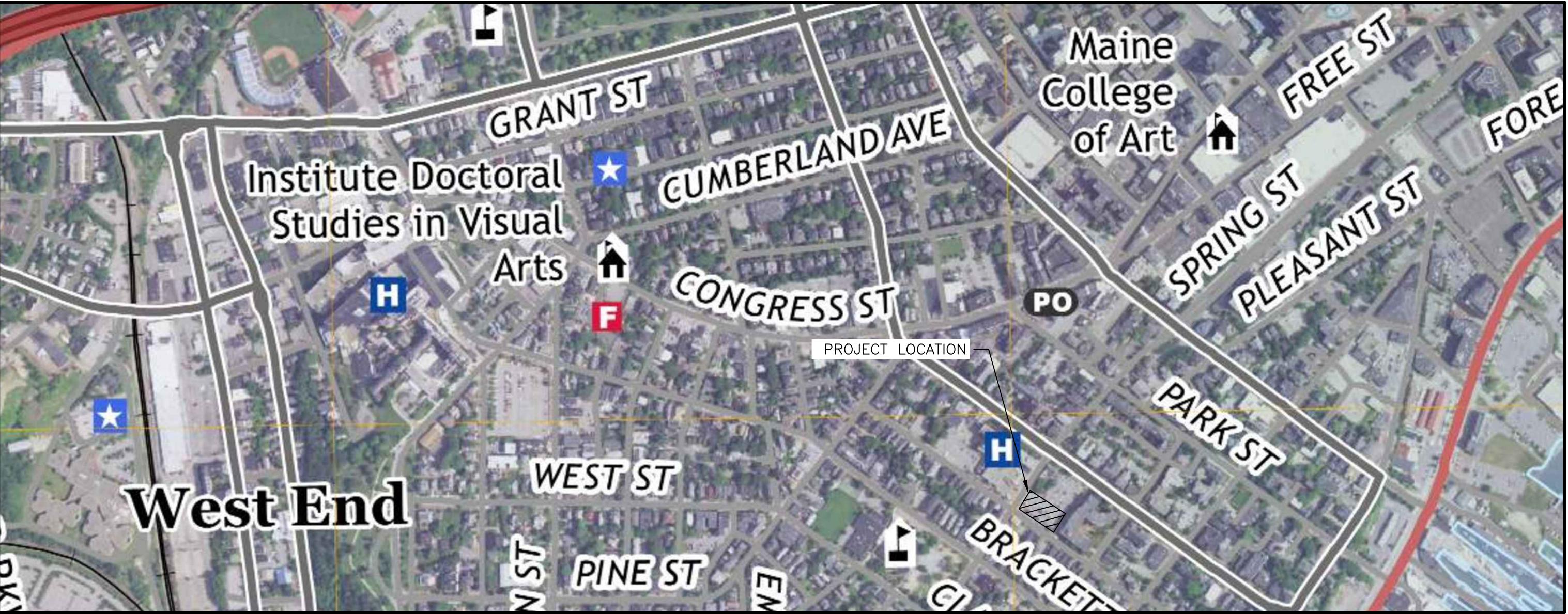


ABBREVIATIONS

PARTIAL LIST OF ABBREVIATIONS AND THEIR CORRESPONDING MEANING. PLEASE
CONTACT THE ENGINEER FOR ANY CLARIFICATION

APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CB	CATCH BASIN
CF	CUBIC FOOT
CIP	CAST IN PLACE
CL	CENTERLINE
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARD
DI	DUCTILE IRON PIPE
DIA.	DIAMETER
DIM.	DIMENSION
EA.	EACH
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FT.	FEET
HDPE	HIGH DENSITY POLY ETHYLENE
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
MDEP	MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
M.E.P	MECHANICAL, ELECTRICAL, PLUMBING DESIGNER
MFG.	MANUFACTURED
MH	MANHOLE
MIN.	MINIMUM
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OHE/T/C	OVERHEAD ELECTRIC/TELEPHONE/CABLE
PC	PRECAST
PE	PROFESSIONAL ENGINEER
PL	PROPERTY LINE
PLS	PROFESSIONAL LAND SURVEYOR
PROP.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PWD	PORTLAND WATER DISTRICT
R	RADIUS
RD	ROOF DRAIN
RET.	RETAINING
ROW	RIGHT OF WAY
S	SLOPE
SD	STORM DRAIN
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SMH	SEWER MANHOLE
SPEC.	SPECIFICATION
TC	TOP OF CURB
TW	TOP OF WALL
TYP.	TYPICAL
UD	UNDERDRAIN
UGE	UNDERGROUND ELECTRIC
VIF	VERIFY IN FIELD

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION



VICINITY MAP

SCALE: 1:500

ISSUED FOR

BY

DATE

SITE PLAN

SUBMISSION

12/3/21

COVER SHEET & LEGEND

WINTER STREET TOWNHOMES
PORTLAND, MAINE

NEWHEIGHT REDFERN, LLC
167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

ACORN ENGINEERING, INC.

ENGINEERING, INC.

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

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

FILE:

1140.1_CIVIL

JN:

1140.1

SCALE:

AS NOTED

DESIGNED BY:

MKT

DRAWN BY:

MKT

CHECKED BY:

PFH

STATE OF MAINE

PETER F. HEIL

15318

REGISTERED PROFESSIONAL ENGINEER

DRAWING NO.

C-01

1. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.

- CIVIL SITE NOTES:

- SPECIAL INSPECTION NOTES

5. SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

- 5.1. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINE ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.

- 5.2. THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT AND ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES. THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, AND NET CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.

- 5.3. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN TEN DAYS OF THE FINAL INSPECTION STATING WHETHER THE WORK REQUIRING A SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE AND BELIEF, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE. WORK NOT IN COMPLIANCE SHALL BE NOTED IN THE REPORT.

- 5.4. SPECIAL INSPECTOR SHALL BE EMPLOYED BY REDFERN AND COORDINATED BY THE CONTRACTOR.

1. MONUMENTS DELINEATING PROPERTY LINES OR RIGHT OF WAYS SHALL NOT BE DISTURBED DURING CONSTRUCTION OPERATIONS. IN THE CASE A MONUMENT IS DISTURBED, AT THE CONTRACTOR'S EXPENSE, THE MONUMENT SHALL BE RESET TO ITS ORIGINAL LOCATION AND ELEVATION BY A LICENSED PROFESSIONAL LAND SURVEYOR.

- ## PERMITTING NOTES

- GRADING AND DRAINAGE NOTES:

- EROSION CONTROL NOTES:

7. REFER TO THE EROSION CONTROL DETAILS & NOTES FOR ADDITIONAL INFORMATION.

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEST PIT TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES TO COORDINATE WITH THE PROPOSED CONNECTIONS OR CROSSING. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.

2. CONTRACTOR TO BYPASS EXISTING SEWER FLOW CONTROL AT CONNECTION TO EXISTING SYSTEM AT NO ADDITIONAL COST.

3. CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, CONDUCT EXPLORATORY EXCAVATIONS AT LOCATIONS WHERE PROPOSED EXCAVATION WILL INTERSECT WITH EXISTING UTILITIES, PRIOR TO THE ORDERING OF STRUCTURES.

4. ALL NEW SANITARY MANHOLES SHALL BE VACUUM TESTED BEFORE BACKFILLING. TESTING SHALL BE COMPLETED IN ACCORDANCE WITH TECHNICAL REPORT #16 (TR-16): GUIDES FOR THE DESIGN OF WASTEWATER TREATMENT WORKS, PREPARED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION.

5. SEWER MANHOLES SHALL BE 4' ID UNLESS OTHERWISE STATED ON THE PLANS.

6. CONTRACTOR TO PROVIDE 5.5' OF COVER FROM TOP OF PIPE TO FINISH GRADE FOR WATER MAINS.

7. THRUST BLOCKS SHALL BE USED FOR THRUST RESTRAIN ON WATER MAINS. DETAIL AND LIMITS FOR THRUST BLOCKS ARE SHOWN WITHIN THE PLAN SET.

8. WATER INFRASTRUCTURE SHALL BE TESTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT DOCUMENT "WATER AND SEWER CONSTRUCTION SPECIFICATIONS AND PROCEDURE", MOST RECENT REVISION.

9. ALL REQUIRED FITTINGS FOR THE WATER MAIN ARE NOT SHOWN ON DRAWINGS. CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY FITTINGS REQUIRED TO CONSTRUCT THE WATER MAIN IN ACCORDANCE WITH CITY OF PORTLAND, STATE OF MAINE AND AMERICAN WATER WORKS ASSOCIATION STANDARDS AND REGULATIONS.

10. CONTRACTOR SHALL COORDINATE WORK REGARDING ANY WATER MAIN CONNECTION AND WATER MAIN SHUTDOWN WITH THE PORTLAND WATER DISTRICT AT LEAST SEVEN (7) DAYS PRIOR TO CONSTRUCTION.

11. ALL WATER PIPE INSTALLATION SHALL CONFORM WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS AND PROCEDURES, MOST RECENT EDITION.

12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

13. SEWER, GAS, TELEPHONE, ELECTRICITY, CABLE, WATER AND ANY OTHER UTILITY CONNECTIONS SHALL BE REVIEWED BY PLUMBING, ELECTRICAL, AND MECHANICAL DESIGNER FOR CONSISTENCY WITH THEIR PLANS PRIOR TO CONSTRUCTION.
14. COORDINATE EXIT POINT FOR SECONDARY UTILITY SERVICES WITH THE ARCHITECT/ELECTRICAL ENGINEER. SECONDARY LINE LOCATIONS NOT PROVIDED BY ACORN WITHIN THE UTILITY PLAN.

15. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL THE NECESSARY PERMITS FOR THE INSTALLATION OF THE UTILITIES AND STORMDRAINS WITHIN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE CITY IN ACCORDANCE WITH THE CITY OF PORTLAND TECHNICAL MANUAL PRIOR TO ANY WORK.
16. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL AT NO EXTRA EXPENSE TO THE OWNER.

17. ALL PIPE LINES SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS INDICATED ON THE DRAWINGS. NO CRESTS OR SAGS IN THE PIPING WILL BE PERMITTED. ALL HORIZONTAL AND VERTICAL BENDS IN PRESSURIZED PIPE LINES SHALL BE SUITABLY RESTRAINED WITH THRUST BLOCKS OR RETAINER GLANDS. RETAINER GLANDS ALLOWED FOR DUCTILE IRON PIPE ONLY. PROVIDE ALL BENDS, HORIZONTAL AND VERTICAL, AS REQUIRED TO MEET THE GRADES AND ALIGNMENTS INDICATED ON THE DRAWINGS.

18. ALL WASTEWATER PIPING, EXCLUDING BUILDING DRAINS, AND ALL PRESSURIZED PIPING, TO INCLUDE WATER MAINS, INSTALLED BENEATH STRUCTURES SHALL BE ENCASED IN CONCRETE.

19. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS AND ADDITIONAL PIPE AS REQUIRED TO ENSURE A COMPLETE AND PROPERLY FUNCTIONING CONNECTION. CONTRACTOR TO VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. ADAPTERS AND FITTINGS ARE INCIDENTAL TO THE PIPE INSTALLATION.

20. WHENEVER POSSIBLE, WATER LINES SHOULD BE INSTALLED OVER WASTEWATER LINES. A MINIMUM SEPARATION OF 18 INCHES BETWEEN THE BOTTOM OF THE WATER LINE AND THE TOP OF THE WASTEWATER LINE SHALL BE MAINTAINED WHERE POSSIBLE. WHERE A WATER LINE CROSSES UNDER THE WASTEWATER LINE, A FULL LENGTH OF WASTEWATER PIPE SHALL BE CENTERED ABOVE THE WATER LINE SO THAT BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE,

21. THE CONTRACTOR SHALL BE ANTICIPATE THAT THE NATIVE SILT AND CLAY SOILS WILL NOT BE SUITABLE FOR PIPE TRENCH BACKFILL IN PAVED AREAS.

22. GROUNDWATER SHALL BE CONTROLLED TO A LEVEL OF AT LEAST ONE FOOT BELOW SUBGRADE OF THE PIPE OR STRUCTURE. THE CONTRACTOR SHALL MAINTAIN THE LOWERED GROUNDWATER LEVEL UNTIL CONSTRUCTION HAS BEEN COMPLETED TO SUCH AN EXTENT THAT THE STRUCTURES OR PIPES WILL NOT BE FLOATED OR OTHERWISE DAMAGED.

23. EXCAVATION TO SUBGRADE IN NATIVE SILT AND CLAY SHALL BE COMPLETED WITH A SMOOTH EDGE BUCKET TO MINIMIZE SUBGRADE DISTURBANCE.

24. ALL ADJUSTMENTS TO FINISHED GRADE ARE TO BE COMPLETED BY THE CONTRACTOR. THE CONTRACTOR SHALL CONFIRM STRUCTURES THAT REQUIRE ADJUSTMENT WITH THE ENGINEER OR OWNERS REPRESENTATIVE PRIOR TO ADJUSTING FRAMES.

1. THE FOLLOWING ITEMS ARE TYPICAL OF MATERIAL WHICH MAY BE ON SITE:

- ROCK AND CONCRETE FOUNDATIONS
- CONCRETE SLABS
- BITUMINOUS ASPHALT PAVEMENT
- CONCRETE PADS AND BLOCKS
- FENCE POST AND FENCING
- UNDERGROUND UTILITY LINES
- ABOVE AND OR BELOW FUEL OIL AND PROPANE GAS TANKS
- STORM DRAIN PIPES AND APPURTENANCE STRUCTURES
- OTHER TRASH & MISCELLANEOUS SOLID WASTES

2. THE CONTRACTOR IS ADVISED TO VISIT THE SITE TO CONFIRM DEMOLITION ITEMS SINCE THE LIST IS NOT INCLUSIVE OF THE SITE CONDITIONS WHICH MAY BE ENCOUNTERED

3. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTORS SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" DEMONSTRATING PROPER DISPOSAL OF ALL MATERIALS.

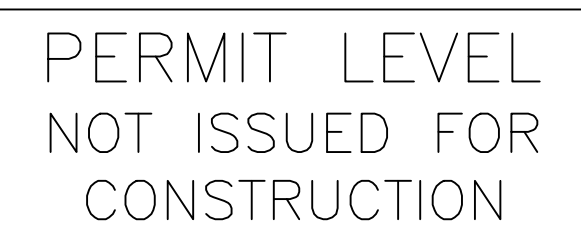
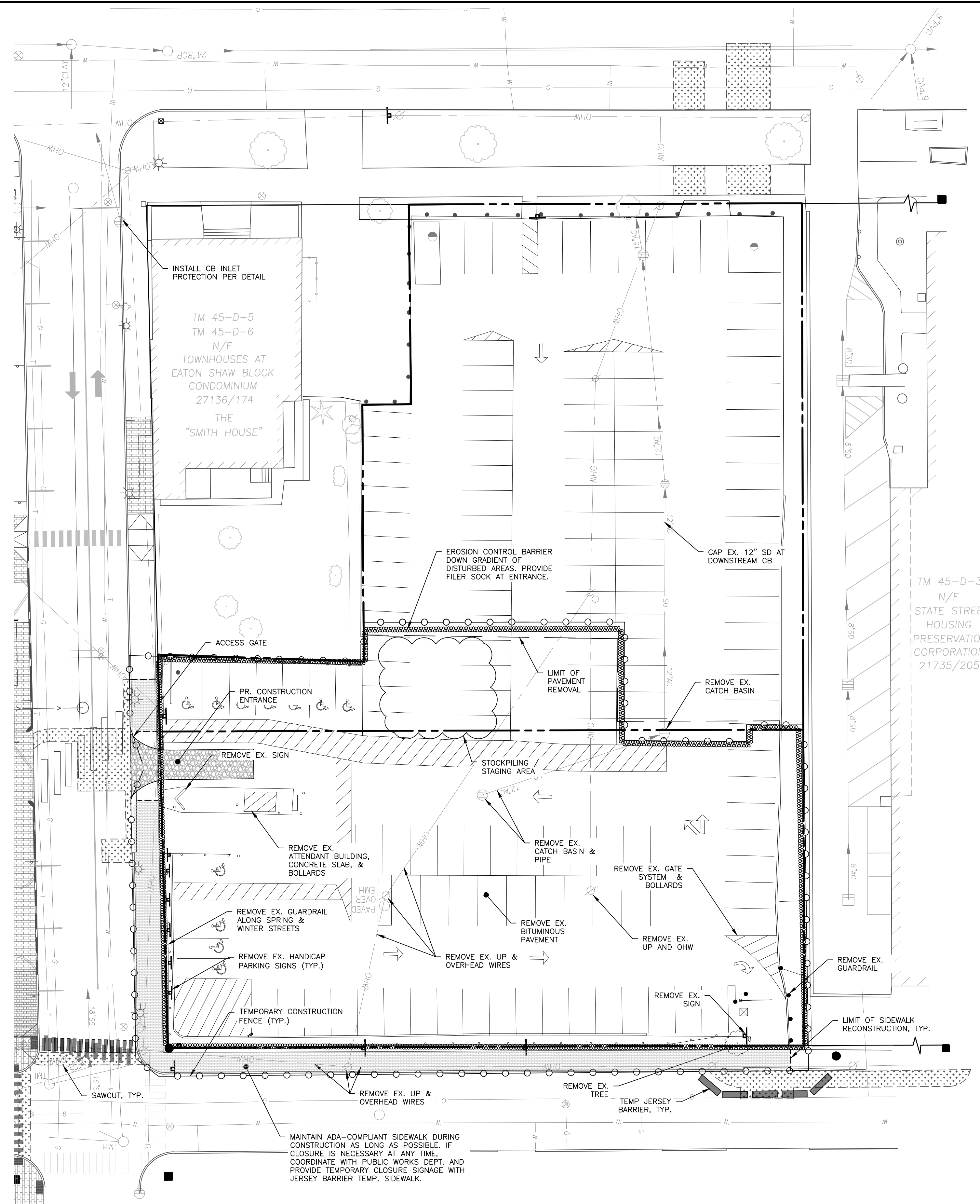
4. THE CLIENT HAS NOT REQUESTED NOR HAS ACORN COMPLETED A PHASE I – ENVIRONMENTAL SITE ASSESSMENT FOR THE PROPERTY.

PERMIT LEVEL
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CONSTRUCTION

Page 361

1. EXISTING ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFF-SITE.
2. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTOR SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" TO DEMONSTRATE PROPER DISPOSAL OF ALL MATERIALS.
3. SITE DEMOLITION SHALL NOT OCCUR UNTIL PROPER ABATEMENT PROCEDURES HAVE OCCURRED. ABATEMENT, IF NECESSARY, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE POTENTIAL CONFLICT WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
5. ALL CONSTRUCTION SIGNAGE IS TEMPORARY AND WILL BE REMOVED AT PROJECT COMPLETION. FINAL SIGNAGE, WORDING AND PLACEMENT LOCATION TO BE ACCEPTED BY THE CITY.
6. SEDIMENT BARRIERS TO BE PLACED DIRECTLY ON THE FRONT AND SIDE PROPERTY LINES, DOWN GRADIENT OF THE PROPOSED PROJECT WORK PER DETAIL. FENCES ARE OFFSET OF THE PROPERTY LINES AS SHOWN ON THE PLAN.
7. CONTRACTOR SHALL PURCHASE AND INSTALL TEMPORARY EROSION CONTROL MEASURES AT THE LOCAL AND REGIONAL SCALE. CONTRACTOR SHALL PLACE CATCH BASIN INLET PROTECTION ON CATCH BASINS AND FIELD INLETS DOWN-GRADIENT OF ALL NON-STABILIZED SURFACES, PER DETAIL.
8. DEMOLITION PLAN IS NOT INCLUSIVE OF ALL EXISTING ITEMS TO BE REMOVED AS PART OF SITE CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, UTILITIES, WORK WITHIN THE ROW, ETC. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF PORTLAND REGULATIONS.
9. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING OFF-SITE PARKING TO EMPLOYEES; ON-SITE PARKING WILL NOT BE PROVIDED OR GUARANTEED. CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING THE APPROPRIATE PERMITS FROM THE CITY FOR CLOSURE OF CITY STREETS AND SIDEWALKS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR SNOW REMOVAL ALONG CONSTRUCTION FENCE AND GATE.
11. REMOVAL OF UNDERGROUND FUEL TANKS TO BE IN ACCORDANCE WITH MAINE DEP CHAPTER 691 REGULATIONS.

1. CONTRACTOR TO INSTALL EROSION AND SEDIMENTATION CONTROLS AT THE ONSET OF CONSTRUCTION
2. INSTALL TEMPORARY CONSTRUCTION FENCE & CONSTRUCTION ENTRANCE
3. REMOVE ONSITE PAVEMENT, CONCRETE, AND INDICATED SITE FEATURES
4. REMOVE ONSITE STORM STRUCTURES
5. REMOVE ONSITE OVERHEAD POWER – TO BE COORDINATED WITH CMP.

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CONSTRUCTION MANAGEMENT PLAN

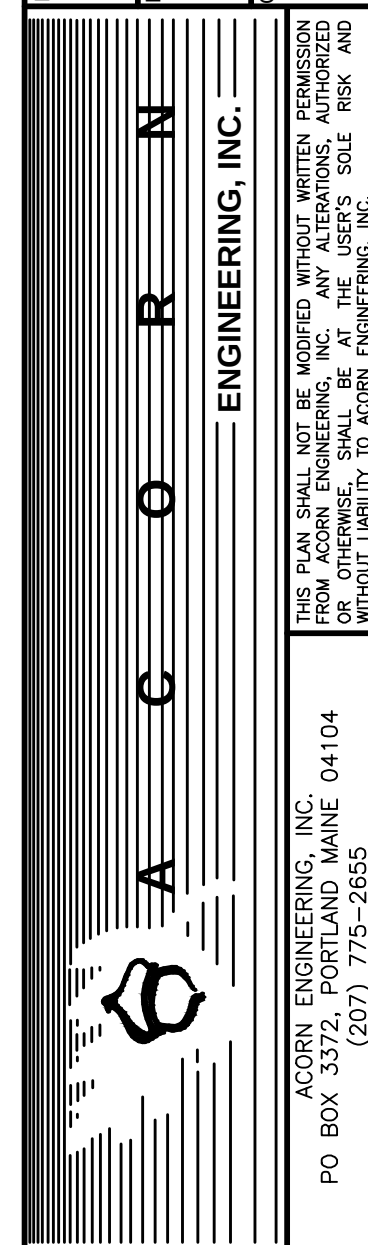
WINTER STREET TOWNHOMES
PORTLAND, MAINE

NEWHEIGHT REDFERN, LLC
167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

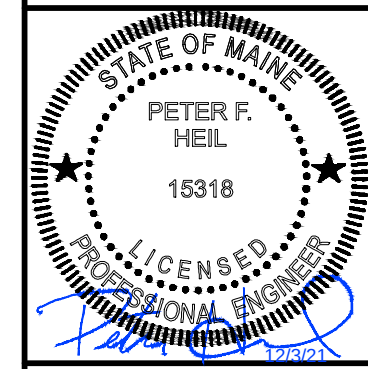
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PROJECT NAME:

CLIENT:



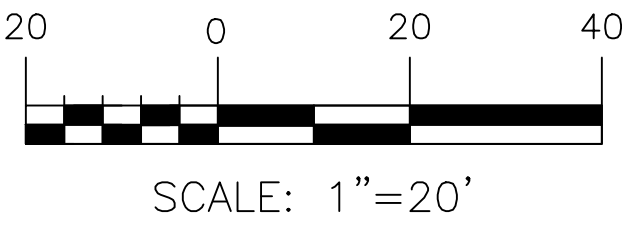
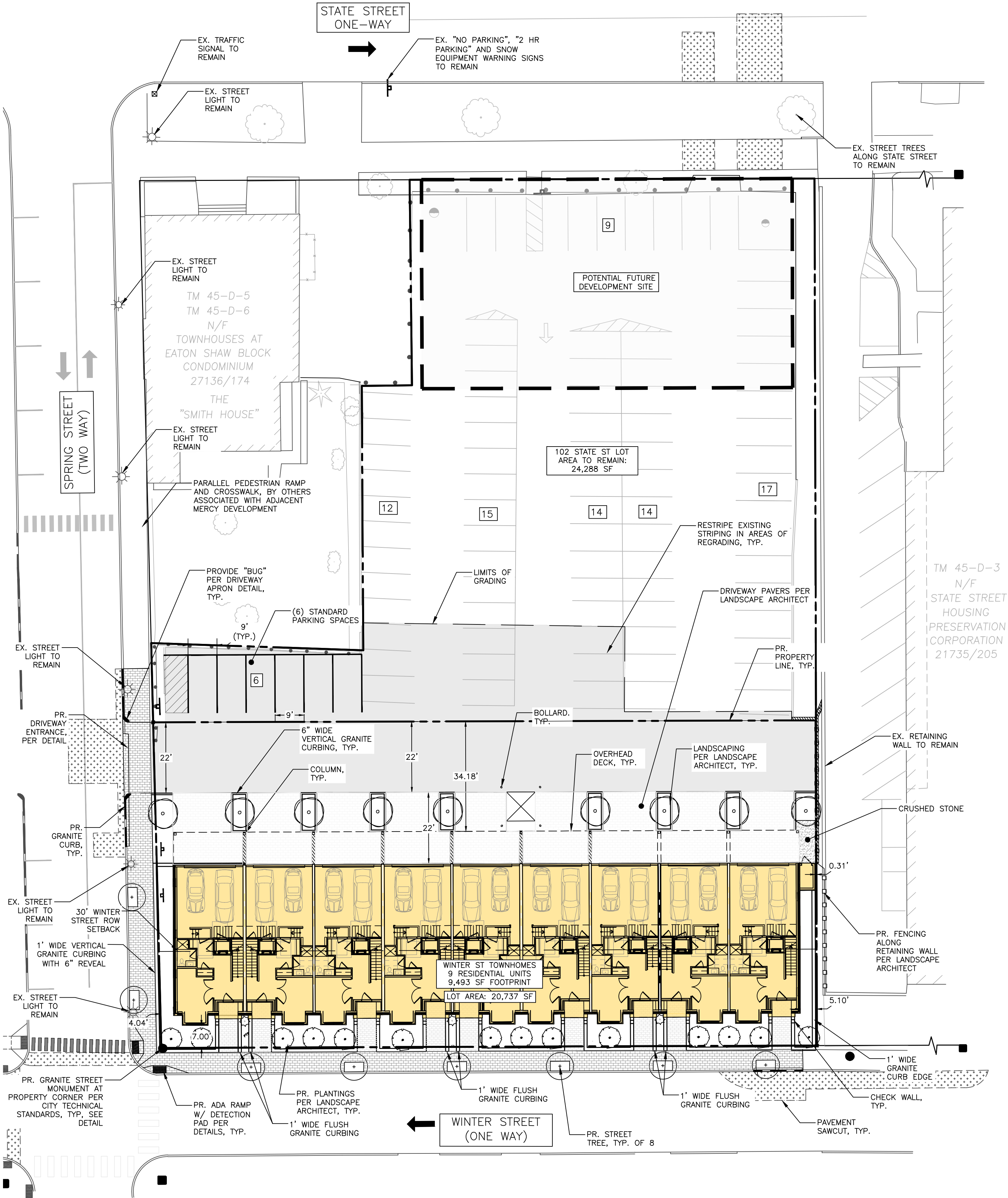
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DRAWING NO.
C-03

SPACE AND BULK STANDARDS			
ZONE: B-3	REQUIRED	PROPOSED - WINTER ST LOT	PROPOSED - 102 STATE ST
MINIMUM LOT AREA	NONE	20,737 SF	24,288 SF
MIN LOT FRONTAGE	15'	204'	126'
MIN LOT WIDTH	NONE	204'	126'
MAX HEIGHT	85' *	37.7' / 48.4'	-
STRUCTURE SETBACKS			
FRONT (MAX)	5'	7'	-
SIDE (MIN)	NONE	0.3'	-
REAR (MIN)	NONE	34.2'	-
MAX IMPERVIOUS COVERAGE	100%	91%	93%
OFF STREET PARKING	9	27	88
NET RESIDENTIAL DENSITY		9	-
* 45' MAX HEIGHT WITHIN 30' OF WINTER STREET RIGHT OF WAY.			

PARKING SUMMARY	
	# PARKING SPACES
EXISTING	144
STANDARD - NORTH PARCEL (9'x18')	87
COMPACT - NORTH PARCEL (9'x16')	0
ADA - NORTH PARCEL (8'x18')	0
STANDARD - SOUTH PARCEL (9'x18')	18
COMPACT - SOUTH PARCEL (9'x16')	9
ADA - SOUTH PARCEL (8'x18')	0
TOTAL PROPOSED SPACES	114



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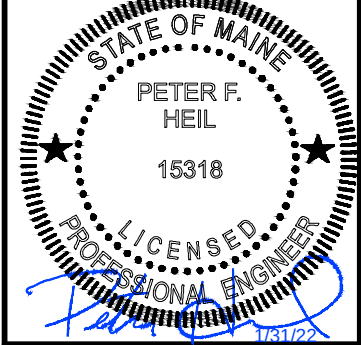
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CSS SUBMISSION	DATE
SITE PLAN SUBMISSION	DATE
PARKING LAYOUT	DATE

DRAWING NAME:	SITE PLAN
PROJECT NAME:	WINTER STREET TOWNHOMES PORTLAND, MAINE
CLIENT:	NEWHEIGHT REDFERN, LLC 167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

ACCORD ENGINEERING, INC.
100 BOX 3372, PORTLAND, MAINE 04104
(207) 775-2655

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CHECKED BY:	PFH

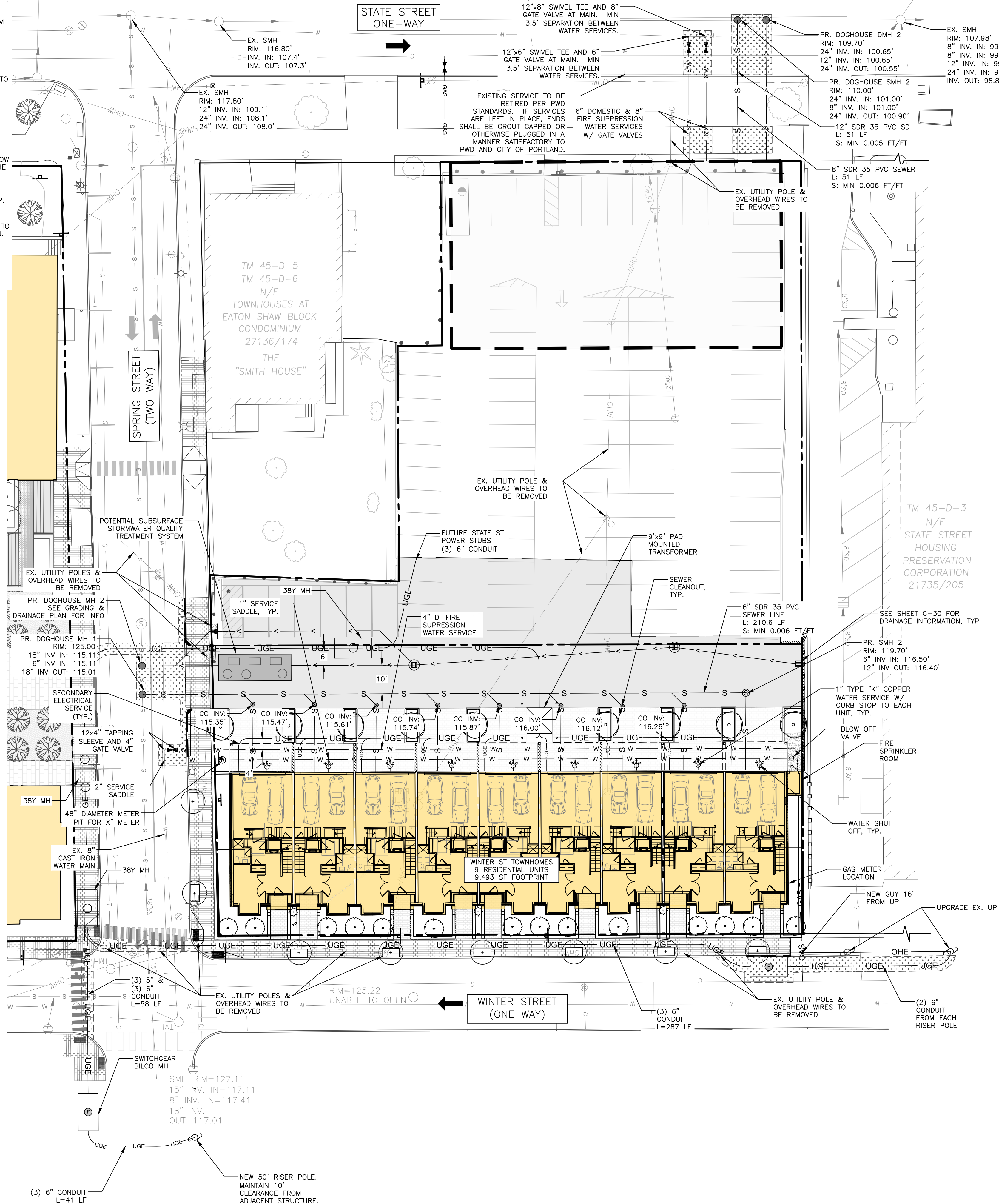


DRAWING NO.
C-10

1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELED UPON AS EXACT OR COMPLETE. CONTRACTOR MUST VERIFY AND CORROBORATE ALL UTILITY COMPANY AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR IS TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
3. FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
4. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONDITIONS WITHIN THE BUILDING.
5. SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
6. WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FUTURE METERING OPTION. METER TO BE ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE PORTLAND WATER DISTRICT AND CITY OF PORTLAND.
7. GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E. AND IN ACCORDANCE WITH UNTIL.
8. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINAIALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER AND TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO BUILDING. ALL ELECTRIC CONSTRUCTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
9. CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY CHARTER COMMUNICATIONS AND FAIRPOINT PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.
10. PER THE CITY OF PORTLAND DEPARTMENT OF PUBLIC WORKS, STATE STREET IS SCHEDULED TO BE PAVED IN 2022, UTILITY WORK AND ANY NECESSARY CURB WORK WITHIN STATE STREET SHOULD BE COMPLETED PRIOR TO PAVING.

MINIMUM HORIZONTAL UTILITY SEPARATION					
UTILITY	UGE/T/C	WATER	SEWER	GAS	STORMWATER
UGE/T/C	—	6'	5'	4'	6'
WATER	6'	—	5*	6'	3'
SEWER	5'	5*	—	5'	10'
GAS	4'	6'	5'	—	3'
STORMWATER	6'	3'	10'	3'	—

*PERMISSIBLE ONLY IF SEWER IS LAID MIN. 18" BELOW WATER SERVICE; OTHERWISE, 10" OF HORIZONTAL SEPARATION MUST BE MAINTAINED.



SCALE: 1"=20'

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

UTILITY PLAN

WINTER STREET TOWNHOMES
PORTLAND, MAINE

NEWHEIGHT REDFERN, LLC

NEWINGTON CREDIT UNION, LLC
167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

DRAWING NAME:

ME:

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

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

FILE: 1140.1_CIVIL

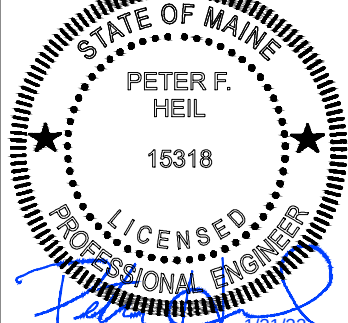
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SCALE: AS NOTED

DESIGNED BY: MKT

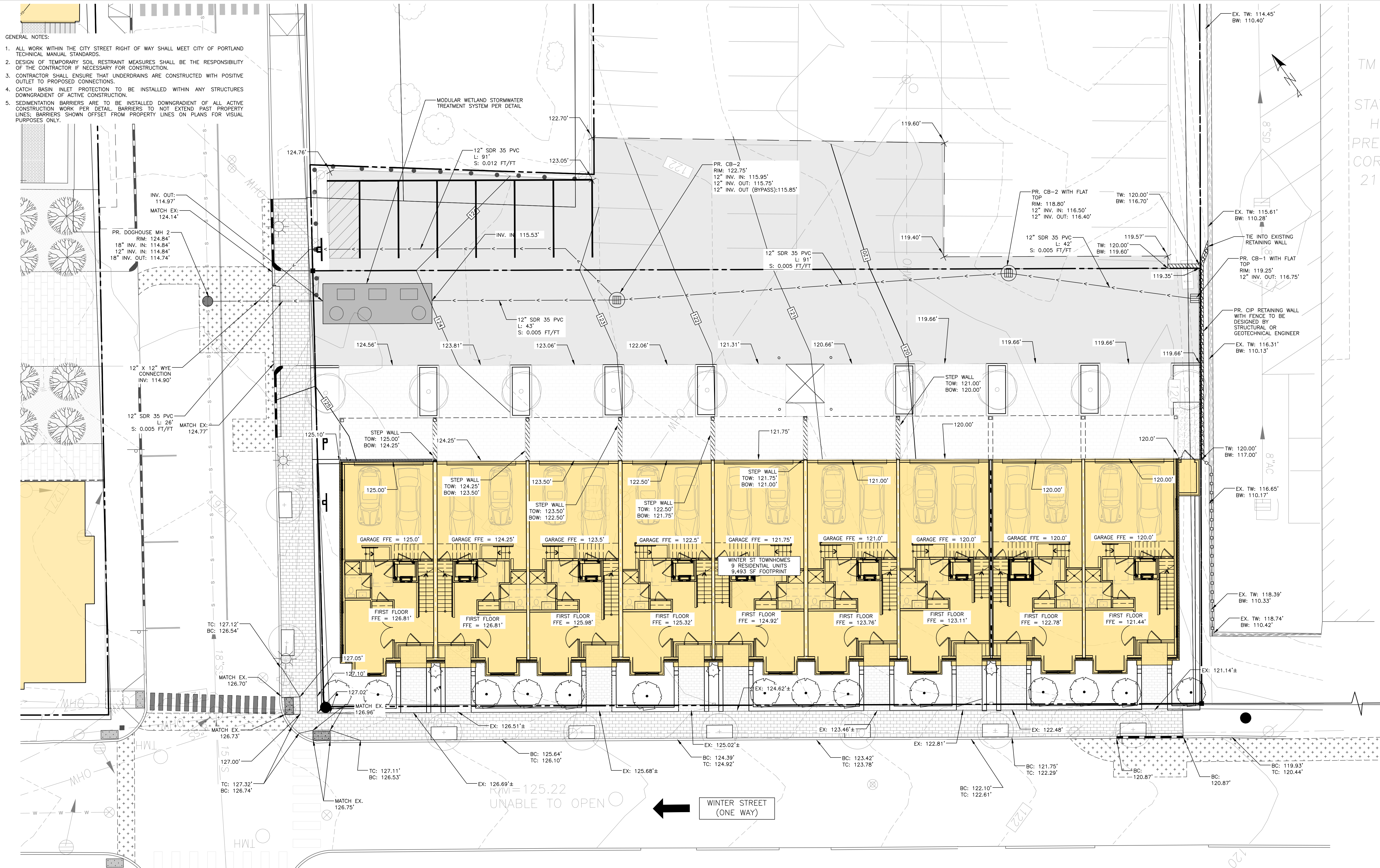
DRAWN BT.	MKT
SHEWER BN	BEU

CONFIDENTIAL



DRAWING NO.

C-20



- GENERAL NOTES:
1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
 2. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
 3. CONTRACTOR SHALL ENSURE THAT UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
 4. CATCH BASIN INLET PROTECTION TO BE INSTALLED WITHIN ANY STRUCTURES DOWNGRADIENT OF ACTIVE CONSTRUCTION.
 5. SEDIMENTATION BARRIERS ARE TO BE INSTALLED DOWNGRADIENT OF ALL ACTIVE CONSTRUCTION WORK PER DETAIL. BARRIERS TO NOT EXTEND PAST PROPERTY LINES; BARRIERS SHOWN OFFSET FROM PROPERTY LINES ON PLANS FOR VISUAL PURPOSES ONLY.

BUILDING HEIGHT CALCULATION:
AVERAGE GRADE: (120.0 + 125.1 + 121.0 + 127.0)/4 = 123.28'
ELEVATION AT TOP OF HIGH ROOF BEAM (UNITS 1-3) = 170.6
BUILDING HEIGHT: 170.6 - 123.28 = 47.32'
(45' WITHIN 30' OF WINTER STREET ROW, 85' FOR REMAINDER OF PARCEL ALLOWED)



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

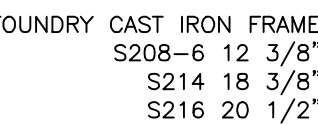
ISSUED FOR	BY
SITE PLAN	DATE
SUBMISSION	12/3/21
PARKING LAYOUT	PFH
	12/3/22

GRADING & DRAINAGE PLAN	PROJECT NAME	CLIENT
	WINTER STREET TOWNHOMES	NEWHEIGHT REDFERN, LLC
	PORTLAND, MAINE	167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

ACORN ENGINEERING, INC.	STATE OF MAINE
REGISTERED PROFESSIONAL ENGINEER	PETER F. HEIL
	15318

FILE:	1140.1_CIVIL
JN:	1140.1
SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	MKT
CHECKED BY:	PFH

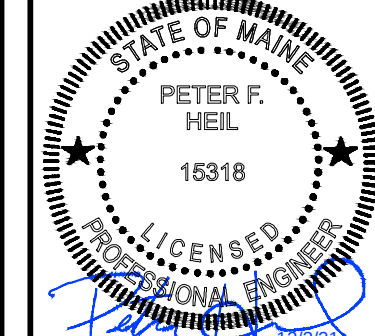
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C-30



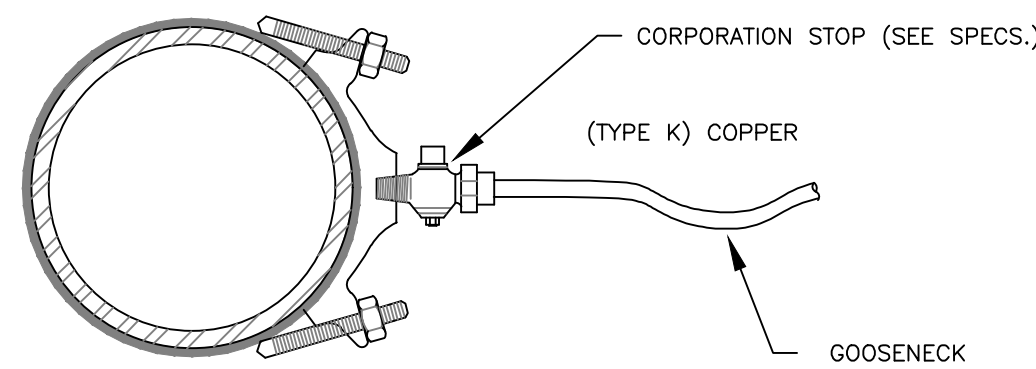
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

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

FILE:	1140.1_CIVIL
JN:	1140.1
SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	MKT
CHECKED BY:	PFH



DRAWING NO.
C-41



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES MUST COMPLY WITH THE CITY OF PORTLAND WATER DISTRICT (PWD) SPECIFICATIONS.
2. CURB STOP BALL VALVE TO BE MADE OF COPPER OR BRASS UNLESS OTHERWISE NOTED BY THE PORTLAND WATER DISTRICT.
3. SERVICE LINE TO BE MADE OF TYPE K COPPER.
4. CONCRETE BLOCKING SHALL BE ADDED TO THE BASE OF THE CURB STOP TO PROVIDE STRUCTURAL SUPPORT FOR THE CURB STOP AND SERVICE BOX.

NOTES:

1. THE WATER TRENCH SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARD DETAILS & SPECIFICATIONS.
2. IF LESS THAN 5'-6" OF COVER IS POSSIBLE ADD TWO LAYERS OF 2-INCH "BLUE DOW" RIGID INSULATION.

4" LOAM, SEED, AND MULCH OR PAVEMENT SECTION AS DETAILED IN THIS PLAN SET

FINISH GRADE

5'-6" MIN. - 7'-0" MAX

6"

4" OR LESS

6"

2'-0" (MIN)
(4" DIA OR LESS)

BACKFILL WITH EXCAVATED MATERIAL OR SELECT BACKFILL AS DIRECTED BY ENGINEER

SAND BEDDING BACKFILL, 703.22 TYPE B

RIGID INSULATION (SEE NOTE)

1. REFER TO THE UTILITY PLAN FOR ADDITIONAL INFORMATION

US FOUNDRY COVER USE NO. 7621, OR APPROVED EQUAL (TYP.)

FINISH GROUND ELEVATION

CLEAN-OUT PLUG

WATERTIGHT JOINT (TYP.)

1/8 BEND

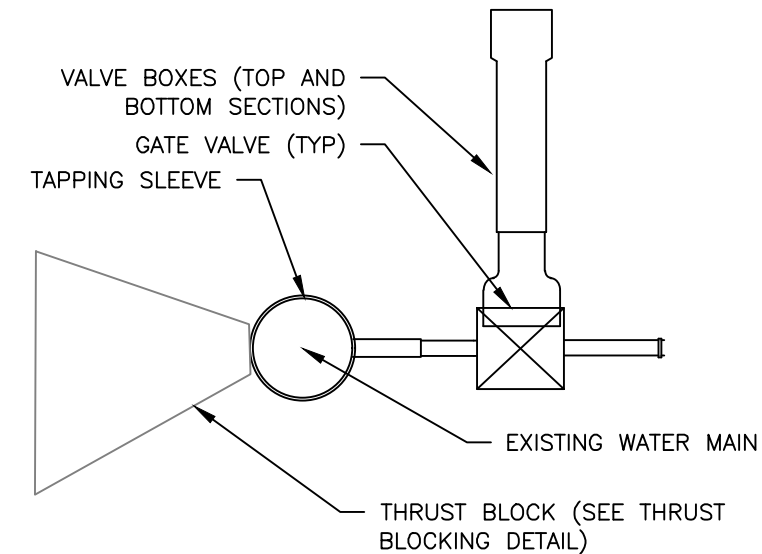
PVC SDR 35 OR EQUIVALENT WITH SOLID COUPLINGS (TYP.)

REFER TO THE BIORETENTION CELL DETAIL FOR FURTHER INFORMATION

DIRECTION OF FLOW

PROVIDE WYE AS NECESSARY OTHERWISE, PROVIDE A 1/8 BEND

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION



NOTES:

1. DIMENSIONS APPLICABLE FOR SIGMA COMPACT BENDS. FOR TYLER COMPACT BENDS, ADD 1/2" TO "D" DIMENSION AND SUBTRACT 1/2" FROM "L" DIMENSION.
2. FOR OTHER FITTINGS REFER TO MANUFACTURER'S RECOMMENDATIONS.

H	6" PIPE		8" PIPE		12" PIPE	
	D	L	D	L	D	L
12"	1'-6-1/2"	0 10'-1-1/2"	1'-7-1/2"	0' 9'-1-1/2"	1 11'-1-1/2"	0' 5-1/2"
13"	1'-7-1/2"	0 11'-7-1/2"	1 8'-1/2"	0' 10'-7-8"	2 0'-1-1/2"	0' 6-3/8"
14"	1'-8-1/2"	0 12'-8-1/2"	1 9'-1/2"	0' 11'-8-1/2"	2 1'-1-1/2"	0' 7-1/8"
15"	1'-9-1/2"	0 1'-2-11-16"	1 10'-1/2"	1 1'-11-16"	2 2'-1/2"	0' 9'-11-16"
16"	1'-10-1/2"	0 1'-4-1/8"	1 11'-1/2"	1 3'-1/8"	2 3'-1/2"	0' 10-11/16"
17"	1'-11-1/2"	0 5'-9-16"	2 0'-1/2"	4'-9-16"	2 4'-1/2"	1 0-9-16"
18"	2'-0-1/2"	1 1'-6-15-16"	2 1'-1/2"	5'-15-16"	2 5'-1/2"	1 1'-15-16"
19"	2'-1-1/2"	1 8'-3/8"	2 2'-1/2"	1 7'-3/8"	2 6'-1/2"	1 3'-3/8"
20"	2'-2-1/2"	1 9'-13-16"	2 3'-1/2"	1 8'-13-16"	2 7'-1/2"	1 4'-13-16"
21"	2'-3-1/2"	1 11'-3-16"	2 4'-1/2"	1 10'-3-16"	2 8'-1/2"	1 6'-3-16"
22"	2'-4-1/2"	1 13'-1-16"	2 5'-1/2"	1 12'-1-16"	2 9'-1/2"	1 8'-1-16"
23"	2'-5-1/2"	2 2'-2"	2 6'-1/2"	2 1'-2"	2 10'-1/2"	1'-2"
24"	2'-6-1/2"	2 3'-7-16"	2 7'-1/2"	2 2'-7-16"	2 11'-1/2"	1 10-7-16"
25"	2'-7-1/2"	2 4'-7-8"	2 8'-1/2"	2 3'-7-8"	3 0'-1/2"	1 11-7-8"
26"	2'-8-1/2"	2 5'-8-16"	2 9'-1/2"	2 4'-8-16"	3 1'-1/2"	1 12'-8-16"
27"	2'-9-1/2"	2 7'-11-16"	2 10'-1/2"	2 6'-11-16"	3 2'-1/2"	2 2'-11-16"
28"	2'-10-1/2"	2 9'-1/8"	2 11'-1/2"	2 8'-1/8"	3 3'-1/2"	2 4'-1/8"
29"	2'-11-1/2"	2 10'-1/2"	3 0'-1/2"	2 10'-1/2"	3 4'-1/2"	2 5'-1/2"
30"	2'-12-1/2"	2 11-11-16"	3 1'-1/2"	2 11'-11-16"	3 5'-1/2"	2 6'-11-16"
31"	3'-1-1/2"	3 1'-5-16"	3 2'-1/2"	3 0'-5-16"	3 6'-1/2"	2 8'-5-16"
32"	3'-2-1/2"	3 2'-3/4"	3 3'-1/2"	3 1'-3/4"	3 7'-1/2"	2 9'-3/4"
33"	3'-3-1/2"	3 3'-4-16"	3 4'-1/2"	3 3'-4-16"	3 8'-1/2"	2 10-4-16"
34"	3'-4-1/2"	3 3'-9-16"	3 5'-1/2"	3 4'-9-16"	3 9'-1/2"	3 0'-9-16"
35"	3'-5-1/2"	3 4'-2"	3 6'-1/2"	3 5'-2"	3 10'-1/2"	3 1'-2"
36"	3'-6-1/2"	3 4'-7-16"	3 7'-1/2"	3 7'-7-16"	3 11'-1/2"	3 3'-7-16"
37"	3'-7-1/2"	3 5'-13-16"	3 8'-1/2"	3 8'-13-16"	4 0'-1/2"	3 4'-13-16"
38"	3'-8-1/2"	3 6'-1/8"	3 9'-1/2"	3 9'-1/8"	4 1'-1/2"	3 5'-1/8"
39"	3'-9-1/2"	4 0'-11-16"	3 10'-1/2"	3 11-11-16"	4 2'-1/2"	3 7'-11-16"
40"	3'-10-1/2"	4 2'-1-16"	3 11-1/2"	4 1'-1-16"	4 3'-1/2"	3 8'-1-16"
41"	3'-11-1/2"	4 3'-1/2"	4 0'-1/2"	4 2'-1/2"	4 4'-1/2"	3 10-1-16"
42"	4'-0-1/2"	4 4'-1/2"	4 1'-1/2"	4 3'-1/2"	4 5'-1/2"	3 11-1-16"
43"	4'-1-1/2"	4 4'-5-16"	4 2'-1/2"	4 4'-5-16"	4 6'-1/2"	4 1'-5-16"
44"	4'-2-1/2"	4 7'-3/4"	4 3'-1/2"	4 6'-3/4"	4 7'-1/2"	4 2'-3/4"
45"	4'-3-1/2"	4 8'-1/8"	4 4'-1/2"	4 8'-1/8"	4 8'-1/2"	4 3'-1/8"
46"	4'-4-1/2"	4 10'-1-16"	4 5'-1/2"	4 10'-1-16"	4 9'-1/2"	4 4'-1-16"
47"	4'-5-1/2"	4 11-15-16"	4 6'-1/2"	4 10-15-16"	4 10'-1/2"	4 6'-15-16"
48"	4'-6-1/2"	5 1'-13-16"	4 7'-1/2"	5 0'-3-8"	4 11-1/2"	4 8-13-16"
49"	4'-7-1/2"	5 2'-13-16"	4 8'-1/2"	5 1'-13-16"	5 0'-1/2"	4 9-13-16"
50"	4'-8-1/2"	5 3'-1-16"	4 9'-1/2"	5 2'-1-16"	5 1'-1/2"	4 10-1-16"
51"	4'-9-1/2"	5 5'-5-8"	4 10'-1/2"	5 4'-5-8"	5 2'-1/2"	5 0'-5-8"
52"	4'-10-1/2"	5 7-11-16"	4 11-1/2"	5 6-11-16"	5 3'-1/2"	5 2-11-16"
53"	4'-11-1/2"	5 8-7-16"	5 0'-1/2"	5 7-7-16"	5 4'-1/2"	5 3'-7-16"
54"	4'-12-1/2"	5 9'-1-16"	5 1'-1/2"	5 8'-1-16"	5 5'-1/2"	5 4'-1-16"
55"	5'-1-1/2"	5 11-5-16"	5 2'-1/2"	5 10-5-16"	5 6'-1/2"	5 5-5-16"

1. CONTRACTOR TO SUPPLY THE METER PIT. METER PIT TO BE McDONALD 790-SERIES SINGLE 18-INCH COIL METER PIT OR 3/4" DIA. COIL METER PIT. CONTRACTOR TO OBTAIN APPROVED LAYOUT.
2. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ACCURATE ENGINEERING, INC. AND THE CITY OF PORTLAND.
3. THE METER PIT SHALL BE LOCATED ON PRIVATE PROPERTY, A MINIMUM OF 5' FROM THE "A" AND "C" FACE.
4. THE FACE-TO-FACE FROM ANY SEWER SERVICE.
5. THE METER PIT SHALL BE MADE OF PRECAST CONCRETE WITH SUFFICIENT STRENGTH TO SUPPORT A MINIMUM 6" COVER FROM FINISHED GRADE TO THE TOP OF THE SERVICE PIPE. ANY SEAMS BETWEEN CONCRETE SECTIONS SHALL BE SEALED WITH MASTIC JOINT. ALL OPENINGS IN THE CONCRETE FOR SERVICE PIPE SHALL BE SEALED WITH A MODULAR SEAL (LINK-SEAL OR SIMILAR).
6. THE INTERIOR OF THE METER PIT SHALL BE A MINIMUM OF 18" IN DIAMETER WITH A CAST IRON FRAME. THE METER PIT COVER SHALL BE CAST IRON WITH A 12" MINIMUM CLEARANCE WITH THE METER PIT SYSTEM, AND EITHER BE PERMANENTLY LABELED "WATER" OR HAVE NO LABEL, ANY STEEL PLATE MATERIAL SHALL BE COATED WITH A RUST INHIBITANT.
7. WALLS AND FLOOR SHALL BE CONCRETE. NO COMPARTMENTED WITHIN THE METER PIT.
8. ALL PIPING INSIDE AND EXTENDING THROUGH THE METER PIT SHALL BE 12" MINIMUM CLEARANCE FROM THE METER PIT FLOOR. BLOCKING SHALL BE INSTALLED AS REQUIRED TO SUPPORT THE PIPE.

Diagram illustrating the installation of a valve box and associated components. The diagram shows a cross-section of the ground (GRADE) and the valve box structure. Key components and labels include:

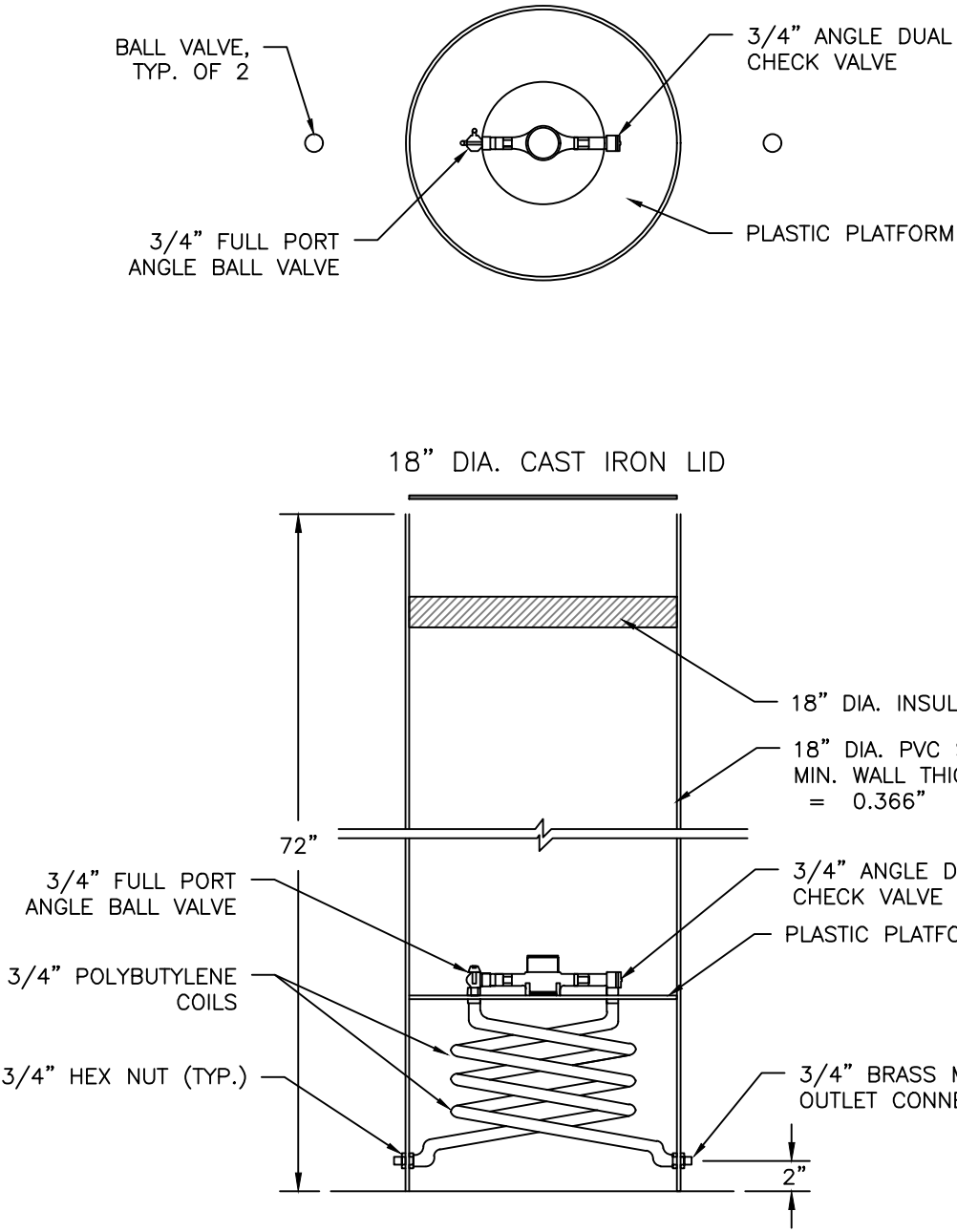
- GRADE
- VALVE BOX
- 24" S.S. ROD REQUIRED WITH BALL VALVE
- 2" CTS P.E. NIPPLE 24" LONG (TYP.)
- BRASS PLUG
- MIP X CPPJ ADAPTER
- VALVE BOX TOP SECTION
- 1" OR 2" COPPER OR CTS P.
- 1" BALL VALVE OR 2" THD. GATE VALVE
- THRUST BLOCK
- MJ END CAP WITH GRIP RING ACCESSORY PACK 2" IPT TAP AND 2" MIP X CPPJ ADAPTER
- MIN. 1' LENGTH OF PIPE REQUIRED AFTER LINE VALVE
- LINE VALVE WITH GRIP RING ACCESSORY PACKS

NOTES:

1. IF BLOW-OFF IS NOT TO BE INSTALLED WITH THIS VALVE, THE VALVE BOXES IN PAVING SHALL BE PROTECTED BY A VALVE BOX PROTECTOR.
2. NO SERVICE CONNECTIONS SHALL BE MADE TO THE VALVE BOXES.
3. CURB BOXES IN PAVING SHALL BE PROTECTED BY A VALVE BOX PROTECTOR.
4. SINGLE STRAND, MINIMUM 1/8" DIA. TRACER WIRE SHALL BE INSTALLED IN METALLIC PIPE AND METAL VALVES, FITTING AND FOR DIRECT CONNECTION TO THE VALVE BOX.

NOTES:

1. IF BLOW-OFF IS NOT REQUIRED, CAP CAN BE INSTALLED WITH A THRUST BLOCK.
2. NO SERVICE CONNECTIONS BETWEEN LINE VALVE AND BLOW-OFF ASSEMBLY.
3. CURB BOXES IN PAVEMENT OR IN GRAVEL PAVEMENT TO MOTOR VEHICLE TRAFFIC SHALL PROTECTED BY A VALVE BOX TOP.
4. SINGLE STRAND, MINIMUM 12 GAUGE, METAL TRACER WIRE SHALL BE TAPED TO ALL NON METALLIC PIPE AND BONDED TO ASSOCIATED METAL (VALVES, FITTINGS, ETC.) AT THE END FOR DIRECT CONNECTION SIGNAL LOCATING.



ISSUED FOR	BY
SITE PLAN SUBMISSION	DATE
	PFH
	12/3/21

WINTER STREET TOWNHOMES
PORTLAND, MAINE

NEWHEIGHT REDFERN, LLC

NEWELLIGHT MEDICAL, LLC
167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

DRAWING NAME:

PROJECT NAME:

CLIENT:

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

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

FILE: 1140 1 CIVIL

IN:	1140.1
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ON.	1140.1
SCALE	1:50,000

SCALE: AS NOTED

DESIGNED BY: MKT

DRAWN BY: MKT

CHECKED BY: PFH

STATE OF MA

STATE OF MAINE

PETER F. WEIL

15249

15316

PROF. LICENSED MEER



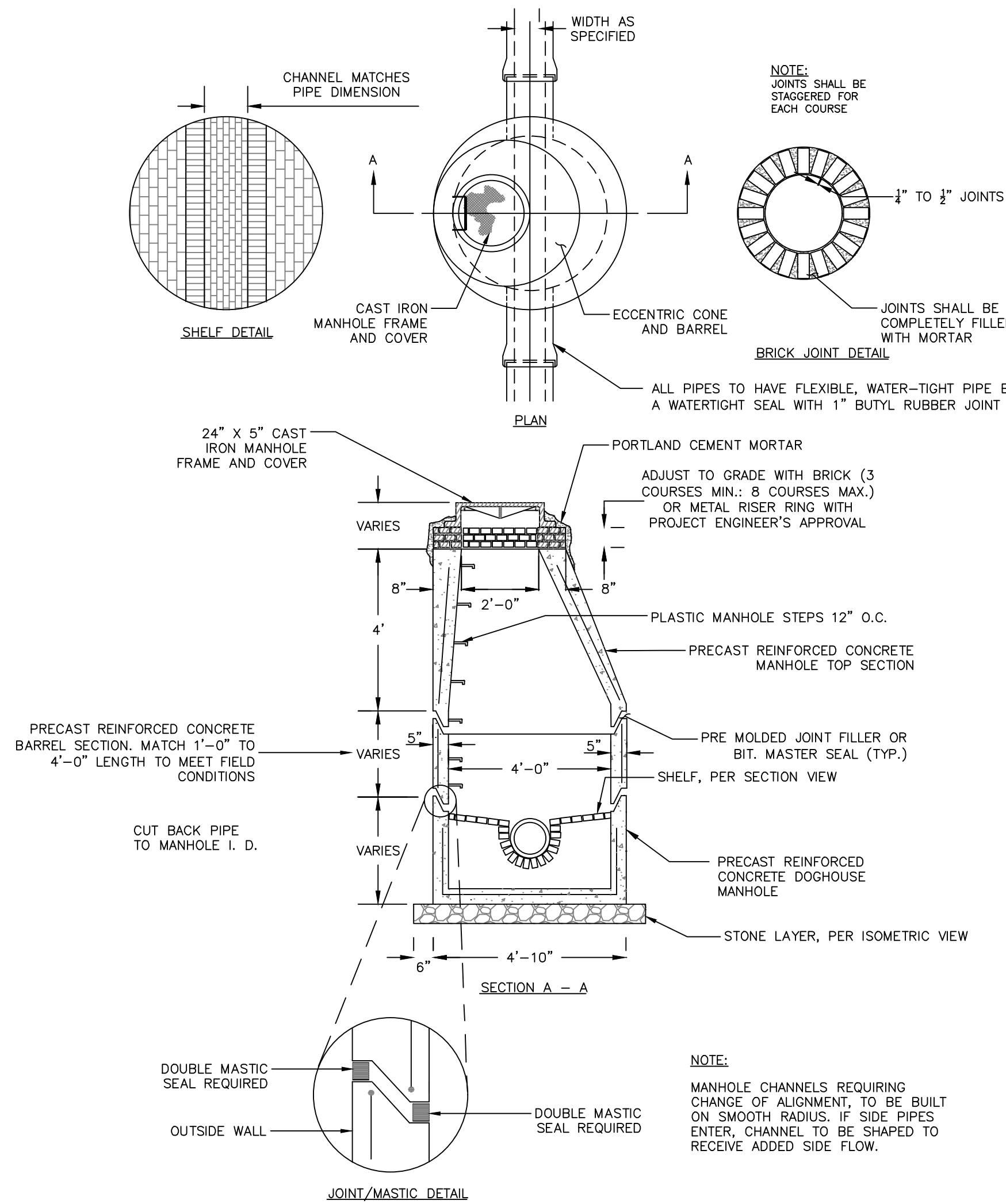
Feb 12/3/21

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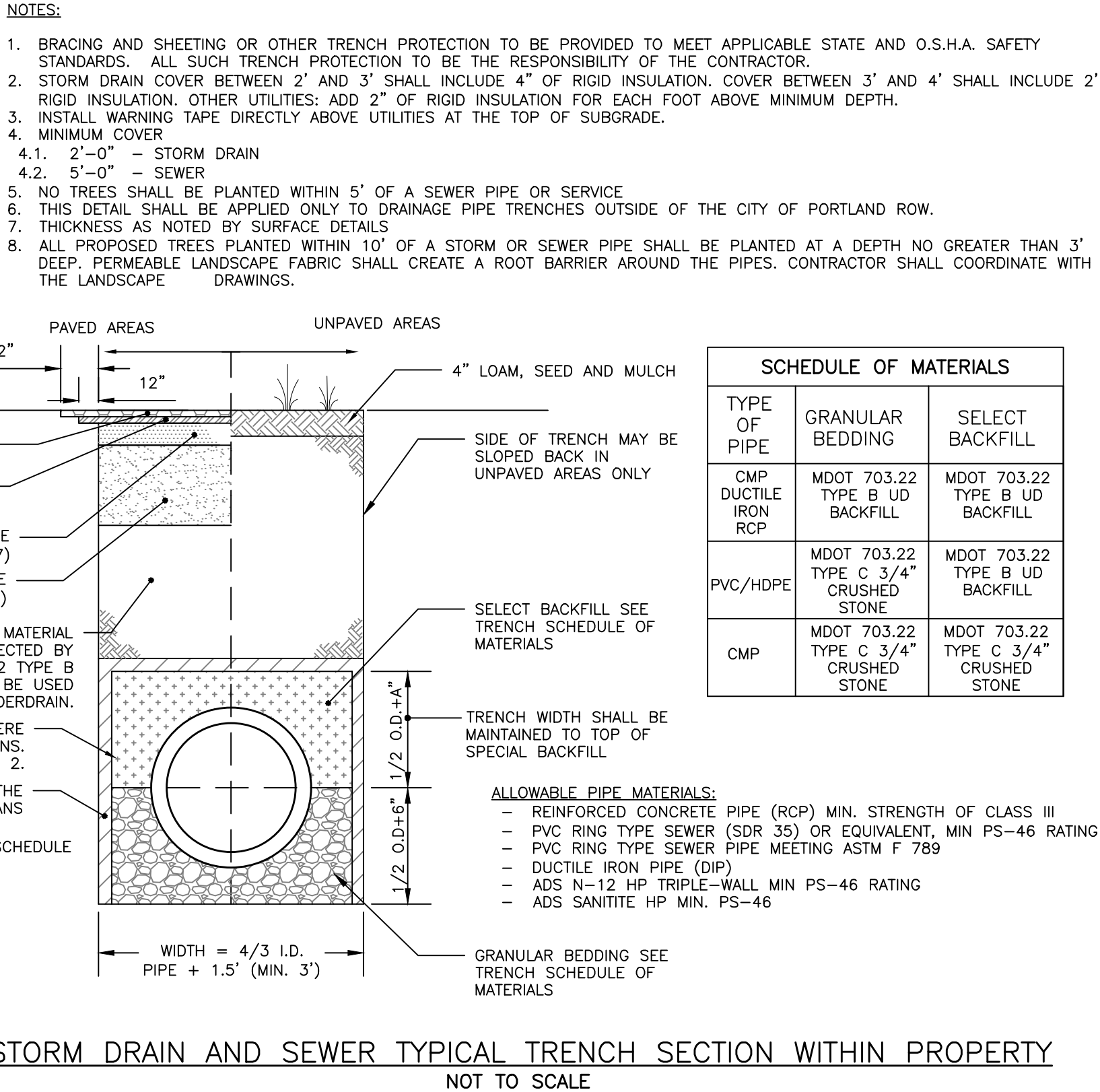
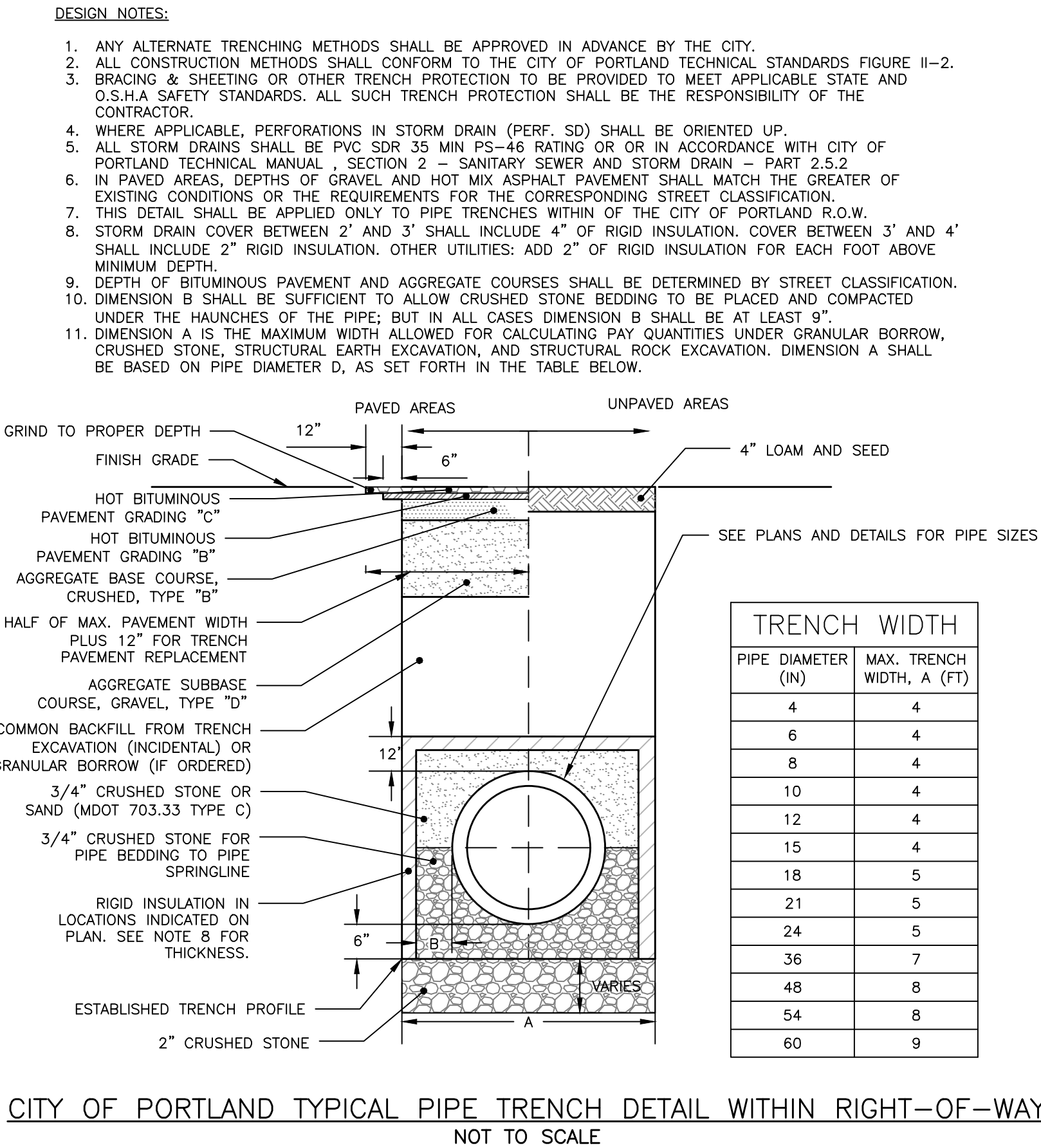
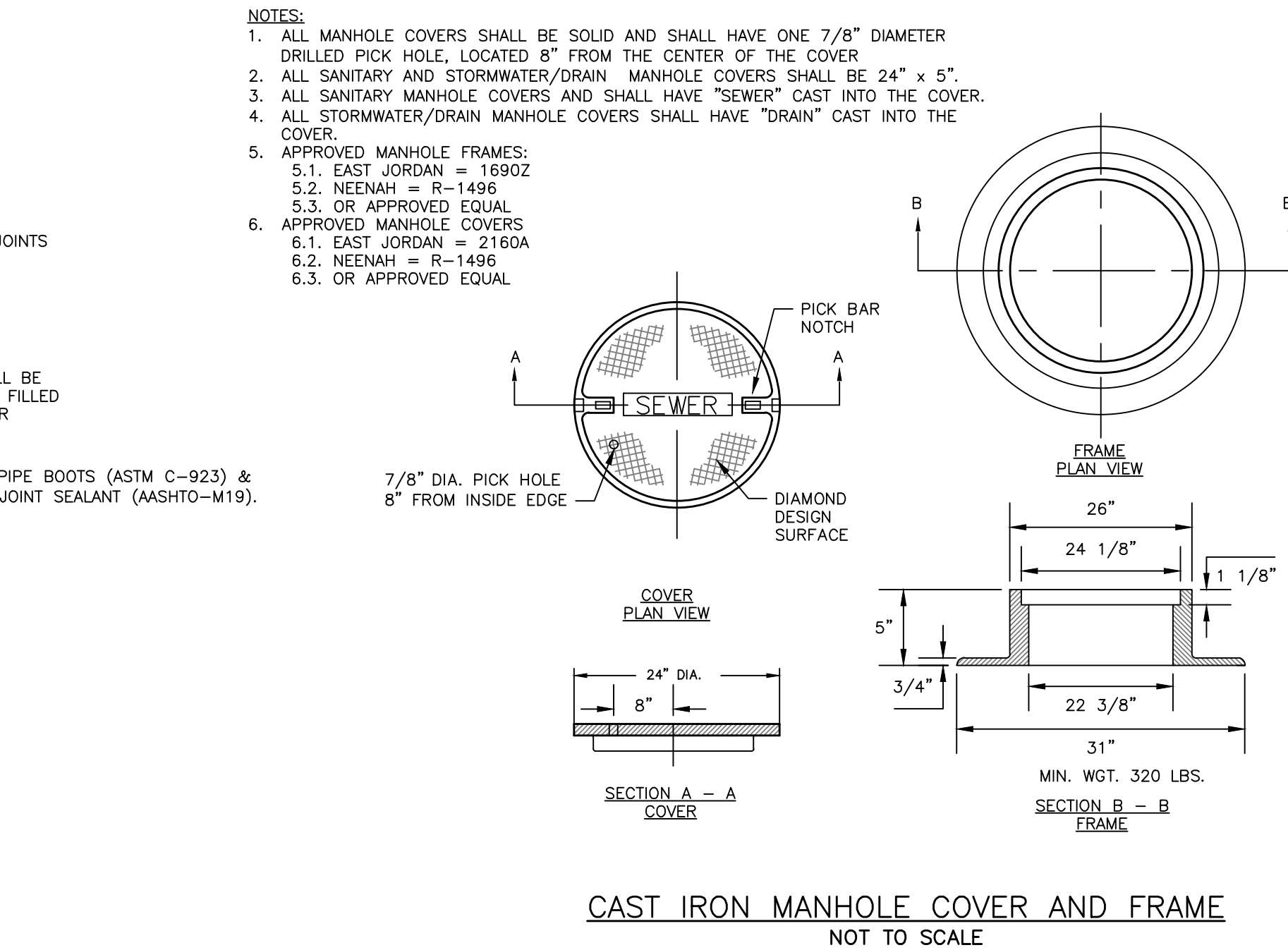
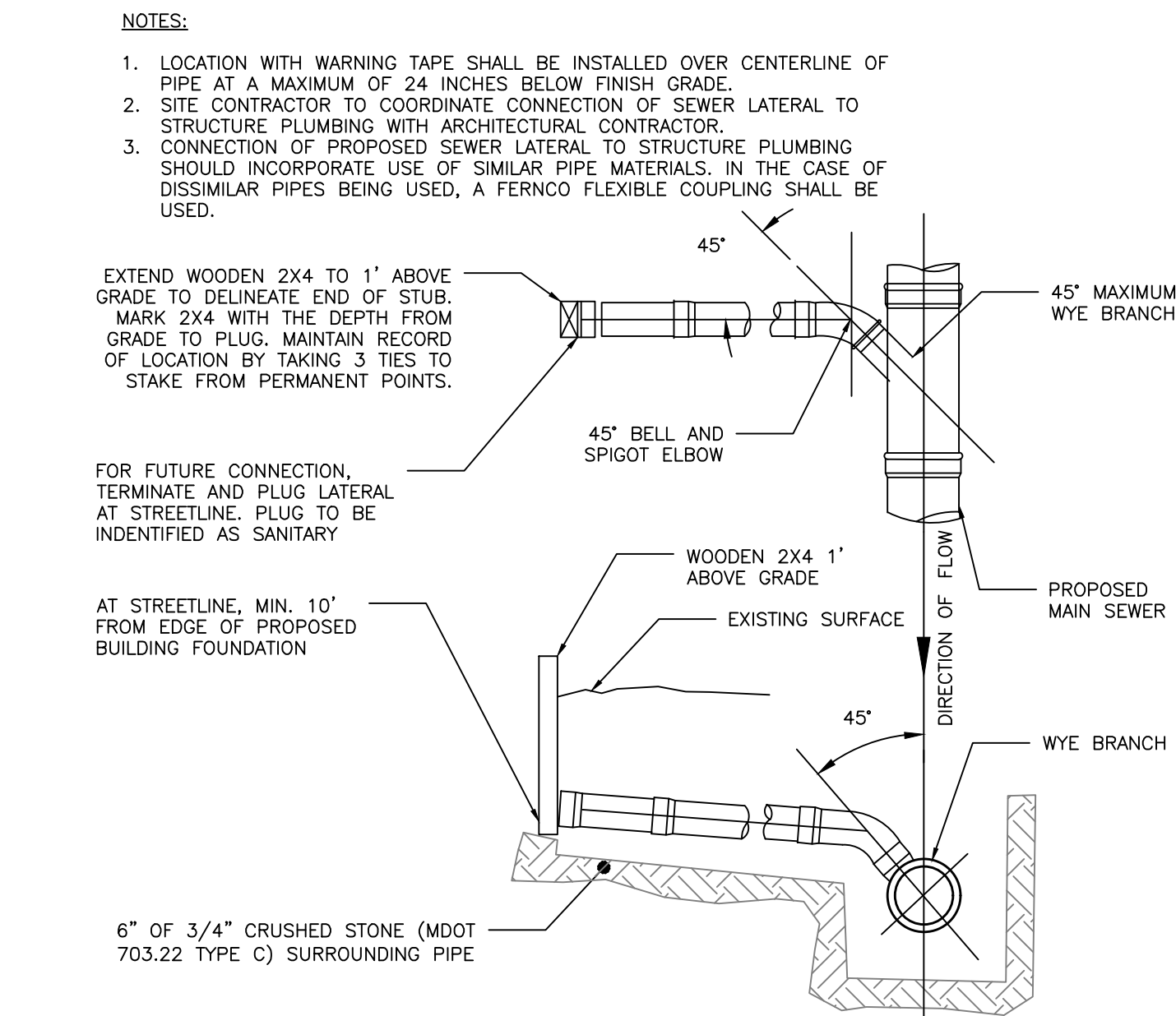
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C-42



PRECAST CONCRETE MANHOLE – CITY OF PORTLAND
NOT TO SCALE



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
SITE PLAN SUBMISSION	DATE
	12/5/21

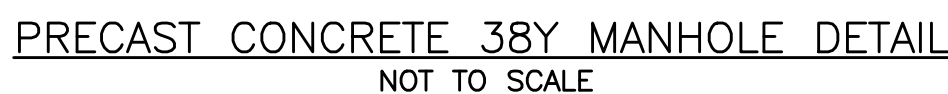
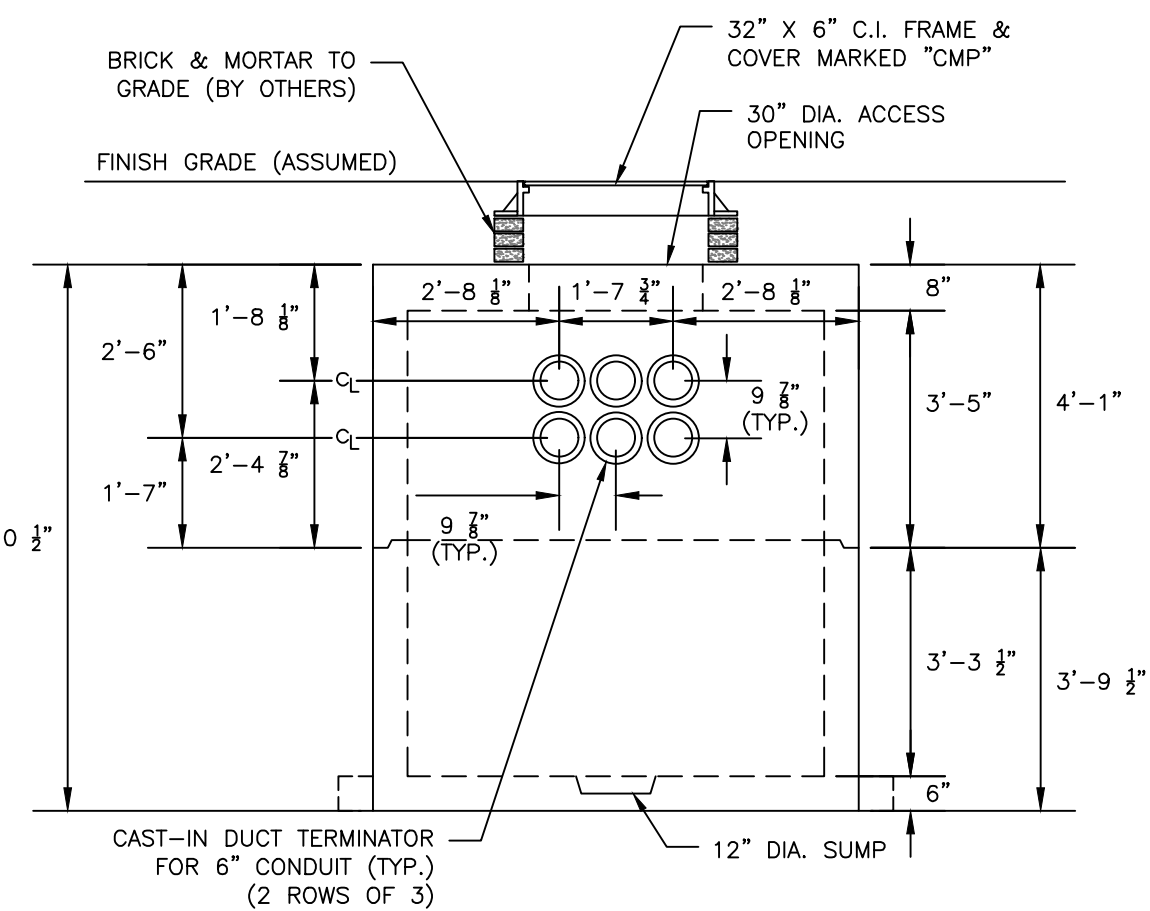
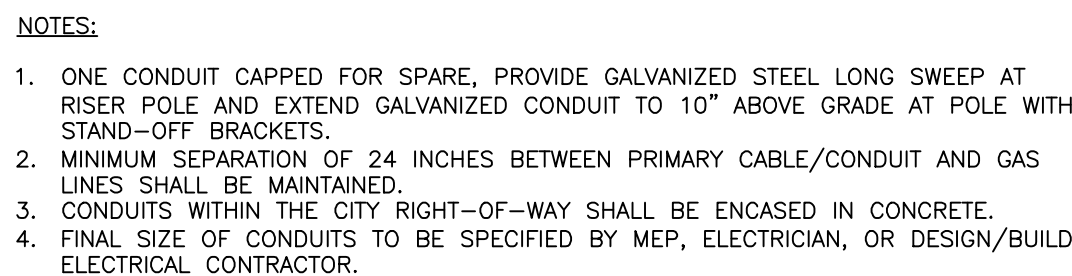
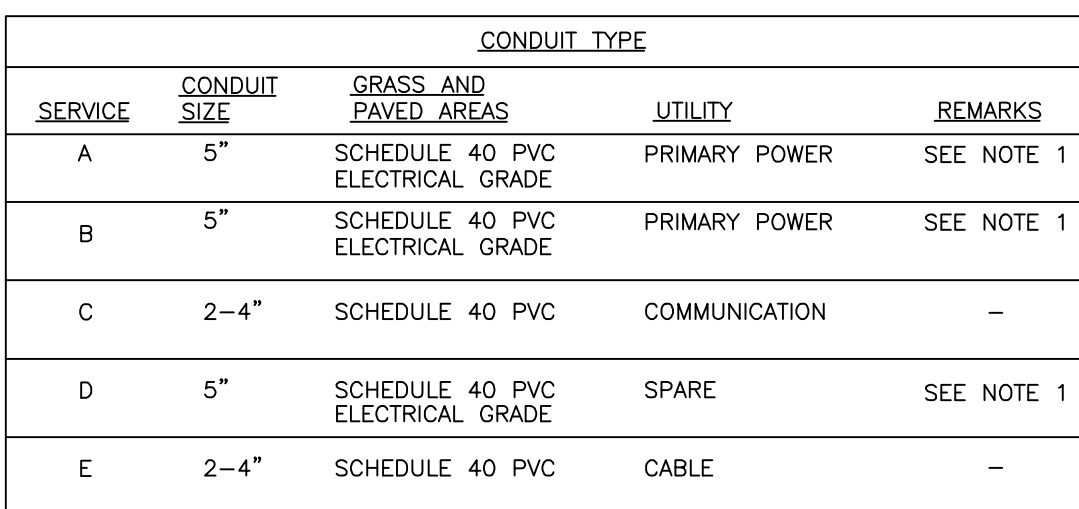
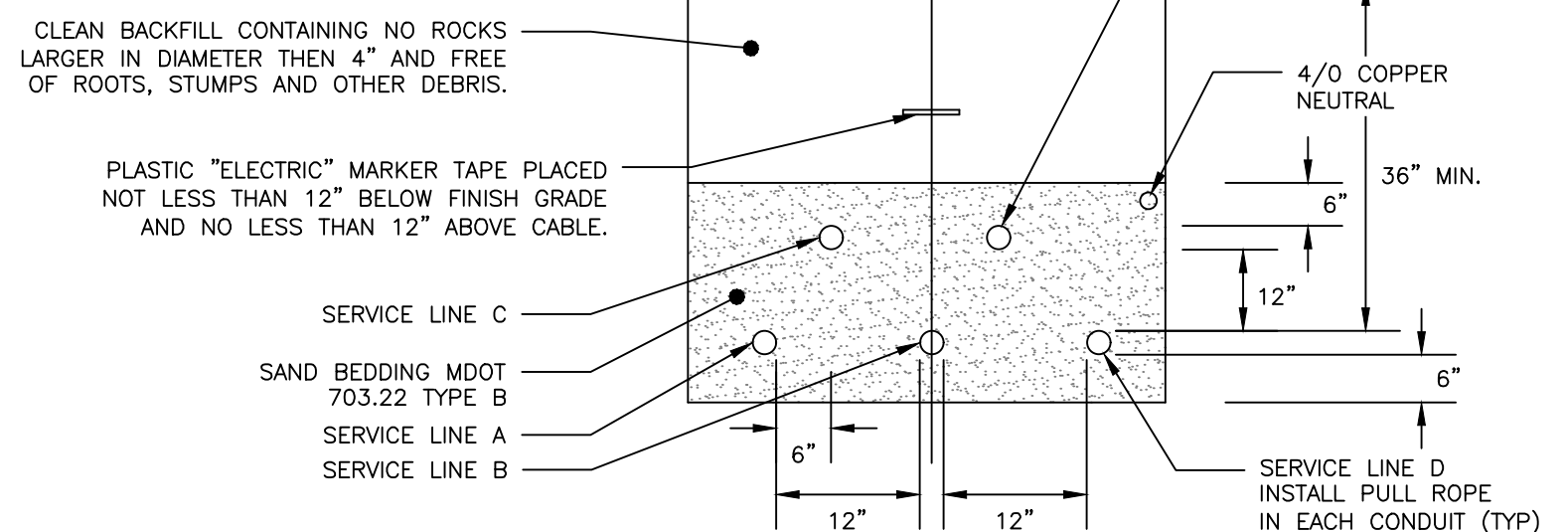
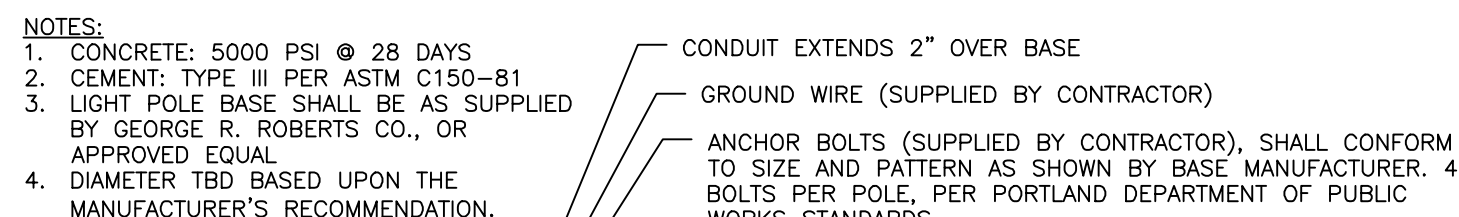
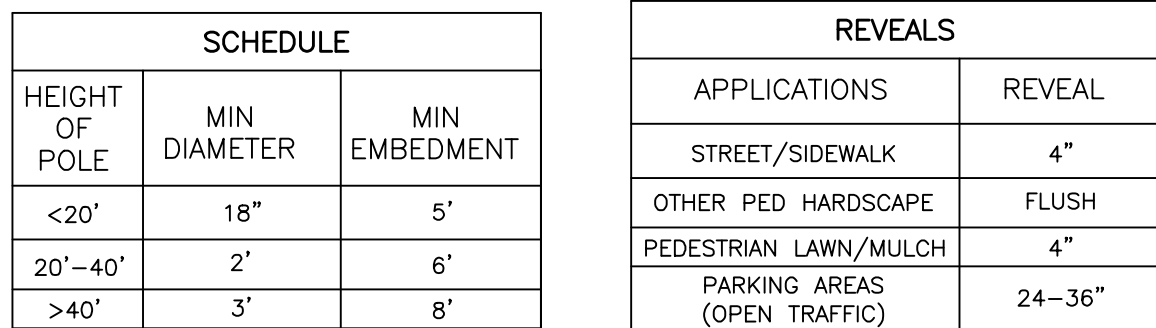
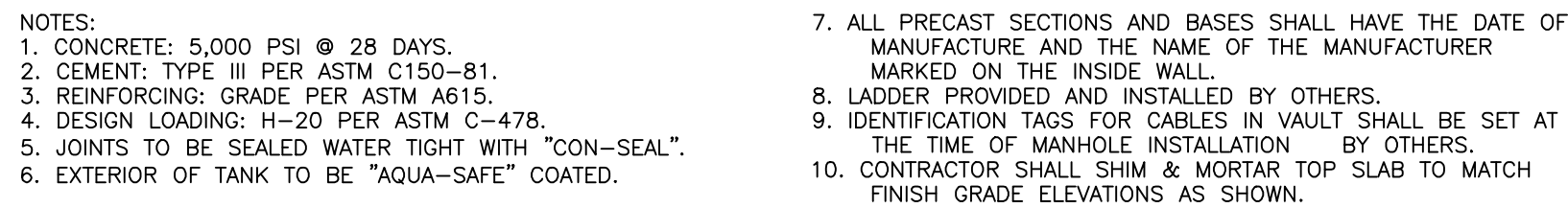
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PROJECT NAME:	WINTER STREET TOWNHOMES PORTLAND, MAINE
CLIENT:	NEWHEIGHT REDFERN, LLC 167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

ACORN ENGINEERING, INC.	ENGINEERING, INC.
167 NEWBURY STREET, SUITE 503 PORTLAND, MAINE 04101 (207) 775-2655	167 NEWBURY STREET, SUITE 503 PORTLAND, MAINE 04101 (207) 775-2655

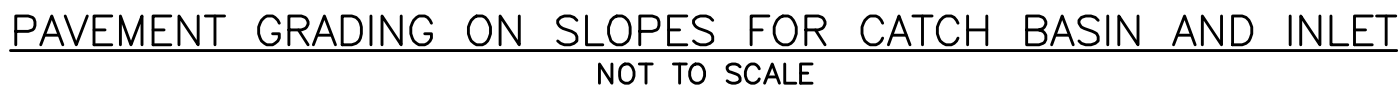
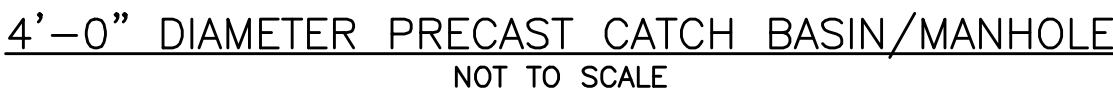
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SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	MKT
CHECKED BY:	PFH

STATE OF MAINE PETER F. HEIL 15318 LICENSED PROFESSIONAL ENGINEER
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DRAWING NO.
C-43



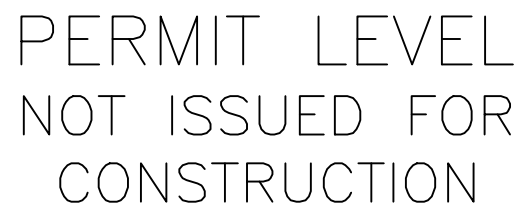
- ## GENERAL NOTES FOR MANHOLES AND CATCH BASINS



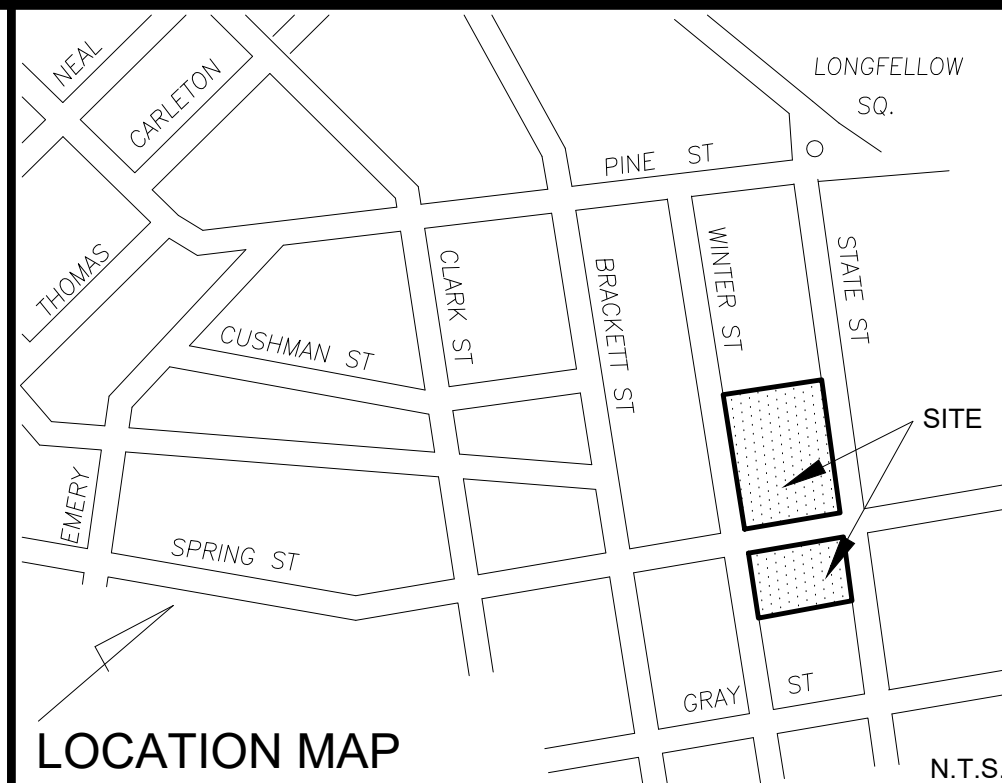
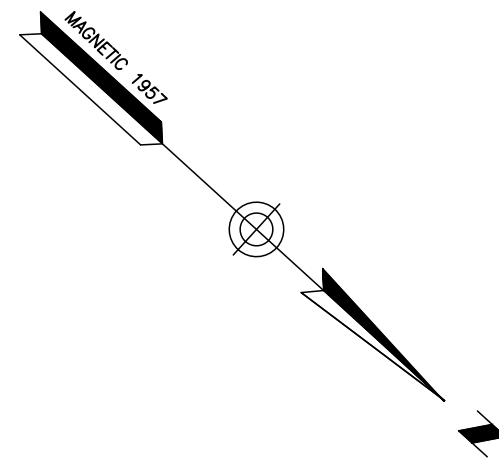
- CATCH BASIN HOOD DETAIL
NOT TO SCALE

- CATCH BASIN FRAME & GRATE
NOT TO SCALE

- MODULAR WETLAND SYSTEM – LINEAR BIOFILTRATION SYSTEM



DRAWING NO.
C-45



LEGEND	
●	IRON PIPE OR ROD FOUND
●	MONUMENT FOUND
⊙	GAS VALVE
⊙	UTILITY POLE
⊙	MANHOLE
⊙	EM/GM ELECTRIC/GAS METER
⊙	SIGN
⊙	CATCH BASIN
⊙	HYDRANT
⊙	WATER VALVE OR SHUTOFF
⊙	LIGHT POLE
⊙	DECIDUOUS TREE
⊙	CONIFEROUS TREE
—X—X—	GUARDRAIL
—	FENCE
—	CURB
—OHW—	OVERHEAD WIRES
—E—	UNDERGROUND POWER
—W—	WATER LINE
—G—	GAS LINE
—T—	TELEPHONE
—SD—	STORM DRAIN
—SS—	SANITARY SEWER
—100—	1' CONTOUR
—IPF/IRF—	IRON PIPE OR ROD FOUND
—N/F—	NOW OR FORMERLY
000/000	DEED BOOK / PAGE
L/S	LANDSCAPED AREA
CONC.	CONCRETE

- PLAN REFERENCES**
- "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR MERCY HOSPITAL DATED 3 FEB. 1982 REVISED THROUGH 15 MARCH 1982" BY H.I. & E.C. JORDAN, SURVEYORS.
 - "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR MERCY HOSPITAL DATED JUNE 17, 1981 REVISED OCT. 2, 1981" BY H.I. & E.C. JORDAN, SURVEYORS.
 - "STANDARD BOUNDARY & TOPOGRAPHIC SURVEY ON STATE STREET, PORTLAND, MAINE MADE FOR MERCY HOSPITAL DATED NOVEMBER 30, 1999 REV. 2 OCT. 04, 2012" BY OWEN HASKELL, INC.
 - "ALTA/ACSM LAND TITLE SURVEY, 102, 120 (AKA 144) & 148 STATE STREET, PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR MERCY HOSPITAL AND EASTERN MAINE HEALTHCARE SYSTEMS" FEBRUARY 27, 2013 LAST REVISION DATE: SEPT. 20, 2013 BY OWEN HASKELL, INC.

- GENERAL NOTES**
- PREMISES IS SHOWN AS TM 45-C-6 & 7 AND TM 45-D-1 ON THE CITY OF PORTLAND ASSESSORS MAPS.
 - BEARINGS ARE BASED ON MAGNETIC 1957. COORDINATES ARE BASED ON CITY DATUM UTILIZING THE MONUMENTS SHOWN.
 - THE LOCATIONS OF ALL UTILITIES SHOWN ON THE SURVEY ARE FROM VISIBLE SURFACE EVIDENCE ONLY.
 - ELEVATIONS ARE BASED ON CITY DATUM AS PER MONUMENT T104-45-11 AT CORNER OF CLARK AND SPRING STREETS, ELEVATION = 127.91 FEET.

OWNER OF RECORD
NEWHEIGHT REDFERN LLC
CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 36459, PAGE 218

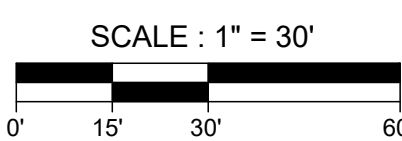
CERTIFICATE
OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

Randy R. Loubier
RANDY R. LOUBIER, PLS #2407
8/4/2020
DATE

STATE OF MAINE
PROFESSIONAL LAND SURVEYOR
RANDY R. LOUBIER
2407

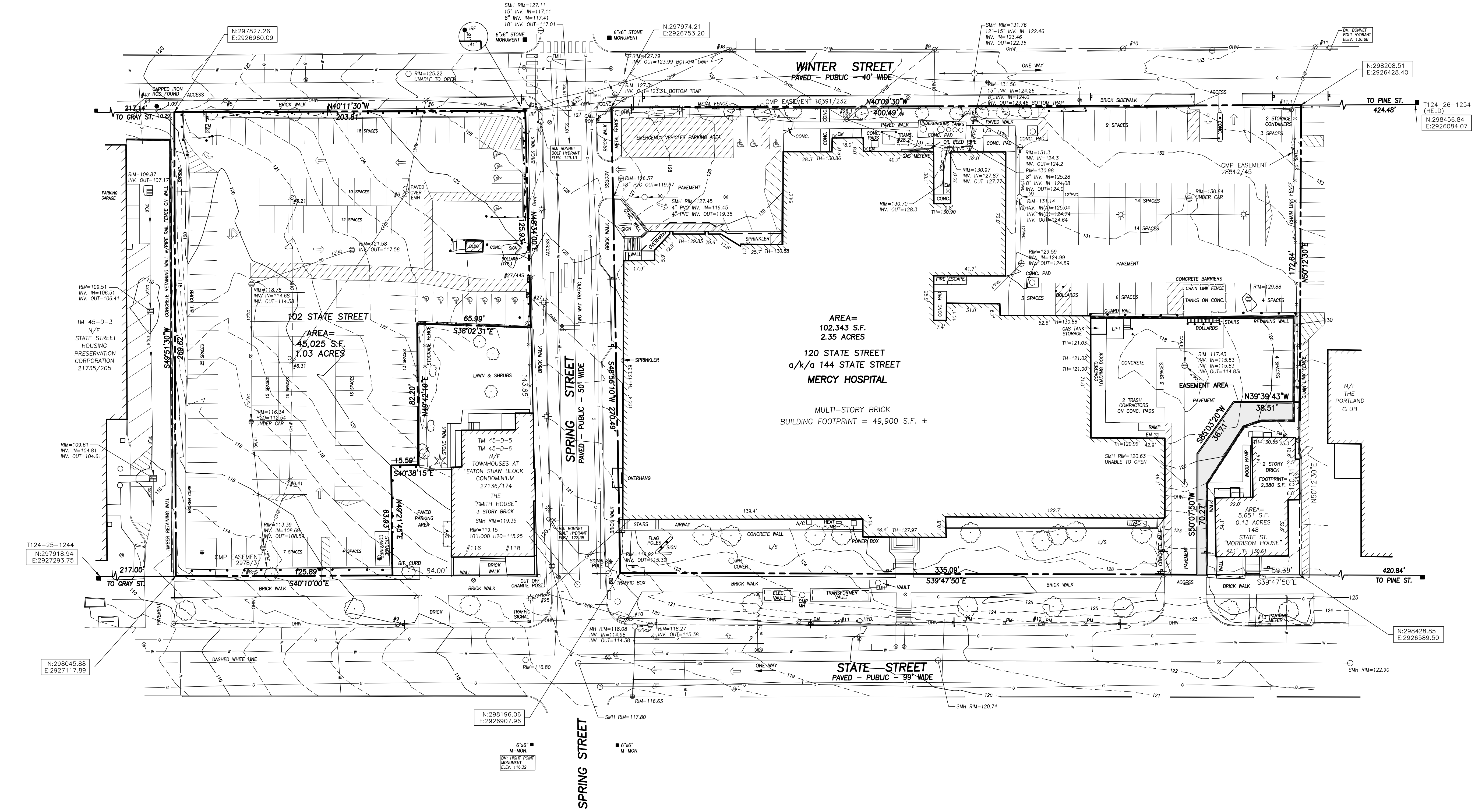
Boundary & Topographic Survey
At
102 & 120 State Street, Portland, Maine
Made for
NewHeight Redfern, LLC
c/o Jonathan Culley
167 Newbury Street, #503 Portland, Maine

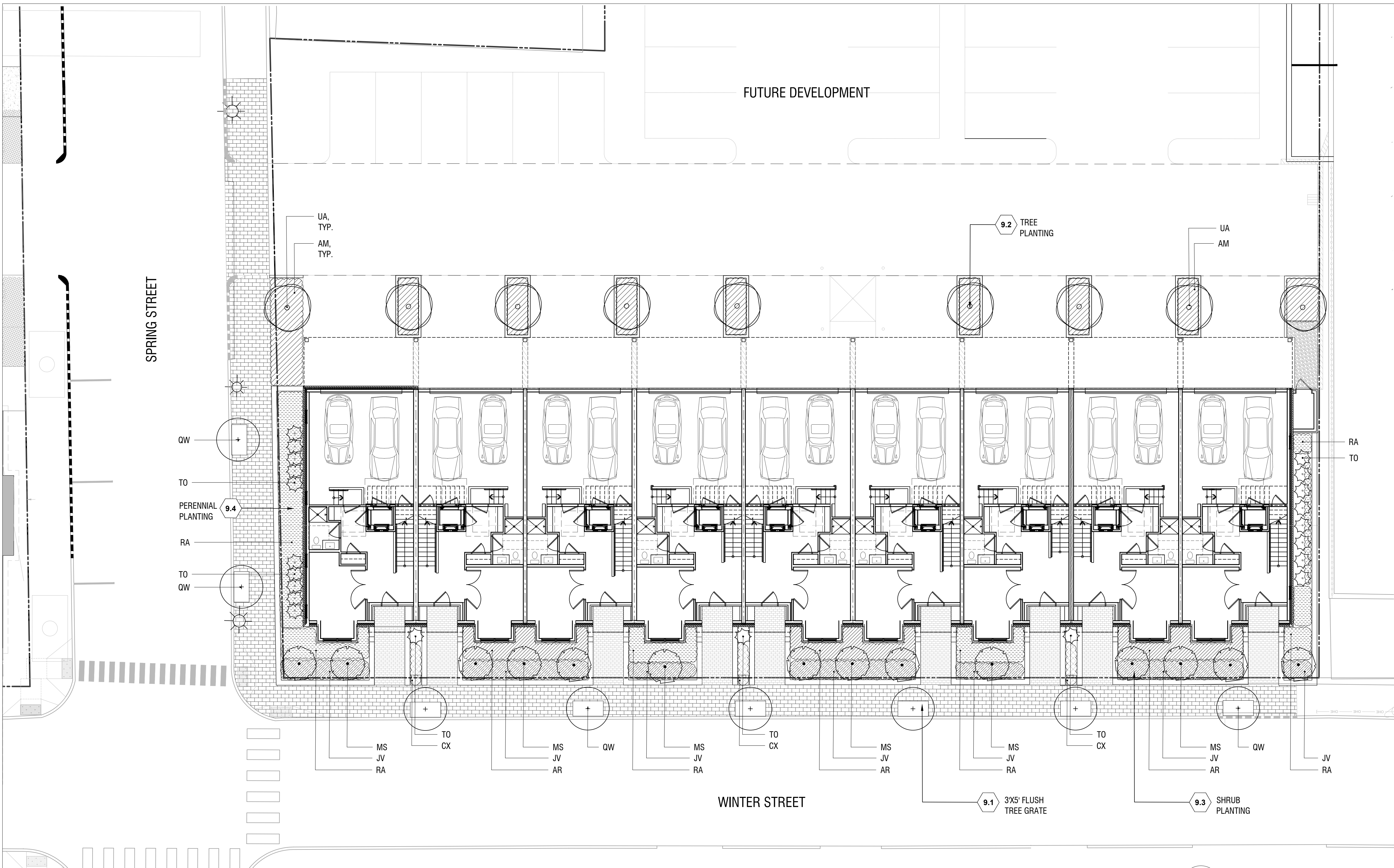
OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 US ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424
DRAWN BY: RS/JLW DATE: AUGUST 4, 2020 JOB NO. 2020-161 P
CHECKED BY: RRL SCALE: 1" = 30' DRWG. NO. 1



UTILITY NOTE
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEY HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

AREA =
102,343 S.F.
2.35 ACRES
120 STATE STREET
c/o/k/a 144 STATE STREET
MERCY HOSPITAL
MULTI-STORY BRICK
BUILDING FOOTPRINT = 49,900 S.F. ±



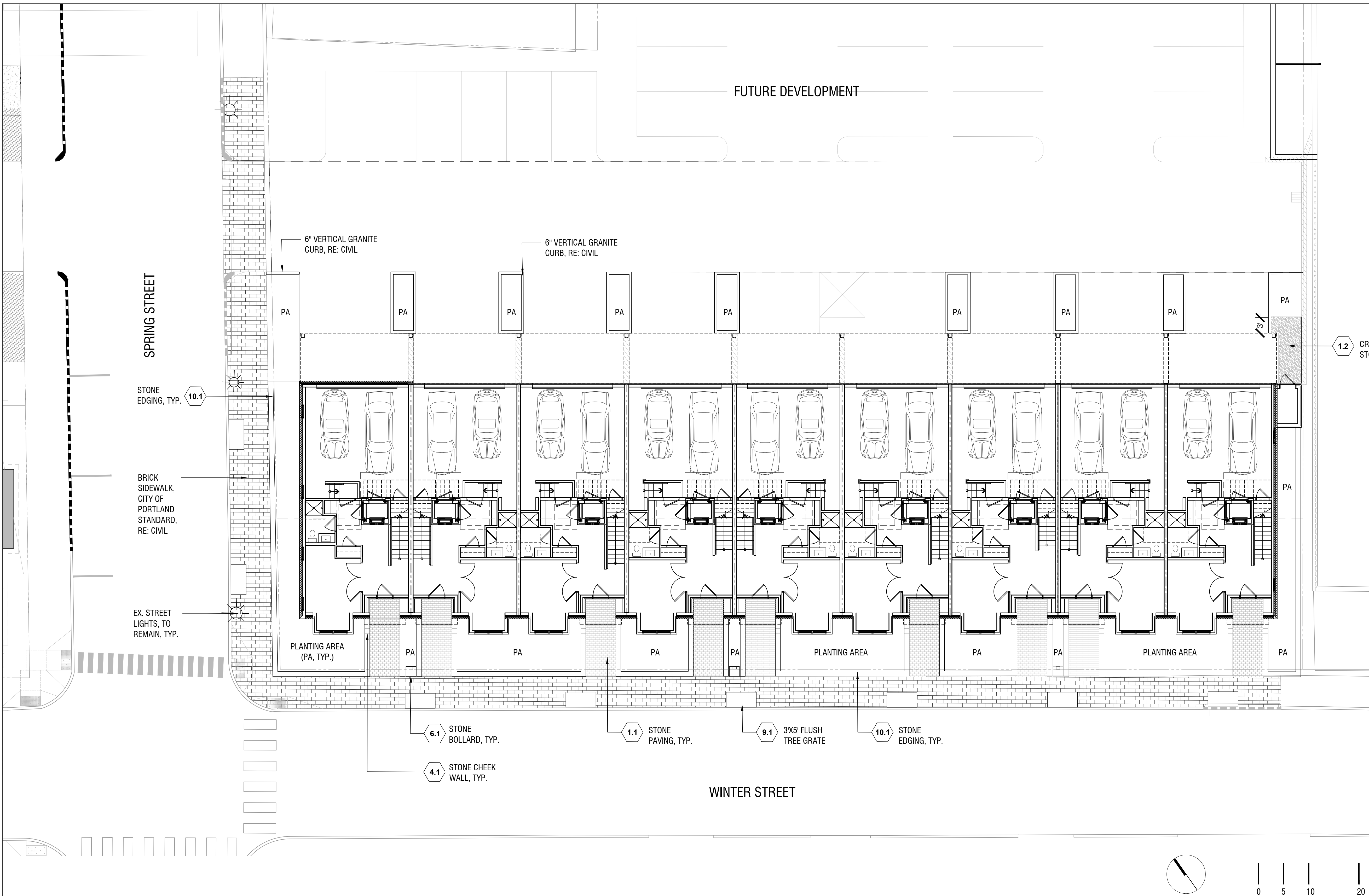


PLANT LIST

SYMB.	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING
TREES					
TO	THUJA OCCIDENTALIS 'ZMATLIK'	ARBORVITAE	TBD	7'-8"	PER PLAN
MS	MAGNOLIA STELLATA 'ROYAL STAR'	ROYAL STAR MAGNOLIA	TBD	7'-8"	PER PLAN
UA	ULMUS AMERICANA 'PRINCETON'	PRINCETON ELM	09	2.5" CAL.	PER PLAN
QW	QUERCUS x WAREI 'LONG'	REGAL PRINCE OAK	08	2.5" CAL.	PER PLAN
SHRUBS					
AR	ARONIA MELANOCARPA 'LOW SCAPE HEDGER'	BLACK CHOKEBERRY	TBD #5		PER PLAN
AM	ARONIA MELANOCARPA 'LOW SCAPE MOUND'	BLACK CHOKEBERRY	TBD #2		PER PLAN
JV	JUNIPERUS COMMUNIS 'BLUEBERRY DELIGHT'	BLUEBERRY DELIGHT® JUNIPER	TBD #2		PER PLAN
RA	RHUS AROMATICA 'GRO-LOW'	FRAGRANT SUMAC	TBD #2		PER PLAN
PERENNIALS AND ORNAMENTAL GRASSES					
CX	CALAMAGROSIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	TBD #1		PER PLAN

SITE KEYNOTES:

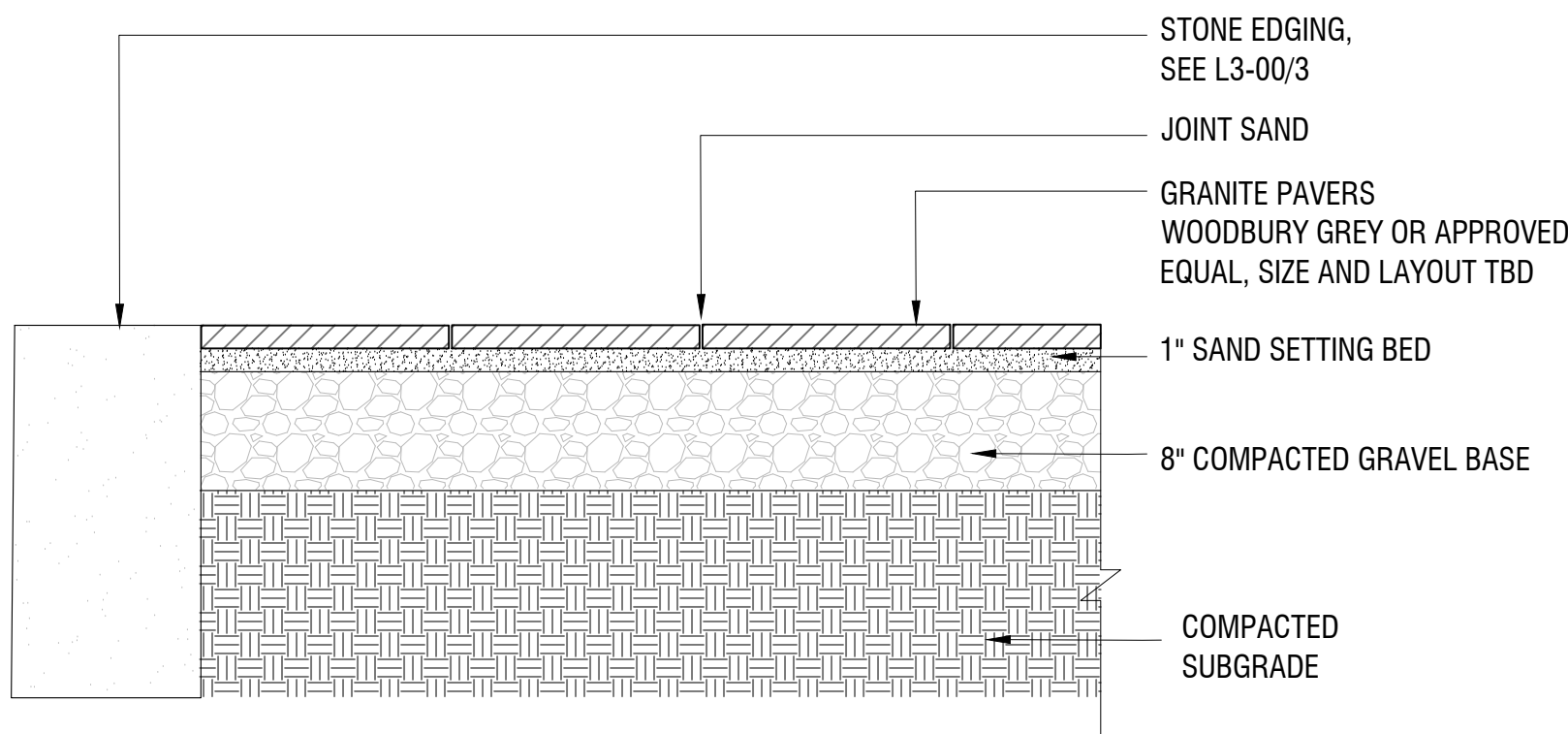
1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET
1.1	STONE PAVING	1/L3-00	6.1	STONE BOLLARD	4/L3-00
1.2	CRUSHED STONE	2/L3-00	7.0	SITE LIGHTING	
2.0	JOINTING		X.X	NOT USED AT THIS TIME	X/XX-XX
3.0	STEPS		8.0	DRAINAGE	
X.X	NOT USED AT THIS TIME	X/XX-XX	X.X	NOT USED AT THIS TIME	X/XX-XX
4.0	SITE WALLS/ EMBANKMENTS		9.0	PLANTING AND LANDSCAPE	
4.1	STONE CHEEK-WALL	5/L3-00	9.1	FLUSH TREE GRATE	1/L2-02
5.0	SITE FURNITURE		9.2	TREE PLANTING	2/L2-02
X.X	NOT USED AT THIS TIME	X/XX-XX	9.3	SHRUB PLANTING	4/L2-02
6.0			9.4	PERENNIAL PLANTING	3/L2-02
10.0	MISCELLANEOUS ELEMENTS		10.1	STONE EDGING	3/L3-00



SITE KEYNOTES:

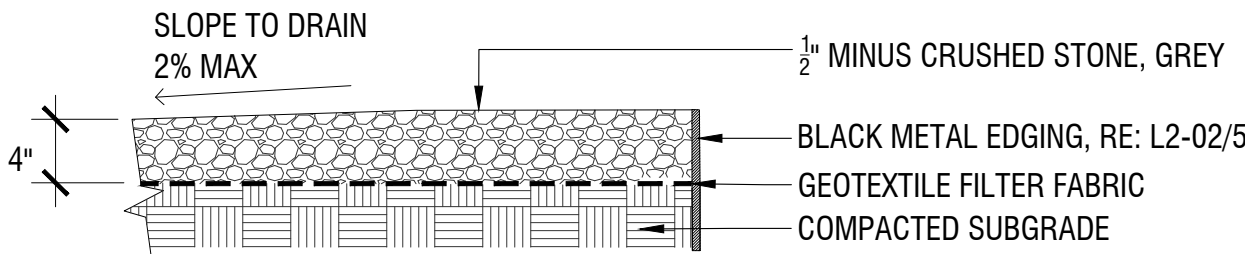
DETAIL / SHEET	DETAIL / SHEET
1.0 PAVEMENTS, RAMPS, CURBS	6.0 RAILINGS, BARRIERS, FENCING
1.1 STONE PAVING	6.1 STONE BOLLARD
1.2 CRUSHED STONE	7.0 SITE LIGHTING
2.0 JOINTING	7.1 NOT USED AT THIS TIME
2.1 NOT USED AT THIS TIME	8.0 DRAINAGE
3.0 STEPS	8.1 NOT USED AT THIS TIME
3.1 NOT USED AT THIS TIME	9.0 PLANTING AND LANDSCAPE
4.0 SITE WALLS/ EMBANKMENTS	9.1 FLUSH TREE GRATE
4.1 STONE CHEEK-WALL	9.2 TREE PLANTING
5.0 SITE FURNITURE	9.3 SHRUB PLANTING
5.1 NOT USED AT THIS TIME	9.4 PERENNIAL PLANTING
6.0 NOT USED AT THIS TIME	10.0 MISCELLANEOUS ELEMENTS
	10.1 STONE EDGING





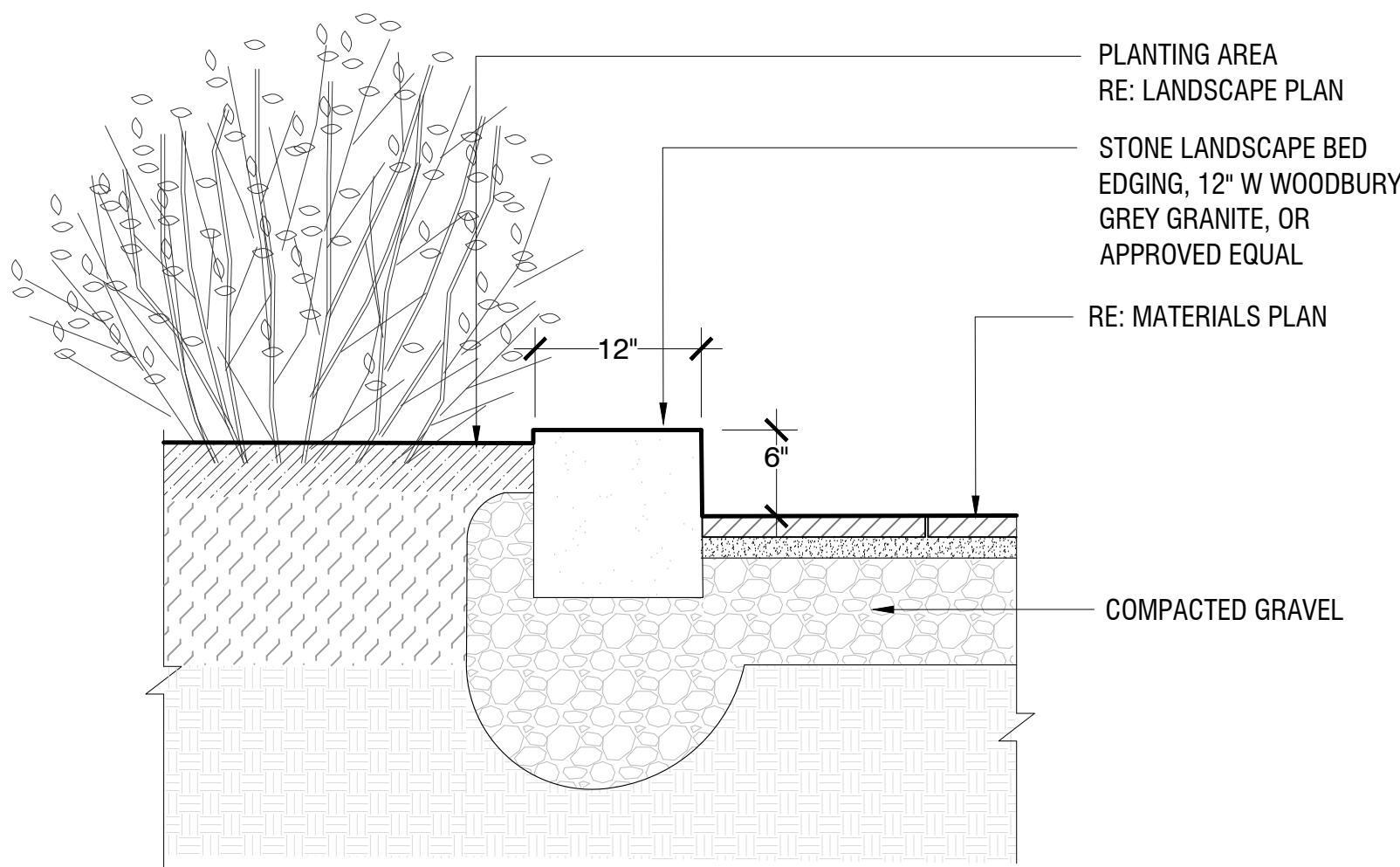
1 STONE PAVING
1":1'-0"

1.1



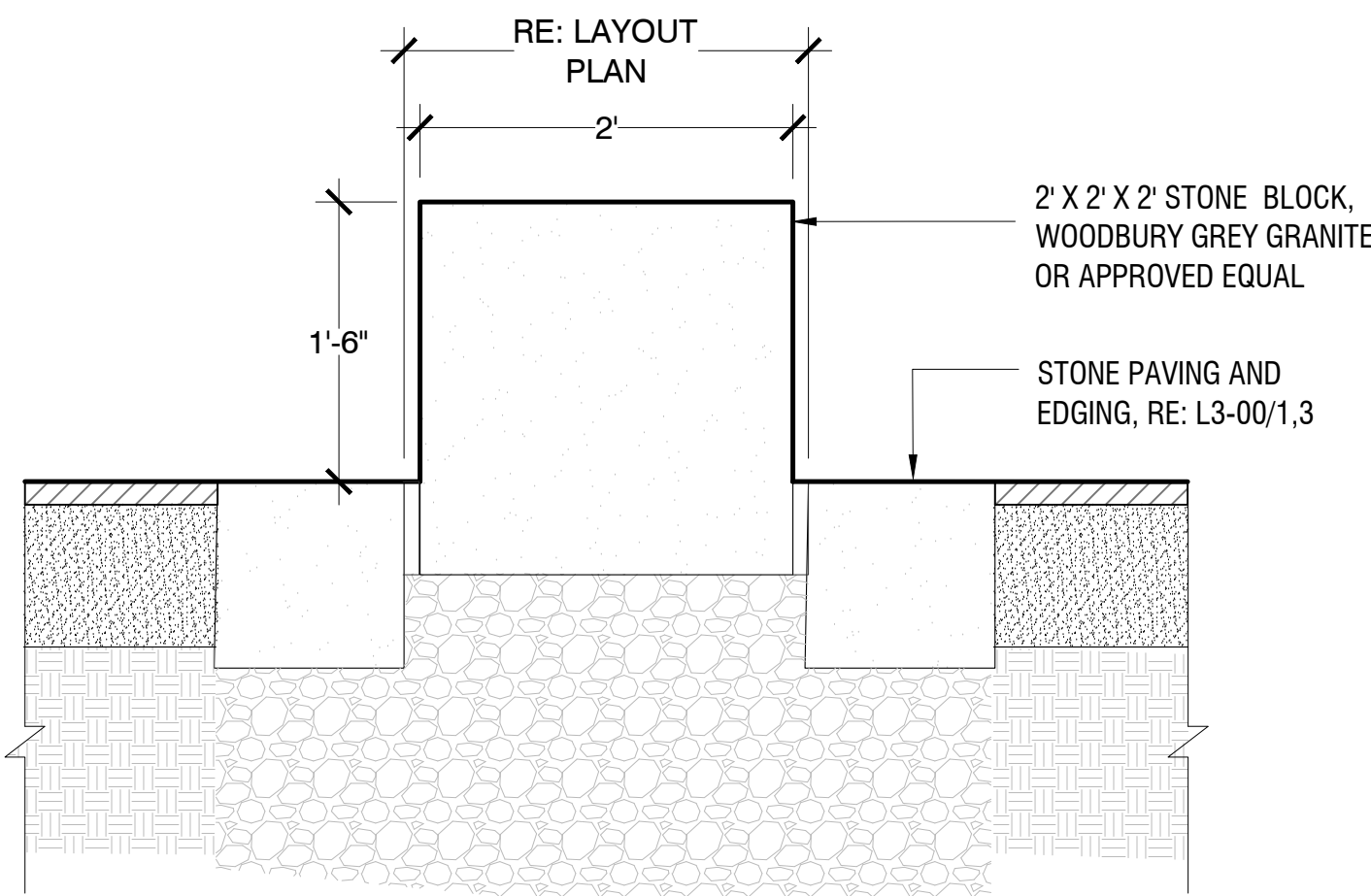
2 CRUSHED STONE
1":1'-0"

1.2



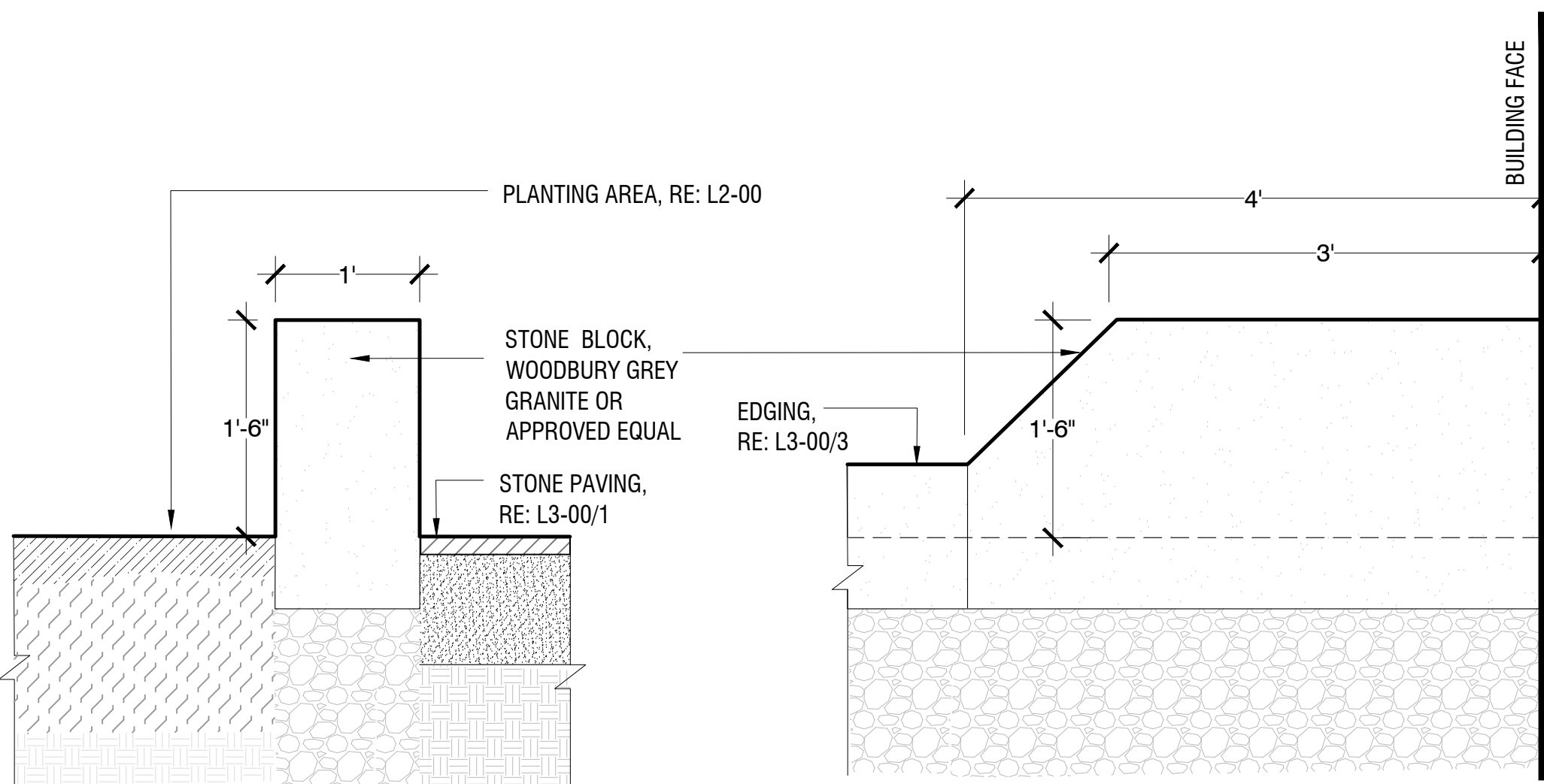
3 STONE EDGING
1":1'-0"

10.1



4 STONE BOLLARD
1":1'-0"

6.1



5 STONE CHEEK WALL
1":1'-0"

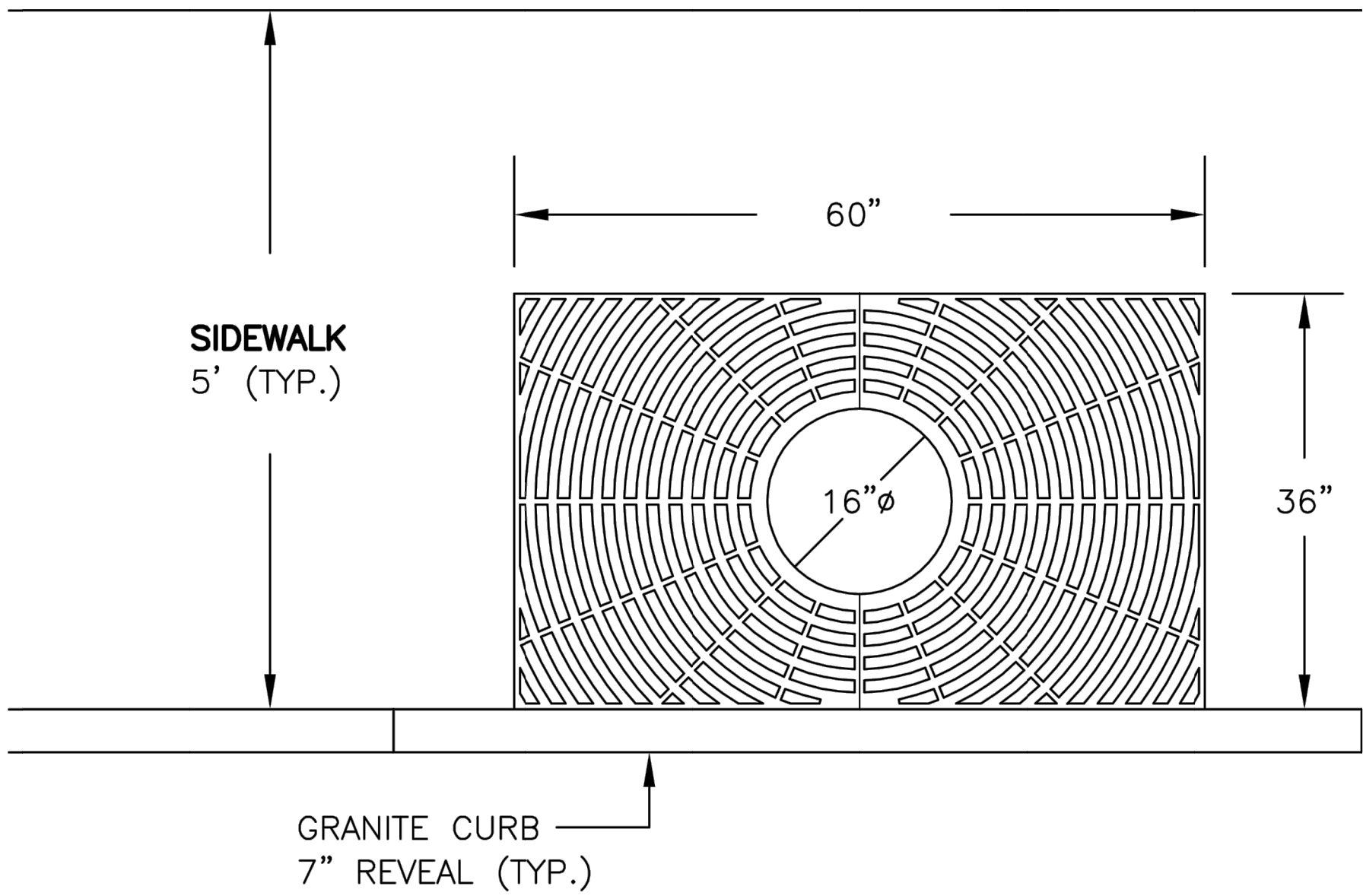
4.1

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET
1.1	STONE PAVING	1/L3-00	6.1	STONE BOLLARD	4/L3-00
1.2	CRUSHED STONE	2/L3-00		SITE LIGHTING	
2.0	JOINTING		7.0	X.X NOT USED AT THIS TIME	X/XX-XX
	X.X NOT USED AT THIS TIME	X/XX-XX		DRAINAGE	
3.0	STEPS		8.0	X.X NOT USED AT THIS TIME	X/XX-XX
	X.X NOT USED AT THIS TIME	X/XX-XX		PLANTING AND LANDSCAPE	
4.0	SITE WALLS/ EMBANKMENTS		9.0		
4.1	STONE CHEEK-WALL	5/L3-00	9.1	FLUSH TREE GRATE	1/L2-02
5.0	SITE FURNITURE		9.2	TREE PLANTING	2/L2-02
	X.X NOT USED AT THIS TIME	X/XX-XX	9.3	SHRUB PLANTING	4/L2-02
			9.4	PERENNIAL PLANTING	3/L2-02
			10.0	MISCELLANEOUS ELEMENTS	
			10.1	STONE EDGING	3/L3-00

NOTES:
16"Ø EXPANDABLE TREE OPENING. 0.25" SLOT OPENINGS.
SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.

WHEN THE TREE GRATE IS INSTALLED IN A CONCRETE SIDEWALK, A NOTCH MUST BE INSTALLED ALONG THE EDGE TO HOLD THE GRATE, WHEN INSTALLED IN A BRICK SIDEWALK IT REQUIRES A FRAME TO BE INSTALLED TO HOLD THE GRATE IN PLACE.



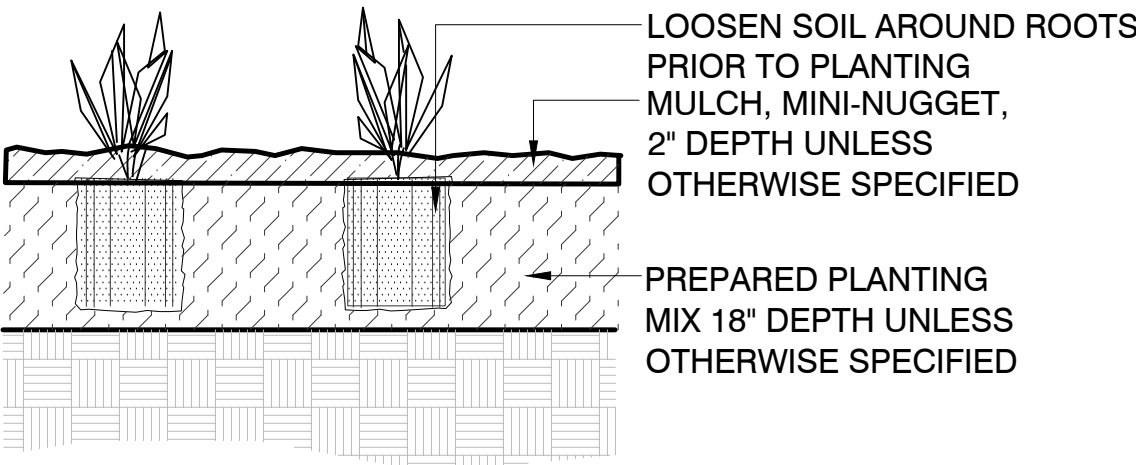
PLAN VIEW

EXPANDABLE TREE GRATE
NEENAH MODEL R-8810
NOT TO SCALE

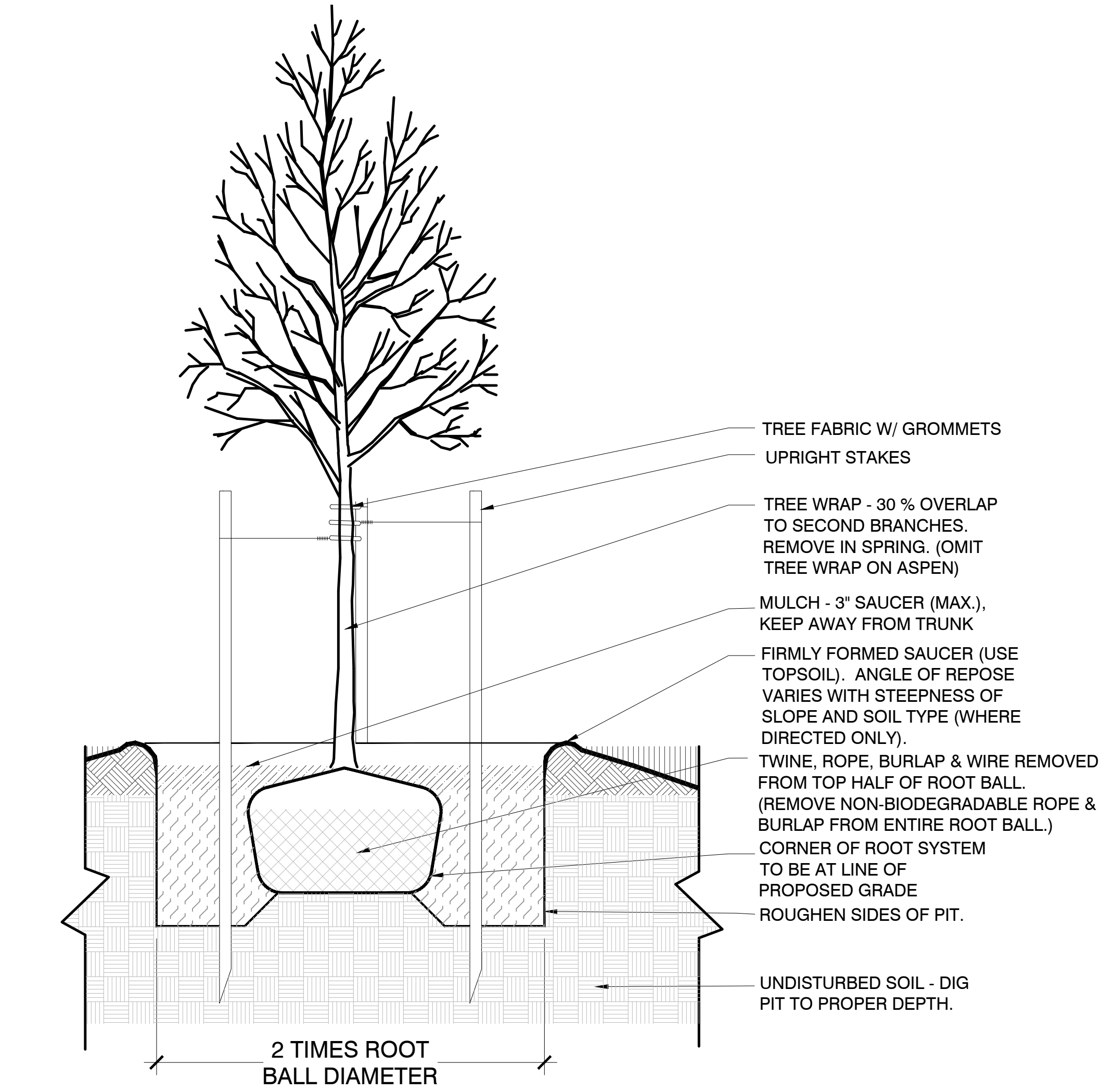
<http://www.nfco.com/literature/TreeGrateCatalog22/Avenue.pdf>

DATE: MARCH 2011 REVISED:	CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL	STDS FOR LANDSCAPING AND PRESERVATION OF EXISTING VEGETATION SECTION IV	FIGURE: IV-4A 134
EXPANDABLE TREE GRATE FOR NARROW RESIDENTIAL URBAN STREETS			

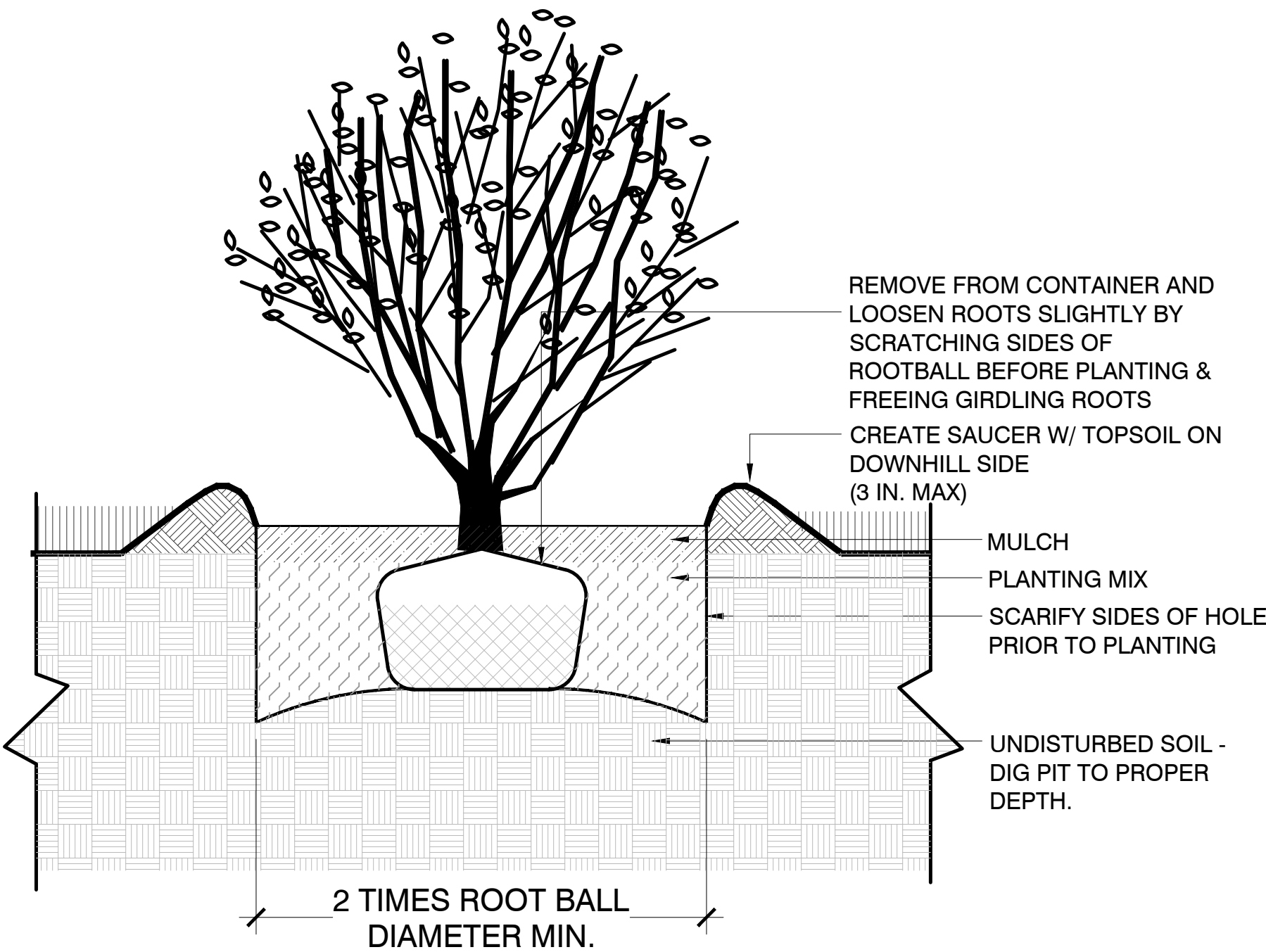
1 FLUSH TREE GRATE
1":1'-0"



3 PERENNIAL & GRASS PLANTING
1":1'-0"



2 TREE PLANTING
1":1'-0"



4 SHRUB PLANTING
1":1'-0"

9.2

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET
1.1	STONE PAVING	1/L3-00	6.1	STONE BOLLARD	4/L3-00
1.2	CRUSHED STONE	2/L3-00		SITE LIGHTING	
2.0	JOINTING		7.0	X.X NOT USED AT THIS TIME	X/XX-XX
	X.X NOT USED AT THIS TIME	X/XX-XX		DRAINAGE	
3.0	STEPS		8.0	X.X NOT USED AT THIS TIME	X/XX-XX
	X.X NOT USED AT THIS TIME	X/XX-XX		PLANTING AND LANDSCAPE	
4.0	SITE WALLS/ EMBANKMENTS		9.0		
4.1	STONE CHEEK-WALL	5/L3-00	9.1	FLUSH TREE GRATE	1/L2-02
5.0	SITE FURNITURE		9.2	TREE PLANTING	2/L2-02
	X.X NOT USED AT THIS TIME	X/XX-XX	9.3	SHRUB PLANTING	4/L2-02
			9.4	PERENNIAL PLANTING	3/L2-02
			10.0	MISCELLANEOUS ELEMENTS	
			10.1	STONE EDGING	3/L3-00

SEAL

PROJECT TITLE

WINTER STREET TOWNHOMES
102 STATE STREET
PORTLAND, MAINE 04102

PREPARED FOR

NEWHEIGHT REDFERN, LLC
217 COMMERCIAL STREET
SUITE 205
PORTLAND, ME 04101

REVISIONS

DATE

ISSUE DATE

SITE PLAN REVIEW
DECEMBER 01, 2021

SHEET TITLE

LANDSCAPE
DETAILS

SHEET INFORMATION

L 3-01

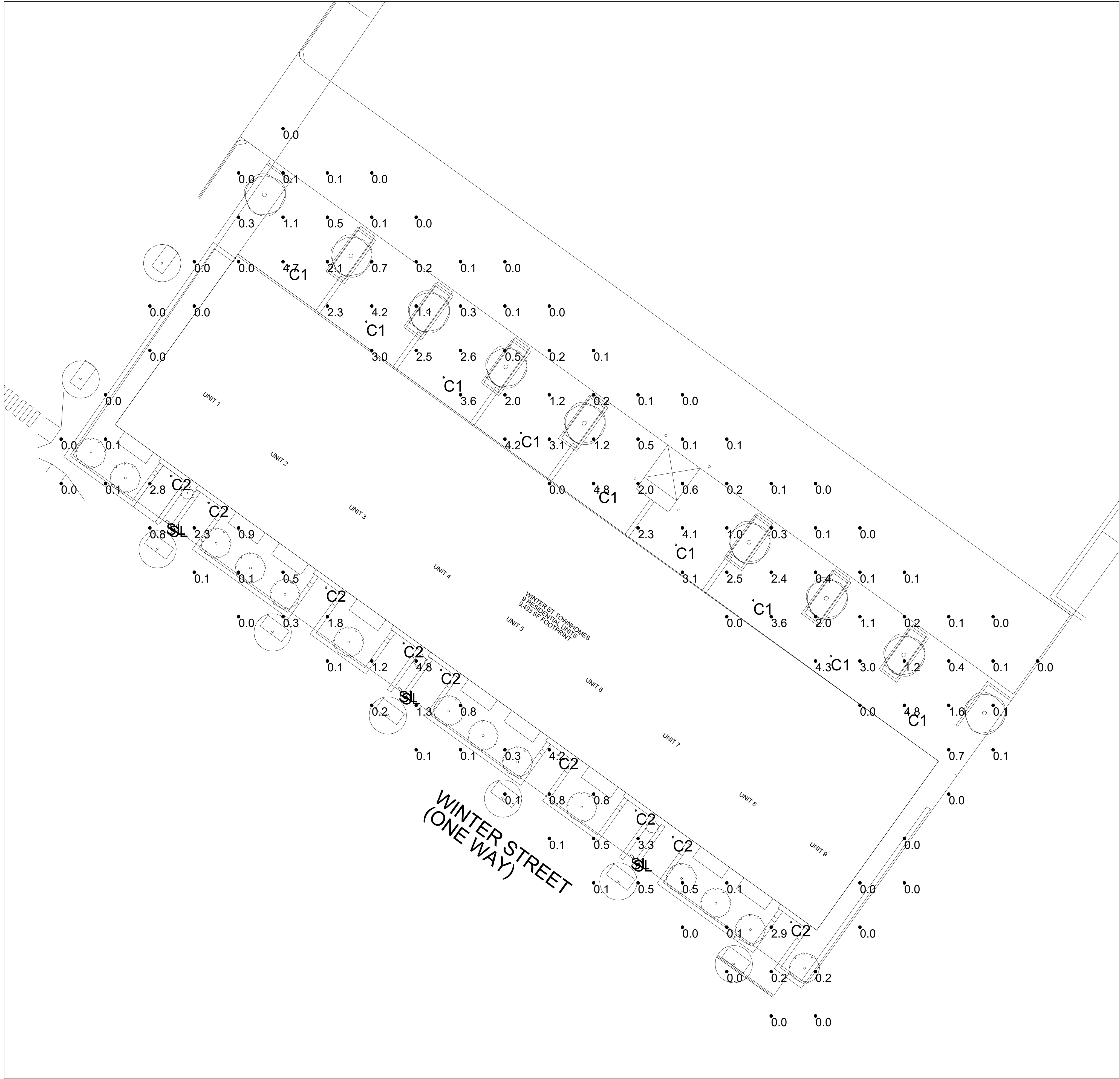
NOT FOR CONSTRUCTION











PLAN VIEW

- NOTES:
- 1) EXACT MOUNTING DETAILS TO BE DETERMINED AT JOBSITE BY OTHERS.
 - 2) CALCULATIONS MAY or MAY NOT SHOW THE EFFECT OF SHADOWING CAUSED BY BUILDINGS AND OBJECTS WITHIN THE CALCULATED SPACE OR IN THE SITE AREA.
 - 3) READINGS SHOWN ARE INITIAL HORIZONTAL FOOTCANDLES ON A FLAT SITE WITHOUT REFLECTIONS OR OBSTRUCTIONS UNLESS OTHERWISE INDICATED.
 - 4) THIS CALCULATION IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO SWANEY LIGHTING ASSOCIATES AND STANDARD ASSUMPTIONS OF THE SPACE AND/OR SITE.
 - 5) CONFORMANCE TO CODES AND OTHER LOCAL REQUIREMENTS AS DETERMINED BY THE AHJ ARE THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.
 - 6) THIS LAYOUT DRAWING MUST BE COORDINATED WITH THE SITE LOCATION FOR CORRECT FIXTURE ORIENTATION.
 - 7) DOCUMENTS PRINTED OR PLOTTED FROM ELECTRONIC FILES MAY APPEAR AT OTHER THAN THE DESIRED OR ASSUMED GRAPHIC SCALES. IT IS THE RESPONSIBILITY OF THE RECIPIENT TO VERIFY THAT THE PRINTED OR PLOTTED-TO-SCALE DRAWING IS PRINTED TO SCALE.

Calculation Summary			
Label	Avg	Max	Min
SITE	0.94	4.8	0.0

Luminaire Schedule (note fixture catalogue numbers are not complete)						
Type	Qty	Lumens	LLF	Watts	Mounting Height (FT)	Description
C1	9	1487	0.900	24	12	3021-B1-S-10-LRTD4-9033-C3-30KS-90-NC-120V MOD to 24W
C2	9	803	0.900	12	9	3021-B1-S-10-LRTD4-9033-C3-30KS-90-NC-120V MOD to 12W
SL	6	133	0.850	9.5	1.5	YK-D-LED-A3080-WHP-H-LD-010-MT

WINTER STREET TOWNHOMES
PORTLAND, ME
SITE LIGHTING LAYOUT

TITLE

GENERATED FOR:
ACETO LANDSCAPE
ARCHITECTURE

SCALE: NOT TO SCALE

Page 1 of 1

Date: 12/11/2021

GENERATED BY: SWANEY LIGHTING, SCARBOROUGH ME - 207-883-7100 - swaneylighting.com



NOTICE: THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SWANEY LIGHTING ASSOCIATES. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF SWANEY LIGHTING ASSOCIATES. THIS DRAWING IS TO BE USED FOR NO PURPOSE OTHER THAN AS DETAILED HEREIN. ANY REUSE OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF SWANEY LIGHTING ASSOCIATES IS EXPRESSLY PROHIBITED. SWANEY LIGHTING ASSOCIATES ASSUMES NO LIABILITY FOR ANY ERRORS OR OMISSIONS. THE INTENT OF THIS LIGHTING LAYOUT IS TO SUGGEST THE BEST UTILIZATION OF LIGHTING FIXTURES TO ILLUMINATE THE SITE. THE LAYOUT IS NOT A GUARANTEE OF PERFORMANCE. ANY VARIATION IN FIXTURE PERFORMANCE FROM THAT SHOWN IN THIS LAYOUT IS THE RESPONSIBILITY OF THE MANUFACTURER. IT IS THE RESPONSIBILITY OF THE RECIPIENT TO VERIFY THAT THE PRINTED OR PLOTTED-TO-SCALE DRAWING IS PRINTED TO SCALE.

PARKING SUMMARY	
	# PARKING SPACES
EXISTING	144
STANDARD – NORTH PARCEL (9'x18')	81
COMPACT – NORTH PARCEL (9'x16')	0
ADA – NORTH PARCEL (8'x18')	7
STANDARD – SOUTH PARCEL (9'x18')	18
COMPACT – SOUTH PARCEL (9'x16')	9
ADA – SOUTH PARCEL (8'x18')	0
TOTAL PROPOSED SPACES	115

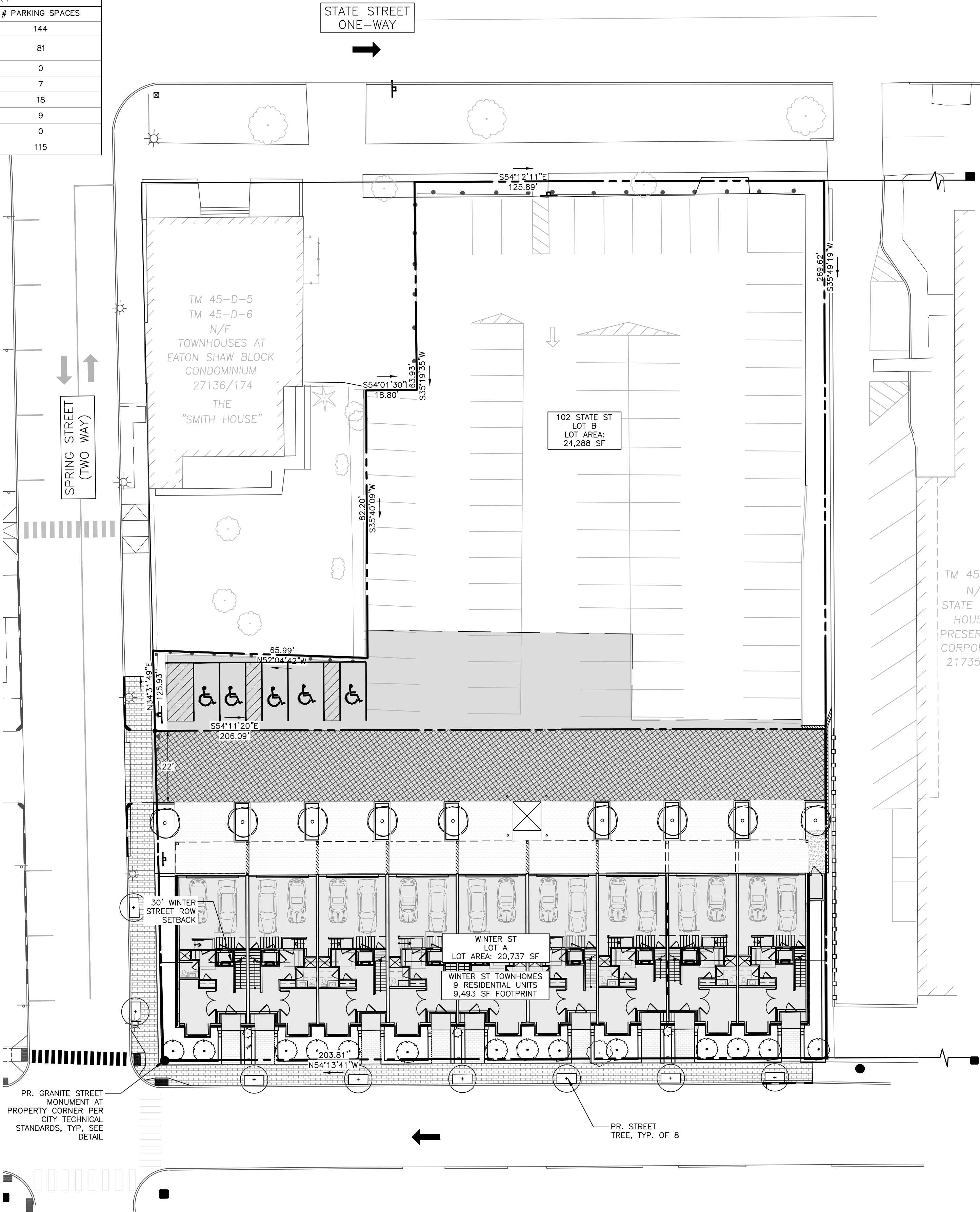
1. FOR INFORMATION REGARDING PROPOSED GROUND LEVEL LAYOUT, REFER TO SITE PLAN, SHEET C-10, MOST RECENT VERSION.
2. FOR INFORMATION REGARDING PROPOSED UTILITIES, REFER TO THE UTILITY PLAN, SHEET C-20, MOST RECENT VERSION.
3. FOR INFORMATION REGARDING PROPOSED GRADING AND STORMWATER, REFER TO THE GRADING PLAN, SHEET C-30, MOST RECENT VERSION.
4. TOTAL SITE AREA FOR 102 STATE STREET INCLUDES 1.03 ACRES (45,025 SF).
5. PROPOSED SITE AREAS FOR 102 STATE STREET & THE WINTER STREET LOT ARE 0.55 ACRES (24,288 SF) & 0.48 ACRES (20,737 SF), RESPECTIVELY.
6. R.O.W. WIDTHS FOR STATE STREET, SPRING STREET, AND WINTER STREET ARE 99', 50', AND 40' WIDE, RESPECTIVELY, PER BOUNDARY SURVEY COMPILED BY OWEN HASKELL, INC. DATED AUGUST 2020.
7. SITE BOUNDARIES BY STATE STREET SURVEY & TOPOGRAPHICAL MAP WITH EXISTING CONDITIONS PROVIDED BY OWEN HASKELL, INC. ON A PLAN ENTITLED BOUNDARY & TOPOGRAPHIC SURVEY AT 102 & 120 STATE STREET, PORTLAND, MAINE MADE FOR NEWHEIGHT REDFERN, LLC C/O ERIN COOPERIDER, 167 NEWBURY STREET, #503 PORTLAND, MAINE, DATED AUGUST 2020.
8. AS OF 5/19/2010, THE SITE IS BOUNDED BY THE B-3 ZONE ON ALL SIDES PER CITY REZONE APPROVAL.
9. LOCUS PARCEL IS SHOWN ON THE CITY OF PORTLAND ASSESSOR'S MAP 45, BLOCK D, PARCEL 1.
10. LOCUS PARCEL DOES NOT FALL IN A SPECIAL FLOOD HAZARD AREA PER FEMA FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 2300510013B, INDEX DATED 7/17/1986.
11. THIS SHEET IS THE SUBDIVISION PLAT FOR THE CREATION OF UP TO NINE (9) DWELLING UNITS ON THE EXISTING SUBJECT PROPERTIES.
12. THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SIDEWALKS, STORMWATER DEVICES, SITE LIGHTING, TRASH REMOVAL, RETAINING WALLS, AND SNOW REMOVAL.
13. THE OWNER SHALL BE RESPONSIBLE FOR COMPLYING WITH THE CONDITIONS OF CHAPTER 32 STORMWATER INCLUDING ARTICLE III, AT A MINIMUM. IN ADDITION, THE OWNER SHALL BE RESPONSIBLE FOR COMPLYING WITH THE CONDITIONS OF THE SUBMITTED STORMWATER MANAGEMENT PLAN AND THE APPROVED PLANS, AND MEET CITY STANDARDS AND STATE GUIDELINES.
14. THE PROPOSED DEVELOPMENT MUST COMPLY TO THE FOLLOWING AS APPROVED BY THE CITY:
 - 14.1. POST-CONSTRUCTION STORMWATER MANAGEMENT AGREEMENT: BOOK: _____ PAGE: _____

1. PREMISES IS SHOWN AS TM 45-D-1 ON THE CITY OF PORTLAND ASSESSORS MAPS.
2. BEARINGS ARE BASED ON MAGNETIC 1957. COORDINATES ARE BASED ON CITY DATUM UTILIZING THE MONUMENTS SHOWN.
3. THE LOCATIONS OF ALL UTILITIES SHOWN ON THE SURVEY ARE FROM VISIBLE SURFACE EVIDENCE ONLY.
4. ELEVATIONS ARE BASED ON CITY DATUM AS PER MONUMENT T104-45-111 AT CORNER OF CLARK AND SPRING STREETS, ELEVATION = 127.91 FEET.
5. PLAN REFERENCE NOTES:
 1. "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR MERCY HOSPITAL DATED 3 FEB. 1982 REVISED THROUGH 15 MARCH 1982" BY H.J. & E.C. JORDAN, SURVEYORS.
 2. "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR MERCY HOSPITAL DATED JUNE 17, 1981 REVISED OCT. 2, 1981" BY H.J. & E.C. JORDAN, SURVEYORS.
 3. "STANDARD BOUNDARY & TOPOGRAPHIC SURVEY ON STATE STREET, PORTLAND, MAINE MADE FOR MERCY HOSPITAL DATED NOVEMBER 30, 1999 REV. 2 OCT. 04, 2012" BY OWEN HASKELL, INC.
 4. "PLA/AS/CLAS LAND TITLE SURVEY, 102, 120 (AKA 144) & 148 STATE STREET, PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR MERCY HOSPITAL AND EASTERN MAINE HEALTHCARE SYSTEMS: FEBRUARY 27, 2013 LAST REVISION DATE: SEPT. 20, 2013 BY OWEN HASKELL, INC.
6. UTILITY NOTE: THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR WAKES NO WARRANTIES THAT THE UTILITIES SHOWN COMPLETELY ACCURATELY LOCATED IN THIS AREA. EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEY HAS NOT BEEN CONDUCTED IN THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

PROPOSED EASEMENTS:

1. ACCESS AND MAINTENANCE EASEMENT TO NEWHEIGHT REDFERN, LLC AS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS

BOOK: PAGE:

[illegible]

RANDY R. LOUBIER, MAINE P.L.S. #2407 DATE:
OWEN HASKELL, INC.

NEWHEIGHT REDFERN, LLC
217 COMMERCIAL ST, SUITE 205
PORTLAND, MAINE 04101
CONTACT: ERIN COOPERRIDER

ACORN ENGINEERING, INC.
65 HANOVER STREET
PORTLAND, MAINE 04101
CONTACT: PETER F. HEIL, P.E.

OWEN HASKELL, INC.
390 US ROUTE 1, UNIT 10
FALMOUTH, MAINE 04105
CONTACT: RANDY LOUBIER, P.L.S.

- | PROPERTY | MARKER |
|------------------|---|
| PROPERTY LINE |  |
| BUILDING |  |
| PAVERS |  |
| LANDSCAPED AREAS |  |
| BRICK |  |
| PAVEMENT CUT |  |
| CURB |  |
| STRIPING |  |

DRAFT
NOT ISSUED FOR
RECORDING



SCALE: 1"=20'

[illegible]

WINTER STREET TOWNHOMES
PORTLAND, MAINE

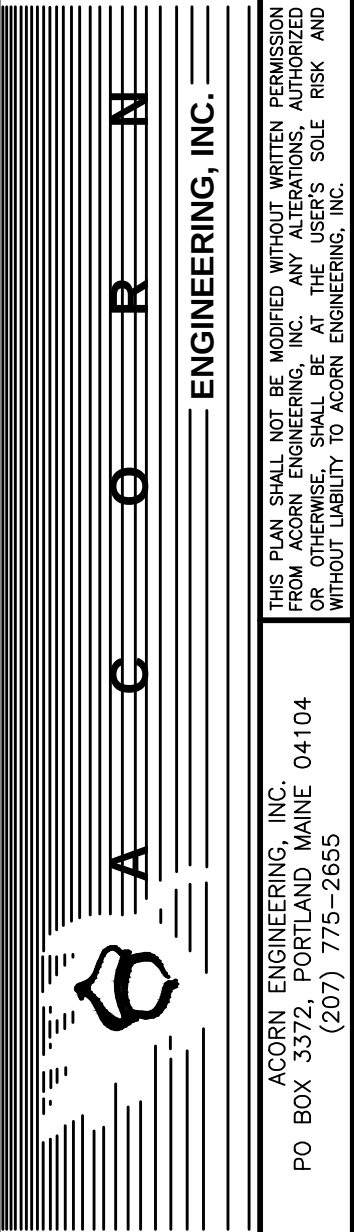
NEWHEIGHT REDFERN, LLC

167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

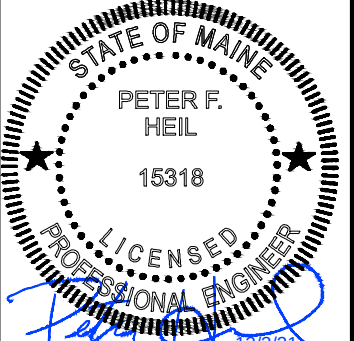
DRAWING NAME:

PROJECT NAME:

CLIENT:



FILE:	1140.1_CIVIL
JN:	1140.1
SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	MKT
CHECKED BY:	PFH



DRAWING NO.

PLAT

WINTER STREET TOWNHOMES

PORTLAND, MAINE

NOVEMBER 3, 2021

1



1 VIEW FROM SPRING STREET INTERSECTION



2 VIEW FROM ACROSS WINTER STREET



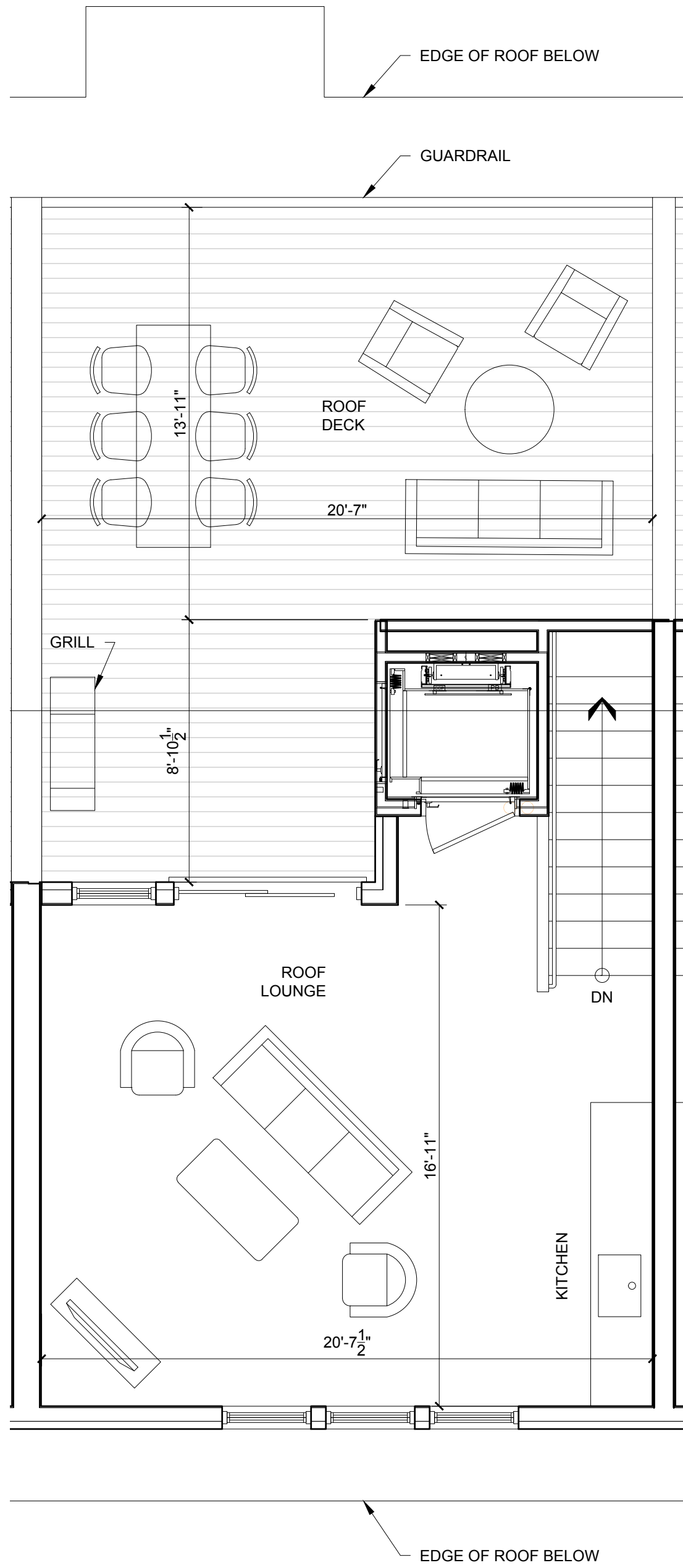
3 VIEW FROM DOWN WINTER STREET



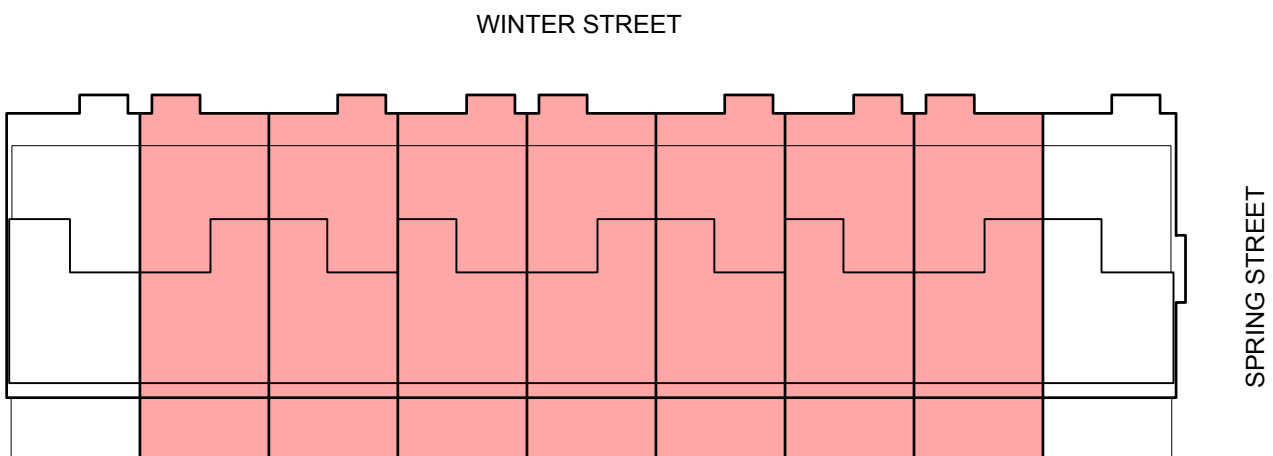
4 VIEW FROM FRONT ENTRY WALK

PROGRESS PRINT ONLY
Not for Construction

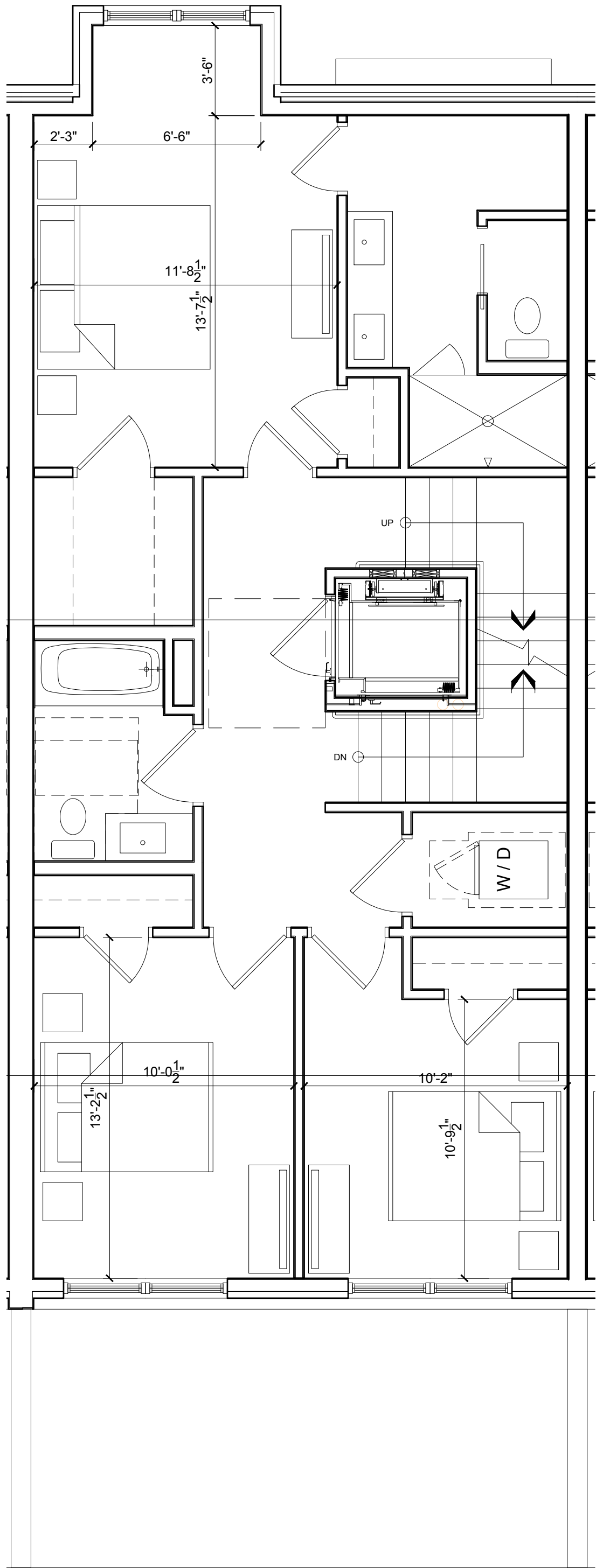
RYAN SENATORE **ARCHITECTURE**



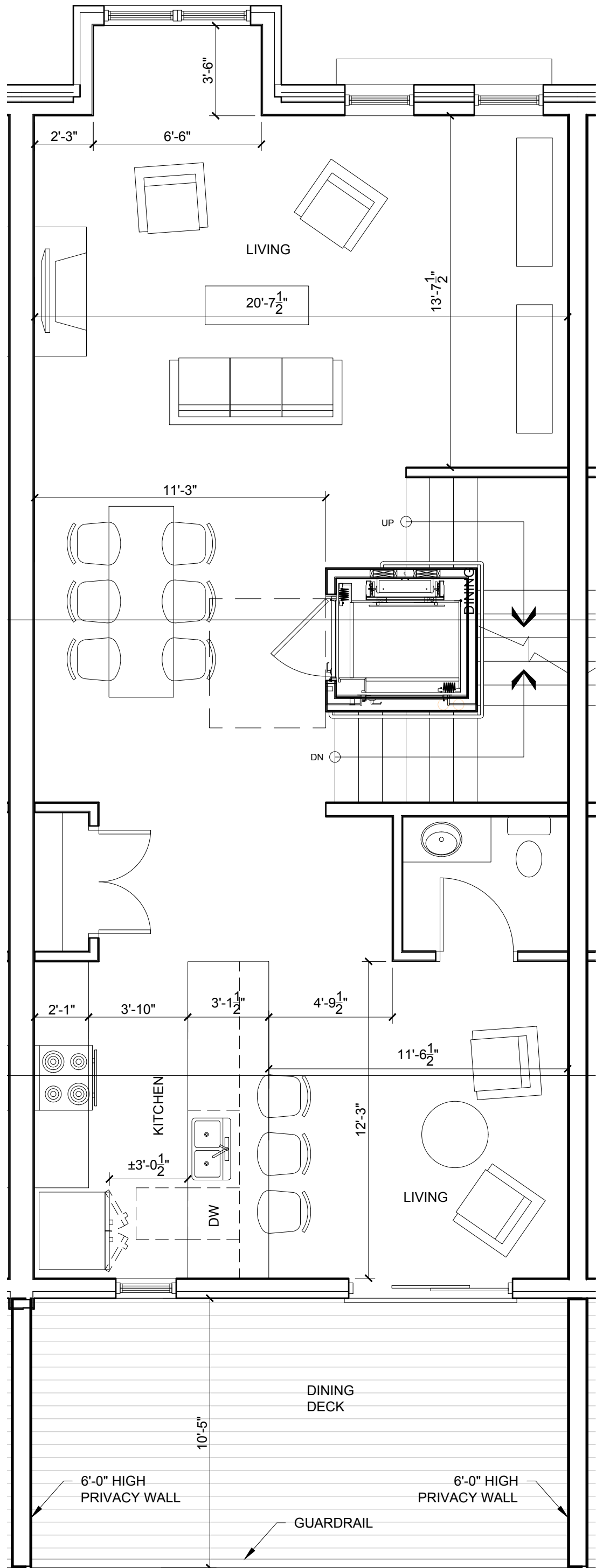
4 ROOF PLAN
1/4" = 1'-0"



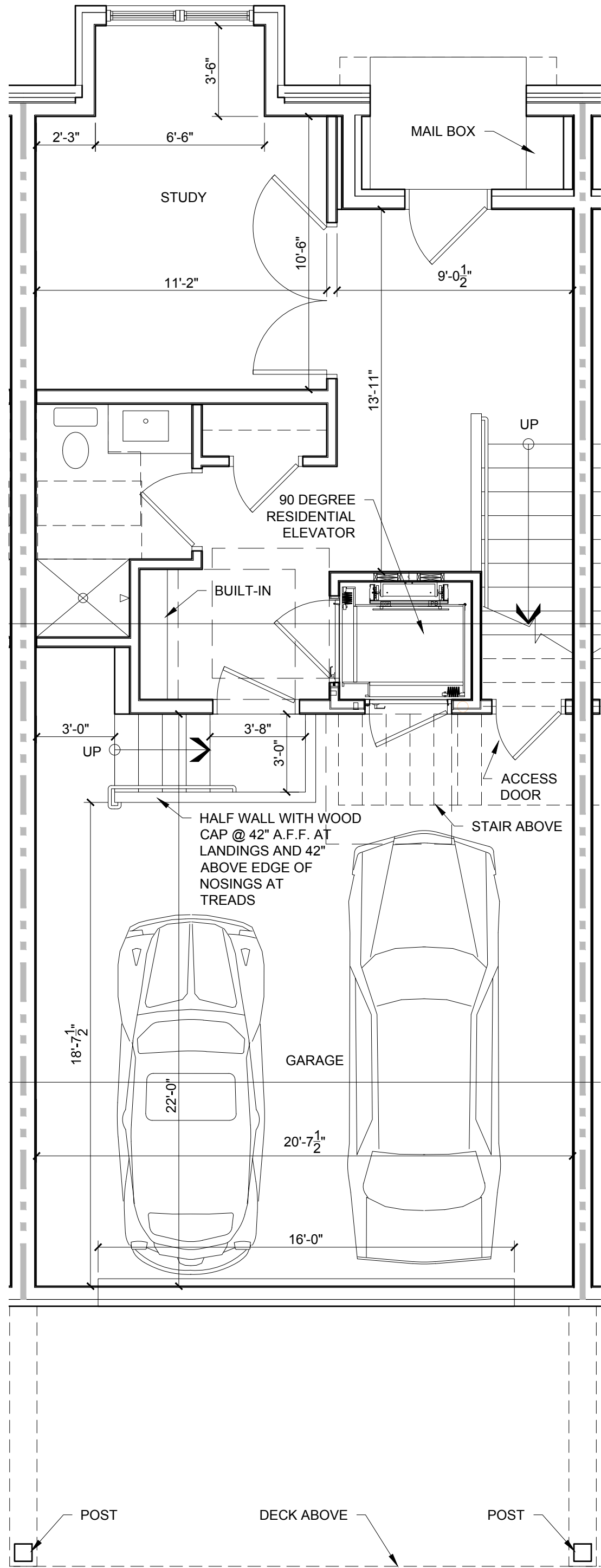
5 KEY PLAN
1/32" = 1'-0"



3 THIRD FLOOR PLAN
1/4" = 1'-0"



2 SECOND FLOOR PLAN
1/4" = 1'-0"



1 FIRST FLOOR PLAN
1/4" = 1'-0"

TYPICAL UNIT

PLANNING BOARD REPORT PORTLAND, MAINE

Traffic Movement Permit

29 Marginal Way

PL-001879-2021

Northland Enterprises & Management Corp.

Submitted to:	Portland Planning Board	Prepared By:	Charles Tetelman
Public Hearing Date:	February 8, 2022	Date:	February 4, 2022

I. INTRODUCTION

On April 14, 2015, the City of Portland Planning Authority approved a Level II site plan for the redevelopment of the Century Tire site at 195 Kennebec Street (29 Marginal Way) by Northland Enterprises, LLC to include two multi-tenant commercial buildings totaling 13,002 square feet.



Figure 1: 29 Marginal Way Property Boundary

At the time of the project's approval, a MaineDOT Traffic Movement Permit (TMP) was not required, as the project did not generate 100 or more passenger car equivalents (PCEs) trips during its peak hour of traffic generation. However, a condition of approval was included requiring that prior to issuance of certificates of occupancy for each of the tenant spaces, updated trip generation numbers must be provided. If those subsequent estimates triggered the need for a traffic movement permit (TMP), a TMP application would be submitted for review and approval by the Planning Board. With the fit-up of the last of the tenant spaces now underway, Coastal Pharmacy's expansion into the remaining 1,300 square foot commercial space will result in greater than 100 peak hour trips for the site, triggering the requirement for a TMP, and the applicant has now submitted a TMP application for review and approval.

The Planning and Urban Development Department mailed 39 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the January 28, 2022 and January 29, 2022 editions of the *Portland Press Herald*.

Applicant: Northland Enterprises & Management Corp.
Applicant Representative: Traffic Solutions / Barton & Loguidice, LLC

II. REQUIRED REVIEWS

Review	Applicable Standards
MaineDOT Traffic Movement Permit (TMP)	Delegated Review

III. PROJECT DATA

Existing Zoning	B-7 Mixed Development
Property Size	13,145 sq. ft.
Existing Use	Commercial
Proposed Use	Commercial

IV. EXISTING CONDITIONS & SURROUNDING CONTEXT

29 Marginal Way is located in the B-7 zone between Kennebec Street and Marginal Way. Kennebec Street is partially a one-way street (between Brattle Street and Forest Avenue) and a two-way street moving east away from Brattle Street. Marginal Way is a two-way street that extends to Franklin Street arterial. Both Marginal Way and Kennebec Street intersect with Forest Avenue and State Street near the applicant's site.

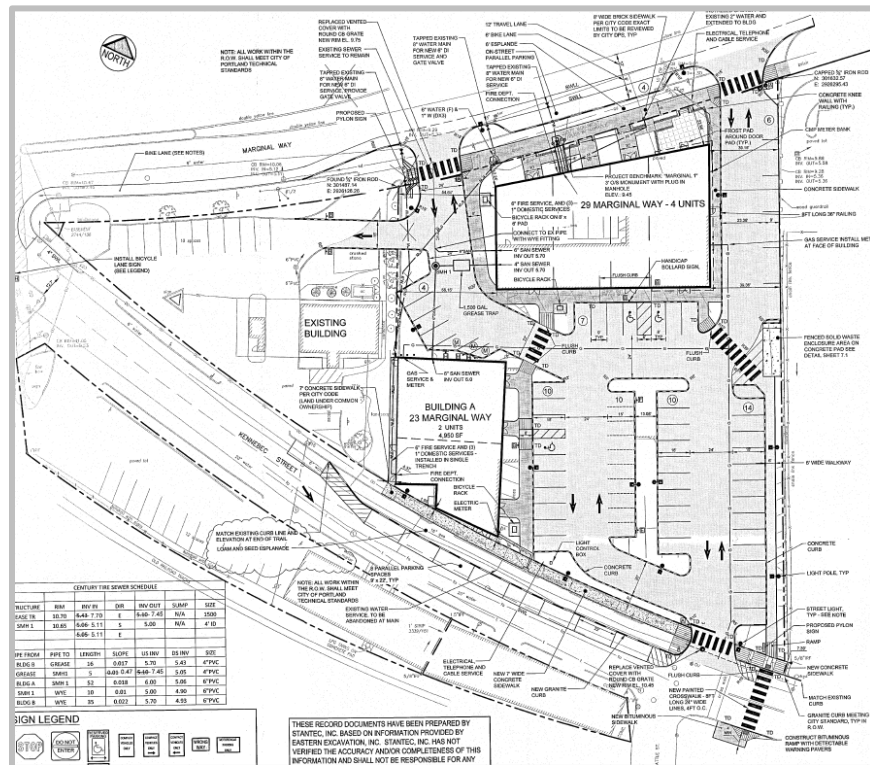


Figure 2: Site Plan Layout

There are two buildings on site: Building A has two commercial spaces with a total of 4,956 sq. ft. and Building B has three commercial spaces with a total of 8,200 sq. ft. The five retail spaces are currently occupied by a variety of commercial tenants including a restaurant, telecommunications branch store, pharmacy, gym, and recreational marijuana store.

The site consists of 55 parking spaces allocated for employees and customers. There are two vehicle entrances along Marginal Way and one along Kennebec Street. The Marginal Way frontage has outdoor seating for the restaurant, landscaping, and a sidewalk as well as five on-street parking spots. There are four temporary parking spots located on Kennebec Street.

The Maine Department of Transportation will begin a design process in 2022 looking to redesign Forest Avenue from the State Street and Marginal Way intersection to Park Avenue. This will include direct consideration of the realignment of Kennebec Street and the extension of the Bayside Trail to Forest Avenue. This is to implement recommendations from the Portland-South Portland Smart Corridor Study.



Figure 3: MaineDOT Preferred Layout (from the Portland-South Portland Smart Corridor Study – October, 2018)

V. TMP REVIEW

In 2021, Coastal Pharmacy sought to occupy the remaining 1,300 sq. ft. unit in Building B. As required in the original approval, the property owner needed to provide an updated trip generation analysis. In order to determine the total trip estimates, the applicant utilized the Institute of Transportation Engineers *Trip Generation Handbook Third Edition*. The provided information shows the site will generate 36 “pass-by” and 110 “primary” trips during the weekday PM peak hour and a total of 62 “pass-by” and 135 “primary” trips on a Saturday peak hour. With a peak hour trip generation over 100, a TMP would be required in order for Coastal Pharmacy to obtain a Certificate of Occupancy.

As part of the TMP application, the applicant provided the 2018 to 2020 traffic accident information covering Marginal Way from Hanover Street to Forest Avenue and Kennebec Street from Forest Avenue to Hanover Street. The Maine Department of Transportation considers any roadway intersection or segment a high crash location if there are eight or more accidents and there is a critical rate factor greater than 1.00. The data provided demonstrates that there are no identified high crash locations within the scope of the site.

The City’s Consulting Traffic Engineer and the City’s Transportation System Engineer reviewed the application. At the December 20, 2021 scoping meeting, the City determined that a traffic study would not be required as part of this application. City Staff discussed the use of the site as a cut through between Kennebec Street and Marginal Way (in order to bypass the intersection). In response, the applicant stated that the parking lot has speed bumps that help to deter use of the site for cut-through purposes and to

reduce speeds for vehicles that do choose to do so. Staff also noted that the surrounding traffic system is complex and future changes may be implemented (as mentioned above) but there are no current concerns with the site regarding traffic and circulation within the surrounding context.

VI. PROPOSED MOTIONS

Traffic Movement Permit

On the basis of the application, plans, reports, and other information submitted by the applicant; findings and recommendations contained in the Planning Board report for the public hearing on February 8, 2022 for application PL-001879-2021 relevant to Portland's Technical Standards and other regulations; and the testimony presented at the Planning Board hearing, the Planning Board **[finds / does not find]** that the plan is in conformance with 23 MRSA 704-A and Chapter 305 Rules and Regulations pertaining to Traffic Movement Permits.

VII. ATTACHMENTS

REPORT ATTACHMENTS:

1. 195 Kennebec Approval Letter

APPLICANT SUBMITTAL:

- A. Checklist
- B. Development Entrances and Exits
- C. Right Title and Interest
- D. Rights of Way
- E. Schedule
- F. Site Plan Info and Detail
- G. TMP Permit
- H. Traffic Crashes

PLANS

- Plan 1. Boundary Survey Plan
- Plan 2. Site Layout Plan



Planning & Urban Development Department
Jeff Levine, AICP, Director

Planning Division
Alexander Jaegerman, Director

April 14, 2015

Brad Fries
Northland Enterprises, LLC
17 South Street, 3rd Floor
Portland, ME 04104

Andrew Johnston
FST, Inc.
778 Main Street, Suite 8
South Portland, ME 04106

Project Name: Century Tire Plaza
Address: 195 Kennebec Street, Portland, ME
Project ID: 2015-027
CBL: 34-C-9
Applicant: Northland Enterprises, LLC
Planner: Nell Donaldson

Dear Mr. Fries:

On April 14, 2015, the Planning Authority approved with conditions a Level II site plan for the redevelopment of the Century Tire site at 195 Kennebec Street. The decision is based upon the application as submitted by Northland Enterprises, LLC and prepared by FST, Inc., with plan revisions dated April 1, 2015. The proposal was reviewed for conformance with the standards of the City of Portland's site plan ordinance, Article V of the land use code. It should be noted that the plans for the project's Marginal Way and Kennebec Street frontages were found to meet the guidelines of the Marginal Way Master Plan and the Somerset Street Extension Feasibility Study respectively, and that the provision of the sidewalk along the property's eastern boundary was found to meet the city's B-7 and site plan standards related to street connectivity and safe access for all site users. The Level II site plan is approved with the following waivers and conditions:

A. WAIVERS

Curb cuts: Section 1.7.2.8 of the city's Technical Manual establishes a maximum of two curb cuts per site. The applicant has demonstrated that conditions unique to this property exist, including the presence of three existing curb cuts, the proposed closure of curb cuts on the adjacent lot under the same ownership, and the potential, through these plans, for a shared driveway with the adjacent lot in accordance with best management practices. Given this, and on the recommendation of the city's traffic engineer, the Planning Authority finds that the public interest and purposes of the land development plan are secured and waives the curb cut maximum to allow three driveways on site. It should be noted that a condition of approval has been included below that provides for the reevaluation of the site's westerly driveway on Marginal Way at the time of future redevelopment on the adjacent lot.

Light trespass: Section 12.2 of the city's Technical Manual establishes a maximum light trespass standard of .1 foot candle as measured at the property line, except where a project abuts "industrial or other non-sensitive uses." In this case, the applicant proposes to exceed the light trespass standard on the Kennebec Street,

Marginal Way, and eastern property boundaries. Given that the uses in these directions can be deemed “industrial” or “non-sensitive,” the Planning Authority waives the light trespass standard.

Parking lot dimensional requirements: Section 1.14 of the city’s Technical Manual establishes a minimum parking lot aisle width of 24 feet in the case of right angle parking. The applicant has demonstrated that extraordinary conditions exist that limit their ability to meet the parking lot dimensional requirement of 24 feet along the eastern property line, in the area between Buildings A and B, and along the Kennebec Street frontage. On the recommendation of the city’s traffic engineer, the Planning Authority finds that the public interest and purposes of the land development plan are secured and waives the technical standards for parking lot dimensional requirements to allow aisle widths of 20 ft., 22 ft., and 22.38 ft. as depicted on the site plan.

B. CONDITIONS OF APPROVAL

The Planning Authority found that the plans are in conformance with the site plan standards of the land use code subject to the following conditions of approval, which must be met prior to the issuance of a building permit unless stated otherwise:

1. The applicant shall revise the plan set for review and approval by the Department of Public Services, including:
 - A modified design for the Marginal Way sidewalk, to include a reduction in sidewalk width to 8 feet and the expansion of the esplanade by 2 feet, in order to match conditions east of the site;
 - A curb extension west of the westerly driveway on Marginal Way and transitional pavement markings for bicycles and vehicles from Forest Avenue;
 - Details that confirm ADA accessibility and reasonable pedestrian access along and to the Marginal Way frontage of Building B;
 - A mechanism to prevent parked vehicles from encroaching on the sidewalk along the eastern boundary of the site;
 - Alternate snow storage locations designed to avoid conflicts with pedestrian movement on the sidewalk along the eastern boundary of the site;
 - A curb extension on Kennebec Street at the location of the sidewalk ramp/crosswalk such that the handicap ramp is not located within the 10-foot path area;
 - An ADA compliant ramp on the south side of the crosswalk on Kennebec Street in this location; and
 - Pavement markings, signage, and bollard treatments in conjunction with the transition from the 10-foot shared-use path on Kennebec Street to an at-grade cycle-track facility west to Forest Avenue.
2. At the time of the future redevelopment of the Enterprise Rental Car site, the applicant shall be required to reevaluate the necessity, design, and location of both the westerly driveway on Marginal Way and the driveway on Kennebec Street for review and approval by the Department of Public Services and the Planning Authority;
3. Prior to the issuance of certificates of occupancy for each tenant fit-up, the applicant shall provide revised trip generation information for review and approval by the Department of Public Services. If a Traffic Movement Permit is triggered, an application must be submitted for review and approval by the Department of Public Services and the Planning Board;
4. Prior to the issuance of certificates of occupancy, the applicant shall provide supporting documentation for changes to the city’s on-street parking schedule on Kennebec Street for review and approval by the Department of Public Services and the City Council;
5. The applicant shall revise the configuration of the six parking spaces located along the Enterprise property boundary to conform to standard parking space orientation for review and approval by the

Department of Public Services;

6. The applicant shall revise details to depict the city's standards for curb reveal and depth of base gravel for a brick sidewalk on bituminous base for review and approval by the Department of Public Services;
7. The applicant shall:
 - Add notes regarding the abandonment of the pipe between existing catch basin A and the existing catch basin in Kennebec Street which state that the pipe and catch basin penetrations will be capped at catch basin A and at the connection in Kennebec Street and that the pipe will be removed or infilled with a flowable fill, and
 - Revise Sheet C-5.0 to include erosion and sediment control practices as submitted in the original plan setfor review and approval by the Department of Public Services;
8. The applicant shall submit a wastewater capacity letter for review and approval by the Planning Authority;
9. The applicant shall revise the plans to add notes indicating LED street light specifications for both Marginal Way and Kennebec Street, eliminate note #18 on the landscape plan, modify the spacing on Kennebec Street to equally distribute street lights along the frontage, and submit a street lighting and electrical design plan for review and approval by the Department of Public Services;
10. The applicant shall provide revised elevations depicting the street-facing façade and entry of Building A with treatment similar to the other building entrances, including a sign, light, and canopy, for review and approval by the Planning Authority; and
11. Prior to the issuance of a certificate of occupancy, the applicant shall provide specifications for proposed signs, meeting the standards of the B-7 zone, for review and approval by the Zoning Administrator.

The approval is based on the April 1, 2015 plan set. A final, revised plan set must be submitted for staff review and approval prior to the issuance of permits.

STANDARD CONDITIONS OF APPROVAL

Please note the following standard conditions of approval and requirements for all approved subdivision and site plans:

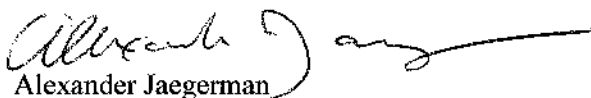
1. **Develop Site According to Plan** The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Modification of any approved site plan or alteration of a parcel which was the subject of site plan approval after May 20, 1974, shall require the prior approval of a revised site plan by the Planning Board or the Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.
2. **Separate Building Permits Are Required** This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Inspection Division.
3. **Site Plan Expiration** The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.

4. **Performance Guarantee and Inspection Fees** A performance guarantee covering the site improvements, an inspection fee payment of 2.0% of the guarantee amount, and seven (7) final sets of plans plus one final digital copy must be submitted to and approved by the Planning Division and Public Services Department prior to the release of a subdivision plat for recording at the Cumberland County of Deeds, and prior to the release of a building permit, street opening permit or certificate of occupancy for site plans. If you need to make any modifications to the approved plans, you must submit a revised site plan application for staff review and approval.
5. **Defect Guarantee** A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
6. **Preconstruction Meeting** Prior to the release of a building permit or site construction, a pre-construction meeting shall be held at the project site. This meeting will be held with the contractor, Development Review Coordinator, Public Service's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan. The site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.
7. **Department of Public Services Permits** If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)
8. **As-Built Final Plans** Final sets of as-built plans shall be submitted digitally to the Planning Division, on a CD or DVD, in AutoCAD format (*.dwg), release AutoCAD 2005 or greater.

The Development Review Coordinator must be notified five (5) working days prior to the date required for final site inspection. The Development Review Coordinator can be reached at the Planning Division at 874-8632. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Nell Donaldson at (207) 874-8723.

Sincerely,


Alexander Jaegerman
Planning Division Director

Attachments:

1. Memo from Thomas Errico, Consulting Traffic Engineer, 4/8/15
2. Memo from Mike Farmer, Department of Public Services, 4/7/15
3. Memo from David Senus, Consulting Civil Engineer, 4/7/15
4. Memo from Caitlin Cameron, Urban Designer, 4/3/15

cc:

Jeff Levine, Director of Planning and Urban Development
Alexander Jaegerman, Planning Division Director
Barbara Barhydt, Development Review Services Manager
Philip DiPierro, Development Review Coordinator, Planning
Ann Machado, Inspections Division
Tammy Munson, Inspection Division Director
Lannie Dobson, Administration, Inspections Division
Gayle Guertin, Administration, Inspections Division
Michael Bobinsky, Public Services Director
Jane Ward, Administration, Public Services

Katherine Earley, Engineering Services Manager, Public Services
Bill Clark, Project Engineer, Public Services
David Margolis-Pineo, Deputy City Engineer, Public Services
Doug Roncarati, Stormwater Coordinator, Public Services
Greg Vining, Associate Engineer, Public Services
Michelle Sweeney, Associate Engineer
John Low, Associate Engineer, Public Services
Matt Doughty, Field Inspection Coordinator, Public Services
Mike Farmer, Project Engineer, Public Services

Jeff Tarling, City Arborist, Public Services
Captain Chris Pirone, Fire Department
Thomas Erriso, P.E., TY Lin Associates
David Senus, P.E., Woodard and Curran
Rick Blackburn, Assessor's Department
Approval Letter File

From: Tom Errico <thomas.errico@tylin.com>
To: Helen Donaldson <HCD@portlandmaine.gov>
CC: David Margolis-Pineo <DMP@portlandmaine.gov>, Katherine Earley <KAS@portlandmaine.gov>, Jeff Tarling <JST@portlandmaine.gov>, "Jeremiah Bartlett" <jbartlett@portlandmaine.gov>
Date: 4/8/2015 2:36 PM
Subject: Century Tire Plaza – 195 Kennebec Street

Nell – The following represents a status update of my March 24, 2015 comments and is based upon materials submitted by the applicant on April 1, 2015.

1. The project frontage on Marginal Way shall be adjusted to meet the design principles of the Marginal Way Master Plan (the nearby Gorham Savings Bank Building is a good example). The plans should account for the following:

- On-street parking
- The curb line should extend into Marginal Way and generally match the curb line at the Gorham Savings Bank site. The applicant should be cognizant of the transition from Forest Avenue and how vehicles will be aligned.
- 10-foot brick sidewalk
- 6-foot bicycle lane

Status: Based upon further review and a desire to have a more substantial esplanade area, the sidewalk width shall be reduced to 8 feet and the esplanade expanded by 2 feet. This will match more closely with the Gorham Savings Bank frontage. I would also note that a curb extension west of the westerly driveway shall be provided that matches the east corner. Transitional pavement markings will be required for bicycles and vehicles from Forest Avenue. A plan shall be provided for review and approval by the City.

2. The number of driveways provided for the site exceeds those allowed under the City's Technical Standards. From an access management perspective, I'm most concerned about conditions on Marginal Way. Please noted the following:

- The project incorporates a shared driveway with Enterprise Rental which is a positive access management strategy, particularly when only entry movements into Enterprise will be permitted.
- Marginal Way traffic conditions, particularly with the influence of Forest Avenue, does concern me as it relates to the westerly driveway. My preference would be to eliminate this driveway, but recognize its importance for Enterprise access needs. A right-turn entry and exit driveway scenario would help to ease my concern regarding traffic impacts, but this configuration would eliminate Enterprise left entry movements, which I suspect would be problematic.

· The easterly driveway is acceptable to me as the primary driveway although it is suggested that a formal direct pedestrian connection between Marginal Way and Kennebec Street be incorporated.

Status: Given improvements to existing conditions and the incorporation of a shared driveway with Enterprise Rental, I support a waiver from the City's Technical standards for exceeding the number of driveways from the site. I would note that a condition of approval shall be included that requires the westerly driveway on Marginal Way to be revisited during redevelopment of the Enterprise Rental site. I would further note that I find the pedestrian connection to be acceptable. The plans should include a provision that prevents parked vehicles from encroaching on the sidewalk.

3. I have reviewed the project parking supply calculation and it appears to be reasonable, although the actual parking generation needs will be a function of actual retail tenants. There will be opportunities for shared use reduction assumptions and thus in my professional opinion the site could absorb some reduction in parking given suggested site plan changes. I would also note that while the on-street parking supply is not permitted for use in parking demand calculations the benefit of providing Marginal Way on-street parking will provide project benefits.

Status: I have no further comment.

4. I have reviewed the traffic study and trip generation estimate and generally find the conclusions to be reasonable. I would note that while the methods seem reasonable, I am currently not in agreement with the conclusions that the project will basically not increase traffic when taking credit from historic traffic activity at Century Tire.

Status: I find the trip generation estimate associated with this application to be acceptable. Based upon the fact that actual retail tenants may impact the trip generation levels, the applicant shall provide revised trip generation information as tenant occupancy occurs. This revised information will be reviewed as it relates to triggering a Traffic Movement Permit.

5. Projects in the Bayside area of the City have been required to make monetary contributions towards implementation of the Marginal Way Master Plan and Extension of Somerset Street. Given that this project will be implementing components of each of the projects along their frontages and that the net change in traffic is not estimated to be significant, I would not expect a requirement for a monetary contribution.

Status: A monetary contribution is not required given the trip generation estimate and frontage improvements incorporated into the project site plan.

6. The frontage on Kennebec Street shall be adjusted to meet the design principles of the Somerset Street Extension project. The plans

should account for the following:

- A 10-foot shared use bituminous path to be located next to the granite curb.
- A 7-foot brick sidewalk along the property boundary.
- On-street parking will not be permitted.
- Transition of the shared use path to an on-road cycle track on both ends of the project will be required.

Status: I find the plan to be acceptable with the following notes:

· On-street parking will be permitted on Kennebec Street. Changes to on-street parking regulations will need to be incorporated into the City's Traffic Schedule and therefore will require City Council approval. The applicant will be required to provide supporting documentation in support of the request.

· A curb extension shall be provided on Kennebec Street at the location of the sidewalk ramp/crosswalk such that the handicap ramp is not located within the 10-foot path area. The applicant shall submit plans for review and approval by the City.

· The applicant shall be required to install pavement markings, signage, and bollard treatment in conjunction with the transition from the 10-foot shared-use path to an at-grade cycle-track facility to Forest Avenue. The City will work with the applicant in the development of the plan for this work. It should be noted that this change will maximize on-street parking along Kennebec Street in front of the Enterprise Rental Site.

7. The applicant should investigate the possibility of aligning the driveway on Kennebec Street with Brattle Street.

Status: Based upon current traffic conditions on Kennebec Street the proposed alignment is acceptable. I would note that a condition of approval should be included that revisits the design and location of the subject driveway during the redevelopment of the Enterprise Rental site.

8. Stop bar locations shall be placed prior to sidewalk at the driveways.

Status: The plans have been revised and I have no further comment.

9. Detectible warning panels are not required at driveways.

Status: The plans have been revised and I have no further comment.

10. The plans should incorporate a full ADA compliant crosswalk on Kennebec Street between the site and Brattle Street (this crosswalk currently exists).

Status: The plans should also include the construction of a ADA compliant ramp on the south side of the crosswalk on Kennebec Street. Plans shall be provided to the City for review and approval.

11. The configuration of the six parking spaces located along the Enterprise property boundary are non-standardized and dimensional standards are unclear and I would prefer a more traditional layout.

Status: The applicant shall revise the configuration of these spaces to conform to standard parking space orientation. Plans shall be provided to the City for review and approval.

Additional Comments

· I support a waiver from the City's Technical standards for circulation lane widths (20 feet, 22 feet, and 23.38 feet are proposed).

· It is unclear how ADA/pedestrian building access will be provided along the Marginal Way frontage. Details shall be provided that confirm ADA accessibility and reasonable pedestrian access provisions are to be provided.

If you have any questions or comments, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director
[T.Y. Lin International]T.Y. Lin International
12 Northbrook Drive
Falmouth, ME 04105
207.781.4721 (main)
207.347.4354 (direct)
207.400.0719 (mobile)
207.781.4753 (fax)

M E M O

TO: Nell Donaldson
FROM: Mike Farmer
DATE: April 7, 2015
RE: 195 Kennebec Street – site plan review

With reference to Dave Margolis-Pineo' memo dated 3/23/2015 regarding this project, comments 3, 4 and 5 have been addressed to the Engineering Division's satisfaction. Comment 1, regarding street light standards, may have been addressed by others. Comment 2 required no response. I offer two additional comments on this project.

Detail C on plan sheet C-7.0, detail D on sheet C-7.2, and detail E on sheet C-7.2 all should be corrected to show the City standard for depth of base gravel for a brick sidewalk on bituminous base. The depth of gravel should be 10 inches, not 4 inches as indicated in the above referenced details.

Detail A on plan sheet C-7.1 shows a curb reveal of 6 inches along Kennebec Street. The City standard for curb reveal is typically 7 inches. The curb reveal should be changed to match the City standard unless there are over-riding considerations that require a 6 inch curb reveal. A change to 6 inch curb reveal may require changing the specification for granite curb terminal pieces from 6 feet to 7 feet in length.

MEMORANDUM



TO: Nell Donaldson, Planner
FROM: David Senus, P.E.
DATE: April 7, 2015
RE: 195 Kennebec Street, Level II Site Plan Application

Woodard & Curran has reviewed the Response to Comments on the Level II Site Plan Application for the proposed commercial redevelopment project located at 195 Kennebec Street in Portland, Maine. The project involves redevelopment of the former Century Tire site to provide mixed-use retail and restaurant uses and associated pedestrian and vehicular access, parking, and utility infrastructure. The project will result in a net decrease in impervious area.

Documents Reviewed by Woodard & Curran

- Response to Comments Letter and attachments, dated March 27, 2015, prepared by FST Engineers on behalf of Northland Enterprises, LLC.
- Engineering Plans, Sheets C-2.1, C-3.0, C-4.0, & C-5.0, revised March 27, 2015, prepared by FST Engineers on behalf of Northland Enterprises, LLC.

Comments

- 1) As requested, the plans have been revised to show a connection from existing Catch Basin A to new Catch Basin 3, which will discharge to Marginal Way. Additional notes are required regarding the abandonment of the pipe between Existing Catch Basin A and the existing catch basin in Kennebec Street. The pipe and catch basin penetrations should be capped at Catch Basin A and at the connection in Kennebec Street; and preferably the pipe is removed or infilled with a flowable fill.
- 2) The revised Sheet C-5.0 Erosion and Sediment Control Plan no longer includes the erosion and sediment control practices that were identified on the originally submitted plan. This plan should be revised to reflect the original submittal.

Planning and Urban Development Department

Planning Division



Subject: B7 Design Review – 195 Kennebec Street Revisions

Written by: Caitlin Cameron, Urban Designer

Date of Review: Friday, April 3, 2015

On Friday, April 3, staff reviewed the revised proposed redevelopment at 195 Kennebec Street. The project was reviewed against the *B-7 Mixed Use Urban District Zone Design Principles & Standards* (Appendix 4 of the Design Manual).

Design Review Criteria:

The project must meet all *B-7 Design Principles & Standards*.

Findings of the Design Review:

The proposed design **does not pass** all of the criteria of the *B7 Design Guidelines* – please refer to comments below regarding Principles and Standards not currently being met. The applicant may revise the design according to the review comments and resubmit.

Principle A: Urban Design

A-7: Building Orientation – *The primary facades and entrances of buildings shall be oriented to streets, major pedestrian routes, or open spaces in order enhance the pedestrian-oriented environment. The primary facades and entrances of buildings shall not be oriented toward parking lots.*

- **Building A** – The street-facing façade and entry should be given equal treatment to the other building entrances. In this case, that includes a sign, light, and canopy.

Principle E: Architectural Design

E-6: Entrances – *Buildings along public streets shall have the primary entrances oriented to the street. Primary entrances shall not be oriented to a parking lot or structure. . . . Commercial and mixed use buildings shall be permeable and accessible on all sides from the public way, unless the building program precludes such design.*

- **Building A** – The street-facing façade and entry should be given equal treatment to the other building entrances. In this case, that includes a sign, light, and canopy.

CITY OF PORTLAND
Planning & Urban Development Department

PLAN AMENDMENT FOR MAJOR AND MINOR SITE PLANS
GENERAL DOCUMENT AND DRAWINGS CHECKLIST

Please submit each document as a separate PDF file
Please confirm by electronically checking the boxes to the left
All drawings must be submitted in a 24 x 36 sheet size.

GENERAL APPLICATION DOCUMENTS

Yes	☒ NA	Written Statement of the Proposed Amendment(s) (Identify any conditions of approval being met and any changes to waivers)
Yes	☒ NA	Any supporting documents of the original application that are being revised. (Revisions should be clearly identified)

DRAWINGS

Yes	☒ NA	All amended plans affected by the proposed revisions. The plans shall clearly depict proposed modifications.
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SECTION: 3

Development Entrances and Exits

SECTION 3

A. ENTRANCE/EXIT LOCATION

The existing 29 Marginal Way mixed-use development is accessed through three street entrances; two driveways connecting with Marginal Way and a single entrance onto Kennebec Street. The existing site was reviewed and approved by the City of Portland Planning Staff on April 14, 2015.

SECTION 3

B. ENTRANCE AND EXIT PLAN VIEW

Vehicle sight distance measurements were field determined for each of the three existing site entrances. The measured distances are listed as follows:

Chipotle Entrance @ Marginal Way

Left = To Forest Avenue

Right = 400'+

Coastal Pharmacy @ Marginal Way

Left = To Forest Avenue

Right = 400'+

Kennebec Street Entrance

Left = All-Way Stop Intersection

Right = All-Way Stop Intersection

SECTION 3

C. ENTRANCE/EXIT DESIGN

Northland Enterprises & Management Corp. received City of Portland Planning Staff approval for the 29 Marginal Way mixed-use project on April 14, 2015. All site design requirements were fully completed in accordance with the approved plans.

SECTION: 4

Title, Right or Interest

SECTION 4

TITLE, RIGHT OR INTEREST

A QUIT CLAIM DEED, signed on April 16, 2015 provides documentation of Northland Enterprises & Management Corp's ownership in the property located at 29 Marginal Way in the City of Portland.

QUITCLAIM DEED WITH COVENANT

ATLANTIC BAYSIDE INVESTMENTS LLC, a Maine limited liability company with a place of business in Portland, Maine, FOR CONSIDERATION PAID, grants to VANDELAY INDUSTRIES LLC, a Maine limited liability company with a mailing address of 17 South Street, Unit 3, Portland, Maine 04101, with quitclaim covenant, certain real property, together with any improvements thereon, located in Portland, Cumberland County, Maine and more particularly described on Exhibit A attached hereto and made a part hereof.

IN WITNESS WHEREOF, the undersigned has caused this deed to be executed and delivered by its duly-authorized Manager this 16 day of April, 2015.

WITNESSETH:

ATLANTIC BAYSIDE INVESTMENTS LLC

Name:

Drew A. Anderson

By:

James Hanley, its duly-authorized Manager

State of Maine
County of Cumberland

April 16, 2015

PERSONALLY APPEARED before me the above-named James Hanley, Manager of Atlantic Bayside Investments LLC, as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said limited liability company.

Drew A. Anderson
Name: Drew A. Anderson
Notary Public ~~Attorney at Law~~
My Commission Expires: 1/1/17

EXHIBIT AParcel One:

A certain lot or parcel of land with the buildings thereon situated on the northerly side of Kennebec Street in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows: Commencing at a point on the northerly side line of Kennebec Street three hundred forty-six and sixty-six hundredths (346.66) feet westerly on said northerly side line of Kennebec Street from the intersection of said side line of Kennebec Street with the westerly side line of Hanover Street and at the westerly corner of land formerly of H. M. Wilson; thence northerly $10^{\circ} 46'$ West along the westerly line of said Wilson land two hundred forty-two (242) feet, more or less, to a point in the southerly line of the former location of the Worcester, Nashua and Portland Division of the Boston & Maine Railroad Co.; thence South $77^{\circ} 9'$ West along said southerly side line of said railroad property one hundred forty-two (142) feet, more or less, to a point; thence continuing westerly along the southerly line of said railroad company's land on a line curving to the North with a radius of eight hundred fifty (850) feet, seventy-two and twenty-five hundredths (72.25) feet, more or less, to an iron pipe and the northeasterly corner of land conveyed by the Portland Water District to Celia A. Thaxter by deed dated March 22, 1916 and recorded in Cumberland County Registry of Deeds in Book 973, Page 333; thence South $9^{\circ} 10'$ East along the easterly line of said Thaxter land one hundred thirty-six and three-tenths (136.3) feet to Kennebec Street; thence easterly by the northerly side line of Kennebec Street to the point of beginning.

Parcel Two:

Also a certain lot or parcel of land situated on the southerly side of Marginal Way, in said City of Portland, bounded and described as follows: Beginning on the southerly side line of land conveyed by George P. Wescott, et al. to the Portland & Rochester Railroad by deed dated May 1, 1896 and recorded in Cumberland County Registry of Deeds in Book 638, Page 248, at its intersection with the easterly side line of land as described in the deed of the Portland Water District to Joseph D. Silverman, dated February 19, 1943 and recorded in said Registry of Deeds in Book 1704, Page 354; thence westerly along said southerly side line of land formerly of Portland Terminal Company and the northerly side line of land of said Silverman as described in the last mentioned deed, to the westerly side line of land of said Silverman as described in said last mentioned deed; thence continuing westerly along the southerly side line of land formerly of Portland Terminal Company and the northerly side line of land described in the deed of Warren Realty Co., to C. E. Noyes & Co., dated February 16, 1929 and recorded in said Registry of Deeds in Book 1315, Page 95, to its intersection with the southerly side line of Marginal Way; thence easterly along said southerly side line of Marginal Way to a point twelve (12) feet southerly from, measured normal to, the center of sidetrack known as No. 20 of the Portland Terminal Company as shown on Valuation Plan, Section One C (1C) Sheet One (1) of the Federal Valuation Survey, dated June 30, 1916; thence in a general easterly direction on a line which is always twelve (12) feet southerly from, measured normal to, said sidetrack No. 20, to its intersection with the prolongation northerly of the easterly side line of land of the said Silverman as described in the aforesaid deed from the Portland Water District to said Silverman; thence

southerly along said northerly prolongation to the point of beginning, containing eleven thousand two hundred (11,200) square feet, more or less.

Being the same premises conveyed to Bertha Silverman by Portland Terminal Company by deed dated October 10, 1945 and recorded in Cumberland County Registry of Deeds in Book 1794, Page 144.

Excepting from the above described premises the premises described in deed of Bertha Silverman to Depositors Corporation dated December 15, 1972 and recorded at said Registry in Book 3339, Page 178.

Parcel Three:

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

Beginning at an iron marking the intersection of the Westerly line of Brattle Street and Southerly line of said Kennebec Street;

Thence Westerly by the Southerly line of said Kennebec Street along a curve to the right whose radius is 1161.71 feet a distance, measured along the arc, of 108.92 feet to an iron;

Thence through land now or formerly of Depositor's Corporation retained by said Depositors Corporation in its deed to Bertha Silverman dated December 15, 1972 and recorded at the said Registry in Book 3339 Page 181, and through an existing building as described in said deed to Silverman along the Westerly face of said building wall on a course of S 17° 30' W a distance of 35.21 feet to an iron on the Northerly line of land of Portland Terminal Co., said iron being located 10 feet Northerly and measured normal to the center or base line of Portland Terminal Co. as established by the Federal Valuation Survey dated June 30, 1916;

Thence Easterly along a curve to the left and maintaining a distance of 10 feet Northerly and normal to said Portland Terminal Co. base line a distance of 122.57 feet measured along the arc of said curve to an iron on the westerly line of said Brattle Street;

Thence by said Westerly line of Brattle Street on a course of N 12° 12' 20" W a distance of 24.64 feet to the point of beginning.

Being a portion of the premises conveyed to Depositors Corporation by Noyes Tire Co. by deed dated April 12, 1972, and recorded in the Cumberland County Registry of Deeds in Book 3224, Page 280.

Above courses are magnetic.

Together with a right of entry to enter at reasonable times and with reasonable notice to said Depositors Corporation on a certain parcel of land one foot in width immediately adjacent to the Westerly side of the above described property; commencing at an iron pin on the Southerly sideline of Kennebec Street, which iron marks the Northwesterly corner of the property herein

conveyed; thence southeasterly $17^{\circ} 30'$ W 35.21 feet along the Westerly sideline of the above-described property to an iron pin; thence Westerly along the southerly boundary of property now or formerly of Depositors Corporation one foot to a point; thence 35 feet more or less generally Northeasterly maintaining a one foot distance from the first course described herein to a point on the southerly sideline of Kennebec Street; thence generally easterly along the southerly sideline of Kennebec Street one foot to the point of beginning; said right of entry solely and exclusively for the purposes of maintaining and repairing the westerly wall of the building as described in the said deed to Silverman dated December 15, 1972 and recorded at the said Registry in Book 3339 Page 181, and specifically reserving to Depositors Corporation the right to tear down and remove all portions of the building westerly of the westerly sideline of the above-described property.

Being the same premises conveyed to the same Bertha Silverman by deed of Depositors Corporation dated December 15, 1972 and recorded at said Registry in Book 3339, Page 181.

Parcel Four:

A certain parcel of land situated on the southerly side of Marginal Way, so-called, in the City of Portland, County of Cumberland, State of Maine, bounded and described as follows:

Beginning in the northeast corner of land conveyed by Portland Terminal Company to Bertha Silverman by deed dated July 6, 1945, and recorded in Cumberland County Registry of Deeds in Book 1794, Page 144, said point lying in the northerly prolongation of the easterly sideline of land as described in the deed of the Portland Water District to Joseph D. Silverman dated February 19, 1943, and recorded in Cumberland County Registry of Deeds in Book 1704, Page 354;

Thence westerly along the northerly sideline of said land of Bertha Silverman approximately one hundred (100) feet more or less to its intersection with the southerly line of Marginal Way;

Thence easterly along the southerly line of Marginal Way one hundred (100) feet more or less to its intersection with said prolongation northerly of the easterly sideline of land of the said Silverman as described in the aforesaid deed from the Portland Water District to said Silverman;

Thence southerly along said northerly prolongation thirty-eight (38) feet more or less to the point of beginning.

Containing nineteen hundred (1900) square feet more or less.

For source of title, reference may be had to the deed from George P. Wescott, et al., to Portland and Rochester Railroad dated May 1, 1896, recorded in Cumberland County Registry of Deeds in Book 638, Page 248.

Being the same premises conveyed to the said Bertha Silverman by deed of Portland Terminal Company, dated January 4, 1973, recorded at said Registry in Book 3348, Page 115.

All of the above described Parcels One, Two, Three and Four, being the same premises conveyed to Grantor by deed dated January 24, 2014, and recorded in the Cumberland County Registry of Deeds in Book 31304, Page 31.

The foregoing conveyance is subject to real estate taxes not yet due and payable, leases and tenancies disclosed to Grantee, and Maine Department of Environmental Protection – No Further Action Assurance Letter – Voluntary Response Action Program (VRAP), dated December 16, 2014 and recorded in said Registry in Book 32104, Page 56, as affected by the Declaration of Environmental Covenant, dated January 22, 2015 and recorded in said Registry in Book 32104, Page 62.

At the Grantee's direction, the above-described premises were surveyed by Owen Haskell, Inc. and are shown on an ALTA/ACSM Land Title Survey for 1 Marginal Way, 195 Kennebec Street, 200 Kennebec Street and 202 Kennebec Street, Portland made for Vandelay Industries LLC dated April 10, 2015 to be recorded (the "Plan"). Based on the Plan, the Grantor hereby grants, without warranty or covenant whatsoever, the following described parcels:

195 Kennebec Street:

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

Beginning at a 5/8" iron rod on the southerly sideline of Marginal Way at the northeasterly corner of land now or formerly of Bayside Ventures II LLC thence, northeasterly along the southerly sideline of said Marginal Way along a curve to the left having a radius of 1005.37 feet an arc length of 94.71 feet to an iron rod to be set, said point being 94.67 feet on a course of N 51°28'17" E from the first named point;

Thence, N 48°46'23" E along the southerly sideline of said Marginal Way 126.64 feet to an iron rod to be set and land now or formerly of Bayside Ventures LLC;

Thence, S 25°07'36" E along land of said Bayside Ventures LLC, land now or formerly of Atlantic Bayside Square LLC and land now or formerly of Atlantic Bayside Holdings LLC 325.12 feet to an iron rod to be set on the northerly sideline of Kennebec Street;

Thence, northwesterly along the northerly sideline of said Kennebec Street along a curve to the right having a radius of 1111.71 feet an arc length of 245.29 feet to land of said Bayside Ventures II LLC, said point being 244.79 feet on a course of S 89°53'38" W from the last named point;

Thence, N 19°25'28" W along land of said Bayside Ventures II LLC 46.57 feet to an iron rod to be set;

Thence, N 23°27'55" W along land of said Bayside Ventures II LLC 118.23 feet to the southerly sideline of said Marginal Way and the point of beginning containing 53,972 square feet.

200 Kennebec Street:

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

Beginning at a point on the southerly sideline of Kennebec Street at the northeasterly corner of land now or formerly of Bayside Ventures II LLC thence, southeasterly along the southerly sideline of said Kennebec Street along a curve to the left having a radius of 1161.71 feet an arc length of 108.18 feet to a 1" iron pipe and the westerly sideline of Brattle Street, said point being 108.14 feet on a course of S 89°55'13" E from first named point;

Thence, S 29°33'34" E along the westerly sideline of said Brattle Street 24.51 feet to an iron rod to be set and land now or formerly of the City of Portland;

Thence, northwesterly along land of said City of Portland along a curve to right having a radius of 987.90 feet an arc length of 123.56 feet to land of said Bayside Ventures II LLC, said point being 123.48 feet on a course of S 83°41'13" W from the last named point;

Thence, N 04°05'28" E along land of said Bayside Ventures II LLC 35.14 feet to the southerly sideline of said Kennebec Street and the point of beginning containing 3,354 square feet.

Received
Recorded Register of Deeds
Apr 17, 2015 01:19:16P
Cumberland County
Nancy A. Lane

SECTION: 5

Public or Private Rights-of-Way

SECTION 5

PUBLIC OR PRIVATE RIGHTS-OF-WAY

There are no known rights-of-way or easements that encumber the existing property.

SECTION: 6

Schedule

SECTION 6

SCHEDULE

The 29 Marginal Way mixed-use development will be fully occupied with completion of the remaining fit-up of the Coastal Pharmacy expansion project.

SECTION: 1

Site Plan Information and Detail

SECTION 1

A. SITE PLAN

Northland Enterprises & Management Corp. received City of Portland Planning Staff approval on 04-14-2015 for the 29 Marginal Way re-development project. The multi-tenant commercial site was approved with a total of six commercial building suites; a total of two units in Building "A" (23 Marginal Way) which is located along the Kennebec Street frontage of the site and "Building B" with four building suites located along the Marginal Way frontage of the property. Presently, the approved leasable space on the property is fully occupied with a total of five building tenants, except for a 1,300sf space. Coastal Pharmacy most recently signed a lease agreement for the remaining 1,300sf space. Fit-up of this building area is currently under construction with an expected late January completion. The tenant names and leased areas are noted as follows:

Building A

Orange Theory Fitness	- 3,000sf
Sea Suites	- <u>1,945sf</u>
Total	- 4,945sf

Building B

Coastal Pharmacy	- 4,200sf
T-Mobile	- 1,500sf
Chipotle	- <u>2,500sf</u>
Total	- 8,200sf

Street access to the property is provided through three driveway entrances; two driveways connecting with Marginal Way and a single entrance onto Kennebec Street.

A total of 55 on-site parking spaces are presently provided for customer and employee parking.

SECTION 1

B. EXISTING AND PROPOSED SITE USES

Century Tire Portland, a tire and automobile repair facility operated from the commercial site until its closure in March of 2014. Two structures were located on the property with a total combined building area of 16,510sf; the larger building included about 4,430sf of warehouse space and 7,470sf of tire sales area, the smaller building about 4,510sf of area was used for tire sales and service in its entirety. Trip generation estimates prepared for the prior Century Tire Portland business shows peak hour volumes ranging from a low of 36 trips in the morning peak hour, to a high of 61 trips on a typical Saturday.

Northland Enterprises & Management Corp. received City of Portland Planning Staff approval on 04-14-2014 for the 29 Marginal Way re-development property. The multi-tenant commercial site was approved with a total of six commercial building suites; a total of two units in Building "A" (23 Marginal Way) which is located along the Kennebec Street frontage of the site and "Building "B" with four building suites located along the Marginal Way frontage of the property. Presently, the approved leasable space on the property is fully occupied with a total of five building tenants, except for a 1,300sf space. Coastal Pharmacy most recently signed a lease agreement for the remaining 1,300sf space. Fit-up of this building area is currently under construction with an expected late January completion. The tenant names and leased areas are noted as follows:

Building A

Orange Theory Fitness	- 3,000sf
Sea Suites	- <u>1,945sf</u>
Total	- 4,945sf

Building B

Coastal Pharmacy	- 4,200sf
T-Mobile	- 1,500sf
Chipotle	- <u>2,500sf</u>
Total	- 8,200sf

Street access to the property is provided through three driveway entrances; two driveways connecting with Marginal Way and a single entrance onto Kennebec Street.

A total of 55 on-site parking spaces are presently provided for customer and employee parking.

SECTION 1

C. SITE AND VICINITY BOUNDARIES

The attached map depicts the existing 23-29 Marginal Way property.



TRAFFIC SOLUTIONS/
BARTON & LOGUIDICE, LLC
383 US ROUTE ONE, SCARBOROUGH, MAINE 04074

29 MARGINAL WAY
PORTLAND, ME 04101

SITE
LOCATION

SCALE: 1" = 400'

DATE: DECEMBER, 2021

SECTION 1

D. PROPOSED USES IN THE GENERAL VICINITY OF THE PROPOSED DEVELOPMENT

It is assumed that any required traffic analysis would be based upon existing 2022 design hour travel conditions without accounting for any other development trips generated by projects currently approved by the City.

SECTION 1

E. TRIP GENERATION

Site Trip Generation: Trip generation is based upon tables presented in the tenth edition of the Institute of Transportation's Engineers "TRIP GENERATION" manual and/or local traffic survey information recorded at similar facilities found in the City of Portland. Each of the five existing building tenants and their corresponding building space, in square feet area, are listed as follows:

Orange Theory Fitness	- 3,000sf
Sea Suites	- 1,945sf
Coastal Pharmacy	- 4,200sf
T-Mobile	- 1,500sf
Chipotle Restaurant	- 2,500sf

Peak hour trip generation was estimated applying the following procedures:

Site Trip Generation - Existing Orange Theory Fitness (3,000sf): Trip generation is based upon Land-Use #492 - Health/Fitness Club presented in the 10th edition of the Institute of Transportation Engineers "TRIP GENERATION" publication:

Land-Use #492: Health/Fitness Club

Weekday AM Peak Hour (Street)	= 1.31 trips/1,000sf
Weekday PM Peak Hour (Street)	= 3.45 trips/1,000sf
Weekday AM Peak Hour (Generator)	= 1.40 trips/1,000sf
Weekday PM Peak Hour (Generator)	= 3.92 trips/1,000sf
Saturday Peak Hour (Generator)	= 3.19 trips/1,000sf

Table 1, below, provides a summary of the trip generation for the existing Orange Theory Fitness facility:

Table 1
Peak Hour Trip Generation Summary
(Orange Theory Fitness)

<u>Peak Hour Time Period</u>	<u>Peak Hour Trip Generation</u>
AM Peak Hour (Street)	4 trips
PM Peak Hour (Street)	10 trips
AM Peak Hour (Generator)	4 trips
PM Peak Hour (Generator)	12 trips
Saturday Peak Hour	10 trips

Site Trip Generation – Sea Suites Retail Marijuana Store (1,945sf): Trip generation is based upon local data recorded at the existing Sweet Dirt retail store located at 1207 Forest Avenue in Portland (Copies of the noted data follows). The following trip rates were applied in that effort:

Sea Suites Retail Marijuana Store

Weekday AM Peak Hour (Street)	= closed
Weekday PM Peak Hour (Street)	= local data
Weekday AM Peak Hour (Generator)	= local data ⁽¹⁾
Weekday PM Peak Hour (Generator)	= local data ⁽¹⁾
Saturday Peak Hour	= local data

NOTE: ⁽¹⁾ Trip Generation based upon actual data recorded in weekday PM peak hour at Sweet Dirt Retail Marijuana store.

Sweet Dirt - Portland - June 10, 2021 NST Sunny

Time	Forest Ave Entrance (RIGHT IN ONLY)	Allen Ave In	Allen Ave Left Out	Allen Ave Right Out
2:00	6	6	3	3
2:15	1	6	6	4
2:30	3	4	4	4
2:45	4	4	5	1
3:00	4	2	2	3
3:15	1	6	1	4
3:30	3	5	0	2
3:45	4	4	4	6
4:00	2	4	3	5
4:15	7	2	1	4
4:30	4	2	4	5
4:45	2	1	3	3
5:00	3	5	1	1
5:15	4	3	4	4
5:30	6	2	4	4
5:45	4	2	3	4

Sweet Dirt - Portland - June 5, 2021 NST Sunny

Time	Forest Ave Entrance (RIGHT IN ONLY)	Allen Ave In	Allen Ave Left Out	Allen Ave Right Out
2:00	0	4	3	4
2:15	4	0	4	2
2:30	2	2	2	2
2:45	5	1	1	3
3:00	5	6	4	4
3:15	5	4	6	4
3:30	2	0	3	4
3:45	1	0	1	1
4:00	3	4	3	1
4:15	6	2	3	2
4:30	4	4	3	2
4:45	3	4	7	5
5:00	2	1	2	0
5:15	1	3	3	2
5:30	0	3	0	4
5:45	1	5	1	2

SECTION 1

E. TRIP GENERATION (Continued)

Table 2, below, provides a summary of the trip generation forecasts for the existing Sea Suites Retail Marijuana Store:

Table 2
Peak Hour Trip Generation Summary
(Sea Suites Retail Marijuana Store)

<u>Peak Hour Time Period</u>	<u>Peak Hour Trip Generation</u>
AM Peak Hour (Street)	closed
PM Peak Hour (Street)	66 trips
AM Peak Hour (Generator)	66 trips ⁽¹⁾
PM Peak Hour (Generator)	66 trips ⁽¹⁾
Saturday Peak Hour	58 trips

NOTE: ⁽¹⁾ Trip Generation based upon actual data recorded in weekday PM peak hour at Sweet Dirt Retail Marijuana store.

Site Trip Generation – Coastal Pharmacy (4,200sf Retail Space): Trip generation is based upon Land-Use #880 - Pharmacy/Drugstore w/o Drive-Through Window presented in the 10th edition of the Institute of Transportation Engineers “TRIP GENERATION” publication:

Land-Use #880: Pharmacy/Drug Store w/o Drive-Through Window

Weekday AM Peak Hour (Street)	= 2.94 trips/1,000sf
Weekday PM Peak Hour (Street)	= 8.51 trips/1,000sf
Weekday AM Peak Hour (Generator)	= 7.71 trips/1,000sf
Weekday PM Peak Hour (Generator)	= 11.07 trips/1,000sf
Saturday Peak Hour	= 10.68 trips/1,000sf

Table 3 presents the peak hour trip projections for the existing Coastal Pharmacy store:

Table 3
Peak Hour Trip Generation Summary
(Existing Coastal Pharmacy Store)

<u>Peak Hour Time Period</u>	<u>Peak Hour Trip Generation</u>
AM Peak Hour (Street)	12
PM Peak Hour (Street)	36
AM Peak Hour (Generator)	32
PM Peak Hour (Generator)	46
Saturday Peak Hour	45

Site Trip Generation – T-Mobile Store (1,500sf): Site trip generation is developed based on local traffic data collected at the existing T-Mobile store site at 29 Marginal Way on September 30, 2016 (a copy of the traffic data follows for reference).

T-Mobile Store

Weekday AM Peak Hour (Street)	= closed
Weekday PM Peak Hour (Street)	= local data
Weekday AM Peak Hour (Generator)	= local data ⁽¹⁾
Weekday PM Peak Hour (Generator)	= local data ⁽¹⁾
Saturday Peak Hour	= local data ⁽¹⁾

NOTE: ⁽¹⁾ Trip Generation based upon actual data recorded in weekday PM peak hour at T-Mobile store at 29 Marginal Way.

SECTION 1

E. TRIP GENERATION (Continued)

Table 4 presents the peak hour trip projections for the existing T-Mobile store:

Table 4
Peak Hour Trip Generation Summary
(Existing T-Mobile Store)

<u>Peak Hour Time Period</u>	<u>Peak Hour Trip Generation</u>
AM Peak Hour (Street)	closed
PM Peak Hour (Street)	8 trips
AM Peak Hour (Generator)	8 trips ⁽¹⁾
PM Peak Hour (Generator)	8 trips (1)
Saturday Peak Hour	8 trips ⁽¹⁾

NOTES: ⁽¹⁾ Trip estimates based upon existing PM peak hour data collected at existing 29 Marginal Way T-Mobile store.

Site Trip Generation - Existing Chipotle Restaurant: (2,500sf): Trip generation is based upon Land-Use #933 - Fast-Food Restaurant with Drive-Through Window presented in the 10th edition of the Institute of Transportation Engineers “**TRIP GENERATION**” publication:

Land-Use #933: Fast-Food Restaurant with Drive-Through Window

Weekday AM Peak Hour (Street)	= closed
Weekday PM Peak Hour (Street)	= 28.34 trips/1,000sf
Weekday AM Peak Hour (Generator)	= 47.66 trips/1,000sf
Weekday PM Peak Hour (Generator)	= 48.70 trips/1,000sf
Saturday Peak Hour	= 54.60 trips/1,000sf

Table 5, below, provides a summary of the trip generation for the existing Chipotle Restaurant facility:

Table 5
Peak Hour Trip Generation Summary
(Chipotle Restaurant)

<u>Peak Hour Time Period</u>	<u>Peak Hour Trip Generation</u>
AM Peak Hour (Street)	closed
PM Peak Hour (Street)	71 trips
AM Peak Hour (Generator)	119 trips
PM Peak Hour (Generator)	122 trips
Saturday Peak Hour	137 trips

Table 6 presents the expected total peak hour trip generation of the existing 29 Marginal Way property.

Table 6
Peak Hour Trip Generation Summary
(The existing 29 Marginal Way Mixed-use Site)

<u>Peak Hour Time Period</u>	<u>Peak Hour Trip Generation</u>
AM Peak Hour (Street)	16 trips
PM Peak Hour (Street)	191 trips
AM Peak Hour (Generator)	229 trips
PM Peak Hour (Generator)	254 trips
Saturday Peak Hour	258 trips

SECTION 1

E. TRIP GENERATION (Continued)

Accordingly, the existing 29 Marginal Way property site is projected to generate approximately **16** vehicle trips during the AM peak hour of the street and an additional **191** trips in the evening peak hour of the site. The site will generate somewhat higher trip volumes during the evening peak hour of the site and in the peak hour of a typical Saturday. The weekday evening peak of the site is expected to produce a total of **254** trips and a similar volume of **258** trips occurs in the Saturday peak hour.

SECTION 1

F. TRIP CREDITS

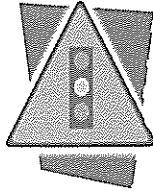
Trip Generation Credit: MaineDOT Traffic Movement Permit regulations allow a trip generation credit to be taken for on-site uses that are displaced with construction of a development site that were operational within the last 10 years. The prior Century Tire Portland tire and service center operated from the 29 Marginal Property until March 2014; thereby, meeting MaineDOT's trip credit standard. Peak hour trip generation estimates were prepared by Traffic Solutions and documented in a written Traffic Assessment report dated February 12, 2015. A copy of this document in its entirety is attached for reference. This report was accepted by the City Staff with their approval of the 20 Marginal Way development project on 04-14-2015.

Table 1, on page three of that report, provides peak hour trip generation estimates for the former Century Tire Portland tire and service center for each critical peak hour time period as follows:

AM Peak Hour (Street)	= 36 trips
PM Peak Hour (Street)	= 51 trips
AM Peak Hour (Generator)	= 43 trips
PM Peak Hour (Generator)	= 41 trips
Saturday Peak Hour	= 61 trips

The peak hour trip estimates of the former Century Tire Portland tire and service center business were appropriately deducted for the peak hour trip forecasts prepared for the existing 29 Marginal Way property resulting in the following adjusted peak hour trip projections:

AM Peak Hour (Street)	= 16 trips – 36 trips = -20
PM Peak Hour (Street)	= 191 trips – 51 trips = 140 trips
AM Peak Hour (Generator)	= 229 trips – 43 trips = 186 trips
PM Peak Hour (Generator)	= 254 trips – 41 trips = 213 trips
Saturday Peak Hour	= 258 trips – 61 trips = 197 trips



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February 12, 2015

Traffic Assessment
Proposed
Century Tire Property - Commercial Re-Development Project

INTRODUCTION

Northland Enterprises, LLC is proposing re-development of the existing Century Tire property at 195 Kennebec Street in the City of Portland as a mixed-use commercial development. The existing Century Tire facility operated as a tire and automobile repair facility until its closure in March of 2014. The Century Tire parcel presently contains two buildings with a total building area of 16,510sf; building "A" with a total area of 12,000sf previously included approximately 4,530sf of warehouse space and 7,470sf of tire sales and service area; building "B" a 4,510sf building was previously used for tire sales and service in its entirety.

The proposed commercial re-development project retains the existing building walls and footprint areas to the extent practical, creating a total of 13,280 square feet of commercial retail space. The current proposal includes the following projected building uses: 1) 2,500sf Chipotle Restaurant; 2) 1,500sf hair salon; and 3) 9,280sf of undetermined retail space.

This document provides an estimate of peak hour trips generated by the previous Century Tire site, the proposed commercial re-development project and the "*net*" difference in trip generation of both site uses. The most recent roadway safety conditions are reviewed and summarized with identification of all high crash locations for the roadway system serving the project site area.

SITE TRAFFIC

Site Trip Generation: Trip generation for the proposed 13,282 square foot commercial development project was based upon trip tables presented in the eighth edition of the Institute of Transportation Engineers (ITE) "**TRIP GENERATION**" handbook. The following trip rates were used in that effort:

Existing Century Tire Business (16,510 square feet of building area: 11,980sf tire sales and service area and 4,530sf of warehouse space)

Land-Use Code 150 – Warehousing (4,530sf)

Street Peak Hour – AM Peak	= 0.30 trips/1,000sf
Street Peak Hour – PM Peak	= 0.32 trips/1,000sf
AM Peak Hour of Generator	= 0.42 trips/1,000sf
PM Peak Hour of Generator	= 0.45 trips/1,000sf
Saturday Peak Hour	= 0.13 trips/1,000sf

Land-Use Code 848 – Tire Store (11,980sf)

Street Peak Hour – AM Peak	= 2.89 trips/1,000sf
Street Peak Hour – PM Peak	= 4.15 trips/1,000sf
AM Peak Hour of Generator	= 3.45 trips/1,000sf
PM Peak Hour of Generator	= 3.26 trips/1,000sf
Saturday Peak Hour	= 5.05 trips/1,000sf

Proposed Commercial Development Project (13,282sf building area: 2,500sf Chipotle Restaurant w/o Drive-Through; 1,500sf hair salon; and 9,282sf presently undetermined retail space)

Land-Use Code 814 – Specialty Retail Center (9,280sf)

Street Peak Hour – AM Peak	= 0 trips
Street Peak Hour – PM Peak	= 2.71 trips/1,000sf
AM Peak Hour of Generator	= 6.84 trips/1,000sf
PM Peak Hour of Generator	= 5.02 trips/1,000sf
Saturday Peak Hour	= 5.02 trips/1,000sf ^o

Land-Use Code 918 – Hair Salon (1,500sf)

Street Peak Hour – AM Peak	= 1.21 trips/1,000sf
Street Peak Hour – PM Peak	= 1.45 trips/1,000sf
AM Peak Hour of Generator	= 1.21 trips/1,000sf
PM Peak Hour of Generator	= 1.93 trips/1,000sf
Saturday Peak Hour	= 5.08 trips/1,000sf

Land-Use Code 932 – High-Turnover (Sit Down) Restaurant (2,500sf)

Street Peak Hour – AM Peak	= 11.52 trips/1,000sf ^o
Street Peak Hour – PM Peak	= 11.15 trips/1,000sf
AM Peak Hour of Generator	= 13.53 trips/1,000sf
PM Peak Hour of Generator	= 18.49 trips/1,000sf
Saturday Peak Hour	= 14.09 trips/1,000sf

The following Table 1 provides a summary of peak hour trips generated by the existing property; the proposed re-development project, and the “delta” difference in trip generation for each “key” peak hour time period.

Table 1

**Comparative Summary Of
Peak Hour Trip Generation
Century Tire Property**

<u>Existing Condition/Proposed Condition</u>	<u>AM Peak Hour</u>	<u>PM Peak Hour</u>	<u>AM Peak Hour of Generator</u>	<u>PM Peak Hour of Generator</u>	<u>Saturday peak Hour</u>
<u>1. Existing Century Tire Site</u>					
4,530sf warehouse space	1	1	2	2	1
11,980sf tire and service area	35	50	41	39	60
Sub Total (Existing)	36	51	43	41	61
<u>2. Proposed Commercial Development Project</u>					
9,280sf retail space	0	25	63	47	47 ⁽¹⁾
1,500sf Hair Salon	2	2	2	3	8
2,500sf Chipotle Restaurant	29 ⁽²⁾	28	34	46	35
Sub Total (Proposed)	31	55	99	96	90
Proposed Trip Total Minus Existing Trip Total	-5	4	56	55	29

Notes:

⁽¹⁾ Saturday trip generation rate estimated applying same rate as ITE Trip Rate for Weekday PM Peak Hour of Generator.

⁽²⁾ Chipotle Restaurants typically don't open until 11:00AM; the estimate of trip generation for the AM Peak Hour was based solely on the ITE trip rate information and did not account for hours of operations utilized by Chipotle Restaurants.

As the presentation in Table 1 illustrates, the proposed commercial re-development project very minimally increases the volume of peak hour traffic emanating from the Century Tire property. During both critical commuter peak hours (AM and PM peak hour) the "net" change (refer to trip values in Table 1 highlighted in red) in traffic (existing Century Tire business versus proposed Commercial Re-Development project) is a decrease of 5 vehicle trips in the AM peak hour and an increase of 4 trips in the PM peak hour. Minor increases in trip generation can be expected during other peak hour time periods, specifically, in the AM and PM peak hours of the generator and on a typical Saturday.

ROADWAY SAFETY: The Maine Department of Transportation's (MaineDOT) Accident Records Section provided the latest three-year (2011 through 2013) crash data for the section of Marginal Way between the Forest Avenue and Preble Street/Elm Street and the section of Kennebec Street from Forest Avenue to Hanover Street. Their report is summarized as follows and attached as an appendix to the report:

2011 -2013 Traffic Accident Summary

<u>Location</u>	<u>Total Crashes</u>	<u>Critical Rate Factor</u>
1. Forest Ave./Marginal Way/Kennebec St./State St.	59	1.61
2. Marginal Way @ Hanover St.	5	1.10
3. Marginal Way/Elm St./Preble St.	16	0.53
4. Kennebec Street, Forest Ave. to Hanover St.	0	0.00
5. Marginal Way btw. Forest Ave. and Hanover St.	4	0.65

The MaineDOT considers any roadway intersection or segment a high crash location if both of the following criteria are met:

- **8 or more accidents**
- **A Critical Rate Factor greater than 1.00**

As the data presented in the table shows (location highlighted in yellow), the Forest Avenue/Marginal Way/Kennebec Street/State Street intersection meets MaineDOT's criteria for a high crash location. A total of 59 crashes with a Critical Rate Factor (CRF) of 1.61 were reported for the intersection. The City, as part of the on-going State Street/High Street Two-Way Travel Conversion Study, most recently completed a detailed investigation of traffic safety concerns at this major downtown signalized intersection. The City's Traffic Peer Review Consultant has advised that further review of the intersection isn't required for this project application.

SUMMARY

1. The proposed commercial re-development project, based upon the present development scheme, can be expected to generate less than 100 vehicle trips during all "key" peak hour travel periods. The previous Century Tire auto tire and service business, which closed in March of 2014, was estimated to have trip generation values of 36 trips during a typical AM peak hour and 51 trips in the evening street peak hour and trip generation estimates of 43, 41 and 61 trips, respectively, for the AM peak hour of the Generator, PM peak hour of the Generator, and on a Saturday peak hour time period. The "net" change in site generated traffic is very minimal for both peak commuter time periods and a reduction of nearly 50% results during the other noted peak hour time periods.

2. MaineDOT's Traffic Safety Bureau's latest three-year safety report (2011 through 2013) for the identified portions of Marginal Way and Kennebec Street shows that all roadway segments and intersections, with the exception of the Forest Avenue/Marginal Way/Kennebec Street/State Street intersection, experience fewer traffic crashes than the threshold criteria for identification of a high crash location. The noted traffic intersection, based upon the most recent three-year data, meets both of MaineDOT's criteria for identification of a high crash location. A total of 59 vehicle crashes were reported at the intersection during the study time period and the Critical Rate Factor, which compares operations at the intersection with a statewide average for similar locations, exceeds 1.00 at 1.61. The City is currently studying the traffic safety and operations of this intersection as part of the on-going State Street/High Street Two-Way Traffic Conversion Study. The City has advised that further study of the intersection is not required as a part of this development application.

3. The proposed commercial re-development project, as presently envisioned, is expected to generate far less than 100 "net" vehicle trips during all peak hour time periods. As a result, a Maine Department of

Transportation Traffic Movement Permit is not required. Trip generation estimates should be prepared for all potential project tenants as leasable space within the development is filled to ensure that MaineDOT's Traffic Movement Permit requirements will not be exceeded. If the threshold criteria of 100 peak hour trips are projected to be exceeded during any peak hour time period a formal application must be filled with the City requesting issuance of a Traffic Movement Permit.

Table 1

**Comparative Summary Of
Peak Hour Trip Generation
Century Tire Property
(October 1, 2015 Revised Development Plan)**

<u>Existing Condition/Proposed Condition</u>	<u>AM Peak Hour</u>	<u>PM Peak Hour</u>	<u>AM Peak Hour of Generator</u>	<u>PM Peak Hour of Generator</u>	<u>Saturday peak Hour</u>
1. Existing Century Tire Site					
4,530sf warehouse space	1	1	2	2	1
11,980sf tire and service area	35	50	41	39	60
Sub Total (Existing)	36	51	43	41	61
2. Proposed Commercial Development Project					
1,500sf T-Mobile	0	4	10	8	8 ⁽¹⁾
1,500sf Papa John Pizza (Without Drive Through)	17	17	20	28	21
2,500sf Chipotle Restaurant	29 ⁽²⁾	28	34	46	35
Sub Total (Proposed)	46	49	64	82	64
Proposed Trip Total Minus Existing Trip Total	10	-2	21	41	3

Notes:

⁽¹⁾ Saturday trip generation rate estimated applying same rate as ITE Trip Rate for Weekday PM Peak Hour of Generator.

⁽²⁾ Chipotle Restaurants typically don't open until 11:00AM; the estimate of trip generation for the AM Peak Hour was based solely on the ITE trip rate information and did not account for hours of operations utilized by Chipotle Restaurants.

SECTION 1

G. TRIP ADJUSTEMENTS

Internal Capture (a.k.a. Shared Trip) Trip Adjustment: A finite number of employees of the existing commercial spaces and/or customers of those same spaces are classified as internal or shared trips, trips that do not leave the confines of the existing site. These multi-purpose trips, if not accounted for, overestimate the actual vehicular traffic impacts of the 29 Marginal Way multi-tenant commercial property. For example, a member of the Orange Theory Fitness facility picks up a personal prescription at Coastal Pharmacy doing so by simply walking from the fitness facility to the drug store; thereby, generating a single vehicle trip upon leaving the property versus what would be two additional trips if each trip purpose were completed individually. Numerous other similar internal trip patterns likely occur throughout the day on the property.

The National Cooperative Highway Research Program's (NCHRP) 684 Internal Trip Capture Estimation Tool provides a process for estimating these shared or internal captured trips generated by a development site. Copies of the spreadsheets used in the analysis follow. The summarized internal capture rates, as determined from the NCHRP 684 Worksheet Section 5-A, provides the following internal capture rates (percentages) applicable to the 29 Marginal Way site:

<u>Trip Capture Percent</u>	<u>Total</u>	<u>Entering Trips</u>	<u>Exiting Trips</u>
PM Peak Hour	23%	18%	32%

Traffic Solutions/Barton & Loguidice, LLC, to conservatively forecast the number of internally captured or shared trips generated by the existing 29 Marginal Way property, have applied a 15% captured trip rate for both the PM and Saturday peak hours (The NCHRP program does not provide projections for peak hour time periods other than the weekday AM and PM peak hours).

Other Modes of Transportation Adjustment: Both employees and visitors alike use other modes of transportation traveling to/from the existing 29 Marginal Way site. These other transportation modes might include transit, ridesharing, bicycle travel or walking. Traffic Solutions/Barton & Loguidice, LLC, very conservatively, is projecting 10% of the site generated trips; in fact, use a mode of transportation other than the auto.

Table 1 provides a summary of the site trip adjustments applied:

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	29 Marginal Way Development			Organization:	TS/B&L
Project Location:	Portland, Maine			Performed By:	W.J.B.
Scenario Description:				Date:	11/27/2021
Analysis Year:	2021			Checked By:	
Analysis Period:	PM Street Peak Hour			Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	492 880	7,200	square feet	46	24	22
Restaurant	933	2,500	square feet	71	36	35
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses ²	Mobile Sea Suit	3,445	square feet	40	40	
Total				157	100	57

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		6	0	0	0
Restaurant	0	12		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	157	100	57
Internal Capture Percentage	23%	18%	32%
External Vehicle-Trips ³	121	82	39
External Transit-Trips ⁴	0	0	0
External Non-Motorized Trips ⁴	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	50%	27%
Restaurant	17%	34%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

⁴Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

SECTION 1

G. TRIP ADJUSTEMENTS (Continued)

Table 1
Peak Hour Trip Adjustment(S) Summary

<u>Building Use</u>	<u>Total Trips</u>	<u>Shared Trip Adjustment ⁽¹⁾</u>	<u>Other Modes Adjustment ⁽²⁾</u>	<u>Total Adjusted Trips</u>
AM Peak Hour (Street)				
Orange Theory Fitness	4	-1	0	3
Sea Suites	n/a	0	0	0
Coastal Pharmacy	12	-2	-1	9
T-Mobile	n/a	0	0	0
Chipotle Restaurant	n/a	0	0	0
Total	16	-3	-1	12
PM Peak Hour (Street)				
Orange Theory Fitness	10	-2	-1	7
Sea Suites	66	-10	-6	50
Coastal Pharmacy	36	-5	-3	28
T-Mobile	8	-1	0	7
Chipotle Restaurant	71	-11	6	54
Total	191	-29	-16	146
AM Peak Hour (Generator)				
Orange Theory Fitness	4	-1	0	3
Sea Suites	66	-10	-6	50
Coastal Pharmacy	32	-5	-3	24
T-Mobile	8	0	-1	7
Chipotle Restaurant	119	-18	-10	91
Total	229	-34	-20	175
PM Peak Hour (Generator)				
Orange Theory Fitness	12	-2	-1	9
Sea Suites	66	-10	-6	50
Coastal Pharmacy	46	-7	-4	35
T-Mobile	8	-1	-1	6
Chipotle Restaurant	122	-18	-10	94
Total	254	-38	-22	194
Saturday Peak Hour				
Orange Theory Fitness	10	-2	-1	7
Sea Suites	58	-9	-5	44
Coastal Pharmacy	45	-7	-4	34
T-Mobile	8	0	0	8
Chipotle Restaurant	137	-21	-12	104
Total	258	-39	-22	197

NOTES:

(1) Shared trip percentage of 15% represents a conservative estimate of internally generated captured trips.

(2) Other modes adjustment of 10% is based upon an assumed percentage value applied in prior applications.

Site Trip Composition: The 3rd Edition of the Institute of Transportation Engineers “TRIP GENERATION” handbook identifies three trip types generated by a typical development site can be broken down into two major categories: “pass-by” and non-pass-by or primary trips. The following assumptions were applied in estimating the trip categories of the five existing site uses:

SECTION 1

G. TRIP ADJUSTEMENTS (Continued)

Orange Theory Fitness – all trips assumed to be primary trips.

Sea Suites Marijuana Retail Store – all trips assumed to be primary trips.

Coastal Pharmacy – 53% of trips are pass-by and 47% are primary trips.

T-Mobile – all trips assumed to be primary trips.

Chipotle Restaurant – 43% are pass-by and 57% are primary trips.

Table 2, as follows, presents the trip composition values for each of the site uses:

Table 2
Site Trip Composition Summary

<u>Peak Hour Time</u>	<u>Total Adjusted Trips</u>	<u>Primary Trips</u>	<u>Pass-By Trips</u>
AM Peak Hour (Street)			
- Orange Theory Fitness	3	3	0
- Sea Suites	n/a	n/a	n/a
- Coastal Pharmacy	9	3	6
- T-Mobile	n/a	n/a	n/a
- Chipotle Restaurant	n/a	n/a	n/a
Total	12	6	6
PM Peak Hour (Street)			
- Orange Theory Fitness	7	7	0
- Sea Suites	50	50	0
- Coastal Pharmacy	28	14	14
- T-Mobile	7	7	0
- Chipotle Restaurant	54	32	22
Total	146	110	36
AM Peak Hour (Generator)			
- Orange Theory Fitness	3	3	0
- Sea Suites	50	50	0
- Coastal Pharmacy	24	12	12
- T-Mobile	7	7	0
- Chipotle Restaurant	91	51	40
Total	175	123	52
PM Peak Hour (Generator)			
- Orange Theory Fitness	9	9	0
- Sea Suites	50	50	0
- Coastal Pharmacy	35	17	18
- T-Mobile	6	6	0
- Chipotle Restaurant	94	54	40
Total	194	136	58
Saturday Peak Hour			
- Orange Theory Fitness	7	7	0
- Sea Suites	44	44	0
- Coastal Pharmacy	34	16	18
- T-Mobile	8	8	0
- Chipotle Restaurant	104	60	44
Total	197	135	62

SECTION 1

G. TRIP ADJUSTEMENTS (Continued)

Accordingly, the proposed site will generate **36** “*pass-by*” and **110** “*primary*” trips in the weekday PM peak hour of the street and a total of **62** “*pass-by*” and **135** “*primary*” trips on a typical Saturday peak hour.

SECTION 1

H. SITE TRIP DISTRIBUTION

Vehicle trips generated during each peak hour time period were assigned to/from the proposed site based upon the following directional splits; which include, both distribution patterns presented in the 10th Edition of the Institute of Transportation Engineers “**TRIP GENERATION**” publication and/or field observations recorded in the performance of local traffic surveys, as follows:

Orange Theory Fitness: LUC #492 in ITE Publication

AM Peak Hour (Street)	= 51% enter/49% exit
PM Peak Hour (Street)	= 57% enter/43% exit
AM Peak Hour (Generator)	= 46% enter/54% exit
PM Peak Hour (Generator)	= 52% enter/48% exit
Saturday Peak Hour	= 49% enter/51% exit

Sea Suites: Local Survey Data

AM Peak Hour (Street)	= closed
PM Peak Hour (Street)	= 55% enter/45% exit
AM Peak Hour (Generator)	= 55% enter/45% exit ⁽¹⁾
PM Peak Hour (Generator)	= 55% enter/45% exit ⁽¹⁾
Saturday Peak Hour	= 56% enter/44% exit

NOTE: (1) Applied PM Distribution Rate

Coastal Pharmacy: LUC #880 in ITE Publication

AM Peak Hour (Street)	= 65% enter/35% exit
PM Peak Hour (Street)	= 49% enter/51% exit
AM Peak Hour (Generator)	= 50% enter/50% exit
PM Peak Hour (Generator)	= 50% enter/50% exit
Saturday Peak Hour	= 49% enter/51% exit

T-Mobile: Local Survey Data

AM Peak Hour (Street)	= closed
PM Peak Hour (Street)	= 50% enter/50% exit
AM Peak Hour (Generator)	= 50% enter/50% exit ⁽¹⁾
PM Peak Hour (Generator)	= 50% enter/50% exit ⁽¹⁾
Saturday Peak Hour	= 50% enter/50% exit ⁽¹⁾

NOTE: ⁽¹⁾ Applied Recorded PM Distribution Rate

Chipotle Restaurant: LUC #933 in ITE Publication

AM Peak Hour (Street)	= closed
PM Peak Hour (Street)	= 50% enter/50% exit
AM Peak Hour (Generator)	= 53% enter/47% exit
PM Peak Hour (Generator)	= 50% enter/50% exit
Saturday Peak Hour	= 49% enter/51% exit

Table 3, below, provides a summary of the site trip volumes projected to enter and exit the site during each noted peak hour time period:

SECTION 1

H. SITE TRIP DISTRIBUTION (Continued)

Table 3
Peak Hour Trip Directional Distribution
Summary

<u>Peak Hour Time Period</u>	<u>Primary Trip</u>		<u>"Pass-By" Trip</u>		<u>Total Trips</u>	
	<u>Enter</u>	<u>Exit</u>	<u>Enter</u>	<u>Exit</u>	<u>Enter</u>	<u>Exit</u>
AM Peak Hour (Street)	4	2	3	3	7	5
PM Peak Hour (Street)	59	51	18	18	77	69
AM Peak Hour (Generator)	66	57	26	26	92	83
PM Peak Hour (Generator)	72	64	29	29	101	93
Saturday Peak Hour	69	66	31	31	100	97

SECTION 1

I. TRIP ASSIGNMENT

Vehicle trip assignment models were prepared for the existing 29 Marginal Way multi-tenant commercial site for both the weekday PM Peak (Street) and Saturday Peak Hour time periods. Projected site generated trips occurring during each designated time period were appropriately assigned through each of the three existing site entrances based upon existing travel patterns. Manual turning movement counts were collected early in the month of November, 2021 at each site entrance during both peak hourly time periods (Copies of the traffic data is attached for reference).

The traffic data summary reports for both peak time periods provide the following travel patterns for the 29 Marginal Way property, as follows:

<u>Site Entrance Location</u>	<u>Weekday PM Peak Hour Street</u>		<u>Saturday Peak Hour</u>	
	<u>Entry Trip %</u>	<u>Exit Trip %</u>	<u>Entry Trip %</u>	<u>Exit Trip %</u>
Chipotle Entrance @ Marginal Way	28%	53%	40%	57%
Coastal Pharmacy @ Marginal Way	20%	14%	13%	16%
Kennebec Street Entrance	52%	33%	47%	27%
TOTAL	100%	100%	100%	100%

17 Mount View Dr
Gorham, ME 04038

File Name : Portland Kennebec St & Chipotle Entrance 11-3-21 PM

Site Code : 11032103

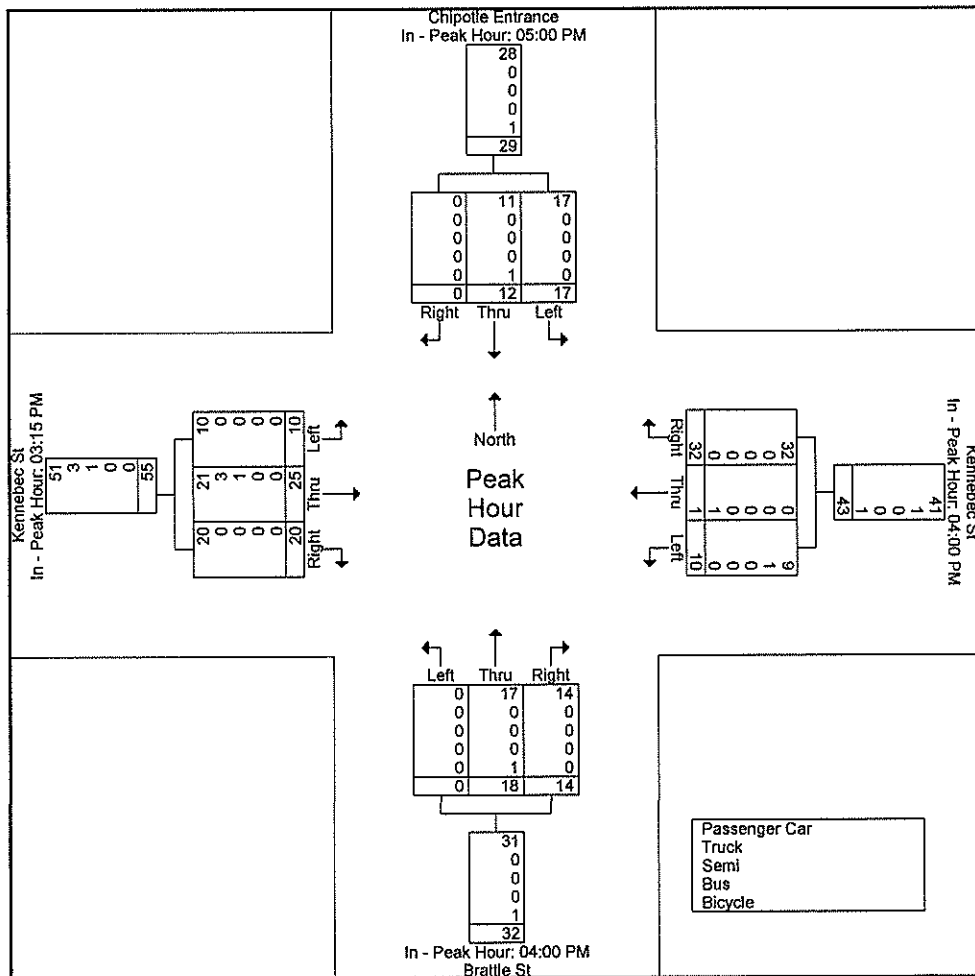
Start Date : 11/3/2021

Page No : 5

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:00 PM				03:15 PM			
+0 mins.	0	2	6	8	10	0	2	12	3	7	0	10	5	4	4	13
+15 mins.	0	3	5	8	10	0	4	14	5	5	0	10	5	6	2	13
+30 mins.	0	5	1	6	6	1	3	10	2	3	0	5	5	10	1	16
+45 mins.	0	2	5	7	6	0	1	7	4	3	0	7	5	5	3	13
Total Volume	0	12	17	29	32	1	10	43	14	18	0	32	20	25	10	55
% App. Total	0	41.4	58.6		74.4	2.3	23.3		43.8	56.2	0		36.4	45.5	18.2	
PHF	.000	.600	.708	.906	.800	.250	.625	.768	.700	.643	.000	.800	1.000	.625	.625	.859
Passenger Car	0	11	17	28	32	0	9	41	14	17	0	31	20	21	10	51
% Passenger Car	0	91.7	100	96.6	100	0	90	95.3	100	94.4	0	96.9	100	84	100	92.7
Truck	0	0	0	0	0	0	1	1	0	0	0	0	0	3	0	3
% Truck	0	0	0	0	0	0	10	2.3	0	0	0	0	0	12	0	5.5
Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
% Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1.8
Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0
% Bicycle	0	8.3	0	3.4	0	100	0	2.3	0	5.6	0	3.1	0	0	0	0



Traffic Solutions

17 Mount View Dr
Gorham, ME 04038

File Name : Portland Kennebec St & Chipotle Entrance 11-6-21 Saturday

Site Code : 01106211

Start Date : 11/6/2021

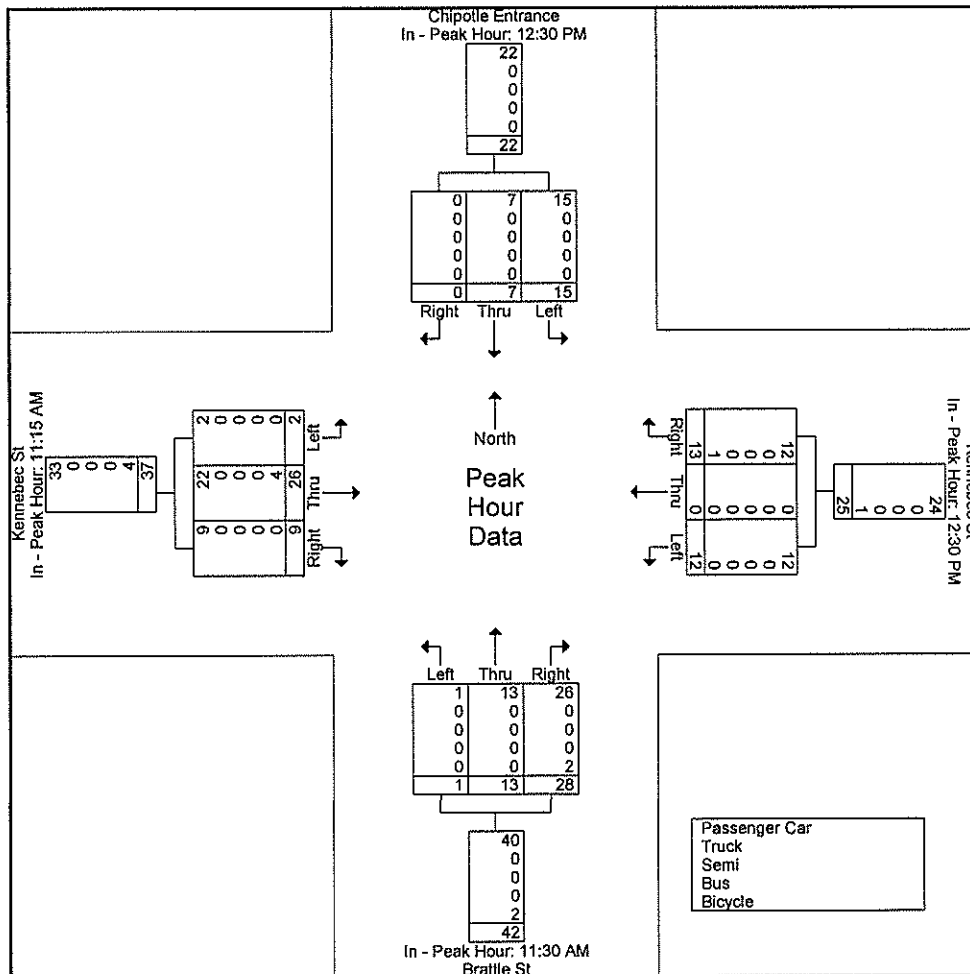
Page No : 5

	Chipotle Entrance From North				Kennebec St From East				Brattle St From South				Kennebec St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:30 PM				12:30 PM				11:30 AM				11:15 AM				
+0 mins.	0	1	7	8	5	0	3	8	5	2	0	7	2	6	0	8	
+15 mins.	0	1	3	4	3	0	5	8	7	3	0	10	5	6	0	11	
+30 mins.	0	2	1	3	0	0	2	2	10	1	1	12	0	9	1	10	
+45 mins.	0	3	4	7	5	0	2	7	6	7	0	13	2	5	1	8	
Total Volume	0	7	15	22	13	0	12	25	28	13	1	42	9	26	2	37	
% App. Total	0	31.8	68.2		52	0	48		66.7	31	2.4		24.3	70.3	5.4		
PHF	.000	.583	.536	.688	.650	.000	.600	.781	.700	.464	.250	.808	.450	.722	.500	.841	
Passenger Car	0	7	15	22	12	0	12	24	26	13	1	40	9	22	2	33	
% Passenger Car	0	100	100	100	92.3	0	100	96	92.9	100	100	95.2	100	84.6	100	89.2	
Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycle	0	0	0	0	1	0	0	1	2	0	0	2	0	4	0	4	
% Bicycle	0	0	0	0	7.7	0	0	4	7.1	0	0	4.8	0	15.4	0	10.8	



Traffic Solutions

17 Mount View Dr
Gorham, ME 04038

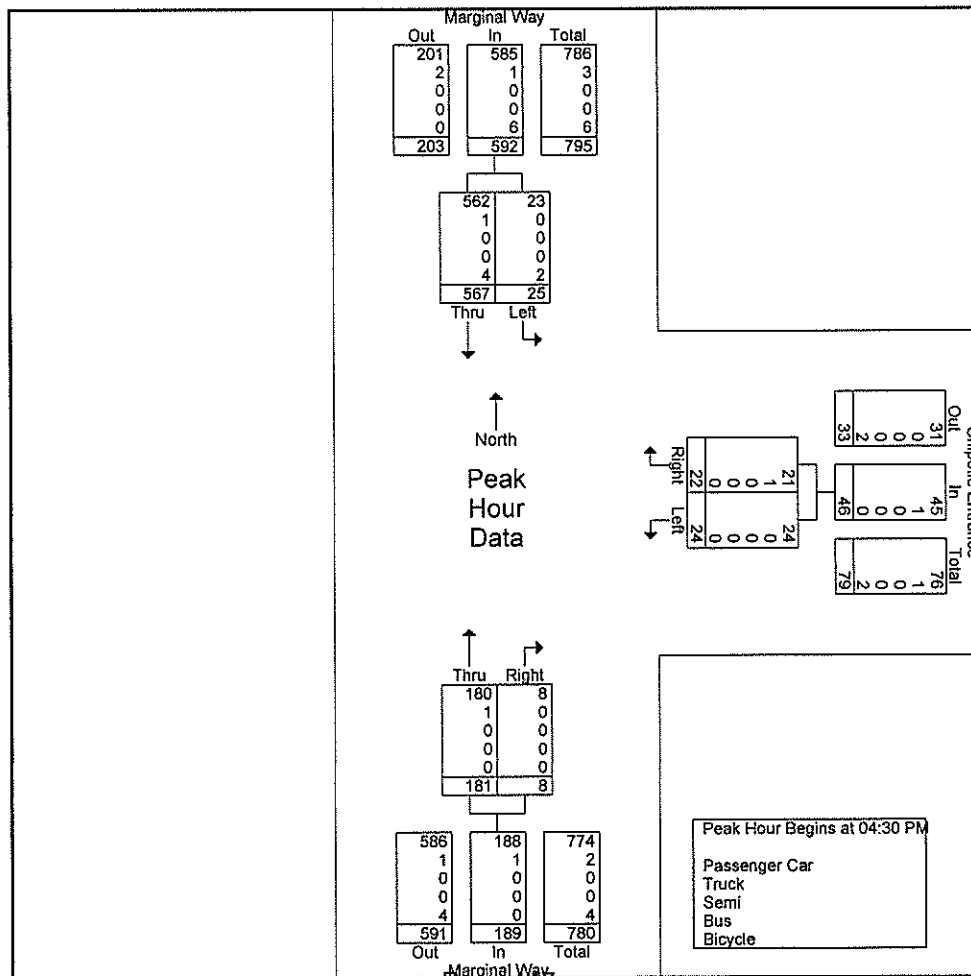
File Name : Portland Marginal Way & Chipotle Entrance 11-3-21 PM

Site Code : 01103212

Start Date : 11/3/2021

Page No : 4

	Marginal Way From North			Chipotle Entrance From East			Marginal Way From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	141	4	145	8	8	16	2	44	46	207
04:45 PM	129	2	131	4	8	12	2	31	33	176
05:00 PM	155	5	160	6	5	11	3	46	49	220
05:15 PM	142	14	156	4	3	7	1	60	61	224
Total Volume	567	25	592	22	24	46	8	181	189	827
% App. Total	95.8	4.2		47.8	52.2		4.2	95.8		
PHF	.915	.446	.925	.688	.750	.719	.667	.754	.775	.923
Passenger Car	562	23	585	21	24	45	8	180	188	818
% Passenger Car	99.1	92.0	98.8	95.5	100	97.8	100	99.4	99.5	98.9
Truck	1	0	1	1	0	1	0	1	1	3
% Truck	0.2	0	0.2	4.5	0	2.2	0	0.6	0.5	0.4
Semi	0	0	0	0	0	0	0	0	0	0
% Semi	0	0	0	0	0	0	0	0	0	0
Bus	0	0	0	0	0	0	0	0	0	0
% Bus	0	0	0	0	0	0	0	0	0	0
Bicycle	4	2	6	0	0	0	0	0	0	6
% Bicycle	0.7	8.0	1.0	0	0	0	0	0	0	0.7



Traffic Solutions

17 Mount View Dr
Gorham, ME 04038

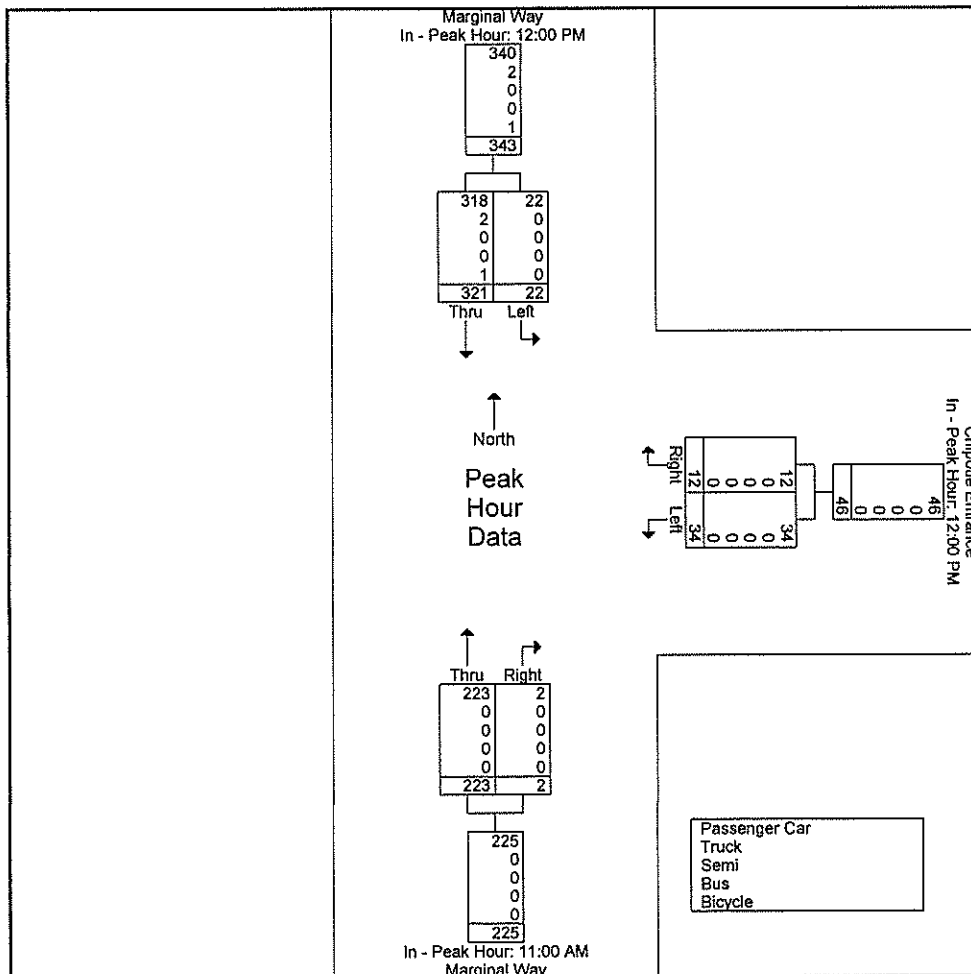
File Name : Portland Marginal Way & Chipotle Entrance 11-6-21 Saturday

Site Code : 01106211

Start Date : 11/6/2021

Page No : 5

	Marginal Way From North			Chipotle Entrance From East			Marginal Way From South			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:30 PM - Peak 1 of 1										
Peak Hour for Each Approach Begins at:										
	12:00 PM			12:00 PM			11:00 AM			
+0 mins.	87	4	91	4	13	17	0	55	55	
+15 mins.	73	3	76	2	8	10	0	58	58	
+30 mins.	81	7	88	4	8	12	0	62	62	
+45 mins.	80	8	88	2	5	7	2	48	50	
Total Volume	321	22	343	12	34	46	2	223	225	
% App. Total	93.6	6.4		26.1	73.9		0.9	99.1		
PHF	.922	.688	.942	.750	.654	.676	.250	.899	.907	
Passenger Car	318	22	340	12	34	46	2	223	225	
% Passenger Car	99.1	100	99.1	100	100	100	100	100	100	
Truck	2	0	2	0	0	0	0	0	0	
% Truck	0.6	0	0.6	0	0	0	0	0	0	
Semi	0	0	0	0	0	0	0	0	0	
% Semi	0	0	0	0	0	0	0	0	0	
Bus	0	0	0	0	0	0	0	0	0	
% Bus	0	0	0	0	0	0	0	0	0	
Bicycle	1	0	1	0	0	0	0	0	0	
% Bicycle	0.3	0	0.3	0	0	0	0	0	0	



Traffic Solutions

17 Mount View Dr
Gorham, ME 04038

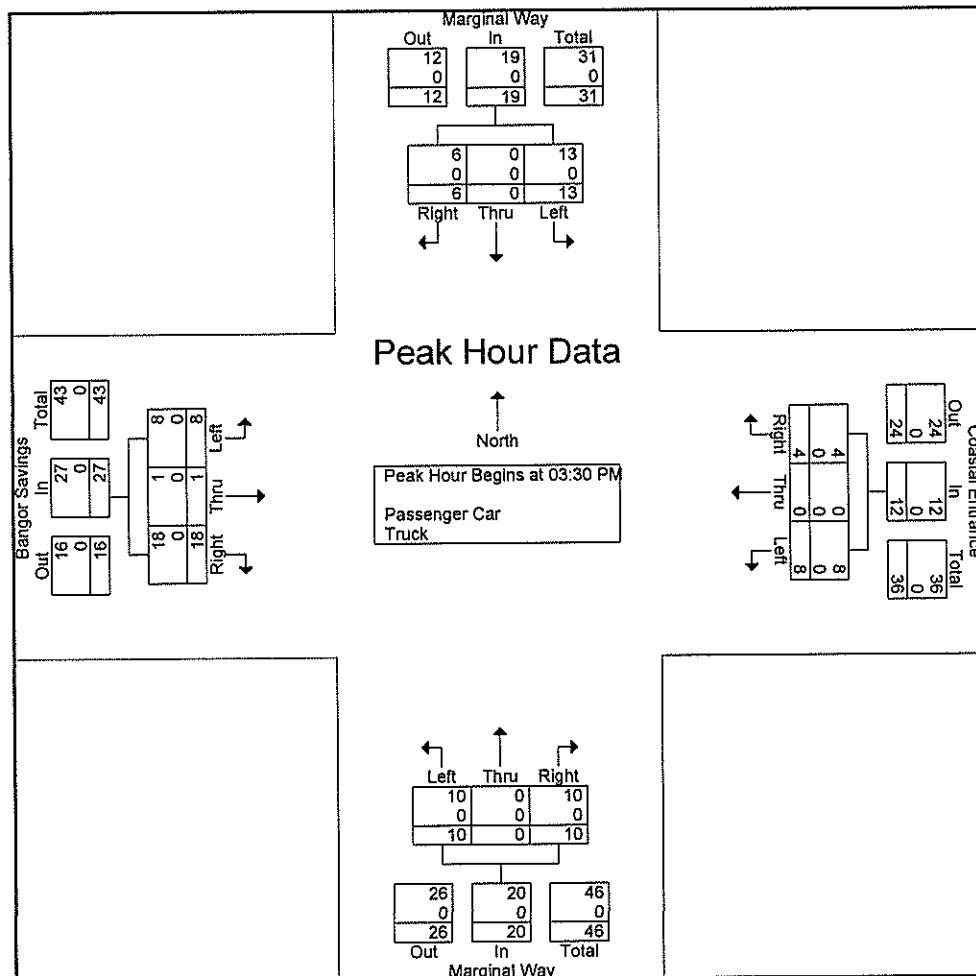
File Name : Portland Marginal Way & Coastal Pharmacy Entrance 11-3-21 PM

Site Code : 01103215

Start Date : 11/3/2021

Page No : 4

	Marginal Way From North				Coastal Entrance From East				Marginal Way From South				Bangor Savings From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:30 PM																	
03:30 PM	0	0	3	3	1	0	0	1	2	0	4	6	4	1	1	6	16
03:45 PM	2	0	2	4	1	0	3	4	1	0	2	3	6	0	2	8	19
04:00 PM	3	0	1	4	1	0	4	5	3	0	1	4	4	0	3	7	20
04:15 PM	1	0	7	8	1	0	1	2	4	0	3	7	4	0	2	6	23
Total Volume	6	0	13	19	4	0	8	12	10	0	10	20	18	1	8	27	78
% App. Total	31.6	0	68.4		33.3	0	66.7		50	0	50		66.7	3.7	29.6		
PHF	.500	.000	.464	.594	1.00	.000	.500	.600	.625	.000	.625	.714	.750	.250	.667	.844	.848
Passenger Car	6	0	13	19	4	0	8	12	10	0	10	20	18	1	8	27	78
% Passenger Car	100	0	100	100	100	0	100	100	100	0	100	100	100	100	100	100	100
Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Traffic Solutions

17 Mount View Dr
Gorham, ME 04038

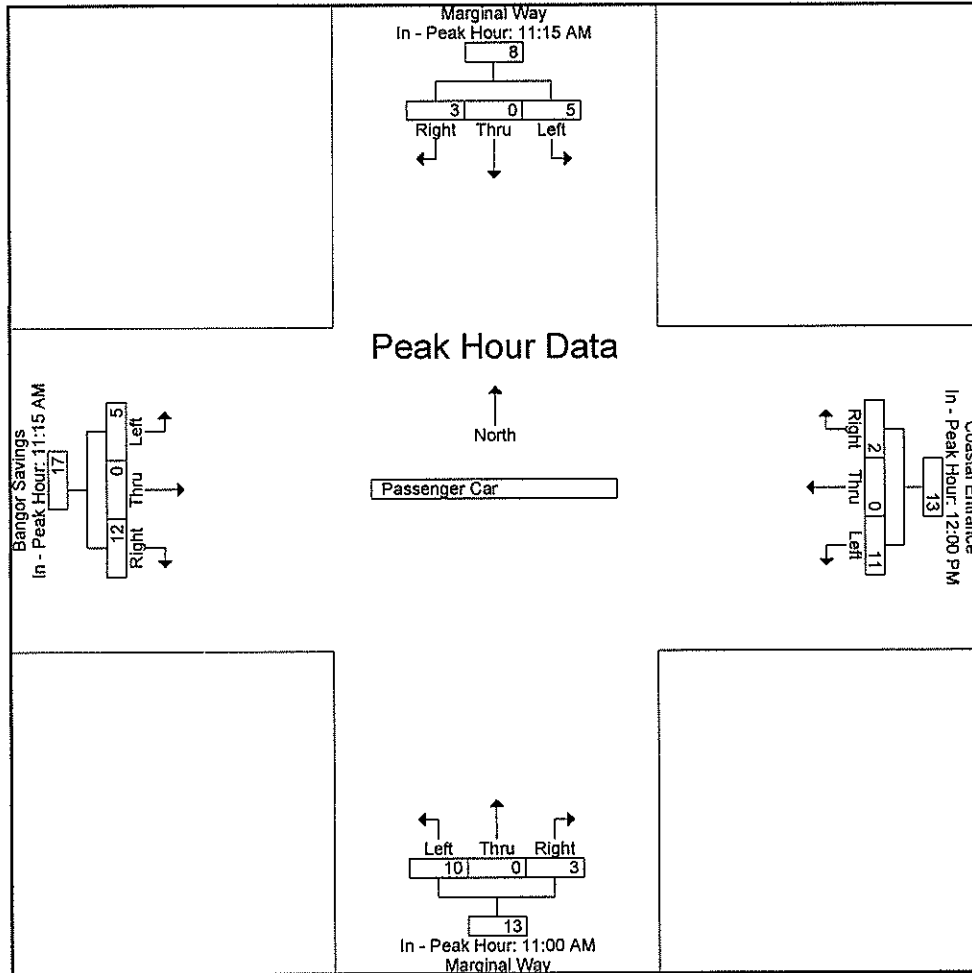
File Name : Portland Marginal Way & Coastal Pharmacy Entrance 11-6-21 Saturday

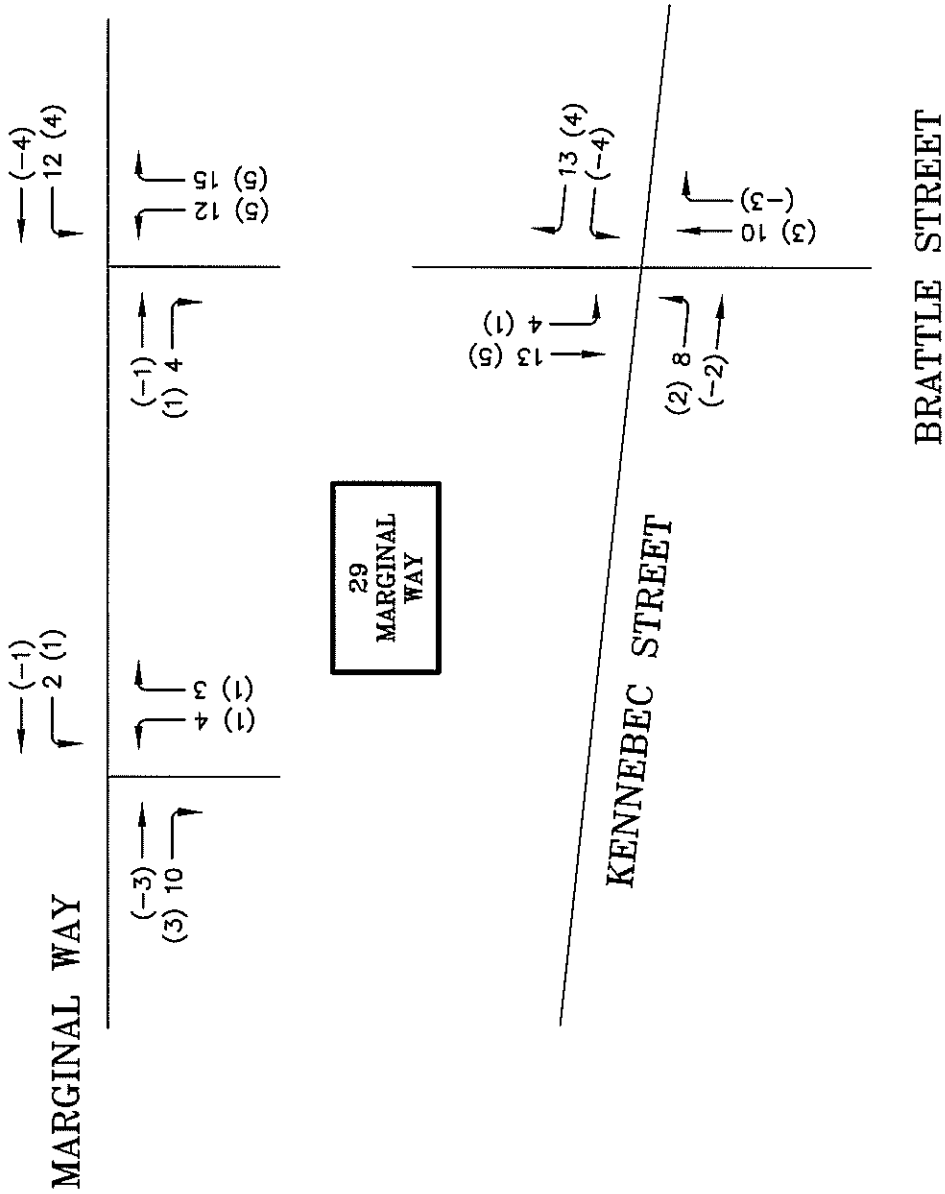
Site Code : 01106213

Start Date : 11/6/2021

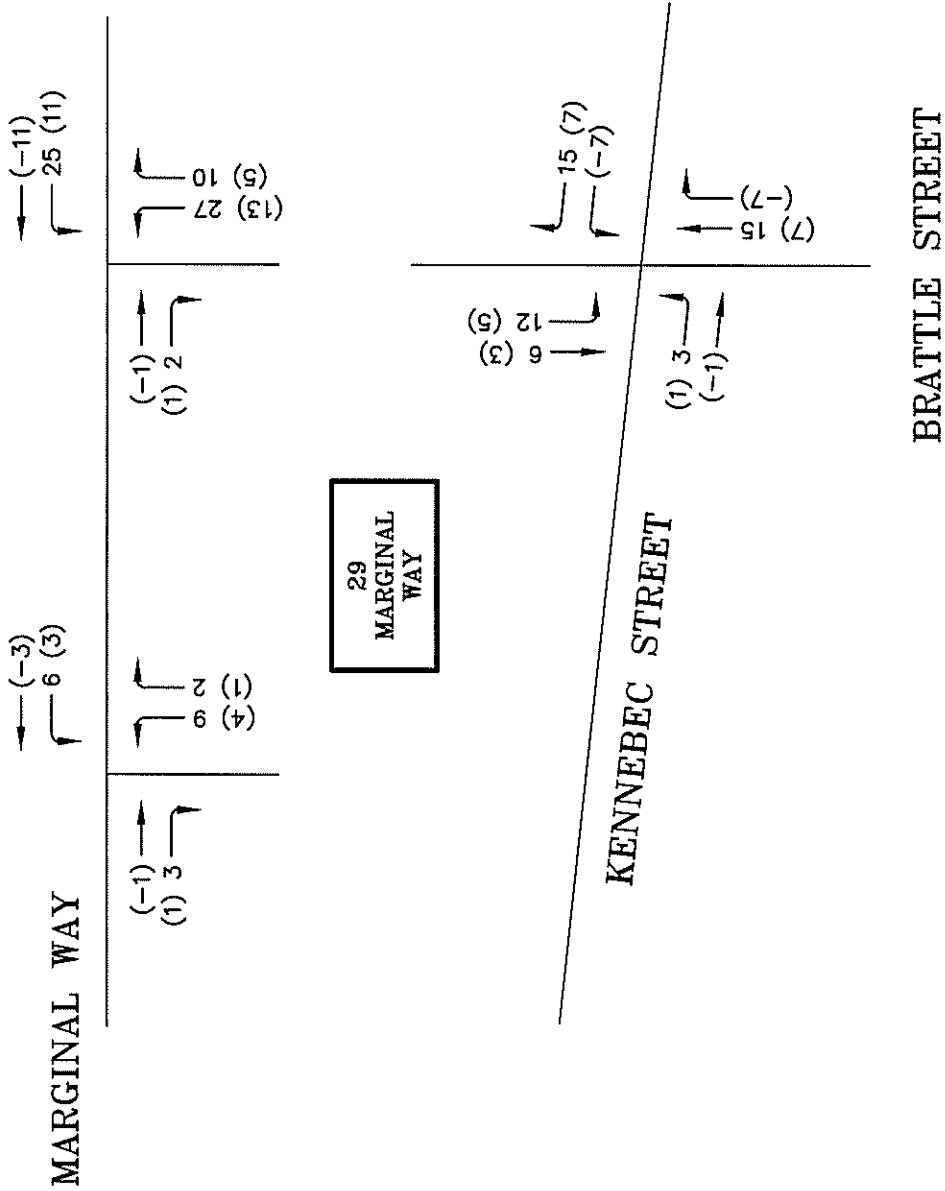
Page No : 5

	Marginal Way From North				Coastal Entrance From East				Marginal Way From South				Bangor Savings From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	11:15 AM				12:00 PM				11:00 AM				11:15 AM				
+0 mins.	1	0	1	2	1	0	2	3	1	0	1	2	3	0	1	4	
+15 mins.	1	0	0	1	0	0	3	3	1	0	2	3	4	0	2	6	
+30 mins.	0	0	1	1	0	0	5	5	1	0	3	4	3	0	1	4	
+45 mins.	1	0	3	4	1	0	1	2	0	0	4	4	2	0	1	3	
Total Volume	3	0	5	8	2	0	11	13	3	0	10	13	12	0	5	17	
% App. Total	37.5	0	62.5		15.4	0	84.6		23.1	0	76.9		70.6	0	29.4		
PHF	.750	.000	.417	.500	.500	.000	.550	.650	.750	.000	.625	.813	.750	.000	.625	.708	





SITE TRAFFIC ASSIGNMENT
PM PEAK HOUR
FIGURE 1



SITE TRAFFIC ASSIGNMENT
SATURDAY PEAK HOUR
FIGURE 2

TRAFFIC MOVEMENT PERMIT APPLICATION

FOR

29 Marginal Way Mixed-Use Development

PREPARED FOR: Northland Enterprises & Management Corp.

PREPARED BY: Traffic Solutions/Barton & Loguidice, LLC

December 2021

Provisionally Adopted 1/10/00

Department of Transportation
Traffic Engineering Division
16 State House Station
Augusta, Maine 04333
Telephone: 207-287-3775

FOR MDOT USE
ID #

1/2000

Total Fees:
Date: Received

**PERMIT APPLICATION – TRAFFIC
TRAFFIC MOVEMENT PERMIT, 23 M.R.S.A. § 704 – A**

Please type or print:

This application is for:

Traffic 100-200 PCE's _____
Traffic 200 + PC-E's X

Name of Applicant: Vandelay Industries, LLC

Address: 17 South Street, Floor #3, Portland, Maine 04101 Telephone: (207) 780-0223

Name of local contact or agent: William J. Bray, P.E., Traffic Solutions/Barton Loguidice, LLC

Address: 17 Mountview Drive, Gorham, Maine 04038

Telephone: (207) 400-6890

Name and type of development: Century Tire Plaza Mixed-use Commercial Development

Location of development including road, street, or nearest route number 29 Marginal Way, Portland, ME. 04101

City/Town/Plantation: Portland, County: Cumberland, Tax Map 034 Lot # C009

Do you want a consolidated review with DEP pursuant to 23 M.R.S.A. § 704-A (7)? Yes _____ No X

Was this development started prior to obtaining a traffic permit? Yes, with approval from City of Portland

Is the project located in an area designated as a growth area (as defined in M.R.S.A. title 30 – A, chapter 187)?
Yes, X No _____

Is this project located within a compact area of an urban compact municipality? Yes, X No _____

Is this development or any portion of the site currently subject to state or municipal enforcement action? No

Existing DEP or MDOT permit number (if applicable): N/A

Name(s) of DOT staff person(s) contacted concerning this application: N/A

Name(s) of DOT staff person(s) present at the scoping meeting for 200+ applications: _____

NOTICE OF INTENT TO FILE

Please take notice that: **Vandelay Industries, LLC**

Is intending to file a Maine Department of Transportation Traffic Movement Permit application with the City of Portland under their delegated review authority pursuant to the provisions of 23 M.R.S.A. § 704–A on or about

December 7, 2021

The application is for:

An existing multi-tenant commercial development located at 23-29 Marginal Way in the City of Portland.

The existing project generates a total of 191 trips during the weekday AM peak hour, 254 trips in the evening weekday peak hour and 258 trips on a typical Saturday peak hour.

At the following location: **23-29 Marginal Way, Portland, Maine**

A request for a public hearing must be received by the City, in writing, no later than 20 days after the application is found by the City to be complete and is accepted for processing. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the City of Portland's Planning and Urban Development office, during normal working hours.

Written public comments may be sent to the Department of Transportation, Traffic Engineering Division, 16 State House Station, Augusta, Maine 04333.

1/2000

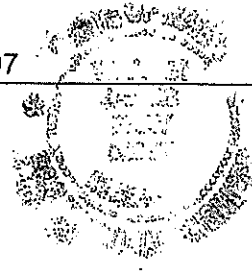
CERTIFICATION

The traffic engineer responsible for preparing this application and/or attaching pertinent site and traffic information hereto, by signing below, certifies that the application for traffic approval is complete and accurate to the best of his/her knowledge.

Signature: William Bray Re/Cert/Lic No.: 4907

Name (print): William Bray

Date: 12-5-2021



If the signature below is not the applicant's signature, attach letter of agent authorization signed by applicant.

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

[Signature] Signature of applicant JOA BENTHIEU Date 12-6-21
MANAGING MEMBER
VANDERBY INDUSTRIES LLC

Abutters List

Atlantic Bayside Holdings LLC.
50 Portland Pier Suite 400
Portland, Maine 04101

Vandelay Industries LLC

Bill Reference:

2374

\$ 1,500.00

11/30/2021 Treasurer, City Of Portland

Prop	Account	Comment	Amount
23-29M	6100 Construction Expense (non-posting)	Traffic Movement Permit Application	1,500.00

SFMS00032L1-1



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0 207.780.0223 X 204 | C 207.232.0250
17 South Street, FL 3 Portland, ME 04101
www.northlandus.com



From: Brad Fries
Sent: Tuesday, November 30, 2021 11:22 AM
To: Lauren Cambra <Lauren@northlandus.com>
Cc: Josh Benthien <josh@northlandus.com>
Subject: Vandelay Permit Check

Lauren,

I need your help to cut a check for a permit application regarding Vandelay. This is for the Traffic Movement Permit we're pursuing. Our traffic consultant, Bill Bray, just confirmed the fee owed to the city. Can you have that printed and mailed to the address below?

Made out to = Treasurer, City of Portland

Amount = \$1,500

Address:

Jennifer Munson
Planning and Urban Development, 4th Floor
389 Congress Street
Portland, ME 04101

Before you mail the check, please scan a copy and e-mail to me.

Thanks!

Lauren Cambra

From: Brad Fries
Sent: Tuesday, November 30, 2021 11:30 AM
To: Lauren Cambra
Cc: Josh Benthien
Subject: RE: Vandelay Permit Check

And if you could reference "Traffic Movement Permit Application" on the check that would be good.

Thanks!



Brad Fries
Development Director
Northland Enterprises & Management Corp
brad@northlandus.com
o 207.780.0223 x 204 | c 207.232.0250
17 South Street, FL 3 Portland, ME 04101
www.northlandus.com



From: Brad Fries
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Address:
Jennifer Munson
Planning and Urban Development, 4th Floor
389 Congress Street
Portland, ME 04101

Before you mail the check, please scan a copy and e-mail to me.

Thanks!

SECTION: 2

Traffic Crashes

SECTION 2

TRAFFIC ACCIDENTS

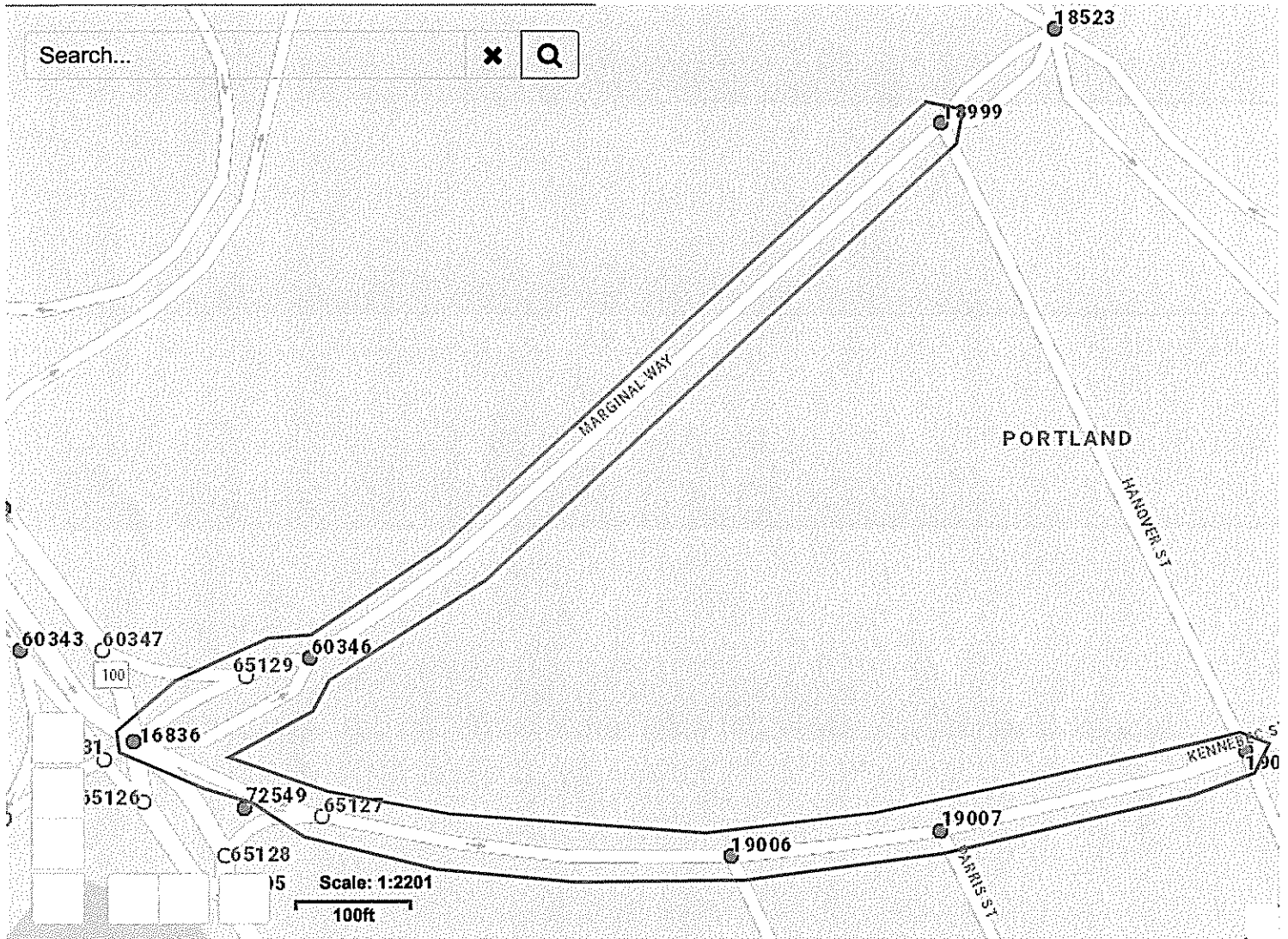
**2018 - 2020 Accident Summary
(Marginal Way – Hanover Street to Forest Avenue)
&
(Kennebec Street – Forest Avenue to Hanover Street)**

<u>Location</u>	<u>Number of Accidents</u>	<u>Critical Rate Factor</u>
1. Marginal Way @ Hanover Street	3	0.67
2. Kennebec Street @ Brattle Street	1	1.16
3. Marginal Way btw. Hanover Street @ Right-Turn Lane at Forest Avenue	6	0.94
4. Kennebec Street btw. Brattle Street @ Parris Street	1	2.69
5. Kennebec Street btw. Forest Avenue Right-Turn entry lane @ Brattle Street	1	1.29

The MDOT considers any roadway intersection or segment a high crash location if both of the following criteria are met:

- ***8 or more accidents and,***
- ***A Critical Rate Factor greater than 1.00***

As the data presented in the chart shows, there are no identified high crash locations within the defined study area.



Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS☒ Crash Summary I ☐ Section Detail ☒ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 SummaryREPORT DESCRIPTIONPortland
Marginal Way & Kennebec St.REPORT PARAMETERS

Year 2018, Start Month 1 through Year 2020 End Month: 12

Route: 0560477

Start Node: 16836
End Node: 18999Start Offset: 0
End Offset: 0☐ Exclude First Node☐ Exclude Last Node

Route: 3201880

Start Node: 60346
End Node: 16836Start Offset: 0
End Offset: 0☒ Exclude First Node☒ Exclude Last Node

Route: 0560414

Start Node: 19008
End Node: 16836Start Offset: 0
End Offset: 0☐ Exclude First Node☒ Exclude Last Node

Crash Summary I

Node	Route - MP	Node Description	U/R	Nodes							Percent Annual M Injury	Crash Rate	Critical Rate	CRF
				Total Crashes	K	A	B	C	PD	Injury				
18999	0560477 - 0.16	Int of HANOVER ST MARGINAL WY	2	3	0	0	0	0	3	0.0	3.436	0.29	0.43	0.00
											Statewide Crash Rate:	0.16		
P16836	0560477 - 0	Int of FOREST AV KENNEBEC ST MARGINAL WY STATE :	9	57	0	1	1	15	40	29.8	12.745	1.49	1.12	1.33
											Statewide Crash Rate:	0.77		
60346	0560477 - 0.03	Non Int MARGINAL WY	2	0	0	0	0	0	0	0.0	2.399	0.00	0.47	0.00
											Statewide Crash Rate:	0.16		
A65129	3201880 - 0.01	Int of CUT MARGINAL WY	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
											Statewide Crash Rate:	0.16		
19008	0560414 - 0.32	Int of HANOVER ST KENNEBEC ST	2	0	0	0	0	0	0	0.0	1.080	0.00	0.55	0.00
											Statewide Crash Rate:	0.15		
19007	0560414 - 0.37	0509427 POR,KENNEBEC,PARRIS ST.	2	1	0	0	0	0	1	0.0	0.452	0.74	0.64	1.16
											Statewide Crash Rate:	0.15		
19006	0560414 - 0.40	Int of BRATTLE ST KENNEBEC ST	2	0	0	0	0	0	0	0.0	0.437	0.00	0.64	0.00
											Statewide Crash Rate:	0.15		
A65127	0560414 - 0.47	Int of KENNEBEC ST RD INV 3201879	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
											Statewide Crash Rate:	0.16		
Study Years: 3.00				NODE TOTALS: 61 0 1 1 1 15 44 27.9 20.549 0.99 0.77 1.29										

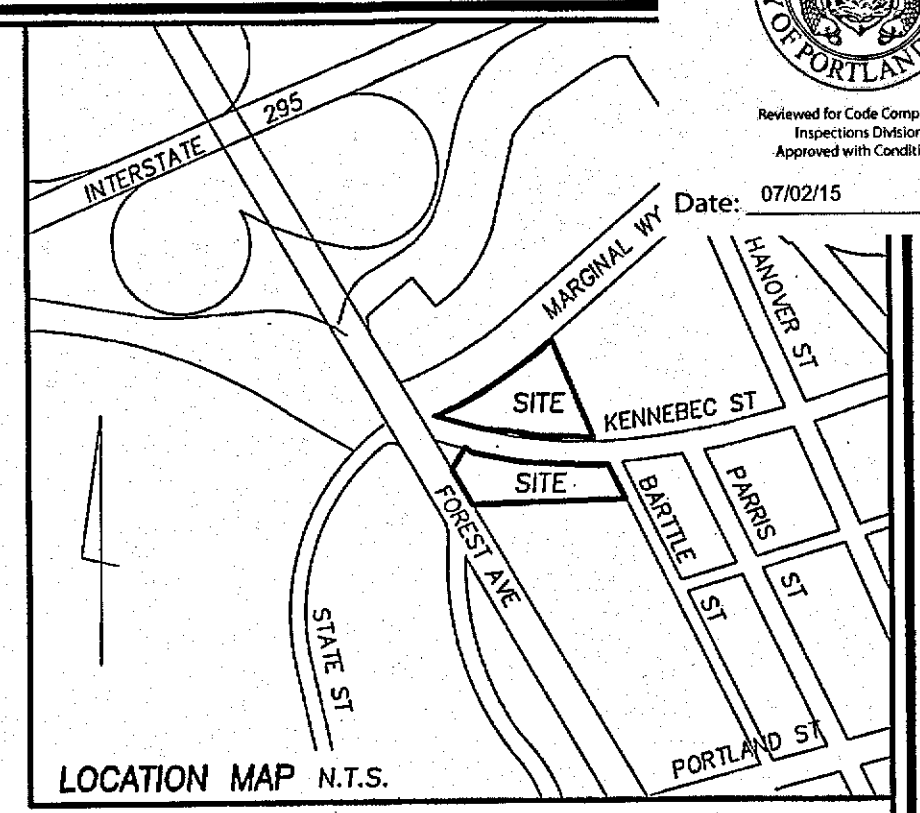
Crash Summary I

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Sections					Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
						Total Crashes	K	A	B	C	PD				
16836	60346	3115192	0 - 0.03	0560477 - 0 RD INV 05 60477	0.03	2	0	0	0	0	0	0.00027	0.00	986.02	0.00
Int of FOREST AV KENNEBEC ST MARGINAL WY STATE ST EXT															
60346	18999	3115193	0 - 0.13	0560477 - 0.03 RD INV 05 60477	0.13	2	6	0	0	0	6	0.00388	514.90	549.46	0.00
Non Int MARGINAL WY															
60346	65129	3123766	0 - 0.01	3201880 - 0 RD INV 3201880	0.01	2	0	0	0	0	0	0.00021	0.00	993.82	0.00
Non Int MARGINAL WY															
65129	16836	3139747	0 - 0.02	3201880 - 0.01 RD INV 3201880	0.02	2	0	0	0	0	0	0.00018	0.00	984.97	0.00
Int of CUT MARGINAL WY															
19007	19008	194700	0 - 0.05	0560414 - 0.32 RD INV 05 60414	0.05	2	0	0	0	0	0	0.00023	0.00	1678.89	0.00
0509427 POR, KENNEBEC, PARRIS ST.															
19006	19007	194698	0 - 0.03	0560414 - 0.37 RD INV 05 60414	0.03	2	1	0	0	0	0	0.00007	4483.27	1667.53	2.69
Int of BRATTLE ST KENNEBEC ST															
65127	19006	5094271	0 - 0.07	0560414 - 0.40 RD INV 05 60414	0.07	2	1	0	0	0	1	0.00015	2272.88	1765.39	1.29
Int of KENNEBEC ST RD INV 3201879															
16836	65127	2783081	0 - 0.03	0560414 - 0.47 RD INV 05 60414	0.03	2	0	0	0	0	0	0.00006	0.00	1449.32	0.00
Int of FOREST AV KENNEBEC ST MARGINAL WY STATE ST EXT															
Study Years: 3.00					Section Totals:	0.37	8	0	0	0	7	0.00504	528.66	545.26	0.97
Grand Totals:						0.37	69	0	1	1	15	0.00504	4559.67	725.58	6.28



Reviewed for Code Compliance
Inspection Division
Approved with Conditions

Date: 07/02/15



PLAN REFERENCES

- RIGHT OF WAY AND TRACK MAP, PORTLAND TERMINAL COMPANY JUNE 30, 1916 DWG. V-1-C/1 AND DWG. V-A-C/2.
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- MAINE STATE HIGHWAY COMMISSION RIGHT OF WAY MAP, STATE HIGHWAY 295 DATED JANUARY 1987, DECEMBER 1987 SHC FILE NO. 3-185.
- STANDARD BOUNDARY SURVEY, HANOVER STREET, PORTLAND, CUMBERLAND COUNTY, STATE OF MAINE FOR ALPINE REALTY CORPORATION DATED FEB. 25, 2000 REVISED THROUGH MARCH 9, 2000 BY LWEIS AND WASINA, INC.
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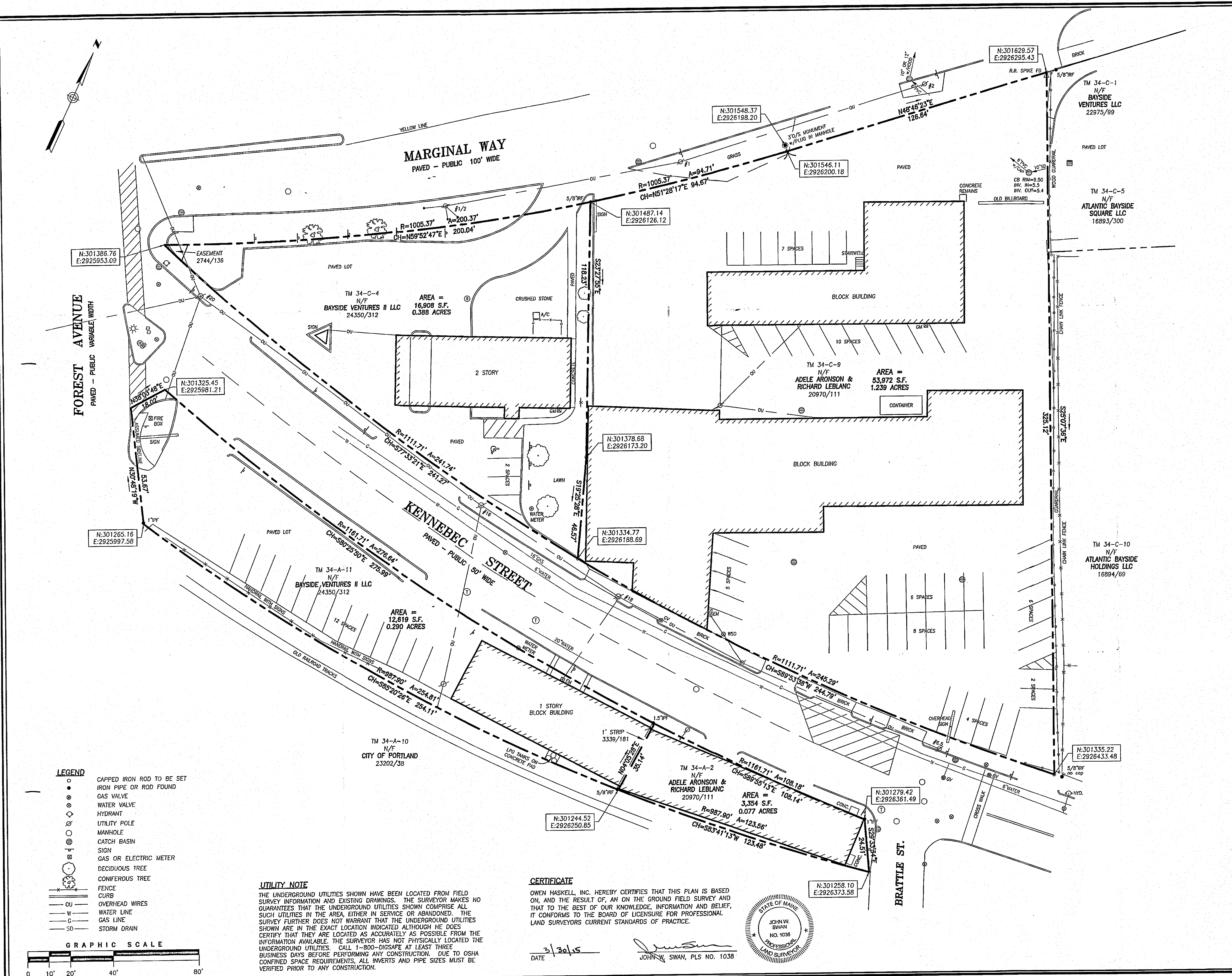
NOTES

- OWNERS OF RECORD: TAX MAP 34-A-1 & TAX MAP 34-C-4 BAYSIDE VENTURES II LLC DEED BOOK 24350 PAGE 312
TAX MAP 34-A-2 & TAX MAP 34-C-9 ADELE ARONSON & RICHARD LEBLANC DEED BOOK 20970 PAGE 111
- BEARINGS ARE BASED ON MAINE STATE PLAN COORDINATES NAD 83.

FLOOD ZONE NOTE

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE C OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 230051 13B, WHICH BEARS AN EFFECTIVE DATE OF JULY 17, 1986 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.

REV.2 3/30/15 ADD COORDINATES, IRONS TO BE SET			
REV.1 1/16/14 FLOOD NOTE ADDED			
BOUNDARY SURVEY ON MARGINAL WAY, KENNEBEC STREET & FOREST AVENUE PORTLAND, MAINE MADE FOR ATLANTIC NATIONAL TRUST 50 PORTLAND PIER, SUIT 400, PORTLAND, MAINE OWEN HASKELL, INC. 390 U.S. ROUTE ONE, FALMOUTH, ME 04105 (207) 774-0424 PROFESSIONAL LAND SURVEYORS			
Drawn By	RS	Date	Job No.
Trace By	JLW	DECEMBER 12, 2013	2013-216P
Check By	JWS	Scale	Drwg. No.
Book No.	FILE	1" = 20'	1



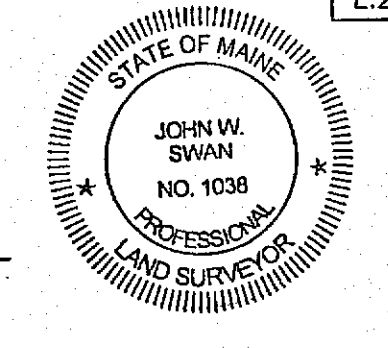
UTILITY NOTE

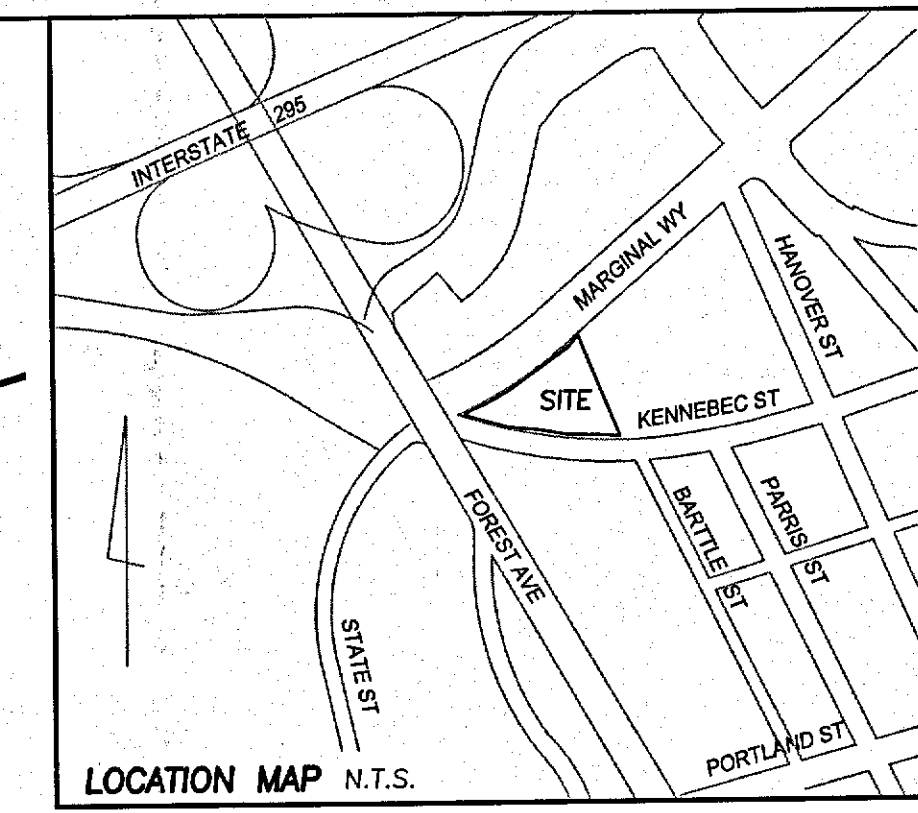
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-800-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

CERTIFICATE

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

DATE 3/30/15
JOHN W. SWAN, PLS NO. 1038





NOTES:

- STREET LIGHTS ON MARGINAL WAY SHALL BE: BAYSIDE DISTRICT LARGE SCALE LIGHT LUMINAIRE: HOLOPHANE MODEL ESU175MH12A4-R-RAL 6012 COLOR: TIGER DRYLAC OLD NAVY SILVER Y003J POLE: TAPERED 24'-3" NOMINAL HEIGHT RAL #6012 (DARK GREEN) SEE DETAIL X-2B PORTLAND TECHNICAL MANUAL STREET LIGHT FIXTURES SHALL BE LED.
- STREET LIGHTS ON KENNEBEC STREET SHALL BE: BAYSIDE DISTRICT MEDIUM SCALE LIGHT LUMINAIRE: HOLOPHANE MODEL ESU175MH12A4-PR POLE: TAPERED 19'-3" NOMINAL HEIGHT SEE DETAIL X-2C PORTLAND TECHNICAL MANUAL STREET LIGHT FIXTURES SHALL BE LED.
- BOLLARDS FOR BICYCLE LANE DELINEATION SHALL BE: PEXCO CITY POST, 42 INCH HIGH, GREEN, INSTALLED AT 15 FT ON CENTER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- CYCLE LANE MARKINGS SHALL BE: PREMARK PREFORMED THERMOPLASTIC MARKINGS BY ENNIS-FLINT. ALL MARKINGS SHALL BE STANDARD FHWA DESIGNS
- GREEN BIKE LANE PAINT SHALL BE: RIDE-A-WAY BY ENNIS-FLINT INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

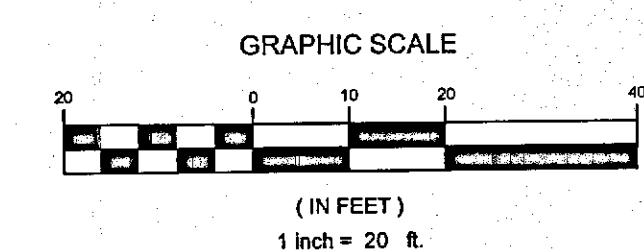
PLAN REFERENCES

- EXISTING CONDITIONS FROM THE BOUNDARY SURVEY ON MARGINAL WAY, KENNEBEC STREET & FOREST AVENUE PORTLAND MAINE MADE FOR ATLANTIC NATIONAL TRUST BY OWEN HASKELL, INC. DATED 01.16.2014. TOPOGRAPHIC SURVEY WAS PERFORMED BY BY STANTEC, INC. (FORMERLY FST, INC.) ON 01.06.2014 AND IS BASED ON CITY DATUM, NGVD29.
- BEARINGS ARE BASED ON MAINE STATE PLAN COORDINATES NAD 83.
- OWNERS OF RECORD:
TAX MAP 034-C009
VANDELEY INDUSTRIES LLC
17 SOUTH ST #3
PORTLAND, ME 04101
BOOK & PAGE 32210/163
- PROPOSED BUILDING PLANS ARE PROVIDED BY ARCHETYPE ARCHITECTS DATED 03.06.2015.

BUILDING A:	4,950 SF TOTAL
BUILDING B:	8,239 SF TOTAL GLA
UNIT 1:	2,500 SF
UNIT 2:	1,500 SF
UNIT 3:	4,239 SF

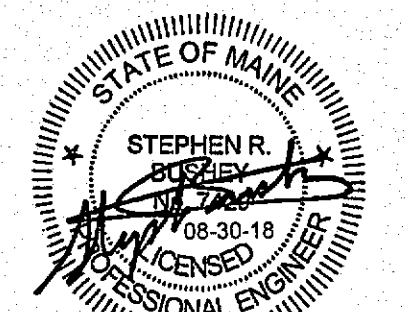
FLOOD ZONE NOTE

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File Name:	PFB	SRB	ADJ	18.08.01
	DWN	CHKD	DSGN	DATE

Permit-Seal



Client/Project
NORTHLAND ENTERPRISES, LLC

CENTURY TIRE PLAZA
195 KENNEBEC STREET
PORTLAND, MAINE

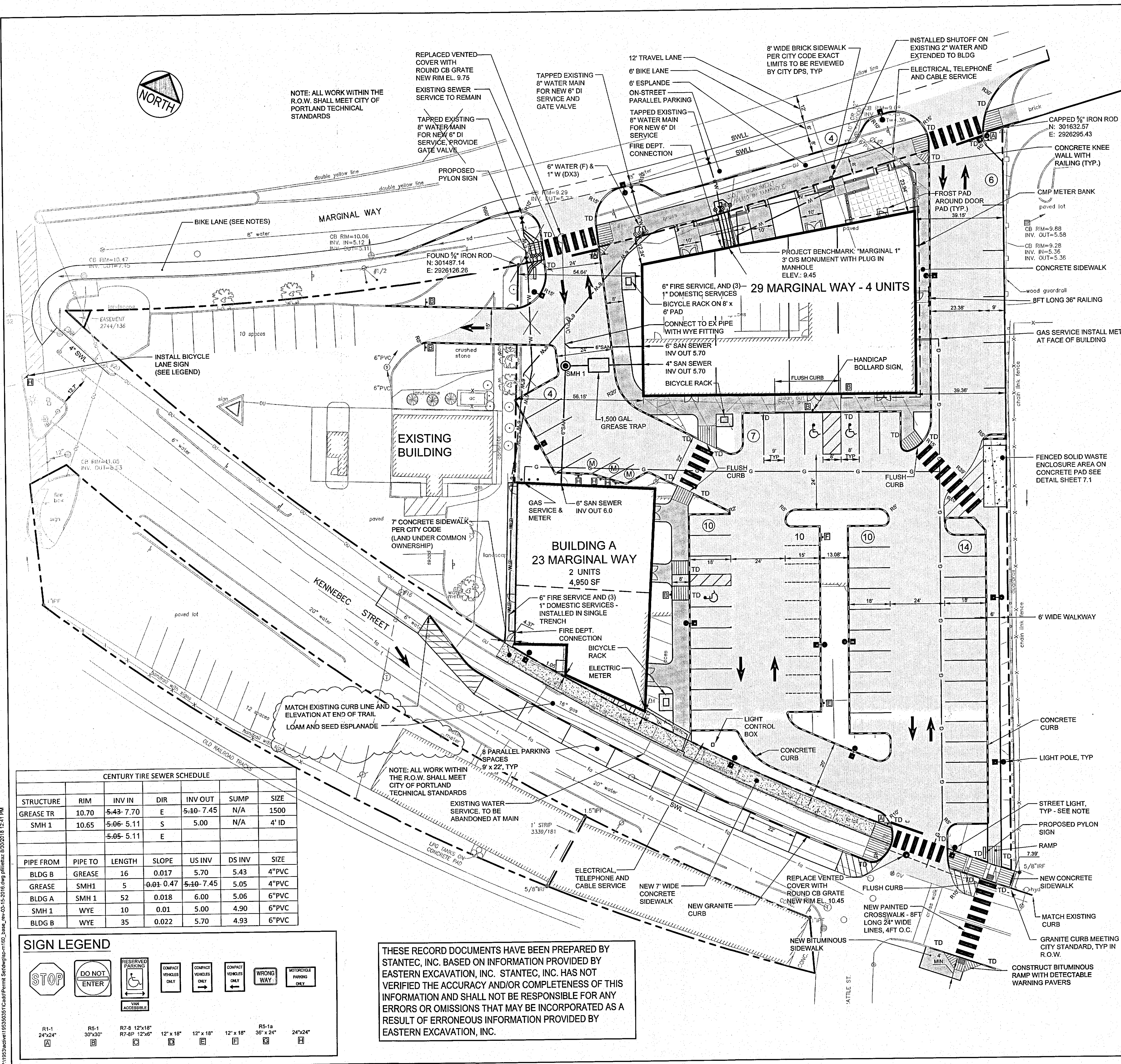
Title
SITE LAYOUT AND UTILITY PLAN

Project No.
195350351

Scale
1" = 20'

Sheet

C-3.0



NOTE: ALL WORK WITHIN THE R.O.W. SHALL MEET CITY OF PORTLAND TECHNICAL STANDARDS

REPLACED VENTED COVER WITH ROUND CB GRATE NEW RIM EL. 9.75
EXISTING SEWER SERVICE TO REMAIN
TAPPED EXISTING 8" WATER MAIN FOR NEW 6" DI SERVICE, PROVIDE GATE VALVE
PROPOSED PYLON SIGN

TAPPED EXISTING 8" WATER MAIN FOR NEW 6" DI SERVICE AND GATE VALVE

12' TRAVEL LANE
6' BIKE LANE
6' ESPLANDE ON-STREET PARALLEL PARKING
TAPPED EXISTING 8" WATER MAIN FOR NEW 6" DI SERVICE
FIRE DEPT. CONNECTION

8" WIDE BRICK SIDEWALK PER CITY CODE EXACT LIMITS TO BE REVIEWED BY CITY DPS, TYP

INSTALLED SHUTOFF ON EXISTING 2" WATER AND EXTENDED TO BLDG
ELECTRICAL, TELEPHONE AND CABLE SERVICE

CAPPED 6" IRON ROD N: 301632.57 E: 2926295.43
CONCRETE KNEE WALL WITH RAILING (TYP.)
CMP METER BANK
CONCRETE SIDEWALK
wood guardrail
8FT LONG 36" RAILING

CB RIM=9.88 INV. OUT=5.58
CB RIM=9.28 INV. IN=5.36 INV. OUT=5.36

GAS SERVICE INSTALL METER AT FACE OF BUILDING

FENCED SOLID WASTE ENCLOSURE AREA ON CONCRETE PAD SEE DETAIL SHEET 7.1

6" WIDE WALKWAY

CONCRETE CURB

LIGHT POLE, TYP

STREET LIGHT, TYP - SEE NOTE

PROPOSED PYLON SIGN

RAMP

NEW CONCRETE SIDEWALK

MATCH EXISTING CURB

GRANITE CURB MEETING CITY STANDARD, TYP IN R.O.W.

CONSTRUCT BITUMINOUS RAMP WITH DETECTABLE WARNING PAVERS

NOTE: ALL WORK WITHIN THE R.O.W. SHALL MEET CITY OF PORTLAND TECHNICAL STANDARDS

EXISTING WATER SERVICE TO BE ABANDONED AT MAIN

1" STRIP 3339/181

5/8" IR

ELECTRICAL, TELEPHONE AND CABLE SERVICE

NEW 7" WIDE CONCRETE SIDEWALK

NEW GRANITE CURB

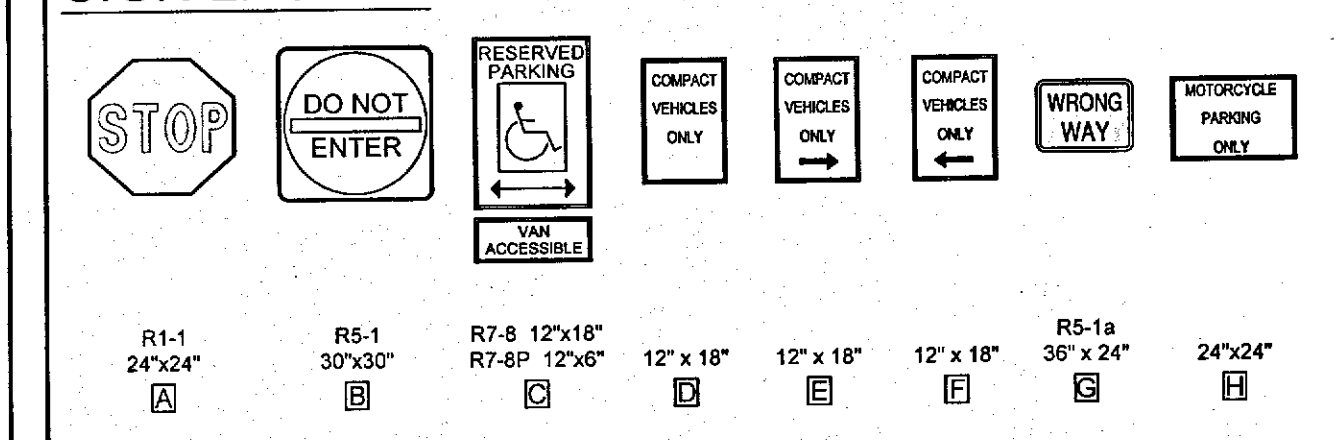
REPLACE VENTED COVER WITH ROUND CB GRATE NEW RIM EL. 10.45

NEW BITUMINOUS SIDEWALK

CENTURY TIRE SEWER SCHEDULE

STRUCTURE	RIM	INV IN	DIR	INV OUT	SUMP	SIZE
GREASE TR	10.70	5.43-7.70	E	5.10-7.45	N/A	1500
SMH 1	10.65	5.06-5.11	S	5.00	N/A	4" ID
		5.05-5.11	E			
PIPE FROM	PIPE TO	LENGTH	SLOPE	US INV	DS INV	SIZE
BLDG B	GREASE	16	0.017	5.70	5.43	4"PVC
GREASE	SMH1	5	0.01 0.47	5.10-7.45	5.05	4"PVC
BLDG A	SMH 1	52	0.018	6.00	5.06	6"PVC
SMH 1	WYE	10	0.01	5.00	4.90	6"PVC
BLDG B	WYE	35	0.022	5.70	4.93	6"PVC

SIGN LEGEND

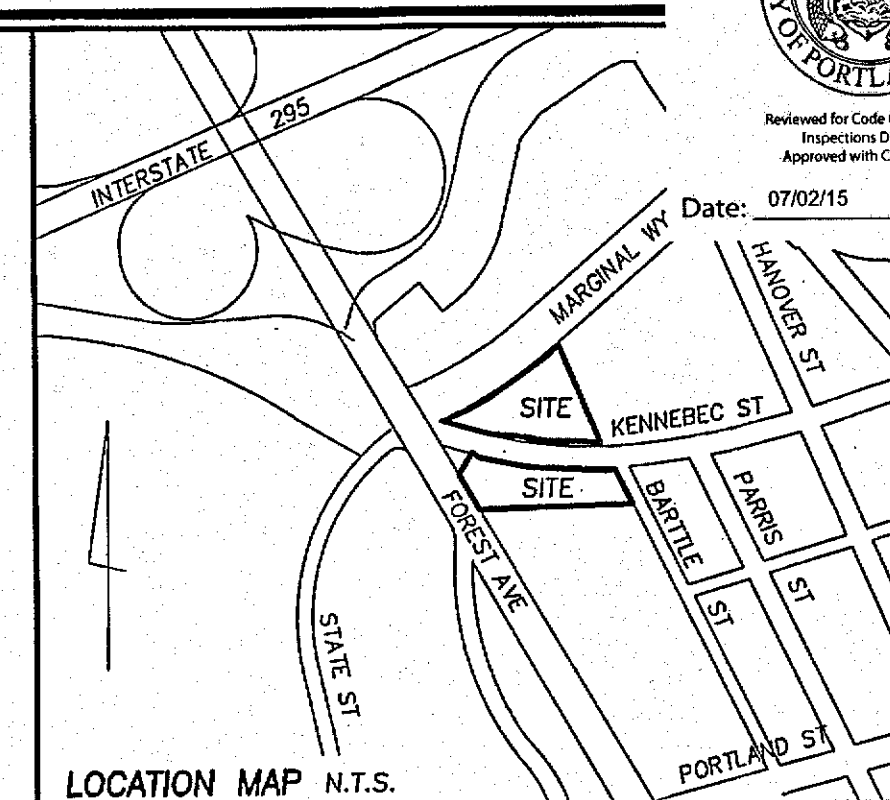


THESE RECORD DOCUMENTS HAVE BEEN PREPARED BY STANTEC, INC. BASED ON INFORMATION PROVIDED BY EASTERN EXCAVATION, INC. STANTEC, INC. HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY EASTERN EXCAVATION, INC.



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NOTES

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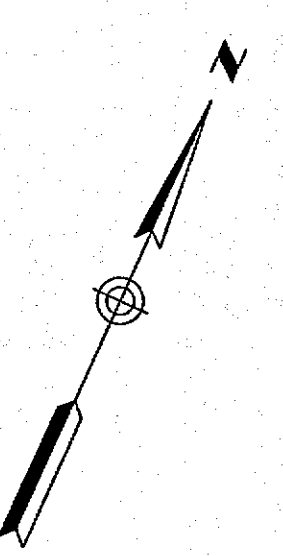
REV.2 3/30/15 ADD COORDINATES, IRONS TO BE SET
REV.1 1/16/14 FLOOD NOTE ADDED

BOUNDARY SURVEY

ON
MARGINAL WAY, KENNEBEC STREET & FOREST AVENUE
PORTLAND, MAINE
MADE FOR
ATLANTIC NATIONAL TRUST
50 PORTLAND PIER, SUIT 400, PORTLAND, MAINE

OWEN HASKELL, INC.
390 U.S. ROUTE ONE, FALMOUTH, ME 04105 (207) 774-0424
PROFESSIONAL LAND SURVEYORS

Drwn By	RS	Date	Job No.
Trace By	JLW	DECEMBER 12, 2013	2013-216P
Check By	JWS	Scale	Drwg. No.
Book No.	FILE	1" = 20'	1



FOREST AVENUE
PAVED - PUBLIC VARIABLE WIDTH

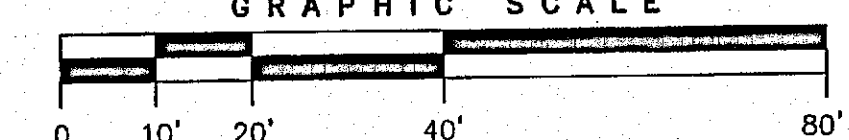
MARGINAL WAY
PAVED - PUBLIC 100' WIDE

KENNEBEC STREET
PAVED - PUBLIC 80' WIDE

BRATTLE ST.

- LEGEND**
- CAPPED IRON ROD TO BE SET
 - IRON PIPE OR ROD FOUND
 - GAS VALVE
 - WATER VALVE
 - HYDRANT
 - UTILITY POLE
 - MANHOLE
 - CATCH BASIN
 - SIGN
 - GAS OR ELECTRIC METER
 - DECIDUOUS TREE
 - CONIFEROUS TREE
 - FENCE
 - CURB
 - OVERHEAD WIRES
 - WATER LINE
 - GAS LINE
 - STORM DRAIN

GRAPHIC SCALE



UTILITY NOTE

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DATE 3/30/15

JOHN W. SWAN, PLS NO. 1038

