

CITY OF PORTLAND, MAINE

PLANNING BOARD



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

AGENDA PORTLAND PLANNING BOARD MEETING

The Planning Board will hold a remote meeting on **Tuesday, March 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

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 INSTRUCTIONS

You are invited to a Zoom webinar.

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

Topic: Planning Board Workshop and Public Hearing 3/8/2022

Please click the link below to join the webinar:

<https://portlandmaine-gov.zoom.us/j/84185006374>

Or One tap mobile :

US: +19292056099,,84185006374# or +13017158592,,84185006374#

Or Telephone:

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

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

Webinar ID: 841 8500 6374

International numbers available: <https://portlandmaine-gov.zoom.us/j/84185006374>

WORKSHOP - 4:30 PM

- i. Major Site Plan; 54 York Street; 54 York, LLC., Applicant. (estimated time 4:30 – 5:30 p.m.) The Planning Board will hold a remote workshop to consider the renovation of an existing three-story building at 54 York Street to include 14 dwelling units and two ground-floor commercial spaces, along with associated site improvements. The subject property is 9,620 square feet in size, is zoned B-5b Urban Commercial, and is in the Old Port Historic District.

PUBLIC HEARING - 5:30 PM

1. **ROLL CALL AND DECLARATION OF QUORUM**
2. **COMMUNICATION AND REPORTS**

3. REPORT OF ATTENDANCE AT THE MEETING HELD ON FEBRUARY 22, 2022

Afternoon Workshop

2 Riverton Drive: Chann, Dundon, Dunfey, Mazer, Silk, and Smith present; Stanley recused.

Evening Hearing

387 Deering Avenue: All Present.

Munjoy Hill Neighborhood Conservation Overlay District: All Present.

4. REPORTS OF DECISIONS AT THE MEETING HELD ON FEBRUARY 22, 2022

- i. Major Site Plan; 387 Deering Avenue; Sawyer Island Development, LLC., Applicant. Mazer moved and Dunfey seconded a motion to waive the Technical Manual standard requiring a minimum driveway separation of 125 feet from adjacent driveways to allow a driveway separation of 50.7 feet. Vote 7-0. Mazer moved and Dunfey seconded a motion to waive Land Use Code Section 14.6.2.A.1.e to allow 7,223 square feet of wetlands fill. Vote 7-0. Mazer moved and Dunfey seconded a motion to approve the site plan with one condition of approval. Vote 7-0.
- ii. Munjoy Hill Neighborhood Conservation Overlay District. Mazer moved and Dunfey seconded a motion to recommend to the City Council the zoning map amendment to repeal the Munjoy Hill Neighborhood Conservation Overlay District and to amend Land Use Code Articles 5, 7, and 8 to strike references to the Munjoy Hill Neighborhood Conservation Overlay District. Vote 7-0.

5. NEW BUSINESS

- i. Subdivision; 33 McAlister Farm Road; PK Real Estate, LLC., Applicant. (estimated time 5:30 – 6:15 p.m.) The Planning Board will hold a remote public hearing to consider the division of 33 McAlister Farm Road into three parcels. The subject property is 10.12 acres in size and is zoned I-M Moderate Impact Industrial. The new parcels to be created through this subdivision are to be 2.06 acres (Lot A), 6.05 acres (Lot B) and 2.01 acres (Lot C).
- ii. Major Site Plan; 50 Exchange Street; Edith Armstrong, Applicant. (estimated time 6:15 – 7:00 p.m.) The Planning Board will hold a remote public hearing to consider the conversion of 4,300 square feet of floor area within the existing three-story building at 50 Exchange Street into four dwelling units. The subject property is 1,938 square feet in size, is zoned B-3 Downtown Business, and is within the Old Port Historic District.
- iii. Major Site Plan; 102 State Street; NewHeight Redfern, LLC, Applicant. (estimated time 7:00 p.m.) The Planning Board will hold a remote public hearing 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.

Memorandum
Planning and Urban Development Department



To: Chair Stanley & Members of the Planning Board
From: Sean King, Urban Designer
Date: March 4, 2022
Re: 54 York Street
Project ID: PL-001838-2021
CBL: 042 A007001
Meeting Date: March 8, 2022

I. INTRODUCTION



Figure 1 – Site Aerial

54 York, LLC has submitted a Major Site Plan and Inclusionary Zoning Conditional Use application to convert an existing three-story building into a mixed-use development to include 14 residential units and two ground-floor commercial spaces with associated residential storage, common areas, and other amenities at 54 York Street. The applicant proposes to utilize existing interior square footage and preserve the exterior under Historic Preservation review. 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 and Inclusionary

Zoning Conditional Use Standards, Section 18.2.3.

The Planning and Urban Development Department mailed notices advertising this meeting to 202 property owners within 500 feet of the site. A legal advertisement ran in the February 25th and 26th, 2022 editions of the *Portland Press Herald*.

Applicant: Jim Hibbard of 54 York, LLC

Applicant Team: Will Savage and Pete Heil of Acorn Engineering, Patrick Booth & Josh Jacques of Caleb Johnson Studio, Owen Haskell of Owen Haskell Inc.

II. REQUIRED REVIEWS

Review	Applicable Standards
Site Plan	Section 14.6
Historic Preservation Review	Section 17.8
Inclusionary Zoning Conditional Use	Section 18.2.3

III. PROJECT DATA

Existing Zoning	B-5b Urban Commercial
Property Size	9,715 sf
Existing Use	General Commercial
Proposed Use	Mixed-Use (Residential Units & Commercial Spaces)

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	7,590 sf	7,590 sf	0
Building Floor Area	22,770 sf	22,770 sf	0
Impervious Surface Area	9007 sf	9356 sf	+349 sf
Parking Spaces	None	None	0
Bicycle Parking Spaces	9	17 (8 within interior room)	+8

IV. BACKGROUND

The subject building at 54 York Street is an existing brick structure that is listed as a contributing structure within the Waterfront (Old Port) Historic District. The building was built by George C. Littlefield and Albert M. Wilson in 1867 and later bought by C.J. McDonald in partnership with Rufus Deering and served as a wood sash and molding factory from 1888-1927. Later uses included general commercial, storage and the Baxter Academy.

V. EXISTING CONDITIONS AND SURROUNDING AREA

The property is currently occupied by an existing three-story building (Figures 2, 3, & 4) with frontage along York Street and Maple Street. The surrounding neighborhood contains a mix of uses and building types that range between one and five-stories and include hospitality, commercial / service, office, retail and residential uses. Hobsons Landing, a large-scale mixed-use development, which includes ground floor retail, the Aloft hotel, and residential uses abuts 54 York Street to the east and south. The site is proximate to public transit with access to multiple METRO bus lines.



Figure 2 - Corner of York & Maple St



Figure 3- Maple St towards Commercial St



Figure 4 - Existing photo at Maple St towards York St

VI. PROPOSED DEVELOPMENT

The applicant has proposed a change of use for an existing three-story building into 14 residential units and two commercial spaces with associated residential storage, common areas, fitness room, bike room, and trash room. Per Inclusionary Zoning (IZ) Conditional Use requirements, the applicant has chosen to create four IZ units on-site at 80% AMI in compliance with the Inclusionary Zoning ordinance. The proposed multi-family component of the development includes 10 one-bedroom and 4 two-bedroom units that are all ADA accessible through shared corridors accessed from York Street and a new elevator to access all floor levels.

The proposed commercial spaces and secondary residential entrance are provided at the lower floor level of the building with access provided via an existing access easement. Residential tenants may access the first floor via a primary entrance along York Street. Associated residential storage, common areas, fitness room, bike room, trash room and building mechanical rooms can be accessed via a common corridor along with four exterior access doors.

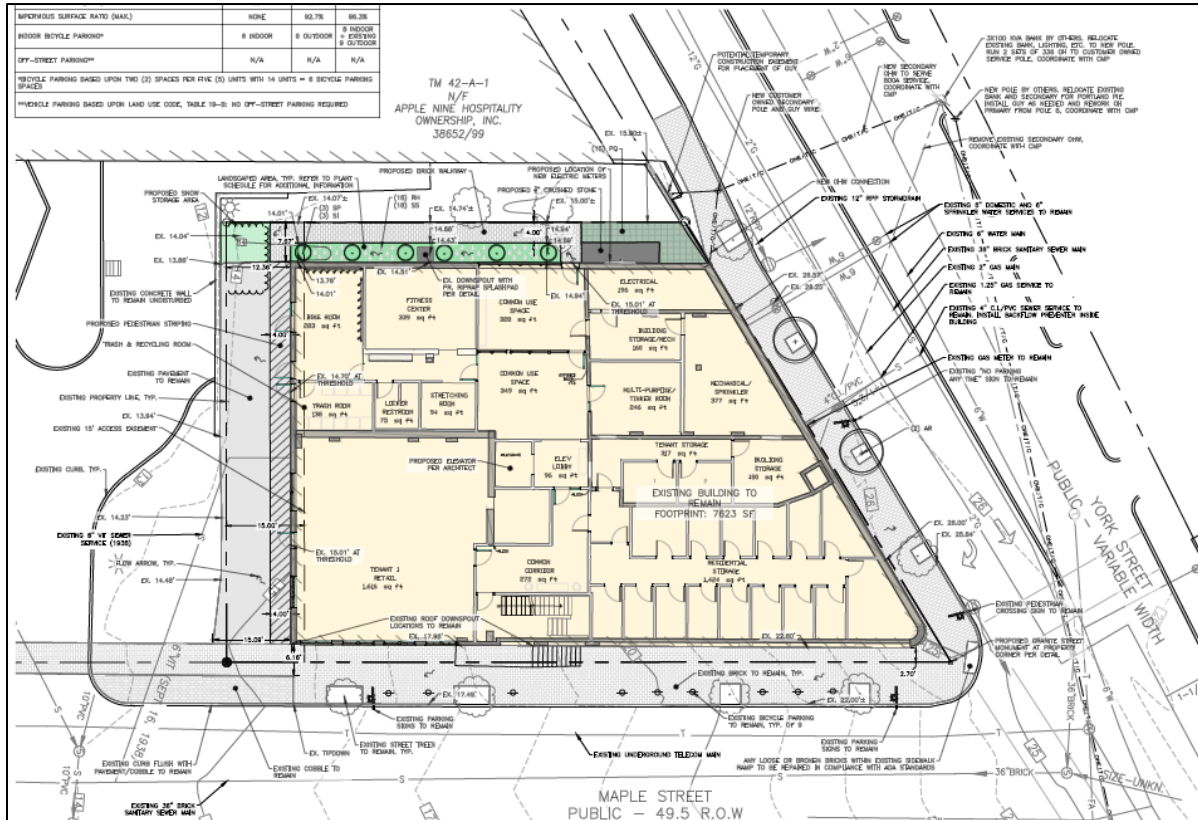


Figure 5 – Site Plan

VII. RIGHT, TITLE, & INTEREST

The owner of the property is 54 York, LLC. The applicant has provided copy of Quitclaim deed with Covenant dated June 15, 2018 that was recorded in the Cumberland County Registry of Deeds in Book 34935, Page 196 to demonstrate their right, title and interest in the property at 54 York Street (Attachment C).

VIII. FINANCIAL & TECHNICAL CAPACITY

The applicant has submitted a Statement of Financial Capacity letter from their financial institution to demonstrate their financial capacity (Attachment G).

The applicant team for 54 York, LLC consist of Christopher Dimillo, Principal, and Jay Hibbard, Director of Development, along with other key representatives that include Peter Chavonelle Jr., President of Masonry Preservation Associates, Robert Jacobs, Jacobs Glass Inc., Scott Hanson, MacRostie Historic Advisors, Acorn Engineering & Caleb Johnson Studio. The applicant has submitted a Statement of Technical Capacity to demonstrate their professional background in development expertise, consulting services, and relevant experience to complete the proposed change of use development (Attachment H)

IX. ZONING ANALYSIS

The subject property is located in the B-5b Urban Commercial zone. Per Article 6 of City's Land Use Code, the proposed change of use to multi-family dwelling units is permitted in the B-5b zone. Regarding the proposed commercial spaces, Table 6-C permits a broad range of commercial / service uses including general office (<5,000sf), general service (<5,000sf), restaurants, retail (<5,000sf), theaters and performance halls.

The following Table 7-E is provided to show the dimensional requirement standards for the B5b mixed-use zone (Land Use Code Sec. 7.3) which are met by the proposal.

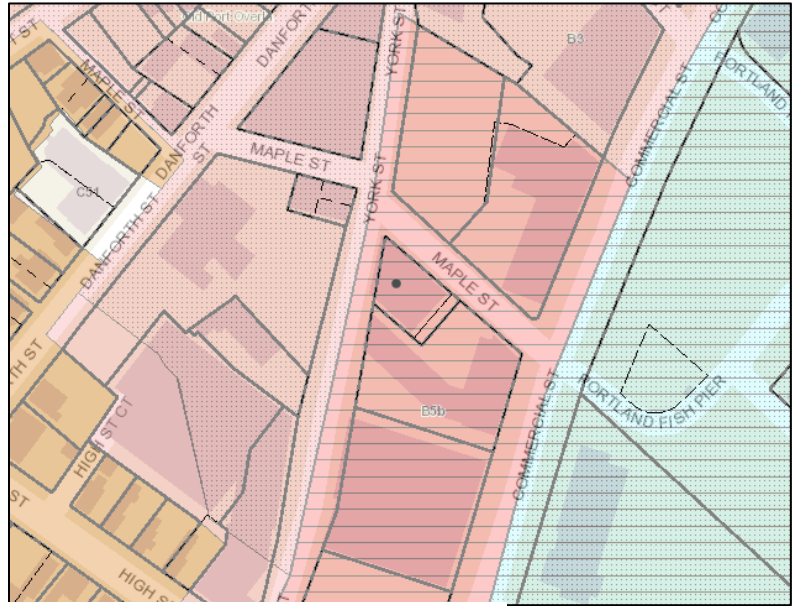


Figure 6 – Zoning Map

	<i>Required</i>	<i>Proposed</i>
Front setback min.	0 ft.	0 ft.
Front setback max. (from all street frontages)	10 ft.	2.70 ft.
Structure height max.	65 ft.	45.17 ft.

No parking in excess of that existing on the site of a historic structure shall be required (Table 19-B Categorical Exceptions to Off-street parking minimums). Exception applies for uses within any contributing structure in a local or national register historic district or locally-designated or national register landmark building.

X. INCLUSIONARY ZONING STANDARDS (Section 18.2.3)

As the proposed development at 54 York Street will create 14 units consisting of 10 one-bedroom and 4 two-bedroom apartments, it is subject to the City's Inclusionary Zoning Conditional Use requirements.

Per Inclusionary Zoning Conditional Use, the applicant may:

- 1) Create four IZ units on-site;
- 2) Create three IZ units on-site and pay a proportional fee-in-lieu;
- 3) Pay the fee-in-lieu for the 3.5 units;

The applicant has chosen to create four IZ units on-site at 80% AMI.

Based on the information presented, the applicant intends to provide four IZ units on site, therefore 54 York Street is in compliance with the Inclusionary Zoning Ordinance. Please see Attachment A2 for the Inclusionary Zoning Review memorandum from the Housing Program Manager confirming compliance.

XI. 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

- Given that this is a change of use for an existing, operational commercial building, the proposed project would not be expected to have a significant traffic or safety impact to the adjacent roadway system. In addition, the project will not generate 100 or more cars during peak hour, therefore a Traffic Movement Permit is not required. As the site is situated within a walkable, downtown context, pedestrian circulation to and from the site is provided by an existing network of sidewalks and pathway connections along York Street and surrounding areas. The Transportation Systems Engineer recommends that the right turn lane should not be perpetuated along York Street to accommodate for bike lane extension to Gorham's Corner.

B. Access and circulation

- The existing building is fronted by five-foot wide brick sidewalk in the public right-of-way, which meets the City's minimum sidewalk width requirements. The sidewalks are in acceptable condition and reconstruction will not be required; however, DPW has asked that the applicant ensure the ramp at the corner of York and Maple is ADA compliant and that any loose or broken bricks within the existing sidewalk be repaired.
- The applicant has documented one existing easement identified on the Boundary & Topographic Survey dated September 23, 2021, by Owen Haskell, Inc. A 15-foot Access Easement, recorded in the Cumberland County Registry of Deeds, Book 1555, Page 24. There are no newly proposed easements as part of this redevelopment.

C. Public transit access

- Not applicable.

D. Parking

- There are no existing parking spaces on-site and the proposal does not include providing parking spaces. Under Table 19-B of the City's Land Use Code, no parking in excess of that existing on the site of a historic structure shall be required. Exception applies for uses within any contributing structure in a local or national register historic district or locally-designated or national register landmark building.

E. Transportation Demand Management (TDM)

- Not applicable. A TDM plan is not required.

2. Environmental Quality Standards (Section 14.6.2)

A. Preservation of significant natural features

- The site is a fully developed parcel. No significant natural features exist onsite. Not applicable.

B. Landscape preservation

- The existing site includes an existing building with minimal lawn located at south portion of the parcel. Existing street trees include (2) along York Street and (4) along Maple Street that will remain.

C. Site landscaping and buffers

- The project is required to provide one street tree per residential unit and is subject to providing 14 street trees or a contribution to the City's Tree Fund. The applicant has chosen to pay into the City's Tree Fund.
- The City Arborist recommends the replacement of one street tree along York Street within close proximity to existing building entryway. The one remaining tree planter within the site's frontage will be abandoned due to a conflict with underground gas utility line. Proposed landscaping within the property is appropriately specified for the dry, shade conditions at the existing building.

D. Water quality/storm water management/erosion control

- The Consulting Stormwater Engineer has requested that the applicant provide proposed grades and location of downspouts to confirm adequate drainage around the existing building. As the proposed change of use utilizes the existing footprint and does not exceed 1,000sf of new impervious surface, Maine DEP Chapter 500 standards related to stormwater treatment do not apply.

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

- City staff have observed the temporary quality of the wood guardrail above the existing stone wall at the southwest corner of the site along York Street. The applicant should coordinate with Planning and Life Safety staff to ensure a more permanent solution to protect the elevation change of ten feet from the sidewalk to the lower property.

C. Availability and capacity of public utilities

- The building is served by existing utilities. The applicant will provide ability to serve letters for the proposed change of use, including a new electrical service that includes relocation of existing bank, lighting to new pole / guy, new overhead electrical lines and secondary service for the Portland Pie Company building in coordination with CMP. A new secondary overhead electrical line will provide 800 amp service to 54 York Street from the opposite side of York Street, along with a new secondary pole / guy proposed at the public right-of-way at York Street adjacent to the existing building at 54 York Street.

4. Site Design Standards (Section 14.6.4)

A. Massing, ventilation, and wind impacts

- Proposed HVAC mechanisms will be located on the existing rooftop. City staff has confirmed that the distance and screening by existing parapet walls from view at public ways meet zoning requirements.

B. Shadows

- Not applicable. The development is not anticipated to have adverse impacts related to shadows.

C. Snow and ice loading

- The applicant is utilizing the existing flat roof in order to prevent snow and ice falling. Based on the submitted materials, staff find that the applicant has produced sufficient snow storage area for impervious surfaces and evidence that prevents significant amounts of accumulated snow and ice from loading or falling onto adjacent properties or public ways.

D. View corridors

- As The project is located on York Street and is an existing building, with no proposed alterations to its massing, this standard does not apply.

E. Historic resources

- The site is located within the Waterfront (Old Port) Historic District and is a contributing building. Design review is under the purview of Historic Preservation. According to the applicant they intend to pursue historic tax credits through the National Park Service. An initial Historic Preservation workshop was held on Wednesday, February 16, 2022.

F. Exterior lighting

- The applicant has provided cut sheet information showing the specifications for the proposed fixture (Attachment 14. Lighting Plan) that comply with City's lighting standards, additional review by Historic Preservation staff as the property is within the Waterfront (Old Port) Historic District. The site currently has existing street lighting complying with the specific lighting district requirements.

G. Noise and vibration

- No adverse impacts related to noise and vibration are anticipated as mechanical equipment is located on rooftop away from adjacent properties and screened from traveled public ways. The applicant will be required to provide cut sheets for HVAC Rooftop units to confirm compliance with this standard.

H. Signage and wayfinding

- No new signage or wayfinding elements proposed. Staff do not believe additional signage is necessary given the new residential use utilizing the main entrances at York Street.

I. Zoning-related design standards

- The development is located in the Waterfront (Old Port) Historic District therefore the City of Portland Historic Preservation standards supersede the design requirements of this section. The project is under review by the Historic Preservation Board currently, and a Certificate of Appropriateness will be provided as an attachment to the hearing report.

XII. NEIGHBORHOOD MEETING & PUBLIC COMMENT

The applicant held a neighborhood meeting via Zoom on January 26, 2022 with six community members in attendance. A total of 15 comments, questions & answers were discussed with meeting notes shared on February 8, 2022. Public comments ranged in concern from parking requirements, project construction schedule, accessible entrances, commercial uses permitted, clarification of residential rental units (monthly rent, affordable housing), historical exterior and interpretive signage, exterior lighting, landscape, property management company and future building name. A detailed description of each public comment and response is available in the attachment as a record of meeting minutes.

XIII. NEXT STEPS

1. Applicant to address staff and Board comments related to change of use and site design.
2. Applicant to provide ability to serve letters.
3. Applicant to prepare final plan submission.
4. Additional workshop or hearing to Historic Preservation board.
5. Additional workshop or proceed to Planning Board public hearing.

XIV. ATTACHMENTS

- A1. City Arborist Review comments
- A2. Inclusionary Zoning Review comments
- A3. Corporation Counsel review comments
- A4. Department of Public Works Ability to Serve comments
- A5. Department of Public Works Review comments
- A6. Consulting Civil Engineer Review comments
- A7. Transportation Systems review comments
- A8. Zoning review comments

Applicants document(s) submittal

- A. Cover letter

- B. Major Site Plan Application
- C. Right, Title & Interests
- D. Zoning Assessment
- E. Easements
- F. Waivers Table
- G. Financial Capacity
- H. Technical Capacity
- I. Conformity with Land Use Ordinance
- J. Stormwater Management Report
- K. Erosion and Sedimentation Control Report
- L. Fire Department Letter
- M. Wastewater Capacity
- O. Architecture Design Narrative
- P. Utilities
- Q. Construction Management Report
- R. Solid Waste Disposal
- S. Parking Analysis
- T. Certification Letter
- U. 54 York Neighborhood Letter
- V. Sign-in Sheet
- W. Neighborhood Meeting Minutes (1-26-22)
- X. Comment Response Letter
- Y. Public Notice Sign Certification Letter (2-25-22)

Applicant plan(s) submittal

- 1. Cover Page
- 2. General Notes
- 3. Boundary and Topographic Survey
- 4. Site & Utility Plan
- 5. Subdivision Plat
- 6. Site Details
- 7. Erosion Control Notes and Details
- 8. Lower Floor Plan
- 9. First Floor Plan
- 10. Second Floor Plan
- 11. Roof Plan
- 12. North & West Elevations
- 13. South & East Elevations
- 14. Lighting Plan
- 15. View Study
- 16. Photos
- 17. Window Details
- 18. Construction Management Plan

York Street

10 messages

Jeff Tarling <jst@portlandmaine.gov>
To: Sean King <sking@portlandmaine.gov>

Wed, Jan 26, 2022 at 9:34 AM

Hi Sean -

Recommending 3 street trees along York Street, "if" the sidewalk is updated, the two existing tree wells should be improved to a rectangular shape. A new tree on York Street should be planted to the right of the main entrance way, which is left of the underground and overhead utilities. Tree type - upright 'Armstrong' Red Maple, or something similar. Landscape plant material to the South side near the electrical meters will need to tolerate the dry, low light shade conditions and should be compatible to the nearby Hobsons Landing landscape. A landscape plan showing this is recommended.

Thanks,

Jeff



Jeff Tarling
City Arborist - City of Portland Maine
Parks, Recreation & Facilities
Forestry, Parks & Horticulture
[212 Canco Road - Suite A](#)
[Portland, ME. 04103](#)
(207) 808-5400
jst@portlandmaine.gov

Sean King <sking@portlandmaine.gov>
To: Jeff Tarling <jst@portlandmaine.gov>

Thu, Jan 27, 2022 at 8:46 AM

Hello Jeff,
Thank you for your comments. I'll track the sidewalk replacement with DPW to understand if there is a recommendation along York Street.

Kindly, Sean

[Quoted text hidden]

Sean King, PLA
Urban Designer
389 Congress Street, 4th Floor
Portland, Maine 04101
(207) 874-8901
sking@portlandmaine.gov



Sean King <sking@portlandmaine.gov>
To: Jeff Tarling <jst@portlandmaine.gov>

Thu, Feb 10, 2022 at 11:28 AM

Hello Jeff,

I wanted to follow up with you about comments received from Public Works regarding the sidewalk replacement along York Street for the 54 York Street application.

Jennifer Ladd indicated the following, "There is just barely 5' of clearance between the most northerly tree well and the face of the building at 54 York, which meets the City's minimum sidewalk width. Assuming the other tree well is similarly positioned (unable to measure due to snow), widening the sidewalk along York Street would be desired, but is not required. We are requiring that the applicant ensure the ramp at the corner of York and Maple is ADA compliant and that any loose or broken bricks within the existing sidewalk be repaired. Full sidewalk reconstruction along York Street for this project is not being requested."

Please let me know your comments, acknowledging that the current tree wells here were undersized as noted by Jennifer and if tree planter modification is requested as the sidewalk will not be replaced.

Thank you, Sean

[Quoted text hidden]

[Quoted text hidden]

(he/him/his)



Jeff Tarling <jst@portlandmaine.gov>
To: Sean King <sking@portlandmaine.gov>

Thu, Feb 10, 2022 at 1:30 PM

Hi Sean -

We can keep the status quo on this York Street sidewalk.

Someday we may see sidewalk repairs or changes that can include changing the tree well sizes. If Jen is OK we are too.

Thanks

Jeff

[Quoted text hidden]

Sean King <sking@portlandmaine.gov>
To: Jeff Tarling <jst@portlandmaine.gov>

Thu, Feb 10, 2022 at 1:52 PM

Jeff,
Thank you for your response, as a follow up...

The applicant has outlined a landscape standard that requires one tree per unit, the proposal includes (14) new residential units and (2) commercial units in the conversion of use. Shall all 14 trees for the units under the Tech Manual standards be allocated towards the City's Tree Fund or shall any of the street trees be replaced? Currently, there are (2) street tree stumps in tree wells along York Street.

Would there be a required contribution to the City's Tree Fund for the (2) commercial units proposed?

Site plan attached for reference.

Thank you, Sean

[Quoted text hidden]



4. Site & Utility Plan.pdf
719K

Jeff Tarling <jst@portlandmaine.gov>
To: Sean King <sking@portlandmaine.gov>

Thu, Feb 10, 2022 at 2:03 PM

Hi Sean -

Question One - can they get credit for the pre-existing trees? Often we see they can if they are already in place and saved.

The Maple Street trees are all new within the past five years.

We see room for one more tree along York Street as mentioned earlier.

How does that sound? Let me know

Thanks

Jeff

[Quoted text hidden]

Sean King <sking@portlandmaine.gov>
To: Jeff Tarling <jst@portlandmaine.gov>

Thu, Feb 10, 2022 at 2:27 PM

Jeff,

Public Works is not recommending sidewalk replacement and there are currently (4) tree wells (grates) located on York Street; (2) existing trees in tree wells (grates) remain and the other (2) tree wells (grates) exist but do not have trees.

Is your recommendation to add (1) tree at the existing tree well shown in your previous sketch? Would it make sense to suggest replacement of (2) street trees in place where the existing tree wells (grates) are currently in the sidewalk?

Thank you, Sean

[Quoted text hidden]

Jeff Tarling <jst@portlandmaine.gov>
To: Sean King <sking@portlandmaine.gov>

Tue, Feb 15, 2022 at 9:07 AM

Hi Sean -

Quite sure one of the older tree locations has the underground utilities too close to replant.

There was snow on the ground so I did not see the tree grates but there could be...

Jeff

[Quoted text hidden]

Sean King <sking@portlandmaine.gov>
To: Jeff Tarling <jst@portlandmaine.gov>

Mon, Feb 28, 2022 at 8:40 AM

Hello Jeff,

I wanted to show you the revised site plan with updated landscape shown for 54 York Street review. Could you please indicate which street trees are appropriate to replace, currently the applicant shows 2 along York. And would you typically comment on the proposed plant material, currently the applicant shows Salix shrubs with perennial beds in this low light dry condition.

Thank you, Sean

[Quoted text hidden]



4. Site & Utility Plan.pdf
1207K

Jeff Tarling <jst@portlandmaine.gov>
To: Sean King <sking@portlandmaine.gov>

Tue, Mar 1, 2022 at 7:49 PM

Hi Sean -

As mentioned earlier, there appears only room for one additional tree along York Street due to the Unitel gas line. The tree that used to be there 'appears' too close to the trench. The Salix shrubs & perennials will do.

Thanks,

Jeff
[Quoted text hidden]
--

Jeff Tarling
City Arborist - City of Portland Maine
Parks, Recreation & Facilities
Forestry, Parks & Horticulture
212 Canco Road - Suite A
Portland, ME. 04103
jst@portlandmaine.gov



54 York Street: Inclusionary Zoning Review (3-8-22 Workshop)

2 messages

Victoria Volent <vvolent@portlandmaine.gov>
To: Sean King <sking@portlandmaine.gov>

Wed, Feb 23, 2022 at 10:41 AM

Hi Sean,

54 York Street proposes to create 14 units consisting of 10 one-bedroom and 4 two-bedroom apartments.

Per Inclusionary Zoning Conditional Use, the applicant may:

- 1) Create four IZ units on-site;
- 2) Create three IZ units on-site and pay a proportional fee-in-lieu;
- 3) Pay the fee-in-lieu for the 3.5 units;

The applicant has chosen to create four IZ units on-site at 80% AMI.

Based on the information presented, 54 York Street is in compliance with the Inclusionary Zoning Ordinance.

Thank you,

Victoria

Victoria Volent
Housing Program Manager
[City of Portland](#)
[389 Congress Street](#)
Phone: 207-482-5028
www.portlandmaine.gov



Sean King <sking@portlandmaine.gov>
To: Victoria Volent <vvolent@portlandmaine.gov>

Thu, Feb 24, 2022 at 4:54 PM

Thank you very much Victoria for being so proactive. I will include your comments into the Planning Board workshop memo I am preparing.

Looking forward to connecting on future projects.

Kindly, Sean

[Quoted text hidden]

—
Sean King, PLA
Urban Designer
389 Congress Street, 4th Floor
Portland, Maine 04101
(207) 874-8901
sking@portlandmaine.gov
(he/him/his)



54 york street & introduction

2 messages

Sean King <sking@portlandmaine.gov>

Thu, Feb 10, 2022 at 4:01 PM

To: jlt@portlandmaine.gov

Hello Jennifer,

I wanted to introduce myself as a new member to the planning department, and introduce a project that includes an existing easement for review. The applicant intends to keep the easement for current service access / loading with no permanent use for parking, etc.

Please let me know if this raises any flags and I'm looking forward to working with you.

Thank you, Sean

--

Sean King, PLA
Urban Designer
389 Congress Street, 4th Floor
Portland, Maine 04101
(207) 874-8901
sking@portlandmaine.gov
(he/him/his)



3 attachments



3. Boundary and Topographic Survey.pdf
534K



4. Site & Utility Plan.pdf
719K



E. Easements.pdf
97K

Jen Thompson <jlt@portlandmaine.gov>

Thu, Feb 17, 2022 at 6:37 AM

To: Sean King <sking@portlandmaine.gov>

Hi Sean - I look forward to meeting and working with you. On this easement, I don't think I have any particular concerns about the access easement they've identified. It is an easement shared in common with others so it will be necessary to ensure that shared access remains. Other than that, in the absence of a specific question or concern (which I don't see in your email), I don't think anything in particular stands out to me. Happy to talk further, however, if that would be helpful.

Jen Thompson
Acting Corporation Counsel
City of Portland, Maine
207.874.8480
jlt@portlandmaine.gov



FW: 54 York Street Ability to Serve Request

4 messages

jrather@portlandmaine.gov <jrather@portlandmaine.gov> Wed, Jan 12, 2022 at 9:30 AM
To: Sean King <sking@portlandmaine.gov>

Before I forget – Brad Roland and I had a brief conversation on 54 York back in early December; there is an issue with their sewer line that raises capacity concerns. Usually, sewer capacity letters are boilerplate, but in this case, it may be more complicated. Worth discussing with him further – I'll do a handoff email.

-James

From: Bradley Roland <brad@portlandmaine.gov>
Sent: Thursday, December 9, 2021 1:40 PM
To: James Rather <jrather@portlandmaine.gov>
Subject: Re: 54 York Street Ability to Serve Request

James
Could you give me a call about this one.
I just want to make sure you are aware of the downstream issues.
Brad

--
Bradley A. Roland, P.E.
Senior Project Engineer
Portland Public Works
[212 Canco Road](mailto:brad@portlandmaine.gov)
[Portland, ME 04103](mailto:brad@portlandmaine.gov)
Tel: 207-874-8840
brad@portlandmaine.gov

On Thu, Dec 9, 2021 at 1:38 PM Bradley Roland <brad@portlandmaine.gov> wrote:

Hello Zachary,
Please see the attached wastewater capacity authorization.
Brad
--
Bradley A. Roland, P.E.
Senior Project Engineer
Portland Public Works
[212 Canco Road](mailto:brad@portlandmaine.gov)
[Portland, ME 04103](mailto:brad@portlandmaine.gov)
Tel: 207-874-8840
brad@portlandmaine.gov

On Thu, Nov 4, 2021 at 10:31 AM Zach Stevens <zstevens@acorn-engineering.com> wrote:

Hello,

On behalf of 54 York LLC, please find the attached ability to serve request letter for the proposed 14-unit redevelopment that includes 2 commercial spaces located at 54 York Street, Portland, Maine. I have attached a Boundary & Topographic Survey prepared by Owen Haskell, Inc., and a Site & Utility Plan from our office as a reference.

Please let us know if you have any questions during your review.

Thanks,

Zachary Stevens, E.I.

Design Engineer

Licensed in Maine

Acorn Engineering, Inc

PO Box 3372

Portland, Maine 04104

[Instagram](#) | [Acorn's LinkedIn](#) | [Website](#)

B. 207.775.2655

C. 207.240.2993

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Sean King <sking@portlandmaine.gov>
To: James Rather <jrather@portlandmaine.gov>

Wed, Jan 12, 2022 at 9:39 AM

Thank you James, please connect us.

[Quoted text hidden]

--

Sean King, PLA
Urban Designer
Planning and Urban Development Department

389 Congress Street, 4th Floor

jrather@portlandmaine.gov <jrather@portlandmaine.gov>
To: Bradley Roland <brad@portlandmaine.gov>
Cc: Sean King <sking@portlandmaine.gov>

Wed, Jan 12, 2022 at 9:42 AM

Hi Brad,

Sean King, our new Urban Designer, has taken on the 54 York St application. I recall from our call back in December that there is an existing capacity issue on the sewer line that serves this site. Can you fill Sean in on the status of that line?

Thanks,

[Quoted text hidden]

Bradley Roland <brad@portlandmaine.gov>
To: James Rather <jrather@portlandmaine.gov>
Cc: Sean King <sking@portlandmaine.gov>

Wed, Jan 12, 2022 at 2:54 PM

Hello Sean and welcome.
Simple enough application.
And I have approved the dry weather wastewater capacity.
But tuck into the back of your mind that there is a combined sewer overflow structure (manhole) 100 feet downhill of this building which is causing issues for the downstream building (during heavy rain sewage keeps popping the manhole cover which then in turn floods the street and enters into the hotel).
You might hear something about it during any public meeting.
Long term yes the COP is trying to come up with solutions but nothing immediate will solve the issue.

Brad

--

Bradley A. Roland, P.E.
Senior Project Engineer
Portland Public Works
212 Canco Road
Portland, ME 04103
Tel: 207-874-8840
brad@portlandmaine.gov

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54 York Street - Sidewalk replacement

2 messages

Sean King <sking@portlandmaine.gov>
To: Jennifer Ladd <jwl@portlandmaine.gov>
Cc: Keith Gray <kgray@portlandmaine.gov>

Fri, Feb 4, 2022 at 9:18 AM

Hello Jen,

Please let me know if you had an opportunity to look into sidewalk replacement at 54 York Street for the conversion of use application, which I am the planner designee for the project. I've included some photos of existing conditions from last week and wish to understand if there is a priority for any brick sidewalk replacement along York and/or Maple Street. This will also factor into tree replacement and planter upgrades, in addition to Jeremiah / Bruce's recommendation of bike lane extension and existing right turn lane removal.

Thank you, Sean

--
Sean King, PLA
Urban Designer
389 Congress Street, 4th Floor
Portland, Maine 04101
(207) 874-8901
sking@portlandmaine.gov
(he/him/his)



5 attachments



IMG_4086.JPG
789K



IMG_4097.JPG
938K

IMG_4089.JPG
1002K



IMG_4095.JPG
1045K



IMG_4090.JPG
1183K

Jennifer Ladd <jwl@portlandmaine.gov>
To: Sean King <sking@portlandmaine.gov>
Cc: Keith Gray <kgray@portlandmaine.gov>

Tue, Feb 8, 2022 at 4:12 PM

Hi Sean,

After some internal discussion on this and some wet field measurements, I have some comments on the sidewalk for this project.

There is just barely 5' of clearance between the most northerly tree well and the face of the building at 54 York, which meets the City's minimum sidewalk width. Assuming the other tree well is similarly positioned (unable to measure due to snow), widening the sidewalk along York Street would be desired, but is not required. We are requiring that the applicant ensure the ramp at the corner of York and Maple is ADA compliant and that any loose or broken bricks within the existing sidewalk be repaired. Full sidewalk reconstruction along York Street for this project is not being requested.

I suspect Jeff will give you formal comments himself, as he acknowledged the tree wells here were undersized. If the applicant is able to modify the tree wells and keep the trees, we would ask that they be made longer along the curbline, not wider, to preserve the 5' minimum sidewalk width that is there now.

Jennifer Ladd
Senior Transportation Engineer



[Quoted text hidden]

54 York Street Review

1 message

Lauren Swett <lswett@woodardcurran.com>
To: "sking@portlandmaine.gov" <sking@portlandmaine.gov>
Cc: Jodie Keene <JKEENE@portlandmaine.gov>

Wed, Jan 26, 2022 at 9:30 AM

Hi Sean,

To follow up on our discussion today on 54 York Street, I have the following comments:

- The site plan shows a single existing downspout. The Applicant should confirm all locations where roof drainage is discharged and ensure that the stormwater is managed properly to avoid impacting adjacent properties. If all roof drainage will discharge to the location shown in the proposed condition, ensure that the splash pad will be adequately sized.
- Proposed grading should be shown for the proposed improvement areas. This is particularly important in the tight space along the southern wall of the building to show how the stormwater will flow away from the building to avoid standing water that might impact the proposed landscaping, and also to not impact the neighbor.

The proposed extent of work does not meet the thresholds for requirement of stormwater treatment systems, but as Jodie mentioned, the City always encourages the addition of additional stormwater management systems if they can be added!

Please let me know if there are any questions.

Thanks,

Lauren

Lauren Swett, PE

Technical Manager | Principal



 207-558-3763  207.219.3591  woodardcurran.com

 lswett@woodardcurran.com

 41 Hutchins Drive, Portland, ME 04102

54 York Street - Existing right turn only

4 messages

Sean King <sking@portlandmaine.gov> Wed, Jan 26, 2022 at 9:58 AM
To: Bruce Hyman <bhyman@portlandmaine.gov>, Jeremiah Bartlett <jbartlett@portlandmaine.gov>, Keith Gray <kgray@portlandmaine.gov>

Hello Bruce, Jeremiah, Keith & Jen,

I wanted to coordinate future street improvements along York Street in observance of a recent application in review at 54 York Street. The applicant is proposing a conversion of the existing building into (14) res units + (2) commercial units.

Bruce has already indicated the previous work put forward for the school site that had proposed abandonment of the right turn lane and extension of bike lanes to Gorham's Corner along York Street. The Hobson's Landing project at the corner of High & York Street includes recent installation of bike lanes along York Street frontage.

Jen indicated a review of the existing sidewalk condition where brick is the material on York & Maple Street.

Might there be an opportunity to envision the 54 york street applicant project in tandem with future street improvements?

Thank you, Sean

Sean King, PLA
Urban Designer
389 Congress Street, 4th Floor
Portland, Maine 04101
(207) 874-8901
sking@portlandmaine.gov



2 attachments

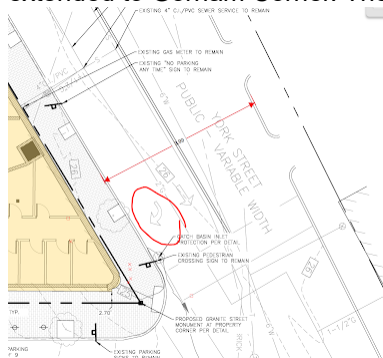
 **4. Site & Utility Plan.pdf**
719K

 **3. Boundary and Topographic Survey.pdf**
534K

Bruce Hyman <bhyman@portlandmaine.gov> Wed, Jan 26, 2022 at 10:12 AM
To: Sean King <sking@portlandmaine.gov>
Cc: Jeremiah Bartlett <jbartlett@portlandmaine.gov>, Keith Gray <kgray@portlandmaine.gov>

"Might there be an opportunity to envision the 54 york street applicant project in tandem with future street improvements?" **YES!**

My early two cents was to get on the table that the RTLane should not be perpetuated in this location so that bike lanes could be extended to Gorham Corner. The site plan currently has the RTL on it.



The tree pits on York should also be expanded in length parallel to the curb line to increase their volume and tree grates installed, at a minimum, IF we can't get the 'jog' in/narrowing of the sidewalk along 54's frontage undone to widen the sidewalk a bit. It looks like they're not proposing to reconstruct the York sidewalk frontage (or are they? - I didn't see remove and replace either the curb and/or the brick on the site plan). I haven't been out there to look at the sidewalk or curb's condition. Streetview shows the sidewalk in rougher shape than the curb on York St frontage.

Happy to have a call about it or a site visit to check things out.

Bruce

[Quoted text hidden]

--

Bruce Hyman
Transportation Program Manager
City of Portland
Department of Planning and Urban Development
[389 Congress Street, 4th Floor](#)
[Portland, Maine 04101](#)
(207) 874-8717 phone
bhyman@portlandmaine.gov



Jeremiah Bartlett <jbartlett@portlandmaine.gov>
To: Bruce Hyman <bhyman@portlandmaine.gov>
Cc: Sean King <sking@portlandmaine.gov>, Keith Gray <kgray@portlandmaine.gov>

Wed, Jan 26, 2022 at 10:32 AM

I strongly concur that we don't need a turn lane here. I generally try to avoid them whenever possible at non-signalized urban locations as they aren't needed and waste valuable space.

I also concur that if there are options to improve the York sidewalk frontage, that would be ideal.

Jeremiah J. Bartlett, PE, PTOE
Transportation Systems Engineer
Department of Public Works
[212 Canco Road, Suite B](#)
[Portland, Maine 04103](#)
jbartlett@portlandmaine.gov
(207) 874-8891
He/Him



[Quoted text hidden]

Keith Gray <kgray@portlandmaine.gov>
To: Sean King <sking@portlandmaine.gov>
Cc: Bruce Hyman <bhyman@portlandmaine.gov>, Jeremiah Bartlett <jbartlett@portlandmaine.gov>

Wed, Jan 26, 2022 at 3:28 PM

Hello,

I'm not sure if you are the planner on this project or where the project is through the planning stage but here are a few comments:

- Clarify the extent of sidewalk improvements
- Provide a cross section of York Street with the right turn lane removed and either/or extended curb for wider sidewalk, parking and bike lane. I'm not sure what can fit in that space.
- We do not have any street improvements planned for that area in the near future. The applicant would be responsible for removing the right turn lane markings and restriping.
- Show pavement restoration, striping, signage and dimensions on a plan

Thank you,
Keith

On Wed, Jan 26, 2022 at 9:58 AM Sean King <sking@portlandmaine.gov> wrote:

[Quoted text hidden]

--

Keith D. Gray, PE
Engineering Services Manager
City Engineer
City of Portland, Maine
kgray@portlandmaine.gov



54 York St - PL-001838-2021

2 messages

Ann Machado <amachado@portlandmaine.gov>
To: Sean King <sking@portlandmaine.gov>

Wed, Jan 26, 2022 at 8:32 AM

Sean -

I don't see any red flags for zoning.

The property is located in the B5b zone.

Table 6- C outlines the permitted and conditional uses. Multi-family dwelling are allowed as are most commercial uses.

Table 7-E outlines the dimensional requirements for the zone. The B5 and B5b zones do not have many dimensional requirements, and since this is a redevelopment of an existing building and no additions are proposed, I don't see any issues.

Regarding any parking requirements, under table 19- B, no off-street parking is required.

Feel free to reach out to me with any questions.

Ann

Ann Machado
Zoning Administrator
Permitting and Inspections Department
City of Portland, Maine
(207) 874-8709
amachado@portlandmaine.gov

Sean King <sking@portlandmaine.gov>
To: Ann Machado <amachado@portlandmaine.gov>

Wed, Jan 26, 2022 at 8:51 AM

Thank you Ann for reaching out, I was planning to touch base with you today on 54 York Street so thank you so much for your review.

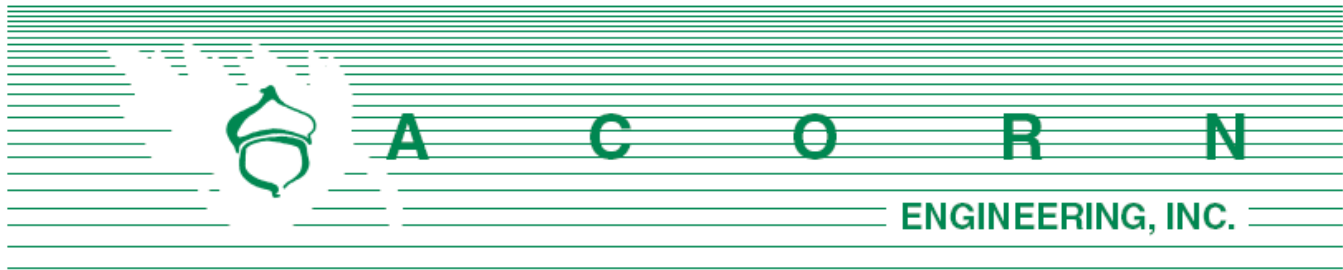
Kindly, Sean

[Quoted text hidden]

--

Sean King, PLA
Urban Designer
389 Congress Street, 4th Floor
Portland, Maine 04101
(207) 874-8901
sking@portlandmaine.gov





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

November 12, 2021

Subject: Major Site Plan Application
 Redevelopment of 54 York Street, Portland, Maine

Dear Christine Grimando:

On behalf of 54 York, LLC (Attn: Jay Hibbard), we are pleased to submit the accompanying package of submission materials related to the proposed redevelopment at 54 York Street (Chart 42, Block A, Lot 7), with street frontage along York Street and Maple Street. The parcel resides in the B-5b Urban Commercial Buisness Zone.

The project proposes to convert the existing 3-story building into a mixed-use development with (14) residential units, (2) commercial spaces, with associated storage, common areas, fitness room, bike room, and trash room. Anticipated site work includes the implementation of pedestrian walkways, greenspace, and potential utility connections. Due to the change of use >20,000-square feet and creation of three or more units, the project is subject to a Major Site Plan Application and Subdivision Review from the City of Portland. As part of the IZ requirements, the project will include (4) affordable housing units within the building.

54 York, LLC and the design team look forward to your review of this project. If you have any questions regarding these materials or the completeness of the application materials, please do not hesitate to contact us.

Sincerely,

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

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

Documents:

- Section A: Cover Letter
- Section B: Major Site Plan Application & 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
- Section N: Lighting
- Section O: Architectural Design Narrative
- Section P: Utility Cover
- Section Q: Construction Management Plan
- Section R: Solid Waste Disposal
- Section S: Parking Analysis

Drawings:

- Civil Site Plan Set, Dated 11/12/2021
- Architectural Plan Set, Dated 11/12/2021



CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST

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

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

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

GENERAL APPLICATION DOCUMENTS

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

MAJOR SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

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

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

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

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

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

MAJOR SITE PLAN DRAWINGS CHECKLIST

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

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

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

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

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

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

Existing Conditions Plan with the following:

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

Proposed Site Plan with the following:

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

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

C. Right, Title, and Interest

Please refer to the attached Quitclaim Deed demonstrating the Applicant's Right, Title, Interest.



QUITCLAIM DEED WITH COVENANT

DLN: 1002140148972__

UNITY COLLEGE, a Maine non-profit corporation with a place of business in Unity, Maine, for consideration paid, grants to **54 YORK LLC**, a Maine limited liability company with a mailing address of One Long Wharf, Portland, Maine 04101, with quitclaim covenant, a certain lot or parcel of land, together with the buildings and improvements thereon located on York Street in **Portland, Cumberland County, Maine**, bounded and described as follows:

Beginning at the point of intersection of the southeast side line of York Street and the southwesterly side line of Maple Street; thence southerly along said side line of Maple Street one hundred twenty-five (125) feet; thence westerly on a line at right angles with the last mentioned line eighty-five (85) feet to a point; thence northwesterly on a line parallel with the line of Maple Street eighty (80) feet, more or less, to the aforesaid line of York Street; thence northeasterly along said line of York Street one hundred (100) feet, more or less, to the point of beginning; containing 8,712 square feet, more or less.

There is also conveyed a strip of land to be used as a passageway in common with Portland Terminal Company adjacent to the southeasterly side line of the above-described premises, commencing at said line of Maple Street and extending southwesterly with a uniform width of fifteen (15) feet, a distance of eighty-five (85) feet.

For Grantor's source of title, reference is made to the deed from Milliken Smith Inc., f/k/a Rufus Deering Company, to Unity College dated June 15, 2018 and recorded in the Cumberland County Registry of Deeds in Book 34935, Page 196.

[See next page for signature and acknowledgment.]

In witness whereof, Unity College has caused the foregoing instrument to be signed and sealed by its duly authorized President this 15 day of JUNE, 2021.

Witness:

Sarah E Newell

UNITY COLLEGE

By:


Melik Peter Khoury, Its President
Duly Authorized

STATE OF MAINE

Waldo CountyJune 15, 2021

Personally appeared the above named Melik Peter Khoury, President of Unity College, and acknowledged before me the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Unity College.

Sarah E Newell

Notary Public/Attorney at Law

Sarah Newell

Print or type name as signed

Portland, Maine



Yes. Life's good here.

Planning & Urban Development Department

Relevant Zone(s): B5B (URBAN COMMERCIAL
BUSINESS ZONING DISTRICT)

ZONING ANALYSIS**All Projects:**

	Required	Proposed
Lot Size	NONE	0.22 AC
Area Per Dwelling Unit	NONE	694 SF
Minimum Street Frontage	NONE	99' YORK
Front Yard Minimum	0	0'
Front Yard Maximum	10'	2.70'
Rear Yard	NONE	12.36'
Yard Right	NONE	7.67'
Yard Left	NONE	NONE
Side Street Setback	NONE	NONE
Step Back	NONE	NONE
Maximum Lot Coverage	NONE	78.6%
Minimum Lot Coverage	NONE	78.6%
Maximum Height	65'	45.17'
Open Space	NONE	3.7%
Maximum Impervious Area	NONE	96.3%
Pavement Setback	NONE	N/A
Floor Area Ratio	NONE	N/A
Off Street Parking Spaces	NONE	N/A
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):			

E. Summary of Written Easements

There is one existing easement identified on the Boundary & Topographic Survey dated September 23, 2021, by Owen Haskell, Inc.

- 1.) 15' Access Easement, recorded in the Cumberland County Registry of Deeds, Book 1555, Page 24.

There are no proposed easements as part of this redevelopment.



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.
N/A			

G. Financial Capacity

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





A Banking Force For Good



November 4, 2021

To Whom It May Concern

Androscoggin Bank has completed a preliminary review for the development of 54 York Street in Portland, Maine 04101 and of 54 York, LLC whose sponsor is Chris Dimillo.

The Bank deems Mr. Dimillo to have the financial capacity and experience to successfully finance the above-referenced property.

If you have any further questions please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Kevin M. Coyne'.

Kevin M. Coyne
Vice President, Commercial Lending
100 Middle Street
West Tower, Suite 303
Portland, Maine 04101
Office: 207-518-6326

H. Technical Capacity

54 York, LLC - The principal development team of 54 York consists of Christopher DiMillo, Principal, and Jay Hibbard, Director Of Development.

Christopher Dimillo is the Founder and President of DiMillo's Yacht Sales, DiMillo's Marina, and DiMillo's on the Chesapeake as well as several other business enterprises. Chris' real estate holdings include properties in Maine, Maryland, and New York State. Chris retains a variety of commercial, residential, mixed use and industrial properties throughout the region.

Jay Hibbard, Director of Development for 54 York is a seasoned Developer and Construction Manager with many years of professional experience in commercial, residential, mixed use, affordable housing, retail and hospitality projects in the Greater Portland area. Some notable projects Jay has contributed to include the redevelopment of the Historic Grand Trunk Railroad Building, the renovation of the Gosnell Memorial Hospice House in Scarborough, construction of CHOM Village Centre in Brewer, construction of Evo Kitchen Bar downtown as well as countless other multi-unit residential, retail and hospitality projects in Portland and beyond.

Other key members of the York St. team include:

Peter Chavonelle Jr., President and founder of Masonry Preservation Associates, an award-winning historic masonry consulting and restoration firm.

Robert Jacobs, of Jacobs Glass, Inc., a historical glazing and fenestration specialist.

Scott Hanson of MacRostie Historic Advisors, a Washington, DC based historical consulting firm specializing in National Parks Service rehabilitation projects in and around New England.

Combined, this team has been responsible for some of the most notable and award-winning redevelopment projects of historic buildings in the Greater Portland area and throughout the State of Maine.

Acorn Engineering specializes in providing urban redevelopment, civil/site design, environmental services, municipal consulting, and construction administration. Acorn Engineering, Inc has successfully designed and permitted more than 20 Minor/Major projects in Portland & Biddeford during the past 5 years, including 201 Federal Street, 52 Hanover Street, East Bayside Lofts, and The Hiawatha.

Caleb Johnson Studio is an Architecture Firm specializing in high-end commercial design of multifamily and mixed-use adaptive reuse, National Park Service tax credit projects, and new construction. Past commercial projects include 188 Lincoln Street in Lewiston, Higgins Beach Inn in Scarborough, 265 Main Street in Biddeford, and SeaWeed Co. in South Portland.



I. Conformity with Land Use Ordinance

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

OVERVIEW

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

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

The project will not generate 100 or more cars during peak hour; therefore, a Traffic Movement Permit will not be required. The site is located on the corner of York Street and Maple Street. The property can be accessed directly via York Street or Maple Street, with an existing curb cut off Maple Street. The change of use is not anticipated to create any significant hazard to safety on the surrounding street network. Congestion of the intersections is not anticipated.

2. Access and Circulation:

a. Site Access and Circulation:

This project conforms with the design standards of Section 14.6.1.B as demonstrated in the following narrative:

- (i) All site access and internal circulation will be designed in accordance with the standards set forth in the Technical Manual.
- (ii) A sidewalk is existing along Maple Street and York Street and will provide safe access to the building entrances.
- (iii) Points of egress will be located to avoid conflicts with traffic flows
- (iv) The site does not feature drive up services as mentioned in this requirement.

b. Loading and Servicing:

- (i) The site has no existing loading areas. The existing driveway will serve as a loading and servicing area for the proposed redevelopment.

c. Curb and Sidewalks:

- (i) A sidewalk with curbing is existing on Maple Street and York Street. This project proposes minimal sitework and the sidewalk will remain undisturbed.



- (ii) Any disturbance of this sidewalk to accommodate the site will be rebuilt in conformance with Chapter 25 of the City's Code of Ordinances and the applicable design standards in the City's Technical Manual.
 - (iii) Not applicable.
 - (iv) Not applicable.
- 3. Public Transit Access:
 - a. The proposed development does not consist of 20 or more dwelling units or 20,000 square feet of commercial/institutional gross floor area.
 - b. Not applicable.
 - c. Not applicable.
- 4. Parking:
 - a. Vehicular parking:
 - (i) No off-street parking is required per Section 19 Off-Street Parking & Loading, Table 19-B.
 - (ii) A parking study is not required.
 - (iii) A parking study is not required.
 - b. Bicycle parking
 - (i) 8 Interior bicycling parking spaces are proposed as part of this project. 9 exterior bicycle racks are located adjacent to the building along Maple Street and will remain.
 - c. Snow Storage:
 - (i) Snow storamage will be provided at the rear of the existing driveway. The client will be responsible for the management of snow removal from the site, as necessary.
 - (ii) Snow storage shall not be located where it interferes with pedestrian walkways or stormwater management systems.
 - d. Electric Vehicle (EV) charging
 - (i) The development is in conformance with the EV standards provided in Section 1 of the Technical Manual.



5. Transportation Demand Management (TDM):

- a. A Transportation Demand Management plan is not required for this project.
- b. Not applicable.

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

- a. There are no significant natural features on site
- b. Not applicable.
- c. Not applicable.

2. Landscaping Preservation:

- a. The project proposes limited disturbance to the site and no trees are anticipated to be removed.
- b. The project will be in conformance with the landscape preservation standards of the Technical Manual.
- c. No existing trees are anticipated to be removed as a part of this change of use project.
- d. Not applicable.
- e. Not applicable.

3. Site landscaping and buffers.

- a. Landscaping
 - (i) Not applicable
- b. Buffers
 - (i) All exterior solid waste receptacles as well as applicable utility structures will be adequately screened within the development and from adjoining properties.
 - (ii) Not applicable.
 - (iii) Not applicable
- c. Parking and vehicle display lot landscaping.



(i) Parking is not required as part of this project.

(ii) Not applicable.

(iii) Not applicable.

4. Street trees

- a. Following the landscaping and landscape preservation standards of the Technical Manual, a minimum of one tree per unit must be provided, planted in the City right of way unless otherwise approved and spaced thirty (30) to forty-five (45) feet on center. Maple Street and York Street both have existing street trees in front of the building, that will remain.
- b. Site- constraints exist that prevent the planting of required street trees in the city right-of-way. The review authority will look into allowing the applicable alternate options to count towards the street tree requirement, subject to the standards set out in the Technical Manual.

5. Water Quality, Stormwater Management and Erosion Control:

a. Stormwater

- (i) The drainage patterns will be maintained as they currently exist.
- (ii) Any stormwater that flows onto adjacent lots will not exceed the pre-development flows.
- (iii) The runoff from the site into the public way will not increase from the pre-development condition.
- b. A site-specific Stormwater Management Plan has been developed for the project to show compliance with Section 5 of the Technical Manual, including standards of MEDEP Chapter 500. Please refer to the Stormwater Management Report for this information.
- c. The development is not anticipated to pose a contamination risk to groundwater during or after construction. The project will be serviced by a public wastewater system.

(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. Please refer to Section E: Easements



2. Public Safety and Fire Prevention:

a. Public Safety Design

- (i) The proposed site incorporates natural surveillance and promotes authorized/appropriate access to the site.
- (ii) Access to the site will not change as part of this project.
- (iii) This area will promote a sense of ownership.

b. Emergency Access

- (i) Emergency Access to the site will not be affected as part of this project.

3. Public Utilities:

- a. Ability to Serve letters have been sent to the respective companies. Responses are forthcoming.
- b. The existing electrical service to the building is anticipated to remain as is.
- c. The existing sewer and stormwater infrastructure are anticipated to remain as is.
- d. The project will be served by connection to the public sewer system within Cumberland Avenue.
- e. Spaces allocated for solid waste storage can be seen on the Site Plan.

(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. There will be no change to the existing exterior of the building.



4. View Corridors:
 - a. Please refer to Section O, Architectural Design Narrative.
5. Historic Resources:
 - a. 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. See Section N: Lighting for additional information.
 - (ii) Any lighting that may adversely impact the abutting residential properties will feature house-side shielding.
 - b. Architectural and Specialty Lighting.
 - (i) Final lighting design is still be coordinated with the lighting designer and will be forwarded upon receipt.
 - (ii) Final lighting design is still be coordinated with the lighting designer and will be forwarded upon receipt.
 - c. Street Lighting.
 - (i) No street lights are proposed at this time.
7. Noise and Vibration:
 - a. The HVAC system will meet the applicable state and federal emissions requirements and will also be screened and directed away from abutters.
8. Signage and Wayfinding:
 - a. Signage
 - (i) Not applicable.
 - (ii) Not applicable.
 - (iii) Not applicable.
 - (iv) Not applicable.
 - (v) Not applicable.



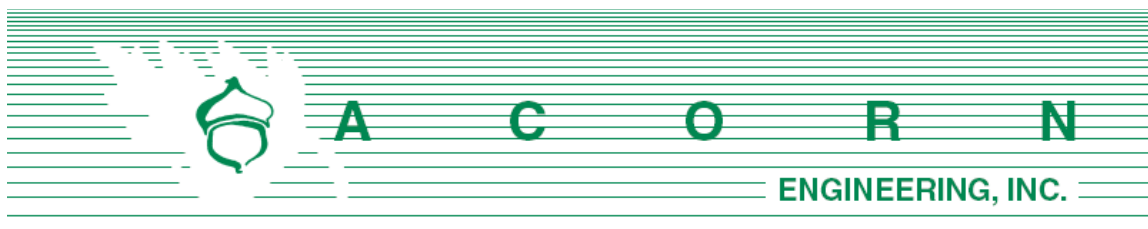
b. Wayfinding

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

9. Design Standards:

- a. The project has been designed to meet the standards set forth in the B5b zone. Please refer to the Site Plan for more information on the Space & Bulk Standards.





STORMWATER MANAGEMENT REPORT

Prepared For:

**54 York Street LLC
400 Commercial Street
Portland, Maine 04101**

Prepared By:

**Acorn Engineering, Inc.
P.O. Box 3372
Portland, Maine 04104**



November 2021

INTRODUCTION

The project proposes to convert the existing 3-story building into a mixed-use development with (14) residential units, (2) commercial spaces, with associated storage, common areas, fitness room, bike room, and trash room. The project plans to improve pedestrian access throughout the site, enhance the existing landscape area, and add a 3'x3' splash pad to the existing downspout located to the rear of the building.

A stormwater analysis has been 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, Article V. Site Plan Section 14-523. Required Approvals and Applicability (F) Level III Site Plan Review.
- City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and Maine DEP Chapter 500 Stormwater Management.

The proposed project will not result in 1,000 sf of new impervious area or redevelops greater than 5,000 sf of existing non-roof impervious surface. Therefore, measures for treatment will not be required as part of this project.

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, deep fills/cuts the applicant does not intend to perform a more intense hydric soil boundary delineation because of the waiver requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, Rev. 6/17/11;12/8/20 are met.

The area within and surrounding the project includes soils 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
Cut and Fill Land	-	-
Hinckley Loamy Sand	.17	.17

The soil “K” values for the soils, listed above, show a low susceptibility to erosion. The site’s susceptibility to erosion is from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although soil “K” values for the soils show a low susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance, given the embankment and downhill retaining wall.



Conclusion

The proposed project does not anticipate creating erosion, drainage or runoff problems for the development, the City, or abutting properties.



Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

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

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

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

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

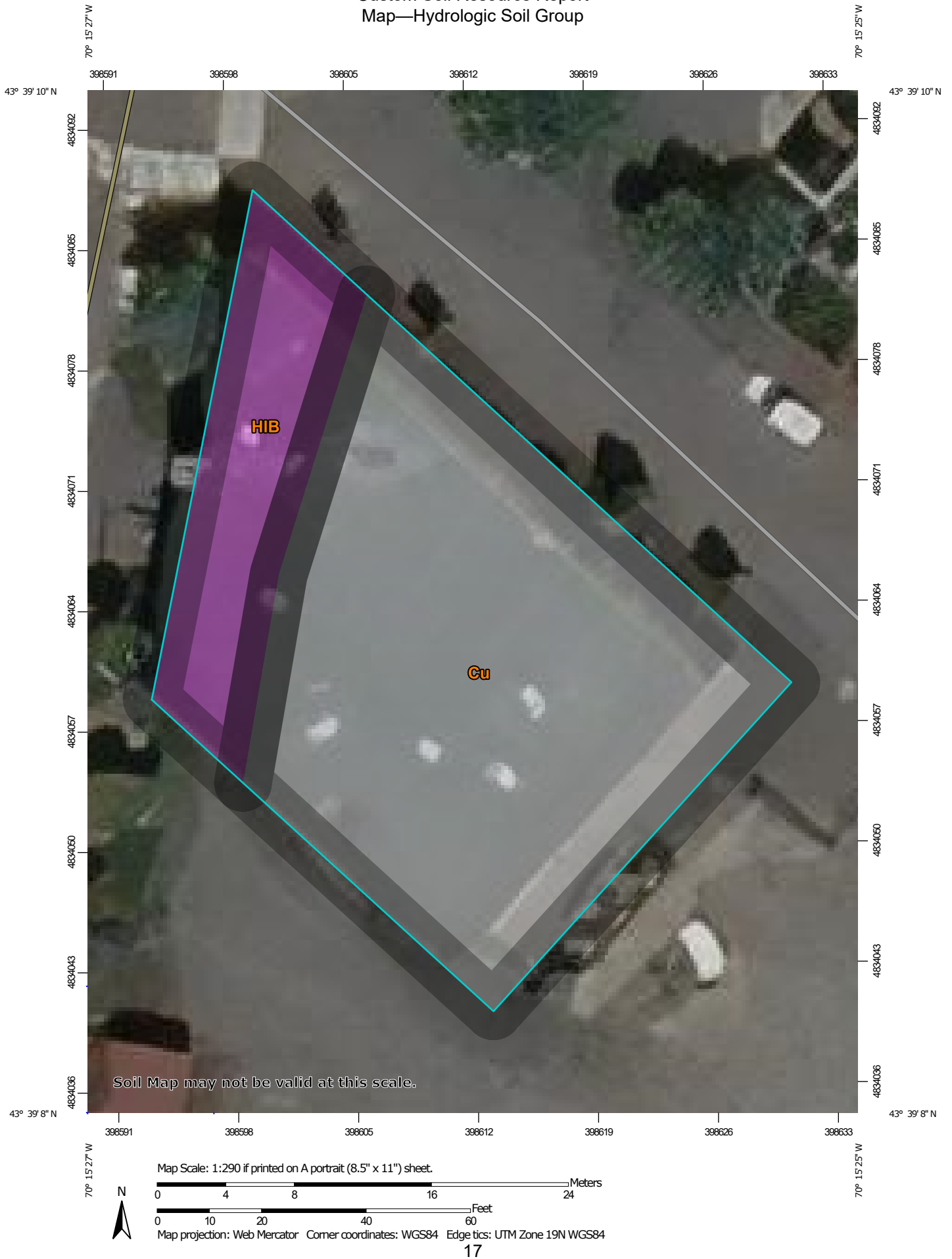
Custom Soil Resource Report

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

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

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

Custom Soil Resource Report Map—Hydrologic Soil Group



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

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

Warning: Soil Map may not be valid at this scale.

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

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

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

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

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

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
 Survey Area Data: Version 18, Aug 31, 2021

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.

Table—Hydrologic Soil Group

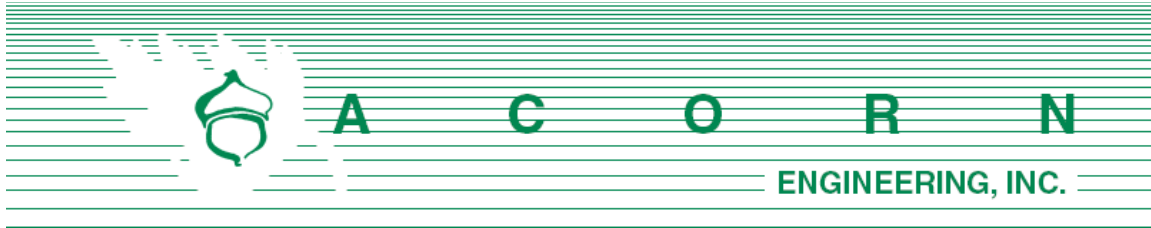
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Cu	Cut and fill land		0.2	78.3%
HIB	Hinckley loamy sand, 3 to 8 percent slopes	A	0.0	21.7%
Totals for Area of Interest			0.2	100.0%

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



K. EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**54 York Street LLC
400 Commercial Street
Portland, Maine 04101**

Prepared By:

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



November 2021



INTRODUCTION

The project proposes to convert the existing 3-story building into a mixed-use development with (14) residential units, (2) commercial spaces, with associated storage, common areas, fitness room, bike room, and trash room.

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

The proposed project site is located on York Street. A Boundary & Topographic Survey has been prepared by Owen Haskell, Inc dated September 24, 2021.

Abutting Uses:

- | | |
|------------------|-----------------|
| ➤ North B5b Zone | Parking Lots |
| ➤ East B5b Zone | Hotel & Motel |
| ➤ South B5b Zone | Hotel & Motel |
| ➤ West B3 Zone | Retail Services |

Nearly 100% of the existing site is comprised of rooftop and paved driveway. The site is relatively flat with grades dropping from west to east.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County

Given the soils information, listed above, no onsite wastewater is proposed; the applicant does not intend to perform a more intense hydric soil boundary delineation because the waiver requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, Rev. 6/17/11;12/8/20 are met.

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

Table 1 - “K” Value		
Soils Type	Subsurface	Substratum
Cut and Fill Land	-	-
Hinckley Loamy Sand	0.17	0.17



The soil “K” value for the soil, listed above, shows a low susceptibility to erosion. The site’s susceptibility to erosion is from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although soil “K” values for the soils show 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

With minimal site work for the proposed project. There are no critical areas.

1.4 Protected Natural Resource

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

1.5 Previous Construction Activity (5 years)

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

1.6 Timber Harvesting

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

2.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

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

2.1 Temporary Erosion Control Measures

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

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



- Stone size shall be 2-3 inches or reclaimed or recycled concrete equivalent.
 - The thickness of the entrance stone layer shall be no less than 6 inches.
 - The entrance shall not be less than 20 feet wide, however not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.
 - Geotextile fabric (woven or non-woven) shall be placed over the entire entrance area.
 - The entrance/exit shall be maintained to the extent that it will prevent the tracking of sediment onto public roadways.
- 2.1.2 Sediment barriers 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 York Street and Maple 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 ½ the design height.
- 2.1.9 Dust control shall be accomplished using any of the following: water, calcium chloride, stone, or an approved MDEP product. Dust control shall be applied as needed to accomplish dust control.
- 2.1.10 Temporary loam, seed, and mulching shall be used in areas where no other erosion control measure is used. Application rates for seeding are provided at the end of this report.
- 2.1.11 Stockpiles shall be stabilized within 7 days of formation unless a scheduled rain event occurs prior to the 7-day window, in which case the stockpile shall be stabilized prior to the rain event. Methods of stabilization shall be mulch, erosion control mix, or erosion control blankets/mats. Silt fence or a wood waste compost filter berm shall be placed downhill of any soil stockpile location.
- 2.1.12 For disturbance between November 1 and April 15, please refer to winter stabilization plan in this report and the Maine Erosion and Sediment Control BMP manual for further information.
- 2.1.13 It is of the utmost importance that stormwater runoff and potential sediment from the construction site be diverted around the proposed underdrains until the trench is backfilled.

2.2 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 Erosion and Sedimentation Control Plan is included within the plan set.

4.0 DETAILS AND SPECIFICATIONS

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

5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

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

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

The following measures shall be implemented during winter construction periods:

5.1 Sediment Barriers

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

5.2 Mulching

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



5.3 Soil Stockpiling

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

5.4 Seeding

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

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

5.5 Over winter stabilization of disturbed soils

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

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



5.6 Over winter stabilization of disturbed slopes

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

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.
- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. The contractor shall not use late-season sod installation to stabilize slopes having a grade greater than 3H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with erosion control mix – Erosion control mix shall be properly installed by November 15th. The contractor shall not use erosion control mix to stabilize slopes having grades greater than 2H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with stone riprap – Place a layer of stone riprap on the slope by November 15th. A registered professional engineer shall be hired to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.

6.0 INSPECTION AND MAINTENANCE

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

6.1 Sediment Barriers

Hay bale barriers, silt fences and filter berms shall be inspected and repaired for the following if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary



check dam. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits should be removed when deposits reach approximately one-half the height of the barrier. Filter berms should be reshaped as needed. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared and seeded.

6.2 Stabilized Stone Construction Entrances

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

6.3 Mulched Areas

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

6.4 Dust Control

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

6.5 Stormwater Appurtenances

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

6.6 Erosion and Sedimentation Control Inspections:

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

Contact: Pete Heil, PE, CPESC
Telephone: (207) 775-2655



Qualifications:

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

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

7.0 IMPLEMENTATION SCHEDULE

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

1. Install a stabilized construction entrance in all locations where construction traffic will enter and exit the site.
2. Install perimeter silt fence or erosion control berm.
3. Commence installation of drainage infrastructure.
4. Install all other erosion control devices as necessary throughout the remainder of this schedule.
5. Commence earthwork operations, associated with the roadway construction.
6. Commence installation of utilities.
7. Continue earthwork and grading to subgrade as necessary for construction.
8. Complete installation of drainage infrastructure, as well as other utility work.
9. Complete remaining earthwork operations.
10. Install sub-base and base gravels in paved areas.
11. Install paving, curbing and brickwork.
12. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
13. Once the site is stabilized, 90% catch of grass has been obtained, or mulching of landscape areas is complete, remove all temporary erosion control measures.
14. Touch up areas without a vigorous catch of grass with loam and seed.
15. Complete site signage and striping.
16. Execute proper maintenance of all temporary and permanent erosion control measures throughout the project.

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



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

8.0 CONCLUSION

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

9.0 ATTACHMENTS

- Temporary Seeding Plan
- Permanent Seeding Plan



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.

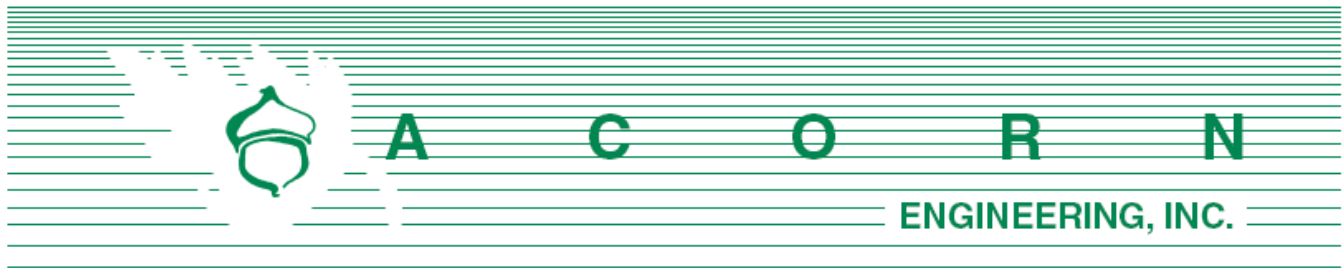
Recommendations

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

November 12, 2021

Subject: 54 York Street – Fire Department Checklist
Section L of Application

On behalf of 54 York LLC, the design team is pleased to respond to the Portland Fire Department Site Review Checklist.

1. Name, address, telephone number of applicant:

54 York LLC (Attn: Jay Hibbard)
400 Commercial St
Portland, ME 04101
207-232-8749

2. Name address, telephone number of architect:

Caleb Johnson Studio
110 Exchange Street
Portland, Maine 04101
207-825-2456

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

NFPA: Apartment & Business / IBC: R-2 & Business

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

Existing Building		
Total	Approx. 23,662	Sf
1st Floor	7,624	Sf
2nd Floor	7,624	Sf
3rd Floor	7,624	Sf
Roof	790	Sf

5. Elevation of all structures

The existing 3-story structure's height will not change as a result of this project. This height is below the allowable 65 feet within the B-5b zoning district. Please refer to the building elevations provided by the Architect for additional information.

6. Proposed fire protection of all structures

The building will have a sprinkler system per code. Fire flows and requirements for system storage or booster pumping are subject to the fire designer which will be performed prior the request for a building permit.

7. Hydrant locations

- a. An existing hydrant is located north of the existing building just across Maple Street. 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 existing water service connection to the existing 6" water main within York Street is expected to remain as part of this project.

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

Access to the structure is provided directly on York Street. Additionally, the site is accessible from Maple Street.

10. The Architect has provided a code summary (attached).

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

- York Street: Variable Width
- Maple Street: 49.5 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: The existing access to the site will remain the same as a result of this project.

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



Response: Access to the structure is provided directly on York Street. Additionally, the site is accessible from Maple Street.

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

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

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

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

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

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: The elevators will be sized to accommodate an 80 x 24 stretcher, per the Architect's designs.

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

Response: The site address is 54 York Street, of which the street number will be clearly visible from the public right of way.

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.



11/3/2021				CALEB JOHNSON STUDIO	
54 York Street, Portland, ME 04101					
Regulatory Review prepared by Caleb Johnson Studio (License # ARC-4209)					
APPLICABLE CODES:					
City of Portland, Maine Code of Ordinances		Maine Uniform Building and Energy Code (MUBEC)			
2017 NFPA 70 - National Electrical Code		2015 International Residential Code (IRC)			
2018 NFPA 101 - Life Safety Code		2015 International Building Code (IBC), incl Chapter 11 for Accessibility			
The Maine Subsurface Wastewater Disposal Rule		2015 International Existing Building Code (IEBC)			
The Maine State Plumbing Code (UPC 2015)		2021 International Energy Conservation Code (IECC)			
2018 NFPA 1 Fire Code		2015 Uniform Plumbing Code			
		2007 ASHRAE 62.1 - Ventilation for Acceptable Indoor Air Quality			
		2007 ASHRAE 90.1 - Energy Standard for Buildings except Low Rise Residential Buildings			
CODE REVIEW SUMMARY:					
PORTLAND ZONING ORDINANCE REVIEW:					
ITEM #	ITEM	CITY OF PORTLAND, MAINE CODE OF ORDINANCES (Chapter 14 Land Use Code)			
		SECTION	REQUIREMENT/DESCRIPTION	PROPOSED COMPLIANCE	
0.1	ZONING USE STANDARDS				
	Parcel ID	042 A007001			
	Zoning Map	14-246	B5b - Downtown Business Zone	To provide areas of the peninsula near the downtown where a mixture of uses, including marine, industrial, commercial, and residential, is encouraged. The B- 5 and B-5b zones are characterized by larger underdeveloped lots with great potential for denser, clustered, urban mixed-use development and more efficient reuse of existing land and buildings. It is anticipated that the dense, mixed-uses of the B-5 and B-5b zones will rely on a shared infrastructure system, including service alleys, parking lots, public transportation facilities, stormwater management, and driveways.	
	Existing Zoning Use		Institutional		
	Proposed Zoning Use		Mixed Use - Multifamily Residential	Use is allowed	
0.2	NOTABLE DIMENSIONAL REQUIREMENTS				
	Height	Table 7-E	65'	No changes proposed	
0.3	HISTORIC REQUIREMENTS				
	Historic District		Old Port	Minimal exterior improvements proposed. Project Requires Certificate of Appropriateness from City of Portland.	
0.4	OTHER REQUIREMENTS				
	Parking	19-A	Multifamily: 1 space per dwelling unit Retail: 1 space/200sf above 2,000sf	Per Table 19-B No off-street parking in excess of that existing on or servicing the lot as of March 15, 1999 shall be required.	
	Impact Fees	16-A	New use = Mixed use - Multi-family & Retail: Parks and Rec Fee is \$804 per Res. unit (14) + \$571 per 1000gsf retail (1621sf) + \$724 per 1000gsf office (1,093sf)= \$12,824 Transportation Impact Fee is \$1,094 per Res. unit (14) + \$8,871 per 1000gsf retail (1621sf) + \$2,993 per 1000gsf office (1093) = \$32,688 Previous use = Institutional: Parks and Rec Fee = \$689 per 1000gsf (22,770sf) = \$15,847 Transportation Impact Fee = \$3,294 per 1000gsf (22,770sf) = \$75,762	Per change if use provisions for impact fees, the impact fees are calculated as the difference between the existing use and the new use. Parks and Rec = \$12,824 - \$15,847= \$0 owed Transportation = \$32,688 - \$75,762 = \$0 owed	
		16-B	Existing Water Meter: 6in. = NA	Existing building service appears adequate for building requirements.	
	Street Trees	4.6	Multifamily: 1 tree per Unit	Where Street Tree requirements are not able to be met the developer will follow Section 4.6.4 Street Tree Alternatives in the City of Portland Technical Manual	
	Inclusionary Zoning	18.2.3.B/ 18.2.3. C.2	Applicable to change of use creating 10+ Residential Units. Atleast 25% of the units in the proect shall meet the definition of workforce housing units for sale or rent as defined in Article 3 or pay fee-in-lieu.	(4) Affordable units will be provided to satisfy the 25% requirement. IZ units are indicated in plans.	
LIFE SAFETY CODE REVIEW BY SECTION: IBC and NFPA 101					
ITEM #	ITEM	MUBEC / 2015 IBC		2018 NFPA 101 - Life Safety Code (Portland)	
		SECTION	REQUIREMENT/CONDITION	SECTION	REQUIREMENT/CONDITION
0.5	EXISTING BUILDING				PROPOSED COMPLIANCE/COMMENTARY
	Alterations: Level 3	Chapter 8 IEBC	The reconfiguration of space at more that 50% of the floor area and change of use		
	Change of Use				

1.0 USE AND OCCUPANCY						
	Primary: Residential (R-2)	310.4 309	Primary: Residential (R-2), Floors 1-2 Other Uses: Business, Floor 1 Lower Level: S-2 Storage for Res. Units above, Mercantile (M)	30 36 42	New Apartment Buildings New Merchantile Occupancies Storage Occupancies	
				6.1.14.2.2	Mixed Occupancy	
				Hazard Class 6.2.2.2	Ordinary Hazard	
2.0 CONSTRUCTION TYPE & GENERAL BUILDING HEIGHT AND AREA LIMITATIONS						
	Construction Type	Table 602	Type IIIB	Table A. 8.2.1.2	Type III-200	Building is typical of other buildings in the Old Port. Load bearing masonry party walls and wood-framed floors and roof
	Area Limitation	Table 506.2	R-2: 16,000 SF per story (sprinklered with NFPA 13R)	NFPA 5000 7.4.1	NFPA 5000 Table not adopted by Maine State Fire Marshal Office	Typical Floor plate is 7,590sf
	Height Limitation	Table 504.3	R-2: 75 Feet (sprinklered)	NFPA 5000 7.4.1	NFPA 5000 Table not adopted by Maine State Fire Marshal Office	Building Height will remain unchanged
	Story Limitation	Table 504.4	R-2: 4 Stories (sprinklered)	NFPA 5000 7.4.1	NFPA 5000 Table not adopted by Maine State Fire Marshal Office	Building will remain unchanged at 3 stories
3.0 BUILDING SEPARATION & EXPOSURE PROTECTION						
	Exterior Walls: Load Bearing & Non-load Bearing	602, Type IIIB	A: Distance $X < 5\text{ft} = 1\text{ Hour}$ A: Distance $5 \leq X < 10\text{ft} = 1\text{ Hour}$ A: Distance $10 \leq X < 30\text{ft} = 1\text{ Hour}$ A: Distance $X \geq 30\text{ft} = 0\text{ Hour}$	NFPA 220, Table 4.1.1	NFPA 220 Table not adopted by Maine State Fire Marshal Office	
	Exterior Openings	Table 705.8 Sprinklered	Distance 0 to less than 3 = NP Distance 3 to less than 5 = 15% Distance 5 to less than 10 = 25% Distance 10 to less than 15 = 45% Distance 15 to less than 20 = 75% Distance 20 to less than 25 = No Limit Distance 25 to less than 30 = No Limit Distance 30 or greater = No Limit			
	Separation of Occupancies	Table 508.4	1 Hr Required between R and M uses when Sprinklered; 1 Hr Required between R and S-2 uses when Sprinklered , 1Hr Required between R and B uses when Sprinklered.			Provided
	Dwelling Unit Separation	420.2 / 420.3 / 508.4	Separation Walls: no less than 1.0hr Horizontally: no less than 1.0hr			Provided
	Separation	508.4	1 hr between tenant spaces			Provided
	Accessory Use Separation	508.2.4	No separation is required between accessory uses and the main occupancy			
4.0 FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS						
	Primary Structural Frames, Interior Bearing Wall, Non-bearing Exterior Walls, Non-bearing Interior Walls, Floor Construction and Secondary Members, Roof Construction and Secondary Members	Table 601, III-B	0 hr	Table A. 8.2.1.2	NFPA 5000 Table not adopted by Maine State Fire Marshal Office, there is no construction type table within NFPA 101 for "Industrial" use	
	Exterior Bearing Wall	Table 601, III-B	2 hr			
5.0 FIRE AND SMOKE PROTECTION FEATURES						
	Automatic Sprinkler Systems	903 / 903.2.8	Required due to new R use		Required due to multiple factors	New NFPA13 system provided
	Corridor Construction	1020.1	0.5 hr in sprinklered buildings where occupant load is greater than 10 occupants			Provided
	Exit Enclosure	1022.1	1 Hour connecting 3 stories or less 2 Hours connecting 4 stories or more		1 Hour connecting 3 stories or less 2 Hours connecting 4 stories or more	
	Manual Fire Alarm System	907.2.9.1	A manual fire alarm system is not required as building is less than 3 stories and there are less than 16 units.	30.3.4	Not Required in New Apartment Buildings as building is less than 4 stories in height	Provided throughout due to mixed use occupancies
	Smoke Alarms	907.2.11.2	Single and multiple interconnected stations shall be installed on the ceiling or wall outside each separate sleeping area in the immediate vicinity of bedrooms, in each room used for sleeping purposes and in each story of a dwelling unit including basements. Also, per 907.2.11.4 Smoke Alarms shall be installed not less than 3' away from the door or opening of a bathroom that contains a bathtub or shower	30.3.4.5	Required in accordance with 9.6.2.10	Provided

	Carbon Monoxide Detectors	915.2.1/915.2.2	CO detection shall be installed in dwelling units outside each sleeping area in the immediate vicinity			
	Fireblocking in concealed spaces	718.1	Required with R use			
	Standpipe	905.3.1	Not required when floor level of highest story is less than 30' above local fire department vehicle access			IEBC 2015 Section 804.3 - not required if work area is less than 50' above FD access.
6.0	MEANS OF EGRESS					
	Occupant Load	Table 1004.1.1	200sf per person gross in Residential 100sf per person gross in Business Areas 60sf per person gross in Mercantile Areas	7.3.1.2	200sf per person gross in Residential 100sf per person gross in Existing Business Uses	132 Total Occupants calculated, see Life Safety Plans
	Egress Width per Occupant	1005.1	.3" per person Stairways .2" per Person Horizontal	7.3.3.1	.3" per person Stairways .2" per Person Horizontal	Minimum widths provided throughout
	Minimum Door Widths	1010.1.1	32" Minimum Clear Width	7.2.1.2.3	32" Minimum Clear Width	Minimum widths provided throughout
	Corridor/Stair Width	1011.2/ Table 1020.2	44" min when occupancy > 50 36" min when occupancy < 50	12.2.3.8	44" min when occupancy > 50 36" min when occupancy < 50	Minimum widths provided throughout
	Spaces with One Exit or Exit Access Doorway (Sprinklered) / Common Path	Table 1006.2.1	R-2: 125 Feet with sprinkler	30.2.5.3.2	No common path of travel shall exceed 50ft in buildings protected with an automatic sprinkler system. Travel within a dwelling unit shall not be included when determining common path of travel.	Provided. Refer to Life Safety Plan.
	Minimum Number of Exits per Occupancy Type	Table 1006.3.2 (1)	Two exits required in three story apartment buildings with 4+ units per floor.	30.2.4.4.1	Two exist are required where the total unit count per floor exceeds 4.	Two exit stair enclosure provided to serve all apartments. All apartments are equipped with a secondary escape and rescue opening. All NFPA conditions are met in building design.
	Travel Distance (Sprinklered)	Table 1017.2	Section 1017 of IBC is not adopted by the State of Maine per MUBEC amendment	Table A.7.6	Residential: 325 Feet Business: 300 Feet	Provided. Refer to Life Safety Plan.
	Dead End Corridors (Sprinklered)	1020.4	R-2 & B: 50 Feet max (per exception 2)	Table A.7.6	Residential: 50 Feet Business New: 50 Feet	Provided. Refer to Life Safety Plan.
	Exit Separation (Sprinklered)	1007.1.1	1/3 the diagonal of room served	7.5.1.3.2	1/3 the diagonal of room served	Not Applicable as building is served by one exit. Refer to Life Safety Plan.
	Means of Egress Illumination	1008.1	Required in all spaces outside of dwelling units	7.8	Required in New Apartment Buildings	Provided. Refer to Life Safety Plan.
	Exit Discharge	1028.1	Exits shall discharge directly to the exterior	7.7		Exits direct to the exterior provided at exit stairways. Refer to Life Safety Plan.
	Exit Signs	1013.1	Exit signs provided	7.10.1.2.1	Exits...shall be marked by an approved sign	Existing signs provided.
	Emergency Escape and Rescue	1030	Required in single exit apartment buildings			Provided by way of windows in bedrooms, see window schedule
7.0	SPECIAL OCCUPANCY REQUIREMENTS					
	Mechanical Rooms		N/A		N/A	
	Storage Rooms with Hazardous Material		N/A	12.3.2.1.2.1	1 Hour or Automatic Extinguishing System and smoke partition	Provided
	Elevator shafts		N/A	9.4 / ASME A17.1		
	Hoistway Opening Protection	3006.2	Hoistway door opening protection for hoistways serving more than 3 stories.			Hoistway does not serve more than 3 stories
8.0	STAIRWAYS					
	Stairway Width	1011.2	44" Min (36" min. for <50 Occupants)	7.2.2.2.1.2	44" Min (36" min. for <50 Occupants)	See stair details and sections for more info
	Stair Dimensions	1011.5.2	Risers shall be 7" max (4" min) and treads shall be 11" min			See stair details and sections for more info
	Headroom	1011.3	Not Less than 80" (6'-8")			Provided
	Handrails	1011.11	Handrails required on both sides	7.2.2.4.1.1	Handrails required on both sides	Provided
	Handrail Height	1014	34" min and 38" max above stair tread nosing	7.2.2.4.4.1	34" min and 38" max above stair tread nosing	Provided
	Handrail Graspability	1014.3	Must comply with Type I or Type II			Provided
	Handrail Extensions	1014.6	must extend 12" beyond top riser and depth of 1 tread beyond bottom riser and also return to wall	7.2.2.4.4.10	must extend 12" beyond top riser and depth of 1 tread beyond bottom riser	Provided
	Guard Rails	1015.1	Required on landings > 30" high, guard height required to be min 42" high in all common areas; 36" within dwelling units of R-2 Occupancies			Provided
9.0	INTERIOR ENVIRONMENT REQUIREMENTS					
	Ventilation	1203.1	Required to follow International Mechanical Code (not adopted by the State of Maine) Refer to ASHRAE 62.1 2015			

	Minimum Ceiling Heights	1208.2	Not Less than 7'-6" in occupiable spaces, 7'-0" in bathrooms, kitchens, storage rooms				Provided
	Sound Transmission	1207.2/1207.3	Minimum STC separating dwelling units: 50 Minimum IIC separating dwelling units: 50				
INTERNATIONAL ENERGY CONSERVATION CODE (2021 IECC Code Standard Adopted by the State of Maine and City of Portland)							
	Climate Zone	301.1 IECC	6A				
	Commercial Buildings	502.2(1) IECC	Scope to comply with Commercial Energy Code where new additions are proposed or where thermal improvements are considered within the scope of work				
			Commercial Roof with insulation at Rafters = R-49 Commercial Mass Wall = R-15.2ci (Group R)				Per 2021 IECC New building envelope assemblies that are part of the alteration shall comply with insulation requirements. All existing building envelope assemblies to remain.
ACCESSIBILITY CODE REVIEW SECTION: 2015 IBC Chapter 11 / 2017 ANSI A117.1							
	Accessibility Compliance Summary	Title III	Maine Accessibility guidelines per the Maine Human Rights Act, which is based on 2010 ADA Standards of Accessible Design published by the Department of Justice				
	Accessible Path		All spaces are served by an Accessible path and an elevator is provided to serve all floors.				
	Federal Fair Housing Act		When a building contains 4 or more dwelling units all units are subject to Fair Housing Act Standards also regarded as ANSI A117.1 Type "B" minimally-accessible units. The intention that these units are "adaptable" in the future in the event the occupant becomes permanently or temporarily disabled. This is required per section 233.1 of the 2010 ADA Standards for residential facilities. Examples of "Type B" unit requirements: Min clear width of 32" for entry doors Min clear width of 31 3/4" for interior doors of passage Lever hardware on doors Light switches, electrical outlets, thermostats and other environmental controls at accessible mounting heights Min floor and maneuverability clearances in bathrooms/kitchens Blocking provided in bathrooms/showers for potential future grab bars				

M. Calculation of Wastewater Flowrate for 54 York Street Redevelopment

The project proposes to convert the existing 3-story building into a mixed-use development with (14) residential units, (2) commercial spaces, with associated storage, common areas, fitness room, bike room, and trash room.

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 to be Removed				
*Baxter Academy	-	-	-	443
Total Gallons per Day (Existing to be removed)				443
New Flow				
Residential Units	1-Bedroom	10	120 GPD / Unit	1,200
Residential Units	2-Bedroom	4	180 GPD / Unit	720
Commercial	2 Restrooms / 2 Employees	2	325 GPD / Toilet + 12 GPD / Employee	674
Commercial	1 Restrooms / 2 Employees	2	325 GPD / Toilet + 12 GPD / Employee	349
Total Gallons per Day (Proposed)				2,943
Net Change				2,500
* Value obtained from PWD meter usage data for Baxter Academy from 2014-2018; Meter usage data measured in HCF (hundred cubic feet) converted to average GPD.				

As seen above, the project anticipates an increase in daily flow of approximately 2,500 gallons. Please see attached for the formal application template.



CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Portland Dept. of Public Works -
Water Resources
55 Portland Street,
Portland, Maine 04101-2991



Bradley Roland, P.E.
Water Resources Division
Department of Public Works
55 Portland Street
Portland, ME 04103

Date: 10/21

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

Site Address: 54 York Street, Portland ME

Chart Block Lot Number: 42-A-7

Proposed Use: Apartments and Retail/Commercial Space

Previous Use: Baxter Academy

Existing Sanitary Flows: 443 GPD

Existing Process Flows: _____ GPD

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

36" brick sewer main within York Street

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

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

2. Please, Submit Contact Information.

City Planner's Name: TBD Phone: 207.874.8719

Owner/Developer Name: Jay Hibbard

Owner/Developer Address: 400 Commercial Street, Portland, ME 04101

Phone: XXX Fax: _____ E-mail: XXX

Engineering Consultant Name: Acorn Engineering, Inc.

Engineering Consultant Address: 65 Hanover St., Portland, ME 04101

Phone: 207.775.2655 Fax: _____ E-mail: Pheil@acorn-engineering.com

Note: Consultants and Developers should allow +/- 15 days, for capacity status, prior to Planning Board Review.

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: 2,943 GPD

Peaking Factor/ Peak Times: Diurnal

Specify the source of design guidelines: (i.e. "Handbook of Subsurface Wastewater Disposal in Maine,"
"Plumbers and Pipe Fitters Calculation Manual," Portland Water District Records, Other (specify)
Handbook of Subsurface Wastewater Disposal in Maine

Note: Please submit calculations showing the derivation of your design flows, either on the following page, in the space provided, or attached, as a separate sheet.

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values: _____

Size of External Grease Interceptor: _____

Retention Time: _____

Peaking Factor/ Peak Times: _____

Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet.

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated: _____

0

GPD

Do you currently hold Federal or State discharge permits? _____

Yes

No

X

Is the process wastewater termed categorical under CFR 40? _____

Yes

No

X

OSHA Standard Industrial Code (SIC): _____

(<http://www.osha.gov/oshstats/sicser.html>)

Peaking Factor/Peak Process Times: _____

NA

Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the locations of filters, strainers, or grease traps.

Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provided, or attached, as a separate sheet.

O. Architectural Design Narrative

The proposed projects intends to renovate an existing 22,770 sf, 3-story building located at 54 York Street to include (14) new residential units and (2) commercial spaces. The current educational use of the building is proposed to change to Mixed Use, residential and commercial. The building resides within the B5b zone and the Old Port Historic District. The owner is pursuing historic tax credits through the National Park Service.



P. Utilities

The proposed project anticipates utilizing the existing utilities to the existing structure.

Water:

The existing 6" sprinkler and 6" domestic water services from the 6" main within York are anticipated to serve the proposed project.

Sewer:

The existing 4" C.I./PVC sewer service connection from the 36" brick main within York Street is anticipated to serve the proposed project.

Stormwater:

There is no drainage network onsite with the exception of roof drains. The proposed project plans to add a 3'x3' splash pad to the existing downspout located to the rear of the building.

UGE/T/C:

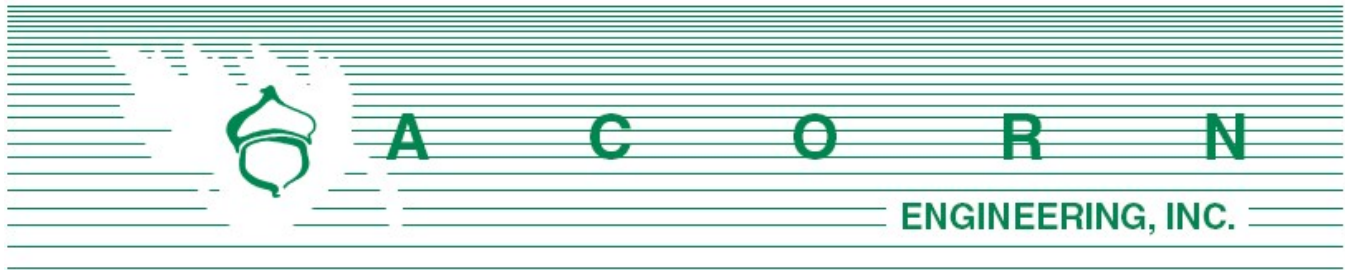
The proposed project anticipates utilizing the existing overhead services to the existing building.

Gas:

It is our understanding that there is an existing 1.25" gas service to the existing building that ties into the York Street 2" main. This service will continue to be utilized as part of the project.

Ability to serve letters have been sent out to the respective utility companies in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use, Section 14-527(g)(7). Responses from the utility companies will be forwarded upon receipt.





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

February 25, 2022

Subject: 54 York Street, Notice of Public Meeting Sign

I, Peter Heil, hereby certify that one (1) Notice of Public Meeting sign was posted on February 24, 2022 prior to the March 8, 2022 Planning Board hearing. The sign is posted facing York Street and is related to the 54 York LLC proposed redevelopment project (PL-001838-2021) located at 54 York Street in Portland. A picture of the sign is shown below.



Sincerely,

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

Q. Construction Management Plan

Project Address: 54 York Street, Portland, ME

Project Description:

The project proposes to convert the existing 3-story building into a mixed-use development with (14) residential units, (2) commercial spaces, with associated storage, common areas, fitness room, bike room, and trash room.

Project Team Summary:

Owner:	54 York Street, LLC (Attn: Jay Hibbard)
General Contractor:	TBD
Civil Engineer:	Acorn Engineering, Inc.
Architect:	Caleb Johnson Studio
Structural Engineer:	TBD

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 and provide their respective means & methods of construction management once one has been brought onto the project.

The following outline has been developed in accordance with the City of Portland Construction Management Plan General Template and shall be referenced by the GC during construction.

A. Construction Management Principles

The control of noise, vibrations, ground movement, truck traffic, and other construction related factors will be of utmost importance. Care shall be taken to minimize these effects in the best interest of neighbors and the general public. GC to ensure that work hours conform to the City of Portland's Ordinance.

B. Development Review of Construction Management Plan

Logistics and safety program shall be submitted at or prior to the preconstruction meeting by the GC with all pertinent information required by the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.



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

Guarantees and fees will be paid at the time of the respective application. Sections 14-530 and 13-532 will be complied with all necessary permits will be obtained prior to work.

1. Street Opening and Street Occupancy Permits:

Required permits regarding street opening and occupancy will be obtained from the Department of Public Works. The requests shall conform to the approved Construction Management Plan.

2. Blasting:

Although not anticipated, if blasting occurs, it shall conform to Article VIII. In Chapter 14 of the City Code and Section 3.7 in the City's Technical Manual.

3. Building Code:

Employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from the 2009 International Building Code.

D. Construction Administration and Communication

The Contractor will work closely with adjacent abutters, businesses, and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. Communication in order to comply with all agreements, ordinances, and special permits will be of the utmost importance. Contractor contact information shall be posted on a sign on the construction fence along York Street and Maple 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:

Jay Hibbard
(207) 232-8749

GC and Subcontractor information will be posted along York Street frontage once contracted.

E. Construction Schedule

The GC shall submit a construction timeline at or prior to the preconstruction meeting. Construction may occur during the daytime hours as defined in Section 17-18 of the Construction Activities for Building permit and City Code Section 25-129, Noise, dust and debris. Between September 1 and May 31, the following year, no person shall engage in construction activities generating noise exceeding 50 decibels, between the hours of 7 pm and 7 am of the following day within 500 feet of any buildings. From June 1 to August 31, construction activity may continue until 8 pm. No construction activity shall begin before 8 am on a Saturday, Sunday, or legal holiday. Extended hours or night work may be requested for special circumstances and street utility work if needed. These requests will



be subject to approval by the Public Works Authority.

Due to the limited space within the project parcel, deliveries will need to be stored in an alternate location or deliveries must be small enough to fit within the property. Deliveries will be scheduled between 7 am and 5 pm.

The estimated timeframe of the proposed project is outlined below:

<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. Construction fencing and entrances 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 York Street and Maple 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 York 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 York 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.

Use of public parking spaces on York Street shall not be permissible. The blockage of any portion of sidewalk for the purpose of construction activity shall require an occupancy permit and appropriate fee as assessed by the Department of Public Works.

H. Site Management and Controls

1. Regular trash and debris shall be managed appropriately, and its removal shall comply with all local, state, and federal regulations.
2. Street cleaning and sweeping shall be followed as outlined in the erosion and sedimentation control notes and report. Damage to the street shall be avoided and shall be the responsibility of the contractor.
3. Dust shall be controlled and shall comply with Section 25-129 and the erosion and sedimentation control notes, plan, and details.
4. Noise shall be controlled and shall comply with Section 17-18 and Section 25-129.
5. Rodent Control shall be provided, if applicable, by a professional exterminator and shall be consistent with Chapter 22 of the City Code.
6. Snow and Ice Removal shall be provided. Pursuant to Section 25-173, the Contractor shall ensure a safe means of travel within the work zone by the following steps:
 - a. Snow/ice removal or commence automatically from 1" or greater of snow or ice
 - b. Remove snow as needed within the work zone, including parking spaces. Driveways and site lines shall not be blocked by piles of snow.
 - c. Clear all walks and ramps within the work zone
 - d. Sand or salt as needed
 - e. Clear all basin or drainage to help snow melt
 - f. The above steps shall be carried out Sunday-Saturday including holidays.

I. Erosion & Sedimentation Control

1. The Contractor shall install all erosion and sedimentation controls as depicted within the plan set, and the approved erosion and sedimentation control report, prior to the pre-construction meeting for inspection by the City. The Contractor shall regularly inspect the control measures, no less than weekly and after storm events (0.5" or more in 24 hours). Additionally, temporary or permanent stormwater management systems shall be inspected and maintained to ensure working order. The Contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection (MDEP) or the U.S. Environmental Protection Agency (EPA) upon request.



2. Due to the existing sparse landscaping on site, no protection during construction will be necessary.
3. Stored materials shall be identified and avoid being located under/near trees.

J. Construction Staging Area

1. The Contractor shall submit a plan with locations depicted for the location of material staging areas, the location of on-site temporary construction trailers, the location of on-site truck delivery holding areas, the location of on-site truck washing stations, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters. This plan shall be submitted at or prior to the pre-construction meeting. Any open storage areas shall be shown on the plan.
2. Delivery Truck Holding Areas On-Site: The majority of materials delivered to the site will be scheduled such that they are able to be off-loaded immediately. On days when the construction activities require multiple truck deliveries, these deliveries will be carefully scheduled so that there is always adequate on-site area for the holding of trucks until they can be unloaded. Once at the site all vehicles will be brought within the fence line and will make every attempt to avoid queuing on public streets. If, for any reason, on-site holding of trucks is not feasible, an off-site location must be designated and shown on the submitted plan referenced above in J.1.
3. All deliveries for materials shall comply with the City's noise requirements.

K. Parking During Construction

1. On-street parking for contractors is prohibited. Arrangements for off-street parking at an off-site location shall be provided.
2. Truck Routes and Volumes: The following quantities are estimated as part of the reconstruction:
 - Gravel & Stone – Approx. 9 CY. Earthwork subcontractor(s) pit to project site.
 - Hot Mix Asphalt – Approx. 3 tons. Paving subcontractor(s) pit to project site.

L. Dewatering Plans

1. A basic dewatering plan for any construction work is required. The plan must cover construction sites where groundwater is not expected but the impact of rainwater may require dewatering. The plan must include operating procedures, equipment to be used, including filters, erosion and sediment control measures, or other methods of removing sediment from approved discharges.
2. For construction work that will require frequent dewatering of groundwater from site, a dewatering plan must be prepared and approved by the Department of Public Works. Groundwater and/or soil testing may be required to determine course of action if treatment is necessary. Approval for all discharges to City infrastructure is required.



3. The proposed plan must address the following:
 - a. Project duration, discharge location, storage equipment on-site, dewatering schematic, and emergency contact.
 - b. General requirements include trained staff on-site for all approved discharges and required site log for documentation of all discharges.
 - c. Storage and/or treatment process should include proper settling time and maintain proper use of filtering medium as required.
 - d. Contingency/maintenance plan for all dewatering equipment devices and filtration mediums.
4. Any water that is removed from an excavation must be pumped from a perforated device buried in crush stone prior to discharge and/or prior to storage and treatment. There will be no discharge allowed during precipitation events

M. Special Measures as Necessary

No special measures are necessary for the proposed reconstruction.



S. Solid Waste Disposal

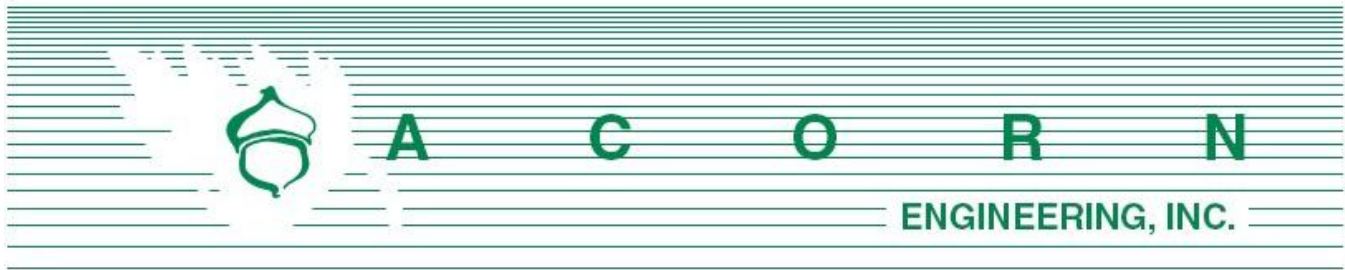
The property management company or Owner shall be responsible for the removal of solid waste and recyclable material. The redevelopment proposes an internal solid waste / recycling room with small roll out bins that will be rolled out to the curb per the collection schedule.



S. Parking Analysis

Per Land Use Code Section 19 Off Street Parking Table 19-B Categorical Exceptions to Off-Street Parking Minimums Zone B5: No off-street parking required, and no new parking is proposed.





Planning Division
Attn: Sean King
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

February 7, 2022

Subject: 54 York Street Redevelopment

Sean,

I, Pete Heil, hereby certify that a neighborhood meeting was held on January 26, 2022, remote via Zoom at 5:30 pm.

I also certify that on January 14, 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.

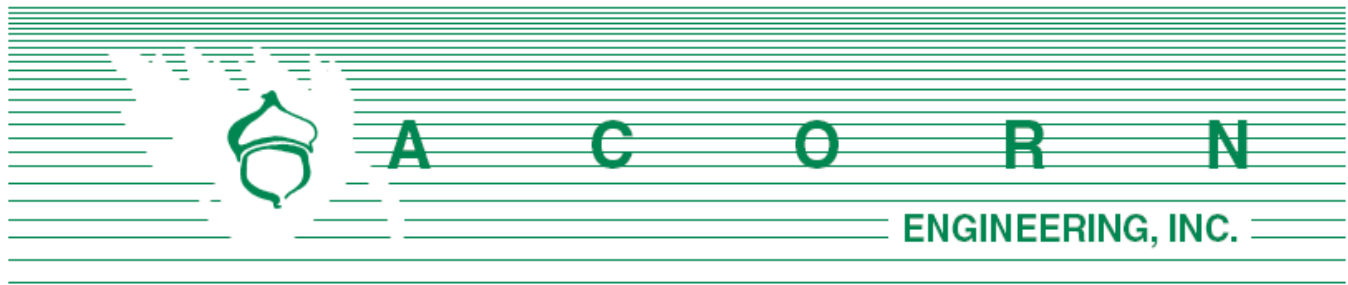
Sincerely,

A handwritten signature in blue ink, appearing to read 'Pete Heil', is written above the printed name.

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

Included with this certification are:

1. Copy of the invitation sent
2. Sign-in sheet
3. Meeting minutes



Dear Neighbor:

January 14, 2022

On behalf of 54 York, LLC, we are pleased to invite you to a virtual neighborhood meeting to discuss a proposed Major Site Plan Application related to the proposed redevelopment at 54 York Street, Portland, ME (Chart 42, Block A, Lot 7). The project proposes to convert the existing 3-story building into a mixed-use development with (14) residential units, (2) commercial spaces, with associated storage, common areas, fitness room, bike room, and trash room. Anticipated site work includes the implementation of pedestrian walkways, greenspace, and potential utility connections. Due to the change of use >20,000-square feet and creation of three or more units, the project is subject to a Major Site Plan Application from the City of Portland. As part of the IZ requirements, the project will include (4) affordable housing units within the building.

Meeting: Held **remotely & recorded via Zoom** according to state and local requirements regarding social distancing and will be available for public viewing and participation. **To attend, 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.

Date/Time: Wednesday, January 26, 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.

Sign-In Sheet

1/26/22

54 York Street Portland, ME 04101

Neighborhood Meeting

Members of the Public in Attendance:

NAME

EMAIL

1. Christine Paladino
2. Meredith and Elizabeth Dodge
3. Mary Ottolini
4. Chris Tanzer
5. Rhonda Rittenberg
6. Deborah Snite

Christine.paladino@ucsf.edu
Physical Address: 7 Maple St.
maryottolini@gmail.com
Chris.Tanzer@Crestlinehotels.com
rhonda.rittenberg@gmail.com
dsnite@gmail.com

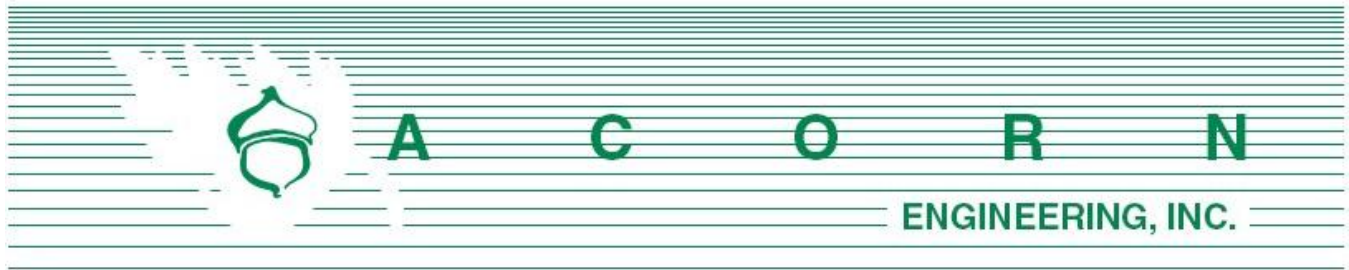
Developer and Consultant Team in Attendance:

NAME

EMAIL

1. Peter Heil – Acorn Engineering
2. Zach Stevens – Acorn Engineering
3. Patrick Booth – Caleb Johnson Studios
4. Jay Hibbard – 54 York LLC
5. Jason Jirele – Caleb Johnson Studios

pheil@acorn-engineering.com
zstevens@acorn-engineering.com
patrick@calebjohnsonstudio.com
hibbard.jay@gmail.com
jjirele@calebjohnsonstudio.com



**54 York Street
Major Site Plan Submission**

Neighborhood Meeting Minutes

January 26th, 2022 / 5:30 pm

Remote meeting via Zoom

Project Team Attendees:

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

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

Patrick Boothe (PB): Architect/Presenter (Caleb Johnson Studios)

Jay Hibbard (JH): Owner/Applicant (54 York LLC)

Meeting started at approximately 5:30 pm.

Presentation:

Peter Heil:

- Project manager/civil engineer
- Introduction of project and project team
- Meeting about site plan review
- This meeting is part of the planning board approval process, a sign in sheet is available for everyone which will become public record along with the meeting minutes.
- Overview of site in relation to neighborhood
- Site is currently vacant with an existing building on site. Previously Baxter Academy
- Proposed use is a mixed use 3-story, 14-unit building with 2 commercial spaces.
 - o This project will meet inclusionary zoning/ affordable housing standards
 - o 25% workforce housing provided on site
 - o Will include common areas: lounge, fitness center, bike parking, etc.
- Located in the B5b zoning district

- Compact residential units: Increased opportunities for in-city living, options for variety of income levels and household types while proving significant growth for available housing stock as outlined in the City's Comprehensive Plan's current goals related to housing production.
- The project includes enhancing pedestrian walkways within the site
- No stormwater treatment is proposed onsite
- Minor utility services are proposed to serve the project
- We look forward to hearing for you all on this exciting project
- A planning board workshop is scheduled for February 22, 2022. We encourage you to come.

Patrick Boothe:

- Project architect
- The existing building was built in the 1880s or 1870 as seen via Sanborn Maps, was a wood mill
- Intention of this renovation: peeling away a lot of the different types of renovations over the years, such as exposing the initial timber frame elements, and working with that for the internal architecture and exposed brick on the inside
 - o Building getting a second life
- Portland in desperate need for housing units
 - o Ensuring inclusionary zoning
- 14 proposed units, 4 of which are affordable dwelling units
- Gradeslopes from York Street down to commercial street along Maple Street
- Overview of floor plans and layout and different uses
 - o First floor includes storage space, mechanical rooms, and a commercial space.
- Second floor –
 - o Primary access from York Street, this floor contains 6 units and a commercial space. Commercial space is in corner facing commercial street.
 - o Second Floor- Filling out the units without making major changes to the existing building. Bottom right corner (rounded corner at York/Maple Street intersection) has original stairs that went up to offices in the original building for manufacturing. Plans to incorporate these stairs into corner unit, Will be able to enter directly from York Street, go up series of stairs to enter unit. A nod to the original circulation of the building itself.
 - o Third Floor – This floor is 2 stories above York Street but 3 stories above Commercial Street side. Similar units as lower floor. Large opening to the floor for light to come from skylights above to penetrate through the corridor so it's a nice experience for those walking through the space. Units with ample windows and great views of city.
- Overview of elevations
 - o Replacing windows
 - Different types of grids in the windows are intentional and based on information from different historical photos and data found over time.



- Portion on the left was developed later in the building's life, which is why some of those windows look different: Buildings have a history to tell.
- Utilizing the existing historic features
- Removing the existing garage door, replace with storefront space to give more light and to provide exposure to products within the space
- Incorporating glass doors to allow more light
- Close to new hotel
- Decision on parking: investigated to see if it's worthwhile. There is not much land, and the land that does exist is to be used for egress and other circulation. Looked at internal parking but it was not practical in this historical renovation.

Peter Heil:

- Planning Board workshop 2/22/22
- Development presentation concluded and public comment process will start.

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.

Deborah Snite: Will there be parking onsite?

- **Pete:** There is no proposed parking onsite, street parking provided on Maple & York Street.

Meredith Dodge: In order that the street parking does not get utilized by residents, is there any possibility to lease spots in parking lot across the street?

- **Pete:** That could be a potential option. Not currently proposed as an incentive. As with any surface parking lot/garage within the city, the residents would be able to reach out to the respective parking owners to secure their own off-site parking lease if they choose to.

Rhonda Rittenberg: How long will it take for the project to be completed?

- **Pete:** There are minimal utilities installed and minimal site modifications as part of this project. I assume less than 1 construction season. Dependent on internal remodeling for when it's opened to residents.
- **Patrick:** A few more months for permitting are needed before able to fully get going.
- **Jay:** In a normal environment, this is an approximately 10–14-month long project. This will depend on logistical hurdles, supply chain problems, etc. so it's hard to say for certain. Potential to take longer, A big undertaking, but not a lot going on with the exterior. A relatively clean interior development project.

Deborah Snite: What will the monthly rent be per unit?

- **Jay:** At this stage of development and planning, we haven't locked in rates. We will meet the city standard (25%) of affordable housing.



Rhonda Rittenberg: How does the affordable housing process work in terms of deciding which buyers qualify?

- **Patrick:** 80% of AMI is what current guidelines are.

Rhonda Rittenberg: Is it rentals or condos?

- **Jay:** It will be rentals only.
- **Rhonda:** Thanks for clarifying

Deborah Snite: Looks like a great project.

- **Jay:** Thank you

Meredith Dodge: Will there be any interpretive signage to give the historical information?

- **Patrick:** Likely. It is often what we do for historic renovations like this. For getting approval for historic tax credits, there is a required professional detailed history written of the building, so that will be existing for potential use in various forms.

Rhonda Rittenberg: Will there be any landscaping?

- **Pete:** We will be maintaining the ex-access drive and there will be an area to the rear southern façade of the site that will be landscaped. It will be most likely by a native shrubbery. Roughly 90% of site will remain the building, though.
- **Patrick:** There are street trees existing as well.
- **Pete:** We will be contributing into the street tree fund as part of this project.

Meredith Dodge: Will there be any exterior lighting?

- **Patrick:** We will have subtle exterior lighting, particularly to emphasize the exterior columns along corner of Maple and York Street. We will make sure not to cause light pollution as part of this project. Need to conform with all regulations/guidelines from the various entities involved. Will be reviewed by the site plan process, as well as the Historic Preservation Board. Mostly TBD.

Rhonda Rittenberg: Will you be retaining the exterior paint color or changing that?

- **Patrick:** Unique situation, paint on brick. The building can't take any more paint, we are currently stripping away the existing paint and we like the look of the raw brick with the paint remnants. We want to make sure what the final product is, is a good fit for the location. Keeping the historic value of the building. It is currently TBD.

Meredith Dodge: Are the apartments and/or the commercial space going to be handicap accessible?

- **Patrick:** Yes, there will also be a new elevator (not currently one in existence already) Various entrances to access the elevator. All 14 units will be Type B (easily adapted to handicap accessible requirements).

Rhonda Rittenberg: Are there any restrictions on what type of commercial tenant can move in?

- **Pete:** The city code has a table that lists the permitted commercial uses for B5b, so most likely it will be one of the ones that is allowed within the zone.



Meredith Dodge: Do you know which management company will be handling the rental units

- **Jay:** We do not currently.

Meredith Dodge: What will the building be called?

- **Jay:** Possibly something that pays respect to the history of the building, but it is currently to be determined.

Closing Comments

Peter Heil:

- Meeting Minutes will be available on planning board website / attached to memo as part of the public record
- A Planning Board Workshop is the next step, the date is February 22, 2022.
- Thanks everyone for joining and the discussion

Meeting concluded at approximately 6:10 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,



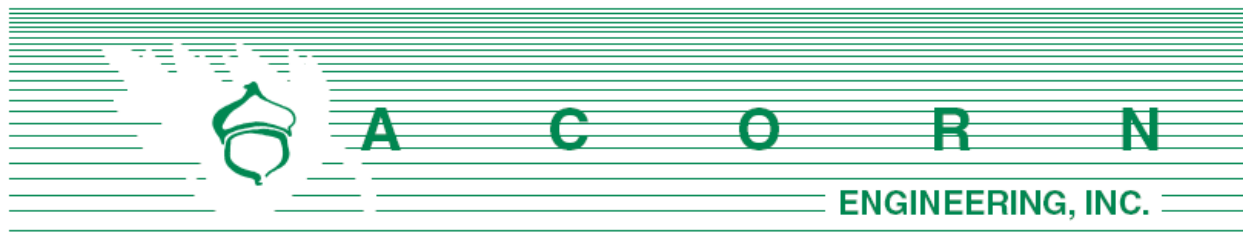
Zachary Stevens, EI

Design Engineer

Acorn Engineering, Inc.

ZStevens@acorn-engineering.com





Sean King, PLA
 Urban Designer
 389 Congress Street, 4th Floor
 Portland, ME 04101

February 25, 2022

Subject: Comment Response Letter
 54 York Street Redevelopment

On behalf of 54 York LLC (Attn. Jay Hibbard), we are pleased to respond to the site/civil related comments received from Staff on February 11, 2022.

General Comments from City Planning Staff

Comment – *Please provide greater detail for proposed stairway to York Street. Applicant to indicate proposed stair on Architectural south elevation, materiality, structural supports and connections, and compliant railing system.*

Response – The stairway to York Street is no longer in the project scope. Please see updated lower level floor plan A-100, 1st floor plan A-101 and Site Plan C-10 for additional information.

Comment – *Please show proposed stairway to York Street on lighting plan to determine adequate nighttime illumination along stairway and pedestrian pathway.*

Response – The stairway to York Street is no longer in the project scope. Please see updated lower level floor plan A-100, 1st floor plan A-101 and Site Plan C-10 for additional information.

Comment – *Please label on Site & Utility Plan the existing overhead electrical.*

Response – The existing overhead electrical is labeled. Please see Sheet C-10 for additional information.

Comment – *Please indicate existing location, abandonment, or relocation of HVAC mechanisms.*

Response – The HVAC design is in progress however the building's heating and cooling will be serviced primarily with water sourced heat pumps with individual condensers on the roof for each unit. Please refer to updated roof plan on sheet A-103 for mechanical equipment locations, updated elevations on sheets A-201 and A-202 for unit heights as well as sight line view studies found on sheet G-004 which illustrates the proposed units are not visible from the public way.

Comment – *Please provide proposed new electrical meter configuration for (14) residential units, (2) commercial units & common spaces.*

Response – The project proposes to remove the existing overhead wires crossing York Street add a new customer owned secondary utility pole and run overhead utilities to the corner of the building. The proposed meter located is located on the western corner of the building. Please refer to Sheet C-10 for additional information.

Transportation

DPW Engineering Division

Comment – *Please clarify on Site & Utility Plan any proposed location of Vertical Granite Curb and Tipdown Installation in Existing Streets on C-40 Site Details.*

Response – The project does not anticipate implementing vertical granite curb or tip downs. The vertical curb detail has been removed from the plan set.

Comment – *Transportation Systems Engineer recommends that the right turn lane should not be perpetuated along York Street to accommodate for bike lane extension to Gorham Corner. This project is not currently a priority street improvement of DPW, although future improvements will be considered for future public right of way improvements.*

Response – Understood. Please keep us updated.

Comment – *Current brick sidewalk clearance along York Street is 5' between the most northerly tree well and the face of the building at 54 York, which meets the City's minimum sidewalk width. Full sidewalk reconstruction along York Street for this project is not being requested.*

Response – Correct.

Comment – *Public Works are requiring that the applicant ensure the ramp at the corner of York and Maple is ADA compliant with any loose or broken bricks within the existing sidewalk be repaired.*

Response – The existing condition of the bricks appear to be in good condition. A note has been added to the plan set that reads “any loose or broken bricks within the existing sidewalk ramp be repaired in compliance with ADA standards”. Please refer to Sheet C-10 for additional information.

Water Quality, Stormwater & Infrastructure

DPW Water Resources Division

Comment – *Public Works will continue to monitor the combined sewer overflow structure (manhole) 100 feet downhill of this building which is causing issues for the downstream building during heavy rain, which causes sewage flooding into adjacent properties.*

Response – Understood.

Consulting Stormwater Engineer

Comment – *Please provide proposed grades around property to determine adequate grades to drain away from building edge towards public street.*

Response – Existing spot grades have been added to the plan. Largely the proposed project anticipates maintaining existing grades that flow away from the existing building.

Comment – *Applicant to show all existing downspout locations on Site & Utility Plan to observe roof runoff around existing building.*

Response – Existing downspout locations have been added to the plan set. Please see Sheet C-10 for additional information.

Comment – *Applicant to describe function of riprap splash pad and if connection to storm drainage system is proposed.*

Response – The function of the riprap splash pad is to prevent erosion during storm events when the roof drain has a higher flow rate. There are no proposed storm drain connections at this time.

Construction Management

Comment – *Please provide a Construction Management Plan, including both a drawing and narrative, Construction Schedule upon contract with a general contractor.*

Response – The Construction Management Plan has been incorporated into the revised plan set. Please refer to Sheet C-03 and Section Q. Construction Management Report for additional information. The Construction Schedule from a general contractor will be submitted when they are under contract.

Zoning

Comment – *The property is located in the B5b zone, the following include confirmation for the applicant: Table 6-C outlines the permitted and conditional uses. Multi-family dwelling are allowed as are most commercial uses. Table 7-E outlines the dimensional requirements for the zone. The B5 and B5b zones do not have many dimensional requirements, and since this is a redevelopment of an existing building and no additions are proposed, the project meets requirements. Regarding any parking requirements, under table 19-B, no off-street parking is required.*

Response – Understood.

Landscaping & Environmental Quality City Arborist

Comment – *Applicant to provide landscape plan for buffers between conversion of use and adjoining non-residential property.*

Response – Given the limited amount of proposed landscaping, a planting schedule has been added to the Site and Utility Plan. The project has incorporated plantings along the southwestern property line. Please refer to Sheet C-10 for additional information.

Comment – *Applicant to identify plant material to tolerate the dry, low light shade conditions and should be compatible to the nearby Hobsons Landing landscape along south façade of building. Planting area proposed adjacent to new electrical meters shall be gravel in the event that adequate low light shade plants cannot thrive in this challenging condition.*

Response – Plantings have been incorporated into the proposed landscaped areas along the southwestern property line. Please refer to Sheet C-10 for additional information.

Comment – *As the sidewalk is not required to replace, existing tree wells along York street can remain. Recommend to add new street trees along York Street where existing tree wells exist, tree type to be upright Red Maple ‘Armstrong’ or similar.*

Response – The project has incorporated two Red Maple Street trees. The trees will be located within the two existing vacant tree wells. See Sheet C-10 for additional information.

Site & Building Design

Comment – *Architectural wall mounted lighting shall comply with historic preservation application.*

Response – Understood, the project will be in compliance with the Historic Preservation requirements.

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

Sincerely,



Pete Heil, P.E., CPESC
Project Engineer
Acorn Engineering, Inc.



William H. Savage, P.E.
Principal
Acorn Engineering, Inc.

54 YORK STREET REDEVELOPMENT

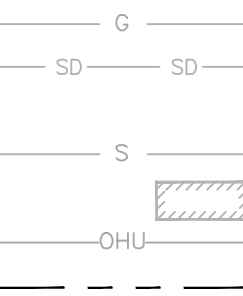
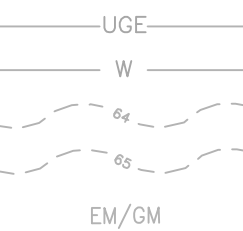
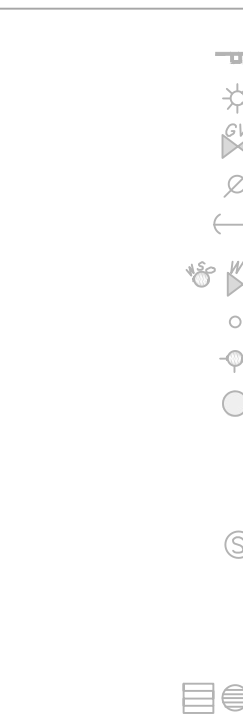
54 YORK LLC
PORTLAND, MAINE

CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

LEGEND

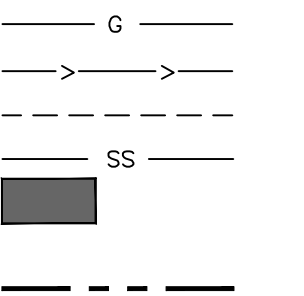
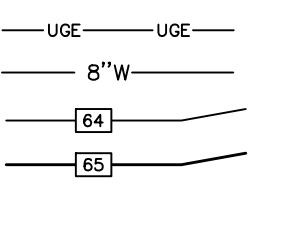
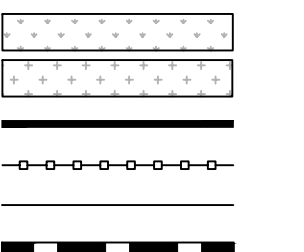
EXISTING

REFER TO
BOUNDARY &
TOPOGRAPHIC
SURVEY FOR
ADDITIONAL
INFORMATION



GREEN SPACE
UTILITY PAVEMENT CUTS
STRIPING
SEDIMENTATION BARRIER
EDGE OF PAVEMENT
CURB
SIGN
LAMP OR LIGHT POLE
GAS VALVE
UTILITY POLE
GUY WIRE
WATER VALVE OR SHUTOFF
BOLLARD
FIRE HYDRANT
MANHOLE
LIGHTING WALLPACK
OVERHEAD LIGHTING
SANITARY MANHOLE
DOGHOUSE MANHOLE
SANITARY CATCH BASIN
STORM DRAIN CATCH BASIN
STORM DRAIN MANHOLE
UNDERGROUND ELECTRIC LINE
UNDERGROUND WATER LINE
MINOR CONTOURS (1 FT)
MAJOR CONTOURS (5 FT)
ELECTRIC OR GAS METER
TELEPHONE
FIRE ALARM
GAS LINE
STORM DRAIN LINE
FOUNDATION DRAIN LINE
SEWER LINE
BUILDING
OVERHEAD ELECTRICAL/TELEPHONE/CABLE
PROPERTY LINE

PROPOSED



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- C-02 GENERAL NOTES
- EX BOUNDARY AND TOPOGRAPHIC SURVEY BY OWEN HASKELL, INC, DATED 9/23/21
- C-03 CONSTRUCTION MANAGEMENT PLAN
- C-10 SITE, UTILITY, & GRADING PLAN
- C-11 SUBDIVISION PLAT
- C-40 SITE DETAILS
- C-41 EROSION CONTROL NOTES & DETAILS

UTILITIES

SEWER

CITY OF PORTLAND
DEPARTMENT OF PUBLIC WORKS (DPW)
250 CANCO ROAD
PORTLAND, MAINE 04101
CONTACT: BRAD ROLAND, P.E.
(207) 874-8834



WATER

PORTLAND WATER DISTRICT
225 DOUGLASS STREET
PO BOX 3553
PORTLAND, MAINE 04104
CONTACT: ROBERT BARTELS, P.E.
(207) 774-5961



ELECTRIC

CENTRAL MAINE POWER COMPANY (CMP)
162 CANCO ROAD
PORTLAND, MAINE 04103
CONTACT: PAUL DUPERRÉ
(207) 828-2882



TELEPHONE

CONSOLIDATED COMMUNICATIONS
(FORMERLY FAIRPOINT)
45 FOREST AVE
PORTLAND, MAINE 04101
CONTACT: JAY CUNHA
603-433-2090



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

54 YORK, LLC
PORTLAND MAINE
CONTACT: JAY HIBBARD
(207) 232-8749

ARCHITECT

CALEB JOHNSON STUDIO
PORTLAND, MAINE
CONTACT: PATRICK BOOTH, R.A.
(207) 283-8777



SURVEYOR

OWEN HASKELL, INC
FALMOUTH, MAINE
CONTACT: SAMUEL D. GLIDDEN, PLS
(207) 774-0424



CIVIL ENGINEER

ACORN ENGINEERING, INC
PORTLAND, MAINE
CONTACT: PETE HEIL, P.E.
(207) 775-2655



ABBREVIATIONS

PARTIAL LIST OF ABBREVIATIONS AND THEIR CORRESPONDING MEANING. PLEASE CONTACT THE ENGINEER FOR ANY CLARIFICATION

A.C.	ASBESTOS CEMENT
APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CAD	COMPUTER AIDED DESIGN
CB	CATCH BASIN
CF	CUBIC FOOT
C.I.	CAST IRON
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
DIA.	DIAMETER
DIM.	DIMENSION
EA	EACH
ELEC.	ELECTRICAL
ELEV. EL.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FD	FOUNDATION DRAIN
FT.	FEET
GAL.	GALVANIZED
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
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
PERF	PERFORATED
PL	PROPERTY LINE
PLS	PROFESSIONAL LAND SURVEYOR
PR.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PWD	PORTLAND WATER DISTRICT
R	RADIUS
RD	ROOF DRAIN
RET.	RETAINING
ROW	RIGHT OF WAY
RPP	REINFORCED PLASTIC PIPE
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

PRELIMINARY
NOT ISSUED FOR
CONSTRUCTION



VICINITY MAP
SCALE: 1"=500'

ISSUED FOR
SITE PLAN
COMMENT RESPONSE

BY
DATE
11/23/21
PFH
2/25/2022

COVER SHEET

DRAWING NAME:
PROJECT NAME/ADDRESS:
54 YORK STREET REDEVELOPMENT
54 YORK STREET, PORTLAND, MAINE 04101
CLIENT/OWNER OF RECORD:
54 YORK LLC
400 COMMERCIAL STREET, PORTLAND, MAINE 04101

ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

FILE: 2.87_CIVIL
JN: 2.87
SCALE: AS NOTED
DESIGNED BY: PFH
DRAWN BY: EGJ
CHECKED BY: WHS/PFH

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER
2/25/22

DRAWING NO.
C-01

Page 111

1. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN. IF DEEMED NECESSARY BY THE OWNER OR OWNER'S REPRESENTATIVE (IF APPLICABLE), ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULE BASED ON THE PLANS AND FIELD VERIFICATION BY THE CONTRACTOR. ALL MATERIAL SCHEDULES SHOWN WITHIN THE PLAN SET ARE FOR GENERAL INFORMATION ONLY.
4. ALL CONSTRUCTION METHODS, TESTING AND MATERIALS SHALL CONFORM TO THE MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE CITY OF PORTLAND AND SERVING UTILITY REQUIREMENTS, IF ANY. IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SPECIFICATION SHALL APPLY AT NO ADDITIONAL COST TO THE OWNER.

- THE SITE CONTRACTOR SHALL MAINTAIN A SET OF PAPER AND CAD DRAWINGS WHICH SHALL RECORD THE ACTUAL LOCATION, DIMENSIONS, ELEVATIONS, MATERIALS OF THEIR WORK, INDICATING THEREON ALL VARIATIONS FROM THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS, IN .DWG FORMAT AND PAPER, STAMPED "AS-BUILT". IF AUTOCAD CAPABILITY IS NOT AVAILABLE, EXCLUDE FROM BID IN WRITING.
6. THE CONTRACTOR WILL REMAIN SOLELY AND COMPLETELY RESPONSIBLE FOR ENFORCEMENT OF AND COMPLIANCE WITH 1) ALL CONTRACT PLANS AND SPECIFICATIONS, 2) APPLICABLE INTERNATIONAL BUILDING CODE REQUIREMENTS, AND 3) ALL SITE WORKING CONDITIONS AND SAFETY REQUIREMENTS, DAY AND NIGHT, FOR BOTH PERSONS AND PROPERTY, IN EACH CASE BOTH BY THE CONTRACTOR AND ITS SUBCONTRACTORS. THESE INCLUDE ALL OSHA, NIOSH, U.S. EPA AND ANY OTHER APPLICABLE GOVERNMENTAL REGULATIONS.
7. EXISTING CONDITIONS, BOUNDARY SURVEY, AND TOPOGRAPHY FROM THE PLAN TITLED BOUNDARY AND TOPOGRAPHIC SURVEY BY OWEN HASKELL, INC, DATED 9/23/21.
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THE SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN A SAFE VEHICLE AND PEDESTRIAN ACCESS THROUGH THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE PORTLAND PUBLIC SAFETY DIVISION ROUTINELY REGARDING TEMPORARY IMPACTS OR CHANGES TO SITE ACCESS CONDITIONS.
9. CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.
10. NO HOLES, TRENCHES, OR STRUCTURES SHALL BE LEFT OPEN OR UNATTENDED OVERNIGHT IN ANY AREA ACCESSIBLE TO THE PUBLIC OR WITHIN THE PUBLIC RIGHT-OF-WAY.
11. THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION SURVEY OF INTERIOR SUBGRADE AND ABOVE GRADE ACCESSIBLE WALLS, CEILINGS, FLOORS, ROOF AND VISIBLE EXTERIOR AS VIEWED FROM THE GRADE LEVEL. THIS SHALL BE COMPLETED AT A MINIMUM FOR STRUCTURES ADJACENT TO THE SITE AND STRONGLY RECOMMENDED FOR STRUCTURES DIRECTLY ACROSS THE SITE ALONG YORK STREET AND MAPLE STREET. A COPY OF THE SURVEY SHOULD BE PROVIDED TO THE OWNER. DOCUMENT WITH PICTURES AT A MINIMUM.
12. THE CONTRACTOR SHALL PROVIDE A GPS MODEL OF THE PROPERTY TO PROVIDE TO ACORN ENGINEERING.
13. THE CONTRACTOR SHALL SURVEY ROCK SURFACE PRIOR TO EXCAVATION AND DEVELOP VOLUME CALCULATIONS TO SHARE WITH THE ENGINEER, ACORN ENGINEERING INC. (ACORN), IF ANY.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES AND SHRUBS ON THE PROJECT WHICH ARE NOT TO BE REMOVED.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY TRENCH PAVEMENT THAT HAS EXPERIENCED EXCESSIVE SETTLEMENT, CRACKING, OR OPENING OF JOINTS. REPAIRS MAY INCLUDE OVERLAY. REMOVAL OF WORK MAY BE NECESSARY AFTER THE FINAL ACCEPTANCE OF WORK OR PRIOR TO THE END OF THE WARRANTY PERIOD. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

1. THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO ACORN TO MODIFY THE CONTRACT DOCUMENTS.
2. ALL SHOP, ERECTION, AND CONSTRUCTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE CONTRACTOR PRIOR TO SUBMISSION FOR ACORN'S REVIEW. ANY UNCHECKED OR NON-STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
3. CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY EXISTING STRUCTURES AND SITE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS. CONTRACTOR TO NOTIFY ACORN OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. DETAILS SHOWN APPLY TO ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
5. ALTHOUGH ALL DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT ALL DETAILS ARE ILLUSTRATED, NOR IS EVERY EXCEPTION CONDITION ADDRESSED WITHIN THE CONTRACT DOCUMENTS.
6. ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK, INCLUDING DIMENSION AND LAYOUT VERIFICATION, MATERIALS COORDINATION, SHOP DRAWING REVIEW, AND THE WORK OF ANY SUBCONTRACTORS.
8. UNLESS OTHERWISE SPECIFICALLY INDICATED, THE DRAWINGS DO NOT DESCRIBE OR DIRECT MEANS OR METHODS OF CONSTRUCTION.
9. THE CONTRACTOR, IN THE PROPER SEQUENCE, SHALL PERFORM OR SUPERVISE ALL WORK NECESSARY TO ACHIEVE THE FINAL COMPLETED STRUCTURE, AND TO PROTECT THE STRUCTURE, WORKMEN, AND OTHERS DURING THE CONSTRUCTION. SUCH WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR EXCAVATION, FORMWORK, SCAFFOLDING, SAFETY DEVICES AND PROGRAMS OF ALL KINDS, SUPPORT AND BRACING FOR CRANES AND OTHER ERECTION EQUIPMENT.
10. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE BRACING IS PROVIDED. PRIOR TO BACKFILLING, CONCRETE SHALL BE CURED PER STRUCTURAL ENGINEER'S SPECIFICATIONS.
11. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE, IF APPLICABLE.
12. ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
13. ACORN BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND SITE OBSERVATION VISITS DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.
14. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CRF PART 1926.650-.652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).
15. ALL TRENCH PAVEMENT REPAIR SHALL BE COMPLETED WITH THE USE OF A STREET PAVEMENT WITH A SCREED WIDTH CAPABLE OF SPANNING THE FULL WIDTH OF THE TRENCH UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

1. ALL SITE SOILS-RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS SHALL BE REVIEWED BY THE PROJECT GEOTECHNICAL ENGINEER.
2. ALL SITE DRAINAGE-RELATED WORK SHALL BE REVIEWED BY ACORN ENGINEERING.
3. NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.
4. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.
5. SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

- 5.1. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINE ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
- 5.2. THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL. THE ARCHITECT AND ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES. THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, AND NET CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.
- 5.3. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN TEN DAYS OF THE FINAL INSPECTION STATING WHETHER THE WORK REQUIRING A SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE AND BELIEF, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE. WORK NOT IN COMPLIANCE SHALL BE NOTED IN THE REPORT.
- 5.4. SPECIAL INSPECTOR SHALL BE EMPLOYED BY THE OWNER AND COORDINATED BY THE CONTRACTOR.

1. MONUMENTS DELINEATING PROPERTY LINES OR RIGHT OF WAYS SHALL NOT BE DISTURBED DURING CONSTRUCTION OPERATIONS. IN THE CASE A MONUMENT IS DISTURBED, AT THE CONTRACTOR'S EXPENSE, THE MONUMENT SHALL BE RESET TO ITS ORIGINAL LOCATION AND ELEVATION BY A LICENSED PROFESSIONAL LAND SURVEYOR.
2. ALL DIMENSIONS ON THE FOLLOWING SHEETS TAKE PRECEDENT OVER SCALED DIMENSIONS. EACH DRAWING WITH A BAR SCALE MEANS THAT THE DRAWING/DETAIL HAS BEEN SCALED AS ACCURATELY AS POSSIBLE, AND THE BAR SCALE IS FOR GENERAL REFERENCE ONLY. IF NO BAR SCALE IS PRESENT, THEN THERE IS NO SCALE TO THAT DRAWING/DETAIL. AT NO TIME SHOULD DRAWINGS BE SCALED FROM. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS AND THE FIELD CONDITION SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.
3. SIGNAGE, STRIPING, AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
4. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS & CONDITIONS OF THE CITY OF PORTLAND, MAINE DEPARTMENT OF TRANSPORTATION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
5. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED PROFESSIONAL LAND SURVEYOR TO PROVIDE A MINIMUM OF TWO TEMPORARY BENCHMARKS WITHIN THE SITE AND TO LOCATE PROPOSED STRUCTURE CORNERS.
6. CONTRACTOR TO ENSURE THAT ACCESS, INCLUDING BUT NOT LIMITED TO WALKWAYS, DRIVEWAYS, AND MAILBOXES ADJACENT TO THE PROJECT REMAIN FUNCTIONAL AND AVAILABLE FOR USE AT ALL TIMES.

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF SITE PLAN – MAJOR SITE PLAN APPLICATION 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.

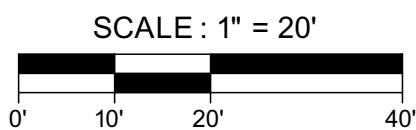
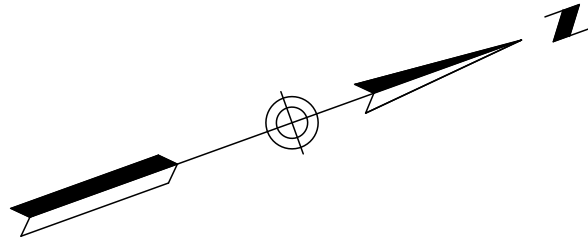
1. TOPSOIL STRIPPED FROM THE SITE THAT IS SUITABLE FOR REUSE AS LOAM (MEETS THE REQUIREMENTS WITHIN SECTION 615 OF THE MDOT STANDARD SPECIFICATIONS, MOST RECENT VERSION) AND IS FREE OF TRACEABLE AMOUNTS OF CONTAMINANTS) SHALL BE STOCKPILED WITHIN THE PROPOSED LIMIT OF WORK AREA. THE CONTRACTOR SHALL NOT ASSUME THAT ANY STRIPPED TOPSOIL WILL BE ACCEPTABLE FOR REUSE WITH THEIR ESTIMATE.
2. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY; NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING. DEWATERING SHALL INCLUDE TREATMENT OF SILT THROUGH THE USE OF A DIRTBAG BY ACF ENVIRONMENTAL OR APPROVED EQUIVALENT. FLOWS FROM DEWATERING ACTIVITIES SHALL NOT BE DISCHARGED INTO SANITARY SEWERS. SEE BORING LOGS FOR ADDITIONAL INFORMATION.
3. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ANY EASEMENT OR TEMPORARY CONSTRUCTION RIGHTS AS NECESSARY BY PRIVATE ADJACENT LAND OWNERS. THE CONTRACTOR SHALL NOT DISTURB ANY SOIL BEYOND THE PROPERTY LINE WITHOUT NOTIFYING AND OBTAINING SUCH EASEMENT OR TEMPORARY CONSTRUCTION RIGHT FROM THE ADJACENT LAND OWNERS. PRIOR TO THE CONTRACTOR PRICING THE WORK, THEY SHALL PROVIDE ACORN WITH PROOF OF SUCH EASEMENT OR TEMPORARY RIGHTS. SHOULD EASEMENTS OR TEMPORARY RIGHTS NOT BE AVAILABLE, THE CONTRACTOR SHALL INCLUDE COST FOR BRACING AND SHORING AS NECESSARY.
4. THE MINIMUM SLOPE SHALL MEET OR EXCEED 0.5% IN ALL CASES WHERE NOT NOTED ON THE GRADING PLAN. SLOPES IDENTIFIED ON THE GRADING PLAN TAKE PRECEDENT. ALL SLOPES SHALL BE AWAY FROM BUILDINGS AND TOP OF PAVEMENT SHALL BE AT OR BELOW EXISTING FINISH FLOOR ELEVATIONS.
5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST GEOTECHNICAL REPORT PREPARED BY THE PROJECT GEOTECHNICAL ENGINEER.
6. NO ADDITIONAL PAYMENT WILL BE MADE FOR UNSUITABLE MATERIALS THAT MAY EXIST ON SITE.
7. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF $N=0.012$ OR LESS.
8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
9. NATIVE SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE DISTURBANCE TO SUBGRADE SOILS. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, CONTACT ACORN. THE DISTURBED AREAS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO ADDITIONAL EXPENSE TO THE OWNER.
10. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER, IF APPLICABLE.

1. DISTURBED AREAS ARE DEFINED AS THOSE SURFACES WHERE EXISTING VEGETATION OR STRUCTURES HAVE BEEN REMOVED, EXPOSING NATIVE SOIL TO THE ELEMENTS.
2. ALL ROUTINE WORK ACTIVITIES SHALL BE CONDUCTED IN SUCH A WAY TO LIMIT THE AMOUNT OF DISTURBED AREA AT ONE TIME TO THE EXTENT PRACTICABLE.
3. PRIOR TO THE START OF ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL DEVICES SUCH AS PERIMETER SILT FENCE, AND OTHER APPLICABLE MEASURES. IN THE EVENT THE CONTRACTOR IS NOT SURE A EROSION CONTROL MEASURE SHOULD BE IMPLEMENTED, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD TO CONFIRM IMPLEMENTATION OF ANY EROSION CONTROL DEVICES.
4. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCH SHALL BE APPLIED AS SOON AS POSSIBLE WITHIN 7 DAYS FOLLOWING THE COMPLETION OF ANY SOIL DISTURBANCE, AND PRIOR TO ANY STORM EVENT.
5. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL REFERENCE THE APPROVED EROSION AND SEDIMENTATION CONTROL REPORT FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE D.E.P.'S PERMIT CONDITIONS, FINDINGS OF FACT AND ORDER (IF ANY), AND THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.
6. PRIOR TO PAVING, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT FROM STORM DRAINS, CATCH BASINS, AND APPURTENANCES.
7. REFER TO THE EROSION CONTROL DETAILS & NOTES FOR ADDITIONAL INFORMATION.

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 SUBRADE IN NATIVE SILT AND CLAY SHALL BE COMPLETED WITH A SMOOTH EDGE BUCKET TO MINIMIZE SUBGRADE DISTURBANCE.
24. ALL ADJUSTMENTS TO FINISHED GRADE ARE TO BE COMPLETED BY THE CONTRACTOR. THE CONTRACTOR SHALL CONFIRM STRUCTURES THAT REQUIRE ADJUSTMENT WITH THE ENGINEER OR OWNERS REPRESENTATIVE PRIOR TO ADJUSTING FRAMES.

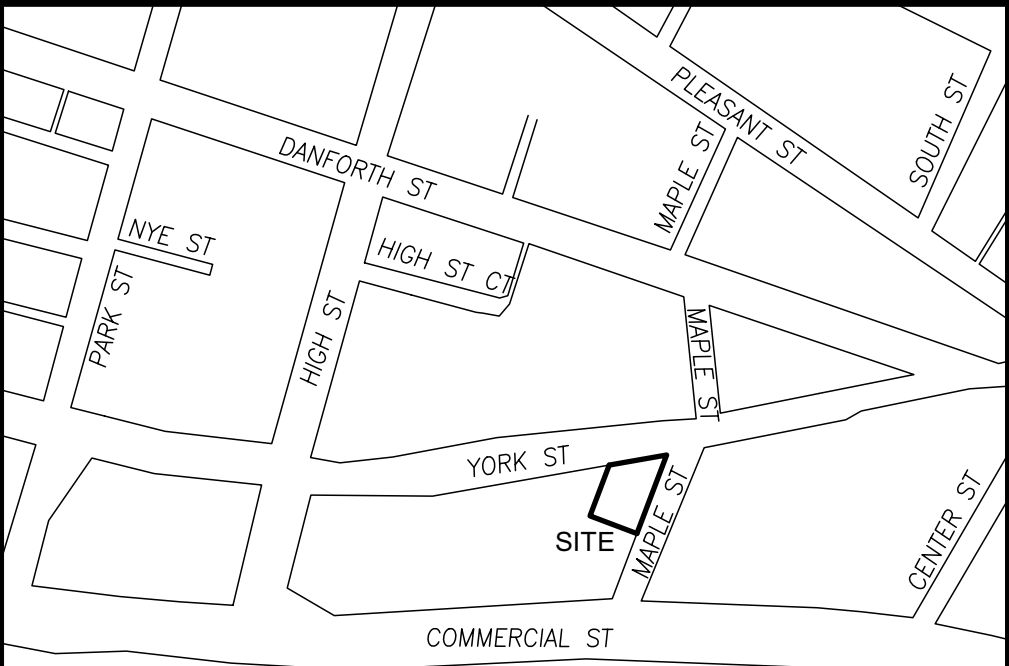
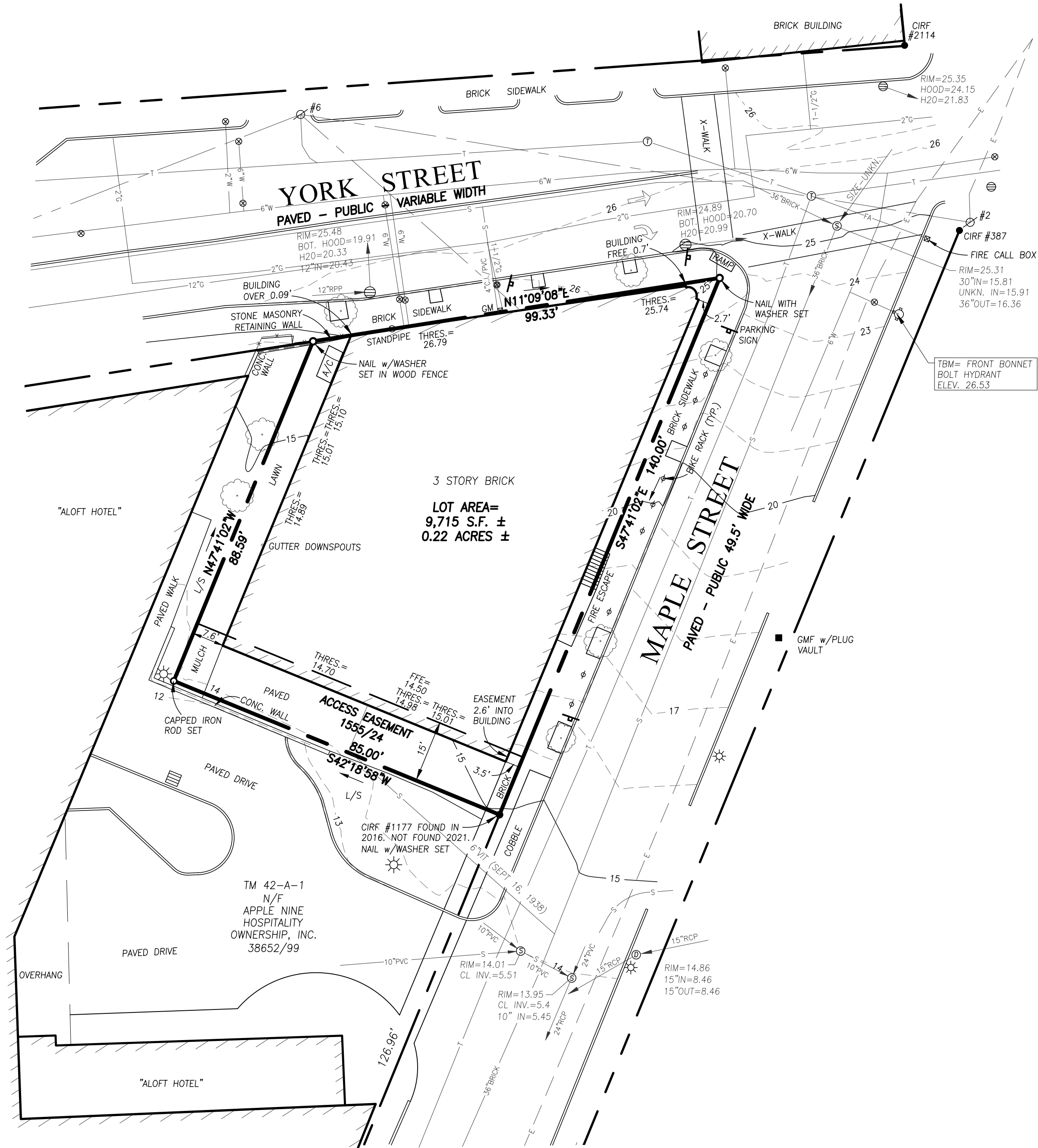
1. THE FOLLOWING ITEMS ARE TYPICAL OF MATERIAL WHICH MAY BE ON SITE:
 - ROCK AND CONCRETE FOUNDATIONS
 - CONCRETE SLABS
 - BITUMINOUS ASPHALT PAVEMENT
 - CONCRETE PADS AND BLOCKS
 - FENCE POST AND FENCING
 - UNDERGROUND UTILITY LINES
 - ABOVE AND OR BELOW FUEL OIL AND PROPANE GAS TANKS
 - STORM DRAIN 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.

[illegible]



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.



LOCATION MAP

N.T.S.

LEGEND

●	IRON PIPE OR ROD FOUND	—X—X—	FENCE
○	MONUMENT FOUND	=====	CURB
○	CAPPED IRON ROD SET	—OHW—	OVERHEAD WIRES
○	UTILITY POLE	—W—	WATER LINE
○	MANHOLE	—G—	GAS LINE
○	SIGN	—T—	TELEPHONE
○	CATCH BASIN	—SD—	STORM DRAIN
○	HYDRANT	—S—	SANITARY SEWER
○	WATER VALVE OR SHUTOFF	—20—	1' CONTOUR
○	LIGHT POLE	IPF/IRF	IRON PIPE OR ROD FOUND
○	DECIDUOUS TREE	N/F	NOW OR FORMERLY
		000/000	DEED BOOK / PAGE
		FFE	FINISHED FLOOR ELEVATION
		THRES.	THRESHOLD

PLAN REFERENCES

1. "PLAN OF LAND ON COMMERCIAL, HIGH, YORK, & MAPLE STREETS, PORTLAND, MAINE FOR RUFUS DEERING COMPANY," BY OWEN HASKELL, INC. DATED JANUARY 9, 1989.
2. STANDARD BOUNDARY SURVEY FOR WILLIAM J. DOWD LOCATED IN PORTLAND, MAINE," BY D.A. MAXFIELD, JR. DATED NOVEMBER, 1987.
3. "ALTA/ACSM LAND TITLE SURVEY ON HIGH, DANFORTH, MAPLE, & YORK STREETS MADE FOR J.B. BROWN & SONS," BY OWEN HASKELL, INC. DATED DECEMBER 3, 2013.
4. "BOUNDARY & TOPOGRAPHIC SURVEY ON 383 COMMERCIAL STREET, PORTLAND, MAINE MADE FOR BERNSTEIN SHUR" SEPT. 6, 2016 REVISED 11-16-16 BY OWEN HASKELL, INC.
5. "SUBDIVISION PLAN OF: 383 COMMERCIAL STREET, PORTLAND, MAINE FOR RECORD OWNER: DEERING PROPERTY DEVELOPMENT, LLC," BY SEBAGO TECHNICS, DATED 10-22-18. RECORDED IN PLAN BOOK 218, PAGE 510.

GENERAL NOTES

1. OWNER OF RECORD: 54 YORK, LLC
TAX MAP 42 BLOCK A LOT 7-8
C.C.R.D. BOOK 38325 PAGE 284
2. BEARINGS ARE BASED ON STATE PLANE COORDINATE SYSTEM MAINE WEST ZONE, NAD 83 PER PLAN REFERENCE 1.
3. ELEVATIONS ARE BASED ON CITY DATUM.
4. SANITARY SERVICE CONNECTIONS ARE TAKEN FROM DEPARTMENT OF PUBLIC WORKS SEWER CARDS AND NOT FIELD VERIFIED.

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.

Samuel D. Glidden
SAMUEL D. GLIDDEN, PLS #2520

DATE 9/24/21



Boundary & Topographic Survey

At
54 York Street, Portland, Maine
Made for
54 York, LLC
400 Commercial Street, Suite 101
Portland, Maine 04101

OWEN HASKELL, INC. PROFESSIONAL LAND SURVEYORS 390 US ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424			
DRAWN BY: SDG / J.W.	DATE: SEPT. 23, 2021	JOB NO.	2021-265 P
CHECKED BY: SDG	SCALE: 1" = 20'	DRWG. NO.	1

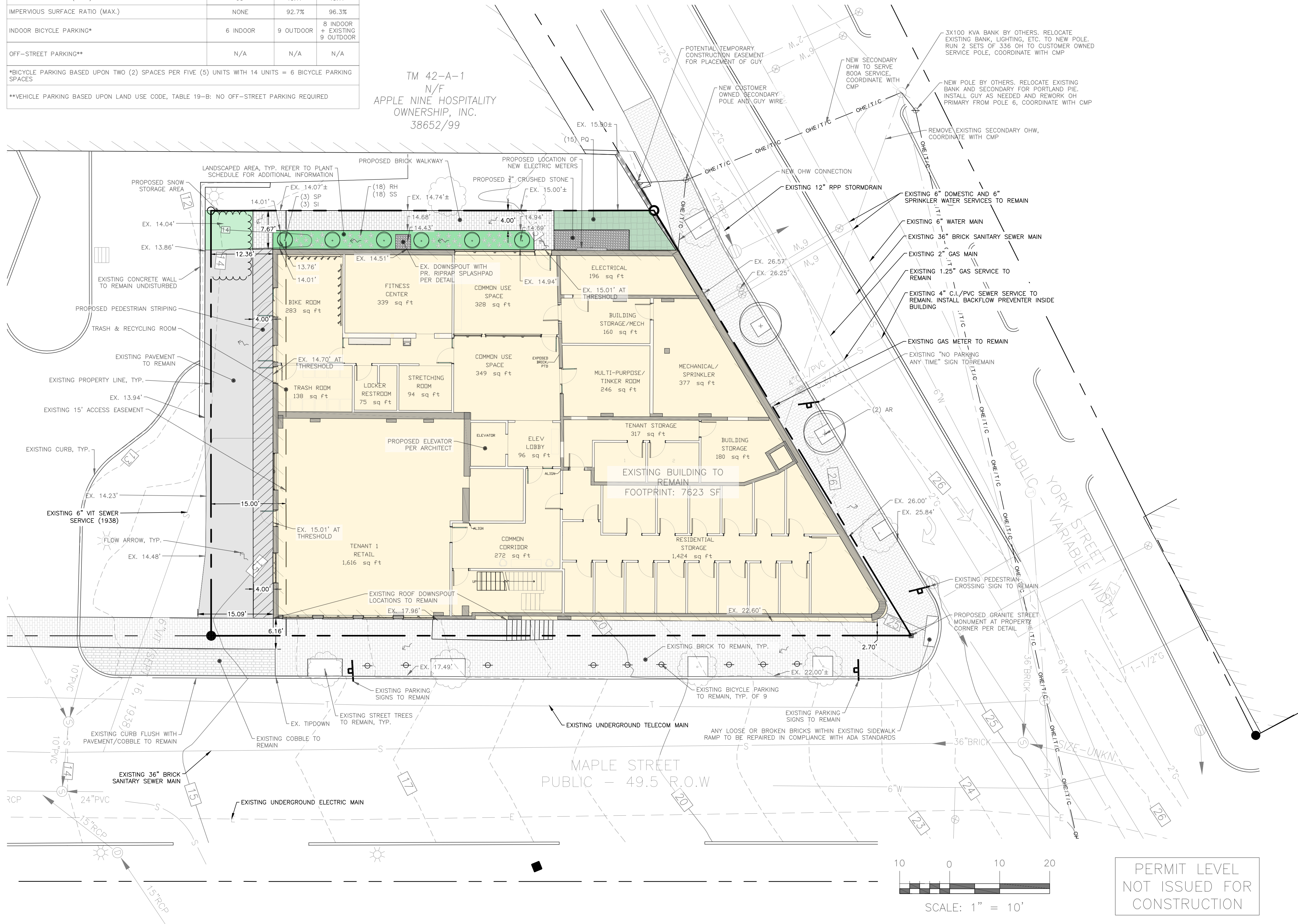
1. ALL BRICK SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF PORTLAND STANDARD.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF PORTLAND STANDARDS.
3. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
4. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
5. ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
6. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.

1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL EXISTING UTILITIES NOT TO BE RELIED UPON AS EXACT OR COMPLETE. ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
3. FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LINES 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 STANDARDS. ALL SEWER CONNECTIONS TO BE INSTALLED WITHIN THE 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 DESIGN. FINAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH CITY OF PORTLAND 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.
- 7.1. EXISTING GAS MAIN INFORMATION OBTAINED FROM UNTIL 54 YORK STREET MAIN RECORD DATED 11/25/2021. EXISTING PROJECT GAS SERVICE INFORMATION OBTAINED FROM UNTIL ON 11/5/2021. COORDINATE WITH UNTIL FOR ADDITIONAL INFORMATION.
8. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO ALL FINAL ELECTRIC CONNECTIONS. CONTRACTOR TO CONFORM TO THE CODEBOOK 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 CHARGER COMMUNICATIONS AND FAIRPOINT PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.

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.

PLANT SCHEDULE				
ID	BOTANICAL NAME	COMMON NAME	QTY	SIZE
TREES				
AR	ACER RUBRUM	RED MAPLE	2	2" CAL.
SHRUBS				
SP	SALIX PURPUREA 'NANA'	PURPLE WILLOW	3	3 GAL.
SI	SALIX INTEGRA 'HAKURO NISHIKI'	DAPPLED WILLOW	3	3 GAL.
PERENNIALS				
RH	RUBEOCKIA HIRTA	BLACK-EYED SUSAN	18	1 GAL.
SS	SLVIA SYLVESTRIS	SAGE 'MAY NIGHT'	18	1 GAL.
GRASSES AND GROUND COVER				
PQ	PARIHENOICISSUS QUINQUEFOLIA	VIRGINA CREEPER	15	1 GAL.

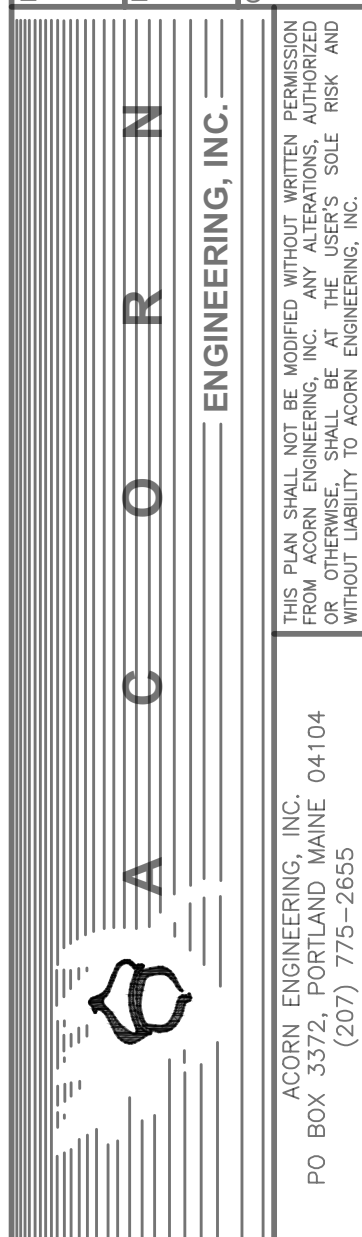
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54 YORK STREET REDEVELOPMENT
54 YORK STREET, PORTLAND, MAINE 04101

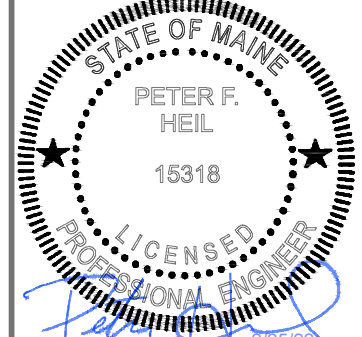
400 COMMERCIAL STREET, PORTLAND, MAINE 04101

PROJECT NAME:

CLIENT:



FILE:	2.87_CIVIL
JN:	2.87
SCALE:	1"=10'
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS



DRAWING NO.
C-10

1. FOR INFORMATION REGARDING THE PROPOSED SITE, UTILITIES, GRADING, AND STORMWATER REFER TO THE SITE PLAN, C-10, MOST RECENT VERSION.
2. UNIT TABULATION PROVIDED BY CALEB JOHNSON STUDIO; REFER TO ARCHITECTURAL PLANS FOR FLOOR PLANS AND BUILDING HEIGHTS.
3. PROPERTY PINS WERE SET BY PROFESSIONAL LAND SURVEYOR.
4. AS OF 11/10/2021, THE SITE IS BOUNDED BY THE B5b ZONE & OLD PORT HISTORIC DISTRICT OR THE CITY OF PORTLAND AND THE CITY OF PORTLAND PLANNING DEPARTMENT.
5. PARCEL IS SHOWN ON THE SITE OF PORTLAND ASSESSOR'S MAP 42, BLOCK A, LOTS 7 & 8.
6. PARCEL DOES NOT FALL IN A SPECIAL FLOOD HAZARD AREA PER FEMA FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 2300510013B, DATED 7/17/1986.
7. ALL BUILDING CORNER OFFSETS TO BOUNDARY LINES ARE FROM THE BUILDING FOUNDATION, UNLESS OTHERWISE NOTED.
8. BUILDING SETBACK SUBDIVISION PLAT FOR THE CREATION OF UP TO FOURTEEN (14) DWELLING UNITS ON THE EXISTING SUBJECT PROPERTY.
9. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.
10. PLAN REFERENCES:
 - 10.1. PLAN TITLED "BOUNDARY & TOPOGRAPHIC SURVEY" PREPARED BY OWEN HASKELL, INC. DATED SEPTEMBER 24TH, 2021

1. OWNER OF RECORD: 54 YORK, LLC 54 YORK, LLC
- 1.1. TAX MAP 42 BLOCK A LOT 7-8
- 1.2. C.C.R.D. BOOK 35325 PAGE 284
2. BEARINGS ARE BASED ON STATE PLANE COORDINATE SYSTEM MAINE WEST ZONE, NAD 83.
3. ELEVATIONS ARE BASED ON CITY DATUM.
4. SANITARY SERVICE CONNECTIONS ARE TAKEN FROM DEPARTMENT OF PUBLIC WORKS SEWER CARDS AND NOT FIELD VERIFIED.

THERE IS ONE EXISTING EASEMENT AS IDENTIFIED BY PLAN TITLED BOUNDARY & TOPOGRAPHIC SURVEY BY OWEN HASKELL, INC. DATED SEPTEMBER 24TH 2021.
1.) 15' ACCESS EASEMENT, BOOK 1555, PAGE 24

WAIVERS & CONDITIONS OF APPROVAL:

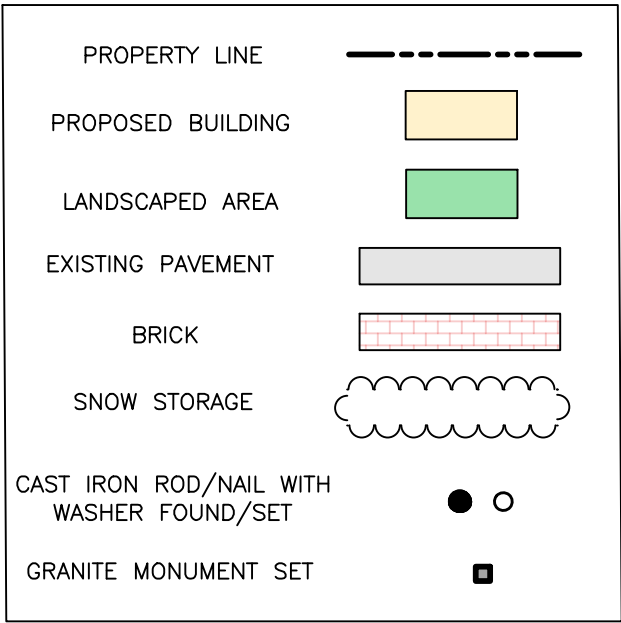
TBD

UNIT TABULATION	
UNIT NUMBER	SIZE (SF)
1A	415
1B	772
1C	762
1D	736
1E	956
1F	643
2A	1008
2B	580
2C	762
2D	736
2E	994
2F	660
2G	735
2H	716

SPACE AND BULK STANDARDS			
ZONE: B5b – URBAN COMMERCIAL BUSINESS	REQUIRED	EXISTING	PROPOSED
MIN LOT AREA	NONE	9,715 SF	9,715 SF
BUILDING (PRINCIPAL): MIN. FRONT SETBACK	10'	0'	0'
BUILDING MIN. SIDE SETBACK	NONE	7.67'	7.67'
BUILDING MIN. REAR SETBACK	NONE	12.36'	12.36'
LOT AREA PER DWELLING UNIT	NONE	N/A	693 SF
LOT COVERAGE (MAX.)	100%	78.6%	78.6%
STRUCTURE HEIGHT (MAX.)	65'	45.17'	45.17'
IMPERVIOUS SURFACE RATIO (MAX.)	NONE	92.7%	96.3%
INDOOR BICYCLE PARKING*	6 INDOOR	9 OUTDOOR	8 INDOOR + EXISTING 9 OUTDOOR
OFF-STREET PARKING**	N/A	N/A	N/A

*BICYCLE PARKING BASED UPON TWO (2) SPACES PER FIVE (5) UNITS WITH 14 UNITS = 6 BICYCLE PARKING SPACES

**VEHICLE PARKING BASED UPON LAND USE CODE, TABLE 19-B: NO OFF-STREET PARKING REQUIRED

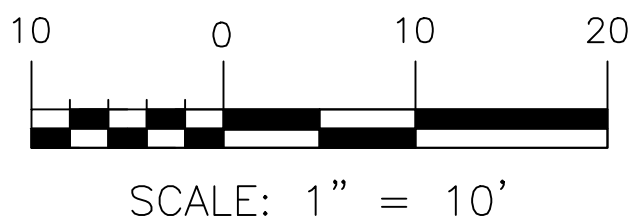


54 YORK, LLC
PORTLAND, MAINE
CONTACT: JAY HIBBARD
(207)-232-8749

OWEN HASKELL, INC.
FALMOUTH, MAINE
CONTACT: SAMUEL D. GLIDDEN, PLS
(207) 774-0424

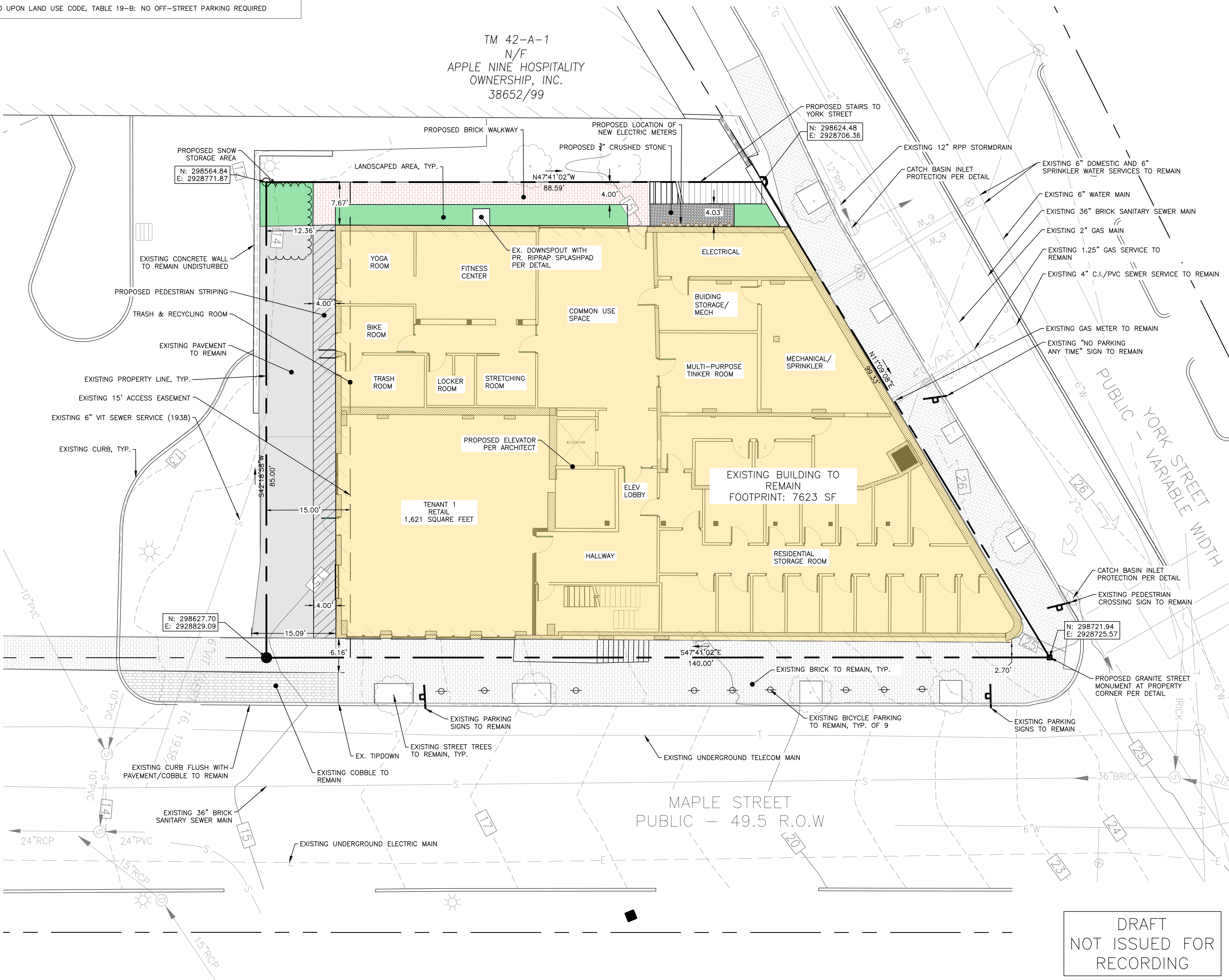
CALEB JOHNSON STUDIO
PORTLAND, MAINE
CONTACT: JOSH JACQUES
(207)-283-8777

ACORN ENGINEERING, INC
PORTLAND, MAINE
CONTACT: PETER HEIL, PE
(207) 775-2655



THIS SURVEY CONFORMS TO THE CURRENT STANDARDS OF PRACTICE SET FORTH BY THE MAINE STATE BOARD OF LICENSURE FOR LAND SURVEYORS.

SAMUEL D. GLIDDEN, MAINE P.L.S. #2520 DATE:
OWEN HASKELL, INC.



RECORDING INFORMATION
STATE OF MAINE, CUMBERLAND
COUNTY REGISTRY OF DEEDS

RECEIVED: _____

RECORDED IN: _____

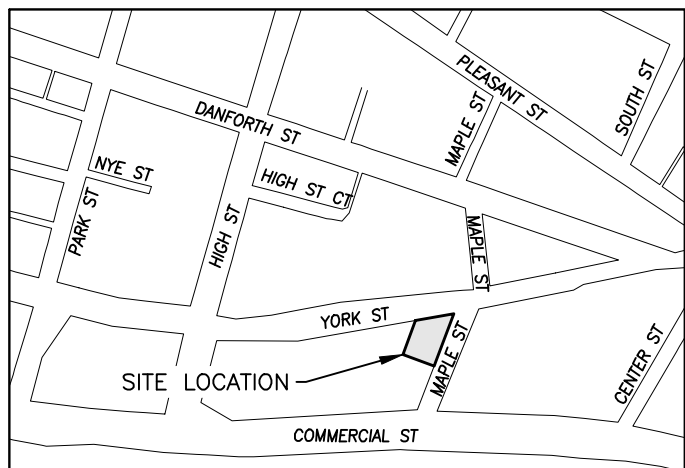
ATTEST: _____

REGISTRAR

APPROVED: PORTLAND PLANNING BOARD

CHAIRPERSON:

DATE:



VICINITY MAP
NOT TO SCALE

DRAFT
NOT ISSUED FOR
RECORDING

[illegible]

DRAWING NAME: SUBDIVISION PLAT - 54 YORK STREET

54 YORK STREET REDEVELOPMENT

54 YORK STREET, PORTLAND, MAINE 04101

54 YORK LLC

400 COMMERCIAL STREET, PORTLAND, MAINE 04101

CLIENT:

ENGINEERING, INC.

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

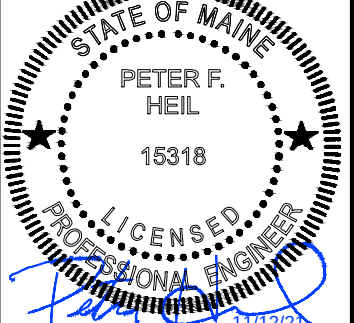
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JN: 2.87

SCALE: 1"=10'

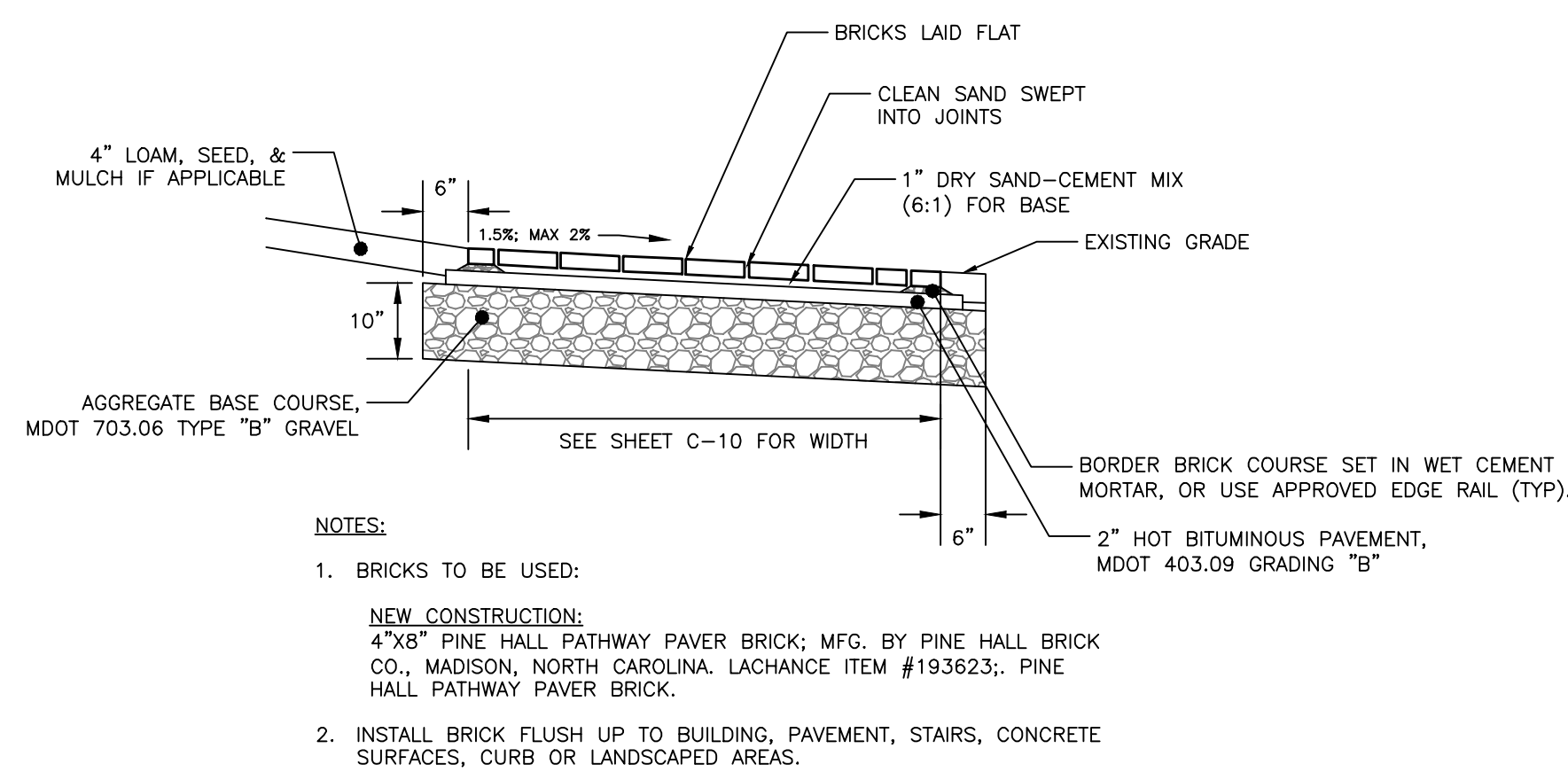
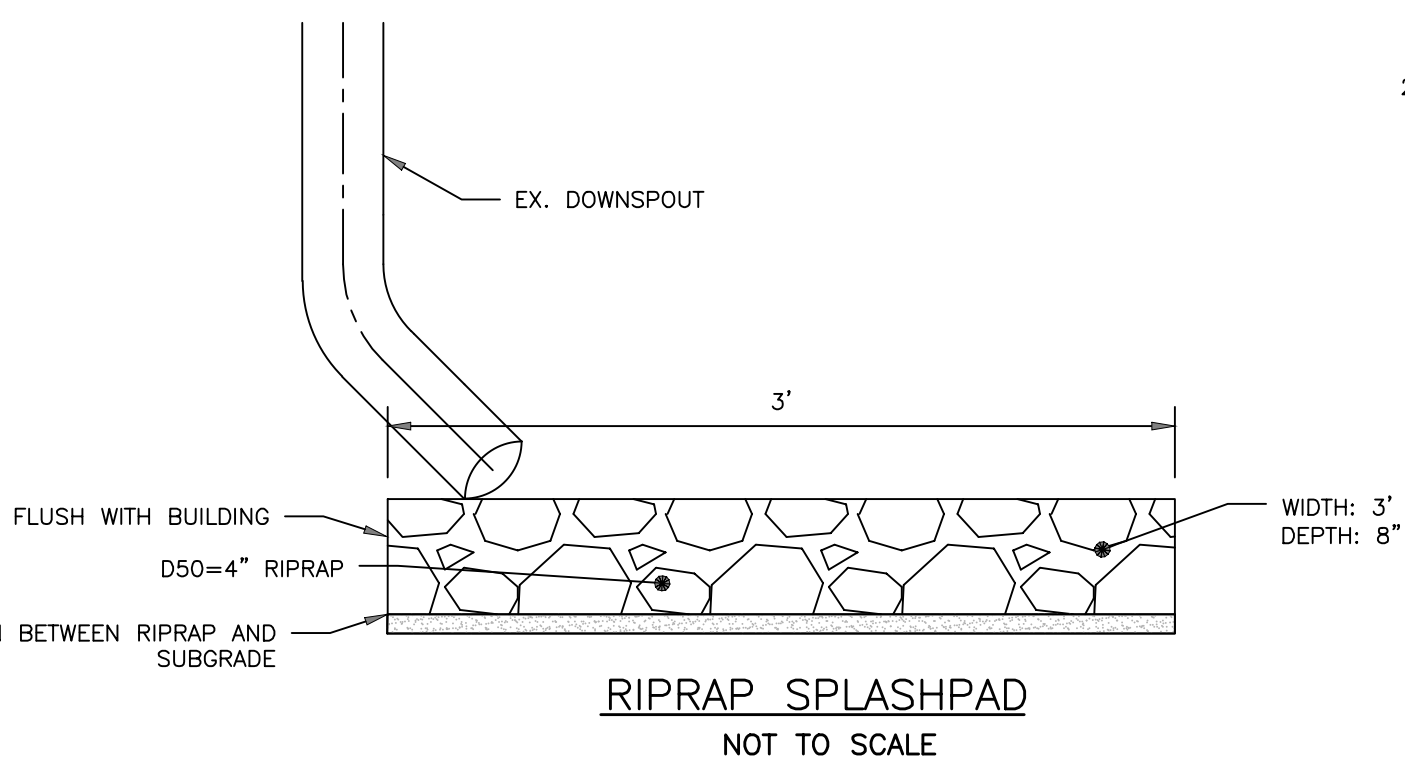
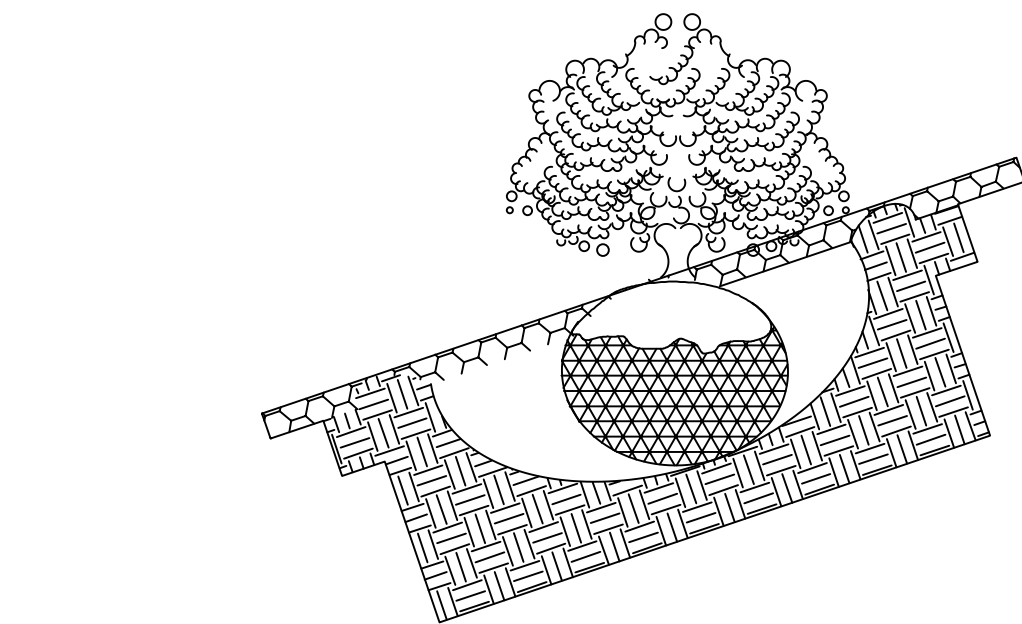
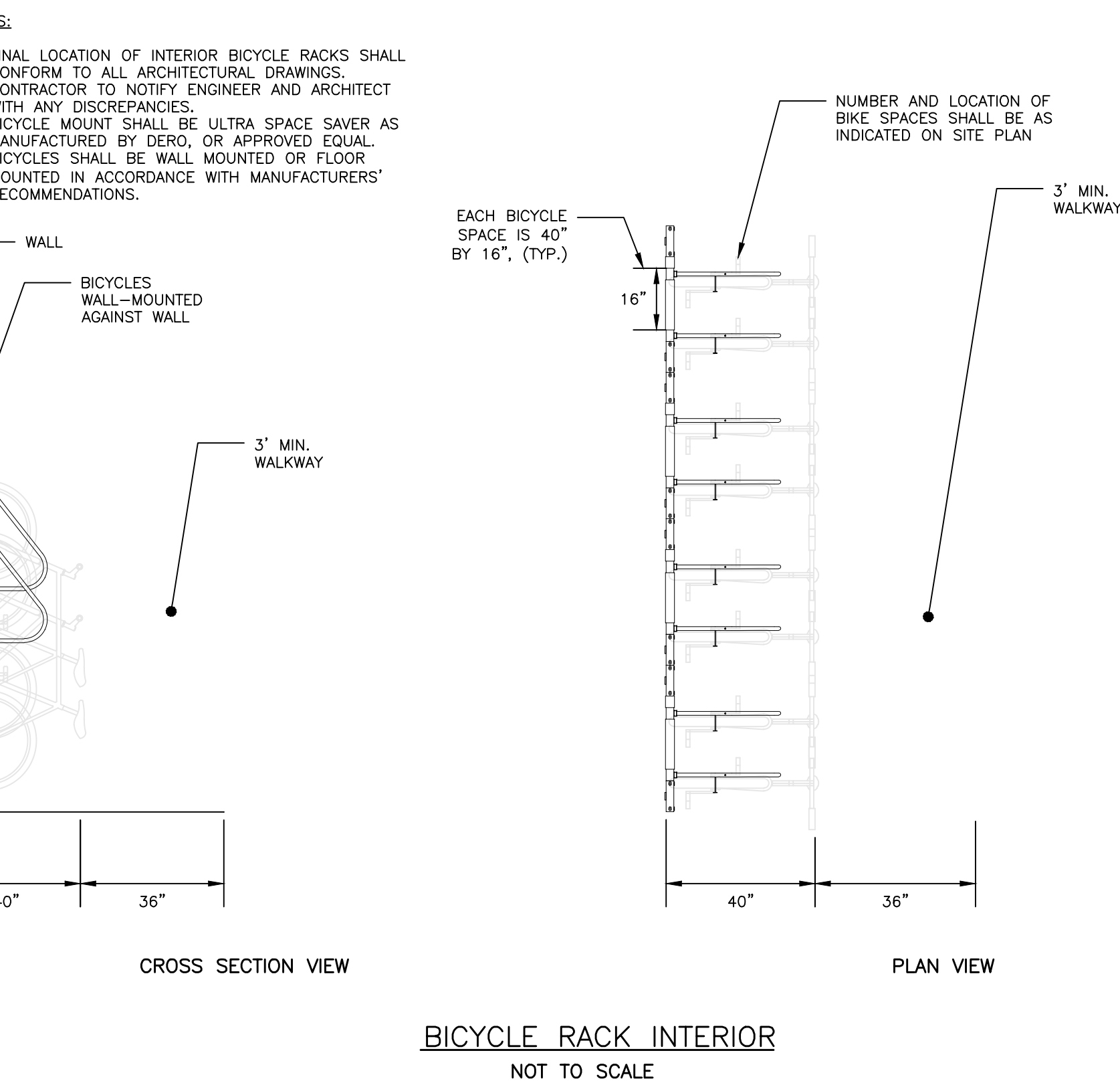
DESIGNED BY: PFA

DRAWN BT.	ZMS
CHECKED BY	WUG



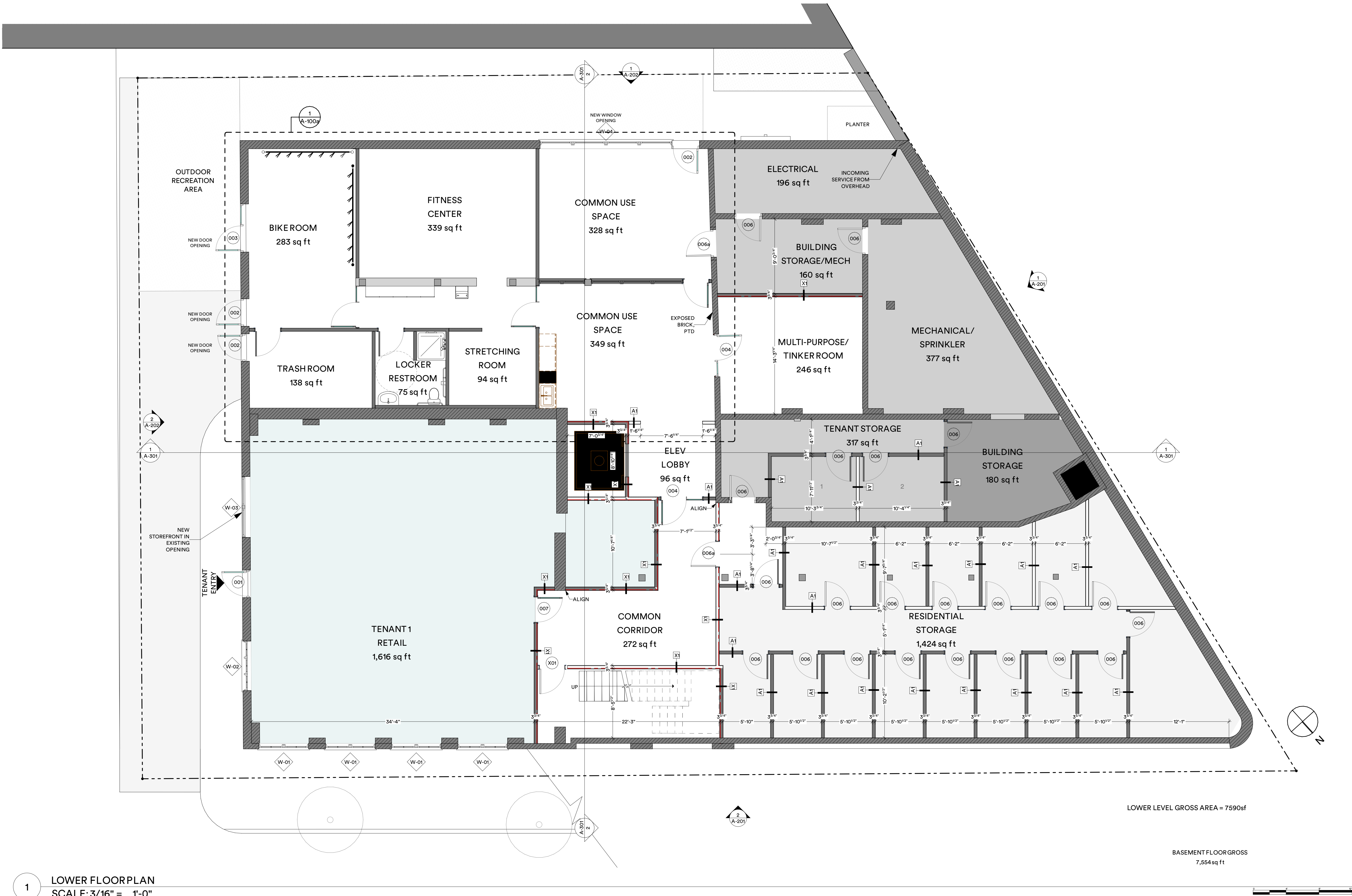
DRAWING NO.

C-11

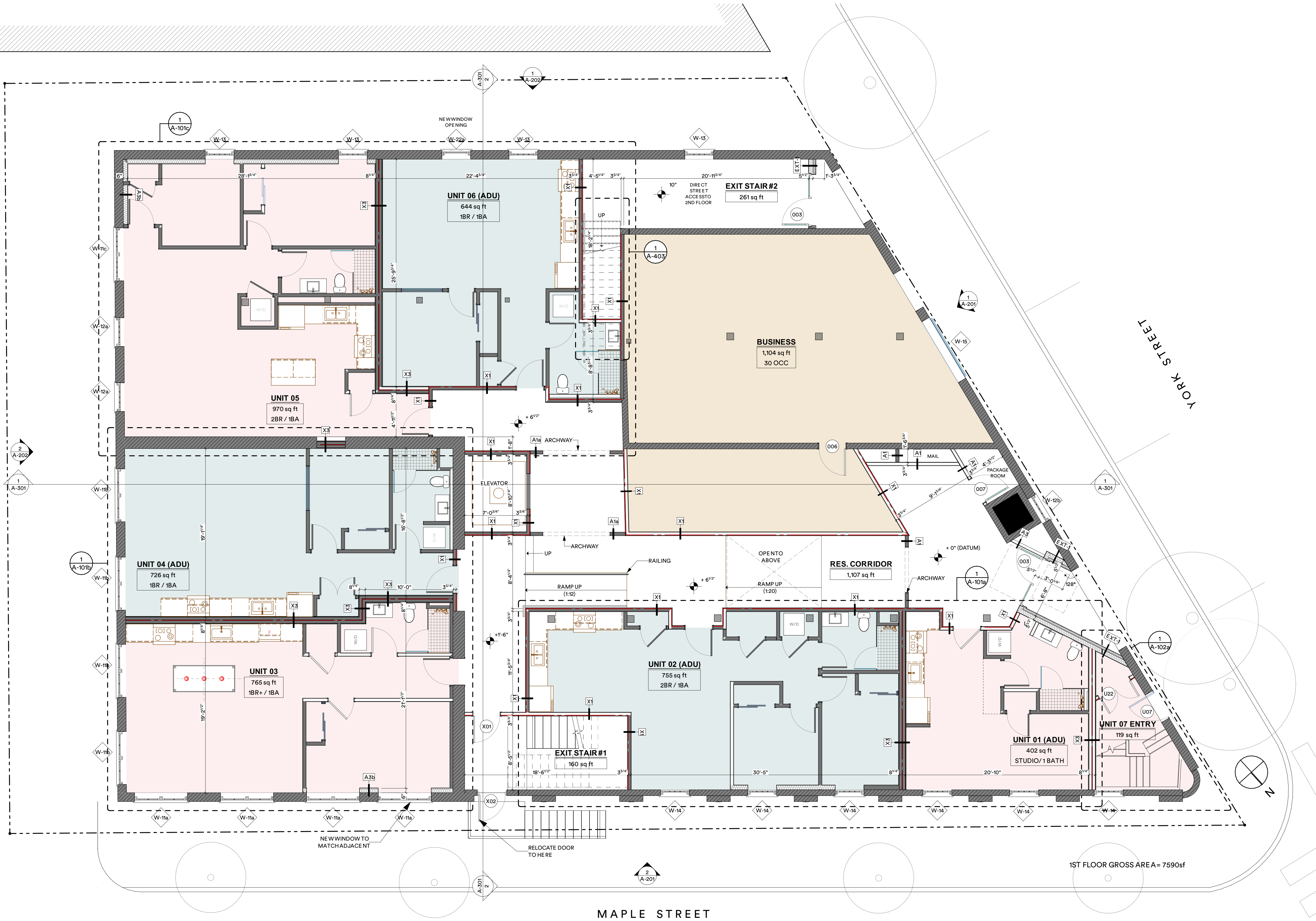


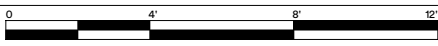
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NOT ISSUED FOR
CONSTRUCTION

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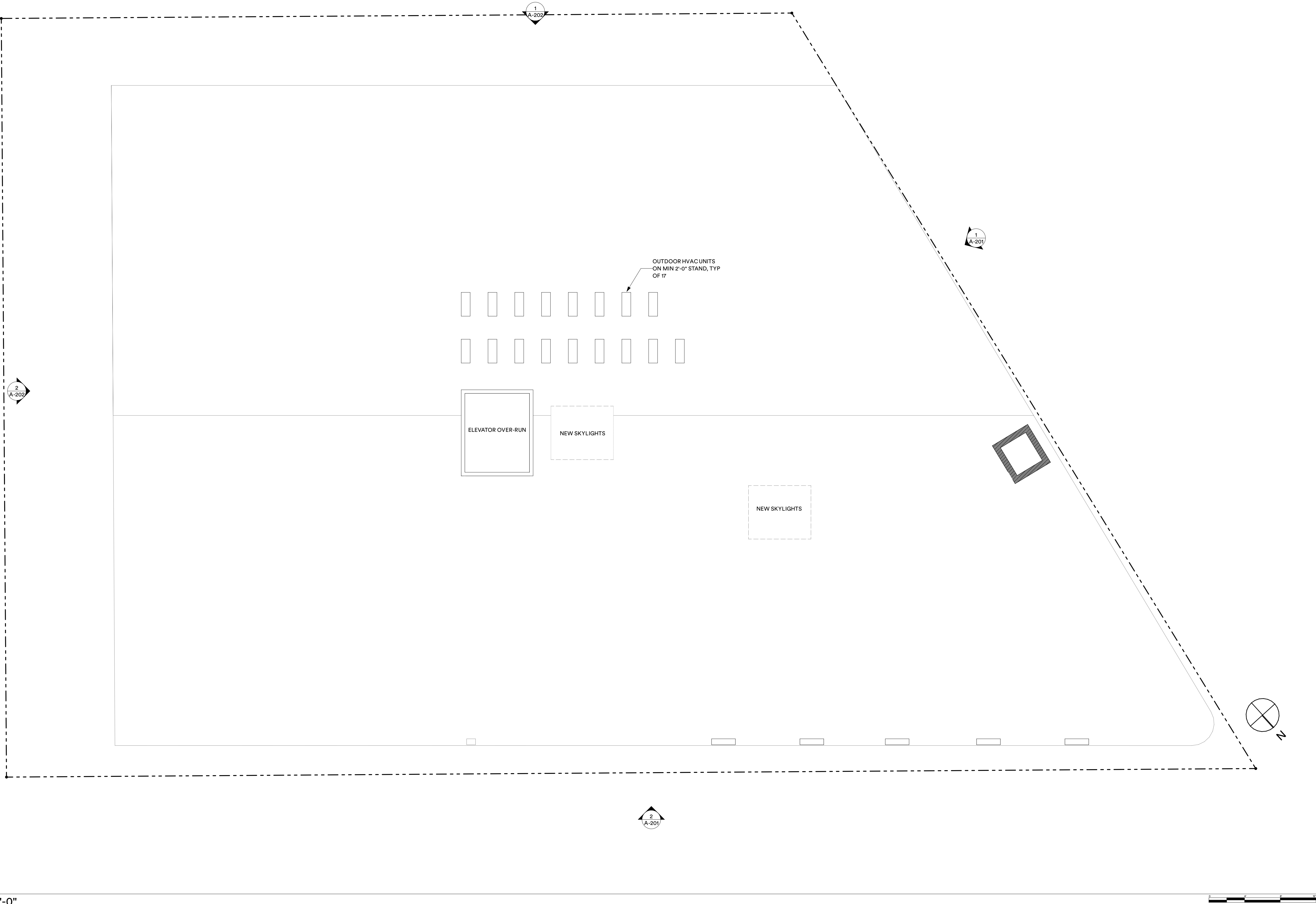
1 1ST FLOOR PLAN
SCALE:3/16" = 1'-0"





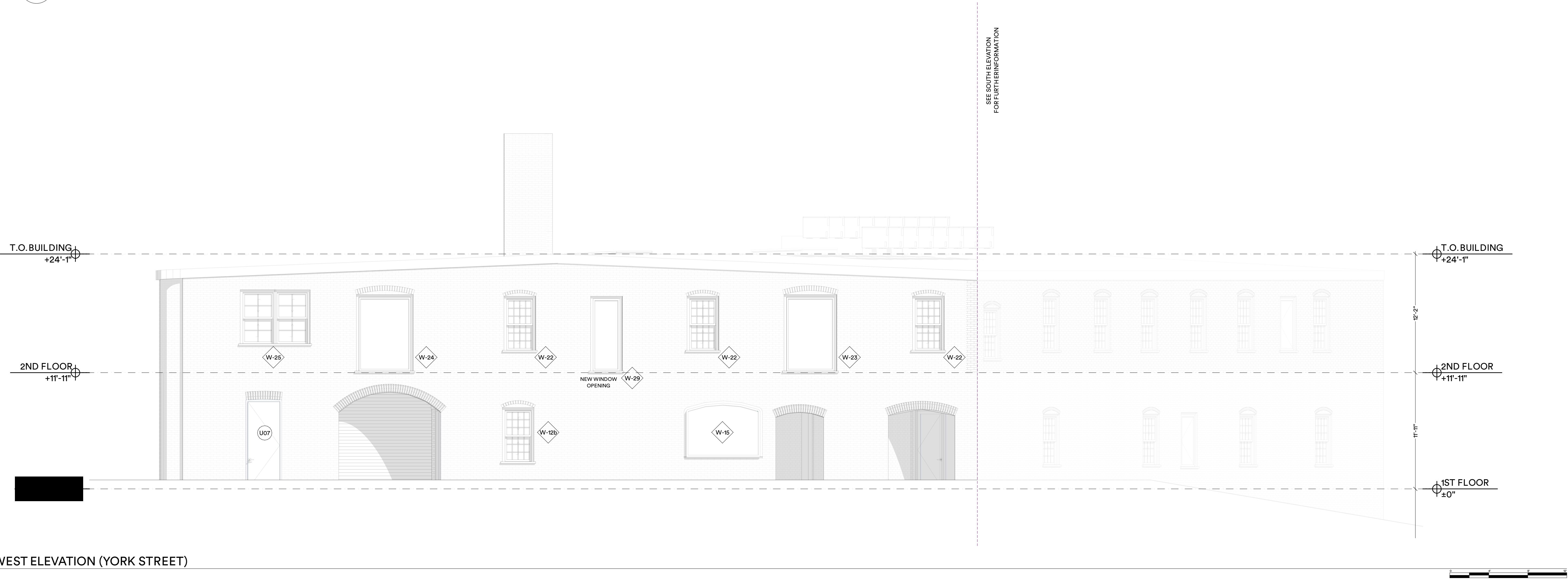
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ROOF PLAN
SCALE: 3/16" = 1'-0"

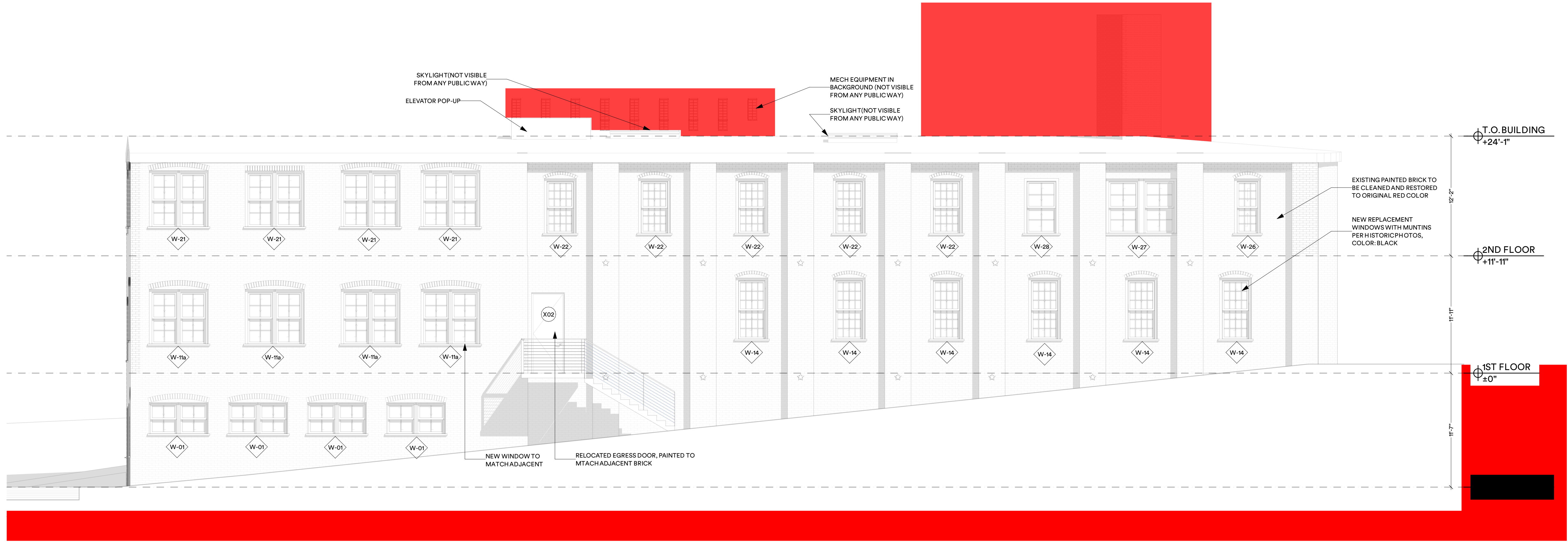


BIMcloud: bimserver25 - BIMcloud Basic for ARCHICAD25/Commercial Studio/54 York Street_Curret 20211020

1 WEST ELEVATION (YORK STREET)



2 NORTH ELEVATION (MAPLE STREET)

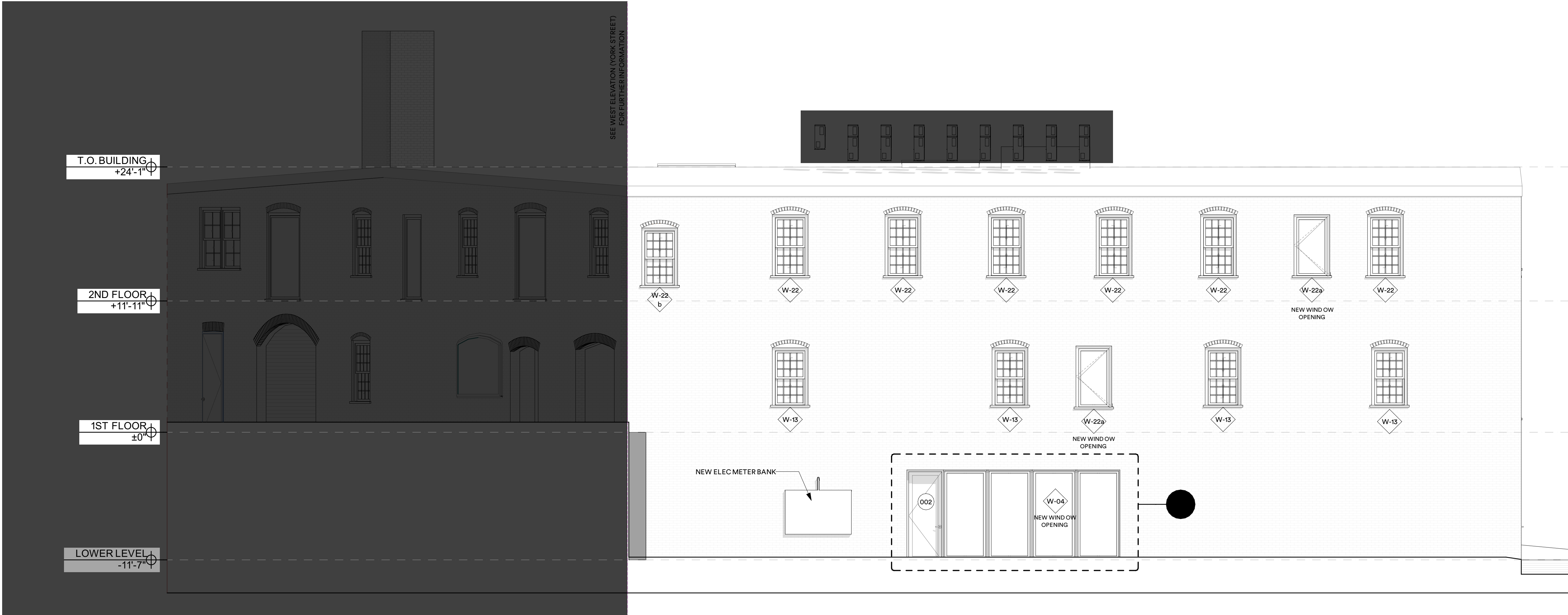


BIMcloud: bimserver25 - BIMcloud Basic for ARCHICAD25/Commercial Studio/54 York Street_Curret 20211020

2 EAST ELEVATION



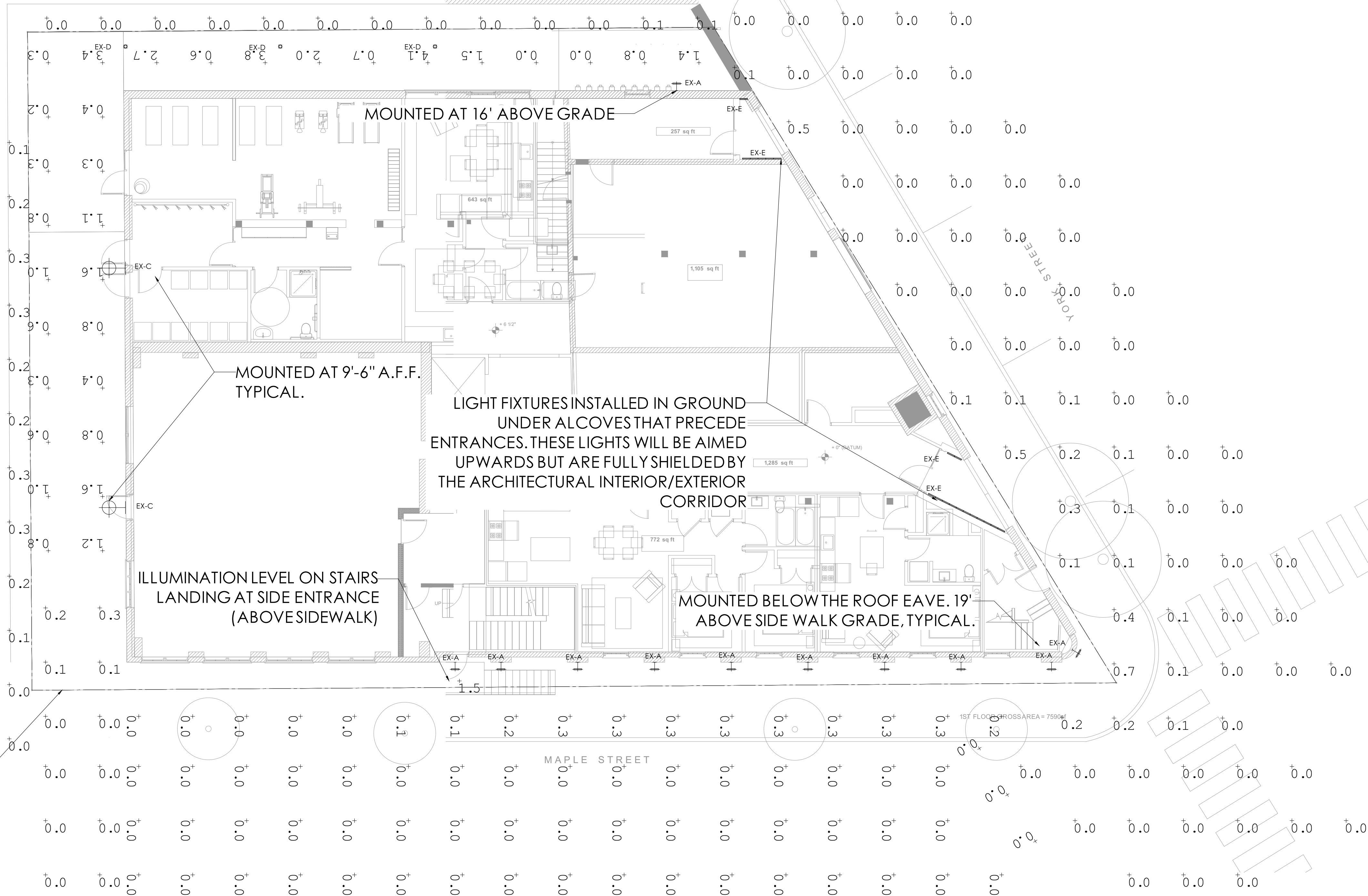
1 SOUTH ELEVATION



1 LIGHTING PLAN
Scale: 1/8"=1'-0"

PROPERTY LINE

Luminaire Schedule						
Qty	Label	Description	Tag	Luminaire Lumens	Luminaire Watts	Total Watts
18	LOG RO-100 277-12-27K-8x8-NO	Ingrade Uplight Graze	Type EX-E	450	8.5	153
11	L50-E12-4-27-90-MULT-9X9	Trov Graze Downlight	Type EX-A	367	4	44
3	LP corten 30K V01_B0065 louis	Flindt Bollard	Type EX-D	536	15	45
2	SOHO 57 38W 1	Marset Soho Sconce	Type EX-C	1051	16.23	32.46



EXTERIOR LUMINAIRE SCHEDULE										
TYPE	DESCRIPTION	MOUNTING	LAMP / LIGHT SOURCE			INPUT WATTS	DIMMING	VOLT	MANUFACTURER	CATALOG NUMBER
			QTY	TYPE	CCT					
EX-A	MET RATED LINEAR DOWNLIGHT GRAZER ARM MOUNTED 12" OFF OF FACADE OF BUILDING, NARROWEST GRAZE OPTICS, ASYMMETRIC LOUVER	WALL	1	LED	2700K	4W	ELV	120-277V	ECOSENSE	L50-E-12-4-27-90-MULT-9X9 WMA1-SINGLE WMA1-CA-12
EX-C	WALL MOUNTED GOOSENECK SCONCE, FINISH TBD	WALL	1	LED	2700K	36W	TRIAC/0-10V	120-277V	MARSET	SOHO A-[FINISH TBD]
EX-D	32.5" EXTERIOR BOLLARD WITH 180 DEGREE OPTICS, CORTEN FINISH, TO BE CONFIRMED PRIOR TO ORDERING, 0-10V DIMMING, MOUNTING TBD	BOLLARD	1	LED	3000K	15W	0-10V	120-277V	LOUIS POULSEN	FLINDT BOLLARD 10000139069 [REQUEST 2700K]
EX-E	INGRADE LINEAR GRAZER FOR USE AT YORK STREET ENTRANCES	INGRADE	1	LED	2700K	8.5W/FT	0-10V	120-277V	LUMENPULSE	LOG RO-100_277-12-27K-8x8-DIM
GENERAL NOTES:										
A. DIMMING SYSTEM NOT YET SELECTED AND DIMMING PROTOCOL COULD CHANGE BASED ON CONTROL EQUIPMENT SELECTIONS.										
SPECIFIC NOTES:										
(1) CONFIRM LENGTHS IN FIELD PRIOR TO ORDERING										
(2) ELECTRICIAN TO SIZE DRIVER PER CONTROL PLANS AND LENGTHS ORDERED. REMOTE DRIVER TO DIM TO 1%										
(3) FIXTURE TO BE AIMED ONCE FURNISHINGS ARE IN PLACE										
(4) ORDER WITH 25% SPARE NARROW OPTICS										
(5) ELECTRICIAN TO CONFIRM DIMMER COMPATABILITY										

LIGHT FIXTURE SYMBOLS

- DECORATIVE WALL SCONCE
- BOLLARD
- LINEAR WALL MOUNTED DOWNLIGHT
- INGRADE LINEAR UPLIGHT GRAZER

PRELIMINARY
NOT FOR CONSTRUCTION

TYPE EX-A

OVERVIEW • SPECIFICATIONS • ORDERING

INTERIOR • EXTERIOR | L50 GRAZE

DATE	PROJECT	FIRM	TYPE
------	---------	------	------

THE L50 INCLUDES PATENTED OPTICAL DESIGN THAT DELIVERS THE WIDEST RANGE OF BEAM ANGLE OPTIONS FOR PRECISE COVE, WALL GRAZING, WALL WASHING OR LINE OF LIGHT APPLICATIONS. EXCLUSIVE FLIP TO FLAT™ HINGE DESIGN PROVIDES FLEXIBILITY WHEN MANAGING SMALL COVE DETAILS. TROV OFFERS SMOOTH, FLICKER FREE DIMMING DOWN TO 0%.

FEATURES:

- DIM TO 0%, ELV REVERSE PHASE
- 24 BEAM ANGLES
- MULTI-VOLT
- FLIP TO FLAT™
- 6 CCT OPTIONS
- 80+ AND 90+ CRI OPTIONS
- IP54 INTERIOR AND IP66 EXTERIOR OPTIONS



MODEL/ SIZE	INTERIOR/ EXTERIOR	LENGTH	POWER	CCT	CRI	VOLTAGE	OPTICS
L50	I E	12" 48"	02 04 06 08 10 12	WHITE CCT 22 27 30 35 40 50	MONO COLOR GR+*** BL AM RD+***	80+ Blank For Color	MULT (120-277V)

EXAMPLE: L50-I-48-10-27-90-MULT-15x65 *90 CRI not available in 2200K or 5000K **120 is only available with Exterior option. See L35 spec sheet for interior cove options. ***Red is not available in 12W or 10W. ***Green is not available in 12W.

PERFORMANCE	WATTS	OPTIC	LUMEN OUTPUT	EFFICACY
2W	9" x 29"		158 lm/LF (519 lm/m)	79 lm/W
4W	9" x 29"		389 lm/LF (1277 lm/m)	97 lm/W
6W	9" x 29"		620 lm/LF (2035 lm/m)	103 lm/W
8W	9" x 29"		864 lm/LF (2833 lm/m)	108 lm/W
10W	9" x 29"		1048 lm/LF (3432 lm/m)	105 lm/W
12W	9" x 29"		1217 lm/LF (3990 lm/m)	101 lm/W

ALL LUMEN DATA IS FROM 4000K BOCI FIXTURES. PLEASE SEE PHOTOMETRY SPEC SHEET FOR ADDITIONAL LUMEN DATA.

COLOR RENDERING INDEX	80+, 90+
COLOR CONSISTENCY	>5 STEP MACADAM ELLIPSE
LUMEN DEPRECIATION / RATED LIFE	WATTS L70 @ 25C L70 @ 50C L90 @ 25C L90 @ 50C *CALCULATIONS FOR LED FIXTURES ARE BASED ON MEASUREMENTS THAT COMPLY WITH IES LM-80 TESTING PROCEDURES AND IES TM-21 CALCULATOR

* CALCULATIONS FOR LED FIXTURES ARE BASED ON MEASUREMENTS THAT COMPLY WITH IES LM-80 TESTING PROCEDURES AND IES TM-21 CALCULATOR

ELECTRICAL	POWER CONSUMPTION											
	2W/LF (0.6W/M) 4W/LF (1.2W/M) 6W/LF (1.8W/M) 8W/LF (2.4W/M) 10W/LF (3.0W/M) 12W/LF (3.6W/M)											
	MAX FIXTURE RUN LENGTH											
	2W/LF		4W/LF		6W/LF		8W/LF		10W/LF		12W/LF	
	Max Run ft	Max Run m	Max Run ft	Max Run m	Max Run ft	Max Run m	Max Run ft	Max Run m	Max Run ft	Max Run m	Max Run ft	Max Run m
Volt	100	254	214	196	186	152	174	154	144	91	91	76
	220	374	352	340	340	277	277	209	209	95	167	95
	277	374	494	374	428	340	349	263	263	95	190	95

NOTE: Information on this Spec Sheet is subject to change, please visit ecosesenlighting.com/downloads/rise for the most updated information.

ECOSENSE LIGHTING INC. 837 NORTH SPRING STREET SUITE 103 LOS ANGELES, CA 90012	P • 310.496.6255 F • 310.496.6256 T • 855.632.6756 855.6.ECSEN	SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE. VISIT ECOSENSELIGHTING.COM FOR THE MOST CURRENT SPECIFICATIONS. © 2019 ECOSENSE LIGHTING INC. ALL RIGHTS RESERVED. ECOSENSE, THE ECOSENSE LOGO, RISE, TROV, DIM TO 0% AND ECOSEN ARE FREEDOM TO CREATE™	1/3
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TYPE EX-A

OVERVIEW • SPECIFICATIONS • ORDERING

INTERIOR • EXTERIOR | L50 GRAZE

DATE	PROJECT	FIRM	TYPE
------	---------	------	------

CONTROL	DIMMING	110-277VAC, ELV TYPE 0.07%-100%, REVERSE PHASE, TRAILING EDGE ETC control systems require 0-10V control using EcoSense LDMC. TROV will not work with ETC phase dimmers.
PHYSICAL	DIMENSIONS	W1.6" x H 2" x L 12"/48" : (41.6mm x 50.8mm x 304.7mm/1201mm)
	HOUSING / LENS	EXTRUDED ALUMINUM, UV STABILIZED POLYCARBONATE, STAINLESS STEEL FASTENERS, PLASTIC END CAPS RUBBER OVERMOLD FOR CABLE ASSEMBLY
	WEIGHT	1.5LBS / 0.68KG (IFT), 4.0LBS / 2.2KG (GFT)
	CONNECTORS	INTEGRAL MALE / FEMALE CONNECTORS
	ENVIRONMENT	INDOOR + ETL CERTIFIED FOR DRY/DAMP LOCATIONS IP54 OUTDOOR + ETL CERTIFIED FOR WET LOCATIONS IP66 IMPACT RATED TO IK10 Not intended to be used in water features such as waterfalls, fountains, etc.
	BEAM ANGLE	GRAZING, WASHING, COVE, ASYMMETRIC, LINE OF LIGHT
	MOUNTING OPTIONS	INTEGRAL MOUNTING AND ADJUSTABLE AIMING FROM 0°-180° IN 15° INCREMENTS

FIXTURE RATING & CERTIFICATIONS	CE, ETL CERTIFIED RoHS COMPLIANT ENERGY STAR COMPLIANT RCM CERTIFIED	CE UL RoHS ENERGY STAR RCM	Title 24 JAB-2016 *90 CRI models only
---------------------------------	---	--	---

LIMITED WARRANTY 5 YEARS

WIRING OPTIONS (MVOLTS): 110-277VAC	
Power Cable Assembly, TROV, Leader/Jumper, 10 foot.....	CBL-3P-L-UNV-10"
Power Cable Assembly, TROV, Leader/Jumper, 50 foot.....	CBL-3P-L-UNV-50"
Power Cable Assembly, TROV, Jumper, 5 foot.....	CBL-3P-L-UNV-05"
Power Cable Assembly, TROV, Jumper, 1 foot.....	CBL-3P-L-UNV-01"
Power Cable Assembly, TROV, Adjustable Jumper, 0" to 7".....	CBL-3P-L-UNV-ADJ
Power Cable Assembly, TROV, Male and Female terminator caps.....	CBL-3P-L-UNV-CAPS

*Two (2) terminators are included with the 10' and 50' power cable. One Leader need per circuit/fixture run. Cables are not plenum rated.

** If using the 5' or 1' power cable assembly as a leader to power a run one set of CBL-3P-L-UNV-CAPS will also be need per cable.

0-10V CONTROL OPTIONS
100-120VAC / 277VAC Linear Dimming Control Module 0-10V + Plenum Rated LDCM-PL-120-277-010V-GR
All products come standard with ELV dimming capabilities. 0-10V Control options required for operation at 0-10V.

OPTIONAL ACCESSORIES

Mounting
Mounting Track and Clips Set, 48 Inch Track, 8 Clips MNT-L-TRKCLIP-48 48" track and clips set will work with one 48" fixture or four 12" fixtures.
(FOR INTERIOR USE ONLY)
Mounting Track and Clips Set, 12 Inch Track, 2 Clips MNT-L-TRKCLIP-12 12" track will not work with 48" fixtures. (FOR INTERIOR USE ONLY)
Mounting Track Clip, TROV, Set of 2 MNT-L-CLIP Clips needed = 12" fixtures need 1 set of 2 and 48" fixtures need 2 sets of 2.
90 Degree L bracket, TROV, Set of 2 MNT-L-LBKT L-Brackets needed = 12" fixtures need 1 set of 2 and 48" fixtures need 1 set of 2.
Angle Locking Clip, TROV, Pack of 10 MNT-L-ANGLOCK Angle Locks needed = 12" fixtures need 1 and 48" fixtures need 2.
(Must order separately)
Mounting, Fine Adjustment Bracket, TROV MNT-L-FAB Fine Adjustment Brackets needed = 12" fixtures need 1 and 48" fixtures need 2.
Mounting, Fine Adjustment L-Bracket, TROV MNT-L-LFAB Fine Adjustment L-Brackets needed = 12" fixtures need 1 and 48" fixtures need 2.
*Fine Adjustment L-Bracket is recommended for Asymmetric Optics when aiming is needed.

Snap-on Lenses

Snap-on Lens, Frosted, 12 inch, L50 LENS-L50-FROST-12
Snap-on Lens, Frosted, 48 inch, L50 LENS-L50-FROST-48
Snap-on Lens, Clear, 12 inch, L50 LENS-L50-CLEAR-12
Snap-on Lens, Clear, 48 inch, L50 LENS-L50-CLEAR-48

Wall Mount Arm

Wall Mount Arm, 6 inch, TROV WMA-L-CA-06
Wall Mount Arm, 12 inch, TROV WMA-L-CA-12
Wall Mount Arm, 18 inch, TROV WMA-L-CA-18
Wall Mount Arm, 24 inch, TROV WMA-L-CA-24
Wall Mount Arm End Plate Set, TROV, Includes Left and Right WMA-L-END
Wall Mount Arm Joiner Plate, TROV WMA-L-JNR

Louvers

Louver, Asymmetric, 12 inch, L50 LV-L50-ASYM-12
Louvers, Asymmetric, 48 inch, L50 LV-L50-ASYM-48
Louvers, Symmetric, 12 inch, L50 LV-L50-SYM-12
Louvers, Symmetric, 48 inch, L50 LV-L50-SYM-48
Louvers, Honeycomb, 12 inch, L50 LV-L50-HCOMB-12
Louvers, Honeycomb, 48 inch, L50 LV-L50-HCOMB-48

ECOSENSE LIGHTING INC. 837 NORTH SPRING STREET SUITE 103 LOS ANGELES, CA 90012	P • 310.496.6255 F • 310.496.6256 T • 855.632.6756 855.6.ECSEN	SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE. VISIT ECOSENSELIGHTING.COM FOR THE MOST CURRENT SPECIFICATIONS. © 2019 ECOSENSE LIGHTING INC. ALL RIGHTS RESERVED. ECOSENSE, THE ECOSENSE LOGO, RISE, TROV, DIM TO 0% AND ECOSEN ARE FREEDOM TO CREATE™	2/3
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TYPE EX-A
ECOSENSE

OVERVIEW • SPECIFICATIONS

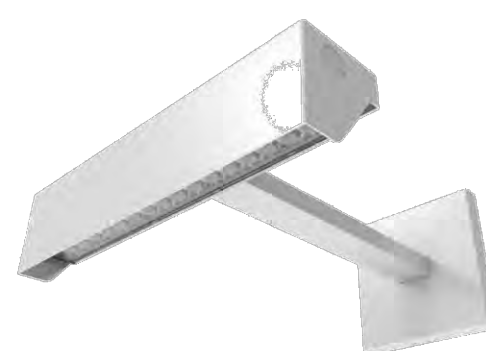
ACCESSORIES | SINGLE WALL MOUNT ARM

DATE	PROJECT	FIRM	TYPE
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TROV SINGLE MOUNTING PLATES ARE USED TO HOLD ONE 12" FIXTURE WITH ONE ARM. THEY ARE IDEAL FOR INDIVIDUALLY MOUNTING 12" FIXTURES OR FOR JOINING 12" FIXTURES ALONG A CURVED WALL. THEY ALLOW FOR INDIVIDUAL POWER CONNECTIONS TO A JUNCTION BOX FOR EACH FIXTURE. A PASS THROUGH HOLE CAN BE DRILLED IN THE SIDE FOR CONTINUOUS POWER CONNECTIONS.

FEATURES:

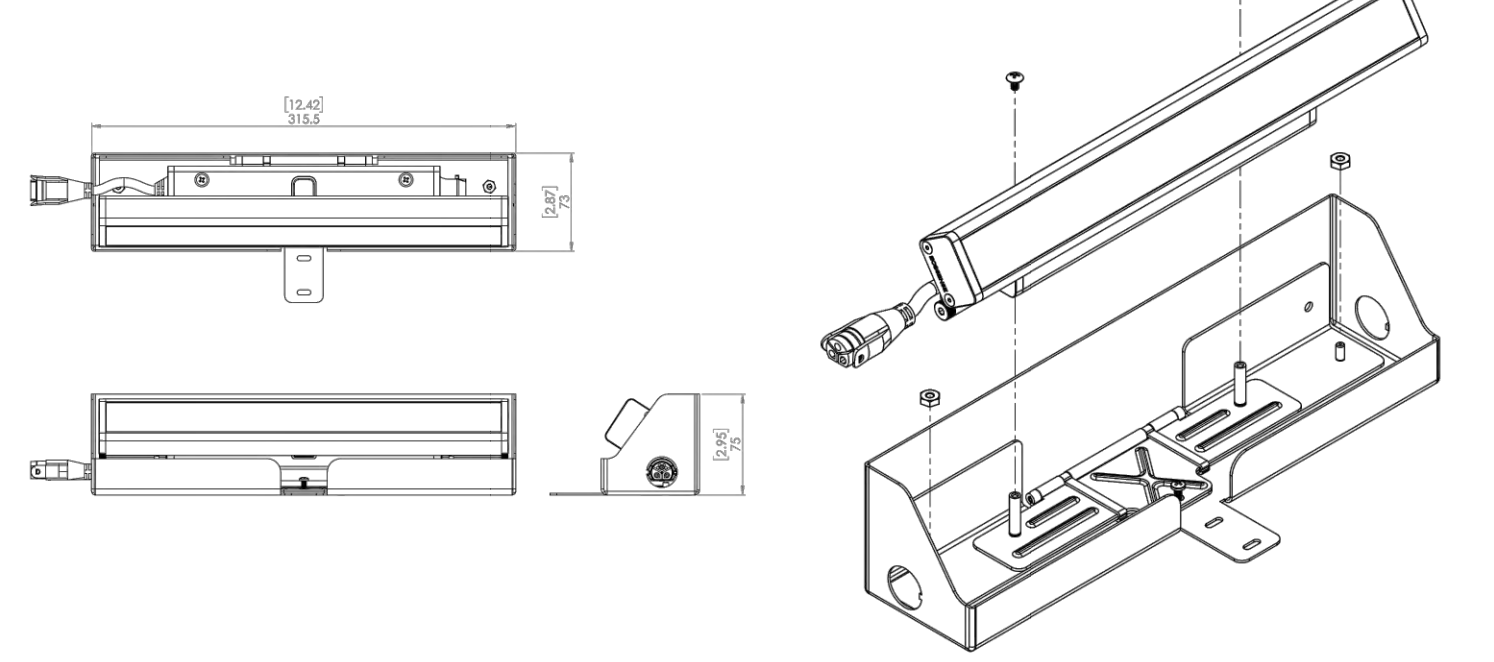
- COMPATIBLE WITH L35 AND L50 SERIES FIXTURES
- AVAILABLE IN 6", 12", 18" AND 24" LENGTHS
- MOUNTS TO ALL COMMON JUNCTION BOXES
- NO VISIBLE MOUNTING HARDWARE OR LEADER CABLE



PHYSICAL	DIMENSIONS MATERIAL	W 12.42" x H 2.87" x L 2.95" (315.5mm x 73mm x 75mm) ARMS AND CANOPY: PAINTED SILVER
----------	---------------------	---

SINGLE WALL MOUNT ARM FOR L35 AND L50

For continuous end-to-end row mounting, order one jumper cable, CBL-3P-L-UNV-01, per connection.



ORDERING

PART NUMBER	DESCRIPTION
WMA-L-CA-06	6 INCH WALL MOUNT ARM
WMA-L-CA-12	12 INCH WALL MOUNT ARM
WMA-L-CA-18	18 INCH WALL MOUNT ARM
WMA-L-CA-24	24 INCH WALL MOUNT ARM
WMA-L-SINGLE*	WALL MOUNT ARM SINGLE PLATE

*ONE MNT-L-FAB IS REQUIRED PER SINGLE PLATE AND IS INCLUDED WITH IT.

LIMITED WARRANTY 5 YEARS			
ECOSENSE LIGHTING INC. 837 NORTH SPRING STREET SUITE 103 LOS ANGELES, CA 90012	- P • 310.496.6255 - F • 310.496.6256 - T • 855.632.6756 855.6.ECSEN	SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE. VISIT ECOSENSELIGHTING.COM FOR THE MOST CURRENT SPECIFICATIONS. © 2019 ECOSENSE LIGHTING INC. ALL RIGHTS RESERVED. ECOSENSE, THE ECOSENSE LOGO, RISE, TROV, DIM TO 0% AND ECOSENSE ARE REGISTERED TRADEMARKS OF ECOSENSE LIGHTING INC. FREEDOM TO CREATE™	ECOSENSELIGHTING.COM 1/1

TYPE EX-C

Soho Joan Gaspar

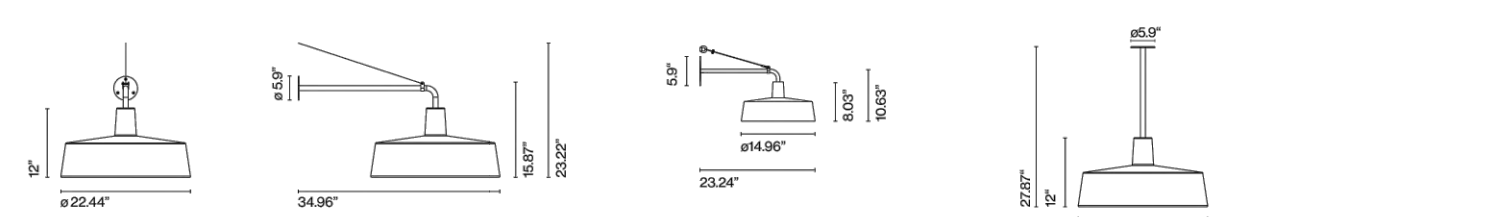
marset



Soho A

Soho 38 A LED

Soho C Fixed Stem



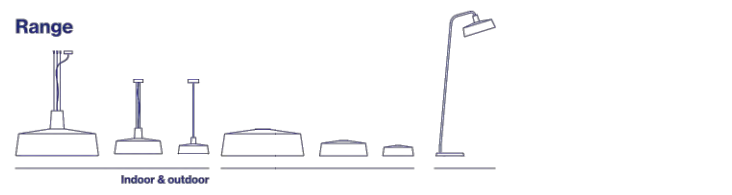
The striking, industrial shapes in the Soho collection are reminiscent of the lamps that were traditionally used in markets and taverns, but they contrast through the use of thoroughly contemporary materials and textures.

Soho A / Soho C Fixed Stem
LED SMD 30W 700mA
2700°K CR80
Source lumens 2086lm (included)
* 3000K on request
Dual dimming driver: Triac (120V only) or 0-10V (120-277V)

Soho 38 A
LED SMD 16W 700mA 2700°K CR80
Source lumens 1050lm (included)
Triac phase control dimmer 0-10V (0-135V)

Black electrical cord.

Download Assembly Instructions
Download Photometric Data
Download 2D
Download 3D



WARNING: California Proposition 65 Warning for California Consumers. This product can expose you to chemicals including wood dust and lead which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

marsetusa@marset.com
www.marset.com

TYPE EX-D

Flindt Bollard

1/3

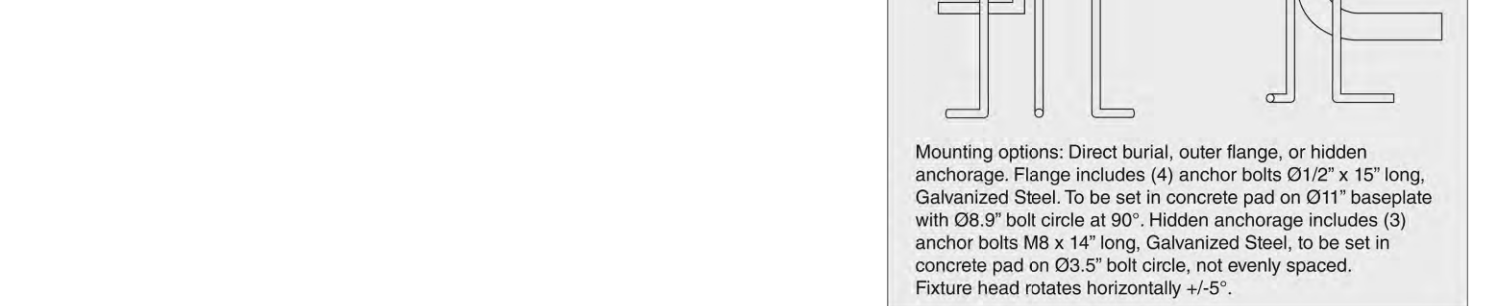
Project name:	
Project type:	
Notes:	

Design

Christian Flindt

Product description

Beautifully crafted slender post with a curved surface that is gently illuminated. Top section conceals downward facing LEDs that are positioned for wide distribution. Two horizontal connection lines underline the three paths of the bollard. A facet increases the visibility of the connection lines. Available in two heights, 43.3 IN and 31.5 IN. Available in three different mounting methods: with an 11 inch base plate and visible anchor bolts, with internally hidden anchor bolts, or direct burial in soil or gravel. Part of a family.



Variant options

Dimension	Color	Mounting	Light source	Lumen	Voltage frequency
31.5 IN	• Corten color	POST W/ANCHORAGE UNIT	15W LED3000K	506	120-277V/60-62
43.3 IN	• Natural paint aluminum	POST W/BASE PLATE	15W LED3000K	548	
		POST W/DIRECT BURIAL		578	
				591	

Specification notes

a. Direct burial mounting only available with 43.3" size.

louis
poulsen

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louispoulsen.com

TYPE EX-D

2/3

Flindt Bollard

Light description

The luminaire provides a non-glaring wide characteristic asymmetrical and functional illumination. The design of the cut-out creates a reflector part which is gradually illuminated to emphasize the depth in the luminaire. The cut-out reflector and precise location of the LED's provides an wing-shaped light pattern on the ground. A white highly reflective material around the LED's ensure a wide distribution of light and high efficacy. The cut-out reflector part can be adjusted ± 15° after installation to fine tune alignment of several luminaires and light distribution. Standard CCT in 3000K or 4000K, controlled by electronic dimmable drive.

Mounting

Top section housing holds driver and LED's connected with quick-disconnect plug for easy servicing. Terminal block is located in the reflector section. This wiring approved. Supplied with IP68 (water-tight) glands to seal mid-section for pass thru wiring. Mounted to a concrete base with (4) anchor bolts on a ball circle of 6.5 inches.

Information

Electrical:
System Voltage: 150V
LED Wattage: 15W
Delivered lumens: 530-591 lm
Efficiency: 50.7-58.4 lm/W
Certification:
cULus, Wet Location
Protection class: IP65
IK class: IK0
SLO Rating: SLO-L2-G1
Controllability: 0-10V Dimming
Min. Max. Ambient Temp: -40°C to +70°C
Color Rendering: Ra100

Other functions

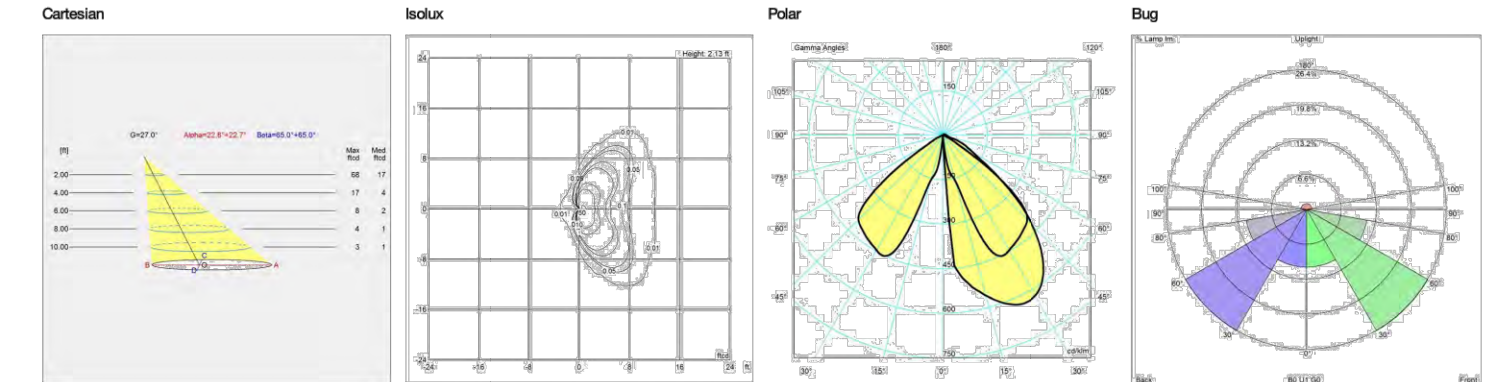
Alternative mounting options include an 11" base plate, a hidden anchor base or for direct burial. LED is 2700K or 3000K. Anchor LED available for sea lante resting areas. Custom finishes. Custom pole heights. Alternative dimming controls, including wireless systems.

Voltage

120-277V/60-62

Light distribution diagrams

For the full data set on all variants, see louispoulsen.com.

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54 YORK STREET RESIDENCES
54 YORK STREET PORTLAND ME 04101
JAY HIBBARD
SJS PROJECT LEAD:
DATE OF ISSUE:
12/29/2021
PROJECT STATUS:
DESIGN DEVELOPMENT

SITE LIGHTING PLAN
CUTSHEETS PAGE 1
SLP-02

PRELIMINARY
NOT FOR CONSTRUCTION

PRELIMINARY
NOT FOR CONSTRUCTION

TYPE EX-E

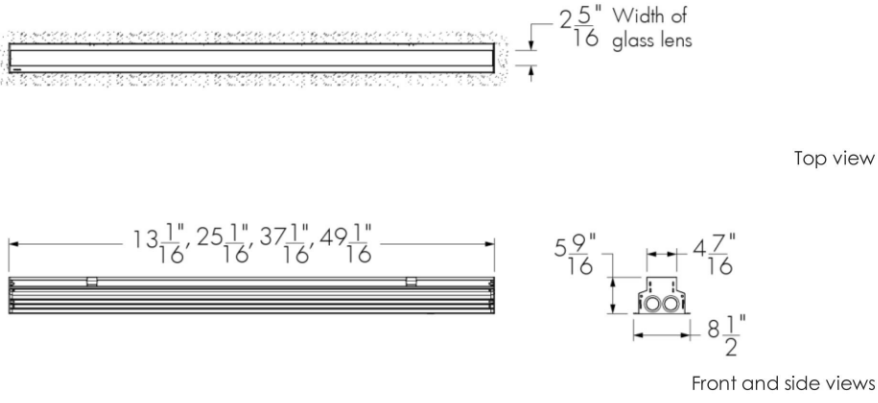
lumenfacade
Inground
LOI

WHITE AND STATIC COLORS

Project Name _____ Gly

Type _____ Catalog / Part Number _____





Top view

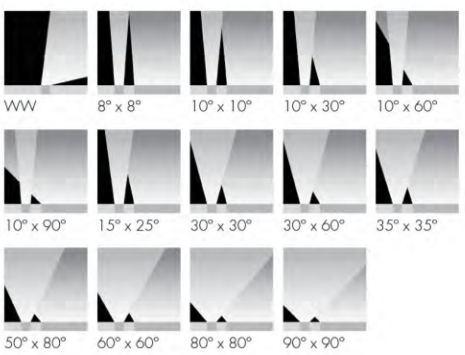
Front and side views

Photometric Summary

	Delivered output (lm)	Intensity (peak cd)
WW	3634	10,795
8"x8"	4512	59,238
10"x10"	4410	33,872
10"x30"	4586	25,296
10"x60"	3876	12,062
10"x90"	4077	6927
15"x25"	4346	19,773
30"x30"	4730	16,886
30"x60"	4035	5317
35"x35"	4612	11,616
50"x80"	4656	3904
60"x60"	3868	3368
80"x80"	4548	2992
90"x90"	4070	2132

Based on 40K full output, 4ft [1219mm] DMX/RDM configuration, 2.3° factory set tilt setting for VVV optic, 0° tilt setting for all other optics. Photometric performance is measured in compliance with ESN-NA (M-79) OR.

Optics



Description

The Lumenfacade Inground is an LED luminaire designed for ground-recessed lighting applications, including asymmetric wall washing, grating, and linear wayfinding. An innovative, plug and play design simplifies installation, protecting the system from water infiltration and ensuring long-lasting performance. Featuring second generation LED technology, the Lumenfacade Inground is available in four different sizes (12 in, 24 in, 36 in or 48 in), with a wide choice of outputs, color temperatures, color-mixing systems, optics and controls. A unique asymmetric wallwash distribution is also available, providing exceptional uniformity and brightness for walls and signage.

Features

Construction

Walk over compliant up to 500 kg in any type of ground. Walk over compliant up to 1000 kg in concrete

Color and Color Temperature

2200K, 2700K, 3000K, 3500K, 4000K, Red, Green, Blue

Length (nominal)

12 in, 24 in, 36 in, 48 in

Optics

Asymmetric wallwash, 8" x 8", 10" x 10", 10" x 30", 10" x 60", 10" x 90", 15" x 25", 30" x 30", 30" x 60", 35" x 35", 50" x 80", 60" x 60", 80" x 80", 90" x 90"

Tilt Setting (factory set)

0 degrees, 2.5 degrees, 5 degrees, 20 degrees

Optical Option

Internal louver

Options

Anti-slip lens, CE (certification covers European Economic Area)

Power Consumption

5 W/ft (meets ASHRAE standards for linear lighting on building facades - not available for 12 in fixture lengths), 8.5 W/ft (RO version), 15.25 W/ft (HO version), typically 20% higher for 12 in fixture lengths

Warranty

5-year limited warranty

Performance

Maximum Delivered Output

4,730 lm (48 in fixture, 4000K, 30° x 30°, 0° tilt setting, DMX/RDM)

lumenpulse™

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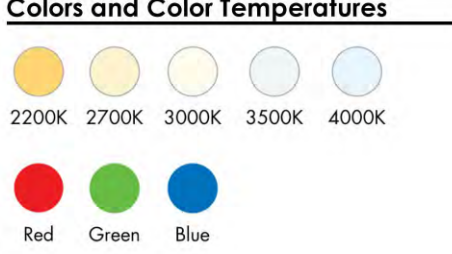
1 / 10
SA - R22

TYPE EX-E

lumenfacade
Inground
LOI

WHITE AND STATIC COLORS

Colors and Color Temperatures



Controls

ON/OFF 0-10V DALI



Ratings

IP68 IK10

Certifications



Maximum Delivered Intensity

59,238 cd at nadir (48 in fixture, 4000K, 8" x 8", 0° tilt setting, DMX/RDM)

Illuminance at Distance

Minimum 1 fc at 243 ft (48 in fixture, 4000K, 8" x 8", 0° tilt setting, DMX/RDM)

Color Consistency

2 SDCM, 3 SDCM (2200K)

Color Rendering

Minimum CRI 80

Lumen Maintenance

L70 280,000 hrs, L95 35,000 hrs

Physical

Optical Chamber Material

Aluminum

Blockout Material

Polymer recycled PVC reinforced with a stainless steel frame

Trim Material

Anodized aluminum

Lens Material

Tempered glass

End Cap Material

Die cast aluminum

Hardware Material

Stainless steel

Weight

12 in: 7.5 lbs, 24 in: 15.3 lbs, 36 in: 21.4 lbs, 48 in: 27 lbs

Electrical and control

Voltage

120 to 277 volts

Fixture Cable

Power and data in one cable

Leader Cable Conductor

5C #16-5

Connectors

IP68 push-lock

Control

On/Off control, Lumentak, 0-10V dimming, DALI dimming, Lutron® EcoSystem® Enabled dimming, DMX/RDM enabled

Resolution (DMX/RDM)

Per foot or per fixture (configured with LumenID V3 software), 8-bit or 16-bit

Environmental

Storage Temperature

-40 °F to 185 °F (device must reach start-up temperature value before operating)

Start-up Temperature

-13 °F to 122 °F

Operating Temperature

-40 °F to 122 °F

Ingress Protection Rating

IP68 rated for up to 1 ft, not suitable for permanent immersion applications

Impact Resistance Rating

IK10

Accessories (order separately)

Cables

Lumenfacade Inground Leader Cable, Lumenfacade Inground Jumper Cable

Electrical Accessories

Lumenfacade Inground Junction Box

Control Boxes

DMX/RDM enabled (daisy chain or star configuration), Ethernet enabled (daisy chain or star configuration)

Control Systems

Lumentone™ 2, Pharos® kit

Diagnostic and Addressing Tools

LumenID, LumentalkID

lumenpulse™

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www.lumenpulse.com

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SA - R22

TYPE EX-E

lumenfacade
Inground
LOI

WHITE AND STATIC COLORS

How to order

Housing ^{(1) (H)}	Voltage	Length	Color and Color Temperature ^(H)	Optics	Tilt Setting ^{(1) (H)}	Optical Option	Control	Options
LOI ASHRAE Lumenfacade™ Inground, 5 W/ft ASHRAE compliant ^(H)	120/277 120-277 volts	12 13 1/16 in (73.3 kg) ^(H)	22K 2200K	WW Asymmetric Wallwash ^(H)	150 0 degrees	INTL Internal louvers ^{(1) (H)}	NO On/Off control	ASL Anti-slip lens
LOI RO Lumenfacade™ Inground, Regular Output, 8.5 W/ft		24 25 1/16 in (15.3 lbs)	27K 2700K	8x8 8" x 8" ^{(1) (H)}	112.5 2.5 degrees		LT Lumentak ^{(1) (H)}	CE Certification covers European Economic Area ^{(1) (H)}
LOI HO Lumenfacade™ Inground, High Output, 15.25 W/ft		36 37 1/16 in (21.4 lbs)	30K 3000K	10x10 10" x 10" ^{(1) (H)}	115 5 degrees		DIM 0-10V dimming	
		48 49 1/16 in (27 lbs)	35K 3500K	10x20 10" x 20" ^{(1) (H)}	130 20 degrees		DALI DALI dimming	
			40K 4000K	10x30 10" x 30" ^{(1) (H)}			E5 Lutron® EcoSystem® Enabled dimming	
			80 Red ^(H)	10x90 10" x 90" ^{(1) (H)}			DMX/RDM DMX/RDM enabled ^{(1) (H)}	
			GR Green ^(H)	11x25 11" x 25" ^{(1) (H)}				
			BL Blue ^(H)	30x30 30" x 30" ^{(1) (H)}				
				30x60 30" x 60" ^{(1) (H)}				
				35x35 35" x 35" ^{(1) (H)}				
				50x80 50" x 80" ^{(1) (H)}				
				60x60 60" x 60" ^{(1) (H)}				
				80x80 80" x 80" ^{(1) (H)}				
				90x90 90" x 90" ^{(1) (H)}				

Notes:

1. Lumenfacade Inground fixture includes one optical chamber (LOC), one power and control box (PACBOX) and one recessed blockout (RBO). The LOC, PACBOX and RBO are provided according to the output/color, length and control configuration.

2. ASHRAE version not available for 12 in fixture lengths.

3. Consult the installation instructions to general aspects of the fixture installation.

4. Power consumption is typically 20% higher for 12 in fixture lengths.

5. Consult factory for availability of static Recycled Blue, 400K and 15° CR.

6. Static colors made to order 8-12 weeks.

7. All, black, black, black, black, black and new distributors come with a half-trailered lens to bring light low on the wall for group applications. Clear lens also available, consult factory.

8. For best results use with HO fixtures at a 6 in setback from surface. Consult factory for application support.

9. Do not specify a tilt setting for the asymmetric wallwash option. The asymmetric wallwash optic is factory set with a 2.5 degree tilt.

10. If setting a factory set and cannot be adjusted in the field.

11. The addition of an internal louver will affect beam distribution. Consult factory for application support.

12. A Lumentone 2 3.3.2 and Lumentak 3.3.1 must be specified for Lumentak applications. Consult Lumentone 2 and Lumentak pages and specification sheets for details.

13. A control box (CB) and Lumentak 3.3.1 must be specified.

14. Consult European specification sheet and installation instructions for CE rating information.

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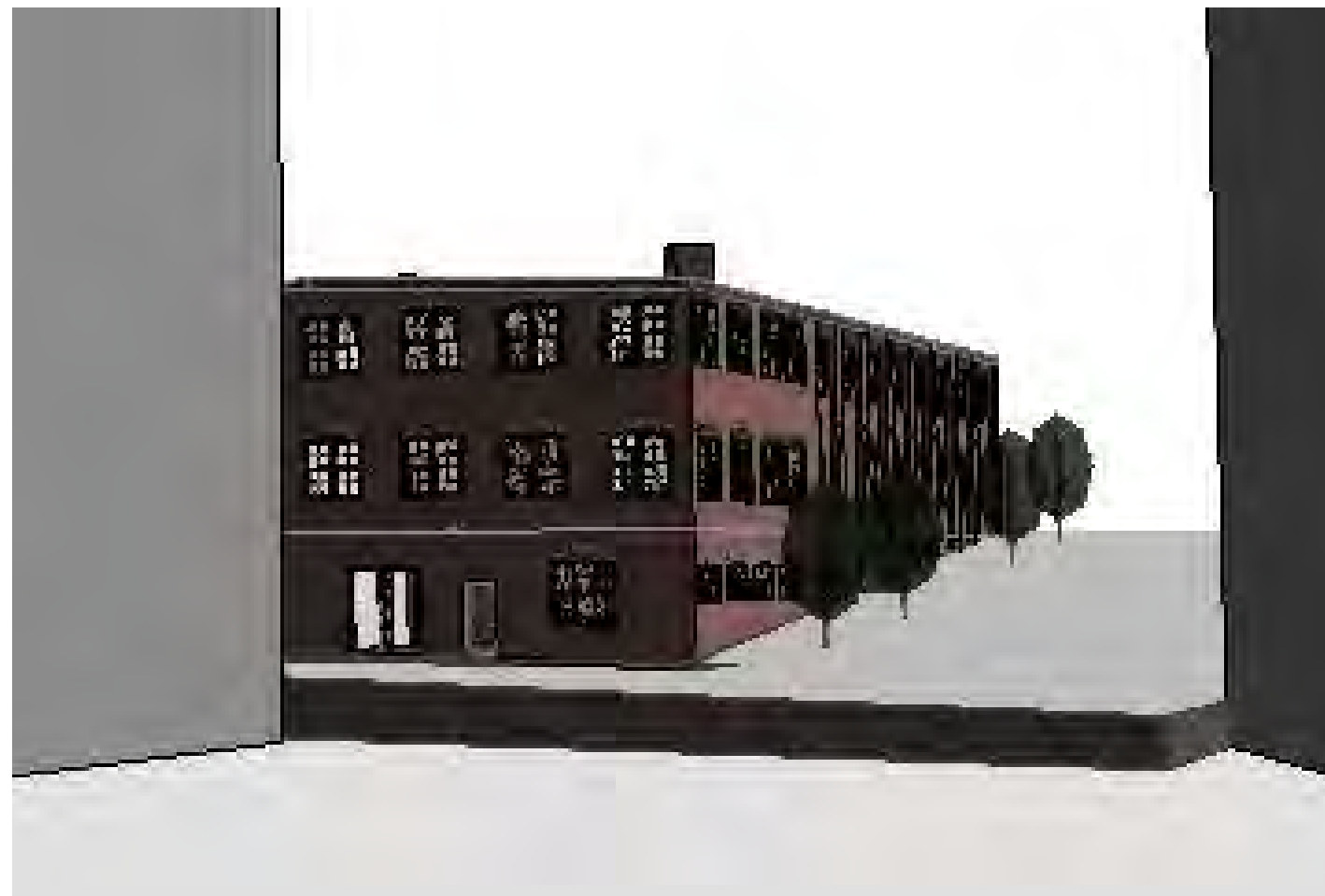
VIEW SW FROM COMMERCIAL STREET



VIEW S FROM MAPLE STREET



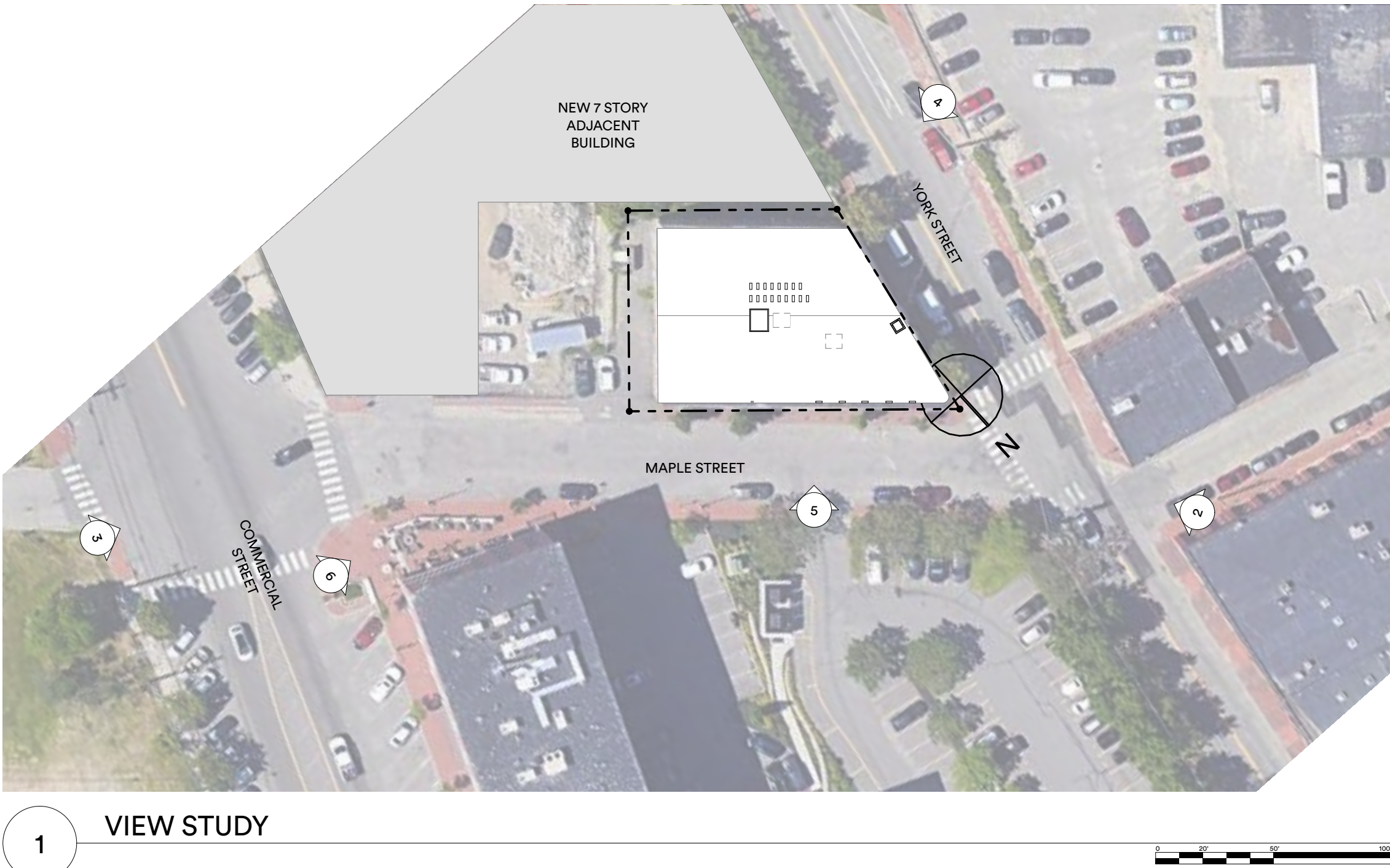
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VIEW W FROM COMMERCIAL STREET



VIEW SE FROM YORK STREET



1 VIEW STUDY

ISSUE NUMBER	DATE	DESCRIPTION
1		

CHANGES THIS ISSUE:	
ID	DESCRIPTION



SIDE BY SIDE COMPARISON



CLEANED BRICK FACADE

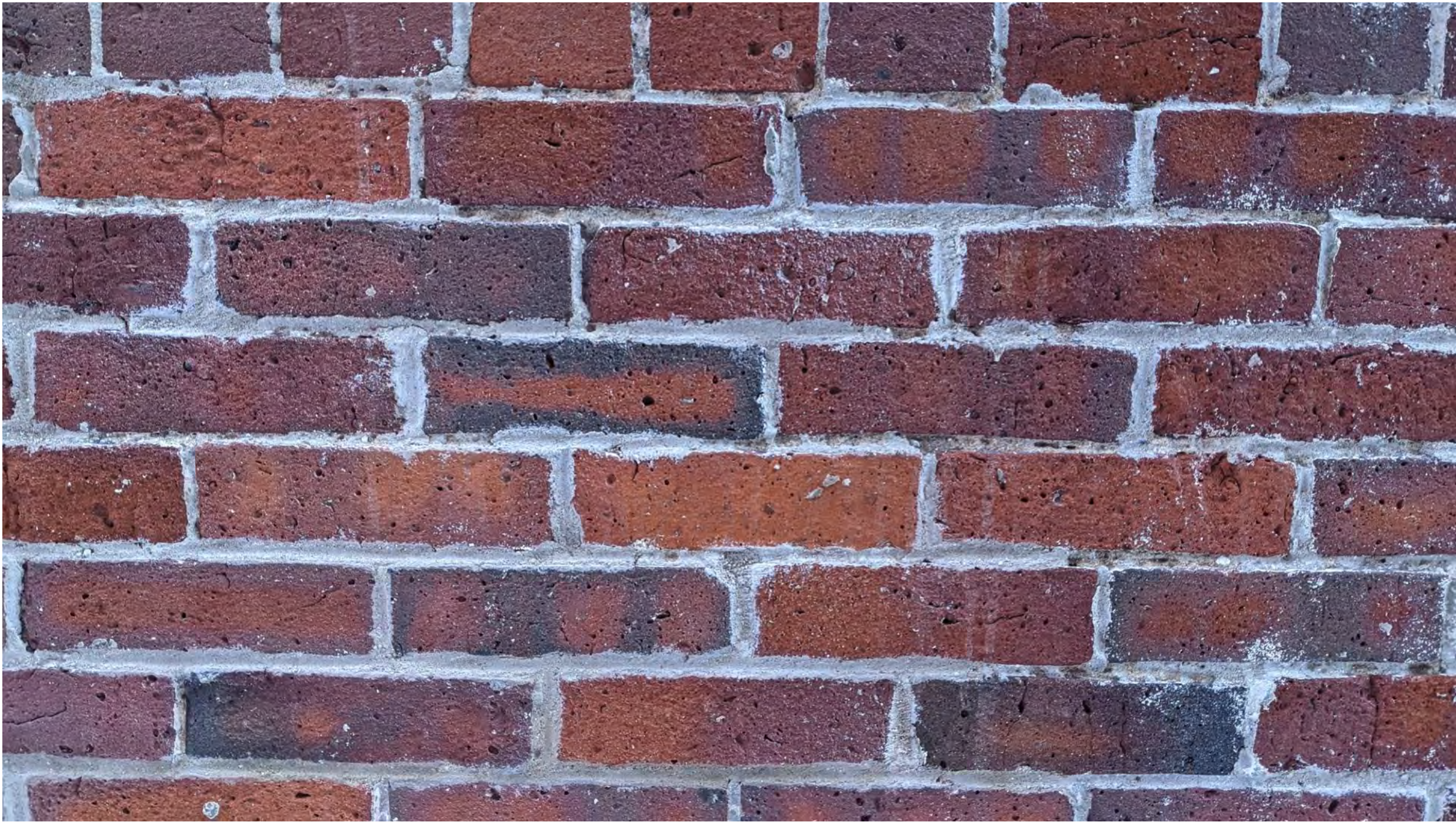


PORTION TO BE CLEANED



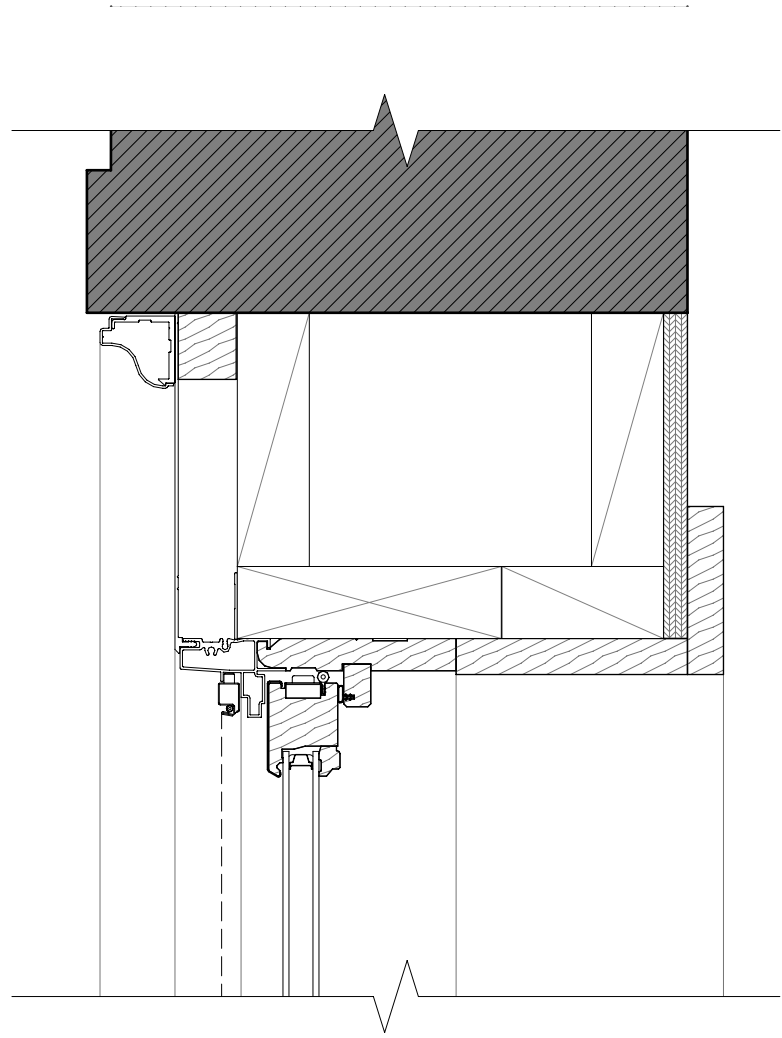
PAINTED BRICK DETAIL

THESE PHOTOS WERE
TAKEN ON 2/1/2020

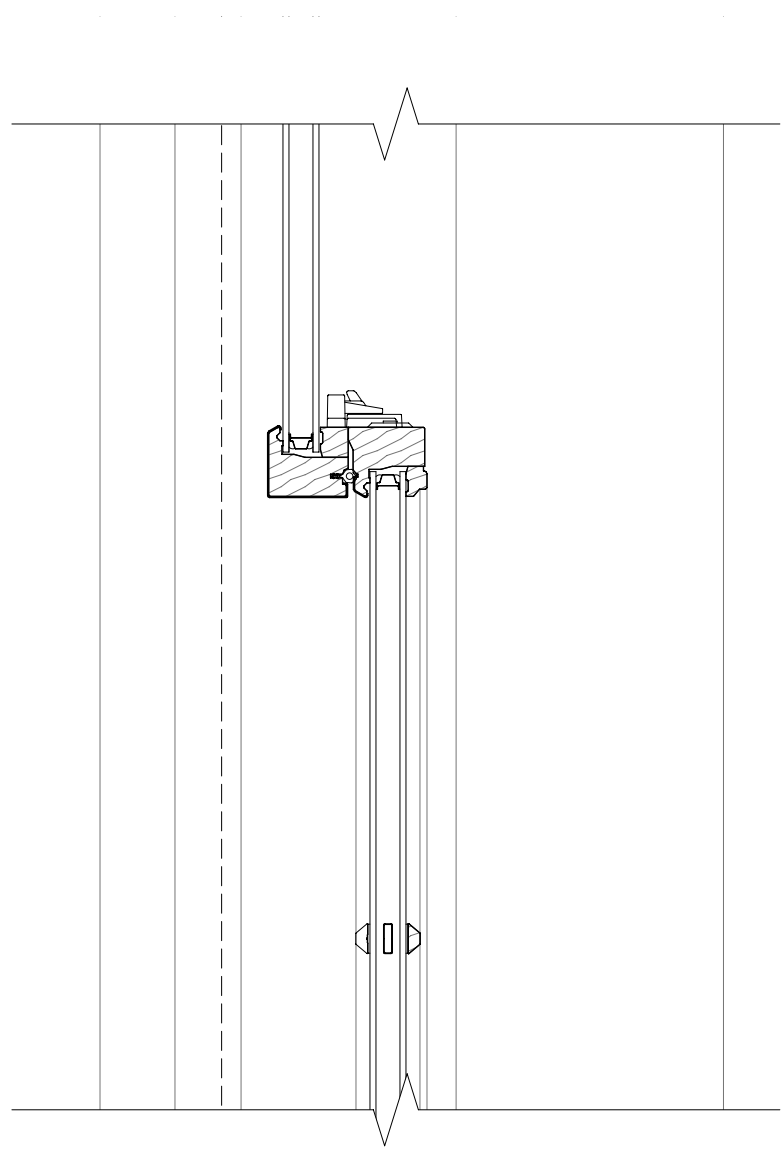


DETAIL OF CLEANED BRICK

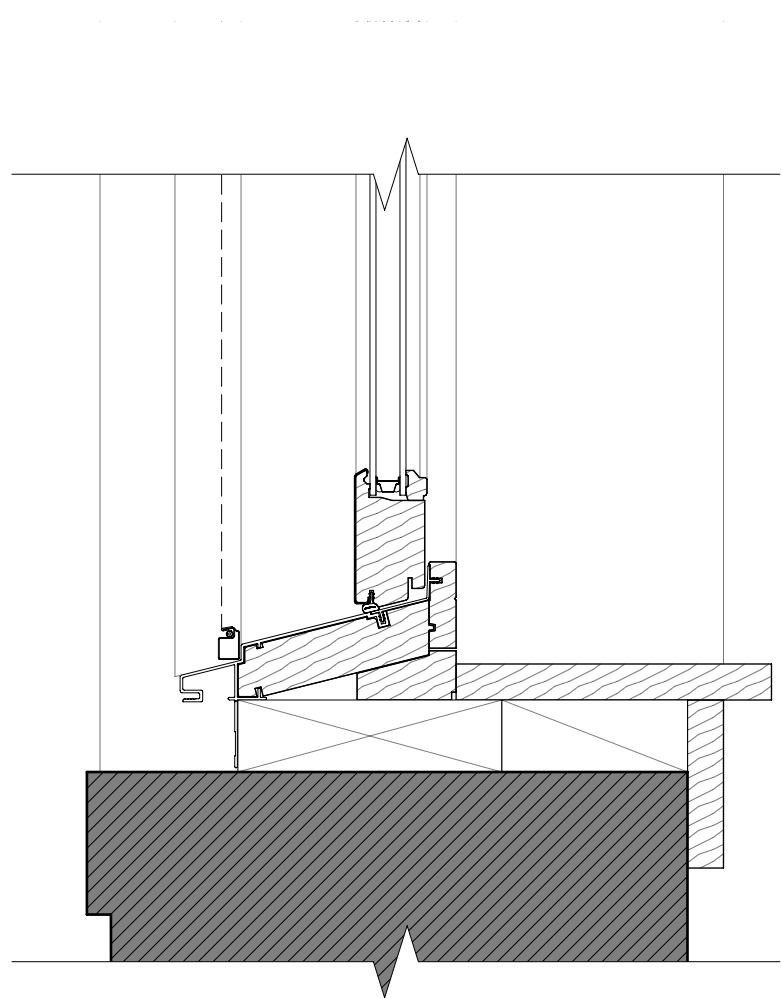
BIMcloud: bimserver25 - BIMcloud Basic for ARCHICAD 25/Commercial Studio/54 York Street_Curret_20211020



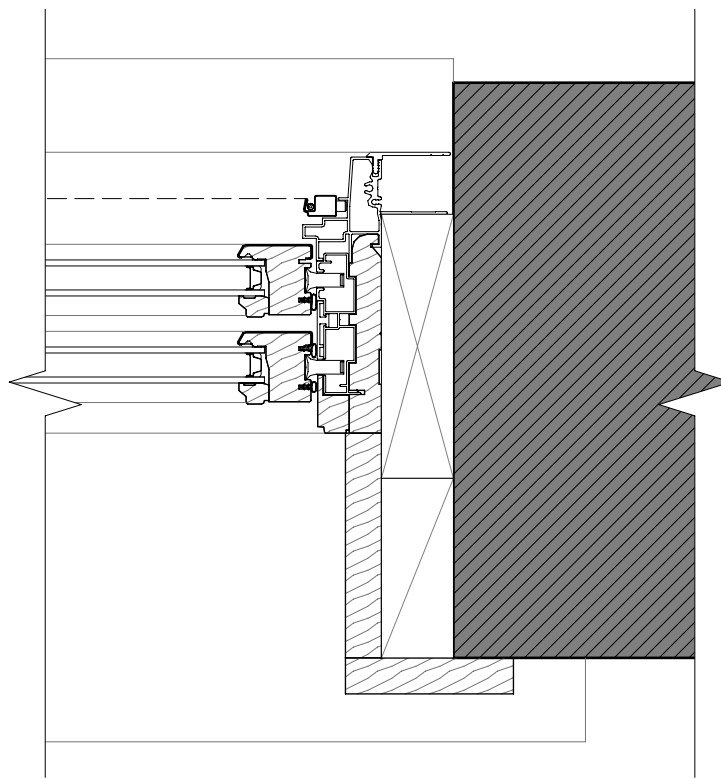
12 WINDOW HEAD DETAIL @ MASONRY WALL
SCALE: 3" = 1'-0"



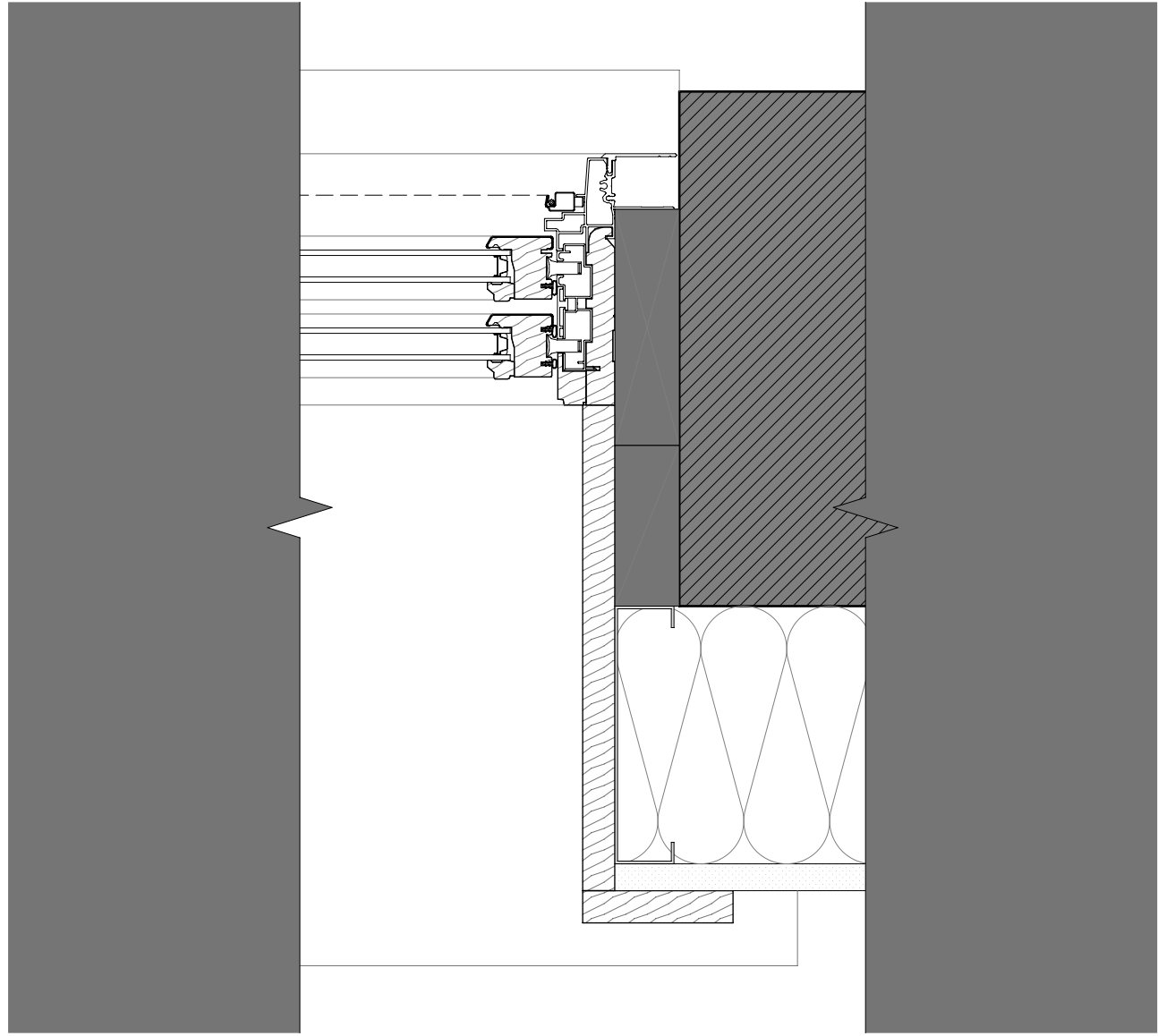
11 WINDOW DETAIL @ CHECK RAIL
SCALE: 3" = 1'-0"



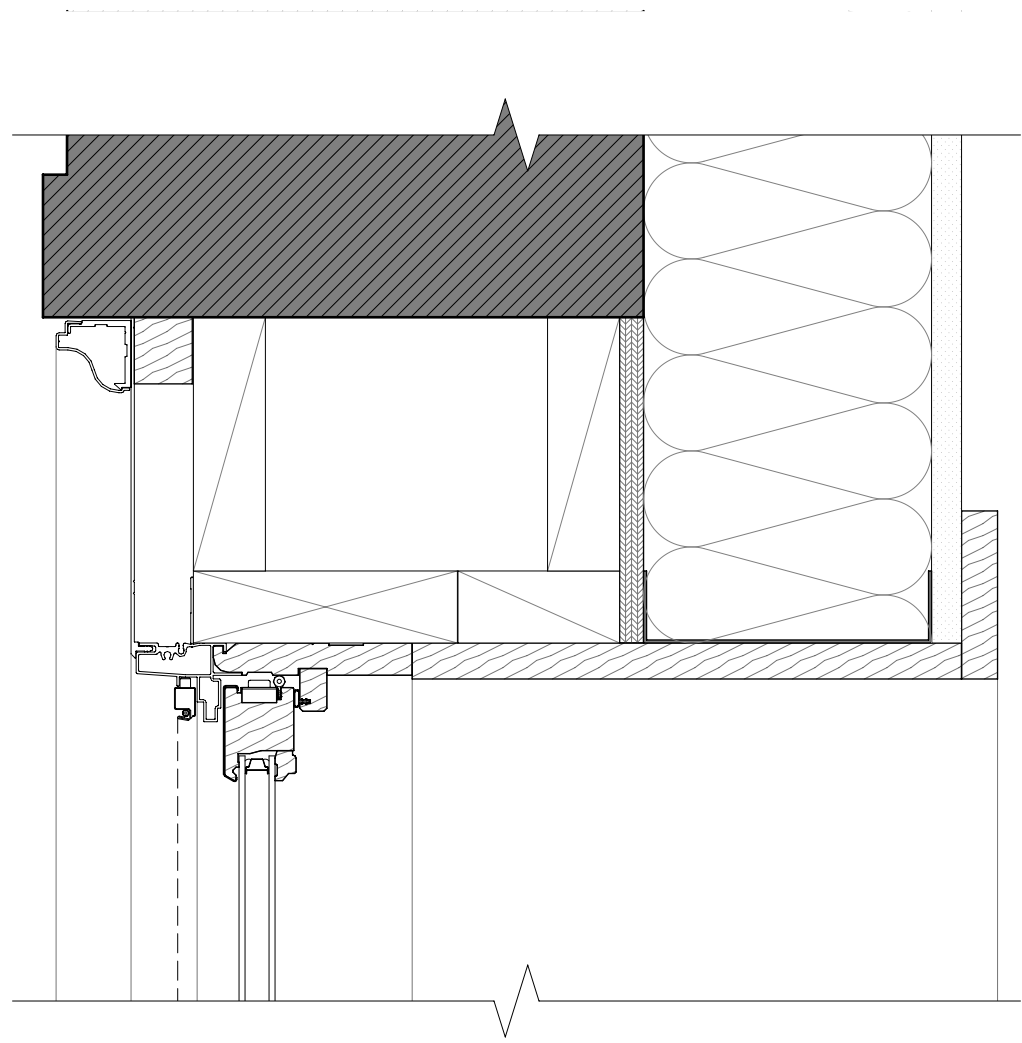
10 WINDOW SILL DETAIL @ MASONRY WALL
SCALE: 3" = 1'-0"



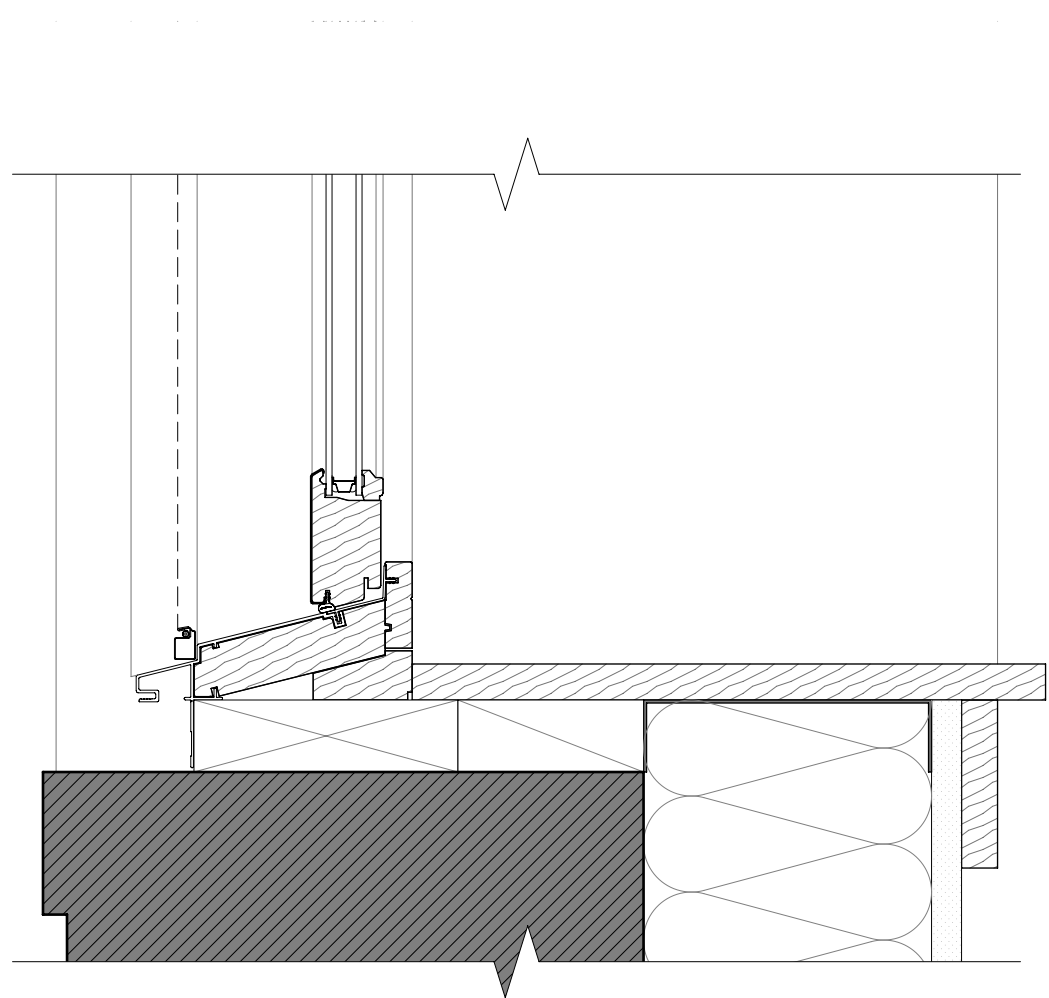
7 WINDOW JAMB DETAIL @ MASONRY WALL
SCALE: 3" = 1'-0"



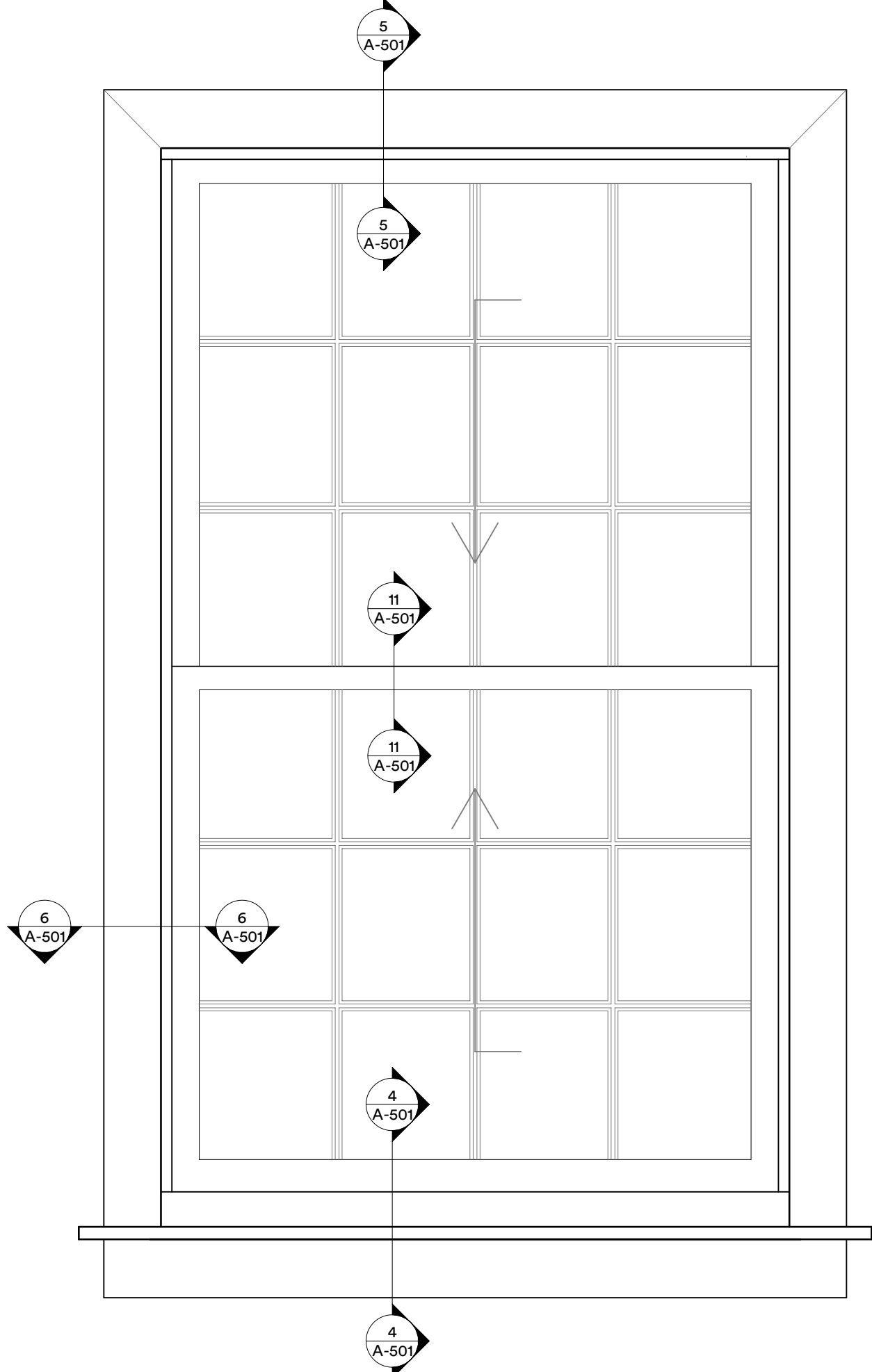
6 WINDOW JAMB DETAIL @ FURRED WALL
SCALE: 3" = 1'-0"



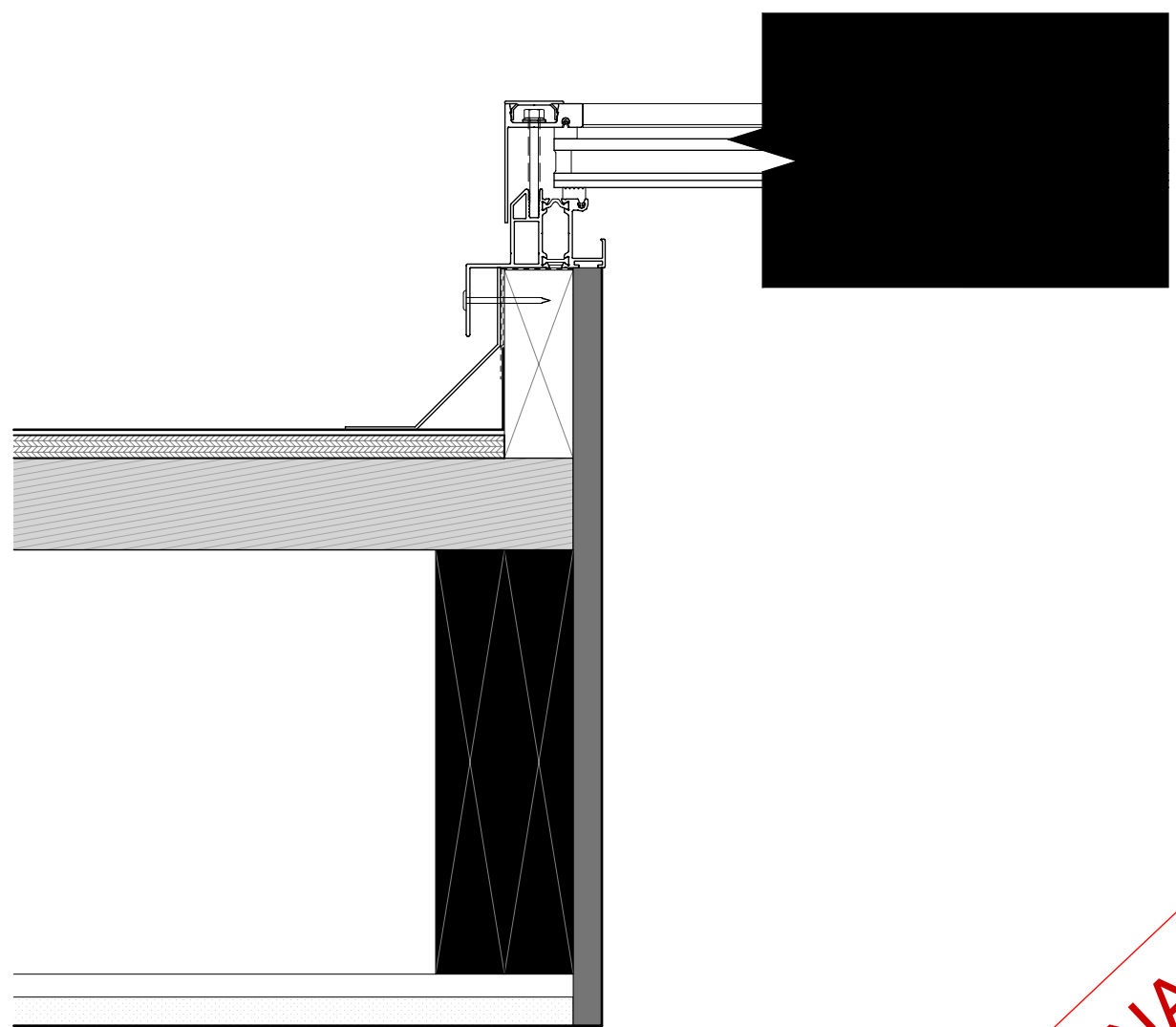
5 WINDOW HEAD DETAIL @ FURRED WALL
SCALE: 3" = 1'-0"



4 WINDOW SILL DETAIL @ FURRED WALL
SCALE: 3" = 1'-0"



2 PROPOSED WINDOW TRIM ELEVATION
SCALE: 1 1/2" = 1'-0"

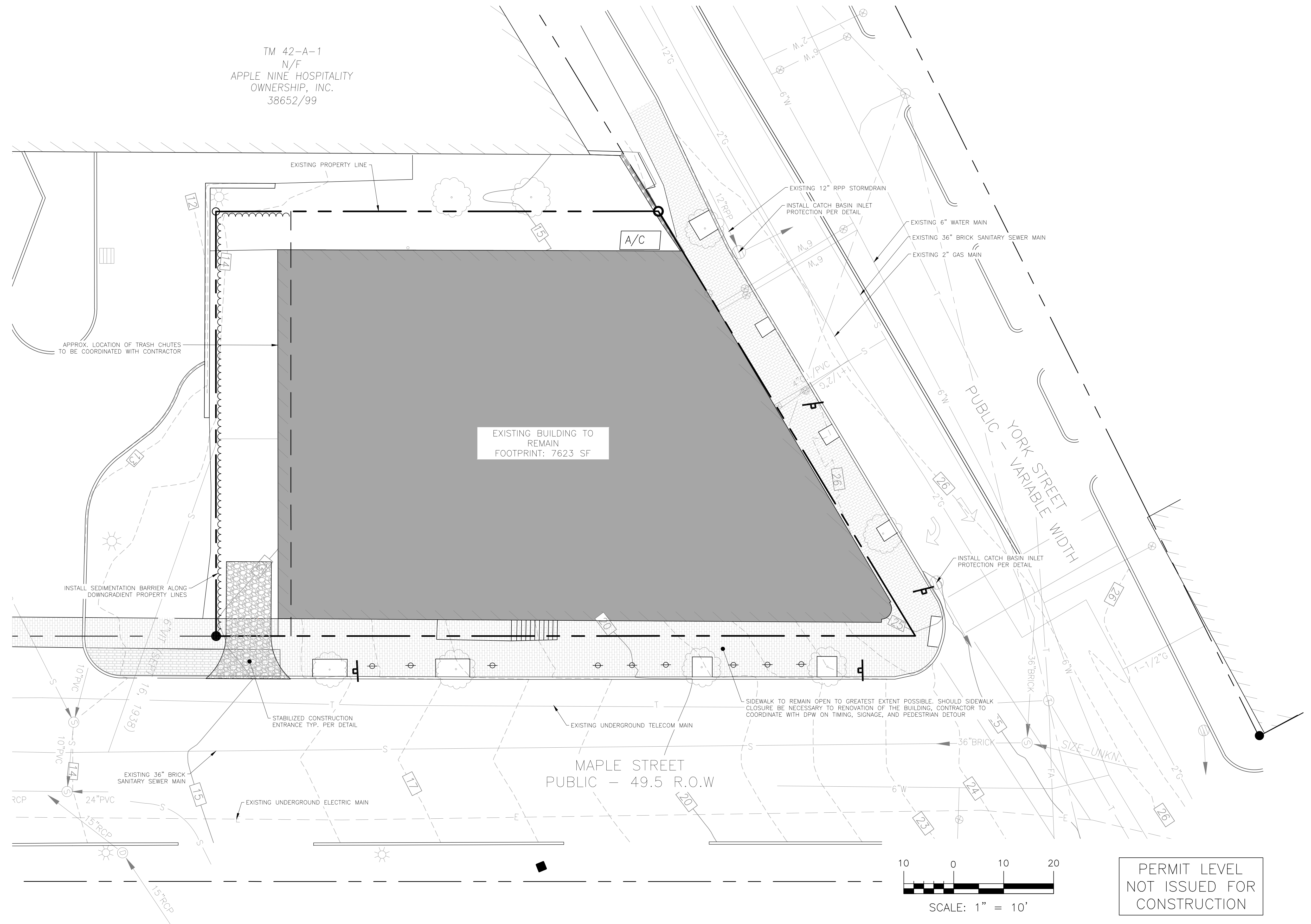


1 SECTION DETAIL - SKYLIGHT CURB
SCALE: 3" = 1'-0"

SUBMISSIONS:		CONSULTANT:		C/S PROJECT LEAD:	
ISSUE	DATE	ISSUE	DATE	J/J / P/B	DATE OF ISSUE:
					2/1/22
				PROJECT STATUS:	
				DESIGN DEVELOPMENT	
CHANGES THIS ISSUE:		ISSUE NUMBER		DATE	
ID	DESCRIPTION	NO.	DATE		

PRELIMINARY
NOT FOR CONSTRUCTION

1. EXISTING ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFF-SITE.
2. IN ACCORDANCE WITH FEDERAL REGULATIONS, CONTRACTOR SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" TO DEMONSTRATE PROPER DISPOSAL OF ALL MATERIALS. SITE DEMOLITION SHALL NOT OCCUR UNTIL PROPER ABATEMENT PROCEDURES HAVE BEEN COMPLETED. ABATEMENT, IF NECESSARY, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT ALL LOCATIONS TO DETERMINE THE LOCATION OF ALL UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE POTENTIAL CONFLICT WITH THE EXISTING PLANS PRIOR TO CONSTRUCTION.
4. ALL CONSTRUCTION SIGNAGE IS TEMPORARY AND SHALL BE REMOVED AT PROJECT COMPLETION. FINAL SIGNAGE WORDING AND PLACEMENT LOCATION TO BE ACCEPTED BY THE CITY.
5. 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 PROPERTY LINES AND SHALL BE PLACED AT THE PROPERTY LINE FOR CLARITY PURPOSES AND DO NOT NECESSARILY DEPICT THE PHYSICAL LOCATION.
6. CONTRACTOR SHALL PLACE CATCH BASIN INLET PROTECTION ON CATCH BASINS AND FIELD DRAINAGE DRAINAGE DITCHES.
7. DEMOLITION PLAN IS NOT INCLUSIVE OF ALL EXISTING ITEMS TO BE REMOVED AS PART OF SITE CONSTRUCTION INCLUDING BUT NOT LIMITED TO LANDSCAPING, UTILITIES, WORK WITHIN RIGHT-OF-WAY, ETC. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF PORTLAND REGULATIONS.
8. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING OFF-SITE PARKING TO EMPLOYEES; OWNER TO BE RESPONSIBLE FOR PROVIDING OFF-SITE PARKING FOR THE PUBLIC.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE APPROPRIATE PERMITS FROM THE CITY FOR CLOSING ANY ON-STREET PARKING SPACES DURING THE CONSTRUCTION PERIOD.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR SNOW REMOVAL ALONG CONSTRUCTION FENCE AND GATE.

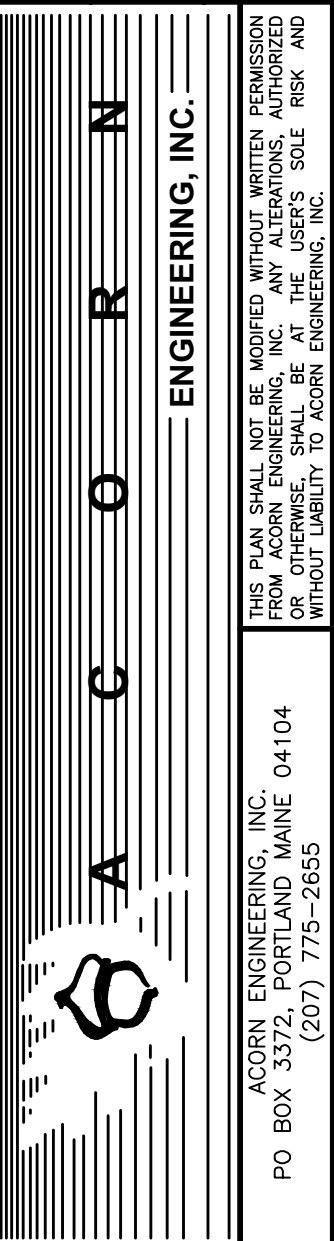
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CONSTRUCTION MANAGEMENT PLAN

54 YORK STREET, PORTLAND, MAINE 04101

54 YORK LLC
400 COMMERCIAL STREET, PORTLAND, MAINE 04101

10



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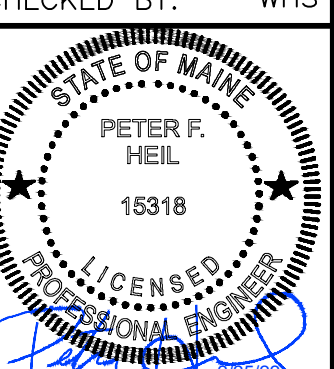
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DESIGNED BY: PFH

DESIGNED BY:	TTH
DRAWN BY:	ZMS

RAWN BT.	ZMS
CHECKED BY:	WHS



DRAWING NO.

C-03

Planning Board Report

Planning and Urban Development Department



33 McAlister Farm Road Subdivision
 33 McAlister Farm Road
 Subdivision Application
 PL-001775-2021
 PK Real Estate LLC., Applicant

Submitted to:	Portland Planning Board	Prepared By:	Austen Torres Davis
Public Hearing Date:	March 8, 2022	Date:	March 4, 2022

I. INTRODUCTION

PK Real Estate LLC., applicant, is seeking approval to subdivide the property at 33 McAlister Farm Road into three lots.

If this subdivision is approved, a forthcoming minor site plan application would be sought by the applicant to build an automobile maintenance shop on Lot C, the subdivided lot closest to Riverside Street.

The application is being referred to the Planning Board for compliance with the City of Portland's Land Use Code Subdivision Standards, Section 15.4. Any division of a parcel of land into three or more lots within any 5-year period is subject to subdivision review, with the Planning Board acting as the review authority.

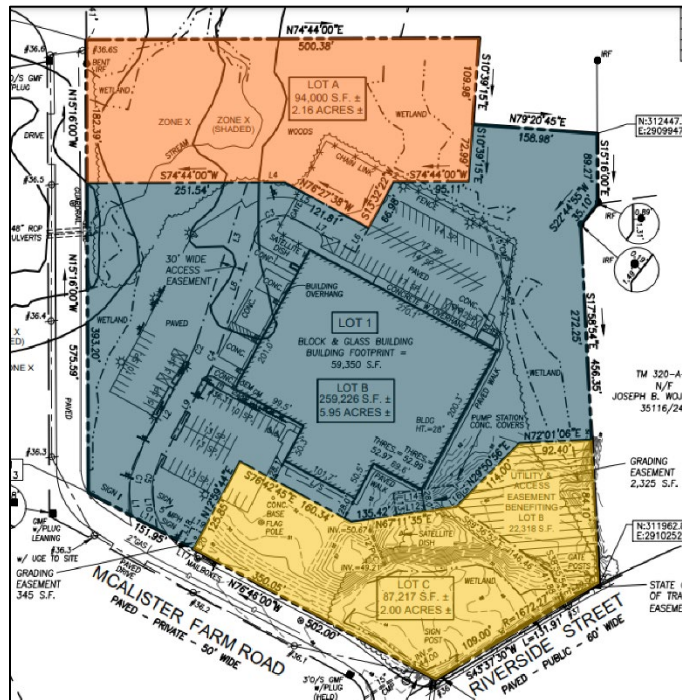


Figure 1. 33 McAlister Farm Road, Showing Lots to be Created

In anticipation of this Planning Board Public Hearing, the Planning and Urban Development Department mailed 61 notices to residences within 1,000 feet of the subject property (Section 2.1.8.B.1). A legal advertisement ran in the February 25, 2022 and February 26, 2022 editions of the *Portland Press Herald*.

Applicant: Richard Packard, PK Real Estate LLC.
Applicant Michael Tadema-Wielandt, Terradyn Consultants, LLC
Representatives:

II. REQUIRED REVIEWS

<i>Applicant's Proposal</i>	<i>Applicable Standards</i>
Subdivision of one parcel into three lots	Subdivision (Section 15.4)

III. PROJECT DATA

Existing Zoning	I-M Industrial Moderate-Impact
-----------------	--------------------------------

Existing Use	Office Building & Surface Parking
Proposed Use	Three lots; No current plans for Lot A; Existing use to continue on Lot B; Automotive Repair Service and Retail Accessory Use proposed for Lot C
Proposed Development Program	Mixed Use (industrial and commercial)

	<i>Existing</i>	<i>Lot A</i>	<i>Lot B</i>	<i>Lot C</i>
Parcel Size	440,443 sq. ft.	94,000 sq. ft.	259,226 sq. ft.	87,217 sq. ft.

IV. BACKGROUND

33 McAlister Farm Road was part of the *McAlister Farm Subdivision*, approved by the City of Portland Planning Board on July 26, 1988. On that subdivision recording plat 33 McAlister farm Road appears as Lot 1.

At that time, the development program included six commercial and industrial use lots on the periphery of the city. A low-rise structure with truck bays and parking lots was built on the site and remains the only structure on site today.

V. PROPOSED SUBDIVISION

The current proposal involves subdividing the existing site into three lots, each with frontage on McAlister Farm Road. Lot A would be 94,000 square feet, and would be sold and developed eventually by the purchaser. Lot B would be 259,226 square feet, and would contain the existing building and parking areas. Lot C would be 87,217 square feet, and is proposed to be developed by VIP Auto. VIP Auto plans to develop an 8,500 square foot automobile service center and showroom, while the remainder of the site would include parking spaces, landscaping, and stormwater improvements. The development of Lot C is contingent upon Planning Board approval of this subdivision.

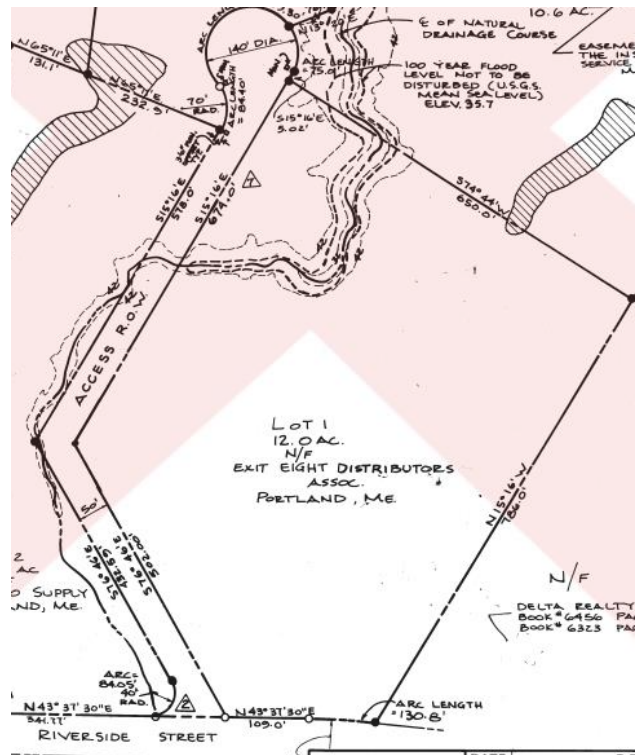


Figure 2. Lot 1 as shown in McAlister Farm Subdivision

VI. RIGHT, TITLE, & INTEREST

The applicant has provided a deed dated April 30, 2014, recorded at the Cumberland County Registry of Deeds (Book 31472 Page 318). Additionally, the applicant has provided a purchase and sale agreement between purchaser V.I.P, Inc. and current owner PK Real Estate, LLC. (Attachment J).

VII. FINANCIAL & TECHNICAL CAPACITY

The applicant has submitted a letter stating their financial ability to accomplish the project (Attachment I). The applicant's financial and technical capacity letter includes background information of VIP Auto and Sebago Technics as demonstration of their technical capacity to develop Lot C upon approval of this subdivision application and the subsequent minor site plan.



Figure 3. Current Site Conditions

VIII. ZONING ANALYSIS

The subject site is located in the I-M Industrial-Moderate Impact Zone. The I-M Zone is intended to provide areas of the city in which low-and moderate-impact industries have direct access to arterials, thereby protecting residential neighborhoods from drive-through traffic. The purpose of the I-M zone is also to provide for larger industrial buildings and for limited or controlled use of areas outside of structures for storage of materials and machinery. Uses in the I-M zone are often highway-oriented and transportation-related. The applicant has submitted a zoning analysis (Attachment G).

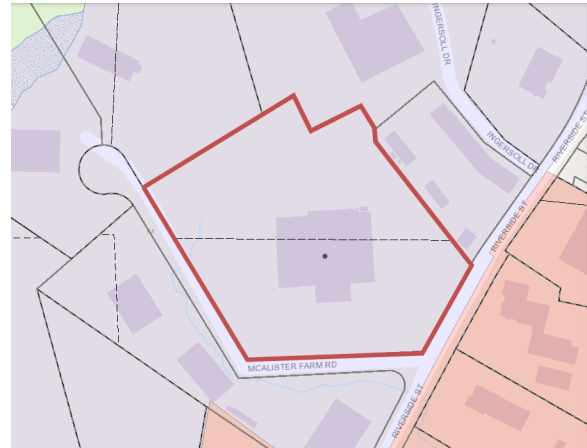


Figure 4. 33 McAlister Farm Road in I-M Zone

Zoning Administrator Ann Machado has reviewed the application and noted that the plat should be revised to include a 10 foot pavement setback for Lot B; this has been included as an approval condition for this application as of the writing of this report.

IX. SUBDIVISION REVIEW STANDARDS (Section 15.4)

The proposed subdivision has been reviewed by staff for conformance with the relevant review standards of Portland's Subdivision Ordinance and applicable regulations.

1. Will Not Result in Undue Water and Air Pollution, and will not result in undue soil erosion (Section 15.4.1. A. and D.)

The proposed subdivision of land will not result in pollution or soil erosion. The proposed subdivision will create developable lots for uses permitted within the I-M zone. The applicant is not proposing any construction of streets as part of this proposal and there are no anticipated impacts as a result of the subdivision. The subsequent development of the land will need to be reviewed against the City's Site Plan standards.

Staff finding: this standard has been met.

2. Has sufficient water available and will not cause unreasonable burden on existing water supply (Section 15.4.1. B. and C.)

The applicant has submitted an ability to serve letter from the Portland Water District dated September 1, 2021 indicating the District will be able to serve the site.

Staff finding: this standard has been met.

3. Will not cause unreasonable highway or public road congestion or unsafe conditions with respect to use of the highway or public roads existing or proposed (Section 15.4.1. E.)

The subdivision of 33 McAlister Farm Road will be followed by a forthcoming site plan application for the construction of an automobile-based business, and will be within a I-M zone, which permits uses that are often highway oriented and transportation related no adverse road conditions are anticipated for this site. The lots to be subdivided are located on a peripheral area of the city and the local roadway network has ample capacity to absorb new vehicle trips.

Chief Surveyor Bill Scott has provided the following comments:

McAllister Farm Rd is a public road, not a private one as per the label on this plan. Any unmarked lot corners will need to be pinned by the surveyor and shown on this plan.

The applicant will update the plat to include the pinned locations prior to signature by the Planning Board.

Staff finding: this standard has been met.

4. Will provide for adequate sanitary sewer and stormwater disposal (Section 15.4.1. F.) and will not cause an unreasonable burden on municipal disposal of solid waste and sewage (Section 15.4.1. G.)

The proposal will not impact municipal disposal of solid waste or sewage as the site will be served by a septic system. The septic system as proposed will be designed with the capacity to handle the proposed VIP Auto facility on Lot C. No sewage disposal systems are proposed for Lot A, and no changes to the existing system on Lot B are proposed.

Staff finding: this standard has been met.

5. Will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat (Section 15.4.1. H.)

The proposal is within a peripheral commercial and industrial area. As a result of previous development and the nearby development pattern, the site does not have any scenic, natural, aesthetic, or historic features and is not located within any designated historic districts.

Staff finding: this standard has been met.

6. Is in conformance with the Comprehensive Plan (Section 15.4.1. I.)

The proposal is aligned with a number of visions laid out in Portland's Plan 2030.:

Vision: Grow in order to sustain our community, infrastructure, and economy.

This proposal meets this vision by providing for the growth of the economy and provision of jobs.

Vision: Maintain and enhance the uniqueness and integrity of our neighborhoods.

This proposal meets this vision by providing a location of highway-oriented businesses in an appropriate area of the city – locating such businesses away from residential and commercial areas of the city where walkability is a high priority.

Local Goal: Support economic vitality by ensuring the efficient movement of goods, services, and people.

Staff finding: this standard has been met.



Figure 5. Visions of Portland's Plan 2030

7. Adequate financial and technical capacity (Section 15.4.1. J.)

The applicant has submitted a document showing financial and technical ability to subdivide and develop the site.

Staff finding: this standard has been met.

8. Whenever situated, in whole or in part, within the watershed of any pond or lake or within 250 feet of any wetland, great pond, or river, will not adversely affect the quality of such body of water or unreasonably affect the shoreline of such body of water (Section 15.4.1. K.)

This site contains wetlands and streams that flow into the nearby Presumpscot River. The applicant has filed a Tier 1 NRPA application with the Maine Department of Environmental protection.

Approval from the Maine Department of Environment Protection to alter 12,371 square feet of wetland on site was received by the applicant on November 19, 2021 (Attachment 3). Approval for the filling of wetlands has also been gained from the US Army Corps of Engineers (Attachment 4).

Staff finding: this standard has been met.

9. Will not, adversely affect the quality and quantity of groundwater (Section 15.4.1. L.)

As the proposal entails only a subdivision of land, and not the alteration of land at this point, there are no anticipated adverse effects to groundwater.

Staff finding: this standard has been met.

10. Is or is not in a flood-prone area (Section 15.4.1. M.)

According to FEMA flood maps, a portion of the site is located within Zone AE, a high risk flood zone. Land Use Code Sec. 15.4.1(M) requires a condition of approval that mandates a raised first-floor elevation for buildings constructed on such lots:

If the subdivision, or any part of it, is in such an area, the subdivider shall determine the 100-year flood elevation and flood hazard boundaries within the subdivision. The proposed subdivision plan must include a condition of plan approval requiring that principal structures in the subdivision will be constructed with their lowest floor, including the basement, at least one foot above the 100-year flood elevation.

A condition of approval has been added for an update to the subdivision plat to include a note requiring a raised ground floor for any future buildings developed on the lots. The applicant has also provided MaineDEP Tier 1 Wetland and US Army Corps of Engineer approvals; please see Attachments 3 and 4.

Staff finding: this standard has been met.

11. Will provide for adequate stormwater management (Section 15.4.1. N.)

Sebago Technics has submitted a Stormwater Management Report (Attachment L). According to this report, runoff from the site is projected to be at or below pre-development conditions in adherence with MaineDEP Chapter 500 standards.

The methods and the findings of the report were found to be satisfactory by the Stormwater Coordinator and Consulting Stormwater Engineer. The proposed auto service facility to be reviewed as a minor site plan application will be required to meet stormwater standards of the Portland Land Use Code and Technical Manual, and will be reviewed by Planning staff.

Staff finding: this standard has been met.

X. NEIGHBORHOOD MEETING & PUBLIC COMMENT

As this proposed subdivision entails the creation of less than five lots, the applicant was not required to hold a neighborhood meeting.

To date, no public comments have been received by Planning & Urban Development Department Staff.

XI. STAFF RECOMMENDATION

Subject to the proposed revisions requested by staff, as well as motions and conditions of approval listed below, Planning Department staff notes that the proposed application (PL-001775-2021) meets the relevant sections of the Portland Land Use Code and recommends that the Planning Board approve the proposed subdivision at 33 McAlister Farm Road.

XII. PROPOSED MOTIONS

A. SUBDIVISION REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing on March, 8, 2022 for application PL-001775-2021 at 33 McAlister Farm Road relevant to the subdivision regulations, and the testimony presented at the Planning Board hearing, the Planning Board [finds/does not find] that the plan is in conformance with the subdivision standards of the Land Use Code subject to the following conditions of approval:

PRIOR TO THE SUBMISSION OF THE PLAT FOR PLANNING BOARD SIGNATURE

1. The applicant will update the plat to depict the 10-foot pavement setback for Lot B and to include a note requiring any future buildings developed on the lots to include a raised ground floor, pursuant to Land Use Code Section 15.4.1(M).
2. The subdivision plat shall be finalized to the satisfaction of the Planning Authority, Corporation Counsel and Department of Public Works and include clear descriptions of the number, location, type and size of all subdivided units, along with relevant notes and conditions.

PRIOR TO ISSUANCE OF A BUILDING PERMIT

3. The signed subdivision plat shall be recorded at the Cumberland County Registry of Deeds.

XIII. ATTACHMENTS**Report Attachments**

1. Preliminary Staff Review Comments
2. Applicant Comment Response Letter
3. MDEP Tier 1 Wetland Permit
4. Army Corps of Engineers Wetland Permit

Applicant's Submittal

- A. Project Summary
- B. Completed Checklist
- C. Evidence of Right, Title, and Interest
- D. Current Deed
- E. Evidence of Financial and Technical Capacity
- F. Evidence of State and Federal Permits
- G. Zoning Assessment
- H. Zoning Analysis
- I. Waiver Requests
- J. Existing and Proposed Easements
- K. Stormwater Management Report

Plans

- Plan 1. Cover Sheet
- Plan 2. Note and Legend Plan
- Plan 3. Demolition Plan
- Plan 4. Site Plan

Plan 5. Grading Plan
Plan 6. Utility Plan
Plan 7. Landscape Plan
Plan 8. Erosion Control Notes Plan
Plan 9. Detail – 01
Plan 10. Detail – 02
Plan 11. Detail – 03
Plan 12. Detail – 04
Plan 13. Detail – 05
Plan 14. Pre Watershed Plan
Plan 15. Post Watershed Plan
Plan 16. Amended Subdivision Plan

Preliminary Comments for:
33 McAlister Farm Road (Subdivision)
PL-001775-2021

Compiled by:
Austen Torres Davis, Planner
City of Portland, Maine,
Department of Planning & Development

Dear Michael Tadema-Wielandt,

Staff at the City of Portland have conducted a preliminary review of Subdivision Application #PL-001775-2021, 33 McAlister Farm Road. Below I have compiled comments from the *Zoning Administration* and the *Department of Public Works*.

Portland's *Water Resources Compliance Coordinator* has offered the following comments:

- The applicant needs to clearly label & identify the location of all stormwater BMPs on the Grading & Drainage Plan: The Filterra unit and R-tank system are shown on the Utility Plan, but the 2 Focal Point units & roof drip edge filter are not called out anywhere; This information is critical information for the property owner/manager and their maintenance contractor.
- Snow storage cannot be on the treatment systems or in the wetlands. This should be clearly stated in the maintenance plan and in the maintenance agreement.
- A site-specific maintenance agreement must be completed and registered at the Registry per typical COA including annual inspection, maintenance & reporting requirements of Chapter 32, Article III.
- It appears that the shop floor drains are plumbed to an oil-water separator, which will need routine monitoring and hazardous waste removal and disposal; Due to the nature of this operation and the likelihood of hazardous spills, this tank cannot be connected to any part of the storm drain system or septic system; Maintenance should be part of the wastewater system management plan, as would the septic tank and transfer system.
A detail for the tank needs to be included as well.
- The Construction Management Plan will need an approved dewatering plan for any off-site discharges to City infrastructure or nearby surface waters.

Portland's *Water Resources Stormwater Coordinator* has offered the following comment:

- It seems we are seeing only Lot 1 from the original Subdivision plan and not the entire McAlister Farm Road subdivision. The original Subdivision approval (1988/1989) has reference to easements, permanently protected drainage ways, additional permanently protected areas, the original Site Law approval, etc. that are not shown on the plans Owen Haskell provided for our review.

Preliminary Comments for:
33 McAlister Farm Road (Subdivision)
PL-001775-2021

Compiled by:
Austen Torres Davis, Planner
City of Portland, Maine,
Department of Planning & Development

Portland's *Zoning Administrator* has offered the following comments:

- For Lot B, which is already developed, the existing building will need to meet the front, rear and side setbacks which are based on the height of the existing building. For the side and rear setbacks, the setback is one foot for every foot of building height up to 25' feet.
While the side yard and rear setbacks are okay, the front yard setback is based completely on the height of the existing building which needs to be provided in application materials.
- For lot B, parking areas will have to be changed to meet the impervious surface ratio to 75% and meet the 10' pavement setback.
- The Amended subdivision plan from Owen Haskell, has a flood note on it. A small portion of Lot A and Lot B appear to be located in the AE Zone. Also part of the existing lot is in the X Zone (areas of 500-year flood) which is not a Special Flood Hazard Area. The rest of the lot is in the X Zone (outside the 500 year flood plain), The AE Zone will need to be identified on the site plan for Lot A and for any changes to the site on Lot B.

If you have any questions please reach out.

**Pineland**

Cumberland Hall
41 Campus Drive, Suite 101
New Gloucester, ME 04260

Portland

565 Congress Street, Suite 201
Portland, ME 04101

February 16, 2022

Project #2048
City of Portland # PL-001775-2021

Austen Torres Davis
Planning and Urban Development Department
City Hall – 4th Floor, 389 Congress Street
Portland, Maine 04103

**Subject: PL-001775-2021, 33 McAlister Farm Road
Response to Staff Comments – Subdivision Amendment**

Dear Austen:

Our office has received and reviewed the comments from city staff regarding the proposed subdivision amendment for McAlister Farm Subdivision off Riverside Street in Portland. Responses to the comment are presented below. For clarity, each comment is provided in italics, followed by our response.

Water Resources Compliance Coordinator:

1. *The applicant needs to clearly label & and identify the location of all stormwater BMPs on the Grading & Drainage Plan: The Filterra unit and R-Tank system are shown on the Utility Plan, but the 2 Focal Points & roof drip edge filter are not called out anywhere; This information is critical information for the property owner/manager and their maintenance contractor.*

Response: Acknowledged. Please see revised Grading Plan for callouts.

2. *Snow storage cannot be on the treatment systems or in the wetlands. This should be clearly stated in the maintenance plan and in the maintenance agreement.*

Response: Acknowledged. Please see revised Site Plan depicting the snow storage locations outside of the stormwater treatment systems and wetland area. Please see revised maintenance plan narrative within stormwater report (page 88) that provides clarification for snow storage.

3. *A site-specific maintenance agreement must be completed and registered at the Registry per typical COA including annual inspection, maintenance & reporting requirements of Chapter 32, Article III.*

Response: Acknowledged. A Site-specific Maintenance agreement will be provided prior to a building permit issuance.

4. *It appears that the shop floor drains are plumbed to an oil-water separator, which will need routine monitoring and hazardous spills, this tank cannot be connected to any part of the storm drain system or septic system; Maintenance should be part of the wastewater*

system management plan, as would the septic tank and transfer system. A detail for the tank needs to be included as well.

Response: Acknowledged. Please see revised detail sheet 2 for the Oil Water Separator Tanks details.

5. *The Construction Management Plan will need an approved dewatering plan for any off-site discharges to City infrastructure or nearby surface waters.*

Response: Acknowledged. Please see construction management narrative that includes information regarding a dewatering plan.

Water Resources Stormwater Coordinator:

6. *It seems we are seeing only Lot 1 from the original Subdivision plan and not the entire McAlister Farm Road Subdivision. The original Subdivision approval (1988/1989) has reference to easements, permanently protected drainage ways, additional permanently protected areas, the original Site Law approval, etc. that are not shown on the plans Owen Haskell provided for our review.*

Response: The information referenced in the comment has been added to the Amended Subdivision Plan.

Zoning Administrator:

7. *For Lot B, which is already developed, the existing building will need to meet the front, rear and side setbacks which are based on the height of the existing building. For the side and rear setbacks, the setback is one foot for every foot of building height up to 25 feet. While the side yard and rear setbacks are okay, the front yard setback is based completely on the height of the existing building which needs to be provided in application materials.*

Response: The proposed property boundaries have been revised to meet the setback requirements. The changes are reflected on the revised Site Plan and Amended Subdivision Plan.

8. *For Lot B, parking areas will have to be changed to meet the impervious surface ration to 75% and meet the 10' pavement setback.*

Response: Please see revised Site Plan. Property line has been adjusted to account for the 10ft paving setback.

9. *The Amended subdivision plan from Owen Haskell, has a flood note on it. A small portion of Lot A and Lot B appear to be located in the AE Zone. Also, part of the existing lot is in the X Zone (areas of 500-year flood) which is not a Special Flood Hazard Area. The rest of the lot is in the X Zone (outside the 500-year flood plain). The AE Zone will need to be identifies on the site plan for Lot A and for any changes to the site on Lot B.*

Response: The flood zone boundaries have been added to the Amended Subdivision Plan, which is attached for review.

Austen Torres Davis
February 16, 2022

Project #2048
33 McAlister Farm Road

We trust that the responses provided above address the comments. We look forward to meeting with the Planning Board on March 8 to seek approval. In the interim, if you have further comments or require additional information, please contact me.

Sincerely,
TERRADYN CONSULTANTS LLC

A handwritten signature in dark ink, appearing to read "Michael E. Wielandt". The signature is fluid and cursive, with the first name "Michael" written in a larger, more prominent script than the last name "Wielandt".

Michael Tadema-Wielandt, P.E.
Vice President

Attachments:
Revised Amended Subdivision Plan
Revised Site Plan
Revised Grading Plan

cc. Richard Packard
Henry Hess



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

VIP, INC. Portland, Cumberland County COMMERCIAL BUILDING L-29374-TC-A-N (approval)	) NATURAL RESOURCES PROTECTION ACT) FRESHWATER WETLAND ALTERATION) WATER QUALITY CERTIFICATION) FINDINGS OF FACT AND ORDER
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Project Description: The applicant proposes to alter 12,371 square feet of freshwater scrub-shrub wetlands to construct a 44-lot parking area for a 8,500-square foot commercial building with associated stormwater improvements, as shown on a plan titled "Site Plans," prepared by Sebago Technics, and dated May 27, 2021. The applicant has avoided and minimized wetland impacts to the greatest extent practicable by utilizing upland area for the commercial building and by proposing a retaining wall to limit the parking area's intrusion into the wetland. According to the Department's Geographic Information System (GIS), there are no mapped essential or significant wildlife habitats associated with the project site. The proposed project is located at 33 McAlister Farm Road in the City of Portland.

The project is being reviewed under the Stormwater Management Law pursuant to 38 M.R.S. § 49-A by the City of Portland through its municipal capacity designation

Permit for:	☒	Tier 1
DEP Decision:	☒	Approved ☐ Denied (see attached letter)
CORPS Action:	☒	The Corps has been notified of your application. The following are subject to Federal screening: (1) projects with previously authorized or unauthorized work, in combination with a Tier 1 permit for a single and complete project, which total more than 15,000 square feet of altered area; (2) projects with multiple state permits and/or state exemptions which apply to a single and complete project that total more than 15,000 square feet of altered area; and (3) projects that may impact a vernal pool, as determined by the State of Maine or the Corps. If your activity is listed above, <i>Corps approval is required for your project</i> . For information regarding the status of your application contact the Corps' Maine Project Office at (207) 623-8367.

Standard Conditions:

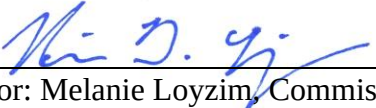
- 1) If construction or operation of the activity is not begun within four (4) years from the date signed, this permit shall lapse and the applicant shall reapply to the Department for a new permit. This permit is transferable only with prior approval from the Department. If the activity is associated with a larger project, starting any aspect of that project constitutes start of construction.
- 2) The project shall be completed according to the plans in the application. Any change in the project plans must be reviewed and approved by the Department.
- 3) Properly installed erosion control measures shall be installed prior to beginning the project, and all disturbed soil should be stabilized immediately upon project completion.

- 4) A copy of this approval will be sent to the City of Portland. Department approval of your activity does not supersede or substitute the need for any necessary local approvals.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 19TH DAY OF NOVEMBER, 2021.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: 
For: Melanie Loyzim, Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

AG/L29374AN/ATS#88161

FILED
November 24th, 2021
State of Maine
Board of Environmental Protection



Natural Resources Protection Act (NRPA) Standard Conditions

THE FOLLOWING STANDARD CONDITIONS SHALL APPLY TO ALL PERMITS GRANTED UNDER THE NATURAL RESOURCES PROTECTION ACT, 38 M.R.S. § 480-A ET SEQ., UNLESS OTHERWISE SPECIFICALLY STATED IN THE PERMIT.

- A. Approval of Variations From Plans. The granting of this permit is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation.
- B. Compliance With All Applicable Laws. The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.
- C. Erosion Control. The applicant shall take all necessary measures to ensure that his activities or those of his agents do not result in measurable erosion of soils on the site during the construction and operation of the project covered by this Approval.
- D. Compliance With Conditions. Should the project be found, at any time, not to be in compliance with any of the Conditions of this Approval, or should the applicant construct or operate this development in any way other the specified in the Application or Supporting Documents, as modified by the Conditions of this Approval, then the terms of this Approval shall be considered to have been violated.
- E. Time frame for approvals. If construction or operation of the activity is not begun within four years, this permit shall lapse and the applicant shall reapply to the Board for a new permit. The applicant may not begin construction or operation of the activity until a new permit is granted. Reapplications for permits may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- F. No Construction Equipment Below High Water. No construction equipment used in the undertaking of an approved activity is allowed below the mean high water line unless otherwise specified by this permit.
- G. Permit Included In Contract Bids. A copy of this permit must be included in or attached to all contract bid specifications for the approved activity.
- H. Permit Shown To Contractor. Work done by a contractor pursuant to this permit shall not begin before the contractor has been shown by the applicant a copy of this permit.

Revised September 2016

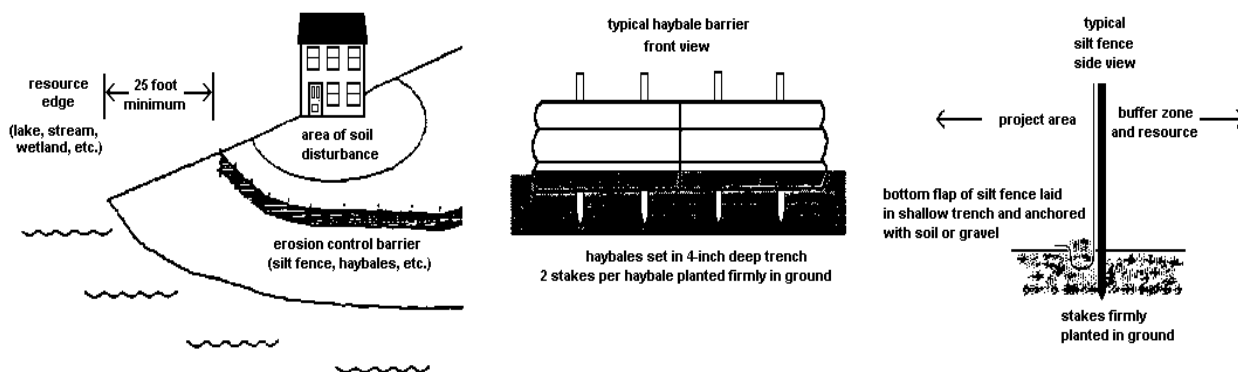


STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
 17 STATE HOUSE STATION, AUGUSTA, MAINE 04333

Erosion Control for Homeowners

Before Construction

1. If you have hired a contractor, make sure you discuss your permit with them. Talk about what measures they plan to take to control erosion. Everybody involved should understand what the resource is, and where it is located. Most people can identify the edge of a lake or river. However, the edges of wetlands are often not so obvious. Your contractor may be the person actually pushing dirt around, but you are both responsible for complying with the permit.
2. Call around to find where erosion control materials are available. Chances are your contractor has these materials already on hand. You probably will need silt fence, hay bales, wooden stakes, grass seed (or conservation mix), and perhaps filter fabric. Places to check for these items include farm & feed supply stores, garden & lawn suppliers, and landscaping companies. It is not always easy to find hay or straw during late winter and early spring. It also may be more expensive during those times of year. Plan ahead – buy a supply early and keep it under a tarp.
3. Before any soil is disturbed, make sure an erosion control barrier has been installed. The barrier can be either a silt fence, a row of staked hay bales, or both. Use the drawings below as a guide for correct installation and placement. The barrier should be placed as close as possible to the soil-disturbance activity.
4. If a contractor is installing the erosion control barrier, double check it as a precaution. Erosion control barriers should be installed “on the contour,” meaning at the same level or elevation across the land slope, whenever possible. This keeps stormwater from flowing to the lowest point along the barrier where it can build up and overflow or destroy the barrier.



During Construction

1. Use lots of hay or straw mulch on disturbed soil. The idea behind mulch is to prevent rain from striking the soil directly. It is the force of raindrops hitting the bare ground that makes the soil begin to move downslope with the runoff water, and cause erosion. More than 90% of erosion is prevented by keeping the soil covered.
2. Inspect your erosion control barriers frequently. This is especially important after a rainfall. If there is muddy water leaving the project site, then your erosion controls are not working as intended. You or your contractor then need to figure out what can be done to prevent more soil from getting past the barrier.
3. Keep your erosion control barrier up and maintained until you get a good and healthy growth of grass and the area is permanently stabilized.

After Construction

1. After your project is finished, seed the area. Note that all ground covers are not equal. For example, a mix of creeping red fescue and Kentucky bluegrass is a good choice for lawns and other high-maintenance areas. But this same seed mix is a poor selection for stabilizing a road shoulder or a cut bank that you don't intend to mow. Your contractor may have experience with different seed mixes, or you might contact a seed supplier for advice.
2. Do not spread grass seed after September 15. There is the likelihood that germinating seedlings could be killed by a frost before they have a chance to become established. Instead, mulch the area with a thick layer of hay or straw. In the spring, rake off the mulch and then seed the area. Don't forget to mulch again to hold in moisture and prevent the seed from washing away or being eaten by birds or other animals.
3. Keep your erosion control barrier up and maintained until you get a good and healthy growth of grass and the area is permanently stabilized.

Why Control Erosion?**To Protect Water Quality**

When soil erodes into protected resources such as streams, rivers, wetlands, and lakes, it has many bad effects. Eroding soil particles carry phosphorus to the water. An excess of phosphorus can lead to explosions of algae growth in lakes and ponds called blooms. The water will look green and can have green slime in it. If you are near a lake or pond, this is not pleasant for swimming, and when the soil settles out on the bottom, it smothers fish eggs and small animals eaten by fish. There many other effects as well, which are all bad.

To Protect the Soil

It has taken thousands of years for our soil to develop. Its usefulness is evident all around us, from sustaining forests and growing our garden vegetables, to even treating our septic wastewater! We cannot afford to waste this valuable resource.

To Save Money (\$\$)

Replacing topsoil or gravel washed off your property can be expensive. You end up paying twice because State and local governments wind up spending your tax dollars to dig out ditches and storm drains that have become choked with sediment from soil erosion.



DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: August 2021

Contact: (207) 314-1458

SUMMARY

This document provides information regarding a person's rights and obligations in filing an administrative or judicial appeal of a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner.

Except as provided below, there are two methods available to an aggrieved person seeking to appeal a licensing decision made by the DEP Commissioner: (1) an administrative process before the Board of Environmental Protection (Board); or (2) a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development ([35-A M.R.S. § 3451\(4\)](#)) or a general permit for an offshore wind energy demonstration project ([38 M.R.S. § 480-HH\(1\)](#)) or a general permit for a tidal energy demonstration project ([38 M.R.S. § 636-A](#)) must be taken to the Supreme Judicial Court sitting as the Law Court.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

A person filing an appeal with the Board should review Organization and Powers, [38 M.R.S. §§ 341-D\(4\)](#) and [346](#); the Maine Administrative Procedure Act, 5 M.R.S. § [11001](#); and the DEP's [Rule Concerning the Processing of Applications and Other Administrative Matters \(Chapter 2\)](#), 06-096 C.M.R. ch. 2.

DEADLINE TO SUBMIT AN APPEAL TO THE BOARD

Not more than 30 days following the filing of a license decision by the Commissioner with the Board, an aggrieved person may appeal to the Board for review of the Commissioner's decision. The filing of an appeal with the Board, in care of the Board Clerk, is complete when the Board receives the submission by the close of business on the due date (5:00 p.m. on the 30th calendar day from which the Commissioner's decision was filed with the Board, as determined by the received time stamp on the document or electronic mail). Appeals filed after 5:00 p.m. on the 30th calendar day from which the Commissioner's decision was filed with the Board will be dismissed as untimely, absent a showing of good cause.

HOW TO SUBMIT AN APPEAL TO THE BOARD

An appeal to the Board may be submitted via postal mail or electronic mail and must contain all signatures and required appeal contents. An electronic filing must contain the scanned original signature of the appellant(s). The appeal documents must be sent to the following address.

Chair, Board of Environmental Protection
c/o Board Clerk
17 State House Station
Augusta, ME 04333-0017
ruth.a.burke@maine.gov

The DEP may also request the submittal of the original signed paper appeal documents when the appeal is filed electronically. The risk of material not being received in a timely manner is on the sender, regardless of the method used.

At the time an appeal is filed with the Board, the appellant must send a copy of the appeal to: (1) the Commissioner of the DEP (Maine Department of Environmental Protection, 17 State House Station, Augusta, Maine 04333-0017); (2) the licensee; and if a hearing was held on the application, (3) any intervenors in that hearing proceeding. **Please contact the DEP at 207-287-7688 with questions or for contact information regarding a specific licensing decision.**

REQUIRED APPEAL CONTENTS

A complete appeal must contain the following information at the time the appeal is submitted.

1. *Aggrieved status.* The appeal must explain how the appellant has standing to bring the appeal. This requires an explanation of how the appellant may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions, or conditions objected to or believed to be in error.* The appeal must identify the specific findings of fact, conclusions of law, license conditions, or other aspects of the written license decision or of the license review process that the appellant objects to or believes to be in error.
3. *The basis of the objections or challenge.* For the objections identified in Item #2, the appeal must state why the appellant believes that the license decision is incorrect and should be modified or reversed. If possible, the appeal should cite specific evidence in the record or specific licensing criteria that the appellant believes were not properly considered or fully addressed.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license to changes in specific license conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those matters specifically raised in the written notice of appeal.
6. *Request for hearing.* If the appellant wishes the Board to hold a public hearing on the appeal, a request for hearing must be filed as part of the notice of appeal, and it must include an offer of proof regarding the testimony and other evidence that would be presented at the hearing. The offer of proof must consist of a statement of the substance of the evidence, its relevance to the issues on appeal, and whether any witnesses would testify. The Board will hear the arguments in favor of and in opposition to a hearing on the appeal and the presentations on the merits of an appeal at a regularly scheduled meeting. If the Board decides to hold a public hearing on an appeal, that hearing will then be scheduled for a later date.
7. *New or additional evidence to be offered.* If an appellant wants to provide evidence not previously provided to DEP staff during the DEP's review of the application, the request and the proposed supplemental evidence must be submitted with the appeal. The Board may allow new or additional evidence to be considered in an appeal only under limited circumstances. The proposed supplemental evidence must be relevant and material, and (a) the person seeking to add information to the record must show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process; or (b) the evidence itself must be newly discovered and therefore unable to have been presented earlier in the process. Requirements for supplemental evidence are set forth in [Chapter 2 § 24](#).

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, and is made accessible by the DEP. Upon request, the DEP will make application materials available to review and photocopy during normal working hours. There may be a charge for copies or copying services.

2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing the appeal.* DEP staff will provide this information upon request and answer general questions regarding the appeal process.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed, the license normally remains in effect pending the processing of the appeal. Unless a stay of the decision is requested and granted, a licensee may proceed with a project pending the outcome of an appeal, but the licensee runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will acknowledge receipt of an appeal, and it will provide the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials admitted by the Board as supplementary evidence, any materials admitted in response to the appeal, relevant excerpts from the DEP's administrative record for the application, and the DEP staff's recommendation, in the form of a proposed Board Order, will be provided to Board members. The appellant, the licensee, and parties of record are notified in advance of the date set for the Board's consideration of an appeal or request for a hearing. The appellant and the licensee will have an opportunity to address the Board at the Board meeting. The Board will decide whether to hold a hearing on appeal when one is requested before deciding the merits of the appeal. The Board's decision on appeal may be to affirm all or part, affirm with conditions, order a hearing to be held as expeditiously as possible, reverse all or part of the decision of the Commissioner, or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, the licensee, and parties of record of its decision on appeal.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court (see [38 M.R.S. § 346\(1\)](#); 06-096 C.M.R. ch. 2; [5 M.R.S. § 11001](#); and M.R. Civ. P. 80C). A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board Clerk at 207-287-2811 or the Board Executive Analyst at 207-314-1458 bill.hinkel@maine.gov, or for judicial appeals contact the court clerk's office in which the appeal will be filed.

Note: This information sheet, in conjunction with a review of the statutory and regulatory provisions referred to herein, is provided to help a person to understand their rights and obligations in filing an administrative or judicial appeal. The DEP provides this information sheet for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.

REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

Regulatory Division
CENAE-RDC

February 11, 2022

John Quirk
VIP Auto, Inc.
24 Harriman Drive
Auburn, Maine 04210

Dear Mr. Quirk:

We recently reviewed your proposal to place permanent fill in 11,296 SF of freshwater wetland off 380 Riverside Street at Portland, Maine in order to construct associated infrastructure for a new commercial business (Lat/Lon 43.688858°N; -70.327951°W).

On October 14, 2020, we issued General Permits that, subject to our discretion, eliminates the need for individual Department of the Army permits for certain work that is regulated in the State of Maine. Your project as proposed and as shown on the attachments received by the Corps qualifies for self-verification under Maine General Permit 8, Residential, Commercial and Institutional Developments, and Recreational Facilities. No further action is necessary from the Corps on this project.

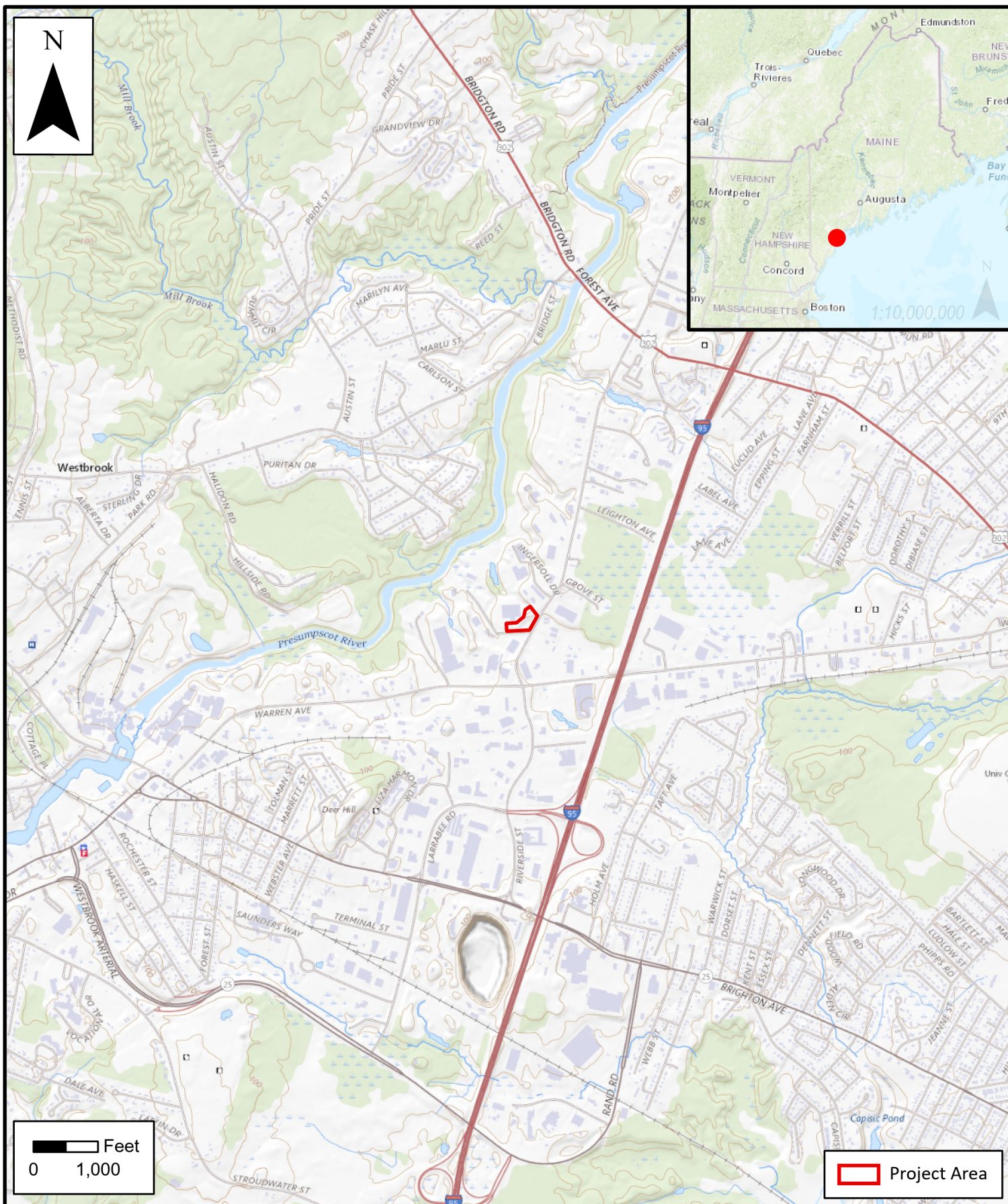
Please note that all work is subject to the terms and conditions contained in the general permit. No work may be started unless and until all other required local, State and Federal licenses and permits have been obtained. If any change in the plans or construction methods is found necessary, please contact us immediately to discuss modification of your permit. Any change must be approved before it is undertaken.

Please refer to identification number NAE-2021-03108 in any correspondence concerning this project. If you have any questions on this matter, please contact Colin Greenan of my staff at 978-318-8676 or colin.m.greenan@usace.army.mil at our Augusta, Maine Project Office.

Good luck with your project.

Sincerely,

For Frank J. Del Giudice
Chief, Permits & Enforcement Branch
Regulatory Division



SEBAGO
TECHNICS

WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. - Suite 4A
South Portland, ME 04106
Tel: 207-200-2100

LOCATION MAP VIP AUTO

LOCATION:
33 MCALISTER FARM ROAD
PORTLAND, ME 04103

INFORMATION:
PARCEL LINES - MAINE ORGANIZED TOWNS
USGS QUADRANGLE

SCALE: 1:24,000

DATE: 9/15/2021

CITY OF PORTLAND
Planning & Urban Development Department

SUBDIVISION 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 of 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	Subdivision Standards Assessment (see Article 15.4 of the land use code) Summary of compliance with subdivision review standards of the land use code
Yes	NA	Existing and/or Proposed Easements or Covenants, applicable. Evidence of existing easements and any proposed easements
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

SUBDIVISION SUPPLEMENTAL SUBMISSIONS CHECKLIST

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

Yes	NA	When private sewage systems are used, the results and supporting data of a soil test of each lot in the subdivision conducted by a soil evaluator licensed in the state.
Yes	NA	When the adequacy of the subdivision's load bearing capacity is in question, a geotechnical report with supporting data that includes the result of test borings shall be prepared by a professional engineer registered in the state and submitted.
Yes	NA	Price range of houses that will be built in the subdivision.
Yes	NA	Traffic impact analysis.
Yes	NA	High intensity soil survey, if required by the Planning Authority.
Yes	NA	Types and estimated quantities of solid waste to be generated by the development.
Yes	NA	A narrative describing all proposed buffer strips, their dimensions, and maintenance plans and responsibilities.
Yes	NA	A description of any wetlands, wildlife and fisheries habitats, archaeological sites or unusual natural areas located on or near the project site and a description of the methods that will be used to protect such area.
Yes	NA	Construction plan outlining the anticipated sequence of construction of the major features of the project including without limitation roads, retention basins, sewer lines, seeding and other erosion and sedimentation control measures, and pollution abatement measures and also setting forth the approximate dates for commencement and completion of the project.
Yes	NA	When conditions warrant, a program to control dust, erosion and sedimentation and/or vehicular traffic during construction.
Yes	NA	At the option of the subdivider, any other information that may be necessary for the full and proper consideration of the subdivision shall be submitted in writing.

SUBDIVISION DRAWINGS CHECKLIST

Please submit each document as a separate PDF file.

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

SUBDIVISION PLAT (at a scale not more than 1"=60', unless lots are more than one acre in size)

1. Date, north point, title and graphic scale.
2. Names, addresses and stamp or certification, if applicable, of registered professional engineer, subdivider, and owner
3. Vicinity sketch (may be shown on separate plan);
4. Names of adjacent property owners with parcels over 25,000 square feet or names of adjacent subdivision;
5. Location and designation of any zoning district boundaries affecting the subdivision;
6. Total site data, including total area of the subdivision, total area in streets, total area in recreation or open space and number of house lots;
7. Based on a recent survey by the subdivider, existing contours at two foot intervals or as otherwise required by the Public Works Authority. Existing structures which are to remain will shall be delineated;
8. Tract boundary lines and property lines of lots, with accurate dimensions and either bearings or deflection angles. All lots shall be numbered;
9. Names of proposed streets, width of rights of way, typical cross section reservation, and depth of construction materials;
10. Locations, widths and purposes of other rights of way or easements to be recorded;
11. All appropriate street geometry information, including point of curvature, point of tangency, tangent distance, radii and interior angle, in standard engineering format;
12. Location of those utilities existing on or adjacent to the tract to be subdivided, including size and elevation of buried or underground utilities (may be shown on separate plan);
13. Designation of flood hazard areas, as defined by the National Flood Insurance Program and shown on the city flood hazard boundary map, as well as any other areas in the subdivision subject to inundation by stormwater or storm sewer overflow;
14. All potential wetlands within the proposed subdivision, regardless of the size of those wetlands;

15. Any river, stream or brook within or abutting the proposed subdivision. For purposes of this section, "river, stream or brook" has the same meaning as in 38 M.R.S. § 480 B, Subsection 9.
16. Existing historic sites and structures which either appear on the National Register or are nominated to the National Register by the state historic preservation officer;
17. Proposed private and public utility system including water, gas, telephone, fire hydrants, and any other services which shall supply the area (may be shown on separate plan);
18. Sanitary sewer and storm drain plans and profiles showing size, kind and slope of pipe, proposed manhole rim and invert elevations and catch basin locations and drains (may be shown on separate plan);
19. Lighting plan showing the location, design, height and spacing from each other of the support poles, in accordance with standards and specifications established by the Public Works Authority (may be shown on separate plan);
20. Tree plan showing groups of existing, sizeable trees which the subdivider intends to preserve (may be shown on separate plan);
21. A detailed plan of the entire subdivision and the immediate vicinity showing all existing and proposed drainage both on- and off-site including drainage swales, ditches, etc., with directional flow arrows and approximate slope grades, and showing proposed finished "spot elevations" around the perimeter of the subdivision. Proposed drainage shall be shown as it may affect or restrict development on individual lots and with reference to improvements for which a performance guarantee is required under this article. Where deemed feasible by the Public Works Authority, proposed finished contours at intervals of two feet shall be provided on the drainage plan upon request (may be shown on separate plan);
22. All future phases and sections of the subdivision proposed by the subdivider (may be shown on separate plan);
23. Proposed parks and school sites, or other public open space that the developer proposes to convey to the city;
24. Streets and right of way monuments and property line markers;
25. Profiles of each street or way in the subdivision shall be shown on the subdivision plat. They shall be drawn to a longitudinal scale of 40 feet to one foot and a vertical scale of four feet to one inch. Such profiles shall include separate profiles of each side line and center line of the street or way. Any buildings abutting on the street shall be shown in standard engineering format as requested by the Public Works Authority.
26. Where submission drawings are available in electronic form, the applicant shall submit any available electronic CAD files with final plans.

**Pineland**

Cumberland Hall
41 Campus Drive, Suite 101
New Gloucester, ME 04260

Portland

565 Congress Street, Suite 201
Portland, ME 04101

August 19, 2021

Project #2048

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

Subdivision Amendment
McAlister Farm Subdivision
33 McAlister Farm Road

Dear: City of Portland Planning Division

PK Real Estate, LLC is proposing to amend the McAlister Farm Subdivision, located off Riverside Street in Portland. The applicant is the record owner of Lot 1 of the McAlister Farm Subdivision, located at 33 McAlister Farm Road and depicted on the City of Portland Assessor's Map 317, Block A, Lot 5 and Map 320, Block A, Lot 6. The parcel is 10.12 acres in size and located in the I-M zoning district.

The project site currently contains a 59,000 s.f. office building and paved parking. The applicant is proposing to split the parcel into three lots, depicted as Lots A, B and C on the proposed Amended Subdivision Plan.

The owner intends to construct a vehicle storage building on Lot A for an existing tenant of the office building. A Site Plan application for planned improvements on Lot A will be filed separately on behalf of the owner by Terradyn Consultants. The existing office building and parking will be located on Lot B, and the applicant is under contract to sell Lot C to a buyer, who will design improvements for that lot. The buyer will seek site plan approval for the proposed improvements on Lot C.

ID	AREA	LAND USE
Lot A	2.06 Acres	Vehicle Storage Building – Pending Site Plan Approval by PK Real Estate, LLC
Lot B	6.05 Acres	Existing Office Building and Parking – No improvements proposed
Lot C	2.01 Acres	Sold and Developed by Others – Pending Site Plan Approval by others

We look forward to working with you and the Planning Staff on approval of this project. Please contact me at (207) 632-9010 or mtw@terradyconsultants.com if you have questions or require additional information.

Sincerely,

TERRADYN CONSULTANTS, LLC

A handwritten signature in black ink, appearing to read "Michael E. W. W.", is written over a light blue rectangular background.

Michael Tadema-Wielandt, P.E.
Vice President

03: RIGHT, TITLE OR INTEREST

The applicant, VIP Auto Inc. has an interest in the parcel by a purchase and sale agreement with the record Owner PK Real Estate LLC. Record owner per deeds dated April 30, 2014, and recorded at the Cumberland County Registry of Deeds (CCRD) in Book 31472, Page 318.

Attached is the purchase and Sale agreement between VIP Auto Inc. and PK Real Estate.

PURCHASE AND SALE AGREEMENT

between

V.I.P., INC.

and

PK REAL ESTATE, LLC

October 27, 2020

380 Riverside Street, Portland

PURCHASE AND SALE AGREEMENT

This PURCHASE AND SALE AGREEMENT ("Agreement") is entered into this 27 day of October, 2020 by and between PK REAL ESTATE, LLC, a Maine limited liability company ("PK"), and V.I.P., INC., a Maine corporation (together with its nominees and assigns, "VIP").

ARTICLE I Purchase and Sale

Section 1.1. Purchase and Sale. PK agrees to sell and convey to VIP, and VIP agrees to purchase from PK, the Property, on all of the mutual terms, covenants and conditions hereinafter set forth.

ARTICLE II Property

Section 2.1. For purposes of this Agreement "Property" shall mean and include the following:

A portion of the real property located at 380 Riverside Street, Portland Maine, more particularly bounded and described in the deed from A. Hausmann Associates, Inc. to PK Real Estate, LLC, dated April 30, 2014, and recorded in the Cumberland County Registry of Deeds in Book 31472, Page 318 (the "Registry"), together with all the rights and appurtenances pertaining thereto, including all of PK's right, title and interest in and to the adjacent streets, roads, alleys, strips, gores, easements, rights of ingress or egress, rights-of-way, reversionary rights, covenants, and any other interests in, on, or to any land, highway, street, road or avenue, open or proposed, in, on, across, in front of, abutting or adjoining the real property, and any awards made or to be made in connection therewith, being 1.5 acres more or less to accommodate the Infrastructure (defined below), acceptable to VIP in its sole judgment. Along Riverside Street, PK will provide sufficient space for a ±8,500 square foot building (the "Building"), with 45 parking spaces, that meets minimum setbacks for the zone in which the Property is located, and has adequate egress/ingress off McAlister Farm Road, which is acceptable to VIP in its sole judgement, and if permitted by the City of Portland, a North entrance off Riverside Street. VIP agrees that its obligation to close on the Purchase and Sale Agreement shall not be contingent upon City approval of a North entrance off Riverside Street. Prior to Closing, the Lot shall be filled with appropriate environmentally clean (e.g. no rubbish, hazardous or dangerous substances) material, graded and otherwise improved to match the grade of Riverside Street and McAlister Farm Road by professional geotechnical methods with construction grade fill and compaction sufficient for the Building. PK will fill and grade the lot (the "Pad") sufficient for the Building, and bring all utilities, sized to adequately meet VIP's intended use as set forth on Exhibit A, approved by VIP in advance, stubbed into the lot within 100 feet of the Pad (water for domestic and building sprinkler system, natural gas, electricity, and sewer connections, or septic, if sewer

connection is not available), which will tie into 380 Riverside septic system (collectively, the "Utilities").

2.1.1. The Property shall also include all of PK's right, title and interest in and to:

(a) those licenses, permits, certificates of occupancy, approvals, authorizations and consents now and/or hereafter issued to PK by any federal, state, county or municipal authority in connection with the Property (collectively, the "Permits"); and

(b) all site and as-built plans, architectural plans, development related documents, engineering plans, landscape plans, architectural renderings, surveys, and environmental assessments or studies (collectively, the "Plans"), if any, that are owned by PK and that are in PK's possession or control, which relate to the Property; and

(c) all development rights, rights related to tax benefits, guaranties, warranties in each case associated with or related to any portion of the Property (collectively, the "Rights") and;

(d) agreements and contracts related to the Property (excluding Leases (defined below)) identified by VIP prior to the Closing as being assigned and assumed at Closing (collectively, the "Contracts").

2.1.2. The Property description shall be finally determined by an ALTA survey commissioned by VIP and the Property shall be conveyed using that survey description.

ARTICLE III Deposit

Section 3.1. Deposit. Three (3) Business Days following the Effective Date (defined below), VIP shall deposit with PK's attorney ("Escrow Agent") the sum of Twenty-Five Thousand Dollars (\$25,000.00) ("Deposit"). The Deposit shall be held in a non-interest-bearing escrow account.

Section 3.2. Non-Refundable. Except as otherwise specifically set forth in this Agreement, the Deposit shall be non-refundable, and shall serve as PK's liquidated damages in the event of a breach of this Agreement by VIP, or shall be applied against the Purchase Price at Closing.

Section 3.3. Termination. In the event VIP terminates this Agreement, the Deposit shall be refunded to VIP following receipt by PK and Escrow Agent of Notice of Termination from VIP.

Section 3.4. Liability of Escrow Agent. In the event of any disagreement between the parties, Escrow Agent shall be entitled to refuse to comply with any claims or demands by either party as long as such disagreement may continue, and in so refusing, shall make no delivery or other disposition of the Deposit. Escrow Agent shall not become liable in any way for such refusal, and Escrow Agent shall be entitled to continue to refrain from acting until:

3.4.1. the rights of the parties shall have been finally adjudicated in a court of competent jurisdiction; or

3.4.2. all differences shall have been settled by agreement and Escrow Agent shall have been notified in writing of such agreement signed by both parties.

ARTICLE IV Schedule

Section 4.1. Design Period. PK shall have completed, and obtained VIP approval for: (1) final design of subdivision; and (2) geotechnical construction specifications prepared by a licensed Maine engineer (the "PK's Engineer") sufficient for the grade and fill, Pad and Utilities (collectively, the "Infrastructure") and VIP's intended uses (the "Design"), within forty-five (45) days (the "Design Period") from the Effective Date.

Within this Design Period, PK will present, if necessary, an acceptable Septic Maintenance Agreement, defining the annual maintenance cost budget and allocation to users. Replacement costs remain with the owner of 380 Riverside Street and/or PK.

Upon VIP's acceptance of the Design, PK will promptly submit the Design to the City of Portland for subdivision approval, to be obtained within one hundred and twenty (120) days (the "Subdivision Approval").

Section 4.2. PK's Work. Prior to Closing, PK shall complete the Infrastructure (collectively, "PK's Work") to VIP's reasonable satisfaction. PK's Work shall commence on the next PK's Work day following expiration of the Inspection Period (defined below) and shall be completed on the 150th day thereafter. VIP and its consultants, engineers and contractors (collectively, "VIP's Engineers") shall have the right to periodically inspect the PK's Work and shall render their own opinion as to whether the PK's Work and the Infrastructure are adequate for VIP's intended uses. In the event VIP's Engineers and PK's Engineers disagree, they shall appoint a third-party licensed Maine engineer to evaluate the PK's Work and the Infrastructure and its suitability for the VIP's intended uses. The opinion of the third-party engineer shall be conclusive and binding on the parties. **Except as provided for in the Permitting Contingency (defined below), upon the expiration of the 30-day period following receipt of the Subdivision Approval, the Deposit shall become non-refundable except in the case of PK's uncured breach or default.** On or before the start of PK's Work, PK's Engineer and VIP's Engineer shall schedule and hold weekly conference calls to discuss the schedule and progress of PK's Work.

Section 4.3. Inspection Period. VIP shall have thirty (30) days (the "Inspection Period") from the date of Subdivision Approval to (a) inspect the Property and examine PK's records relating to the Property and to ascertain its acceptability to the VIP, and (b) obtain reasonable assurances from the municipal planning and zoning authority that a tire and service business that operates seven (7) days per week is a permitted use in the zone in which the Property is located. PK shall provide any records relating to the Property that are in its possession within five (5) days from the Effective Date. If, at the end of the Inspection Period, VIP elects to terminate the Agreement because it is not satisfied with the results of its

inspections, the Deposit will be returned to VIP. All costs incurred by VIP for the property inspectors shall be the sole responsibility of the VIP.

Section 4.4. Environmental Reports. VIP shall initiate an ASTM-compliant Phase I ESA ("ESA") with the intent of receiving the completed ESA within thirty (30) days, but not more than forty-five (45) days, of Subdivision Approval.

If, at the end of the Inspection Period or after receipt of the completed ESA, VIP elects to terminate the Agreement as a result of an unsatisfactory environmental assessment, the Deposit will be returned to VIP. All costs incurred by VIP for the property inspectors shall be the sole responsibility of the VIP.

Section 4.5. Flood Evaluation. VIP shall have the right to have a flood evaluation on the property. If at the end of the Inspection Period, VIP deems the evaluation unacceptable, VIP has a right to terminate the Agreement, and thereupon the Deposit will be returned to VIP. All costs incurred by VIP for flood evaluation shall be the sole responsibility of the VIP

Section 4.6. Zoning and Permitting. VIP shall, within ten (10) days of the Subdivision Approval, begin the application process for permitting and zoning approval for its intended uses to operate seven (7) days per week as a tire and service business, with adequate entry and exit onto McAlister Farm Road, and if permitted by the City of Portland, a North entrance from Riverside Street. If VIP is unable to attain permitting and zoning approval (collectively, the "Approvals") from the City of Portland to operate for its intended uses and/or permitting to build, allow construction of a ±8,500 square foot retail tire and auto service center with adequate entry and exit onto McAlister Farm Road, within one hundred and fifty (150) days of Subdivision Approval (the "Entitlement Period"), VIP shall have the right to terminate the Agreement, and the Deposit shall be returned to VIP. All costs incurred by VIP for zoning and permitting applications shall be the sole responsibility of the VIP. Notwithstanding any other provision in this letter of intent, the Deposit shall be returned to VIP in the event VIP is unable to, in good faith and using commercially reasonable efforts, obtain zoning and permitting approval for its intended uses.

ARTICLE V Purchase Price

Section 5.1. Amount of Purchase Price. VIP shall pay PK a purchase price ("Purchase Price") for the Property in the amount of [REDACTED]

Section 5.2. Manner of Payment. VIP shall pay the Purchase Price to PK at the Closing as follows:

5.2.1. Deposit. Applying the Deposit against the Purchase Price at Closing; and

5.2.2. Cash. Paying the balance of the Purchase Price at the Closing, by federal funds wire transfer to an account to be designated by PK ("Cash Balance").

ARTICLE VI
Due Diligence

Section 6.1. Title.

6.1.1. Title Examination. Within the first thirty (30) days following Subdivision Approval ("Title Inspection Period"), VIP shall have the opportunity to examine title to the Property, review a title commitment and any amendments thereto issued during the Title Inspection Period relating to the Property (collectively, the "Title Commitment"), the exceptions to title disclosed in the Title Commitment, all matters depicted on the Survey, defined below, (collectively, the "Survey Matters") and all other aspects of PK's title to the Property. The Title Commitment shall be for the benefit of VIP, at customary rates, in the ALTA form currently in use, subject only to the Permitted Encumbrances (as defined below) and with such standard exceptions deleted and such standard endorsements included as VIP may, in its sole discretion, require. Within three (3) days of the expiration of the Title Inspection Period ("Title Notice Deadline"), VIP shall notify PK in writing of any defect in title to the Property, or any other matter which is indicated on the Title Commitment or any Survey Matter to which VIP objects except for the following (collectively, the "Permitted Encumbrances"):

(a) liens for real estate taxes not yet due and payable or for betterments assessed after the Effective Date;

(b) other encumbrances which may be removed or satisfied by the payment of a liquidated sum of money, which PK agrees to discharge at Closing to VIP's satisfaction; and

(c) such easements, restrictions and reservations of record as are acceptable to VIP, in its sole discretion.

6.1.2. Title Objections. If VIP does so notify PK of a defect in title or other matter objectionable to VIP prior to the Title Notice Deadline, PK shall have ten (10) days in which to determine whether to cure the defect or other matter so objected to by VIP and to notify VIP of PK's decision in this regard. If PK does not respond within such time frame, PK shall be deemed to have elected not to cure the defect or other matter. If PK elects (or is deemed to elect) not to cure the defect or other matter so objected to by VIP to the reasonable satisfaction of VIP, VIP shall have the right, by not later than the tenth (10th) day after the date of PK's notice (or failure to provide notice) to either:

(a) waive such defect or other matter and take title to the Property without any adjustment in the Purchase Price; or

(b) terminate this Agreement by giving written notice thereof to PK.

If PK elects to cure the defect or other matter, PK, at its sole cost and expense, will have until thirty (30) days before the Closing to cure the defect or other matter, other than the Monetary Liens (defined below), which (to the extent not previously removed) PK shall, and is affirmatively obligated to, remove or cure by payment of funds at Closing. Those defects that PK gives notice will be cured on or before the Closing Date, along with discharge of Monetary Liens, are referred to herein as "Mandatory Cure Items".

6.1.3. Notice of Title Objections. If VIP timely gives such notice of termination, this Agreement shall terminate, and the Deposit shall be returned to VIP. If VIP fails to give PK a notice of termination, VIP:

(a) shall no longer have a right to terminate this Agreement under this Section 6.1 and shall be bound to proceed to Closing and consummate the transaction contemplated hereby pursuant to the terms of this Agreement; and

(b) shall be deemed to have approved the state of title to the Property as it exists on the effective date of the Title Commitment.

6.1.4. Mandatory Cure Items. Notwithstanding anything to the contrary contained in this Agreement, PK will in all events be required to remove the following on or before Closing, and in so doing may use any portion of the Purchase Price to satisfy the same:

(a) any mortgage or other monetary lien affecting any portion of the Property that secures a monetary obligation;

(b) any lien or encumbrance recorded after the Title Commitment that resulted from PK's failure or alleged failure to pay any amount due and payable by PK or was recorded after the such date; and

(c) any real estate tax or assessment liens affecting any portion of the Property.

Section 6.2. VIP's Due Diligence. Notwithstanding any other provision of this Agreement to the contrary, VIP shall be entitled to undertake a thorough investigation of the Property, including without limitation such reviews, analyses and studies of the Property and the development of the Project (defined below) at the Property, as VIP may, in its sole discretion, determine to be necessary or appropriate, including those listed below. If VIP, in VIP's sole discretion, is not satisfied with the results of such investigations, VIP may terminate this Agreement by giving VIP's Termination Notice to PK and Escrow Agent at any time during the Inspection Period. VIP shall restore the Property disturbed by any activity conducted hereunder to substantially the same condition as it is in on the Effective Date, shall repair all damage to the Property caused thereby and shall indemnify and hold PK harmless from and against claims, losses, liabilities, costs or expenses (including without limitation reasonable attorneys' fees) (collectively, "Liabilities") asserted against or incurred by PK directly attributable to any such activity, it being expressly understood and agreed that the foregoing provisions (a) do not apply to liabilities associated with further investment or remediation costs associated with environmental contamination then existing and (b) shall survive the Closing or the termination of this Agreement prior thereto.

Section 6.3. Effective Termination. If this Agreement is terminated pursuant to the provisions of this Article VI, the Deposit shall be returned to VIP and all other obligations of the parties hereto shall cease and this Agreement shall be void and without recourse to the parties hereto, except as otherwise expressly set forth.

ARTICLE VII
Representations and Warranties

Section 7.1. Authority. Each party warrants and represents that this Agreement and all other documents delivered prior to or at the Closing (a) have been or shall be duly authorized and executed and delivered by such party; (b) are legal, valid, and binding obligations of such party; and (c) neither violate any provision of any agreement to which such party is a party, nor violate any charters, bylaws, operating agreements or other organizational documents of such party.

Section 7.2. VIP's Representations and Warranties. VIP hereby represents, warrants and covenants the following to PK. For purposes of this Article VII "VIP's knowledge" shall mean the actual knowledge (as opposed to any constructive or imputed knowledge) of John P. Quirk.

7.2.1. VIP is duly organized, validly existing and in good standing under the laws of the State of Maine and is in good standing in the State of Maine. VIP has the requisite right, power and authority to buy the Property from PK as provided herein, and has taken all action necessary to authorize the execution, delivery and performance of this Agreement. VIP has obtained all consents and approvals necessary for VIP's execution, delivery and performance of this Agreement, and the performance by VIP of VIP's obligations hereunder will not constitute a default under the terms and provisions of any material agreement, document or instrument to which VIP is a party or by which VIP is bound.

7.2.2. This Agreement constitutes the valid and binding obligation of VIP, enforceable against VIP in accordance with its respective terms, except to the extent that enforcement may be limited by applicable bankruptcy, insolvency, moratorium and other principles relating to or limiting the rights of contracting parties generally.

7.2.3. There is no suit or proceeding pending or, to VIP's knowledge, threatened against or affecting VIP that might affect or relate to this Agreement or the transactions contemplated hereby, in any court or before or by any federal, state, county or municipal department, commission, board, bureau, or agency or other governmental instrumentality. No order, writ, injunction, subpoena or decree has been issued by or to VIP's knowledge requested of any court or government agency that VIP could reasonably be expected to have a material adverse effect on the transactions contemplated by this Agreement.

7.2.4. VIP has engaged Tom Moulton, of the NAI The Dunham Group as real estate broker. Any commission or fee due such broker on account of the transaction contemplated by this Agreement shall be paid for by PK. Apart from the foregoing, VIP has not engaged any broker or agent in connection with the sale. VIP shall indemnify, defend and hold PK harmless from and against any loss, damages, liabilities, costs or expenses, including without limitation attorneys' fees and court costs, resulting from any claim for a fee or commission by any other broker or finder with whom VIP has dealt.

7.2.5. Neither VIP nor any of its affiliates, nor any of their respective partners, members, shareholders or other equity owners, and none of their respective employees, officers, directors, representatives or agents is, nor will they become, a person or entity with whom United

States persons or entities are restricted from doing business under regulations of the Office of Foreign Asset Control ("OFAC") of the Department of the Treasury (including those named on OFAC's Specially Designated Nationals and Blocked Persons List) or under any statute, executive order (including the September 24, 2001, Executive Order Blocking Property and Prohibiting Transactions with Persons Who Commit, Threaten to Commit, or Support Terrorism), or other governmental action and is not and will not engage in any dealings or transactions or be otherwise associated with such persons or entities.

Section 7.3. PK's Representations and Warranties. PK hereby represents, warrants and covenants the following to VIP. For purposes of this Article VII "PK's knowledge" shall mean the actual knowledge (as opposed to any constructive or imputed knowledge) of Richard H. Packard.

7.3.1. PK is duly organized, validly existing and in good standing under the laws of the State of Maine. PK has the requisite right, power and authority to sell and convey the Property to VIP as provided herein, and has taken all action necessary to authorize the execution, delivery and performance of this Agreement. PK has obtained all consents and approvals necessary for PK's execution, delivery and performance of this Agreement, and the performance by PK of PK's obligations hereunder will not constitute a default under the terms and provisions of any material agreement, document or instrument to which PK is a party or by which PK is bound.

7.3.2. This Agreement constitutes the valid and binding obligation of PK, enforceable against PK in accordance with its respective terms, except to the extent that enforcement may be limited by applicable bankruptcy, insolvency, moratorium and other principles relating to or limiting the rights of contracting parties generally.

7.3.3. PK has not received any written or oral notice of any pending condemnation, expropriation, eminent domain or similar proceeding affecting all or any portion of the Property and has no knowledge that any such proceeding is contemplated.

7.3.4. There are no Leases, tenancy agreements, tenancies at will, parking space agreements and other contracts, agreements or occupancy arrangements, whether written or oral, affecting the Property or any portions thereof in effect with respect to any portion of the Property. Simultaneous with the execution of this Agreement, PK shall provide, or otherwise make available, to VIP copies of all such agreements.

7.3.5. No written or oral notice has been given by the holder of any mortgage on the Property, any insurance company that has issued a policy with respect to the Property, or by any board of fire underwriters (or other body exercising similar functions) claiming any material defect or deficiency or requesting the performance of any material repairs, alterations or other work to the Property.

7.3.6. There are no management, service, equipment, supply, maintenance or concession agreements with respect to or affecting all or any portion of the Property.

7.3.7. PK has paid or will pay in full prior to the Closing all of their outstanding bills and invoices for utility charges, labor, goods, materials, and services of any kind relating to the Property.

7.3.8. No work has been performed or is in progress at, and no materials have been furnished to, the Property which, though not presently the subject of, might give rise to mechanic's, materialmen's or other liens against the Property or any portion thereof. If any lien for work performed or materials furnished prior to the Closing, in either case pursuant to a contract with PK, is filed before or after the Closing, PK shall promptly discharge such lien by filing the requisite bond or in any other manner allowed by applicable law. PK will execute and deliver a standard form of Mechanic's Lien Affidavit for title insurance purposes.

7.3.9. There is no suit or proceeding pending or, to PK's knowledge, threatened against or affecting PK or the Property that might affect or relate to this Agreement or the transactions contemplated hereby, in any court or before or by any federal, state, county or municipal department, commission, board, bureau, or agency or other governmental instrumentality. No order, writ, injunction, subpoena or decree has been issued by to PK's knowledge or requested of any court or government agency which is reasonably likely to result in a material adverse change in the Property or the PK, or which could reasonably be expected to have a material adverse effect on the transactions contemplated by this Agreement.

7.3.10. PK has received no written notice of any outstanding violation of any federal, state, county, or municipal laws, ordinances, orders, codes, rules, regulations, or requirements affecting all or any portion of the Property, including without limitation violations of the housing, building, safety, health, fire, or zoning ordinances, codes, and regulations of the municipality or county within which the Property is located, issued by any governmental or quasi-governmental authority.

7.3.11. To PK's knowledge there are no pending or threatened, and has not received written notice of any, violations of any permit, authorization or approval; and any federal, state or local laws, statutes or ordinances, and the rules and regulations promulgated thereunder (collectively, the "Laws"), relating to the Property, that have not been cured.

7.3.12. Except as may be identified in any ESA: (a) there are no violations of any Environmental Laws with respect to the Property and PK has not used, stored, disposed of or released any Hazardous Materials on the Property; (b) during PK's ownership of the Property, the Property has not been used, and to the knowledge of PK, the Property has not been used in the past, to treat, store or dispose of Hazardous Materials in violation of Environmental Laws, and neither PK nor, to knowledge of PK, anyone else, has otherwise dumped, placed, released, or discharged Hazardous Materials in violation of Environmental Laws on the Property or any property adjacent to the Property. As used herein, "Environmental Laws" shall mean all federal state and local laws, statutes, rules, codes, ordinances, regulations, orders, judgments, decrees, binding and enforceable guidelines, including any judicial or administrative order, consent decree or judgment, in each case to the extent binding, relating to the environment, the protection of health or Hazardous Materials, including, without limitation, the Comprehensive Environmental Response, Compensation, and Liability Act, 42 USC §9601 et seq.; the Resource Conservation and Recovery Act, 42 USC §6901 et seq.; the Federal Water Pollution Control Act,

33 USC §1251 et seq.; the Toxic Substances Control Act, 15 USC §2601 et seq.; the Clean Air Act, 42 USC §7401 et seq.; the Safe Drinking Water act, 42 USC §3803 et seq.; the Oil Pollution Act of 1990, 33 USC §2701 et seq.; the Emergency Planning and Community Right-to-Know Act of 1986, 42 USC §11001 et seq.; the Hazardous Material Transportation Act, 49 USC §1801 et seq.; and the Occupational Safety and Health Act, 29 USC §651 et seq. (to the extent it regulates occupational exposure to Hazardous Materials); any state, local or foreign counterparts or equivalents, in each case as amended from time to time, and includes the Permits. As used herein, "Hazardous Materials" shall mean (a) substances that are defined or listed in, or otherwise classified pursuant to, any applicable law or regulations as "hazardous substances," "hazardous materials," "hazardous wastes," "toxic substances," "pollutants," "contaminants" or other similar term intended to define, list or classify a substance by reason of such substance's ignitability, corrosivity, reactivity, carcinogenicity, reproductive toxicity or "EP toxicity" and (b) oil, petroleum or petroleum derived substances, natural gas, natural gas liquids, synthetic gas, drilling fluids, produced waters and other wastes associated with the exploration, development or production of crude oil, natural gas or geothermal resources.

7.3.13. There are no tax liens on any of the Personal Property, and PK has paid all Taxes, withholdings and governmental charges due with respect to the Personal Property under all applicable federal, state and local laws and regulations. There are no legal, administrative or other tax proceedings currently in progress or, to the knowledge of PK, threatened pursuant to which PK is or could be made liable for any taxes, the liability for which would be reasonably likely to extend to VIP as transferee of the Property, and no event has occurred that could impose on VIP any transferee liability for any Taxes due or to become due from PK.

7.3.14. PK has engaged no broker or agent in connection with the sale other than Tom Moulton, of the NAI The Dunham Group as real estate broker. PK shall indemnify, defend and hold VIP harmless from and against any loss, damages, liabilities, costs or expenses, including without limitation attorneys' fees and court costs, resulting from any claim for a fee or commission by any broker or finder with whom PK has dealt. VIP has engaged Tom Moulton, of the NAI The Dunham Group as real estate broker. Any commission or fee due such broker on account of the transaction contemplated by this Agreement shall be paid for by PK.

7.3.15. PK is not a "foreign person" as defined in Section 1445(f)(3) of the Code.

7.3.16. Neither PK nor any of its affiliates, nor any of their respective partners, members, shareholders or other equity owners, and none of their respective employees, officers, directors, representatives or agents is, nor will they become, a person or entity with whom United States persons or entities are restricted from doing business under regulations of OFAC (including those named on OFAC's Specially Designated Nationals and Blocked Persons List) or under any statute, executive order (including the September 24, 2001, Executive Order Blocking Property and Prohibiting Transactions with Persons Who Commit, Threaten to Commit, or Support Terrorism), or other governmental action and is not and will not engage in any dealings or transactions or be otherwise associated with such persons or entities.

7.3.17. PK has not received any notice of adverse claims of title with respect to the Property or any portion thereof.

7.3.18. Except as set forth on Schedule ____ [if blank, "None"], no person or entity has a right of first refusal, option to purchase, or other right to purchase any portion of the Property pursuant to an agreement to which PK is a party or is otherwise bound.

7.3.19. There are no amounts presently overdue or otherwise unpaid beyond any applicable grace period to any person on account of labor performed or materials provided to PK in connection with construction of, at or in the Real Property.

7.3.20. To the best of PK's knowledge, Schedule _____ [if blank, "None"] contains a true and complete list of all Permits for the Property. PK has delivered to VIP true and complete copies of each Permit. PK is, and has been for the last five (5) years, in full compliance with the terms and conditions of each Permit. PK has not received any notice and has no reason to believe that PK is in violation of any of its Permits or that any Permit is about to be revoked, suspended or will not be renewed.

ARTICLE VIII Conditions to Close

Section 8.1. PK's Conditions Precedent. PK's obligation to sell the Property to VIP is subject to the following conditions precedent (collectively, "PK's Conditions Precedent"):

8.1.1. Payment by VIP of all sums due from VIP in accordance with this Agreement;

8.1.2. As of the Closing Date, there shall be no pending court litigation of any kind whatsoever against or relating to the Property, which would prohibit or materially impair PK's ability to close hereunder;

8.1.3. All of the representations and warranties of VIP shall be true and correct in all material respects as of the Closing; and

8.1.4. VIP shall have performed in all material respects each of its obligations under this Agreement to be performed at or prior to the Closing.

Section 8.2. VIP's Conditions Precedent. VIP's obligations to purchase the Property is subject to the following conditions precedent (collectively, "VIP's Conditions Precedent"):

8.2.1. As of the Closing Date, there shall be no pending court litigation of any kind whatsoever against or relating to the Property, which would prohibit or materially impair VIP's ability to close hereunder.

8.2.2. All of the representations and warranties of PK shall be true and correct in all material respects as of the Closing.

8.2.3. PK shall have performed in all material respects each of its obligations under this Agreement to be performed at or prior to the Closing.

8.2.4. VIP shall have obtained Approvals in accordance with Section 4.6.

8.2.5. Satisfaction of VIP's due diligence as provided for in Article VI.

8.2.6. At the Closing, PK shall convey the Property to VIP by Deed, which shall be consistent in all respects with the Title Commitment.

8.2.7. The Property shall be in substantially the same condition as the Property was in at the end of the Due Diligence Period, reasonable wear and tear excepted.

8.2.8. PK shall have in all respects performed and complied with all covenants, agreements and conditions required by this Agreement to be performed or complied with by it prior to or at the Closing.

8.2.9. VIP shall have obtained a title insurance policy with respect to the Property conforming in all respects to the Title Commitment.

8.2.10. PK shall have delivered evidence satisfactory to VIP that all Leases of all or any portion of the Property have been terminated at or prior to Closing, at PK's expense, and that no tenants have any further right to occupancy or use of the Property thereunder.

8.2.11. PK shall have obtained all consents, approvals, authorizations, exemptions and waivers from governmental authorities and third parties, if any, as shall be necessary, in the VIP's reasonable discretion, to effect the transactions contemplated hereby.

8.2.12. *[intentionally omitted]*

8.2.13. There shall have been no material adverse change since the Effective Date, except changes contemplated or required by this Agreement, including without limitation, any change in the title, physical condition, legal status, use or possession of the Property from the conclusion of the Due Diligence Period through the Closing Date that would cause the Property to be unsuitable for development of the Project, as reasonably determined by VIP.

8.2.14. No Law shall be in effect which restrains or prohibits PK from consummating the transactions contemplated hereby. In addition, no action, suit, or proceeding shall be pending before any court or quasi-judicial or administrative agency of any federal, state, local, or foreign jurisdiction wherein an unfavorable injunction, judgment, order, decree, ruling, or charge would:

(a) prevent consummation of any of the transactions contemplated by this Agreement; or

(b) result in a material adverse change in the Property or the ability to develop the Project at the Property.

ARTICLE IX

Risk of Loss

Section 9.1. Risk of Loss. In the event the Property is damaged prior to Closing, VIP may: (i) terminate this Agreement and receive back the Deposit in accordance with this

Agreement; (ii) close with no adjustment in Purchase Price; or (iii) negotiate an adjustment in the Purchase Price, which the negotiation shall conclude within thirty (30) days of the event causing the loss and shall be conducted in good faith.

Section 9.2. Condemnation. Any taking or condemnation for any public or quasi-public purpose or use by any competent authority in appropriate proceedings or by any right of eminent domain of all or any material part of the Property between the Execution Date and the time of the Closing shall, at VIP's option, cause a termination of this Agreement. The election to terminate provided for hereby must be exercised by VIP by written notice to PK to such effect, which notice shall be given by VIP on or before the thirtieth (30th) day after VIP's receipt of written notice of such condemnation (but in any event prior to the Closing, provided however that VIP shall be entitled to extend the Closing Date to a date that is two (2) business days beyond the date that would be the thirtieth (30th) day following such notice). If VIP shall not elect so to terminate this Agreement, PK shall be relieved of its duty to convey title to the portion of the Property so taken or condemned, but VIP will be entitled to receive all proceeds of any such taking or condemnation provided VIP takes title hereunder and PK shall make no settlement or adjustment of such proceedings without VIP's consent, and shall take at the Closing all action necessary to assign its entire interest in any such award to VIP.

Section 9.3. Return of Deposit. The Deposit shall be returned to VIP immediately following termination of this Agreement by VIP under this Article and all other obligations of the parties hereto shall cease and this Agreement shall be void and without recourse to the parties hereto.

ARTICLE X Covenants

Section 10.1. Closing Conditions. From the Effective Date until the Closing (the "Interim Period"), subject to the terms and conditions of this Agreement, each Party shall use its commercially reasonable efforts to take such actions as are necessary, proper or advisable in order to expeditiously consummate and make effective the transactions contemplated by this Agreement.

Section 10.2. Property Management. PK shall operate the Property before the Closing in substantially the same manner that PK operated the Property before the Execution Date. Subject to the foregoing provisions, it is expressly understood and agreed that PK may, so long as VIP is so advised and consents in advance, (a) enter into service contracts, utility contracts and other contracts pertaining to the management of the Property, (b) renegotiate, modify or cancel (including without limitation on account of a Tenant's default) any of the Leases, (c) accept surrender of the premises demised under any of the Leases and (d) execute or otherwise enter into any new Lease. In no event shall PK accept any payment of fixed rental under any Lease more than thirty (30) days in advance.

Section 10.3. Cooperation. During the Interim Period, each Party will, in order to consummate the transaction contemplated by this Agreement, (i) provide reasonable cooperation to the other Party, and proceed diligently and in good faith and use all commercially reasonable efforts, as promptly as practicable, to make all required filings with, and give all required notices

to, the applicable Governmental Authorities required to consummate the transactions contemplated by this Agreement, and (ii) cooperate in good faith with the applicable Governmental Authorities and promptly provide such other information and communications to such Governmental Authorities as such Governmental Authorities may reasonably request in connection with the foregoing. Each Party will pay any fees and expenses associated with obtaining any Consent from a Governmental Authority as may be imposed by applicable Law, provided that if applicable Law does not impose the fees or expenses on a particular Party, the Parties shall equally share the cost of such fees or expenses.

Section 10.4. Notifications and Consultation. The Parties will provide prompt notification to each other of any material communications (in oral or written form) with any Governmental Authority regarding the transaction contemplated under this Agreement. Each Party will consult with the other Party in advance of any material meeting or conference (in person or by telephone) with any such Governmental Authority, and to the extent not prohibited by Law or such Governmental Authority, give the other Party the opportunity to attend and to participate in such meetings and conferences. Notwithstanding the foregoing, neither VIP nor PK shall be obligated to share any information, filing, submission or response with the other Party if a Governmental Authority objects to the sharing of such information, filing, submission or response or if prohibited by applicable Law

Section 10.5. Permit Transfer. During the Interim Period, VIP and PK shall cooperate and use their commercially reasonable efforts to secure the transfer or reissuance of the Permits to VIP (including obtaining any necessary Consents thereto), or the substitution of VIP for PK where appropriate on pending applications for such Permits or renewals thereof, effective as of the Closing Date. If the Parties are unable to secure the transfer, reissuance or substitution respecting one or more Transferable Permits effective as of the Closing Date, PK shall continue to reasonably cooperate with VIP's efforts to secure such transfer, reissuance or substitution following the Closing Date.

Section 10.6. *[intentionally omitted]*

ARTICLE XI

Closing

Section 11.1. Closing Date. Subject to satisfaction of the conditions set forth in Article VIII and the Covenants in Article X, the Closing shall occur on the date that is not later than ten (10) days after the completion of PK's work. Closing shall occur by mail or at the offices of PretiFlaherty, One City Center, Portland, Maine commencing at 10:00 AM local time on the Closing Date, or at such other date, time and location as VIP and PK may mutually agree. The cash portion of the Purchase Price ("Cash Balance") shall be held in escrow by the VIP's attorney pursuant to customary conveyancing practice until the Deed is recorded, provided however that the Deed shall be recorded no later than 1:00 PM on the Closing Date unless PK's attorney has been advised of any matter of record arising after the effective date of the Title Commitment and preventing PK from conveying title to the Property in accordance with the applicable provisions of this Agreement.

Section 11.2. Closing Deliverables. At the Closing, PK and VIP shall exchange the following documents and funds.

11.2.1. PK's Deliverables. PK shall deliver the following to VIP:

(a) Deed. A duly executed and acknowledged quitclaim deed with covenant in form acceptable to VIP conveying the Property to VIP subject only to Permitted Encumbrances ("Deed").

(b) Bill of Sale and Assignment. A duly executed bill of sale and assignment in form acceptable to VIP conveying the Plans, Permits and Rights to VIP free and clear of all liens and encumbrances ("Assignment").

(c) [*intentionally omitted*]

(d) [*intentionally omitted*]

(e) Non-Foreign Affidavit. A duly executed original affidavit as to PK's non-foreign status.

(f) Authority. Such evidence as may be reasonably required as to the authority of the person or persons executing documents on behalf of PK.

(g) Title Affidavits. Executed affidavits and indemnifications in form and substance reasonably satisfactory to VIP and the Title Company regarding mechanics' and materialmen's liens and parties in possession sufficient to eliminate any title insurance exceptions for these matters with respect to the Property.

(h) Additional Documents. Such other documents, including without limitation settlement statements and escrow instructions, as are required of PK to close in accordance with this Agreement and local conveyancing practice.

11.2.2. VIP's Deliverables. VIP shall deliver the following to PK:

(a) Cash Balance. The Cash Balance in accordance with Section 11.1 above;

(b) Closing Costs. Additional funds in the amount necessary to pay VIP's share of closing costs, as set forth in Section 12.2.; and

(c) Additional Documents. Such other documents, including without limitation authority documents, settlement statements and escrow instructions, as are required of VIP to close in accordance with this Agreement and local conveyancing practice.

Section 11.3. Use of Purchase Price to Clear Title. To enable PK to make the conveyance as herein provided, PK may, at the Closing, use the Purchase Price or any portion thereof to clear title of any or all encumbrances or interests so long as PK has obtained and furnished to VIP at or prior to the Closing a recordable release of each such encumbrance or

interest or (in the case of an institutional mortgage or other security interest) written commitment from the holder thereof to provide such release upon receipt of a sum certain.

Section 11.4. Closing Statement. The parties shall execute and deliver a Closing and Proration Statement confirming the funds flow and prorations required under Article XII hereof.

ARTICLE XII Closing Costs, Prorations

Section 12.1. PK's Costs. PK shall pay (a) ½ of the transfer taxes payable upon recordation of the Deed; and (b) the amounts, costs, fees and expenses necessary to discharge PK's obligations under this Agreement, including but not limited to the Mandatory Cure Items (collectively, the "PK's Costs").

Section 12.2. VIP's Costs. VIP shall pay (a) ½ of transfer taxes; (b) the title insurance premium; (c) the cost of recording the Deed; and (d) all other costs required in order to close in accordance with this Agreement (except as specified in Section 12.1).

Section 12.3. Prorations. Taxes (including any business and license taxes and any other state, county or municipal assessments), utility and fuel bills and other customarily-adjusted operating expenses shall be prorated as of the Closing Date and added to or subtracted from (as the case may be) the Cash Balance. All charges accruing prior to the Closing Date shall be the obligation of PK and all charges accruing on or after the Closing Date shall be the obligation of VIP. If the amount of such taxes is not known on the Closing Date, such taxes shall be prorated on the basis of taxes assessed for the preceding fiscal period, subject to reapportionment as soon as the new tax rate and valuation can be ascertained. In the event of any abatement of such taxes subsequent to the apportionment thereof, the amount of such abatement, less the reasonable cost of obtaining the same, shall be prorated as of the Closing Date.

ARTICLE XIII Notices

Section 13.1. Notices. All notices required or permitted to be given hereunder shall be in writing and sent by a certified US Mail, return receipt requested, to the appropriate address indicated below or at such other place or places as either VIP or PK may, from time to time, respectively, designate in a written notice given to the other:

To VIP:	VIP, Inc. ATTN: John P. Quirk ATTN: Allan Kirkland 24 Harriman Drive Auburn, ME 04210 Email: jquirk@vipauto.com Email: akirkland@vipauto.com
---------	--

With a copy to:	Preti, Flaherty, Beliveau & Pachios LLP
-----------------	---

ATTN: Michael L. Lane, Esq.
One City Center
P.O. Box 9546
Portland, ME 04101
Email: mlane@preti.com

To PK: PK Real Estate LLC
ATTN: Richard H. Packard
1 Madison Street
South Portland, Maine 04106
Email: rpackard@landmarkco.com

With a copy to: Jensen Baird Gardner & Henry
ATTN: Nicholas J. Morrill, Esq.
Ten Free Street, 4th Floor
P.O. Box 4510
Portland, Maine 04112-4510
Email: nmorrill@JBGH.com

ARTICLE XIV Default

Section 14.1. VIP's Default. In the event that this transaction does not close as a consequence of a default by VIP, PK shall retain the Deposit as liquidated damages which shall be its exclusive remedy. The parties hereby agree that if VIP defaults, PK's actual damages would be difficult or impossible to determine, and thus the amount of the Deposit is the best estimate of the damage PK would suffer. Accordingly, the Deposit shall be the total amount that PK is entitled to receive as liquidated damages.

Section 14.2. PK's Default. In the event PK fails to perform any obligation of PK under this Agreement, including without limitation the obligation to convey good, clear, record and marketable title to the Property to VIP on the Closing Date, as hereinafter defined, in accordance with the provisions of this Agreement, and such failure shall remain uncured for a period of thirty (30) days following written notice thereof from VIP to PK (but no notice shall be required for PK's failure to convey title as required hereunder on the Closing Date), then VIP may:

14.2.1. terminate this Agreement, in which event the Deposit shall be returned to VIP; or

14.2.2. VIP may pursue any other remedies available to VIP at law or in equity, including the right to seek to enforce specific performance of PK's obligations hereunder.

ARTICLE XV Miscellaneous Provisions

Section 15.1. *[intentionally omitted]*

Section 15.2. Further Assurances. Whenever reasonably requested to do so by the other party, PK and VIP shall execute, acknowledge, and deliver any and all such further conveyances, assignments, confirmations, satisfactions, releases, instruments of further assurance, approvals, consents and any and all such further instruments and documents as may be necessary in order to complete any and all conveyances, transfers, sales and assignments herein provided, and to do any and all other acts and to execute, acknowledge and deliver any and all documents as so requested in order to carry out the intent and purpose of this Agreement.

Section 15.3. Effective Date. The “*Effective Date*” of this Agreement shall be the date on which both PK and VIP have received a copy of the fully executed Agreement.

Section 15.4. Successors and Assigns. VIP may assign its rights pursuant to this Agreement with respect to the property located at 380 Riverside Street, Portland, Maine to an affiliate. All of the rights, benefits, duties, liabilities, and obligations of the parties hereto shall inure to the benefit of, and be binding upon, their respective successors and assigns.

Section 15.5. *[intentionally omitted]*

Section 15.6. Headings; Language. The title and headings of the Sections hereof are intended solely for means of reference and are not intended to modify, explain or place any construction on any of the provisions of this Agreement. The use of “and” or “or” shall mean “and/or” unless the context clearly indicates otherwise. The use of “including” shall mean “including but not limited to” unless the context clearly indicates otherwise.

Section 15.7. Modification. This Agreement may not be modified, amended or otherwise changed in any manner except by a writing mutually executed by both parties. To the extent there is any conflict between the terms and conditions of this Agreement and the terms and conditions of any other documents relating to the acquisition of the Property as they relate to rights and obligations between VIP and PK, the terms and conditions of this Agreement shall be deemed controlling.

Section 15.8. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Maine.

Section 15.9. Confidentiality. The parties shall keep the terms and conditions of this Agreement and all subsequent discussions and non-public documents confidential (including, but not limited to, any test results or reports resulting from activities undertaken pursuant to sections 6.2.4), and shall not release or provide them to any third party except as may be required by law, with the consent of the other party, or to a party’s consultants and advisors, who shall in turn be bound by this confidentiality provision. Notwithstanding the foregoing, VIP:

15.9.1. may communicate with Governmental Authorities regarding transfer of Permits and any Approvals.

Section 15.10. Counterparts; Facsimile. This Agreement may be executed in any number of counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument. Any facsimile copies hereof or signature hereon shall, for all purposes, be deemed originals.

Section 15.11. Entire Agreement. This Agreement supersedes all prior discussions and agreements between the parties with respect to the subject matter hereof, and this Agreement and the other documents delivered pursuant to this Agreement contain the sole and entire agreement between the Parties hereto with respect to the subject matter hereof.

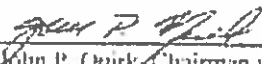
Section 15.12. Waiver. Any term or condition of this Agreement may be waived at any time by the party that is entitled to the benefit thereof, but no such waiver shall be effective unless set forth in a written instrument duly executed by or on behalf of the Party waiving such term or condition. No waiver by any party of any term or condition of this Agreement, in any one or more instances, shall be deemed to be or construed as a waiver of the same or any other term or condition of this Agreement on any future occasion. All remedies, either under this Agreement or by Law or otherwise afforded, will be cumulative and not alternative.

Section 15.13. Invalid Provisions. If any provision of this Agreement is held to be illegal, invalid or unenforceable under any present or future Law, and if the rights or obligations of any party under this Agreement will not be materially and adversely affected thereby, such provision will be fully severable, this Agreement will be construed and enforced as if such illegal, invalid or unenforceable provision had never comprised a part hereof, the remaining provisions of this Agreement will remain in full force and effect and will not be affected by the illegal, invalid or unenforceable provision or by its severance herefrom. Upon any determination that any term or other provision is illegal, invalid or unenforceable under any present or future Law, the Parties shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in an acceptable manner to the end that transactions contemplated by this Agreement are fulfilled to the extent possible.

[signature page follows]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

V.I.P., INC.

By:  10-26-20
John P. Quirk, Chairman and CEO
Duly authorized

PK REAL ESTATE, LCC

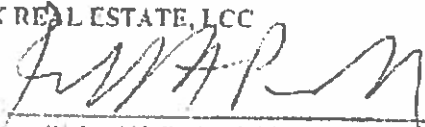
By: 
Richard H. Packard, Manager
Duly authorized

EXHIBIT A

Construction of a 8,500 square foot, more or less, building together with not less than 45 parking spaces, and operation of a 7-day a week, auto and light truck tire and service center.

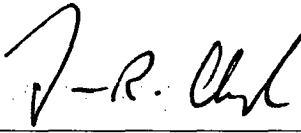
QUITCLAIM DEED WITH COVENANT

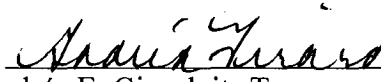
A. HAUSMANN ASSOCIATES, INC., a Maine corporation whose mailing address is 380 Warren Avenue, Portland, ME 04103 ("Grantor"), FOR CONSIDERATION PAID, grants to **PK REAL ESTATE, LLC**, a Maine limited liability company with a business mailing address of 1550 Sunset Ridge, Laguna Beach, CA 92651 ("Grantee"), with Quitclaim Covenant, certain real property located on Riverside Street and McAlister Farm Road, in the City of Portland, Cumberland County, Maine more particularly described on Exhibit A attached hereto and made a part hereof.

Subject to an outstanding lease from the Grantor to Wise Business Forms Incorporated dated March 23, 2011 which is being separately assigned pursuant to an Assignment and Assumption of Lease of even or recent date.

IN WITNESS WHEREOF, A. Hausmann Associates, Inc. has caused this instrument to be duly executed on April 30, 2014.

A. Hausmann Associates, Inc.



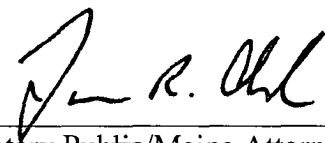
By: 

Andréa E. Girard, its Treasurer

State of Maine
County of Cumberland ss.

April 30, 2014

Personally appeared before me the above-named Andréa E. Girard, Treasurer of A. Hausmann Associates, Inc. as aforesaid, and acknowledged the foregoing instrument to be his/her free act and deed in her said capacity and the free act and deed of said corporation.



Notary Public/Maine Attorney at Law
Name: Lawrence R. Clough

EXHIBIT A

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

Beginning at a point on the westerly sideline of Riverside Street at the intersection with the northerly line of Mcalister Farm Road;

Thence, N 76°46'00"W along the northerly sideline of said Mcalister Farm Road 502.00 feet;

Thence, N 15°16'00"W along the northerly sideline of said Mcalister Farm Road 575.59 feet to land now or formerly of Rio Tierra LLC as described in the Cumberland County Registry of Deeds in book 22786 page 95;

Thence, N 74°44'00"E along land of said Rio Tierra LLC and land now or formerly of Mccuda LLC as described in said Registry of Deeds in book 30541 page 233 a distance of 500.38 feet;

Thence, S 10°39'15"E along land of said Mccuda LLC a distance of 109.98 feet;

Thence, N 79°20'45"E along land of said Mccuda LLC a distance of 158.98 feet;

Thence, S 15°16'00"E along land of said Mccuda LLC a distance of 89.27 feet to land now or formerly of Orman F. Cummings as described in said Registry of Deeds in book 23269 page 67;

Thence, S 22°44'55"W along land of said Orman F. Cummings a distance of 35.10 feet;

Thence, S 17°58'54"E along land of said Orman F. Cummings a distance of 456.35 feet to the westerly sideline of said Riverside Street;

Thence, southwesterly, along the westerly sideline of said Riverside Street, along a curve to the left having a radius of 1672.27 feet and arc length of 131.91 feet;

Thence, S 43°37'30"W along the westerly sideline of said Riverside Street a distance of 109.00 feet to the northerly sideline of said Mcalister Farm Road and the point of beginning containing 10.12 acres.

Also conveying a right of way in common with Exit Eight Distribution Associates or its successor (which right of way benefits certain of its other property described in deed from C & N Enterprises to Exit Eight Distribution Associates dated July 8, 1985 and recorded in the aforesaid registry at Book 7260, Page 288, and in deed from Exit Eight Distribution Associates and recorded in the aforesaid registry at Book 10839, Page 284) and others, 50 feet in width and running from Riverside Street.

The property is conveyed subject to restrictions, rights and easements of record. Reference is made to the following plans: "McAlister Farm Subdivision" by The Sheridan Corporation dated January 27, 1987, recorded January 4, 1989 in Cumberland County Registry of Deeds in Book 176, Page 44; "Donald O. Butler Subdivision-Third Amended Recording Plat" by Land Use Consultants, Job # 1396, dated April 30, 1996, recorded June 6, 1996 in Cumberland County Registry of Deeds in Book 197, Page 115; "Survey Worksheet of Land Swap, 400 Riverside Street, Portland, Maine for The Galloway Group" made by Sebago Technics dated 9-5-03; and City of Portland Public Works Engineering Department

Archives, Sheet 3 of 11, 709/12, and an ALTA/ACSM Land Title Survey prepared by Owen Haskell, Inc. dated April 24, 2014 for The Dunham Group, Inc., Job #2014-043P.

The property described above is conveyed subject to a highway easement to the State of Maine, dated August 2, 1999 and recorded in the Cumberland County Registry of Deeds in Book 14973, Page 331. The property contains wetlands and uses may be restricted under federal, state, or local wetland regulations.

Meaning and intending to convey and hereby conveying the same property conveyed by a quitclaim deed with covenant from the United States Postal Service as grantor to A. Hausmann Associates, Inc. dated September 23, 2009 and recorded in the Cumberland County Registry of Deeds in Book 27280, Page 31 as amended by corrective deed from the United States Postal Service as grantor to A. Hausmann Associates, Inc. dated March 25, 2009 and recorded in the Cumberland County Registry of Deeds in Book 31429, Page 97 in order to (i) include property acquired by said grantor in a deed from Trustees of the Rist/Brunet Family Trust recorded in said Registry of Deeds in Book 22290, Page 22 which was mis-indexed under the name "US Postal Service" and (ii) exclude the property conveyed to Trustees of the Rist/Brunet Family Trust recorded in said Registry of Deeds in Book 22290, Page 17 which was also mis-indexed under the name "US Postal Service". Reference is also made to the boundary line adjustments approved by the City of Portland Planning Board on May 10, 2005 as shown on the Plan recorded said Registry of Deeds in Plan Book 205, Page 399.

Received
Recorded Register of Deeds
Apr 30, 2014 02:54:19P
Cumberland County
Pamela E. Lovley

09: EVIDENCE OF FINANCIAL AND TECHNICAL CAPACITY

Financial A letter from Berkshire Bank dated September 9, 2021, indicating that the applicant has the financial means to complete the building addition and other site improvements is included in this section.

Technical:

VIP Auto: Founded in 1958, VIP is Northern New England's largest privately held automotive service provider and tire dealer with over 64 Locations in Maine, New Hampshire Vermont and Massachusetts and is head quartered in Auburn Maine.

Sebago Technics: The applicant has retained Sebago Technics, Inc., a multi-disciplinary consulting engineering firm, to assist in all aspects of the proposed site development. A firm introduction and key personnel resumes are included in this section.



September 9, 2021

From: James F. Carr, SVP
Asset Based Lending Division
Berkshire Bank
One Van de Graaff Drive, Suite 202
Burlington, MA 01803

To: Mr. James Rather
City of Portland Planning Department
389 Congress Street
Portland ME 04101

Re: VIP Real Estate Development, Portland, ME

Dear Mr. Rather:

I have had a long-term banking relationship with VIP, Inc. and have been the company's primary banker for 7+ years. VIP remains a customer in good standing with Berkshire Bank, the Bank has reviewed the company's financial condition, and has been favorably impressed with the company's growth prospects, including a new location in Portland, ME. Based on my experience with VIP and their past ability to complete projects similar in size and scope to the Portland, ME project, I can confirm that the company has both the financial and technical capacity to successfully complete this project. I understand the land and development costs for the Portland, ME site are estimated at \$1.5MM, an estimate that VIP can readily support.

It is our goal to provide VIP with sufficient financial resources to support their long-term plans. I have interacted frequently with Chairman, John Quirk, CFO, Allan Kirkland and the management team at VIP; I recommend the company and support their development of this site.

I trust that this Bank reference will provide you with some comfort in your relationship with VIP. In the event you need additional help, feel free to contact me directly at: 781.897.0706

Sincerely,

A handwritten signature in black ink that reads 'James F. Carr' in a cursive script.

James F. Carr
Senior Vice President
Asset Based Lending Division
Berkshire Bank

04: EVIDENCE OF STATE OR FEDERAL PERMITS

Due to wetland impacts on the site, a Department of Environmental Protection (MDEP) Tier 1 NRPA application is required and has been filed. When the approvals of the permits is received they will be forwarded to City staff for their records.

The proposed development will disturb more than one acre of land, will create less than one acre of additional impervious. A Maine Construction General Permit Application is required for this project and shall be submitted to and reviewed by the Maine DEP.

05: ZONING ASSESSMENT

The subject property is located within the I-M Zoning District. The proposed 8,500 SF building and parking will be constructed as shown on the appended site plans. Please refer to the required Zoning Analysis Table enclosed in this section.

Portland, Maine



Yes. Life's good here.

Planning & Urban Development Department

ZONING ANALYSIS Relevant Zone(s) I-M

All Projects:

	Required	Proposed
Lot Size	NA	2.01 acres
Area Per Dwelling Unit	NA	
Minimum Street Frontage	60 ft	596.5 ft
Front Yard Minimum	19 ft	50 ft
Front Yard Maximum	NA	
Rear Yard	18.5 ft	20 ft
Yard Right	18.5 ft	165 ft
Yard Left	18.5 ft	51 ft
Side Street Setback	NA	51 ft
Step Back	NA	
Maximum Lot Coverage	None	9.7%
Minimum Lot Coverage	None	
Maximum Height	75 ft	18.5 ft
Open Space	NA	
Maximum Impervious Area	75%	40%
Pavement Setback	10 ft (min)	50 ft
Floor Area Ratio	NA	
Off Street Parking Spaces	43	45
Loading Bays	1 (min)	8
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):			

07: SUMMARY OF EXISTING AND/OR PROPOSED EASEMENTS OR COVENANTS

- Evidence of existing easements and any proposed easements, covenants, public or private rights-of-way.
 - See the amended subdivision plan (by Owen Haskell) that delineates the “State of Maine Dept. of Transportation easement 14973/331

No new easements, covenants or rights-of-way are proposed for this project. Existing information is shown on the appended Existing Conditions plan provided by others.

08: WAIVER REQUESTS

Not applicable. The applicant is not requesting waivers from submittal or standards.



STORMWATER MANAGEMENT REPORT

For

**VIP McALISTER
PORTLAND, ME**

Prepared for:

Quirk Automotive Corporation
24 Harriman Drive
Auburn, ME 04210

Prepared by:

Sebago Technics, Inc.
75 John Roberts Rd, Suite 4A
South Portland, ME 04106

SEPTEMBER, 2021

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Appendices

Appendix 1:	Stormwater Quality Calculations
Appendix 2A:	Hydrologic Modeling– Existing Conditions (HydroCAD)Summary
Appendix 2B:	Hydrologic Modeling – Proposed Conditions (HydroCAD) Summary
Appendix 3:	Inspection, Maintenance and Housekeeping Plan
Appendix 4:	Subsurface Investigations
Appendix 5:	Stormwater Management Plans

**STORMWATER MANAGEMENT REPORT
VIP INC.
PORTLAND, ME**

1. Introduction

This Stormwater Management Plan Report has been prepared to present analyses performed to address the potential impacts associated with the project due to proposed modification in stormwater runoff characteristics and land cover changes. The stormwater management controls that are outlined in this report have been designed to suit the proposed development and to comply with applicable regulatory requirements.

2. Existing Conditions

The project site consists of mostly developed land located on McAlister Farm Road in Portland, Maine. The site is approximately 2.2 acres in size. The site is bounded by an existing building to the north, McAlister Farm Road to the south, and Riverside Street to the east. Slopes on the site range from 0% all the way up to 50% in some areas.

The site runoff is tributary to Presumpscot River which is not listed as an Urban Impaired Stream according to Chapter 502 of the Maine Department of Environmental Protection (MDEP) regulations.

The development area of the site is not located in an identified flood zone per the FEMA Flood Insurance Rate Map for the City of Portland, Community Panel 2300510006B with an effective date of 1986.

3. Soils

Soil characteristics were obtained from the USDA Web Soil Survey. The Hydrologic Groups (HSG) of the soils are classified by Technical Release TR-55 of the Soil Conservation Service as follows:

Soil Map Symbol	Soil Name	Slope (%)	HSG
BgC2	Nicholville	8-15	C
EmB	Elmwood	0-8	B
Sn	Scantic	0-3	D
SuE2	Suffield	25-45	C

Hydrologic Soil Group boundaries are delineated on the Stormwater Management Plans. A copy of the Class D Medium Intensity Soil Survey is included as Appendix 4.

4. Proposed Site Improvements

The proposed development will consist of a split retail and service building with an 8,500 square-foot footprint. The building has 8 service bays and provides retail space for their operations. Additionally, the site will include a trailer parking space that will be used for tire storage, along with approximately 44 parking spaces. The project will result in the creation of 0.80 acres of impervious area and 1.05 acres of developed area.

5. Existing Conditions Model

The existing conditions watershed plan consists of four (4) subcatchments labeled 1S thru 4S in the HydroCAD model. One Point of Analysis (POA) was identified for comparing pre vs. post condition peak runoff rates. POA-1 was determined to be a culvert located southwest of the project site on the south side of McAlister Farm Road.

Subcatchments 1S and 4S represent the areas that drain directly to an 18" culvert (1R) that crosses under McAlister Farm Road. Subcatchment 4S represents existing parking and landscaped areas. Subcatchment 1S represents mostly existing landscaped area. Reach 2R represents the flow path from the outlet of the 18" culvert to POA-1. Subcatchment 3S represents existing landscaped area and some wooded area that drains to a culvert (5R) which outlets to a wetland area (1P). Subcatchment 2S represents mostly wooded area at the south east corner of the site that drains to (1P). Pond 1P outlets via a culvert to reach 3R and 4R which represent grassed drainage paths to POA-1.

Subcatchments 1S, 2S, 3S and 4S contribute an overall runoff area of approximately 2.4 acres.

6. Proposed Conditions Model

The proposed conditions watershed area consists of the same overall area as the existing conditions plan, however, the existing conditions subcatchments have been broken into smaller subcatchments as a result of the proposed development.

POA1: Subcatchments 1.1S, 1.2S, 1.3S and 2S represent most of the developed area. Subcatchment 1.1S represents the roof of the building draining into the Drip Edge filter (2P) on the north side of the building. Subcatchment 1.2S represents pavement area west of the building that drains into Focal Point 1 (1FP). Subcatchment 1.3S represents the pavement area between 2S and 1.2S that drains into Focal Point 2 (2FP). Subcatchment 2S represents all of the parking area including some landscaped area that drains to the Filterra Bioretention soil filter (1FT). These subcatchments are then conveyed to the subsurface R-Tank Storage System (5P). Subcatchment 3S, representing existing landscaped area to remain, drains into a field inlet grate (3P) which is then piped to 5P. 5P is then routed to a 24" culvert (1R), replacing the existing 18" culvert that crosses under McAlister Farm Road. Subcatchment

4S represents the existing parking and landscaped area that drains to 1R. Reach 2R represents the flow path from the outlet of 1R to POA-1.

Subcatchment 2.1S represents the remaining undeveloped area at the south east corner of the site that drains into 1P. 1P, 3R, and 4R remain unchanged from the existing conditions model.

The overall tributary area is 2.4 acres. The overall tributary area remains unchanged from the existing conditions.

The four Best Management Practices (Focal Point 1, Focal Point 2, Drip Edge Filter 1, and Filterra 1) have been designed and sized in accordance with DEP BMP standards contained within Chapter 500 and the BMP Manual. Stormwater quality calculations can be found in Appendix 1 where the four treatment measures are sized to treat the first 1" of runoff. The runoff collects in a subsurface R-Tank storage system to obtain a 24 to 48 hour discharge time. Each of the treatment measures were analyzed to find the water quality volume (WQV), these volumes were then summed to obtain the WQV for the downstream R-Tank storage system. A storm was then created to mimic that inflow volume to the R-Tank storage system and obtain the required 24 to 48 hour discharge.

7. Stormwater Management

Basic Standard - Chapter 500, Section 4(B)

Since the project will disturb more than one (1) acre of land area, MDEP Basic Standards apply, requiring that grading or other construction activities on the site do not impede or otherwise alter drainage ways to have an unreasonable adverse impact. We have avoided adverse impacts by providing an Erosion & Sedimentation Control Plan, and an Inspection, Maintenance and Housekeeping Plan (Appendix 3) to be implemented during construction and post-construction stabilization of the site. These construction requirements have been developed following Best Management Practice guidelines.

General Standard - Chapter 500, Section 4(C)

Although the project will not create more than one (1) acre of impervious surface, MDEP General Standards were followed. This requires a project's stormwater management system to include treatment measures that will mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts. The General Standards require treatment of no less than 95% of the site's created impervious area and no less than 80% of the site's created developed area (landscaped area and impervious area combined). To mitigate the changes in hydrologic patterns due to the development of this project two Focal Point soil media filters, a Drip Edge Filter, and a Filterra Bioretention System have been implemented into the stormwater management infrastructure. Filtration

BMPs are very effective at removing a wide range of pollutants through the use of organic soil filter media.

BMP sizing and treatment calculations are provided as Appendix 1.

Through the use of the aforementioned BMP's 98.39% of new impervious area and 88.97% of new developed area will be receiving treatment. This meets the requirements for the Maine DEP General Standards.

Flooding Standard - Chapter 500, Section 4(F)

Since the project is a new development classified as a minor site plan and will create more than 1,000 SF of impervious surface, under Section 5 of the City of Portland's technical manual, MDEP Flooding Standards must be met. The Flooding Standard requires a project's stormwater management system detain, retain, or result in the infiltration of stormwater from 24-hour storms of the 2, 10, and 25-year frequencies such that the peak flows of stormwater from the project site do not exceed the peak flows of stormwater prior to undertaking the project. As such, a runoff evaluation was performed using the methodology outlined in the USDA Soil Conservation Service's "Urban Hydrology for Small Watersheds - Technical Release #55 (TR-55)". HydroCAD computer software was utilized to perform the calculations.

Runoff curve numbers were determined for each of the subcatchments by measuring the area of each hydrologic soil group within each type of land cover. The type of land cover was determined based on survey data, field reconnaissance and aerial photography. Times of concentration were determined from site topographic maps in accordance with SCS procedures.

The 24-hour rainfall values utilized in the hydrologic model were obtained from Appendix H of MDEP's Chapter 500: Stormwater Management (effective date August 2015). Rainfall values for Cumberland County SE are listed in the table below.

Storm Frequency Precipitation (in./24 hr)	
Cumberland County SE	
2-year	3.10
10-year	4.60
25-year	5.80

The following table presents the results of the peak runoff calculations at the analysis points for the existing and proposed conditions.

Peak Runoff Rate Summary Table			
Analysis Point	Storm Event	Existing Conditions (cfs)	Proposed Conditions (cfs)
POA-1	2-year	2.33	2.30
	10-year	4.27	3.96
	25-year	5.93	5.28

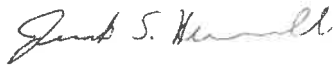
The HydroCAD Data output sheets from this analysis are appended to this report (Appendix 2) along with the Stormwater Management Plans (Appendix 5). The model predicts that the peak runoff rates in the proposed condition at Point of Analysis 1 are at or below existing condition runoff rates for the 2, 10, and 25-year storm events with implementation of the proposed stormwater management practices.

8. Summary

The proposed development has been designed to manage stormwater runoff through Best Management Practices approved by MDEP. Stormwater BMP's provide treatment to 98.39% (95% required) of impervious areas, and 88.97% (80% required) of the total developed area. Runoff discharging from the site will be at or below pre-development conditions for the 2, 10, and 25 year storm events at the Point of Analysis. Additionally, erosion and sedimentation controls along with associated maintenance and housekeeping procedures have been outlined to prevent unreasonable impacts on the site and to the surrounding environment.

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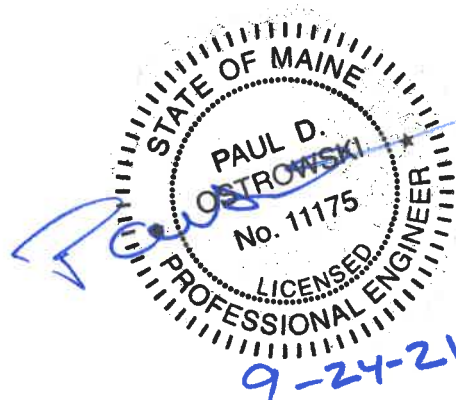


Jake S. Hunnewell, E.I.
Civil Engineer
JSH



Paul D. Ostrowski, P.E.
Senior Project Engineer

PDO



Appendix 1

Stormwater Quality Calculations

Table 1: MDEP GENERAL STANDARD CALCULATIONS

Job # 20576

AREA ID	WATERSHED SIZE (S.F.)	EXISTING ONSITE IMPERVIOUS AREA TO REMAIN (S.F.)	NEW ONSITE IMPERVIOUS AREA (S.F.)	EXISTING ONSITE LANDSCAPED AREA TO REMAIN (S.F.)	NEW ONSITE LANDSCAPED AREA (S.F.)	NET NEW DEVELOPED AREA (S.F.)	NET EXISTING DEVELOPED AREAS (S.F.)	TREATMENT PROVIDED?	IMPERVIOUS AREA TREATED (S.F.)	LANDSCAPED AREA TREATED (S.F.)	DEVELOPED AREA TREATED (S.F.)	TREATMENT BMP
1.1S	9,172	0	8,500	0	672	9,172	0	YES	8,500	672	9,172	DEF-1
1.2S	5,542	0	4,878	0	577	5,455	0	YES	4,878	577	5,455	1FP
1.3S	4,157	0	2,956	0	1,201	4,157	0	YES	2,956	1,201	4,157	2FP
2S	21,988	0	17,800	0	4,189	21,989	0	YES	17,800	4,189	21,989	1FT
2.1S	23,020	0	0	18,872	3,200	3,200	18,872	NO	0	0	0	
4S	36,493	0	560	5,089	1,299	1,859	5,089	NO	0	0	0	
3S	6,065	0	0	1,494	0	0	1,494	NO	0	0	0	
TOTAL (S.F.)	106,437	0	34,694	25,455	11,138	45,832	25,455		34,134	6,639	40,773	

TOTAL NEW IMPERVIOUS AREA (S.F.)			34,694	45,832
TOTAL IMPERVIOUS AREA RECEIVING TREATMENT (S.F.)			34,134	40,773
% OF IMPERVIOUS AREA RECEIVING TREATMENT			98.39%	88.96%

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JOB

SHEET NO.

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OF

1

CALCULATED BY

DATE

FILE NAME

20576 WQC.xlsx

PRINT DATE

9/21/2021

FOCALPOINT, ACF ENVIRONMENTAL									
Task:	Size Focal Point treatment system pursuant to the General Standards, Section 4.C of Chapter 500.								
References	1. Letter from Maine Department of Environmental Protection, Director-Bureau of Land Resources to Stormwater Systems ACF-Convergent Water Technologies Alliance, Dated May 16, 2016 indicating FocalPoint biofiltration meets requirements of the General Standards for Treatment.								
	Per Reference 1 above, the system must be sized to meet:								
	a.	"entire volume of a 0.96 inch Type III 24-hour storm is treated prior to activation of the bypass/overflow"							
	b.	"surface area....must be a minimum of 174 s.f. per 1 acres of impervious area treated (26s.f. per 0.15 acres)"							
	c.	"treatment flow rate for the Stormtech Isolator Row is the projected one year peak flow rate for the drainage area feeding the Isolator Row"							
		Flow rates:							
		Stormtech SC-310	0.10	cfs/chamber					
		Stormtech SC-740	0.20	cfs/chamber					
		Stormtech DC-780	0.20	cfs/chamber					
		Stormtech MC-3500	0.30	cfs/chamber					
		Cultech 150XLHD	0.185	cfs/chamber					
		Cultech 330XLHD	0.227	cfs/chamber					
Tributary to FocalPoint System		1FP							
Landscaped Area		576.57	SF						
Impervious Area		4,878.00	SF						
Minimum Surface Area of FocalPoint:									
Required		26 s.f. per 0.15 acres of impervious area							
Total Impervious Area		4,878.00	SF			0.11	AC		
					X	174.00	SF/ACRE		
Required Minimum Surface Area						19.5	SF		
Provided Surface Area						25.0	SF		
Treatment Volume									
Required		(0.4" X Landscaped + 1.0" X Impervious)							
Landscaped Area		576.57	SF	Volume		19.2			
Impervious Area		4,878.00	SF	Volume		406.5			
Treatment Volume Required						425.7	CF	0.010	AF
						must discharge in 24-48 hours			
Sediment Pre-Treatment									
Per Reference "C" above									
One year flow rate out put from Hydrocad:			0.96	cfs					
Treatment Row sizing for:		Cultech 330XLHD	0.227	cfs					
Total number of Isolator Row Chambers required:			5						

Tree Box Filter Calculations:

	Size	Impervious Area (Ac.)	Allowable Impervious Area (Ac.)
Tree Box Filter 1	6'x8'		0.26-0.33
Tree Box Filter 2	6'x10'		0.34-0.42
Tree Box Filter 3	6'x12'	0.41	0.45

Note: Tree Box Filters are sized in accordance with Chapter 7.5 of the Maine Department of Environmental Protection BMPs Technical Design Manual, latest revision

References:

1. Letter from Maine Department of Environmental Protection, Director-Bureau of Land Resources to Contech Engineered Solutions LLC dated February 2, 2017 indicating Filterra Bioretention Systems meet requirements of the General Standards for Treatment.

<u>WQV Required</u>								
Required	(0.4" X Landscaped + 1.0" X Impervious)							
Landscaped Area		4,189	SF	Volume	139.60			
Impervious Area		17,800	SF	Volume	1483.30			
			Treatment Volume Required		1623.00	CF	0.037	AF
					must discharge in 24-48 hours			

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9/21/2021

FOCALPOINT, ACF ENVIRONMENTAL									
Task:	Size Focal Point treatment system pursuant to the General Standards, Section 4.C of Chapter 500.								
References	1. Letter from Maine Department of Environmental Protection, Director-Bureau of Land Resources to Stormwater Systems ACF-Convergent Water Technologies Alliance, Dated May 16, 2016 indicating FocalPoint biofiltration meets requirements of the General Standards for Treatment.								
	Per Reference 1 above, the system must be sized to meet:								
	a.	"entire volume of a 0.96 inch Type III 24-hour storm is treated prior to activation of the bypass/overflow"							
	b.	"surface area....must be a minimum of 174 s.f. per 1 acres of impervious area treated (26s.f. per 0.15 acres)"							
	c.	"treatment flow rate for the Stormtech Isolator Row is the projected one year peak flow rate for the drainage area feeding the Isolator Row"							
		Flow rates:							
		Stormtech SC-310	0.10	cfs/chamber					
		Stormtech SC-740	0.20	cfs/chamber					
		Stormtech DC-780	0.20	cfs/chamber					
		Stormtech MC-3500	0.30	cfs/chamber					
		Cultech 150XLHD	0.185	cfs/chamber					
		Cultech 330XLHD	0.227	cfs/chamber					
Tributary to FocalPoint System		2FP							
Landscaped Area		1,229.17	SF						
Impervious Area		2,956.00	SF						
Minimum Surface Area of FocalPoint:									
Required		26 s.f. per 0.15 acres of impervious area							
Total Impervious Area		2,956.00	SF			0.07	AC		
					X	174.00	SF/ACRE		
Required Minimum Surface Area						11.8	SF		
Provided Surface Area						20.0	SF		
Treatment Volume									
Required		(0.4" X Landscaped + 1.0" X Impervious)							
Landscaped Area		1,229.17	SF	Volume		41.0			
Impervious Area		2,956.00	SF	Volume		246.3			
Treatment Volume Required						287.3	CF	0.007	AF
						must discharge in 24-48 hours			
Sediment Pre-Treatment									
Per Reference "C" above									
One year flow rate out put from Hydrocad:				0.96	cfs				
Treatment Row sizing for:		Cultech 330XLHD	0.227	cfs					
Total number of Isolator Row Chambers required:				5					

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9/21/2021

Treatment Calculations for Proposed Roof Drip Edge Filter 1 (DEF-1)Water Quality Volume Calculation

Total Impervious Area 8,500 SF

WQV Required = 1" x Impervious Area

WQV Required 708.3 CF

Length of Trench 140.0 FT

Width of Trench 7.0 FT

Depth of Stone 16.8 IN 40% porosity

Depth of Sand Media 12.0 IN 20% porosity

*WQV Provided = Area of Trench x (Depth of Stone x Stone Porosity + Depth of Sand x Sand Porosity)

Total WQV Provided 744.8 CF

Roof Drip Edge Filter 1 is labeled 2P on the Post-Development Stormwater Plan and in the Post-Development HydroCAD model.

*The stone reservoir volume for the drip edge filter was designed to provide the storage required to convey the water quality storm (storm that generates 1" of runoff over the roof) through the filter media under the stone, which is naturally sandy and well-drained.

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Type III 24-hr RT WQV Rainfall=1.45"

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Page 1

Summary for Subcatchment 1.1S: Roof

Runoff = 0.25 cfs @ 12.09 hrs, Volume= 801 cf, Depth= 1.05"

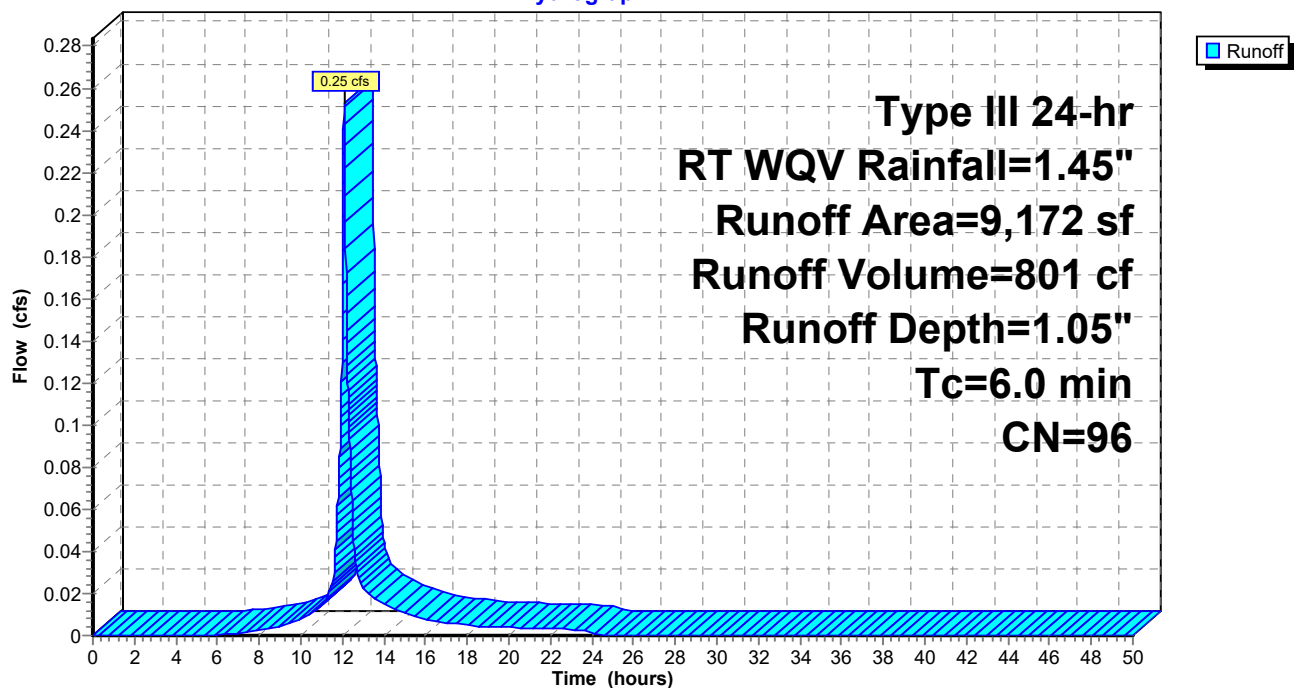
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr RT WQV Rainfall=1.45"

	Area (sf)	CN	Description
*	8,500	98	Roof
	672	74	>75% Grass cover, Good, HSG C
	9,172	96	Weighted Average
	672		7.33% Pervious Area
	8,500		92.67% Impervious Area

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

Subcatchment 1.1S: Roof

Hydrograph



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Type III 24-hr RT WQV Rainfall=1.45"

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Summary for Subcatchment 1.2S: 1.2S

Runoff = 0.14 cfs @ 12.09 hrs, Volume= 446 cf, Depth= 0.97"

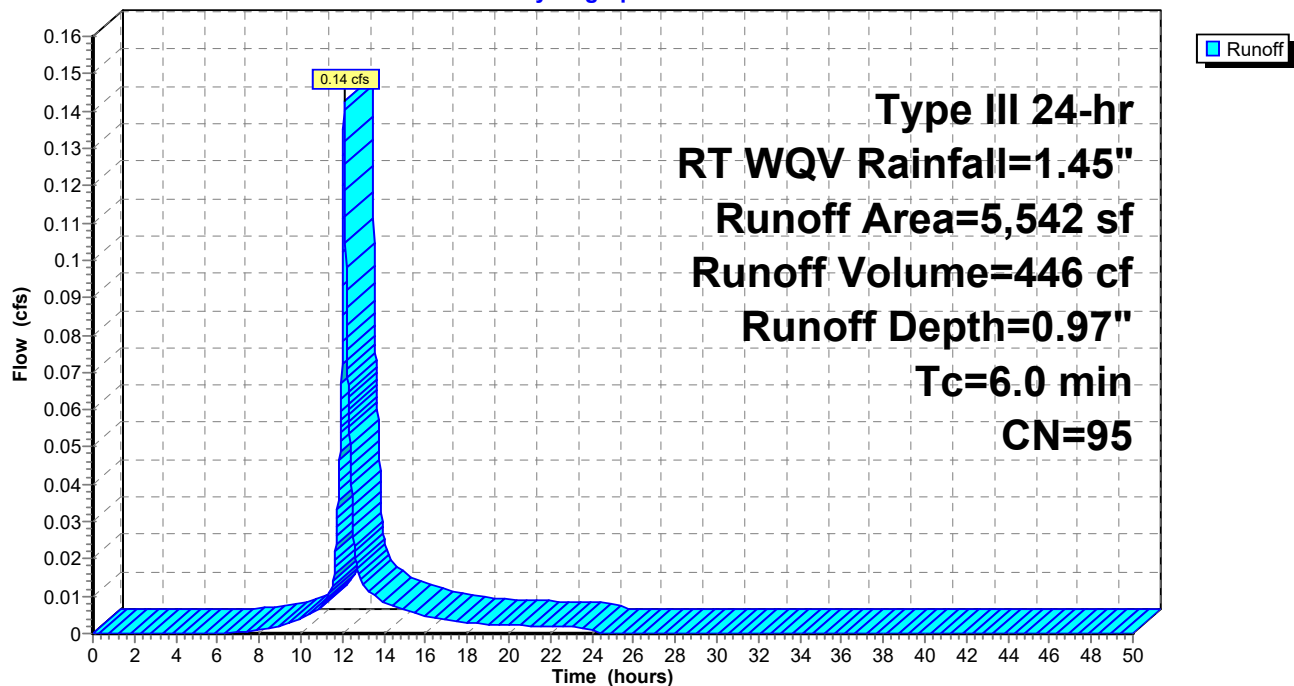
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr RT WQV Rainfall=1.45"

Area (sf)	CN	Description
664	74	>75% Grass cover, Good, HSG C
* 4,878	98	Pavement
5,542	95	Weighted Average
664		11.98% Pervious Area
4,878		88.02% Impervious Area

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

Subcatchment 1.2S: 1.2S

Hydrograph



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Type III 24-hr RT WQV Rainfall=1.45"

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Page 3

Summary for Subcatchment 1.3S: 1.3S

Runoff = 0.08 cfs @ 12.09 hrs, Volume= 242 cf, Depth= 0.70"

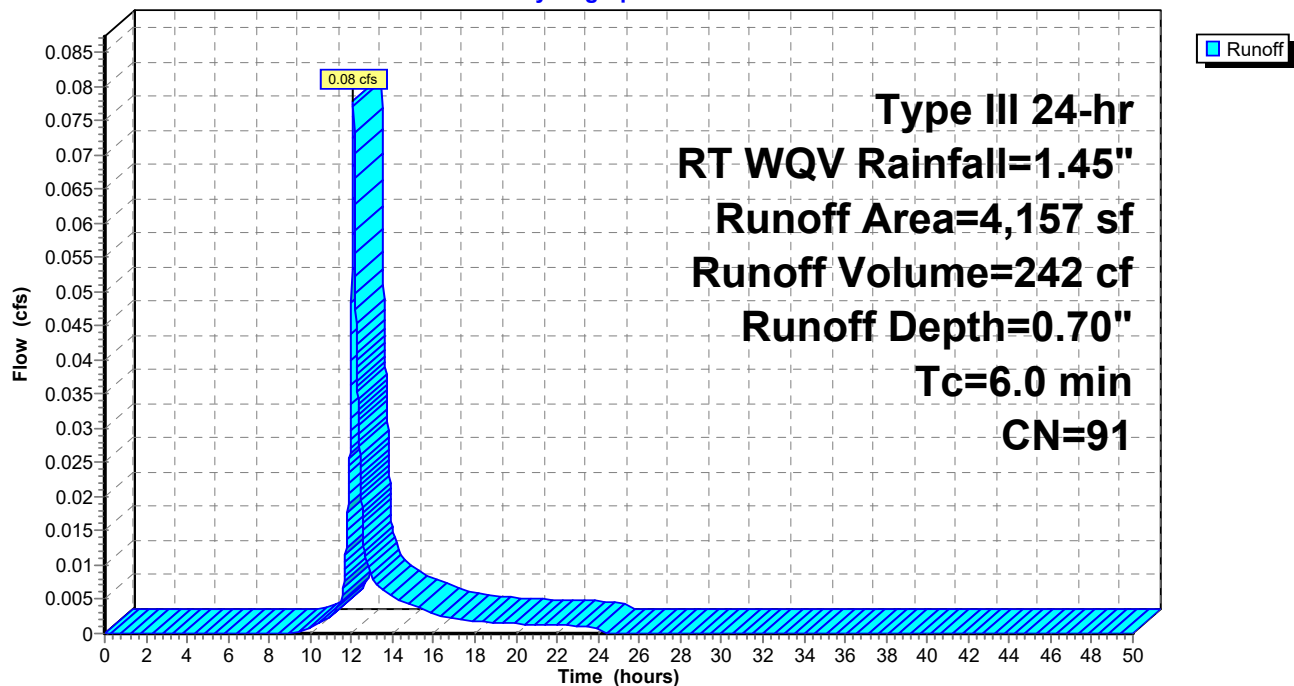
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr RT WQV Rainfall=1.45"

	Area (sf)	CN	Description
*	2,956	98	Pavement
	1,201	74	>75% Grass cover, Good, HSG C
	4,157	91	Weighted Average
	1,201		28.89% Pervious Area
	2,956		71.11% Impervious Area

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

Subcatchment 1.3S: 1.3S

Hydrograph



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Type III 24-hr RT WQV Rainfall=1.45"

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Page 4

Summary for Subcatchment 2S: 2S

Runoff = 0.53 cfs @ 12.09 hrs, Volume= 1,634 cf, Depth= 0.89"

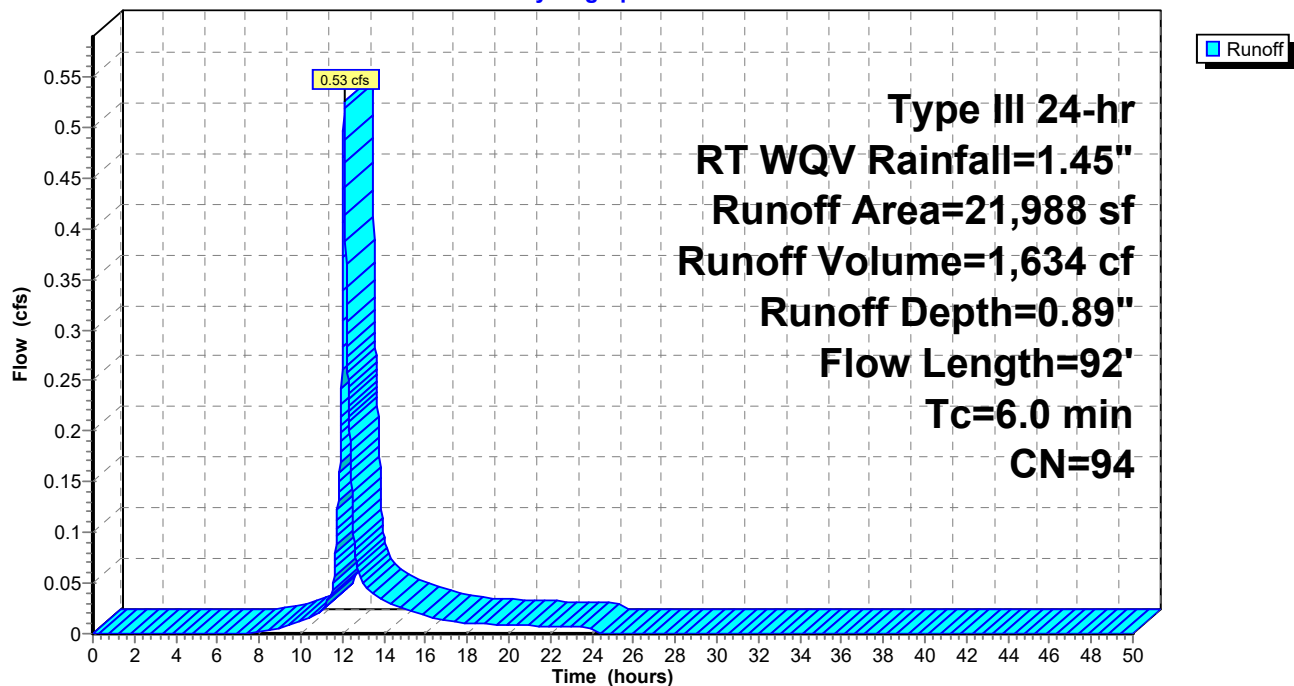
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr RT WQV Rainfall=1.45"

	Area (sf)	CN	Description
*	17,800	98	Pavement
	3,333	74	>75% Grass cover, Good, HSG C
	855	80	>75% Grass cover, Good, HSG D
	21,988	94	Weighted Average
	4,188		19.05% Pervious Area
	17,800		80.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	28	0.0357	1.32		Shallow Concentrated Flow, e-f
					Short Grass Pasture Kv= 7.0 fps
0.4	64	0.0183	2.75		Shallow Concentrated Flow, f-g
					Paved Kv= 20.3 fps
5.2					Direct Entry,
6.0	92	Total			

Subcatchment 2S: 2S

Hydrograph



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Type III 24-hr RT WQV Rainfall=1.45"

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Summary for Subcatchment 3S: 3S

Runoff = 0.01 cfs @ 12.30 hrs, Volume= 66 cf, Depth= 0.13"

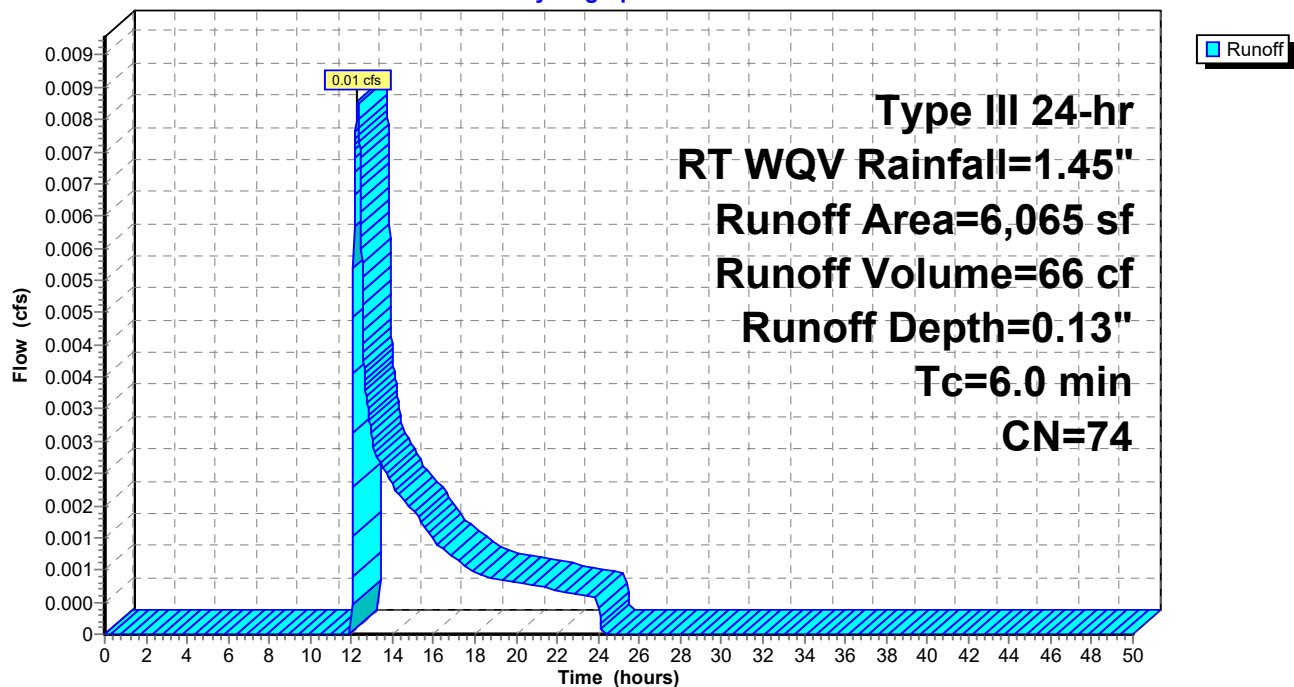
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr RT WQV Rainfall=1.45"

Area (sf)	CN	Description
6,065	74	>75% Grass cover, Good, HSG C
6,065		100.00% Pervious Area

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

Subcatchment 3S: 3S

Hydrograph



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Type III 24-hr RT WQV Rainfall=1.45"

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Summary for Pond 1FP: FocalPoint 1

Inflow Area = 5,542 sf, 88.02% Impervious, Inflow Depth = 0.97" for RT WQV event
 Inflow = 0.14 cfs @ 12.09 hrs, Volume= 446 cf
 Outflow = 0.09 cfs @ 12.19 hrs, Volume= 446 cf, Atten= 38%, Lag= 6.0 min
 Primary = 0.06 cfs @ 11.95 hrs, Volume= 436 cf
 Secondary = 0.03 cfs @ 12.19 hrs, Volume= 10 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 47.92' @ 12.19 hrs Surf.Area= 25 sf Storage= 42 cf

Plug-Flow detention time= 3.2 min calculated for 446 cf (100% of inflow)

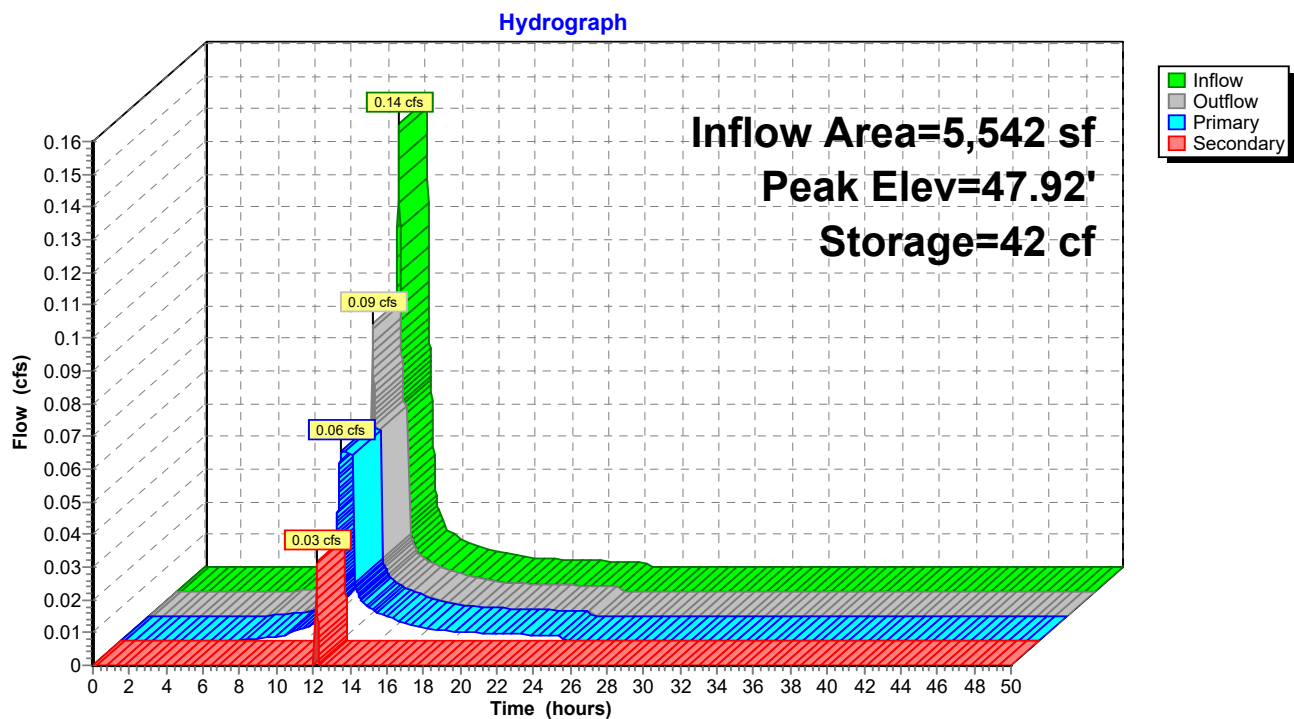
Center-of-Mass det. time= 2.8 min (811.4 - 808.6)

Volume	Invert	Avail.Storage	Storage Description
#1	45.25'	11 cf	2.00'W x 12.50'L x 2.25'H FocalPoint 56 cf Overall x 20.0% Voids
#2	47.50'	164 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		175 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
47.50	25	0	0
48.00	140	41	41
48.50	350	123	164

Device	Routing	Invert	Outlet Devices
#1	Primary	43.70'	6.0" Round Culvert L= 3.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 43.70' / 43.50' S= 0.0571 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#2	Device 1	45.25'	100.000 in/hr Exfiltration over Surface area
#3	Secondary	47.90'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.06 cfs @ 11.95 hrs HW=45.29' (Free Discharge)↑ **1=Culvert** (Passes 0.06 cfs of 1.09 cfs potential flow)↑ **2=Exfiltration** (Exfiltration Controls 0.06 cfs)**Secondary OutFlow** Max=0.03 cfs @ 12.19 hrs HW=47.92' (Free Discharge)↑ **3=Orifice/Grate** (Weir Controls 0.03 cfs @ 0.41 fps)

Pond 1FP: FocalPoint 1

Summary for Pond 1FT: FTPD 8x14

Inflow Area = 21,988 sf, 80.95% Impervious, Inflow Depth = 0.89" for RT WQV event
 Inflow = 0.53 cfs @ 12.09 hrs, Volume= 1,634 cf
 Outflow = 0.45 cfs @ 12.08 hrs, Volume= 1,614 cf, Atten= 14%, Lag= 0.0 min
 Primary = 0.45 cfs @ 12.08 hrs, Volume= 1,614 cf
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 46.93' @ 12.13 hrs Surf.Area= 140 sf Storage= 68 cf

Plug-Flow detention time= 9.3 min calculated for 1,614 cf (99% of inflow)

Center-of-Mass det. time= 1.9 min (818.3 - 816.4)

Volume	Invert	Avail.Storage	Storage Description
#1	45.00'	49 cf	10.00'W x 7.00'L x 1.75'H Prismaoid 123 cf Overall x 40.0% Voids
#2	46.75'	53 cf	10.00'W x 7.00'L x 0.75'H Prismaoid
#3	44.50'	8 cf	1.67'W x 1.67'L x 2.80'H Prismaoid Impervious
		109 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Device 2	45.00'	140.000 in/hr Exfiltration over Surface area
#2	Primary	44.48'	8.0" Round Culvert L= 196.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.48' / 42.40' S= 0.0106 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#3	Secondary	47.40'	1.7' long x 1.00' rise Sharp-Crested Rectangular Weir 2 End Contraction(s) 1.0' Crest Height

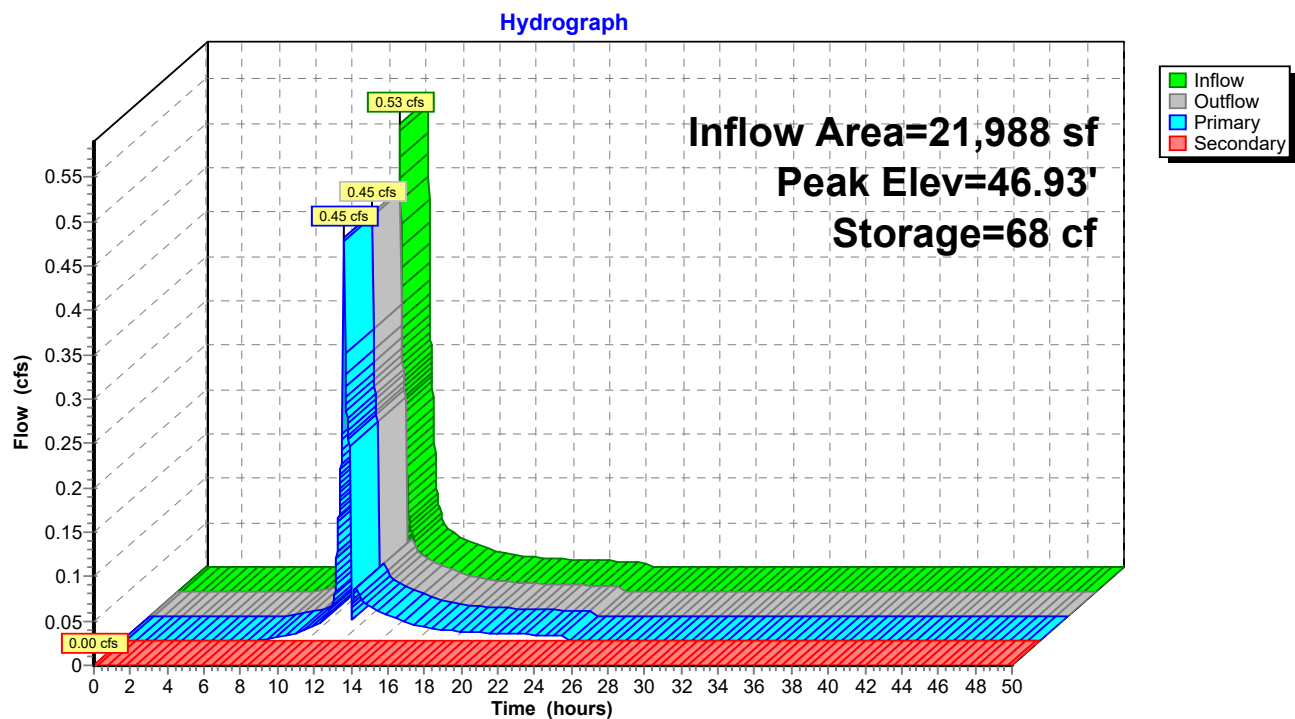
Primary OutFlow Max=0.45 cfs @ 12.08 hrs HW=46.79' (Free Discharge)

↑ **2=Culvert** (Passes 0.45 cfs of 1.87 cfs potential flow)

↑ **1=Exfiltration** (Exfiltration Controls 0.45 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=44.50' (Free Discharge)

↑ **3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1FT: FTPD 8x14

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Type III 24-hr RT WQV Rainfall=1.45"

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Summary for Pond 2FP: FocalPoint 2

Inflow Area = 4,157 sf, 71.11% Impervious, Inflow Depth = 0.70" for RT WQV event
 Inflow = 0.08 cfs @ 12.09 hrs, Volume= 242 cf
 Outflow = 0.05 cfs @ 12.01 hrs, Volume= 243 cf, Atten= 41%, Lag= 0.0 min
 Primary = 0.05 cfs @ 12.01 hrs, Volume= 243 cf
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 47.12' @ 12.21 hrs Surf.Area= 20 sf Storage= 13 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

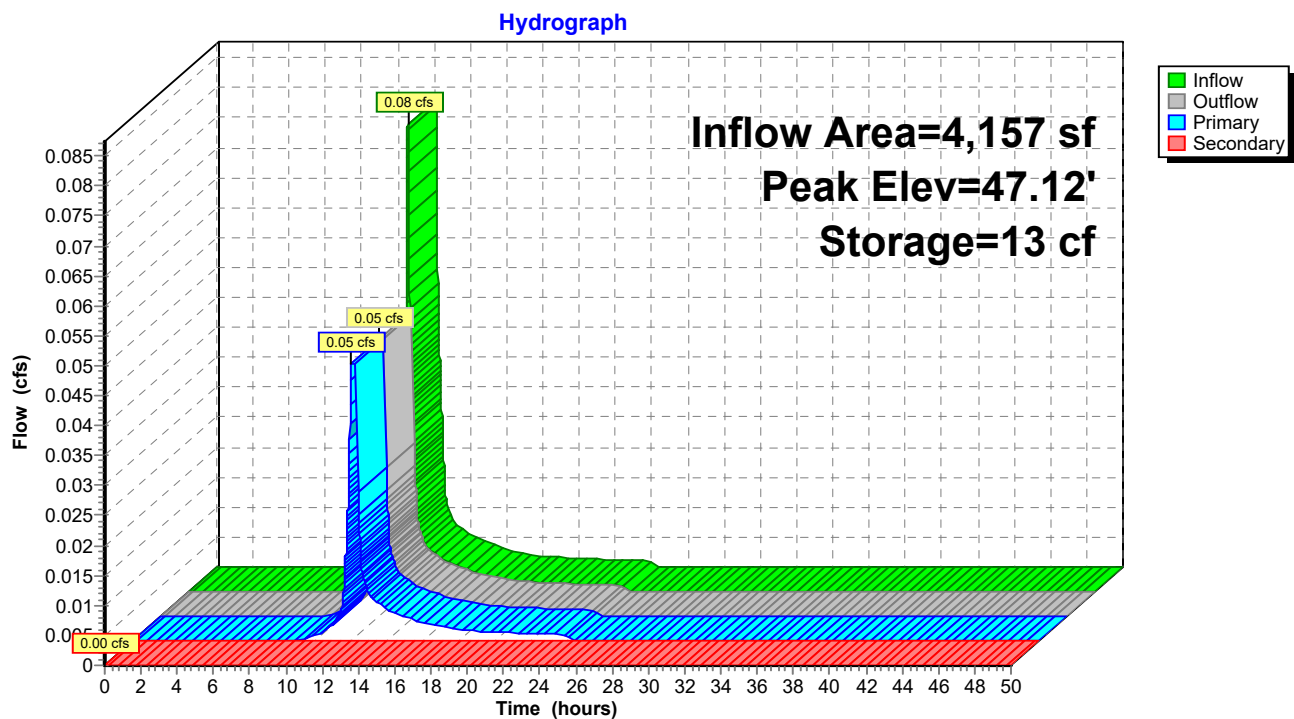
Center-of-Mass det. time= 0.8 min (836.8 - 836.0)

Volume	Invert	Avail.Storage	Storage Description
#1	44.75'	9 cf	2.00'W x 10.00'L x 2.25'H FocalPoint 45 cf Overall x 20.0% Voids
#2	47.00'	304 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		313 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
47.00	20	0	0
48.00	225	123	123
48.50	500	181	304

Device	Routing	Invert	Outlet Devices
#1	Primary	43.90'	6.0" Round Culvert L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 43.90' / 43.40' S= 0.0096 ' / S= 0.0096 ' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#2	Device 1	44.75'	100.000 in/hr Exfiltration over Surface area
#3	Secondary	47.80'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.05 cfs @ 12.01 hrs HW=44.79' (Free Discharge)↑ **1=Culvert** (Passes 0.05 cfs of 0.67 cfs potential flow)↑ **2=Exfiltration** (Exfiltration Controls 0.05 cfs)**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=44.75' (Free Discharge)↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Pond 2FP: FocalPoint 2

Summary for Pond 2P: Drip Edge

Inflow Area = 9,172 sf, 92.67% Impervious, Inflow Depth = 1.05" for RT WQV event
 Inflow = 0.25 cfs @ 12.09 hrs, Volume= 801 cf
 Outflow = 0.05 cfs @ 12.12 hrs, Volume= 668 cf, Atten= 78%, Lag= 2.0 min
 Primary = 0.05 cfs @ 12.12 hrs, Volume= 668 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 47.24' @ 12.50 hrs Surf.Area= 980 sf Storage= 379 cf

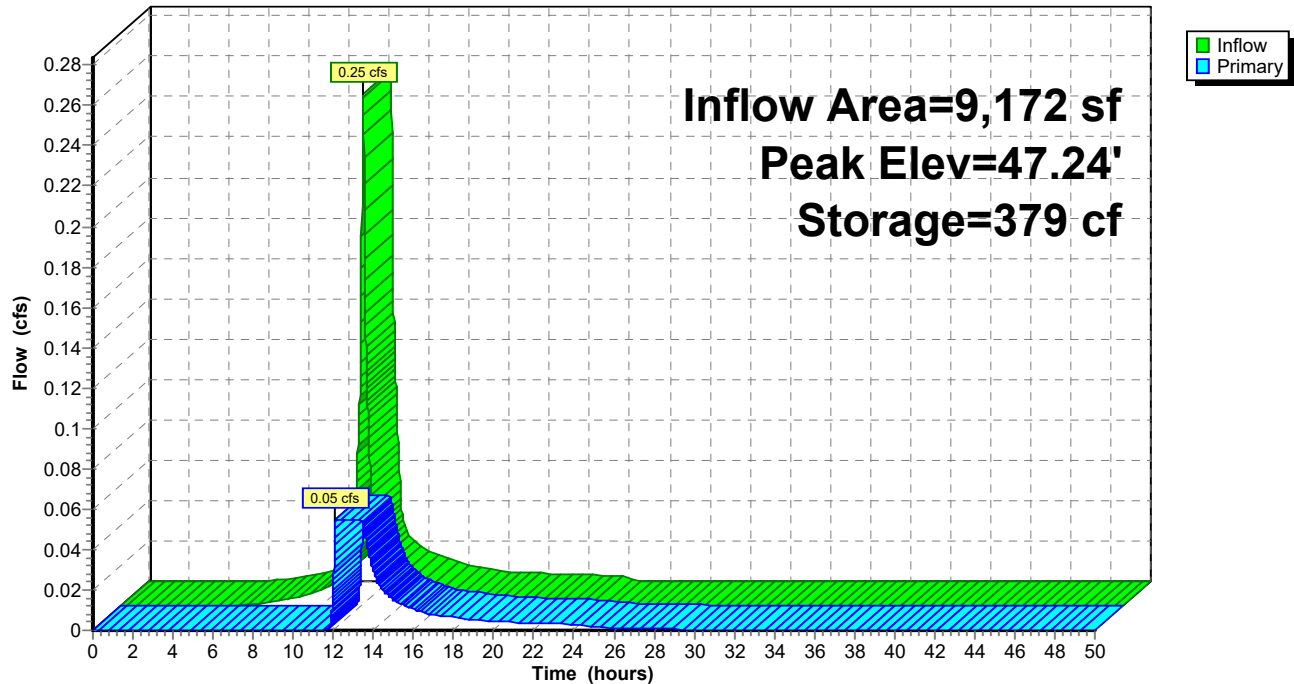
Plug-Flow detention time= 201.3 min calculated for 668 cf (83% of inflow)
 Center-of-Mass det. time= 134.0 min (933.8 - 799.8)

Volume	Invert	Avail.Storage	Storage Description	
#1	46.27'	2,132 cf	Stone and sand layers (Prismatic) listed below	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
46.27	980	0.0	0	0
46.28	980	40.0	4	4
47.59	980	40.0	514	517
47.60	980	20.0	2	519
48.59	980	20.0	194	713
48.60	980	40.0	4	717
49.60	980	40.0	392	1,109
50.00	980	40.0	157	1,266
50.01	980	100.0	10	1,276
51.00	750	100.0	856	2,132

Device	Routing	Invert	Outlet Devices
#1	Primary	46.60'	8.0" Round Culvert L= 7.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.60' / 46.40' S= 0.0286 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.35 sf
#2	Device 1	46.60'	4.0" Round 4" Underdrain L= 128.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.60' / 46.60' S= 0.0000 '/' Cc= 0.900 n= 0.012, Flow Area= 0.09 sf
#3	Device 2	46.27'	2.410 in/hr Filtration over Surface area
#4	Device 1	49.85'	18.0" Horiz. Overflow Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.05 cfs @ 12.12 hrs HW=47.03' (Free Discharge)

- 1=Culvert (Passes 0.05 cfs of 0.42 cfs potential flow)
 2=4" Underdrain (Passes 0.05 cfs of 0.06 cfs potential flow)
 3=Filtration (Exfiltration Controls 0.05 cfs)
 4=Overflow Grate (Controls 0.00 cfs)

Pond 2P: Drip Edge**Hydrograph**

Summary for Pond 3P: Field Gate Inlet

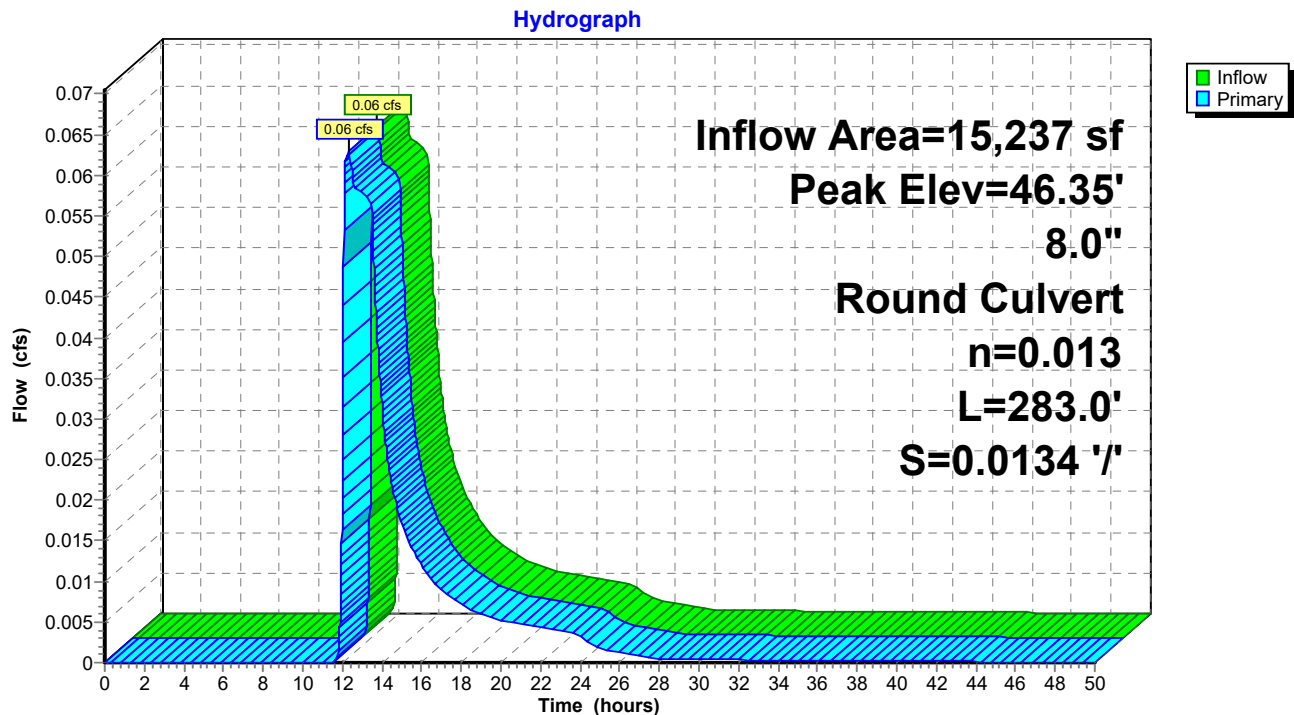
Inflow Area = 15,237 sf, 55.79% Impervious, Inflow Depth > 0.58" for RT WQV event
 Inflow = 0.06 cfs @ 12.30 hrs, Volume= 735 cf
 Outflow = 0.06 cfs @ 12.30 hrs, Volume= 735 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.06 cfs @ 12.30 hrs, Volume= 735 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 46.35' @ 12.30 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.20'	8.0" Round Culvert L= 283.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.20' / 42.40' S= 0.0134 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.06 cfs @ 12.30 hrs HW=46.35' (Free Discharge)
 ↑1=Culvert (Inlet Controls 0.06 cfs @ 1.05 fps)

Pond 3P: Field Gate Inlet



Summary for Pond 5P: Rtanks

Inflow Area = 46,924 sf, 72.74% Impervious, Inflow Depth = 0.78" for RT WQV event
 Inflow = 0.65 cfs @ 12.18 hrs, Volume= 3,038 cf
 Outflow = 0.12 cfs @ 13.11 hrs, Volume= 2,480 cf, Atten= 81%, Lag= 55.8 min
 Primary = 0.12 cfs @ 13.11 hrs, Volume= 2,480 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 42.33' @ 13.11 hrs Surf.Area= 2,791 sf Storage= 1,422 cf

Plug-Flow detention time= 341.4 min calculated for 2,480 cf (82% of inflow)
 Center-of-Mass det. time= 259.3 min (1,106.2 - 846.9)

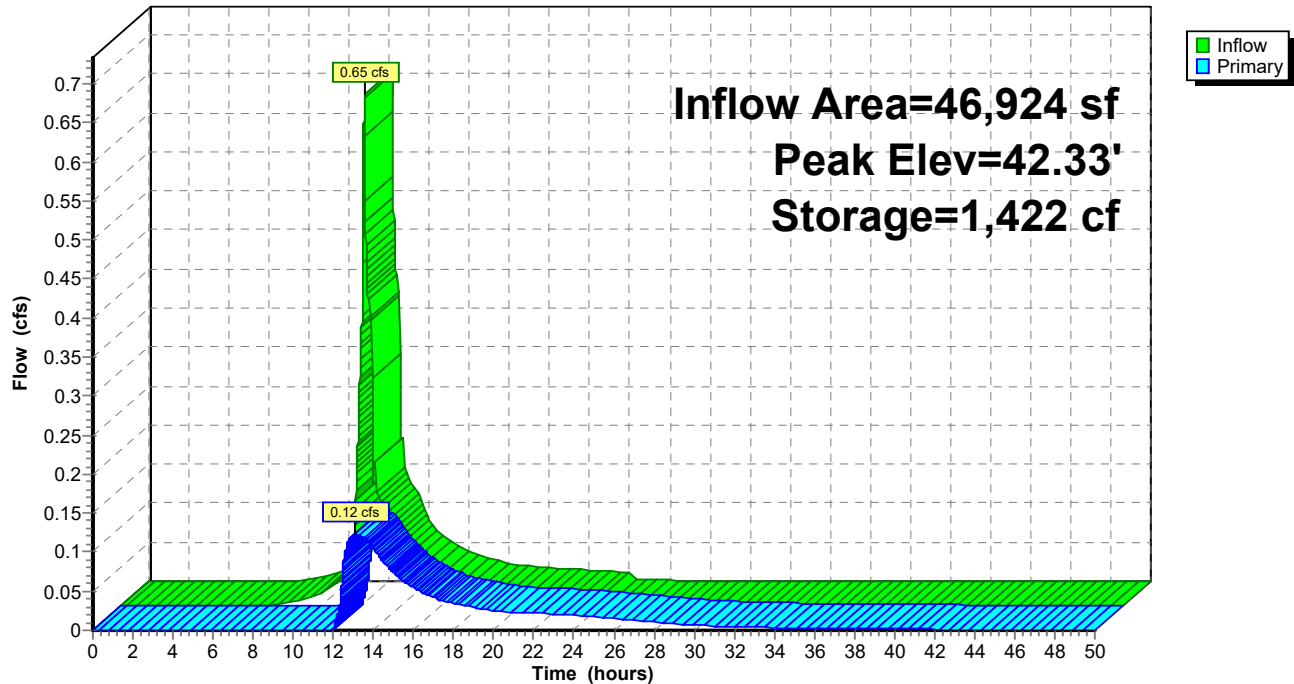
Volume	Invert	Avail.Storage	Storage Description
#1A	41.60'	1,919 cf	31.56'W x 88.45'L x 4.07'H Field A 11,365 cf Overall - 6,567 cf Embedded = 4,798 cf x 40.0% Voids
#2A	41.85'	6,238 cf	ACF R-Tank HD 2 x 756 Inside #1 Inside= 15.7"W x 33.9"H => 3.52 sf x 2.35'L = 8.3 cf Outside= 15.7"W x 33.9"H => 3.70 sf x 2.35'L = 8.7 cf 756 Chambers in 21 Rows
		8,158 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	41.85'	12.0" Round Culvert L= 32.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 41.85' / 41.25' S= 0.0188 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	41.95'	1.5" Vert. Orifice/Grate C= 0.600
#3	Device 1	42.15'	6.0" Vert. Orifice/Grate C= 0.600
#4	Device 1	43.00'	2.0" Vert. Orifice/Grate C= 0.600
#5	Device 1	43.65'	6.0' long x 2.00' rise Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)

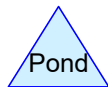
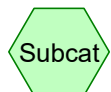
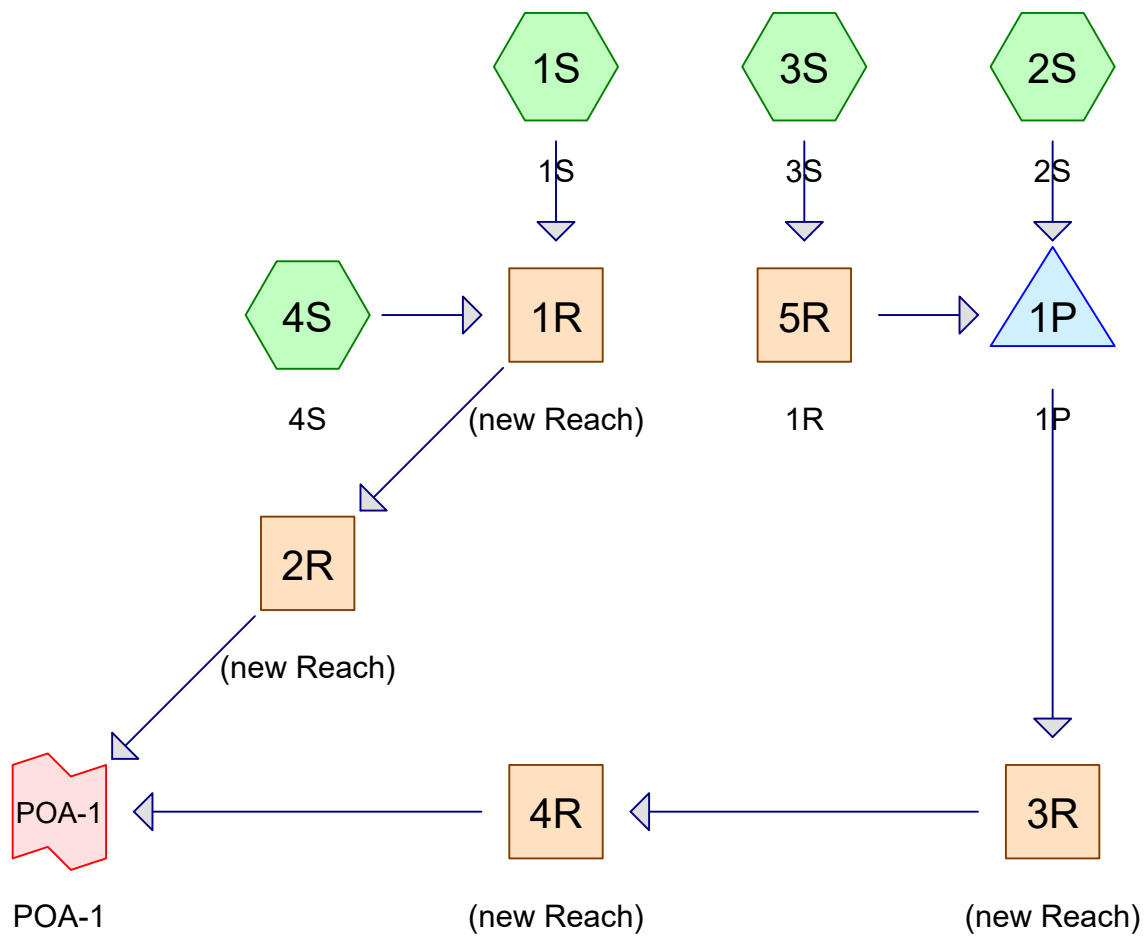
Primary OutFlow Max=0.12 cfs @ 13.11 hrs HW=42.33' (Free Discharge)

- 1=Culvert (Passes 0.12 cfs of 0.87 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.03 cfs @ 2.70 fps)
- 3=Orifice/Grate (Orifice Controls 0.09 cfs @ 1.43 fps)
- 4=Orifice/Grate (Controls 0.00 cfs)
- 5=Sharp-Crested Vee/Trap Weir (Controls 0.00 cfs)

Pond 5P: Rtanks**Hydrograph**

Appendix 2A

Existing Conditions HydroCAD Summary



Routing Diagram for 20576 Pre
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20576 Pre

Prepared by Sebago Technics, Inc.

Printed 9/23/2021

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Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
64,074	74	>75% Grass cover, Good, HSG C (1S, 2S, 3S, 4S)
17,849	80	>75% Grass cover, Good, HSG D (2S)
2,060	98	Pavement (2S)
22,454	98	pavement (1S, 4S)
106,437	81	TOTAL AREA

Summary for Subcatchment 1S: 1S

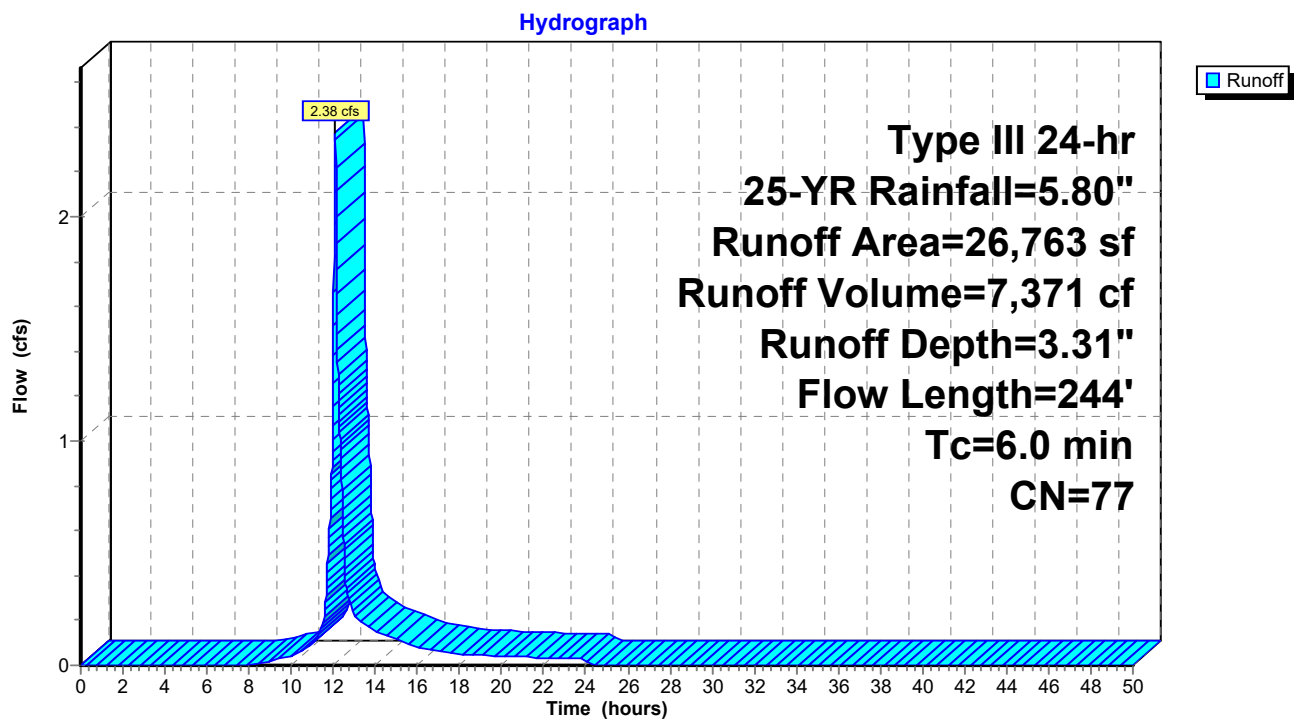
Runoff = 2.38 cfs @ 12.09 hrs, Volume= 7,371 cf, Depth= 3.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	2,963	98	pavement
	23,800	74	>75% Grass cover, Good, HSG C
	26,763	77	Weighted Average
	23,800		88.93% Pervious Area
	2,963		11.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	25	0.0408	0.17		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.10"
0.2	28	0.1786	2.96		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
0.8	69	0.0435	1.46		Shallow Concentrated Flow, C-D
					Short Grass Pasture Kv= 7.0 fps
0.1	19	0.1579	2.78		Shallow Concentrated Flow, D-E
					Short Grass Pasture Kv= 7.0 fps
2.1	103	0.0141	0.83		Shallow Concentrated Flow, E-F
					Short Grass Pasture Kv= 7.0 fps
0.3					Direct Entry,
6.0	244	Total			

Subcatchment 1S: 1S



Summary for Subcatchment 2S: 2S

Runoff = 3.27 cfs @ 12.17 hrs, Volume= 12,418 cf, Depth= 3.31"

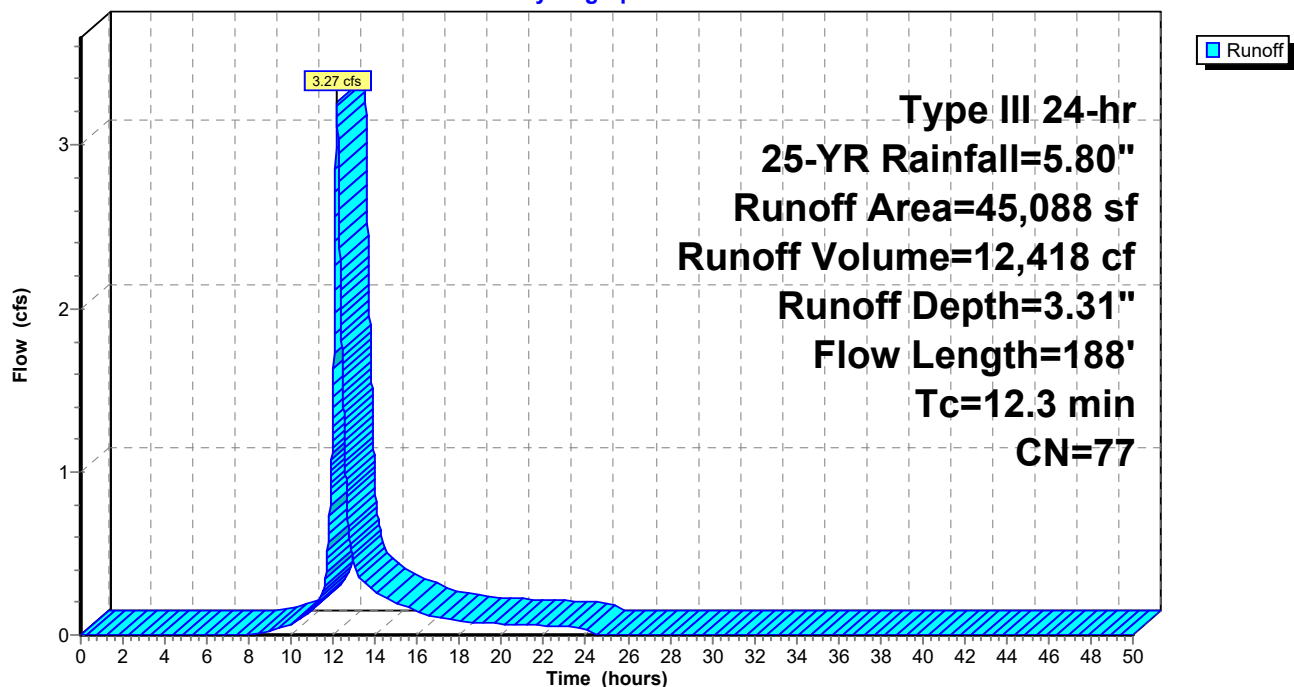
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	2,060	98	Pavement
	25,179	74	>75% Grass cover, Good, HSG C
	17,849	80	>75% Grass cover, Good, HSG D
	45,088	77	Weighted Average
	43,028		95.43% Pervious Area
	2,060		4.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	43	0.0233	0.07		Sheet Flow, A-B
					Woods: Light underbrush n= 0.400 P2= 3.10"
0.3	41	0.2439	2.47		Shallow Concentrated Flow, B-C
					Woodland Kv= 5.0 fps
1.6	104	0.0480	1.10		Shallow Concentrated Flow, C-D
					Woodland Kv= 5.0 fps
12.3	188	Total			

Subcatchment 2S: 2S

Hydrograph



Summary for Subcatchment 3S: 3S

Runoff = 0.68 cfs @ 12.09 hrs, Volume= 2,107 cf, Depth= 3.02"

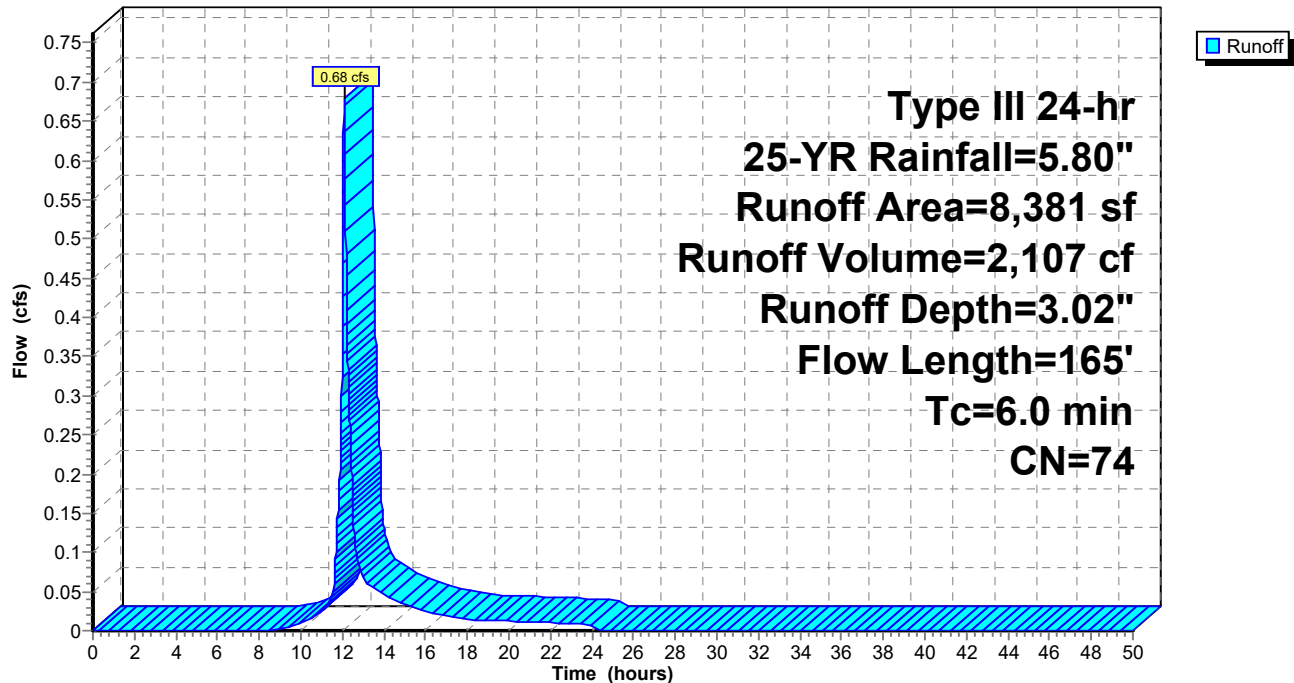
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
8,381	74	>75% Grass cover, Good, HSG C
8,381		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	11	0.1818	0.12		Sheet Flow, A-B
					Woods: Light underbrush n= 0.400 P2= 3.10"
0.3	45	0.2000	2.24		Shallow Concentrated Flow, B-C
					Woodland Kv= 5.0 fps
0.6	52	0.0385	1.37		Shallow Concentrated Flow, C-D
					Short Grass Pasture Kv= 7.0 fps
0.9	57	0.0233	1.07		Shallow Concentrated Flow, D-E
					Short Grass Pasture Kv= 7.0 fps
2.7					Direct Entry,
6.0	165	Total			

Subcatchment 3S: 3S

Hydrograph



20576 Pre

Prepared by Sebago Technics, Inc.

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

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Summary for Subcatchment 4S: 4S

Runoff = 3.23 cfs @ 12.08 hrs, Volume= 10,641 cf, Depth= 4.87"

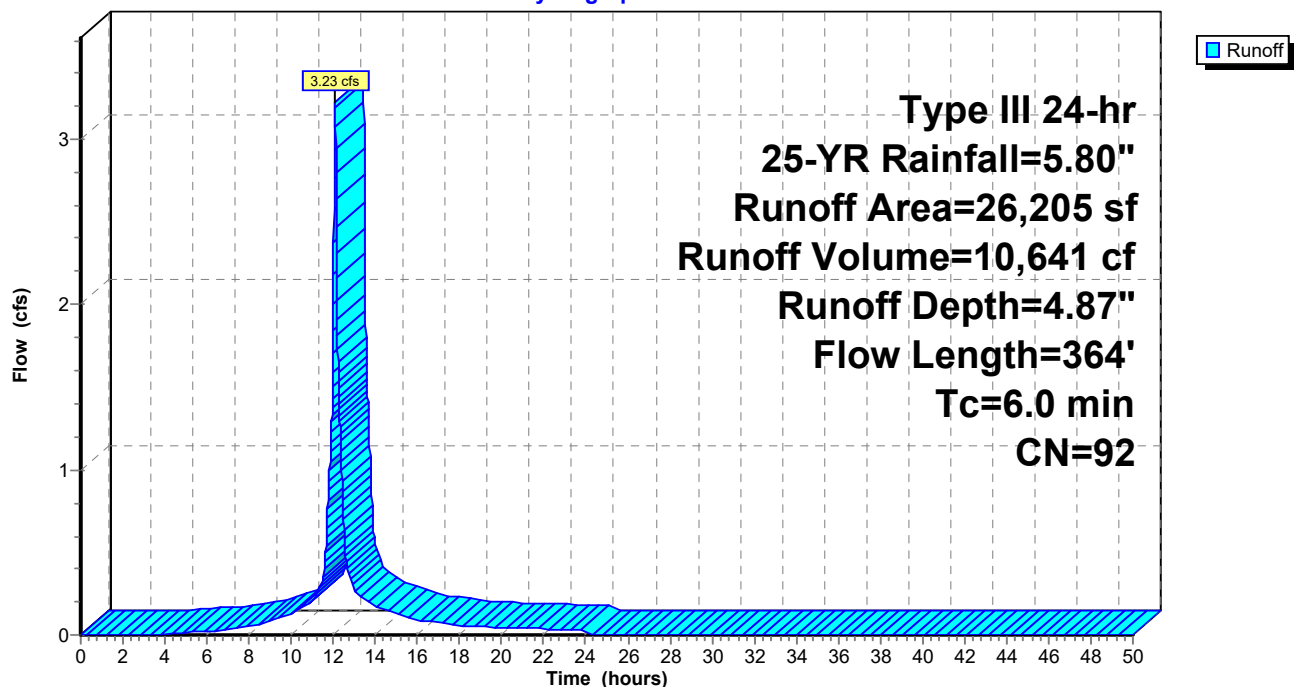
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	19,491	98	pavement
	6,714	74	>75% Grass cover, Good, HSG C
	26,205	92	Weighted Average
	6,714		25.62% Pervious Area
	19,491		74.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	118	0.0339	1.73		Sheet Flow, A-B
					Smooth surfaces n= 0.011 P2= 3.10"
1.1	212	0.0235	3.11		Shallow Concentrated Flow, B-C
					Paved Kv= 20.3 fps
0.2	34	0.0294	2.57		Shallow Concentrated Flow, C-D
					Grassed Waterway Kv= 15.0 fps
3.6					Direct Entry,
6.0	364	Total			

Subcatchment 4S: 4S

Hydrograph



Summary for Reach 1R: (new Reach)

Inflow Area = 52,968 sf, 42.39% Impervious, Inflow Depth = 4.08" for 25-YR event
 Inflow = 5.61 cfs @ 12.09 hrs, Volume= 18,012 cf
 Outflow = 5.59 cfs @ 12.09 hrs, Volume= 18,012 cf, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Max. Velocity= 3.98 fps, Min. Travel Time= 0.3 min

Avg. Velocity= 1.36 fps, Avg. Travel Time= 0.8 min

Peak Storage= 92 cf @ 12.09 hrs

Average Depth at Peak Storage= 1.11'

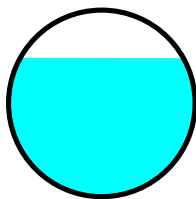
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 6.21 cfs

18.0" Round Pipe

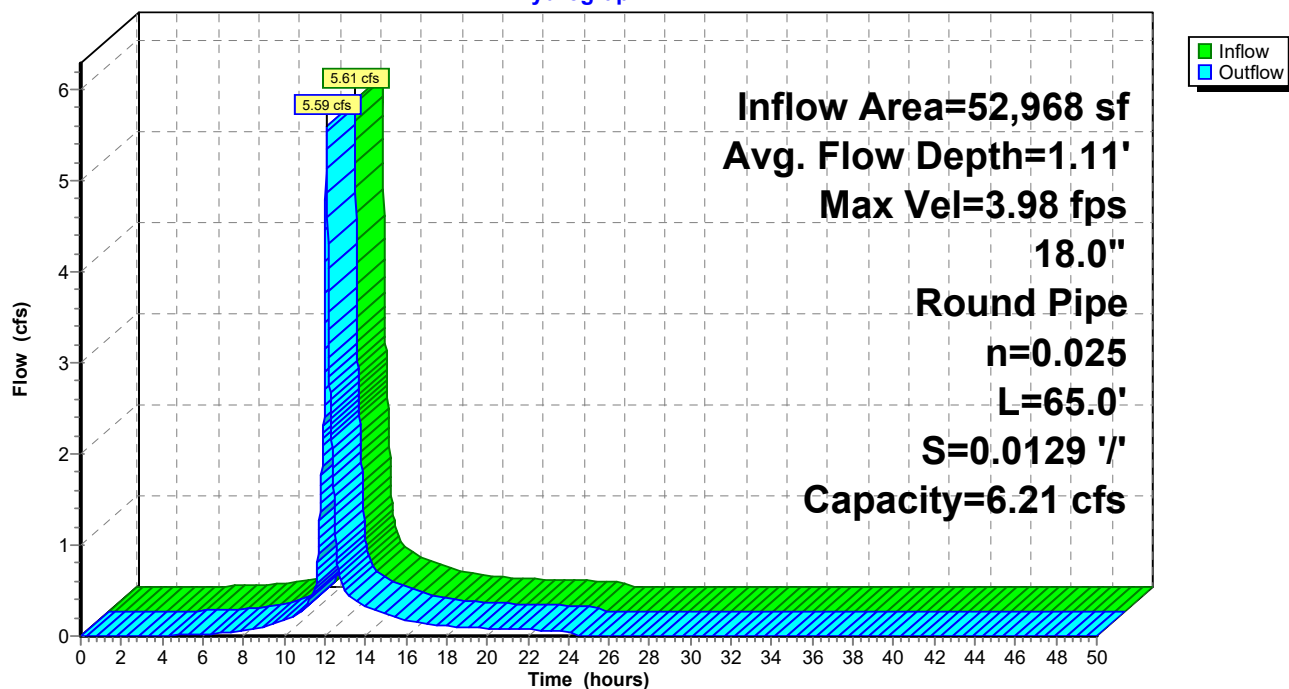
n= 0.025 Corrugated metal

Length= 65.0' Slope= 0.0129 '/'

Inlet Invert= 41.68', Outlet Invert= 40.84'

**Reach 1R: (new Reach)**

Hydrograph



Summary for Reach 2R: (new Reach)

Inflow Area = 52,968 sf, 42.39% Impervious, Inflow Depth = 4.08" for 25-YR event
 Inflow = 5.59 cfs @ 12.09 hrs, Volume= 18,012 cf
 Outflow = 5.56 cfs @ 12.11 hrs, Volume= 18,012 cf, Atten= 1%, Lag= 1.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Max. Velocity= 1.05 fps, Min. Travel Time= 0.6 min

Avg. Velocity = 0.36 fps, Avg. Travel Time= 1.8 min

Peak Storage= 211 cf @ 12.10 hrs

Average Depth at Peak Storage= 0.65'

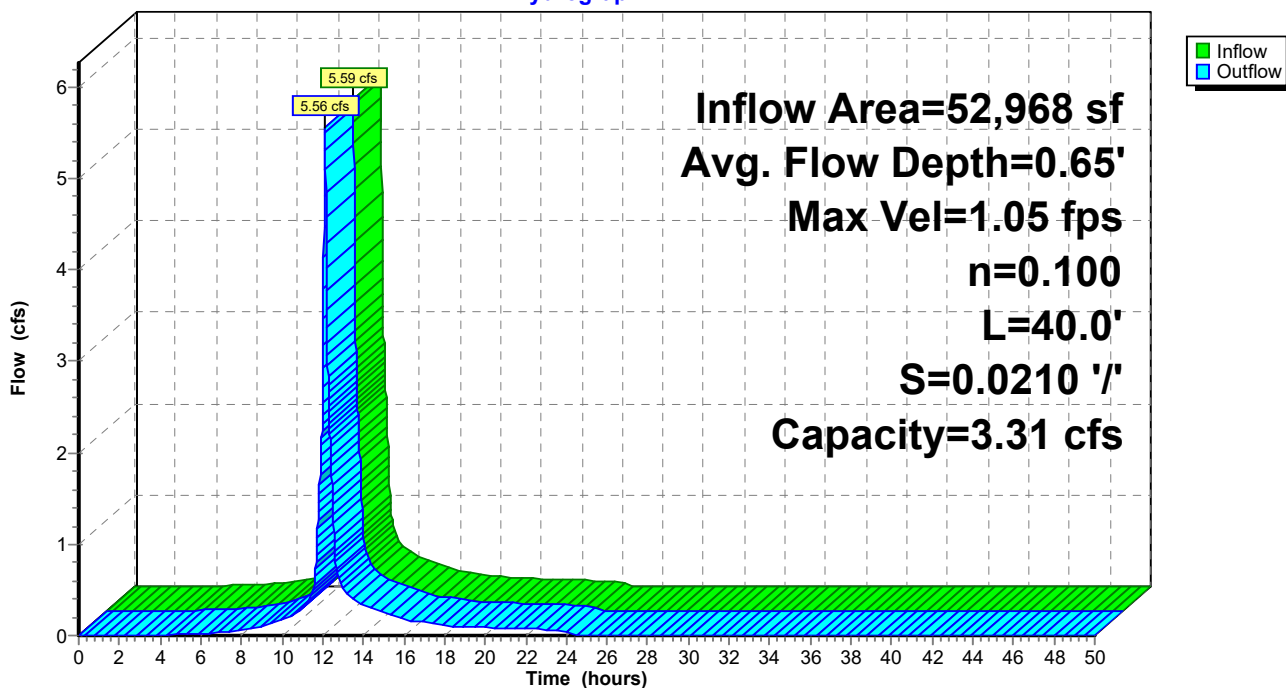
Bank-Full Depth= 0.50' Flow Area= 3.5 sf, Capacity= 3.31 cfs

2.00' x 0.50' deep channel, n= 0.100 Very weedy reaches w/pools

Side Slope Z-value= 10.0 '/' Top Width= 12.00'

Length= 40.0' Slope= 0.0210 '/'

Inlet Invert= 40.84', Outlet Invert= 40.00'

**Reach 2R: (new Reach)****Hydrograph**

Summary for Reach 3R: (new Reach)

Inflow Area = 53,469 sf, 3.85% Impervious, Inflow Depth = 3.26" for 25-YR event
 Inflow = 2.33 cfs @ 12.35 hrs, Volume= 14,520 cf
 Outflow = 2.32 cfs @ 12.35 hrs, Volume= 14,520 cf, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Max. Velocity= 3.00 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 0.75 fps, Avg. Travel Time= 0.6 min

Peak Storage= 19 cf @ 12.35 hrs

Average Depth at Peak Storage= 0.19'

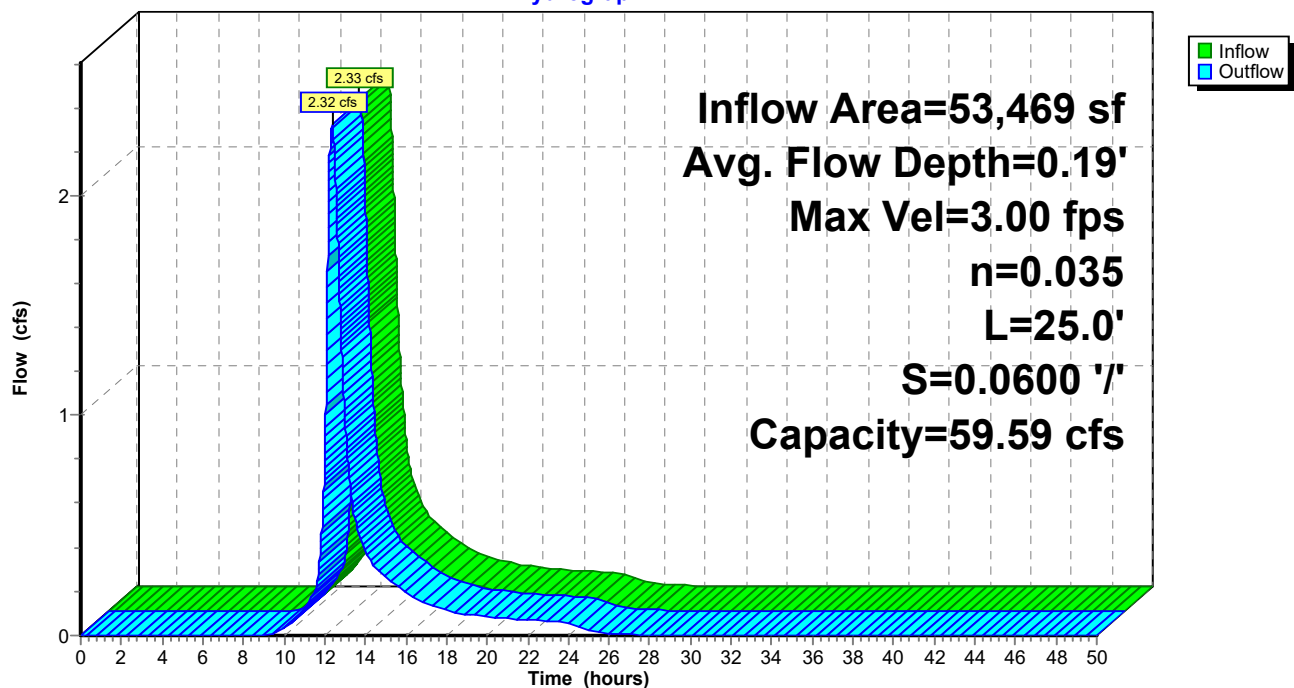
Bank-Full Depth= 1.00' Flow Area= 8.0 sf, Capacity= 59.59 cfs

3.00' x 1.00' deep channel, n= 0.035 Earth, dense weeds

Side Slope Z-value= 5.0 '/' Top Width= 13.00'

Length= 25.0' Slope= 0.0600 '/'

Inlet Invert= 43.00', Outlet Invert= 41.50'

**Reach 3R: (new Reach)****Hydrograph**

Summary for Reach 4R: (new Reach)

Inflow Area = 53,469 sf, 3.85% Impervious, Inflow Depth = 3.26" for 25-YR event
 Inflow = 2.32 cfs @ 12.35 hrs, Volume= 14,520 cf
 Outflow = 2.13 cfs @ 12.69 hrs, Volume= 14,519 cf, Atten= 8%, Lag= 20.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Max. Velocity= 0.49 fps, Min. Travel Time= 10.6 min

Avg. Velocity = 0.12 fps, Avg. Travel Time= 42.6 min

Peak Storage= 1,361 cf @ 12.52 hrs

Average Depth at Peak Storage= 0.53'

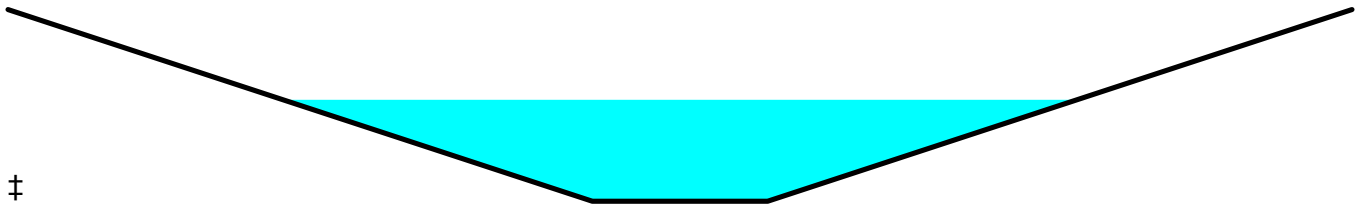
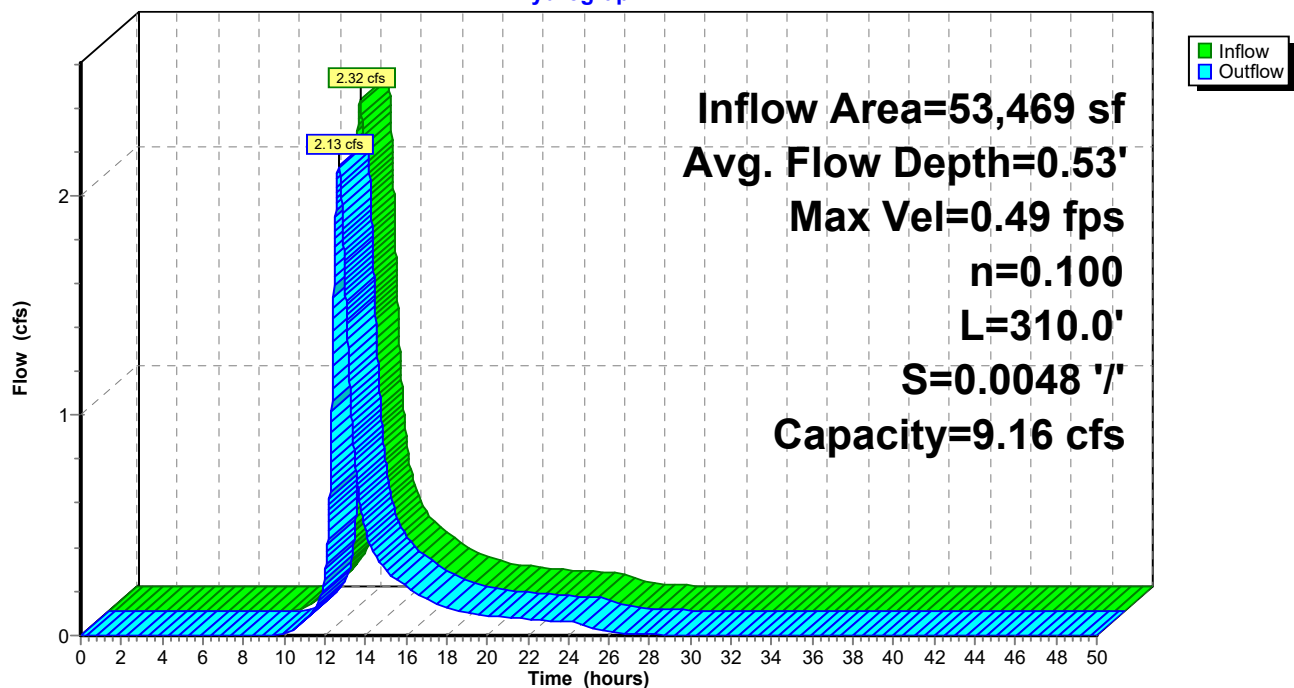
Bank-Full Depth= 1.00' Flow Area= 13.0 sf, Capacity= 9.16 cfs

3.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools

Side Slope Z-value= 10.0 '/' Top Width= 23.00'

Length= 310.0' Slope= 0.0048 '/'

Inlet Invert= 41.50', Outlet Invert= 40.00'

**Reach 4R: (new Reach)****Hydrograph**

Summary for Reach 5R: 1R

Inflow Area = 8,381 sf, 0.00% Impervious, Inflow Depth = 3.02" for 25-YR event
 Inflow = 0.68 cfs @ 12.09 hrs, Volume= 2,107 cf
 Outflow = 0.68 cfs @ 12.09 hrs, Volume= 2,107 cf, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Max. Velocity= 6.17 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 2.19 fps, Avg. Travel Time= 0.4 min

Peak Storage= 6 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.20'

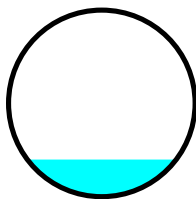
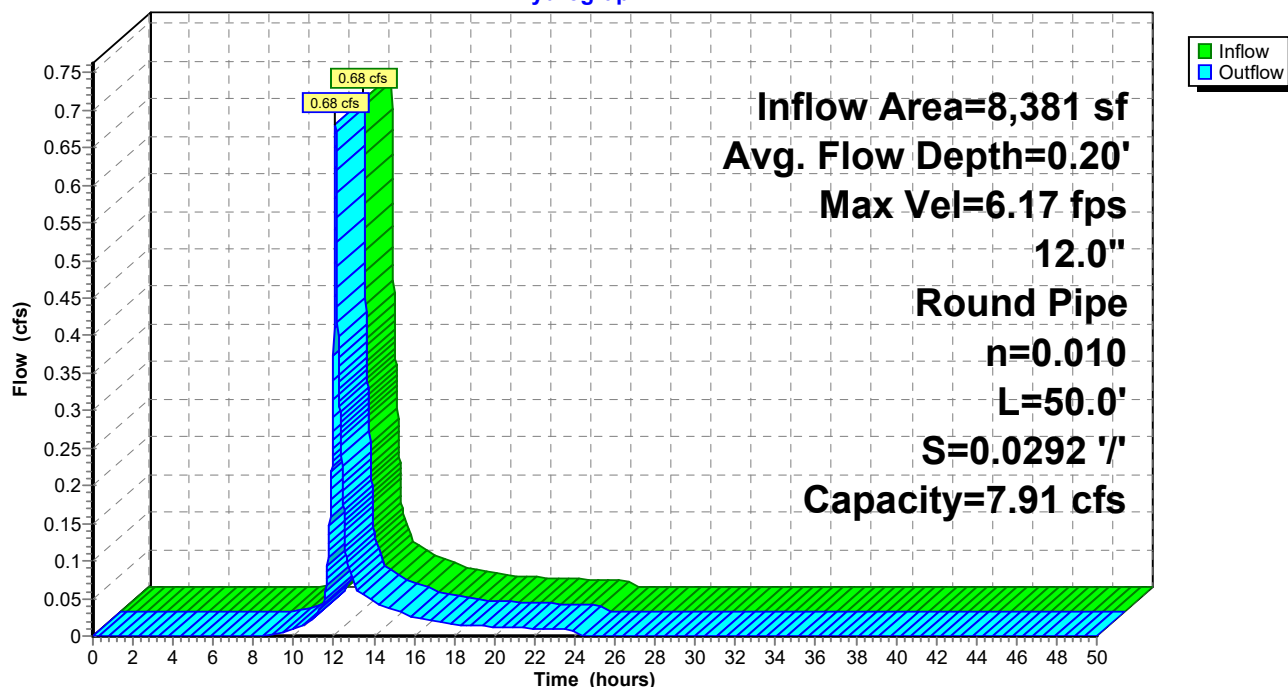
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 7.91 cfs

12.0" Round Pipe

n= 0.010 PVC, smooth interior

Length= 50.0' Slope= 0.0292 '/

Inlet Invert= 50.67', Outlet Invert= 49.21'

**Reach 5R: 1R****Hydrograph**

Summary for Pond 1P: 1P

Inflow Area = 53,469 sf, 3.85% Impervious, Inflow Depth = 3.26" for 25-YR event
 Inflow = 3.78 cfs @ 12.15 hrs, Volume= 14,526 cf
 Outflow = 2.33 cfs @ 12.35 hrs, Volume= 14,520 cf, Atten= 39%, Lag= 11.8 min
 Primary = 2.33 cfs @ 12.35 hrs, Volume= 14,520 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 44.94' @ 12.35 hrs Surf.Area= 4,658 sf Storage= 2,900 cf

Plug-Flow detention time= 36.5 min calculated for 14,520 cf (100% of inflow)
 Center-of-Mass det. time= 36.3 min (865.4 - 829.2)

Volume	Invert	Avail.Storage	Storage Description
#1	44.00'	8,890 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
44.00	1,540	0	0
45.00	4,872	3,206	3,206
46.00	6,495	5,684	8,890

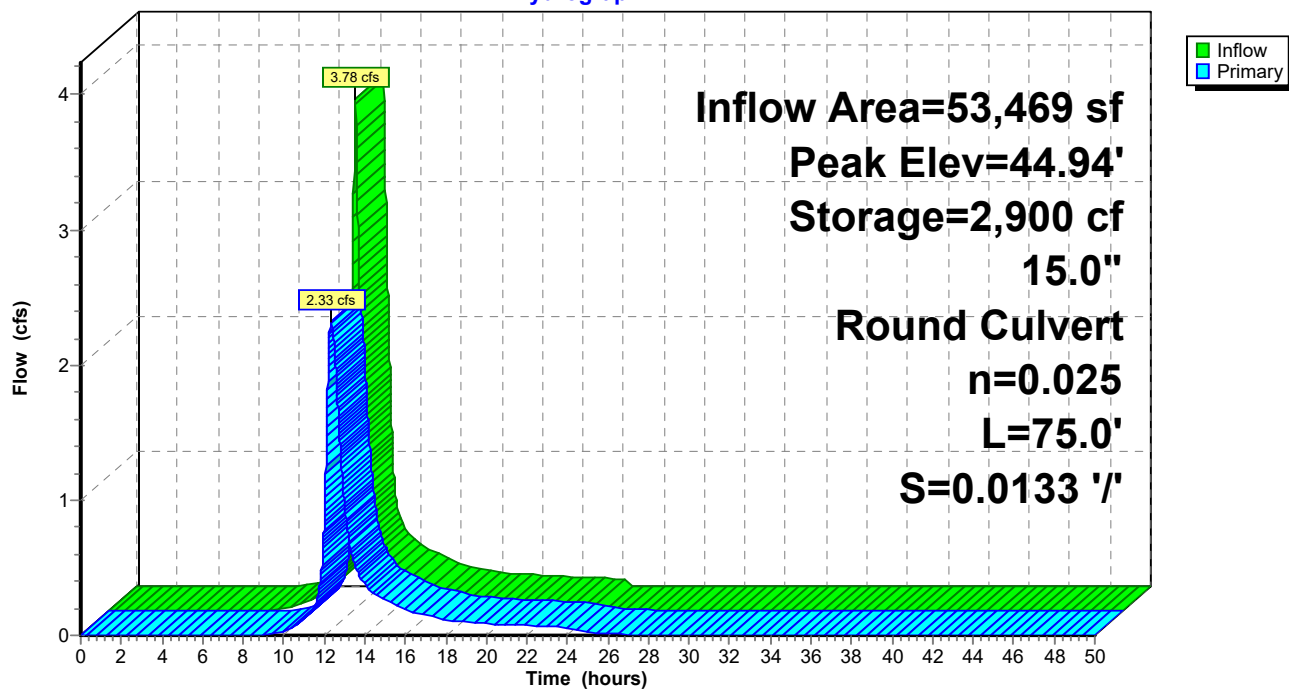
Device	Routing	Invert	Outlet Devices
#1	Primary	44.00'	15.0" Round Culvert L= 75.0' CMP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 44.00' / 43.00' S= 0.0133 ' S= 0.0133 ' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 1.23 sf

Primary OutFlow Max=2.33 cfs @ 12.35 hrs HW=44.94' (Free Discharge)

↑ **1=Culvert** (Barrel Controls 2.33 cfs @ 3.28 fps)

Pond 1P: 1P

Hydrograph



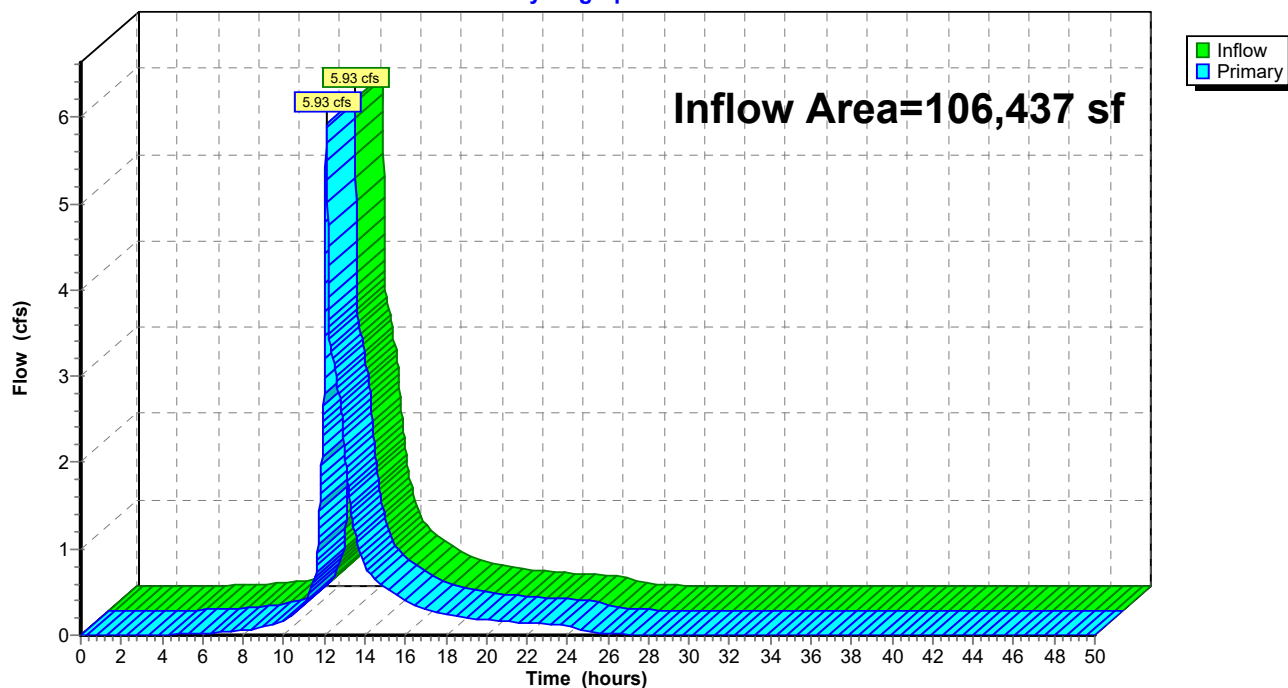
Summary for Link POA-1: POA-1

Inflow Area = 106,437 sf, 23.03% Impervious, Inflow Depth = 3.67" for 25-YR event
Inflow = 5.93 cfs @ 12.12 hrs, Volume= 32,531 cf
Primary = 5.93 cfs @ 12.12 hrs, Volume= 32,531 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link POA-1: POA-1

Hydrograph



20576 Pre

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

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Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 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: 1SRunoff Area=26,763 sf 11.07% Impervious Runoff Depth=1.14"
Flow Length=244' Tc=6.0 min CN=77 Runoff=0.80 cfs 2,544 cf**Subcatchment2S: 2S**Runoff Area=45,088 sf 4.57% Impervious Runoff Depth=1.14"
Flow Length=188' Tc=12.3 min CN=77 Runoff=1.09 cfs 4,287 cf**Subcatchment3S: 3S**Runoff Area=8,381 sf 0.00% Impervious Runoff Depth=0.97"
Flow Length=165' Tc=6.0 min CN=74 Runoff=0.21 cfs 679 cf**Subcatchment4S: 4S**Runoff Area=26,205 sf 74.38% Impervious Runoff Depth=2.26"
Flow Length=364' Tc=6.0 min CN=92 Runoff=1.56 cfs 4,926 cf**Reach 1R: (new Reach)**Avg. Flow Depth=0.64' Max Vel=3.27 fps Inflow=2.35 cfs 7,470 cf
18.0" Round Pipe n=0.025 L=65.0' S=0.0129 '/' Capacity=6.21 cfs Outflow=2.34 cfs 7,470 cf**Reach 2R: (new Reach)**Avg. Flow Depth=0.43' Max Vel=0.86 fps Inflow=2.34 cfs 7,470 cf
n=0.100 L=40.0' S=0.0210 '/' Capacity=3.31 cfs Outflow=2.32 cfs 7,470 cf**Reach 3R: (new Reach)**Avg. Flow Depth=0.10' Max Vel=2.02 fps Inflow=0.70 cfs 4,961 cf
n=0.035 L=25.0' S=0.0600 '/' Capacity=59.59 cfs Outflow=0.70 cfs 4,961 cf**Reach 4R: (new Reach)**Avg. Flow Depth=0.29' Max Vel=0.35 fps Inflow=0.70 cfs 4,961 cf
n=0.100 L=310.0' S=0.0048 '/' Capacity=9.16 cfs Outflow=0.60 cfs 4,959 cf**Reach 5R: 1R**Avg. Flow Depth=0.11' Max Vel=4.32 fps Inflow=0.21 cfs 679 cf
12.0" Round Pipe n=0.010 L=50.0' S=0.0292 '/' Capacity=7.91 cfs Outflow=0.21 cfs 679 cf**Pond 1P: 1P**Peak Elev=44.48' Storage=1,122 cf Inflow=1.24 cfs 4,966 cf
15.0" Round Culvert n=0.025 L=75.0' S=0.0133 '/' Outflow=0.70 cfs 4,961 cf**Link POA-1: POA-1**Inflow=2.33 cfs 12,430 cf
Primary=2.33 cfs 12,430 cf**Total Runoff Area = 106,437 sf Runoff Volume = 12,436 cf Average Runoff Depth = 1.40"**
76.97% Pervious = 81,923 sf 23.03% Impervious = 24,514 sf

20576 Pre

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

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Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 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: 1S Runoff Area=26,763 sf 11.07% Impervious Runoff Depth=2.29"
 Flow Length=244' Tc=6.0 min CN=77 Runoff=1.65 cfs 5,112 cf

Subcatchment2S: 2S Runoff Area=45,088 sf 4.57% Impervious Runoff Depth=2.29"
 Flow Length=188' Tc=12.3 min CN=77 Runoff=2.26 cfs 8,612 cf

Subcatchment3S: 3S Runoff Area=8,381 sf 0.00% Impervious Runoff Depth=2.05"
 Flow Length=165' Tc=6.0 min CN=74 Runoff=0.46 cfs 1,431 cf

Subcatchment4S: 4S Runoff Area=26,205 sf 74.38% Impervious Runoff Depth=3.70"
 Flow Length=364' Tc=6.0 min CN=92 Runoff=2.49 cfs 8,078 cf

Reach 1R: (new Reach) Avg. Flow Depth=0.89' Max Vel=3.76 fps Inflow=4.14 cfs 13,190 cf
 18.0" Round Pipe n=0.025 L=65.0' S=0.0129 '/' Capacity=6.21 cfs Outflow=4.12 cfs 13,190 cf

Reach 2R: (new Reach) Avg. Flow Depth=0.55' Max Vel=0.99 fps Inflow=4.12 cfs 13,190 cf
 n=0.100 L=40.0' S=0.0210 '/' Capacity=3.31 cfs Outflow=4.10 cfs 13,190 cf

Reach 3R: (new Reach) Avg. Flow Depth=0.16' Max Vel=2.66 fps Inflow=1.59 cfs 10,038 cf
 n=0.035 L=25.0' S=0.0600 '/' Capacity=59.59 cfs Outflow=1.59 cfs 10,038 cf

Reach 4R: (new Reach) Avg. Flow Depth=0.44' Max Vel=0.44 fps Inflow=1.59 cfs 10,038 cf
 n=0.100 L=310.0' S=0.0048 '/' Capacity=9.16 cfs Outflow=1.43 cfs 10,037 cf

Reach 5R: 1R Avg. Flow Depth=0.16' Max Vel=5.49 fps Inflow=0.46 cfs 1,431 cf
 12.0" Round Pipe n=0.010 L=50.0' S=0.0292 '/' Capacity=7.91 cfs Outflow=0.46 cfs 1,431 cf

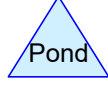
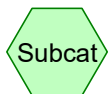
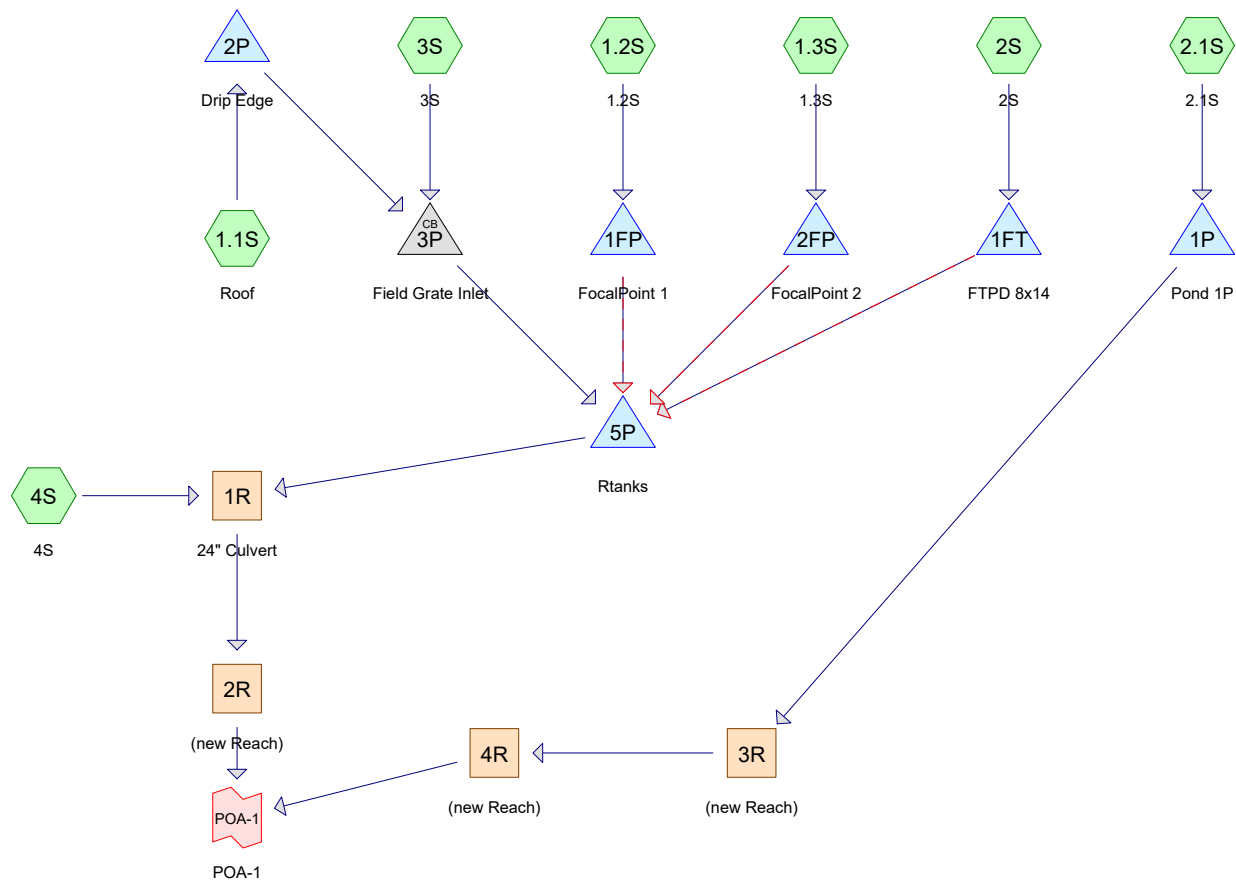
Pond 1P: 1P Peak Elev=44.75' Storage=2,084 cf Inflow=2.60 cfs 10,044 cf
 15.0" Round Culvert n=0.025 L=75.0' S=0.0133 '/' Outflow=1.59 cfs 10,038 cf

Link POA-1: POA-1 Inflow=4.27 cfs 23,227 cf
 Primary=4.27 cfs 23,227 cf

Total Runoff Area = 106,437 sf Runoff Volume = 23,234 cf Average Runoff Depth = 2.62"
76.97% Pervious = 81,923 sf 23.03% Impervious = 24,514 sf

Appendix 2B

Proposed Conditions HydroCAD Summary



Routing Diagram for 20576 Post
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20576 Post

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Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
46,734	74	>75% Grass cover, Good, HSG C (1.1S, 1.2S, 1.3S, 2.1S, 2S, 3S, 4S)
3,307	80	>75% Grass cover, Good, HSG D (2.1S, 2S)
45,959	98	Pavement (1.2S, 1.3S, 2S, 4S)
8,500	98	Roof (1.1S)
1,937	98	pavement (2.1S)
106,437	87	TOTAL AREA

20576 Post*Type III 24-hr 2-YR Rainfall=3.10"*

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Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1.1S: Roof	Runoff Area=9,172 sf 92.67% Impervious Runoff Depth=2.65" Tc=6.0 min CN=96 Runoff=0.61 cfs 2,026 cf
Subcatchment1.2S: 1.2S	Runoff Area=5,542 sf 88.02% Impervious Runoff Depth=2.55" Tc=6.0 min CN=95 Runoff=0.36 cfs 1,176 cf
Subcatchment1.3S: 1.3S	Runoff Area=4,157 sf 71.11% Impervious Runoff Depth=2.16" Tc=6.0 min CN=91 Runoff=0.24 cfs 750 cf
Subcatchment2.1S: 2.1S	Runoff Area=23,020 sf 8.41% Impervious Runoff Depth=1.14" Flow Length=219' Tc=6.9 min CN=77 Runoff=0.66 cfs 2,189 cf
Subcatchment2S: 2S	Runoff Area=21,988 sf 80.95% Impervious Runoff Depth=2.45" Flow Length=92' Tc=6.0 min CN=94 Runoff=1.39 cfs 4,484 cf
Subcatchment3S: 3S	Runoff Area=6,065 sf 0.00% Impervious Runoff Depth=0.97" Tc=6.0 min CN=74 Runoff=0.15 cfs 491 cf
Subcatchment4S: 4S	Runoff Area=36,493 sf 55.70% Impervious Runoff Depth=1.83" Tc=6.0 min CN=87 Runoff=1.79 cfs 5,555 cf
Reach 1R: 24" Culvert	Avg. Flow Depth=0.60' Max Vel=2.91 fps Inflow=2.33 cfs 13,812 cf 24.0" Round Pipe n=0.025 L=65.0' S=0.0100 '/' Capacity=11.76 cfs Outflow=2.32 cfs 13,812 cf
Reach 2R: (new Reach)	Avg. Flow Depth=0.35' Max Vel=0.73 fps Inflow=2.32 cfs 13,812 cf n=0.100 L=40.0' S=0.0210 '/' Capacity=30.76 cfs Outflow=2.30 cfs 13,812 cf
Reach 3R: (new Reach)	Avg. Flow Depth=0.06' Max Vel=1.52 fps Inflow=0.31 cfs 2,186 cf n=0.035 L=25.0' S=0.0600 '/' Capacity=59.59 cfs Outflow=0.31 cfs 2,186 cf
Reach 4R: (new Reach)	Avg. Flow Depth=0.18' Max Vel=0.27 fps Inflow=0.31 cfs 2,186 cf n=0.100 L=310.0' S=0.0048 '/' Capacity=9.16 cfs Outflow=0.24 cfs 2,185 cf
Pond 1FP: FocalPoint 1	Peak Elev=47.97' Storage=49 cf Inflow=0.36 cfs 1,176 cf Primary=0.06 cfs 892 cf Secondary=0.30 cfs 285 cf Outflow=0.36 cfs 1,177 cf
Pond 1FT: FTPD 8x14	Peak Elev=47.71' Storage=109 cf Inflow=1.39 cfs 4,484 cf Primary=0.45 cfs 3,879 cf Secondary=0.95 cfs 626 cf Outflow=1.41 cfs 4,505 cf
Pond 1P: Pond 1P	Peak Elev=44.32' Storage=539 cf Inflow=0.66 cfs 2,189 cf 15.0" Round Culvert n=0.025 L=75.0' S=0.0133 '/' Outflow=0.31 cfs 2,186 cf
Pond 2FP: FocalPoint 2	Peak Elev=47.85' Storage=99 cf Inflow=0.24 cfs 750 cf Primary=0.05 cfs 652 cf Secondary=0.16 cfs 98 cf Outflow=0.21 cfs 750 cf
Pond 2P: Drip Edge	Peak Elev=49.30' Storage=990 cf Inflow=0.61 cfs 2,026 cf Outflow=0.05 cfs 1,894 cf

20576 Post*Type III 24-hr 2-YR Rainfall=3.10"*

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Pond 3P: Field Grate Inlet

Peak Elev=46.48' Inflow=0.20 cfs 2,385 cf
8.0" Round Culvert n=0.013 L=283.0' S=0.0134 '/' Outflow=0.20 cfs 2,385 cf

Pond 5P: Rtanks

Peak Elev=42.93' Storage=2,857 cf Inflow=2.04 cfs 8,817 cf
Outflow=0.74 cfs 8,257 cf

Link POA-1: POA-1

Inflow=2.30 cfs 15,997 cf
Primary=2.30 cfs 15,997 cf

Total Runoff Area = 106,437 sf Runoff Volume = 16,671 cf Average Runoff Depth = 1.88"
47.01% Pervious = 50,041 sf 52.99% Impervious = 56,396 sf

20576 Post

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

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Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1.1S: Roof	Runoff Area=9,172 sf 92.67% Impervious Runoff Depth=4.14" Tc=6.0 min CN=96 Runoff=0.93 cfs 3,161 cf
Subcatchment1.2S: 1.2S	Runoff Area=5,542 sf 88.02% Impervious Runoff Depth=4.02" Tc=6.0 min CN=95 Runoff=0.55 cfs 1,858 cf
Subcatchment1.3S: 1.3S	Runoff Area=4,157 sf 71.11% Impervious Runoff Depth=3.59" Tc=6.0 min CN=91 Runoff=0.39 cfs 1,245 cf
Subcatchment2.1S: 2.1S	Runoff Area=23,020 sf 8.41% Impervious Runoff Depth=2.29" Flow Length=219' Tc=6.9 min CN=77 Runoff=1.37 cfs 4,397 cf
Subcatchment2S: 2S	Runoff Area=21,988 sf 80.95% Impervious Runoff Depth=3.91" Flow Length=92' Tc=6.0 min CN=94 Runoff=2.17 cfs 7,171 cf
Subcatchment3S: 3S	Runoff Area=6,065 sf 0.00% Impervious Runoff Depth=2.05" Tc=6.0 min CN=74 Runoff=0.33 cfs 1,036 cf
Subcatchment4S: 4S	Runoff Area=36,493 sf 55.70% Impervious Runoff Depth=3.19" Tc=6.0 min CN=87 Runoff=3.09 cfs 9,708 cf
Reach 1R: 24" Culvert	Avg. Flow Depth=0.80' Max Vel=3.37 fps Inflow=3.93 cfs 23,484 cf 24.0" Round Pipe n=0.025 L=65.0' S=0.0100 ' ' Capacity=11.76 cfs Outflow=3.92 cfs 23,484 cf
Reach 2R: (new Reach)	Avg. Flow Depth=0.44' Max Vel=0.83 fps Inflow=3.92 cfs 23,484 cf n=0.100 L=40.0' S=0.0210 ' ' Capacity=30.76 cfs Outflow=3.89 cfs 23,484 cf
Reach 3R: (new Reach)	Avg. Flow Depth=0.10' Max Vel=2.09 fps Inflow=0.76 cfs 4,394 cf n=0.035 L=25.0' S=0.0600 ' ' Capacity=59.59 cfs Outflow=0.76 cfs 4,394 cf
Reach 4R: (new Reach)	Avg. Flow Depth=0.30' Max Vel=0.35 fps Inflow=0.76 cfs 4,394 cf n=0.100 L=310.0' S=0.0048 ' ' Capacity=9.16 cfs Outflow=0.63 cfs 4,393 cf
Pond 1FP: FocalPoint 1	Peak Elev=48.00' Storage=53 cf Inflow=0.55 cfs 1,858 cf Primary=0.06 cfs 1,279 cf Secondary=0.49 cfs 579 cf Outflow=0.55 cfs 1,858 cf
Pond 1FT: FTPD 8x14	Peak Elev=47.86' Storage=109 cf Inflow=2.17 cfs 7,171 cf Primary=0.45 cfs 5,596 cf Secondary=1.71 cfs 1,574 cf Outflow=2.16 cfs 7,170 cf
Pond 1P: Pond 1P	Peak Elev=44.50' Storage=959 cf Inflow=1.37 cfs 4,397 cf 15.0" Round Culvert n=0.025 L=75.0' S=0.0133 ' ' Outflow=0.76 cfs 4,394 cf
Pond 2FP: FocalPoint 2	Peak Elev=47.88' Storage=105 cf Inflow=0.39 cfs 1,245 cf Primary=0.05 cfs 931 cf Secondary=0.34 cfs 314 cf Outflow=0.38 cfs 1,246 cf
Pond 2P: Drip Edge	Peak Elev=49.93' Storage=1,238 cf Inflow=0.93 cfs 3,161 cf Outflow=0.40 cfs 3,028 cf

20576 Post*Type III 24-hr 10-yr Rainfall=4.60"*

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Pond 3P: Field Grate Inlet

Peak Elev=46.72' Inflow=0.57 cfs 4,064 cf
8.0" Round Culvert n=0.013 L=283.0' S=0.0134 '/' Outflow=0.57 cfs 4,064 cf

Pond 5P: Rtanks

Peak Elev=43.56' Storage=4,389 cf Inflow=3.48 cfs 14,338 cf
Outflow=1.17 cfs 13,776 cf

Link POA-1: POA-1

Inflow=3.96 cfs 27,877 cf
Primary=3.96 cfs 27,877 cf

Total Runoff Area = 106,437 sf Runoff Volume = 28,576 cf Average Runoff Depth = 3.22"
47.01% Pervious = 50,041 sf 52.99% Impervious = 56,396 sf

20576 Post

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

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Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1.1S: Roof	Runoff Area=9,172 sf 92.67% Impervious Runoff Depth=5.33" Tc=6.0 min CN=96 Runoff=1.18 cfs 4,073 cf
Subcatchment1.2S: 1.2S	Runoff Area=5,542 sf 88.02% Impervious Runoff Depth=5.21" Tc=6.0 min CN=95 Runoff=0.71 cfs 2,408 cf
Subcatchment1.3S: 1.3S	Runoff Area=4,157 sf 71.11% Impervious Runoff Depth=4.76" Tc=6.0 min CN=91 Runoff=0.50 cfs 1,649 cf
Subcatchment2.1S: 2.1S	Runoff Area=23,020 sf 8.41% Impervious Runoff Depth=3.31" Flow Length=219' Tc=6.9 min CN=77 Runoff=1.98 cfs 6,340 cf
Subcatchment2S: 2S	Runoff Area=21,988 sf 80.95% Impervious Runoff Depth=5.10" Flow Length=92' Tc=6.0 min CN=94 Runoff=2.78 cfs 9,342 cf
Subcatchment3S: 3S	Runoff Area=6,065 sf 0.00% Impervious Runoff Depth=3.02" Tc=6.0 min CN=74 Runoff=0.49 cfs 1,525 cf
Subcatchment4S: 4S	Runoff Area=36,493 sf 55.70% Impervious Runoff Depth=4.33" Tc=6.0 min CN=87 Runoff=4.14 cfs 13,156 cf
Reach 1R: 24" Culvert	Avg. Flow Depth=0.93' Max Vel=3.62 fps Inflow=5.17 cfs 31,242 cf 24.0" Round Pipe n=0.025 L=65.0' S=0.0100 '/' Capacity=11.76 cfs Outflow=5.16 cfs 31,242 cf
Reach 2R: (new Reach)	Avg. Flow Depth=0.49' Max Vel=0.89 fps Inflow=5.16 cfs 31,242 cf n=0.100 L=40.0' S=0.0210 '/' Capacity=30.76 cfs Outflow=5.13 cfs 31,242 cf
Reach 3R: (new Reach)	Avg. Flow Depth=0.13' Max Vel=2.40 fps Inflow=1.16 cfs 6,337 cf n=0.035 L=25.0' S=0.0600 '/' Capacity=59.59 cfs Outflow=1.16 cfs 6,337 cf
Reach 4R: (new Reach)	Avg. Flow Depth=0.37' Max Vel=0.40 fps Inflow=1.16 cfs 6,337 cf n=0.100 L=310.0' S=0.0048 '/' Capacity=9.16 cfs Outflow=0.97 cfs 6,336 cf
Pond 1FP: FocalPoint 1	Peak Elev=48.02' Storage=55 cf Inflow=0.71 cfs 2,408 cf Primary=0.06 cfs 1,564 cf Secondary=0.65 cfs 843 cf Outflow=0.71 cfs 2,408 cf
Pond 1FT: FTPD 8x14	Peak Elev=47.95' Storage=109 cf Inflow=2.78 cfs 9,342 cf Primary=0.45 cfs 6,900 cf Secondary=2.24 cfs 2,226 cf Outflow=2.69 cfs 9,126 cf
Pond 1P: Pond 1P	Peak Elev=44.63' Storage=1,288 cf Inflow=1.98 cfs 6,340 cf 15.0" Round Culvert n=0.025 L=75.0' S=0.0133 '/' Outflow=1.16 cfs 6,337 cf
Pond 2FP: FocalPoint 2	Peak Elev=47.90' Storage=109 cf Inflow=0.50 cfs 1,649 cf Primary=0.05 cfs 1,145 cf Secondary=0.46 cfs 504 cf Outflow=0.50 cfs 1,649 cf
Pond 2P: Drip Edge	Peak Elev=50.00' Storage=1,270 cf Inflow=1.18 cfs 4,073 cf Outflow=0.98 cfs 3,940 cf

20576 Post*Type III 24-hr 25-YR Rainfall=5.80"*

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Pond 3P: Field Grate Inlet

Peak Elev=47.68' Inflow=1.42 cfs 5,465 cf
8.0" Round Culvert n=0.013 L=283.0' S=0.0134 '/ Outflow=1.42 cfs 5,465 cf

Pond 5P: Rtanks

Peak Elev=43.82' Storage=5,000 cf Inflow=5.01 cfs 18,648 cf
Outflow=2.68 cfs 18,086 cf

Link POA-1: POA-1

Inflow=5.28 cfs 37,578 cf
Primary=5.28 cfs 37,578 cf

Total Runoff Area = 106,437 sf Runoff Volume = 38,493 cf Average Runoff Depth = 4.34"
47.01% Pervious = 50,041 sf 52.99% Impervious = 56,396 sf

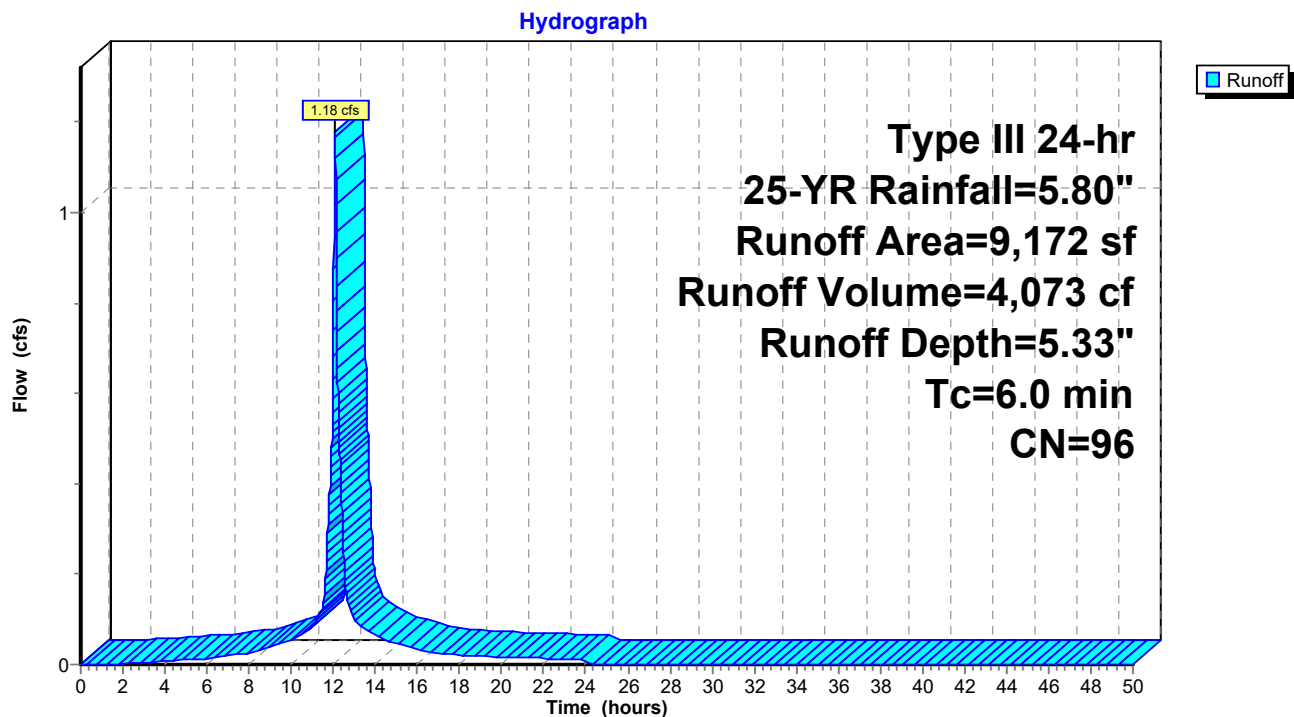
Summary for Subcatchment 1.1S: Roof

Runoff = 1.18 cfs @ 12.08 hrs, Volume= 4,073 cf, Depth= 5.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	8,500	98	Roof
	672	74	>75% Grass cover, Good, HSG C
	9,172	96	Weighted Average
	672		7.33% Pervious Area
	8,500		92.67% Impervious Area

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

Subcatchment 1.1S: Roof

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

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Summary for Subcatchment 1.2S: 1.2S

Runoff = 0.71 cfs @ 12.08 hrs, Volume= 2,408 cf, Depth= 5.21"

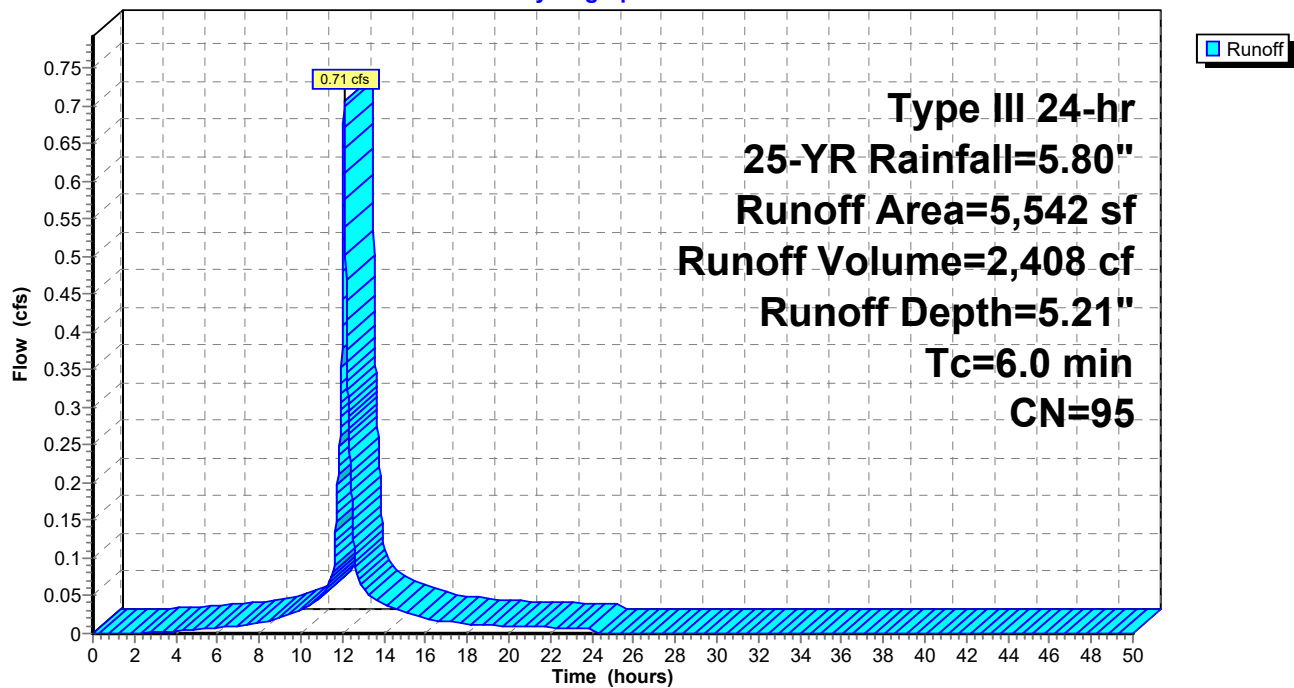
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
664	74	>75% Grass cover, Good, HSG C
* 4,878	98	Pavement
5,542	95	Weighted Average
664		11.98% Pervious Area
4,878		88.02% Impervious Area

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

Subcatchment 1.2S: 1.2S

Hydrograph



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

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Summary for Subcatchment 1.3S: 1.3S

Runoff = 0.50 cfs @ 12.08 hrs, Volume= 1,649 cf, Depth= 4.76"

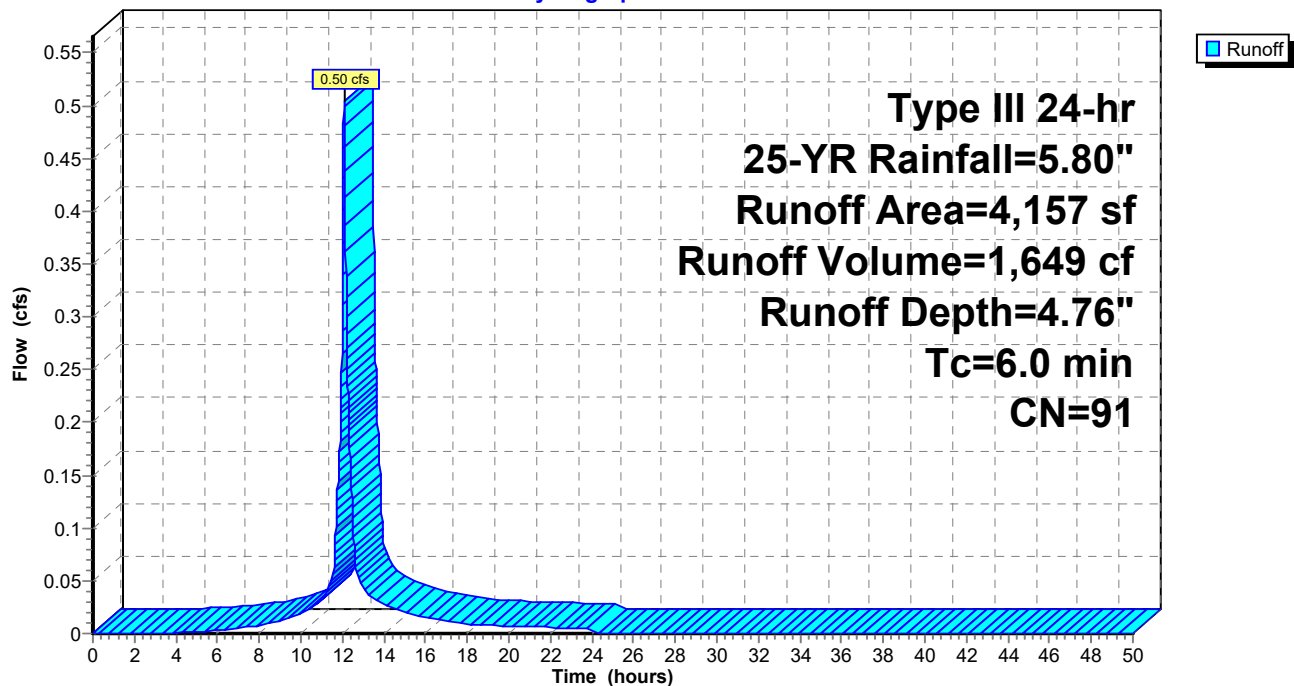
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	2,956	98	Pavement
	1,201	74	>75% Grass cover, Good, HSG C
	4,157	91	Weighted Average
	1,201		28.89% Pervious Area
	2,956		71.11% Impervious Area

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

Subcatchment 1.3S: 1.3S

Hydrograph



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

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Summary for Subcatchment 2.1S: 2.1S

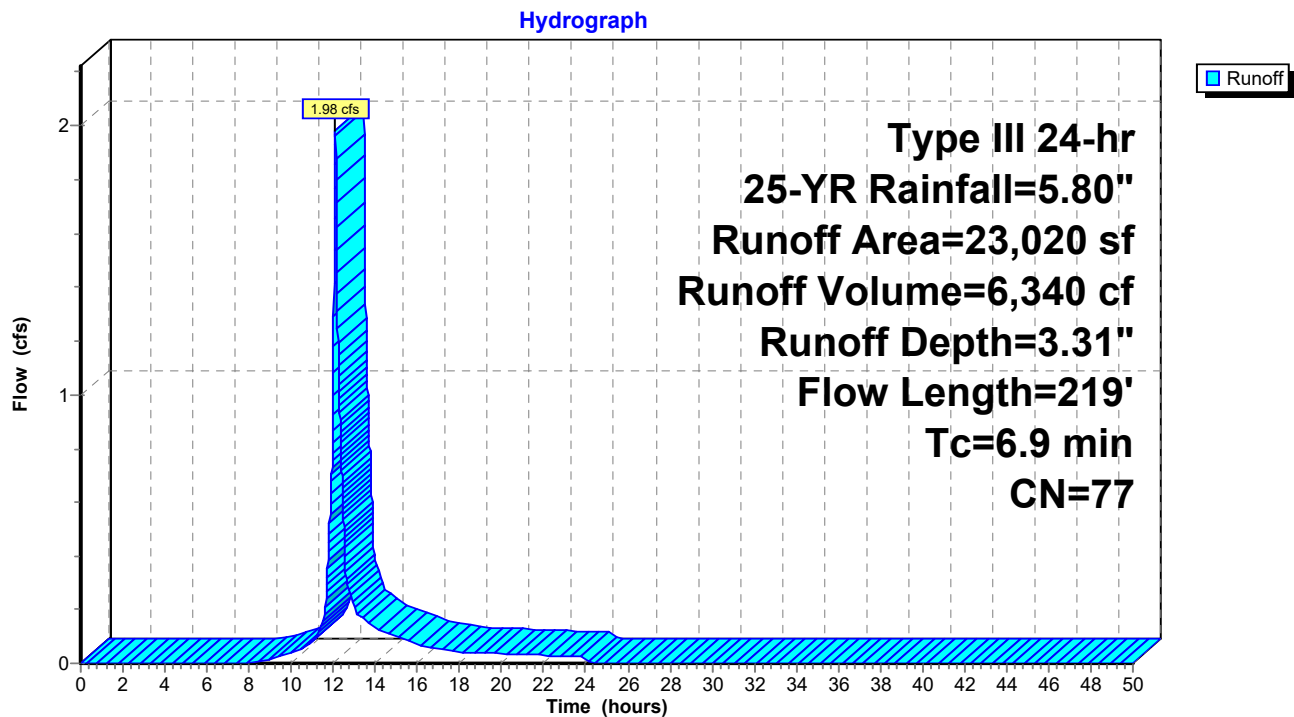
Runoff = 1.98 cfs @ 12.10 hrs, Volume= 6,340 cf, Depth= 3.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
18,631	74	>75% Grass cover, Good, HSG C
2,452	80	>75% Grass cover, Good, HSG D
* 1,937	98	pavement
23,020	77	Weighted Average
21,083		91.59% Pervious Area
1,937		8.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	41	0.0292	0.16		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.10"
0.0	7	0.3570	2.99		Shallow Concentrated Flow, B-C
					Woodland Kv= 5.0 fps
0.5	23	0.0217	0.74		Shallow Concentrated Flow, C-D
					Woodland Kv= 5.0 fps
0.1	24	0.2917	2.70		Shallow Concentrated Flow, D-E
					Woodland Kv= 5.0 fps
2.1	124	0.0403	1.00		Shallow Concentrated Flow, E-F
					Woodland Kv= 5.0 fps
6.9	219	Total			

Subcatchment 2.1S: 2.1S



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

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Summary for Subcatchment 2S: 2S

Runoff = 2.78 cfs @ 12.08 hrs, Volume= 9,342 cf, Depth= 5.10"

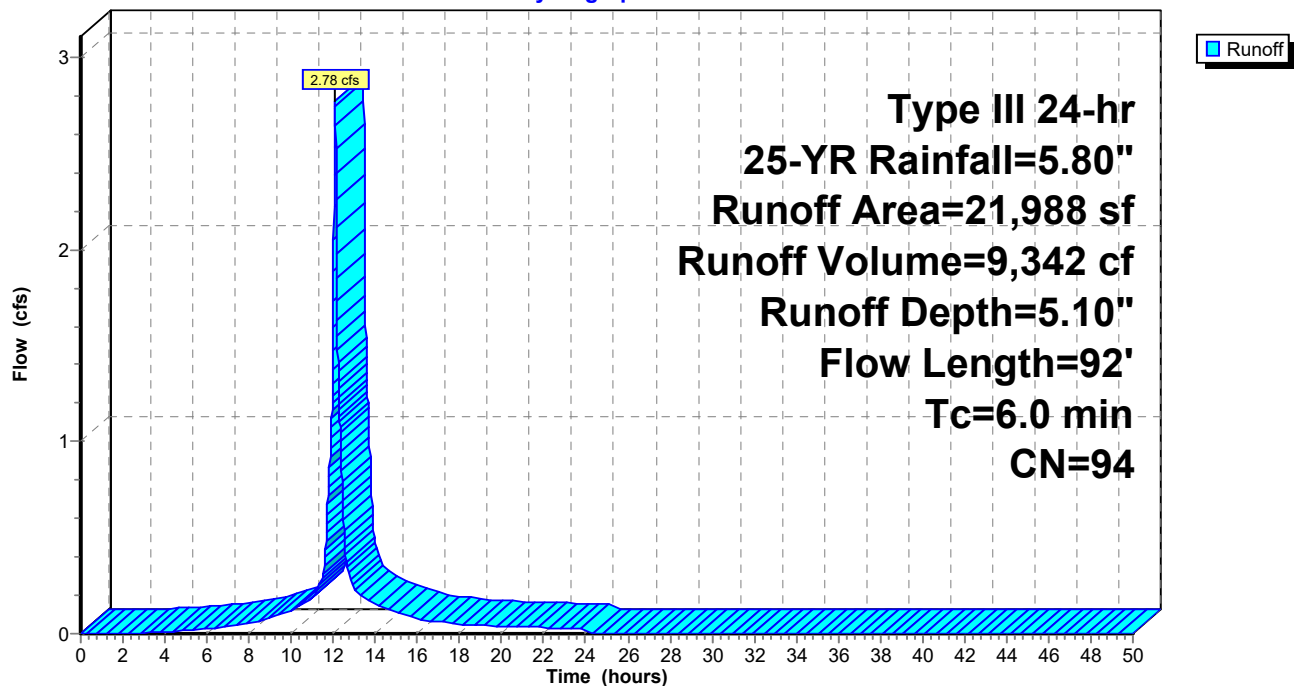
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	17,800	98	Pavement
	3,333	74	>75% Grass cover, Good, HSG C
	855	80	>75% Grass cover, Good, HSG D
	21,988	94	Weighted Average
	4,188		19.05% Pervious Area
	17,800		80.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	28	0.0357	1.32		Shallow Concentrated Flow, e-f
					Short Grass Pasture Kv= 7.0 fps
0.4	64	0.0183	2.75		Shallow Concentrated Flow, f-g
					Paved Kv= 20.3 fps
5.2					Direct Entry,
6.0	92	Total			

Subcatchment 2S: 2S

Hydrograph



Summary for Subcatchment 3S: 3S

Runoff = 0.49 cfs @ 12.09 hrs, Volume= 1,525 cf, Depth= 3.02"

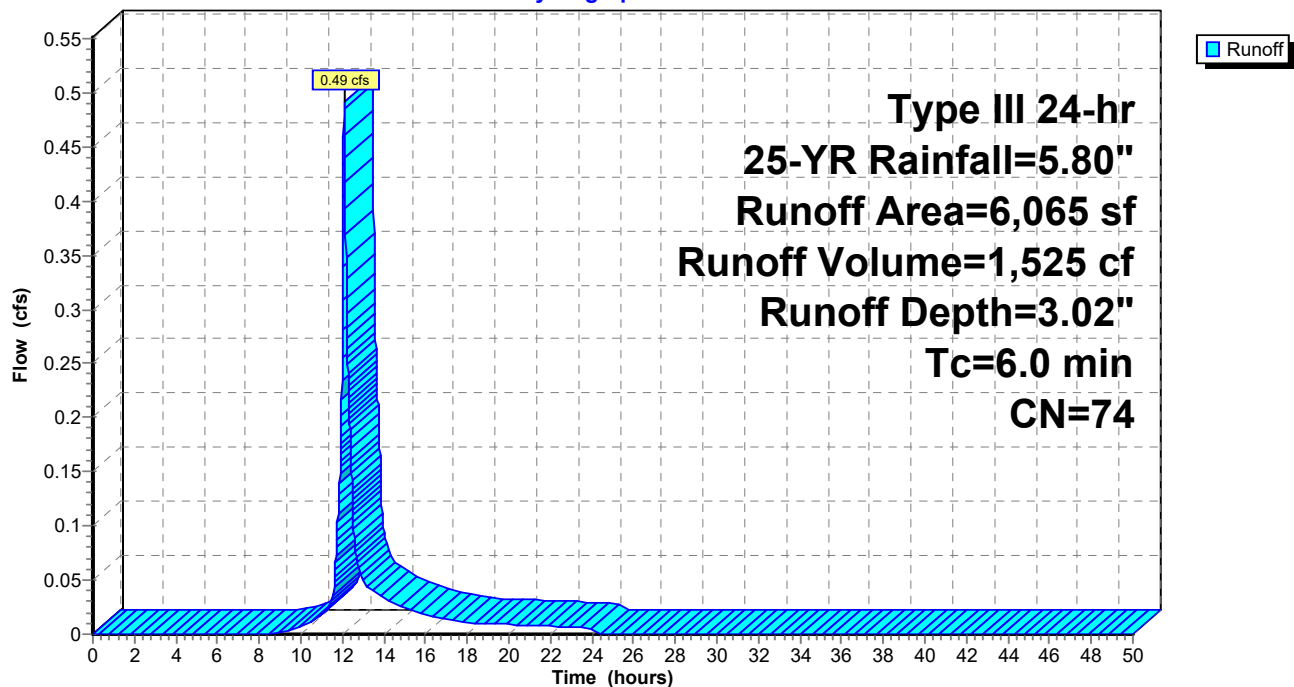
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
6,065	74	>75% Grass cover, Good, HSG C
6,065		100.00% Pervious Area

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

Subcatchment 3S: 3S

Hydrograph



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

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Summary for Subcatchment 4S: 4S

Runoff = 4.14 cfs @ 12.09 hrs, Volume= 13,156 cf, Depth= 4.33"

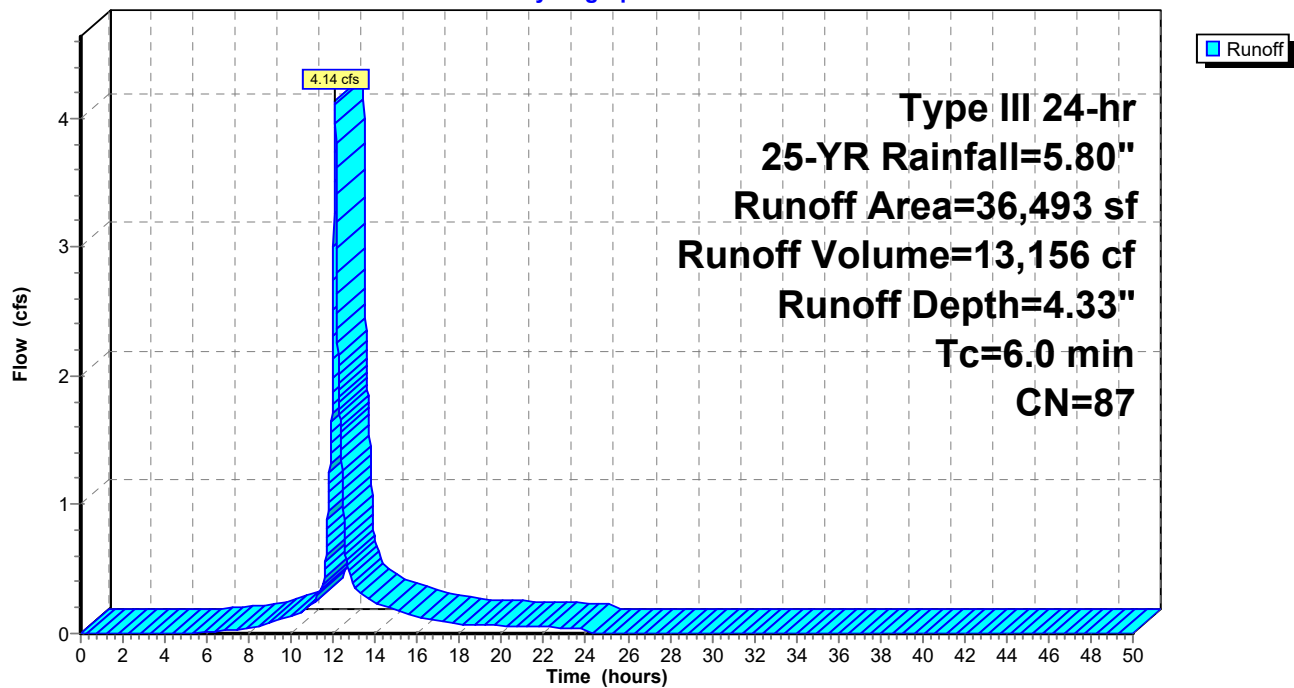
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
16,168	74	>75% Grass cover, Good, HSG C
* 20,325	98	Pavement
36,493	87	Weighted Average
16,168		44.30% Pervious Area
20,325		55.70% Impervious Area

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

Subcatchment 4S: 4S

Hydrograph



Summary for Reach 1R: 24" Culvert

Inflow Area = 83,417 sf, 65.29% Impervious, Inflow Depth > 4.49" for 25-YR event
 Inflow = 5.17 cfs @ 12.09 hrs, Volume= 31,242 cf
 Outflow = 5.16 cfs @ 12.10 hrs, Volume= 31,242 cf, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Max. Velocity= 3.62 fps, Min. Travel Time= 0.3 min

Avg. Velocity = 0.92 fps, Avg. Travel Time= 1.2 min

Peak Storage= 93 cf @ 12.09 hrs

Average Depth at Peak Storage= 0.93'

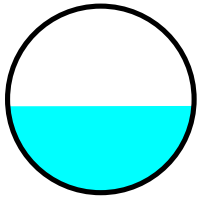
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 11.76 cfs

24.0" Round Pipe

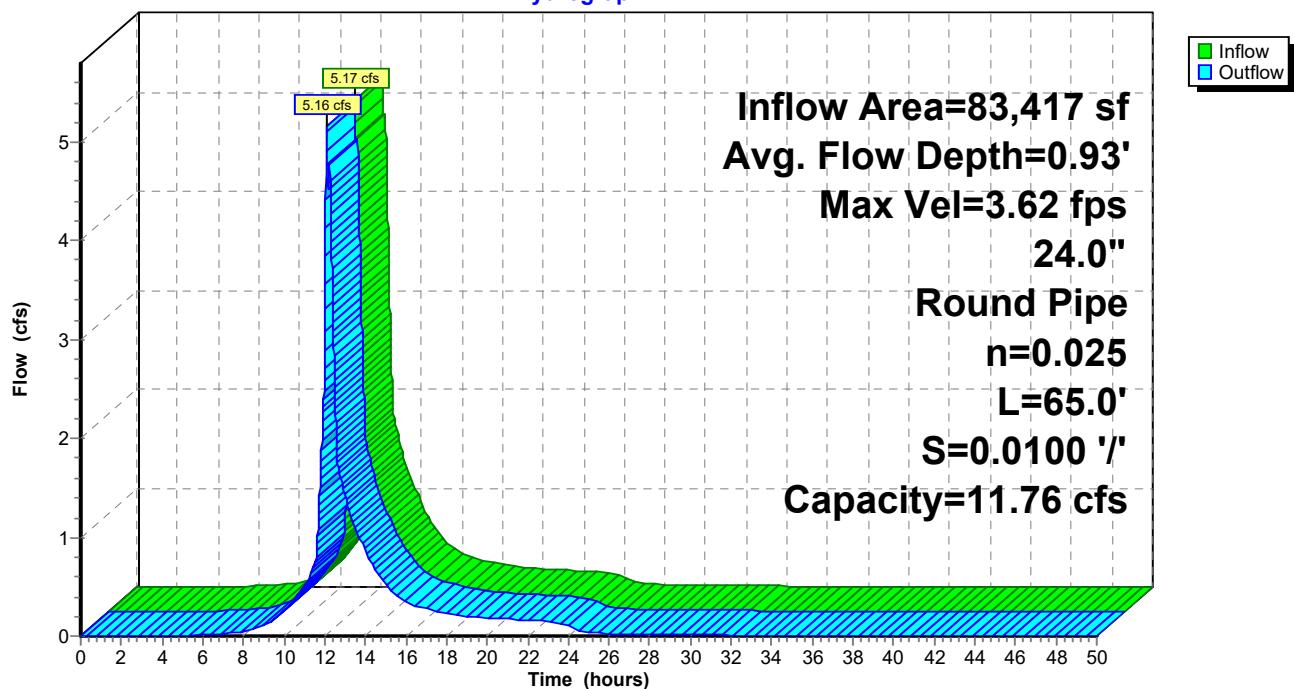
n= 0.025 Corrugated metal

Length= 65.0' Slope= 0.0100 '/

Inlet Invert= 41.40', Outlet Invert= 40.75'

**Reach 1R: 24" Culvert**

Hydrograph



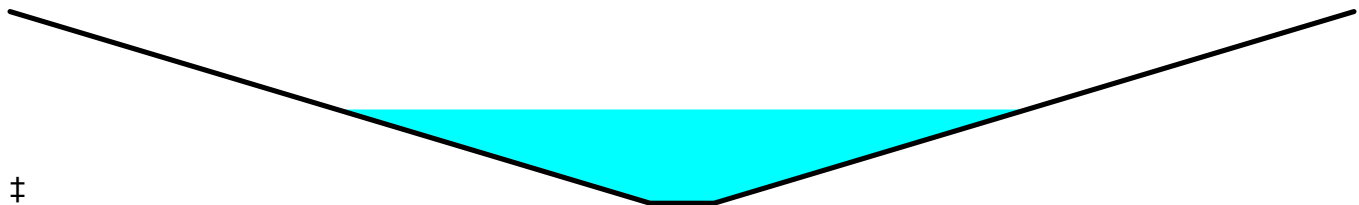
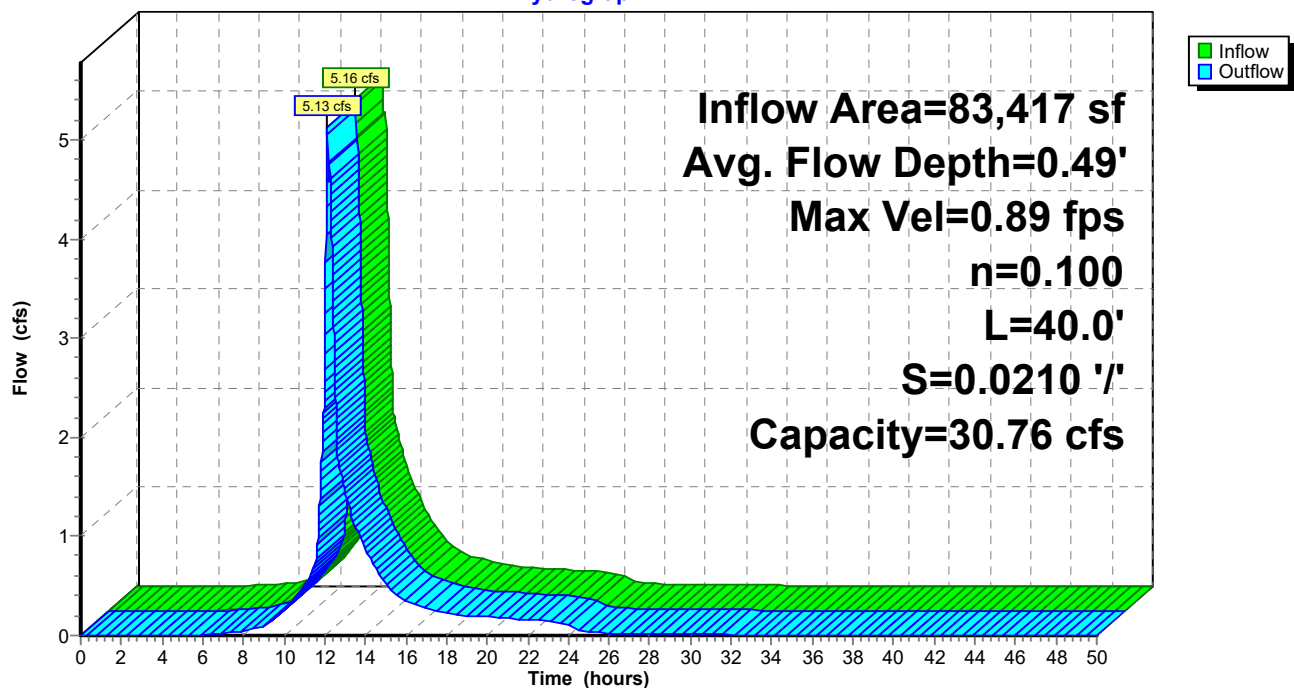
Summary for Reach 2R: (new Reach)

Inflow Area = 83,417 sf, 65.29% Impervious, Inflow Depth > 4.49" for 25-YR event
 Inflow = 5.16 cfs @ 12.10 hrs, Volume= 31,242 cf
 Outflow = 5.13 cfs @ 12.12 hrs, Volume= 31,242 cf, Atten= 1%, Lag= 1.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Max. Velocity= 0.89 fps, Min. Travel Time= 0.7 min
 Avg. Velocity = 0.25 fps, Avg. Travel Time= 2.7 min

Peak Storage= 230 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.49'
 Bank-Full Depth= 1.00' Flow Area= 22.0 sf, Capacity= 30.76 cfs

2.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools
 Side Slope Z-value= 20.0 ' ' Top Width= 42.00'
 Length= 40.0' Slope= 0.0210 ' '
 Inlet Invert= 40.84', Outlet Invert= 40.00'

**Reach 2R: (new Reach)****Hydrograph**

Summary for Reach 3R: (new Reach)

Inflow Area = 23,020 sf, 8.41% Impervious, Inflow Depth = 3.30" for 25-YR event
 Inflow = 1.16 cfs @ 12.23 hrs, Volume= 6,337 cf
 Outflow = 1.16 cfs @ 12.23 hrs, Volume= 6,337 cf, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Max. Velocity= 2.40 fps, Min. Travel Time= 0.2 min

Avg. Velocity = 0.63 fps, Avg. Travel Time= 0.7 min

Peak Storage= 12 cf @ 12.23 hrs

Average Depth at Peak Storage= 0.13'

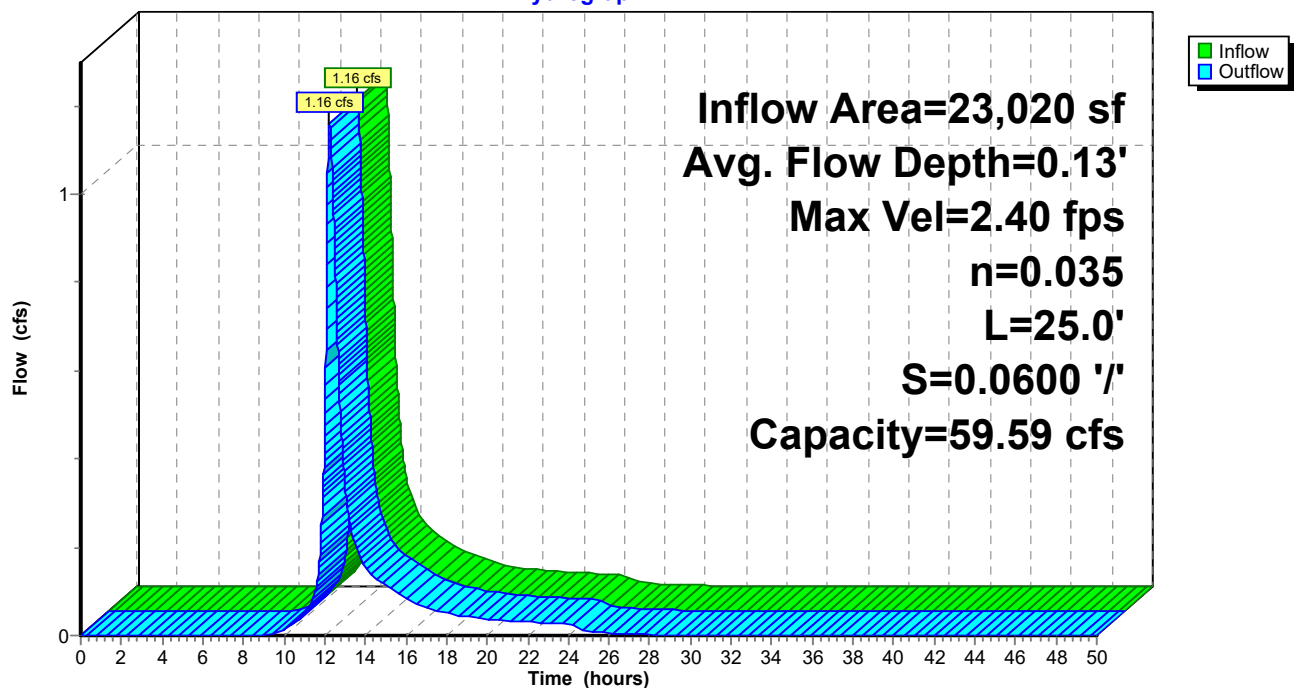
Bank-Full Depth= 1.00' Flow Area= 8.0 sf, Capacity= 59.59 cfs

3.00' x 1.00' deep channel, n= 0.035 Earth, dense weeds

Side Slope Z-value= 5.0 '/' Top Width= 13.00'

Length= 25.0' Slope= 0.0600 '/'

Inlet Invert= 43.00', Outlet Invert= 41.50'

**Reach 3R: (new Reach)****Hydrograph**

Summary for Reach 4R: (new Reach)

Inflow Area = 23,020 sf, 8.41% Impervious, Inflow Depth = 3.30" for 25-YR event
 Inflow = 1.16 cfs @ 12.23 hrs, Volume= 6,337 cf
 Outflow = 0.97 cfs @ 12.65 hrs, Volume= 6,336 cf, Atten= 16%, Lag= 25.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Max. Velocity= 0.40 fps, Min. Travel Time= 13.1 min

Avg. Velocity = 0.10 fps, Avg. Travel Time= 51.8 min

Peak Storage= 761 cf @ 12.44 hrs

Average Depth at Peak Storage= 0.37'

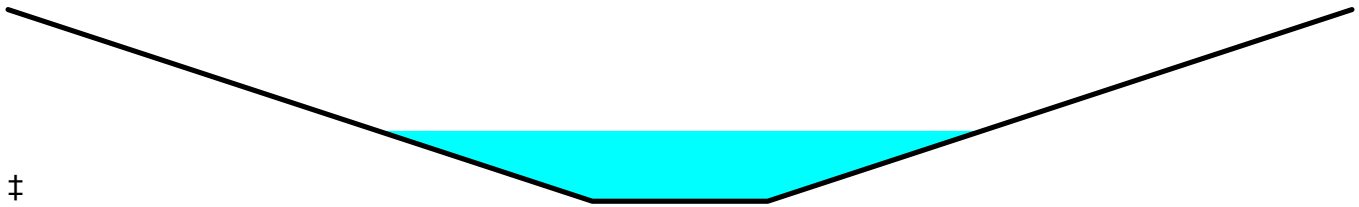
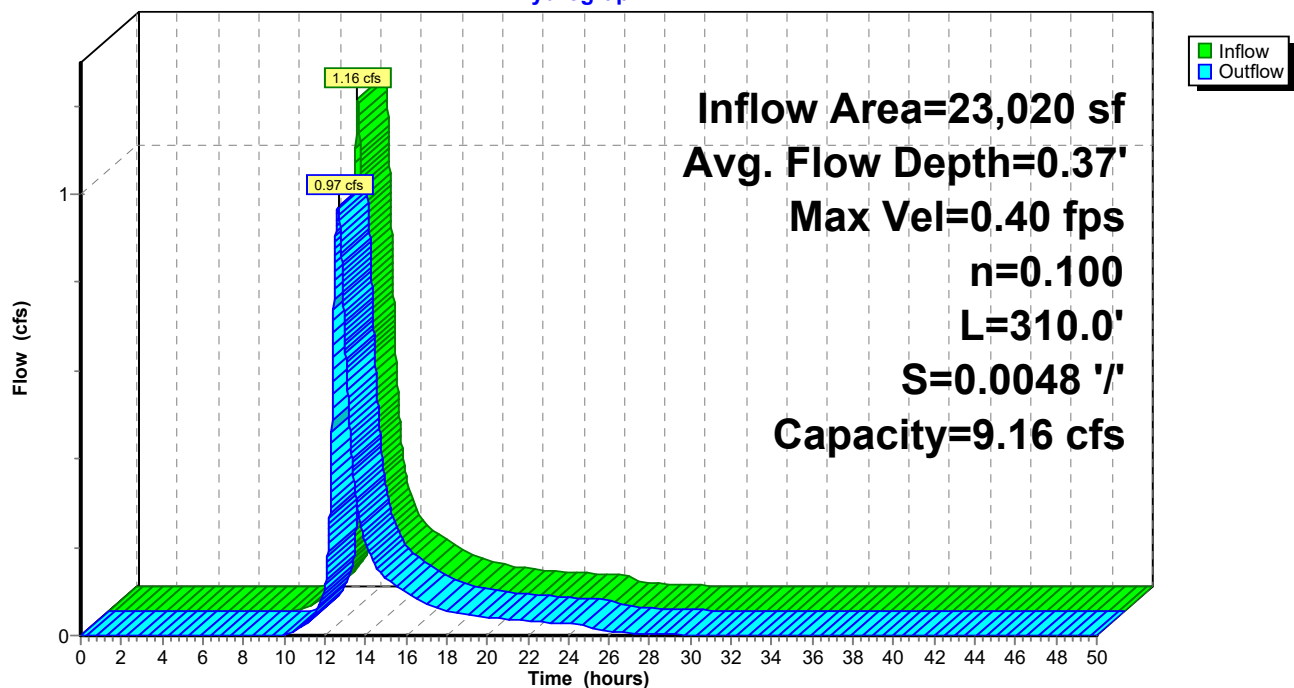
Bank-Full Depth= 1.00' Flow Area= 13.0 sf, Capacity= 9.16 cfs

3.00' x 1.00' deep channel, n= 0.100 Very weedy reaches w/pools

Side Slope Z-value= 10.0 ' Top Width= 23.00'

Length= 310.0' Slope= 0.0048 ' / '

Inlet Invert= 41.50', Outlet Invert= 40.00'

**Reach 4R: (new Reach)****Hydrograph**

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

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Summary for Pond 1FP: FocalPoint 1

Inflow Area = 5,542 sf, 88.02% Impervious, Inflow Depth = 5.21" for 25-YR event
 Inflow = 0.71 cfs @ 12.08 hrs, Volume= 2,408 cf
 Outflow = 0.71 cfs @ 12.09 hrs, Volume= 2,408 cf, Atten= 0%, Lag= 0.3 min
 Primary = 0.06 cfs @ 11.22 hrs, Volume= 1,564 cf
 Secondary = 0.65 cfs @ 12.09 hrs, Volume= 843 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 48.02' @ 12.09 hrs Surf.Area= 25 sf Storage= 55 cf

Plug-Flow detention time= 2.3 min calculated for 2,408 cf (100% of inflow)

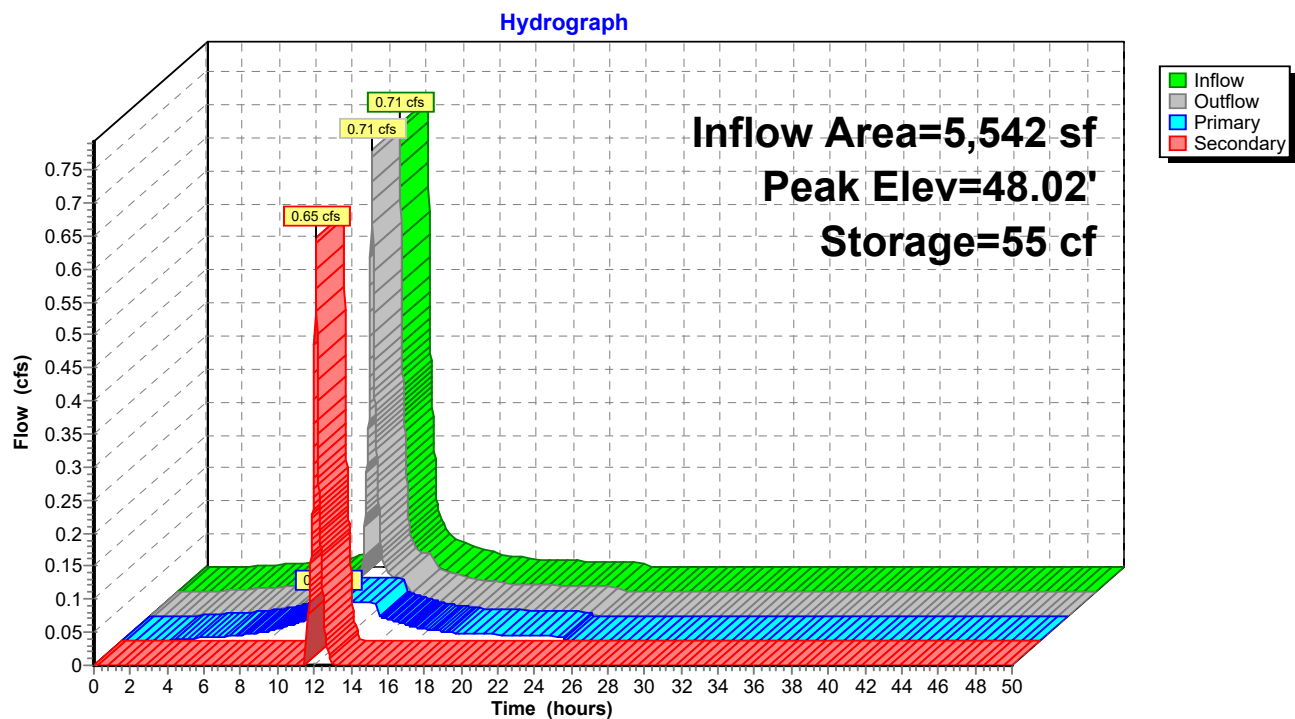
Center-of-Mass det. time= 2.3 min (766.7 - 764.5)

Volume	Invert	Avail.Storage	Storage Description
#1	45.25'	11 cf	2.00'W x 12.50'L x 2.25'H FocalPoint 56 cf Overall x 20.0% Voids
#2	47.50'	164 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		175 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
47.50	25	0	0
48.00	140	41	41
48.50	350	123	164

Device	Routing	Invert	Outlet Devices
#1	Primary	43.70'	6.0" Round Culvert L= 3.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 43.70' / 43.50' S= 0.0571 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#2	Device 1	45.25'	100.000 in/hr Exfiltration over Surface area
#3	Secondary	47.90'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.06 cfs @ 11.22 hrs HW=45.28' (Free Discharge)↑ **1=Culvert** (Passes 0.06 cfs of 1.09 cfs potential flow)↑ **2=Exfiltration** (Exfiltration Controls 0.06 cfs)**Secondary OutFlow** Max=0.64 cfs @ 12.09 hrs HW=48.02' (Free Discharge)↑ **3=Orifice/Grate** (Weir Controls 0.64 cfs @ 1.13 fps)

Pond 1FP: FocalPoint 1

Summary for Pond 1FT: FTPD 8x14

Inflow Area = 21,988 sf, 80.95% Impervious, Inflow Depth = 5.10" for 25-YR event
 Inflow = 2.78 cfs @ 12.08 hrs, Volume= 9,342 cf
 Outflow = 2.69 cfs @ 12.08 hrs, Volume= 9,126 cf, Atten= 3%, Lag= 0.0 min
 Primary = 0.45 cfs @ 11.65 hrs, Volume= 6,900 cf
 Secondary = 2.24 cfs @ 12.08 hrs, Volume= 2,226 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 47.95' @ 12.08 hrs Surf.Area= 140 sf Storage= 109 cf

Plug-Flow detention time= 16.6 min calculated for 9,124 cf (98% of inflow)

Center-of-Mass det. time= 2.1 min (771.6 - 769.4)

Volume	Invert	Avail.Storage	Storage Description
#1	45.00'	49 cf	10.00'W x 7.00'L x 1.75'H Prismaoid 123 cf Overall x 40.0% Voids
#2	46.75'	53 cf	10.00'W x 7.00'L x 0.75'H Prismaoid
#3	44.50'	8 cf	1.67'W x 1.67'L x 2.80'H Prismaoid Impervious
		109 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Device 2	45.00'	140.000 in/hr Exfiltration over Surface area
#2	Primary	44.48'	8.0" Round Culvert L= 196.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.48' / 42.40' S= 0.0106 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#3	Secondary	47.40'	1.7' long x 1.00' rise Sharp-Crested Rectangular Weir 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.45 cfs @ 11.65 hrs HW=46.75' (Free Discharge)

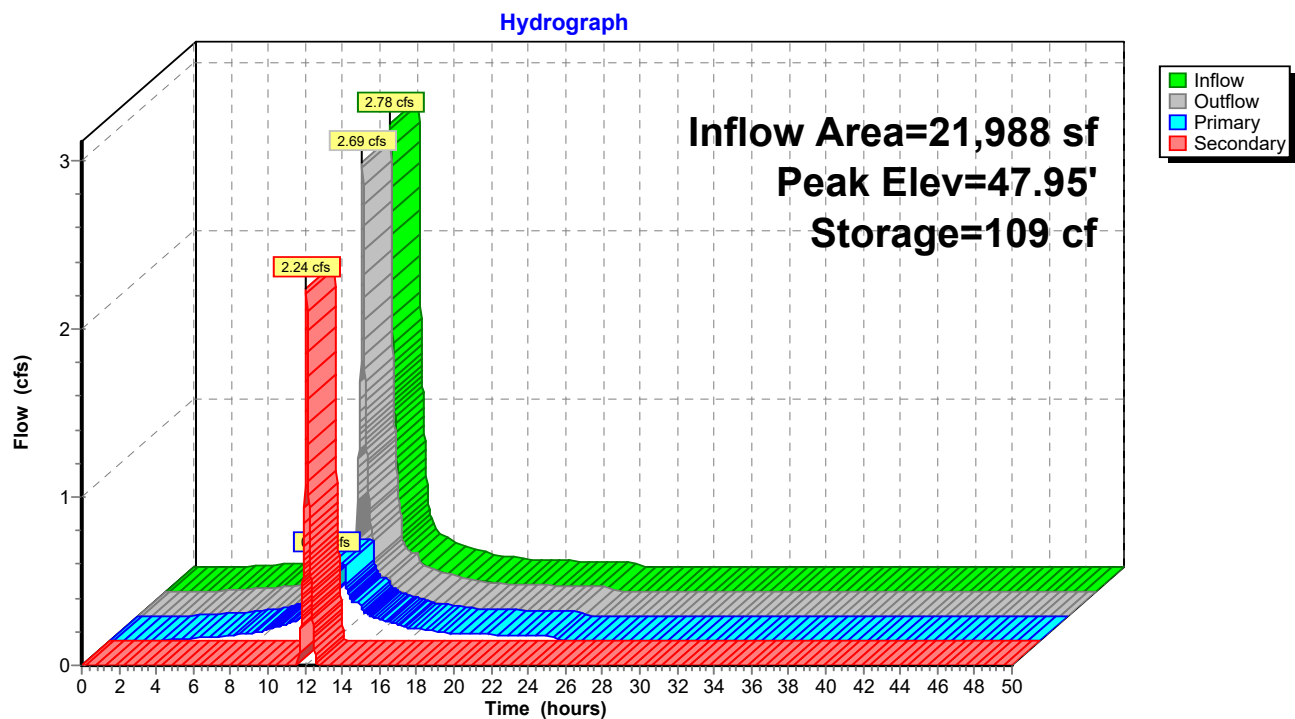
↑ **2=Culvert** (Passes 0.45 cfs of 1.85 cfs potential flow)

↑ **1=Exfiltration** (Exfiltration Controls 0.45 cfs)

Secondary OutFlow Max=2.23 cfs @ 12.08 hrs HW=47.94' (Free Discharge)

↑ **3=Sharp-Crested Rectangular Weir** (Weir Controls 2.23 cfs @ 2.57 fps)

Pond 1FT: FTPD 8x14



Summary for Pond 1P: Pond 1P

Inflow Area = 23,020 sf, 8.41% Impervious, Inflow Depth = 3.31" for 25-YR event
 Inflow = 1.98 cfs @ 12.10 hrs, Volume= 6,340 cf
 Outflow = 1.16 cfs @ 12.23 hrs, Volume= 6,337 cf, Atten= 42%, Lag= 7.7 min
 Primary = 1.16 cfs @ 12.23 hrs, Volume= 6,337 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 44.63' @ 12.23 hrs Surf.Area= 2,764 sf Storage= 1,288 cf

Plug-Flow detention time= 42.4 min calculated for 6,337 cf (100% of inflow)
 Center-of-Mass det. time= 42.1 min (866.0 - 823.9)

Volume	Invert	Avail.Storage	Storage Description
#1	44.00'	7,072 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
44.00	1,341	0	0
45.00	3,608	2,475	2,475
46.00	5,586	4,597	7,072

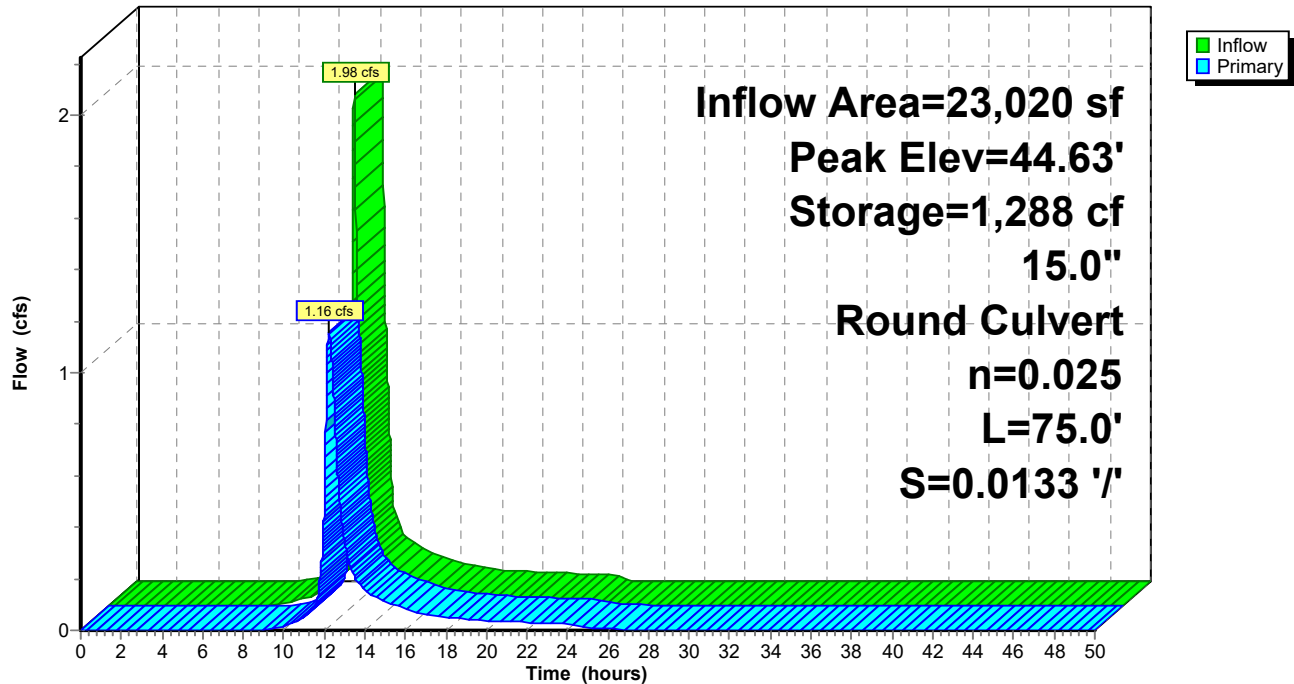
Device	Routing	Invert	Outlet Devices
#1	Primary	44.00'	15.0" Round Culvert L= 75.0' CMP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 44.00' / 43.00' S= 0.0133 ' S= 0.0133 ' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 1.23 sf

Primary OutFlow Max=1.16 cfs @ 12.23 hrs HW=44.63' (Free Discharge)

↑ **1=Culvert** (Barrel Controls 1.16 cfs @ 2.74 fps)

Pond 1P: Pond 1P

Hydrograph



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

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Summary for Pond 2FP: FocalPoint 2

Inflow Area = 4,157 sf, 71.11% Impervious, Inflow Depth = 4.76" for 25-YR event
 Inflow = 0.50 cfs @ 12.08 hrs, Volume= 1,649 cf
 Outflow = 0.50 cfs @ 12.09 hrs, Volume= 1,649 cf, Atten= 1%, Lag= 0.5 min
 Primary = 0.05 cfs @ 11.39 hrs, Volume= 1,145 cf
 Secondary = 0.46 cfs @ 12.09 hrs, Volume= 504 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2

Peak Elev= 47.90' @ 12.09 hrs Surf.Area= 20 sf Storage= 109 cf

Plug-Flow detention time= 7.6 min calculated for 1,649 cf (100% of inflow)

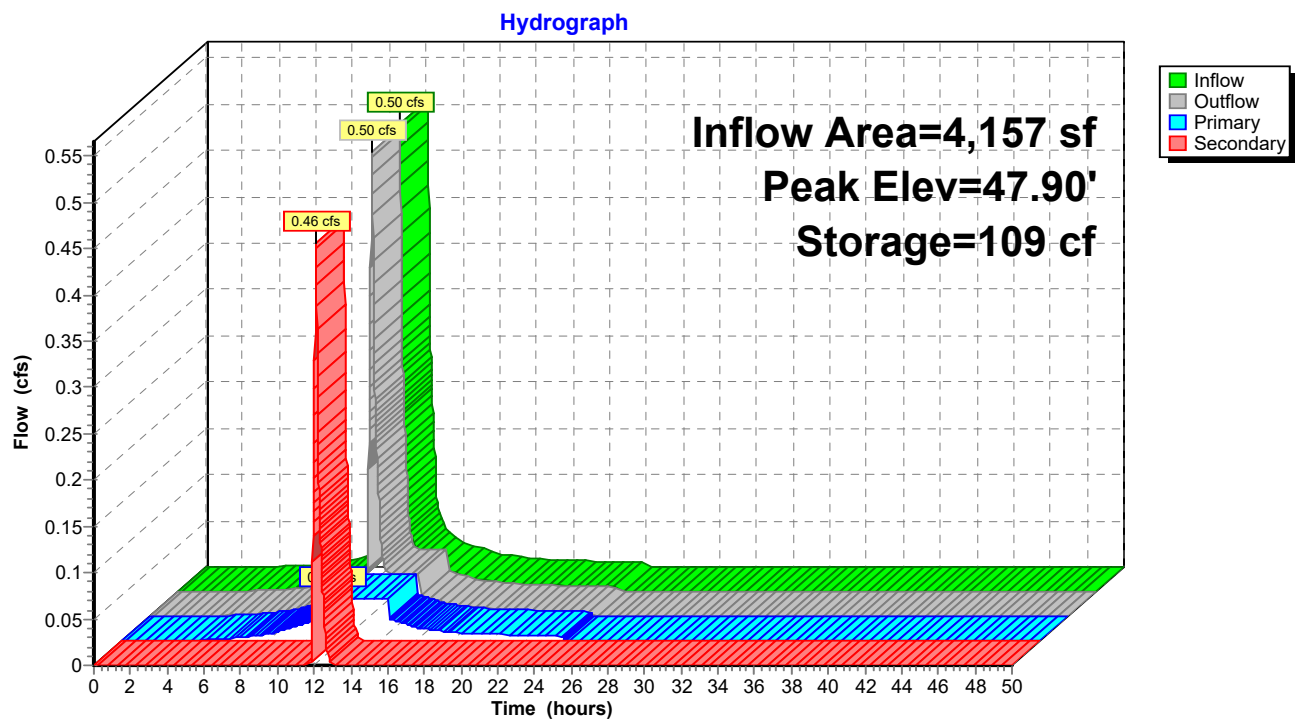
Center-of-Mass det. time= 7.5 min (789.6 - 782.1)

Volume	Invert	Avail.Storage	Storage Description
#1	44.75'	9 cf	2.00'W x 10.00'L x 2.25'H FocalPoint 45 cf Overall x 20.0% Voids
#2	47.00'	304 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		313 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
47.00	20	0	0
48.00	225	123	123
48.50	500	181	304

Device	Routing	Invert	Outlet Devices
#1	Primary	43.90'	6.0" Round Culvert L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 43.90' / 43.40' S= 0.0096 ' / S= 0.0096 ' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#2	Device 1	44.75'	100.000 in/hr Exfiltration over Surface area
#3	Secondary	47.80'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.05 cfs @ 11.39 hrs HW=44.79' (Free Discharge)↑ **1=Culvert** (Passes 0.05 cfs of 0.66 cfs potential flow)↑ **2=Exfiltration** (Exfiltration Controls 0.05 cfs)**Secondary OutFlow** Max=0.45 cfs @ 12.09 hrs HW=47.90' (Free Discharge)↑ **3=Orifice/Grate** (Weir Controls 0.45 cfs @ 1.01 fps)

Pond 2FP: FocalPoint 2

Summary for Pond 2P: Drip Edge

Inflow Area = 9,172 sf, 92.67% Impervious, Inflow Depth = 5.33" for 25-YR event
 Inflow = 1.18 cfs @ 12.08 hrs, Volume= 4,073 cf
 Outflow = 0.98 cfs @ 12.14 hrs, Volume= 3,940 cf, Atten= 17%, Lag= 3.2 min
 Primary = 0.98 cfs @ 12.14 hrs, Volume= 3,940 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 50.00' @ 12.14 hrs Surf.Area= 980 sf Storage= 1,270 cf

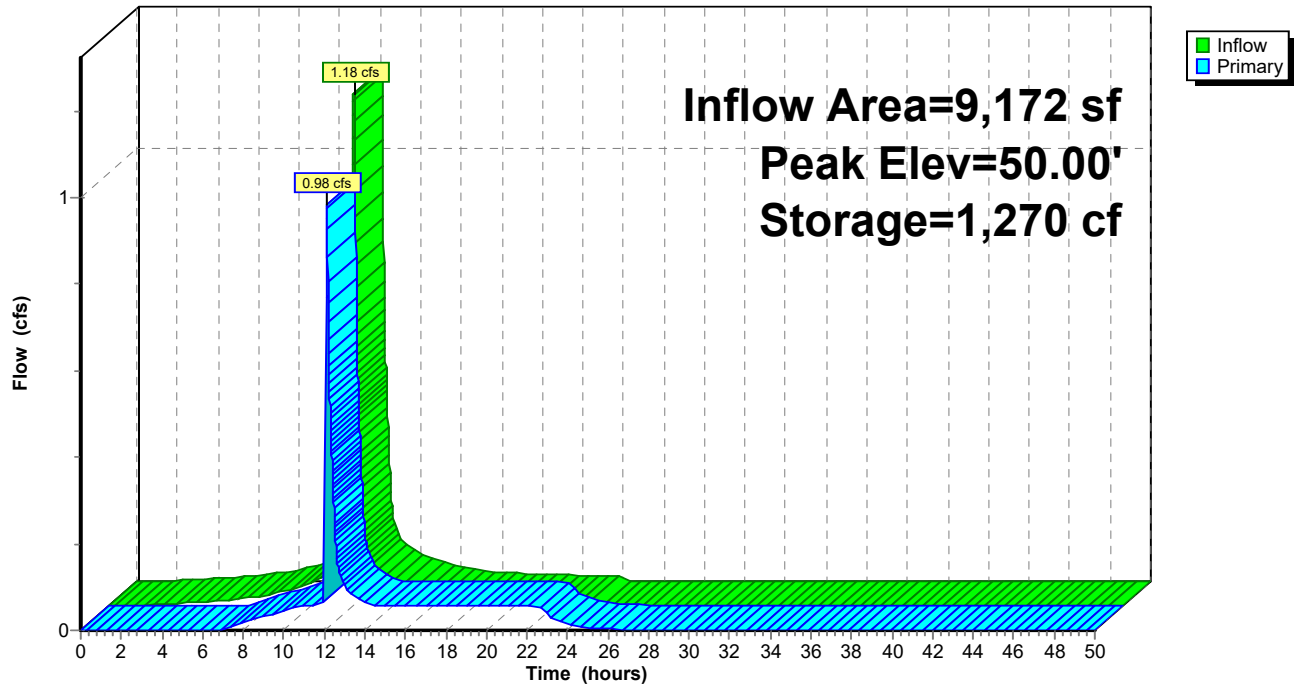
Plug-Flow detention time= 182.1 min calculated for 3,940 cf (97% of inflow)
 Center-of-Mass det. time= 162.2 min (921.2 - 759.0)

Volume	Invert	Avail.Storage	Storage Description	
#1	46.27'	2,132 cf	Stone and sand layers (Prismatic) listed below	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
46.27	980	0.0	0	0
46.28	980	40.0	4	4
47.59	980	40.0	514	517
47.60	980	20.0	2	519
48.59	980	20.0	194	713
48.60	980	40.0	4	717
49.60	980	40.0	392	1,109
50.00	980	40.0	157	1,266
50.01	980	100.0	10	1,276
51.00	750	100.0	856	2,132

Device	Routing	Invert	Outlet Devices
#1	Primary	46.60'	8.0" Round Culvert L= 7.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.60' / 46.40' S= 0.0286 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.35 sf
#2	Device 1	46.60'	4.0" Round 4" Underdrain L= 128.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.60' / 46.60' S= 0.0000 '/' Cc= 0.900 n= 0.012, Flow Area= 0.09 sf
#3	Device 2	46.27'	2.410 in/hr Filtration over Surface area
#4	Device 1	49.85'	18.0" Horiz. Overflow Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.98 cfs @ 12.14 hrs HW=50.00' (Free Discharge)

- 1=Culvert (Passes 0.98 cfs of 2.32 cfs potential flow)
 2=4" Underdrain (Passes 0.05 cfs of 0.30 cfs potential flow)
 3=Filtration (Exfiltration Controls 0.05 cfs)
 4=Overflow Grate (Weir Controls 0.93 cfs @ 1.28 fps)

Pond 2P: Drip Edge**Hydrograph**

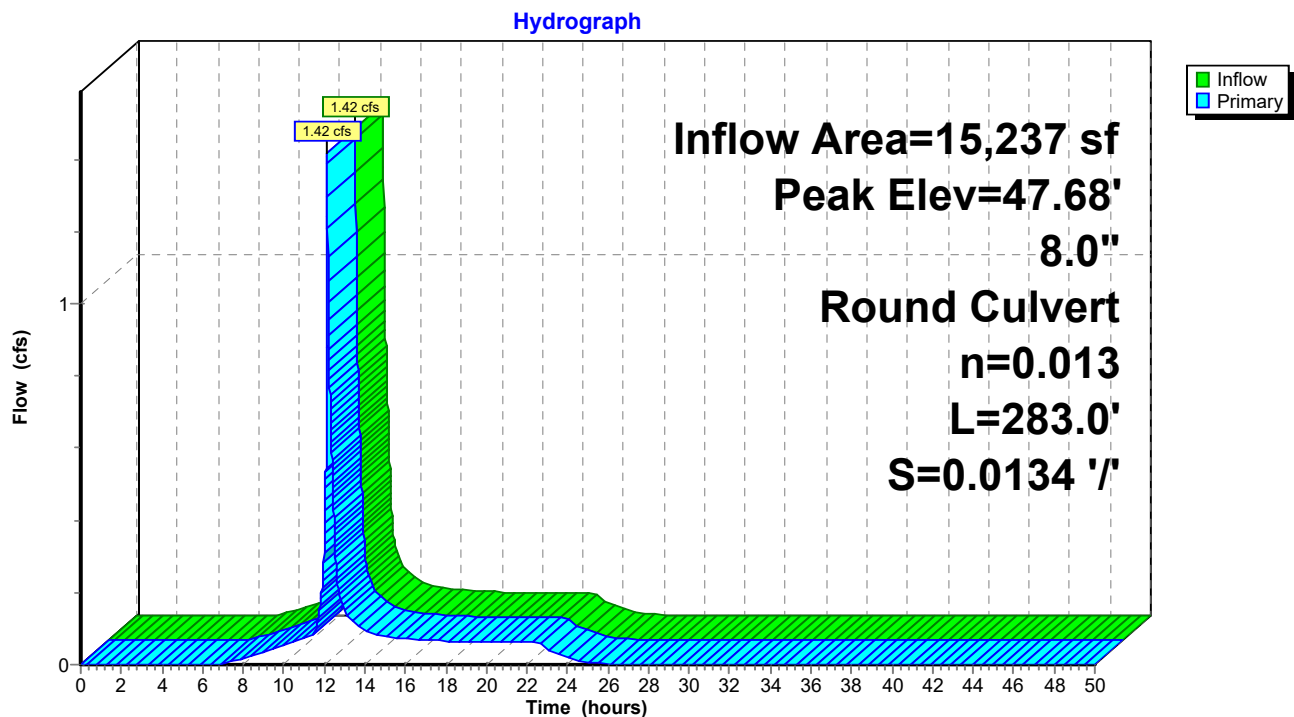
Summary for Pond 3P: Field Gate Inlet

Inflow Area = 15,237 sf, 55.79% Impervious, Inflow Depth = 4.30" for 25-YR event
 Inflow = 1.42 cfs @ 12.13 hrs, Volume= 5,465 cf
 Outflow = 1.42 cfs @ 12.13 hrs, Volume= 5,465 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.42 cfs @ 12.13 hrs, Volume= 5,465 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 47.68' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.20'	8.0" Round Culvert L= 283.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.20' / 42.40' S= 0.0134 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.42 cfs @ 12.13 hrs HW=47.67' (Free Discharge)
 ↑1=Culvert (Inlet Controls 1.42 cfs @ 4.06 fps)

Pond 3P: Field Gate Inlet

Summary for Pond 5P: Rtanks

Inflow Area = 46,924 sf, 72.74% Impervious, Inflow Depth = 4.77" for 25-YR event
 Inflow = 5.01 cfs @ 12.12 hrs, Volume= 18,648 cf
 Outflow = 2.68 cfs @ 12.24 hrs, Volume= 18,086 cf, Atten= 47%, Lag= 7.5 min
 Primary = 2.68 cfs @ 12.24 hrs, Volume= 18,086 cf

Routing by Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 43.82' @ 12.24 hrs Surf.Area= 2,791 sf Storage= 5,000 cf

Plug-Flow detention time= 110.2 min calculated for 18,086 cf (97% of inflow)
 Center-of-Mass det. time= 91.1 min (900.0 - 808.9)

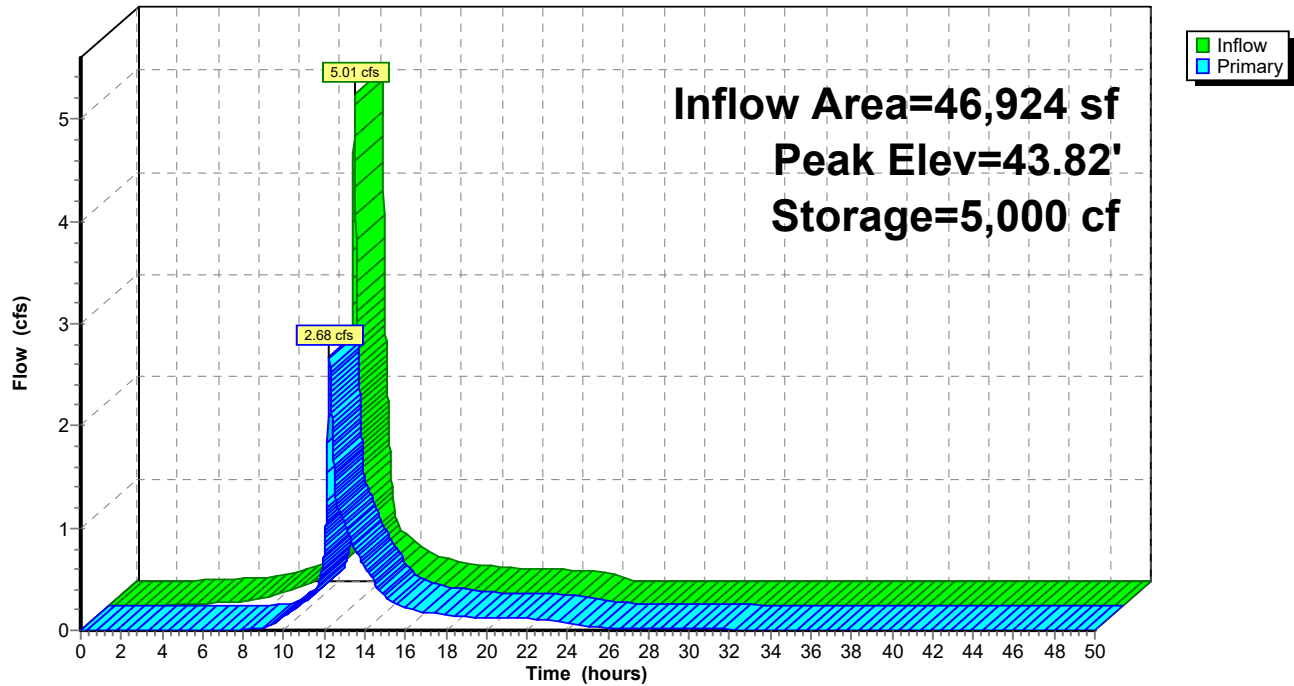
Volume	Invert	Avail.Storage	Storage Description
#1A	41.60'	1,919 cf	31.56'W x 88.45'L x 4.07'H Field A 11,365 cf Overall - 6,567 cf Embedded = 4,798 cf x 40.0% Voids
#2A	41.85'	6,238 cf	ACF R-Tank HD 2 x 756 Inside #1 Inside= 15.7"W x 33.9"H => 3.52 sf x 2.35'L = 8.3 cf Outside= 15.7"W x 33.9"H => 3.70 sf x 2.35'L = 8.7 cf 756 Chambers in 21 Rows
		8,158 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	41.85'	12.0" Round Culvert L= 32.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 41.85' / 41.25' S= 0.0188 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	41.95'	1.5" Vert. Orifice/Grate C= 0.600
#3	Device 1	42.15'	6.0" Vert. Orifice/Grate C= 0.600
#4	Device 1	43.00'	2.0" Vert. Orifice/Grate C= 0.600
#5	Device 1	43.65'	6.0' long x 2.00' rise Sharp-Crested Vee/Trap Weir Cv= 2.62 (C= 3.28)

Primary OutFlow Max=2.67 cfs @ 12.24 hrs HW=43.82' (Free Discharge)

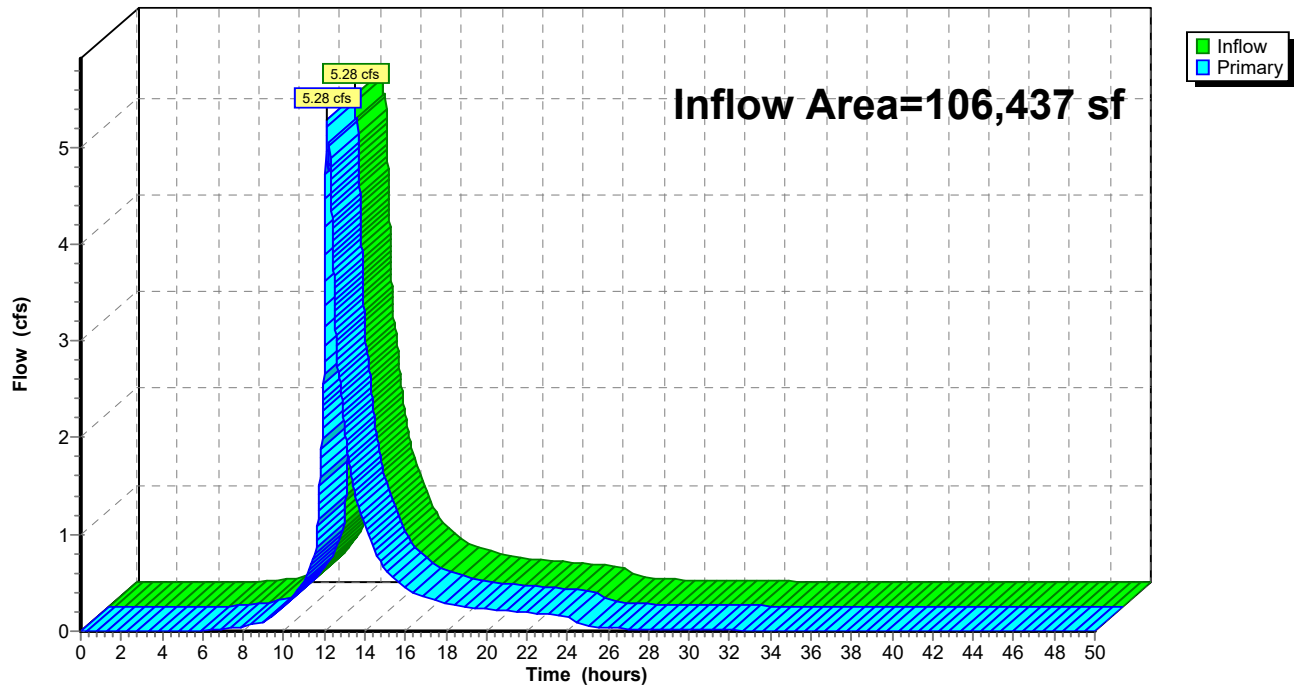
- 1=Culvert (Passes 2.67 cfs of 4.58 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.08 cfs @ 6.47 fps)
- 3=Orifice/Grate (Orifice Controls 1.13 cfs @ 5.74 fps)
- 4=Orifice/Grate (Orifice Controls 0.09 cfs @ 4.13 fps)
- 5=Sharp-Crested Vee/Trap Weir (Weir Controls 1.37 cfs @ 1.35 fps)

Pond 5P: Rtanks**Hydrograph**

Summary for Link POA-1: POA-1

Inflow Area = 106,437 sf, 52.99% Impervious, Inflow Depth > 4.24" for 25-YR event
Inflow = 5.28 cfs @ 12.12 hrs, Volume= 37,578 cf
Primary = 5.28 cfs @ 12.12 hrs, Volume= 37,578 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link POA-1: POA-1**Hydrograph**

Appendix 3

Inspection, Maintenance and Housekeeping Plan



INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN

For:
**VIP MCALISTER
PORTLAND, ME**

By:
**Sebago Technics, Inc.
75 John Roberts Road, Suite 4A
South Portland, Maine**

Introduction

The following plan outlines the anticipated inspection and maintenance procedures for the erosion and sedimentation control measures as well as stormwater management facilities for the project. This plan also outlines several housekeeping requirements that shall be followed during and after construction. These procedures shall be followed in order to ensure the intended function of the designed measures and to prevent unreasonably adverse impacts to the surrounding environment.

The procedures outlined in this Inspection, Maintenance and Housekeeping Plan are provided as an overview of the anticipated practices to be used on this site. In some instances, additional measures may be required due to unexpected conditions. For additional detail on any of the erosion and sedimentation control measures or stormwater management devices to be utilized on this project, refer to the most recently revised edition of the "Maine Erosion and Sedimentation Control BMP" manual and/or the "Stormwater Management for Maine: Best Management Practices" manual as published by the Maine Department of Environmental Protection (MDEP).

During Construction

1. **Inspection:** During the construction process, it is the Contractor's responsibility to comply with the inspection and maintenance procedures outlined in this section. These responsibilities include inspecting disturbed and impervious areas, erosion control measures, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. These areas shall be inspected at least once a week as well as before and after a storm event (0.5" of rainfall), and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in any applicable permits, shall conduct the inspections.
2. **Maintenance:** All measures shall be maintained in an effective operating condition until areas are permanently stabilized. If Best Management Practices (BMPs) need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation must be completed within 7 calendar days and prior to any storm event (0.5" of rainfall).
3. **Documentation:** A log summarizing the inspections and any corrective action taken must be maintained on-site. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, material storage areas, and vehicle access points to the site. Major observations must include BMPs that need maintenance, BMPs that failed

to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to the appropriate regulatory agency upon request. The permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

4. **Specific Inspection and Maintenance Tasks:** The following is a list of erosion control and stormwater management measures and the specific inspection and maintenance tasks to be performed during construction.

A. Sediment Barriers:

- Hay bale barriers, silt fences, and filter berms shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
- If the fabric on a silt fence or filter barrier should decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, it shall be replaced.
- Sediment deposits should be removed after each storm event (0.5" of rainfall). They must be removed before deposits reach approximately one-half the height of the barrier.
- Filter berms shall be reshaped as needed.
- Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared, and seeded.

B. Riprap Materials:

- Once a riprap installation has been completed, it should require very little maintenance. It shall, however, be inspected periodically to determine if high flows have caused scour beneath the riprap or dislodged any of the stone.

C. Erosion Control Blankets:

- Inspect these reinforced areas semi-annually and after significant rainfall events for slumping, sliding, seepage, and scour. Pay close attention to unreinforced areas adjacent to the erosion control blankets, which may experience accelerated erosion.
- Review all applicable inspection and maintenance procedures recommended by the specific blanket manufacturer. These tasks shall be included in addition to the requirements of this plan.

D. Stabilized Construction Entrances/Exits:

- The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way.
- When the control pad becomes ineffective, the stone shall be removed along with the collected soil material. The entrance should then be reconstructed.
- Areas that have received mud-tracking or sediment deposits shall be swept or washed. Washing shall be done on an area stabilized with aggregate, which drains

into an approved sediment-trapping device (not into storm drains, ditches, or waterways).

E. Temporary Seed and Mulch:

- Mulched areas should be inspected after rain events to check for rill erosion.
- If less than 90% of the soil surface is covered by mulch, additional mulch shall be applied in bare areas.
- In applications where seeding and mulch have been applied in conjunction with erosion control blankets, the blankets must be inspected after rain events for dislocation or undercutting.
- Mulch shall continue to be reapplied until 95% of the soil surface has established temporary vegetative cover.

F. Stabilized Temporary Drainage Swales:

- Sediment accumulation in the swale shall be removed once the cross section of the swale is reduced by 25%.
- The swales shall be inspected after rainfall events. Any evidence of sloughing of the side slopes or channel erosion shall be repaired and corrective action should be taken to prevent reoccurrence of the problem.
- In addition to the stabilized lining of the channel (i.e. erosion control blankets), stone check dams may be needed to further reduce channel velocity.

5. **Housekeeping:** The following general performance standards apply to the proposed project.

- A. Spill prevention: Controls must be used to prevent pollutants from being discharged from materials on-site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.
- B. Groundwater protection: During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors, accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.
- C. Fugitive sediment and dust: Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.
- D. Debris and other materials: Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.
- E. Trench or foundation dewatering: Trench dewatering is the removal of water from trenches, foundations, cofferdams, ponds, and other areas within the construction area

that retain water after excavation. In most cases, the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved.

Post-Construction

1. **Inspection:** After construction, it is the responsibility of the owner or assigned heirs to comply with the inspection and maintenance procedures outlined in this section. All measures must be maintained in effective operating condition. The owner shall inspect and maintain the BMPs, including but not limited to any parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.
2. **Specific Inspection and Maintenance Tasks:** The following is a list of permanent erosion control and stormwater management measures and the inspection and maintenance tasks to be performed after construction. If the BMP requires maintenance, repair or replacement to function as intended by the approved post-construction stormwater management plan, the owner or operator of the BMP shall take corrective action(s) to address the deficiency or deficiencies as soon as possible after the deficiency is discovered and shall provide a record of the deficiency and corrective action(s) to the local municipality in the annual report.

A. Vegetated Areas:

- Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains (>0.5") to identify active or potential erosion problems.
- Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

B. Ditches, Swales and Other Open Channels:

- Inspect ditches, swales, level spreaders and other open stormwater channels in the spring, in the late fall, and after heavy rains to remove any obstructions to flow. Remove accumulated sediments and debris, remove woody vegetative growth that could obstruct flow, and repair any erosion of the ditch lining.
- Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity.
- Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable.
- If the ditch has a riprap lining, replace riprap in areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged.

C. Culverts:

- Inspect culverts in the spring, in the late fall, and after heavy rains (>0.5") to remove any obstructions to flow.
- Remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit.
- Inspect and repair any erosion damage at the culvert's inlet and outlet.

D. Removal of Winter Sand:

- Clear accumulations of winter sand in parking lots and along roadways at least once a year, preferably in the spring.
- Accumulations on pavement may be removed by pavement sweeping.
- Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader or other acceptable method.

E. Roof Drip Edges:

- These structures may not be paved over or altered in anyway. No gutter may be installed on the roof line.
- Debris and sediment buildup shall be removed as needed. Any bare area or erosion rills shall be repaired with new stone.
- See inspection log within Attachment 1 of this document for the inspection requirements of this BMP.

F. Focal Points:

- Debris and sediment buildup shall be removed as needed. Any bare area or erosion rills on focal point surface shall be repaired with double shredded hardwood mulch.
- See inspection log within Attachment 1 of this document for the inspection requirements of this BMP.

G. Filtterra Bioretention System:

- Debris and sediment buildup shall be removed as needed.
- See inspection log within Attachment 1 of this document for the inspection requirements of this BMP.

3. Documentation:

- A. The owner or operator of a BMP or a qualified post-construction stormwater inspector hired by that person, shall, as required by the local municipality, provide a completed and signed certification on a form provided by the local municipality, certifying that the person has inspected the BMP(s) and that they are adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they required maintenance or repair, including the record of the deficiency and corrective action(s) taken.
- B. A log summarizing the inspections and any corrective action taken must be maintained. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of controls. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to the appropriate regulatory agency upon request. A sample "Stormwater Inspection and Maintenance Form" has been included as Attachment 1 of this Inspection, Maintenance, and Housekeeping Plan.

- 4. Duration of Maintenance:** Perform maintenance as described and required for any associated permits unless and until the system is formally accepted by a municipality or quasi-municipal district, or is placed under the jurisdiction of a legally created association that will be responsible for the maintenance of the system. If a municipality or quasi-municipal district chooses to accept a stormwater management system, or a component of a stormwater system, it must provide a letter to the MDEP stating that it assumes responsibility for the system. The letter must specify the components of the system for which the municipality or district will assume responsibility, and that the municipality or district agrees to maintain those components of the system in compliance with MDEP standards. Upon such assumption of responsibility, and approval by the MDEP, the municipality, quasi-municipal district, or association becomes a co-permittee for this purpose only and must comply with all terms and conditions of the permit.

ATTACHMENT 1 – STORMWATER INSPECTION AND MAINTENANCE LOG

VIP MCALISTER PORTLAND, ME

This log is intended to accompany the Inspection, Maintenance, and Housekeeping Plan for the VIP service and retail building in Portland, Maine. The following items shall be checked, cleaned, and maintained on a regular basis as specified in the Maintenance Plan and as described in the sections below. This log shall be kept on file for a minimum of five (5) years and shall be available for review by the City of Portland and the Maine DEP. Qualified personnel familiar with the drainage systems and soils shall perform all inspections. A copy of the construction and post-construction maintenance logs are provided.

Roof Drip Edge Filter

INSPECTION MAINTENANCE AND HOUSEKEEPING FORM			
General Information			
Project Name:		Inspection Date:	
Project Location:		Current Weather:	
		Date / Amount Last Precip:	
BMP Owner:		Company conducting inspection:	
Owner Mailing Address:		Company Mailing Address	
Owner Phone #:		Company Phone #:	
Owner Email:		Inspector Name:	
		Inspector Email:	
BMP Element	Suggested Maintenance (recm'd frequency)	Observations	Inspection Notes/Recommended Action
Pretreatment	Sediment/Debris Removal (Annually)		
	Inspect for bare areas or rill erosion (Annually)		
Downstream Structure	Sediment Depth (Annually)		
	Floatables/Debris (Annually)		
Discharge Pipe	Ground Stabilized (>1" rain, Annually)		
Embankments	Review for signs of erosion (Twice Annually)		
Stone	Trim overgrown vegetation with string trimmer (annually)		
	Review trench for evidence of vehicular traffic or storage of snow within footprint (annually)		
	Confirm no excessive ponding of water (annually)		
Additional Notes/Observations:			

Focal Point

INSPECTION MAINTENANCE AND HOUSEKEEPING FORM			
General Information			
Project Name:		Inspection Date:	
Project Location:		Current Weather:	
		Date / Amount Last Precip:	
BMP Owner:		Company conducting inspection:	
Owner Mailing Address:		Company Mailing Address	
Owner Phone #:		Company Phone #:	
Owner Email:		Inspector Name:	
		Inspector Email:	
BMP Element	Suggested Maintenance (recm'd frequency)	Observations	Inspection Notes/Recommended Action
Forebay/Pretreatment	Sediment/Debris Removal (Semi-Annually)		
	Inspect for bare areas or rill erosion (Semi-Annually)		
R-Tanks	Sediment Depth (Quarterly for the first year and annually thereafter.)		
	Floatables/Debris (Quarterly for the first year and annually thereafter.)		
Discharge Pipe	Ground Stabilized (>1" rain, Annually)		
Embankments	Review for signs of erosion (Semi-Annually)		
Filter Bed	Harvesting and pruning of excessive growth (Occasionally)		
	Review basin for evidence of vehicular traffic or storage of snow within footprint (Semi-Annually)		
	Review for removal and replacement of mulch (Annually or As Needed)		
	Confirm filter drains in 24-48 hours for water quality volume (Semi-Annually)		
Additional Notes/Observations:			

INSPECTION MAINTENANCE AND HOUSEKEEPING FORM			
General Information			
Project Name:		Inspection Date:	
Project Location:		Current Weather:	
		Date / Amount Last Precip:	
BMP Owner:		Company conducting inspection:	
Owner Mailing Address:		Company Mailing Address	
Owner Phone #:		Company Phone #:	
Owner Email:		Inspector Name:	
		Inspector Email:	
BMP Element	Suggested Maintenance (recm'd frequency)	Observations	Inspection Notes/Recommended Action
Forebay/Pretreatment	Sediment/Debris Removal (Annually)		
	Inspect for bare areas or rill erosion (Annually)		
R-Tanks	Sediment Depth (Quarterly for the first year and annually thereafter.)		
	Floatables/Debris (Quarterly for the first year and annually thereafter.)		
Discharge Pipe	Ground Stabilized (>1" rain, Annually)		
Filterra Structure	Review condition of installed planting for signs on stress or damage (annually)		
	Review condition of concrete structure and inlet that no damage has occurred to weaken integrity (annually)		
	Confirm pond drains in 24-48 hours for water quality volume (annually)		
Additional Notes/Observations:			

Appendix 4

Subsurface Investigations



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



July 13, 2021

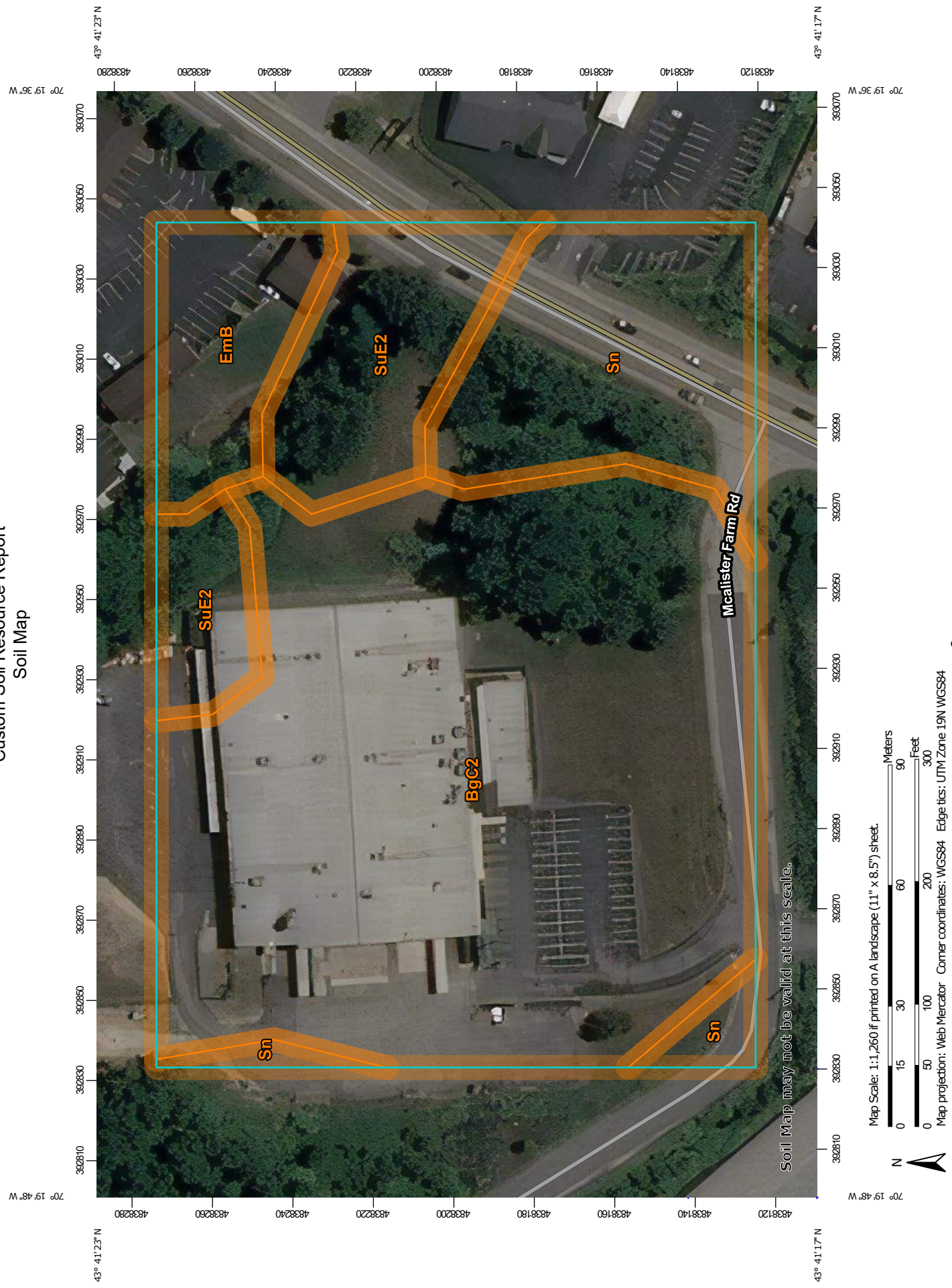
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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BgC2	Nicholville very fine sandy loam, 8 to 15 percent slopes	4.9	62.4%
EmB	Elmwood fine sandy loam, 0 to 8 percent slopes	0.6	7.4%
Sn	Scantic silt loam, 0 to 3 percent slopes	1.3	16.9%
SuE2	Suffield silt loam, 25 to 45 percent slopes, eroded	1.0	13.3%
Totals for Area of Interest		7.8	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

BgC2—Nicholville very fine sandy loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2yJg6
Elevation: 20 to 2,300 feet
Mean annual precipitation: 34 to 50 inches
Mean annual air temperature: 37 to 45 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Nicholville and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nicholville

Setting

Landform: Lakebeds (relict), eskers
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-silty glaciomarine deposits

Typical profile

Ap - 0 to 7 inches: very fine sandy loam
Bs - 7 to 19 inches: very fine sandy loam
BC - 19 to 30 inches: very fine sandy loam
C - 30 to 65 inches: loamy very fine sand

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: High (about 10.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Croghan

Percent of map unit: 5 percent
Landform: Lakebeds (relict), eskers

Custom Soil Resource Report

Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Salmon

Percent of map unit: 5 percent
Landform: Lakebeds (relict), eskers
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Roundabout, somewhat poorly drained

Percent of map unit: 4 percent
Landform: Eskers, lakebeds (relict)
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Linear
Hydric soil rating: No

Roundabout

Percent of map unit: 1 percent
Landform: Lakebeds (relict), eskers
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear, concave
Across-slope shape: Concave, linear
Hydric soil rating: Yes

EmB—Elmwood fine sandy loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: blh8
Elevation: 10 to 900 feet
Mean annual precipitation: 36 to 55 inches
Mean annual air temperature: 39 to 46 degrees F
Frost-free period: 90 to 195 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Elmwood and similar soils: 88 percent
Minor components: 12 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elmwood

Setting

Landform: Stream terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-loamy glaciolacustrine deposits

Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 25 inches: sandy loam
H3 - 25 to 65 inches: silty clay loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Swanton

Percent of map unit: 7 percent
Landform: Stream terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Melrose

Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Whately

Percent of map unit: 2 percent
Landform: Stream terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread

Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Sn—Scantic silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2slv3
Elevation: 10 to 900 feet
Mean annual precipitation: 33 to 60 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Scantic and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Scantic

Setting

Landform: Marine terraces, river valleys
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Glaciomarine deposits

Typical profile

Ap - 0 to 9 inches: silt loam
Bg1 - 9 to 16 inches: silty clay loam
Bg2 - 16 to 29 inches: silty clay
Cg - 29 to 65 inches: silty clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: D
Hydric soil rating: Yes

Minor Components

Lamoine

Percent of map unit: 8 percent
Landform: River valleys, marine terraces
Landform position (three-dimensional): Riser, rise
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Biddeford

Percent of map unit: 3 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave, linear
Ecological site: F144BY002ME - Marine Terrace Depression
Hydric soil rating: Yes

Roundabout

Percent of map unit: 2 percent
Landform: River valleys, marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Buxton

Percent of map unit: 2 percent
Landform: Marine terraces, river valleys
Landform position (three-dimensional): Riser, rise
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

SuE2—Suffield silt loam, 25 to 45 percent slopes, eroded

Map Unit Setting

National map unit symbol: blk3
Elevation: 10 to 1,500 feet
Mean annual precipitation: 34 to 48 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Suffield and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Suffield

Setting

Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine glaciolacustrine deposits

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: silt loam
H3 - 23 to 33 inches: silty clay
H4 - 33 to 65 inches: silty clay

Properties and qualities

Slope: 25 to 45 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Hartland

Percent of map unit: 7 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Suffield, slopes <25%

Percent of map unit: 4 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Belgrade

Percent of map unit: 3 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope

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Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Suffield, slopes >45%

Percent of map unit: 1 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Appendix 5

Stormwater Management Plans

33 McALISTER FARM ROAD
PORTLAND, ME 04101

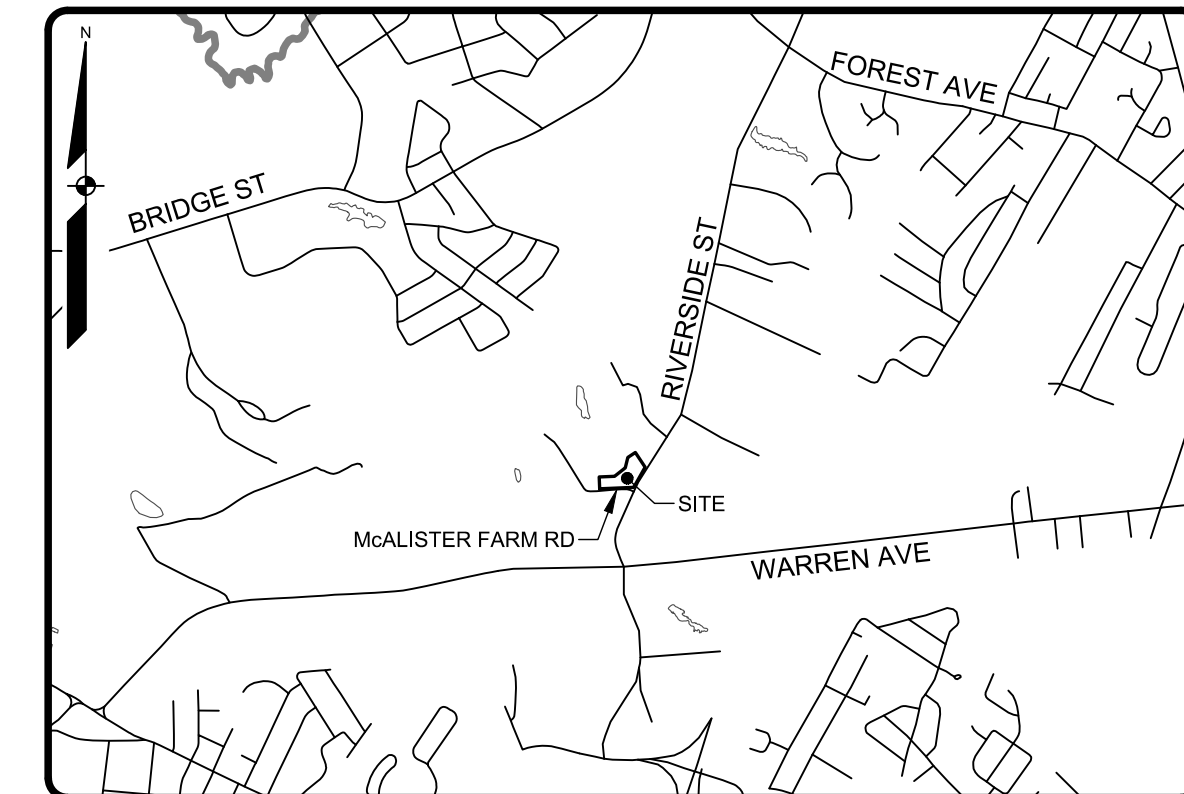
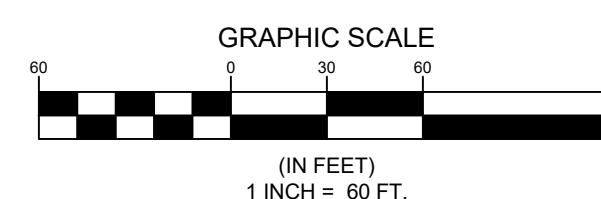
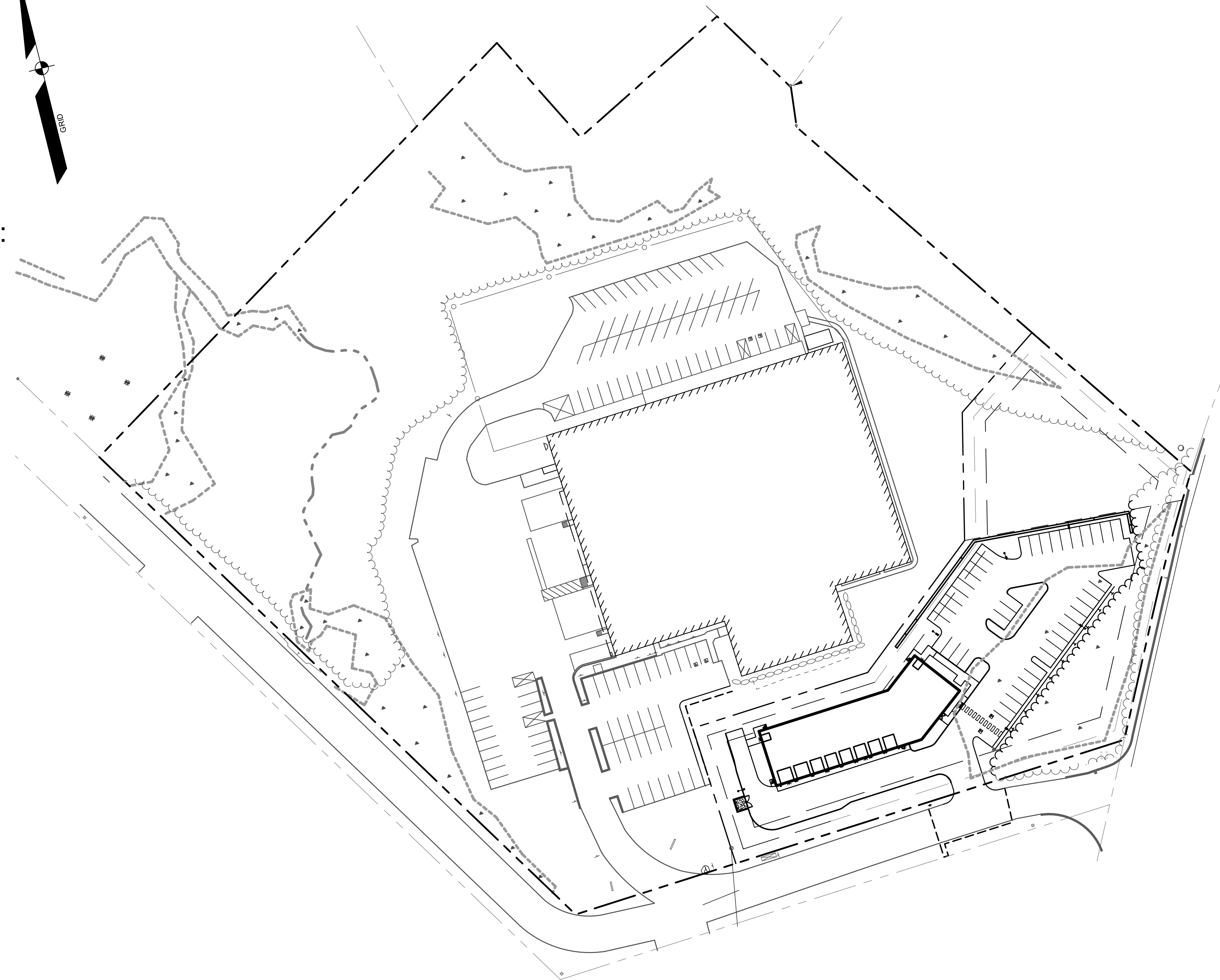
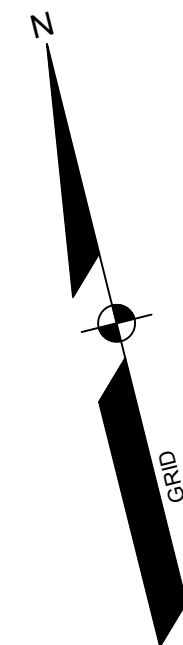
24 HARRIMAN DRIVE
AUBURN, ME 04210



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TECHNICS

75 John Roberts Rd.
Suite 4A
South Portland, ME 04106
Tel. 207-200-2100

1293 MAIN STREET
SANFORD, ME 04073



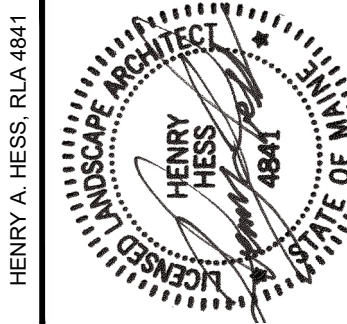
LOCATION MAP

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Sheet Number	Sheet Title
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1	COVER SHEET
2	NOTES AND LEGEND
3	DEMOLITION PLAN
4	SITE PLAN
5	GRADING PLAN
6	UTILITY PLAN
7	LANDSCAPE PLAN
8	EROSION CONTROL NOTES
9	DETAIL 1
10	DETAIL 2
11	DETAIL 3
12	DETAIL 4
13	DETAIL 5

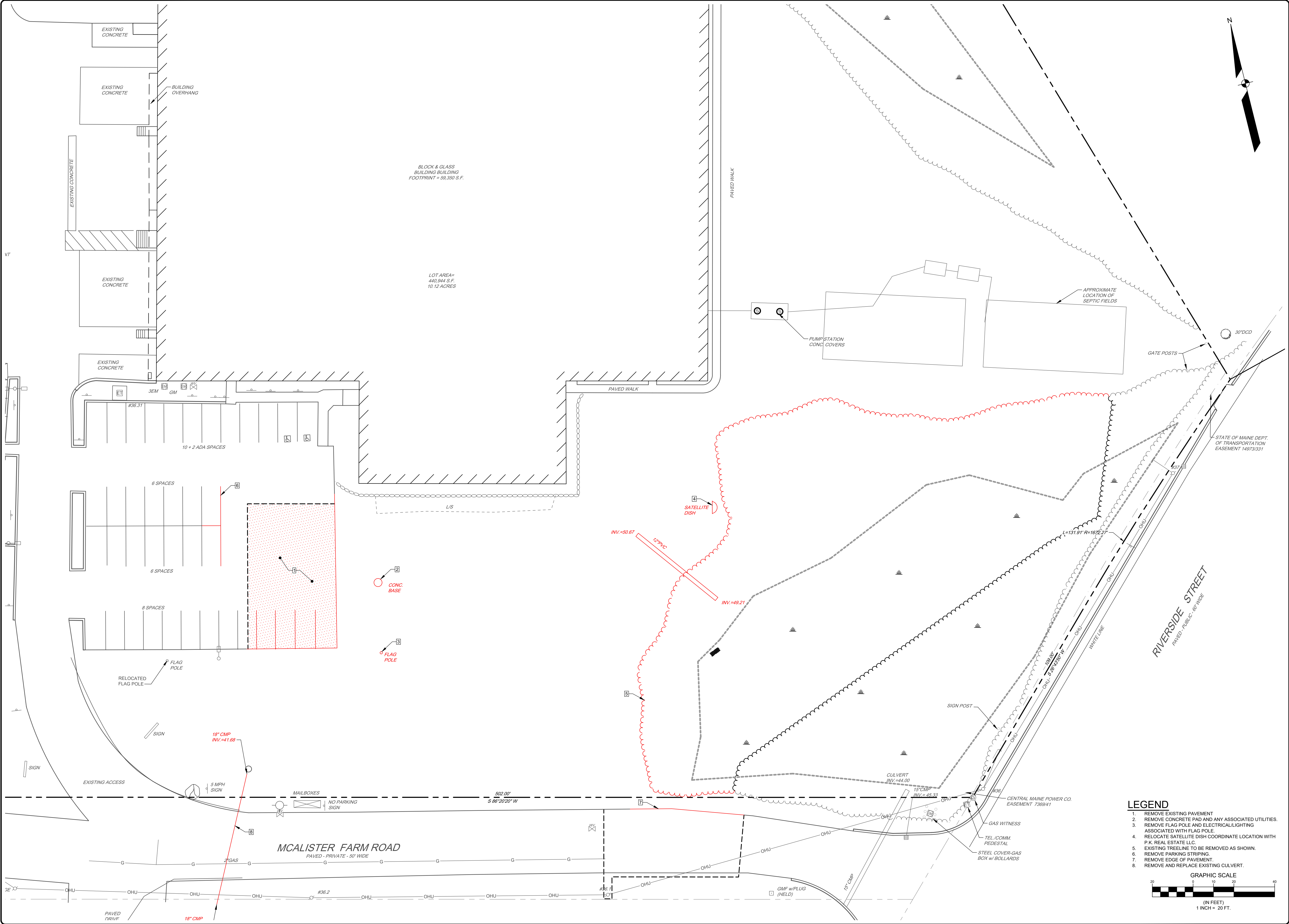
PROGRESS
PRINT

[illegible]

COVER SHEET
OF:
VIP MCALISTER
33 MCALISTER FARM ROAD
PORTLAND, ME 04101
FOR:
QUIRK AUTOMOTIVE CORPORATION

DESIGNED	HAN
DRAWN	SR
CHECKED	HAN
DATE	09-24
SCALE	1" = 6'
PROJECT	2057

SHEET 1 OF 13



LEGEND

- 1. REMOVE EXISTING PAVEMENT
- 2. REMOVE CONCRETE PAD AND ANY ASSOCIATED UTILITIES.
- 3. REMOVE FLAG POLE AND ELECTRICAL/LIGHTING ASSOCIATED WITH FLAG POLE
- 4. RELOCATE SATELLITE DISH COORDINATE LOCATION WITH P.K. REAL ESTATE LLC.
- 5. EXISTING TREELINE TO BE REMOVED AS SHOWN.
- 6. REMOVE PARKING STRIPING.
- 7. REMOVE EDGE OF PAVEMENT.
- 8. REMOVE AND REPLACE EXISTING CURB.

GRAPHIC SCALE

(IN FEET)

1" = 20 FT.

PROGRESS PRINT

HENRY A. HESS, R.L.A. 4841

09/24/2021

REV.	BY	DATE	STATUS
A	HAH	09/24/21	UPLOAD TO THE CITY OF PORTLAND FOR MINOR SITE PLAN REVIEW

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

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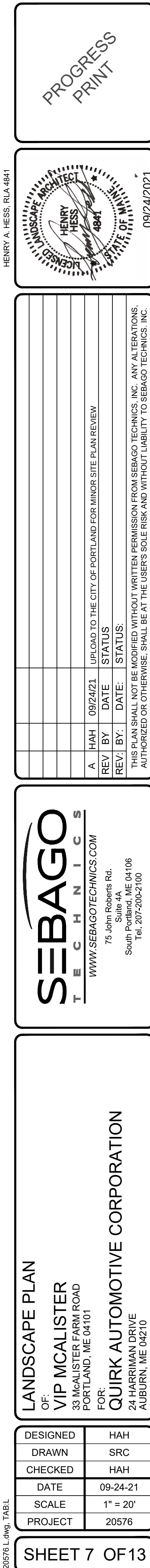
DEMOLITION PLAN

OF:
VIP MCALISTER
33 MCALISTER FARM ROAD
PORTLAND, ME 04101

FOR:
QUIRK AUTOMOTIVE CORPORATION
24 HARRIMAN DRIVE
AUBURN, ME 04210

DESIGNED	HAH
DRAWN	SRC
CHECKED	HAH
DATE	09-24-21
SCALE	1" = 20'
PROJECT	20576

SHEET 3 OF 13



EROSION CONTROL MEASURES

PRE-CONSTRUCTION PHASE

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS (SILT FENCE) WILL BE STAKED/INSTALLED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. THE PLACEMENT OF SEDIMENT BARRIERS SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THE DESIGN PLAN SET. THIS NETWORK IS TO BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 80% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED.

PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED AT THE INTERSECTION OF THE PROPOSED ENTRANCES AND EXISTING ROADWAY TO AVOID TRACKING OF MUD, DUST AND DEBRIS FROM THE SITE.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PREPARE A DETAILED SCHEDULE AND MARKED UP PLAN INDICATING AREAS AND COMPONENTS OF THE WORK AND KEY DATES SHOWING DATE OF DISTURBANCE AND COMPLETION OF THE WORK. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE MUNICIPAL STAFF, THREE COPIES OF THE SCHEDULE AND MARKED UP PLAN SHALL BE PROVIDED TO THE MUNICIPALITY THREE DAYS PRIOR TO THE SCHEDULED PRE-CONSTRUCTION MEETING. SPECIAL ATTENTION SHALL BE GIVEN TO THE 14 DAY LIMIT OF DISTURBANCE IN THE SCHEDULE ADDRESSING TEMPORARY AND PERMANENT VEGETATION MEASURES.

CONSTRUCTION AND POST-CONSTRUCTION PHASE

AREAS UNDERGOING ACTUAL CONSTRUCTION SHALL ONLY EXPOSE THAT AMOUNT OF MINERAL SOIL NECESSARY FOR PROGRESSIVE AND EFFICIENT CONSTRUCTION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD, SUCH AS ACTIVE EXCAVATION AND ACTIVE GRADING. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS ACTIVELY OCCURRING OR CAN BE MULCHED IN THE SAME DAY. OPEN AREAS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL AS SHOWN ON THE DESIGN PLANS AND AS DESCRIBED WITHIN THIS EROSION CONTROL PLAN WITHIN SEVEN (7) DAYS OF DISTURBANCE. AREAS LOCATED WITHIN 100 FEET OF STREAMS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL WITHIN SEVEN (7) DAYS. REFER TO WINTER EROSION CONTROL NOTES FOR THE TREATMENT OF OPEN AREAS AFTER OCTOBER 1ST OF THE CONSTRUCTION YEAR.

THE CONTRACTOR MUST INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

EROSION CONTROL APPLICATIONS & MEASURES

THE PLACEMENT OF EROSION CONTROL MEASURES SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND DETAILS IN THE PLAN SET.

1. TEMPORARY MULCHING:

ALL DISTURBED AREAS SHALL BE MULCHED WITH MATERIALS SPECIFIED BELOW PRIOR TO ANY STORM EVENT. ALL DISTURBED AREAS NOT FINAL GRADED WITHIN 14 DAYS SHALL BE MULCHED. DISTURBED AREAS ADJACENT TO NATURAL RESOURCES THAT ARE NOT GRADED WITHIN SEVEN (7) DAYS SHALL BE MULCHED. ALSO, AREAS, WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED, SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING. EROSION CONTROL BLANKETS ARE RECOMMENDED TO BE USED AT THE BASE OF GRASSED WATERWAYS AND ON SLOPES GREATER THAN 33%. MULCH ANCHORING SHOULD BE USED ON SLOPES GREATER THAN 5% AFTER SEPTEMBER 15TH OF THE CONSTRUCTION YEAR (SEE WINTER EROSION CONTROL NOTES).

TYPES OF MULCH:

HAY OR STRAW SHALL BE APPLIED AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE).

EROSION CONTROL MIX SHALL BE PLACED EVENLY AND MUST PROVIDE 100% SOIL COVERAGE. EROSION CONTROL MIX SHALL BE APPLIED SUCH THAT THE THICKNESS ON SLOPES 3:1 OR LESS IS 2 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THE THICKNESS ON SLOPES BETWEEN 3:1 AND 2:1 SHALL BE 4 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THIS SHALL NOT BE USED ON SLOPES GREATER THAN 2:1.

EROSION CONTROL BLANKET SHALL BE INSTALLED SUCH THAT CONTINUOUS CONTACT BETWEEN THE MAT AND THE SOIL IS OBTAINED. INSTALL BLANKETS AND STAPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

2. SOIL STOCKPILES:

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES. SEDIMENT BARRIERS SHALL BE INSTALLED DOWNGRADEMENT OF STOCKPILES, AND STORMWATER SHALL BE PREVENTED FROM RUNNING ONTO THE STOCKPILE.

3. NATURAL RESOURCES PROTECTION:

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES SHALL BE MULCHED USING TEMPORARY MULCHING (AS DESCRIBED IN PART I OF THIS SECTION) WITHIN 7 DAYS OF EXPOSURE OR PRIOR TO ANY STORM EVENT. SEDIMENT BARRIERS (AS DESCRIBED IN PART 4 OF THIS SECTION) SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE.

4. SEDIMENT BARRIERS:

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS SHALL BE STAKED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. SEDIMENT BARRIERS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION.

SILT FENCE SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE EFFECTIVE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES. IT IS RECOMMENDED THAT SILT FENCE BE REMOVED BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL, SO AS TO AVOID ADDITIONAL SOIL DISTURBANCE.

HAY BALES SHALL NOT BE INSTALLED ADJACENT TO WETLAND. INSTALL PER THE DETAIL ON THE PLANS. BALES SHALL BE WIRE-BOUND OR STRING-TIED AND THESE BINDINGS MUST REMAIN PARALLEL WITH THE GROUND SURFACE DURING INSTALLATION TO PREVENT DETRIORATION OF THE BINDINGS. BALES SHALL BE INSTALLED WITHIN A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.

EROSION CONTROL MIX SHALL NOT BE USED ADJACENT TO WETLANDS. INSTALL PER THE DETAIL ON THE PLANS. THE MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4 INCHES IN DIAMETER. THE MIX COMPOSITION SHALL MEET THE STANDARDS DESCRIBED WITHIN THE MDEP BEST MANAGEMENT PRACTICES. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER. EROSION CONTROL MIX BERMS SHALL NOT BE USED AT THE BOTTOM OF STEEP SLOPES (>8%) OR SLOPES WITH FLOWING WATER.

CONTINUOUSLY CONTAINED BERM SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THIS SEDIMENT BARRIER IS EROSION CONTROL MIX PLACED WITHIN A SYNTHETIC TUBULAR NETTING AND PERFORMS AS A STUDY SEDIMENT BARRIER THAT WORKS WELL ON HARD GROUND SUCH AS FROZEN CONDITIONS, TRAVELED AREAS OR PAVEMENT. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.

5. TEMPORARY CHECK DAMS:

SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. CHECK DAMS ARE TO BE PLACED WITHIN DITCHES/ SWALES AS SPECIFIED ON THE DESIGN PLANS IMMEDIATELY AFTER FINAL GRADING. TEMPORARY CHECK DAMS MAY BE REMOVED ONLY AFTER THE ROADWAYS ARE PAVED AND THE VEGETATED SWALE ARE ESTABLISHED WITH AT LEAST 90% OF VIGOROUS PERENNIAL GROWTH. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL OF THE CHECK DAM.

STONE CHECK DAMS: STONE DAMS SHOULD BE CONSTRUCTED OF 2 TO 3 INCH STONE AND PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAN THE OUTER EDGES.

HAY BALE CHECK DAMS: BALES SHALL BE WIRE-BOUND OR STRING-TIED. BALES SHALL BE INSTALLED WITHIN A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER. HAY BALES SHALL BE PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAN THE OUTER EDGES.

MANUFACTURED CHECK DAMS: MANUFACTURED CHECK DAMS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF AUTHORIZED BY THE PROPER LOCAL, STATE OR FEDERAL REGULATING AGENCIES. THESE UNITS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATIONS.

6. STORMDRAIN INLET PROTECTION:

INLET PROTECTION SHALL BE PLACED AROUND A STORMDRAIN DROP INLET OR CURB INLET PRIOR TO PERMANENT STABILIZATION OF THE IMMEDIATE AND UPSTREAM DISTURBED AREAS. THEY SHALL BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN-OUT AND DISPOSAL OF TRAPPED SEDIMENTS AND MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES. ANY RESULTANT PONDING OF WATER FROM THE PROTECTION METHOD MUST NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.

HAY BALE DROP INLET PROTECTION: WE DO NOT RECOMMEND THE USE OF HAY BALES AS INLET PROTECTION.

CONCRETE BLOCK AND STONE INLET SEDIMENT FILTER (DROP OR CURB INLET): SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE HEIGHT OF THE CONCRETE BLOCK BARRIER CAN VARY BUT MUST BE BETWEEN 12 AND 24 INCHES TALL. A MINIMUM OF 1 INCH CRUSHED STONE SHALL BE USED.

MANUFACTURED SEDIMENT BARRIERS AND FILTER (DROP OR CURB INLET): MANUFACTURED FILTERS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

7. STABILIZED CONSTRUCTION ENTRANCE/EXIT:

PRIOR TO CLEARING AND/OR GRUBBING THE SITE A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED WHEREVER TRAFFIC WILL EXIT THE CONSTRUCTION SITE ONTO A PAVED ROADWAY IN ORDER TO MINIMIZE THE TRACKING OF SEDIMENT AND DEBRIS FROM THE CONSTRUCTION SITE ONTO PUBLIC ROADWAYS. THE ENTRANCES AND ADJACENT ROADWAY AREAS SHALL BE PERIODICALLY SWEEP TO FURTHER MINIMIZE THE TRACKING OF MUD, DUST OR DEBRIS FROM THE CONSTRUCTION AREA. THE TERM "SWEEP" IS UNDERSTOOD TO MEAN REMOVAL AND RECOVERY OF TRACKED SEDIMENT WITH A STREET SWEEPER, NOT BRUSHING THE MATERIAL INTO SWALES OR STRUCTURES WITH A MECHANICAL BROOM. STABILIZED CONSTRUCTION EXITS SHALL BE CONSTRUCTED IN AREAS SPECIFIED ON THE PLANS AND AS DETAILED ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.

DUST CONTROL:

DUST CONTROL DURING CONSTRUCTION SHALL BE ACHIEVED BY THE USE OF A WATERING TRUCK TO PERIODICALLY SPRINKLE THE EXPOSED ROADWAY AREAS AS NECESSARY TO REDUCE DUST DURING THE DRY MONTHS. APPLYING OTHER DUST CONTROL PRODUCTS SUCH AS CALCIUM CHLORIDE OR OTHER MANUFACTURED PRODUCTS ARE ALLOWED IF AUTHORIZED BY THE PROPER LOCAL, STATE AND/OR FEDERAL REGULATING AGENCY. HOWEVER, IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO MITIGATE DUST AND SOIL LOSS FROM THE SITE. IF OFF-SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEEPED IMMEDIATELY AND NOT LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS.

TEMPORARY VEGETATION:

TEMPORARY VEGETATION SHALL BE APPLIED TO DISTURBED AREAS THAT WILL NOT RECEIVE FINAL GRADING FOR PERIODS UP TO 12 MONTHS. THIS PROCEDURE SHOULD BE USED EXTENSIVELY IN AREAS ADJACENT TO NATURAL RESOURCES. SEEDBED PREPARATION AND APPLICATION OF SEED SHALL BE CONDUCTED AS INDICATED IN THE PERMANENT VEGETATION SECTION OF THIS NARRATIVE. SPECIFIC SEEDS (FAST GROWING AND SHORT LIVING) SHALL BE SELECTED FROM THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUALS FOR CONTRACTORS AND ENGINEERS, 2016 OR LATEST REVISION. ALTERNATIVE EROSION CONTROL MEASURES SHOULD BE USED IF SEEDING CAN NOT BE DONE BEFORE SEPTEMBER 15TH OF THE CONSTRUCTION YEAR.

PERMANENT VEGETATION:

REVEGETATION MEASURES SHALL COMMENCE IMMEDIATELY UPON COMPLETION OF FINAL GRADING OF AREAS TO BE LOAMED AND SEEDED. THE APPLICATION OF SEED SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. PLEASE REFER TO THE WINTER EROSION CONTROL NOTES FOR MORE DETAIL. REVEGETATION MEASURES SHALL CONSIST OF THE FOLLOWING:

SEEDBED PREPARATION:

A. FOUR (4) INCHES OF LOAM SHALL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. LOAM SHALL BE FREE OF SUBSOIL, CLAY LUMPS, STONES AND OTHER OBJECTS OVER 2 INCHES OR LARGER IN ANY DIMENSION, AND WITHOUT WEEDS, ROOTS OR OTHER OBJECTIONABLE MATERIAL.

B. SOILS TESTS SHALL BE TAKEN AT THE TIME OF SOIL STRIPPING TO DETERMINE FERTILIZATION REQUIREMENTS. SOILS TESTS SHALL BE TAKEN PROMPTLY AS TO NOT INTERFERE WITH THE 14-DAY LIMIT ON SOIL EXPOSURE. BASED UPON TEST RESULTS, SOIL AMENDMENTS SHALL BE INCORPORATED INTO THE SOIL PRIOR TO FINAL SEEDING. IN LIEU OF SOIL TESTS, SOIL AMENDMENTS MAY BE APPLIED AS FOLLOWS:

ITEM	APPLICATION RATE
10-20-20 FERTILIZER (N-P205-K20 OR EQUAL)	18.4 LBS/1,000 S.F.
GROUND LIMESTONE (50% CALCIUM & MAGNESIUM OXIDE)	138 LBS/1,000 S.F.
WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH PROPER EQUIPMENT. ROLL THE AREA TO FIRM THE SEEDBED EXCEPT ON CLAY OR SILTY SOILS OR COARSE SAND.	

APPLICATION OF SEED:

A. SEEDING SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. GENERALLY A SEED MIXTURE MAY BE APPLIED AS FOLLOWS: (MDEP SEED MIX 2 IS DISPLAYED)

SEED TYPE	APPLICATION RATE
CREEPIING RED FESCUE	0.46 LBS/1,000 S.F. (20 LBS/ACRE)
REDTOP	0.05 LBS/1,000 S.F. (2 LBS/ACRE)
TALL FESCUE	0.46 LBS/1,000 S.F. (20 LBS/ACRE)
TOTAL:	0.97 LBS/1,000 S.F. (42 LBS/ACRE)

NOTE: A SPECIFIC SEED MIXTURE SHOULD BE CHOSEN TO MATCH THE SOILS CONDITION OF THE SITE. VARIOUS AGENCIES CAN RECOMMEND SEED MIXTURES. MDEP RECOMMENDED SEED MIXTURES ARE IN THE EROSION AND SEDIMENT CONTROL BMP MANUAL DATED 2016 OR LATEST REVISION.

B. HYDROSEEDING SHALL BE CONDUCTED ON PREPARED AREAS WITH SLOPES LESS THAN 2:1. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. RECOMMENDED SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

C. MULCHING SHALL COMMENCE IMMEDIATELY AFTER SEED IS APPLIED. REFER TO THE TEMPORARY MULCHING SECTION OF THIS NARRATIVE FOR DETAILS.

SODDING:

FOLLOWING SEEDBED PREPARATION, SOD CAN BE APPLIED IN LIEU OF SEEDING IN AREAS WHERE IMMEDIATE VEGETATION IS MOST BENEFICIAL, SUCH AS DITCHES. AROUND STORMWATER DROP INLETS AND AREAS OF AESTHETIC VALUE, SOD SHOULD BE LAID AT RIGHT ANGLES TO THE DIRECTION OF FLOW, STARTING AT THE LOWEST ELEVATION. SOD SHOULD BE ROLLED OR TAMPED DOWN TO EVEN OUT THE JOINTS ONCE LAID DOWN, WHERE FLOW IS PREVALENT THE SOD MUST BE PROPERLY ANCHORED DOWN, IRRIGATE THE SOD IMMEDIATELY AFTER INSTALLATION. IN MOST CASES, SOD CAN BE ESTABLISHED BETWEEN APRIL 1ST AND NOVEMBER 15TH OF THE CONSTRUCTION YEAR, HOWEVER, REFER TO THE WINTER EROSION CONTROL NOTES FOR ANY ACTIVITIES AFTER OCTOBER 1ST.

STANDARDS FOR TIMELY STABILIZATION:

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES – THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15. THE MDEP WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% (10H:1V) TO BE A SLOPE. IF THE CONTRACTOR FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS – BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE APPLICANT WILL COVER THE SLOPE WITH A LAYER OF WOOD WASTE COMPOST AS DESCRIBED IN ITEM 2(C), OF THIS STANDARD OR WITH STONE RIPRAP AS DESCRIBED IN ITEM 2(D), OF THIS STANDARD.
- STABILIZE THE SLOPE WITH SOD – THE CONTRACTOR WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT 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 APPLICANT WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).
- STABILIZE THE SLOPE WITH WOOD WASTE COMPOST – THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF WOOD WASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOOD WASTE COMPOST, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE APPLICANT WILL NOT USE WOOD WASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SLOPE WITH STONE RIPRAP – THE CONTRACTOR WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS – BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION – BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET. LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15, THEN THE APPLICANT WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM 3(C), OF THIS STANDARD.
- STABILIZE THE SOIL WITH SOD – THE APPLICANT WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT 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 15 THE APPLICANT WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

- MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES. THE CONTRACTOR SHALL PERFORM REPAIRS NO LATER THAN THE END OF THE NEXT WORKDAY, TO ALLOW CONTINUED PROPER FUNCTIONING OF THE EROSION CONTROL MEASURE. THE CONTRACTOR SHALL PROVIDE THE NECESSARY REGULATING AGENCIES WITH WRITTEN DOCUMENTATION DESCRIBING DATES OF INSPECTIONS AND NECESSARY FOLLOW-UP WORK TO MAINTAIN EROSION CONTROL MEASURES MEETING THE REQUIREMENTS OF THIS PLAN WITHIN SEVEN (7) DAYS.
- FOLLOWING THE TEMPORARY AND/OR FINAL SEEDINGS, THE CONTRACTOR SHALL INSPECT THE WORK AREA SEMIMONTHLY UNTIL THE SEEDINGS HAVE BEEN ESTABLISHED. ESTABLISHED MEANS A MINIMUM OF 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH. RESEEDING SHALL BE CARRIED OUT BY THE CONTRACTOR WITH FOLLOW-UP INSPECTIONS IN THE EVENT OF ANY FAILURES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED.

HOUSEKEEPING:

- 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.
- 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 CONTAMINANT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE OR HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE-TREATMENT OF STORMWATER PRIOR TO DISCHARGE 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.
- 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 SWEEP 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.
- 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.
- EXCAVATION DE-WATERING: EXCAVATION DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.
- 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:
 - DISCHARGES FROM FIREFIGHTING ACTIVITY;
 - FIRE HYDRANT FLUSHINGS;
 - VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
 - DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS;
 - ROUTINE EXTERNAL BUILDING WASH-DOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
 - 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;
 - UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
 - UNCONTAMINATED GROUNDWATER OR SPRING WATER;
 - FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
 - IN AREAS ADJACENT TO NATURAL RESOURCES, SEEDBED PREPARATION AND APPLICATION OF SEED SHALL BE CONDUCTED AS INDICATED IN THE PERMANENT VEGETATION SECTION OF THIS NARRATIVE.
 - POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
 - LANDSCAPE IRRIGATION.
- UNAUTHORIZED NON-STORMWATER DISCHARGES: THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON-STORMWATER, OTHER THAN THOSE DISCHARGES, SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:
 - WASTEWATER FROM THE WASHOUT OR CLEAN OUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
 - FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
 - SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
 - TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

WINTER EROSION CONTROL MEASURES

THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 1 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDER TAKEN DURING THE PROCEEDING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. ALL AREAS SHALL BE CONSIDERED TO BE DENuded UNTIL THE SUBBASE GRAVEL IS INSTALLED IN ROADWAY AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 LBS/1,000 S.F. (3 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. THE CONTRACTOR MUST INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

1. SOIL STOCKPILES

STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR AT 150 LBS/1,000 S.F. (3 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

2. NATURAL RESOURCES PROTECTION

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL MATS. DURING WINTER CONSTRUCTION, A DOUBLE LINE OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) WILL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA.

PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

3. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF WOOD WASTE FILTER BERMS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.

4. MULCHING

ALL AREA SHALL BE CONSIDERED TO BE DENuded UNTIL AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, 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. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW WILL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA WILL 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 WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1,000 SQUARE FEET (3TONS/ACRE) AND ADEQUATELY ANCHORED THAT GROUND SURFACE IS NOT VISIBLE THOUGH THE MULCH.

BETWEEN THE DATES OF SEPTEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, TRACK OR WOOD CELLULOSE FIBER. WHEN GROUND SURFACE IS NOT VISIBLE THOUGH THE MULCH THEN COVER IS SUFFICIENT. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL BARE SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORK DAY.

5. MULCHING ON SLOPES AND DITCHES

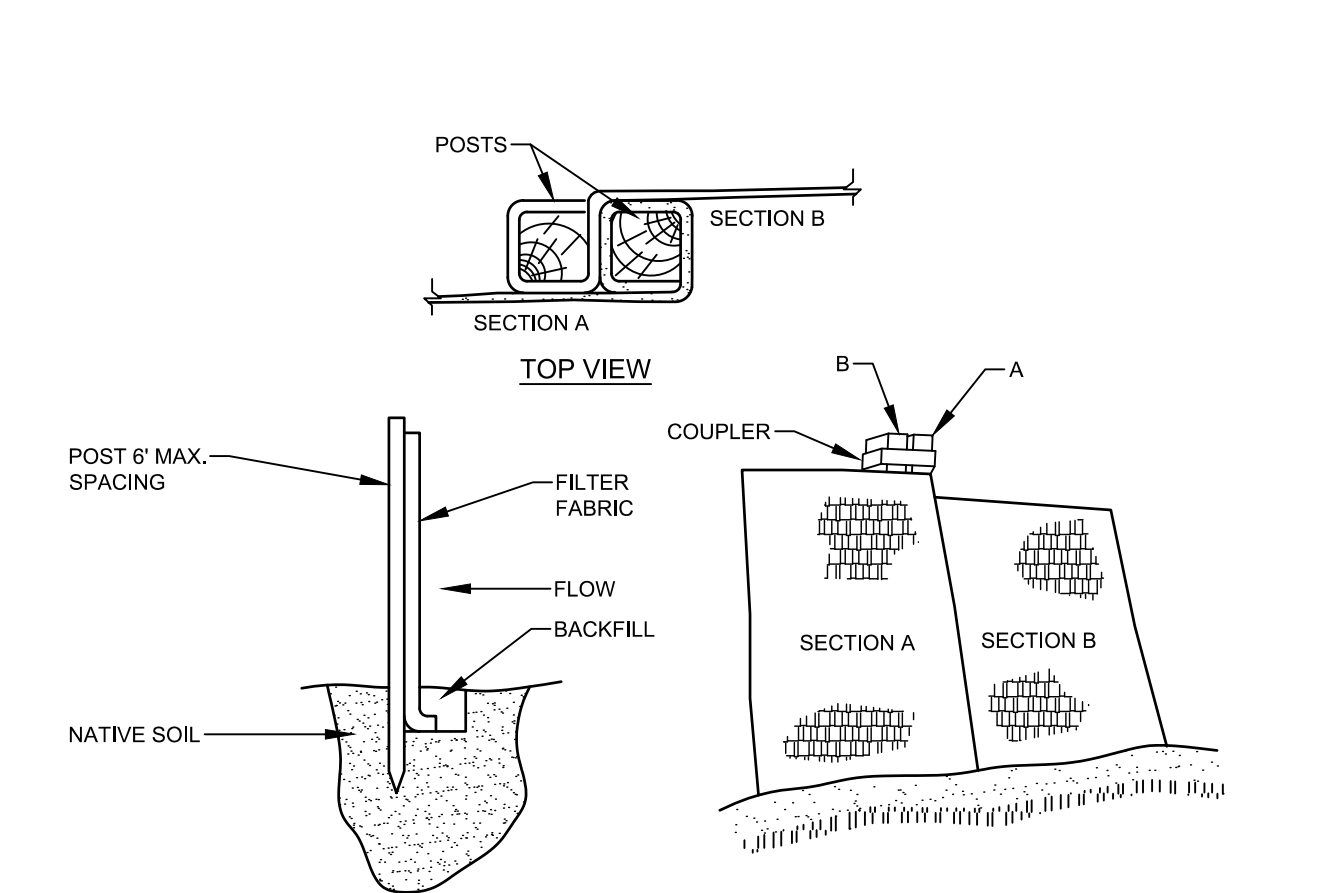
SLOPES SHALL NOT BE LEFT EXPOSED FOR ANY EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY MULCHED AND ANCHORED WITH PEG AND NETTING OR WITH EROSION CONTROL BLANKETS. MULCHING SHALL BE APPLIED AT A RATE OF 230 LBS/1,000 S.F. ON ALL SLOPES GREATER THAN 8%. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 5%. EROSION CONTROL BLANKETS SHALL BE USED IN LIEU OF MULCH IN ALL DRAINAGE WAYS WITH SLOPES 8%. EROSION CONTROL MIX CAN BE USED TO SUBSTITUTE EROSION CONTROL BLANKETS ON ALL SLOPES EXCEPT DITCHES.

6. SEEDING

BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL 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 BEEN LOAMED, FINAL GRADED 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 SELECTED TO BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND FABRIC NETTING ANCHORED WITH STAPLES. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5LBS/1000 S.F. ALL AREAS SEEDED DURING THE WINTER WILL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS SUFFICIENTLY 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. SEED TYPE SHALL BE WINTER RYE.

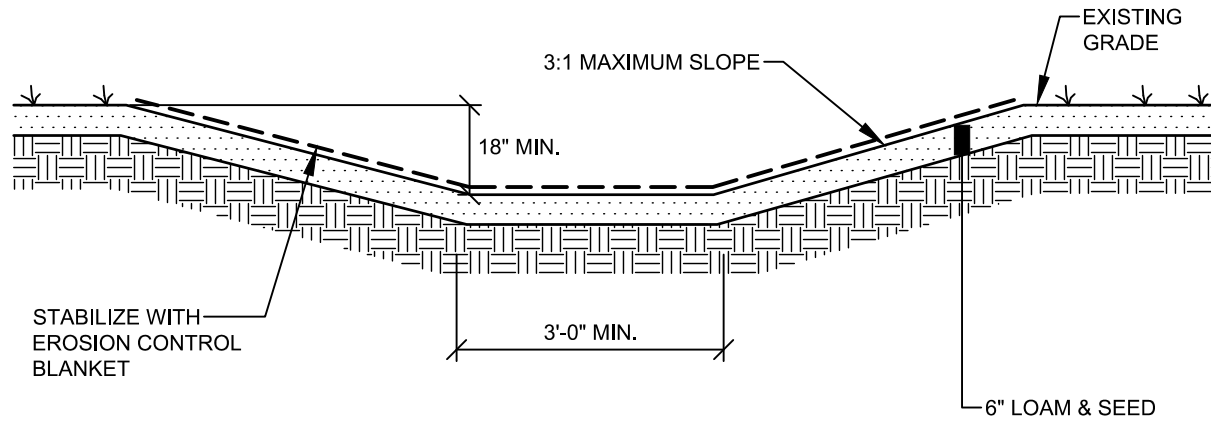
7. INSPECTION AND MONITORING

MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON, AT A MINIMUM, AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL, IN THE SPRING INSPECT AND REPAIR ANY DAMAGES AND/OR UNESTABLISHED SPOTS. ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

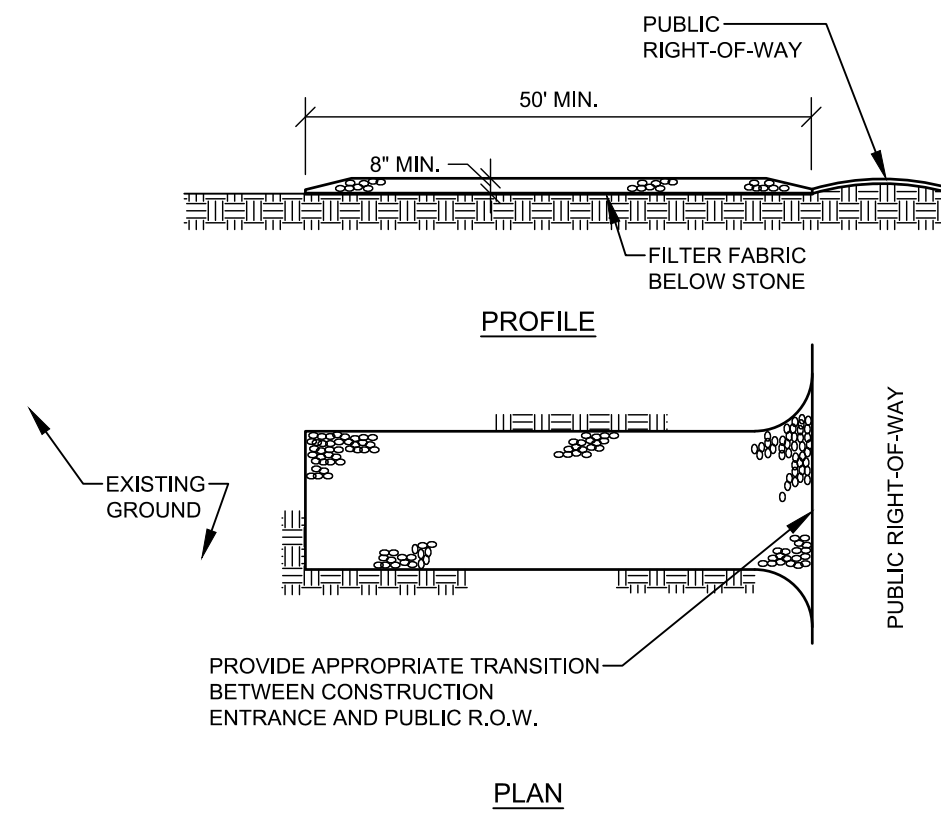


- INSTALLATION:**
1. EXCAVATE A 6"x 6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
 2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.
 3. DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM.
 4. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. TOE-IN CAN ALSO BE ACCOMPLISHED BY LAYING THE FABRIC FLAP ON UNDISTURBED GROUND AND PILING AND TAMPING FILL AT THE BASE, BUT MUST BE ACCOMPANIED BY AN INTERCEPTION DITCH.
 5. JOIN SECTION AS SHOWN ABOVE.
 6. BARRIER SHALL BE MIRAFI SILT FENCE OR EQUAL.
 7. THE FENCE SHOULD BE ANCHORED TO RESIST PULL-OUT AND BE STRETCHED TIGHTLY BETWEEN STAKES TO PREVENT SAGGING.
 8. IN AREAS WHERE FLAP CANNOT BE KEYED PROPERLY (DUE TO FROZEN GROUND, BEDROCK, STONY SOILS, ROOTS NEAR A PROTECTED NATURAL RESOURCE, ETC.) THE SILT FENCE SHOULD BE ANCHORED WITH AGGREGATE, CRUSHED STONE, EROSION CONTROL MIX OR OTHER MATERIAL.
 9. FILTER BARRIER NEEDS TO BE REMOVED WHEN THE AREA IS STABILIZED.

FILTER BARRIER
NOT TO SCALE

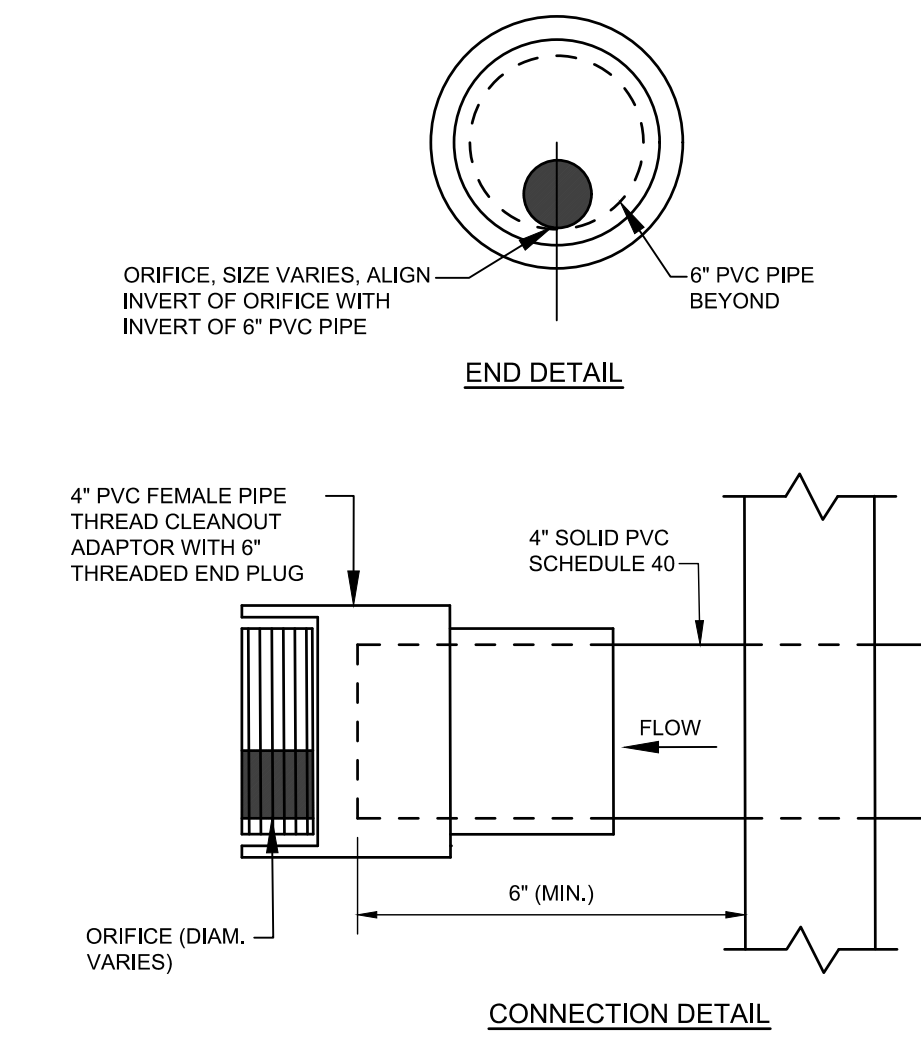


GRASSED SWALE
NOT TO SCALE

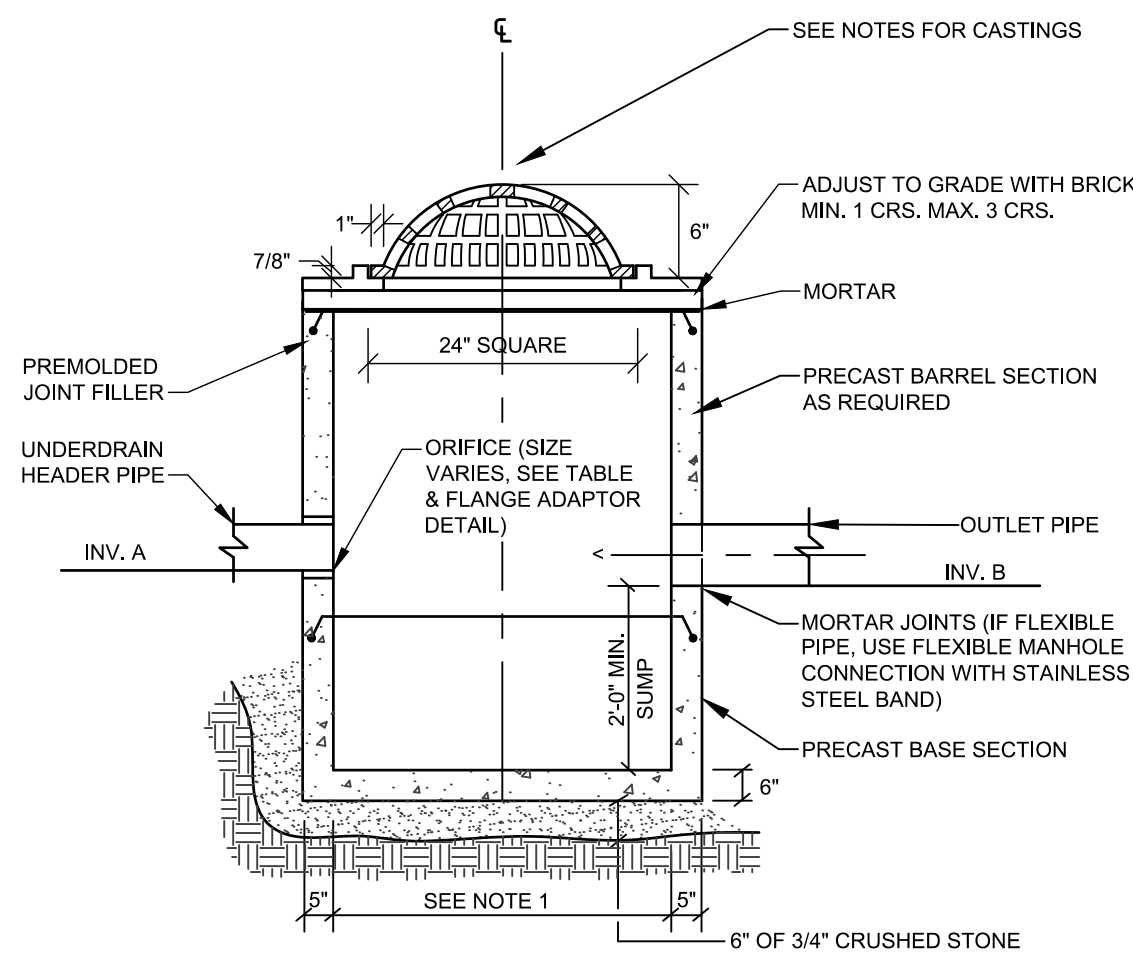


- NOTES:**
1. STONE SIZE- AASHTO DESIGNATION M43, SIZE NO. 2 (2 1/2" TO 1 1/2"), USE CRUSHED STONE.
 2. LENGTH- AS SHOWN ON PLANS, MIN. 50 FEET.
 3. THICKNESS- NOT LESS THAN EIGHT (8) INCHES.
 4. WIDTH- NOT LESS THAN FULL WIDTH OF ALL POINT OF INGRESS OR EGRESS.
 5. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



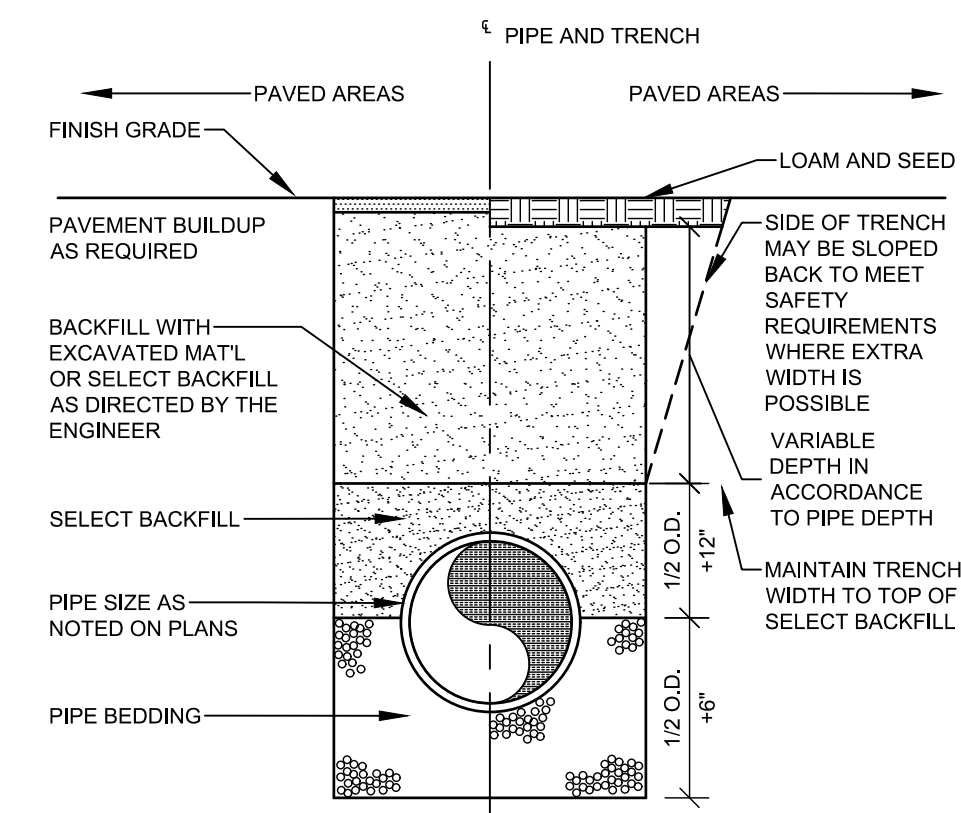
FLANGE ADAPTOR (ORIFICE) DETAIL
NOT TO SCALE



OUTLET CONTROL STRUCTURE DESIGN TABLE				
MEADOW BASIN	STRUCTURE	INV. A	INV. B	ORIFICE
UDSF-1	OCS-1	234.83	234.80	0.5"
UDSF-2	OCS-2	234.83	234.80	0.8"

- NOTES:**
1. STRUCTURE SHALL BE A TYPE F.
 2. PIPE SIZES AND INVERTS AS NOTED ON PLANS.
 3. CASTING SHALL BE A BEEHIVE STYLE GRATE, NEENAH FOUNDRY, OR APPROVED EQUAL.

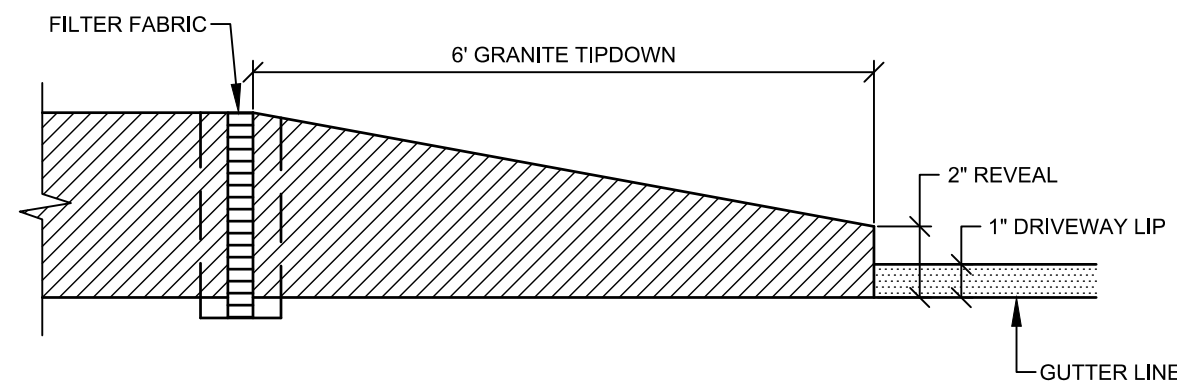
OUTLET CONTROL STRUCTURE
NOT TO SCALE



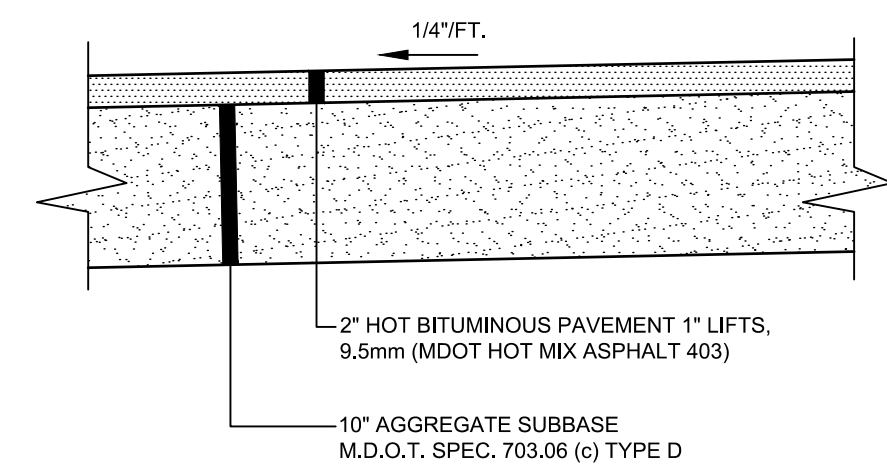
PIPE TYPE	PIPE BEDDING MATERIAL	SELECT BACKFILL
CORRUGATED METAL DUCTILE IRON REINFORCED CONCRETE	MDOT 703.22 TYPE B UD BACKFILL	MDOT 703.22 TYPE B UD BACKFILL
PVC-SDR 35 HDPE	MDOT 703.13 3/4" CRUSHED STONE	MDOT 703.22 TYPE B UD BACKFILL, OR MDOT 703.13 3/4" CRUSHED STONE
PERFORATED PVC-SDR 35 HDPE	MDOT 703.13 3/4" CRUSHED STONE	MDOT 703.22 TYPE B UD BACKFILL, OR MDOT 703.13 3/4" CRUSHED STONE

- NOTE:**
ALL BRACING AND SHEETING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL MEET ALL STATE AND O.S.H.A. SAFETY STANDARDS.

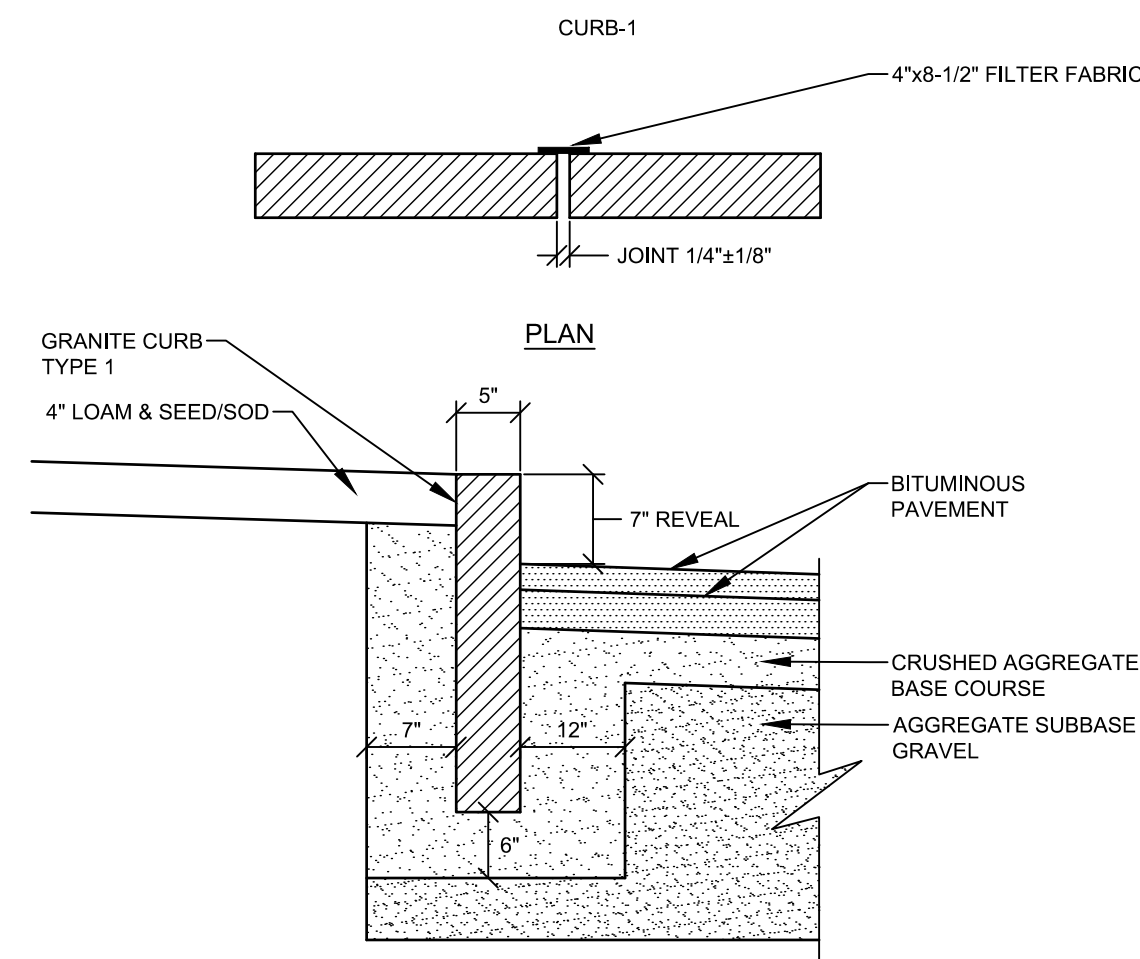
TRENCH SECTION
NOT TO SCALE



TIPDOWN CURB INSTALLATION
NOT TO SCALE

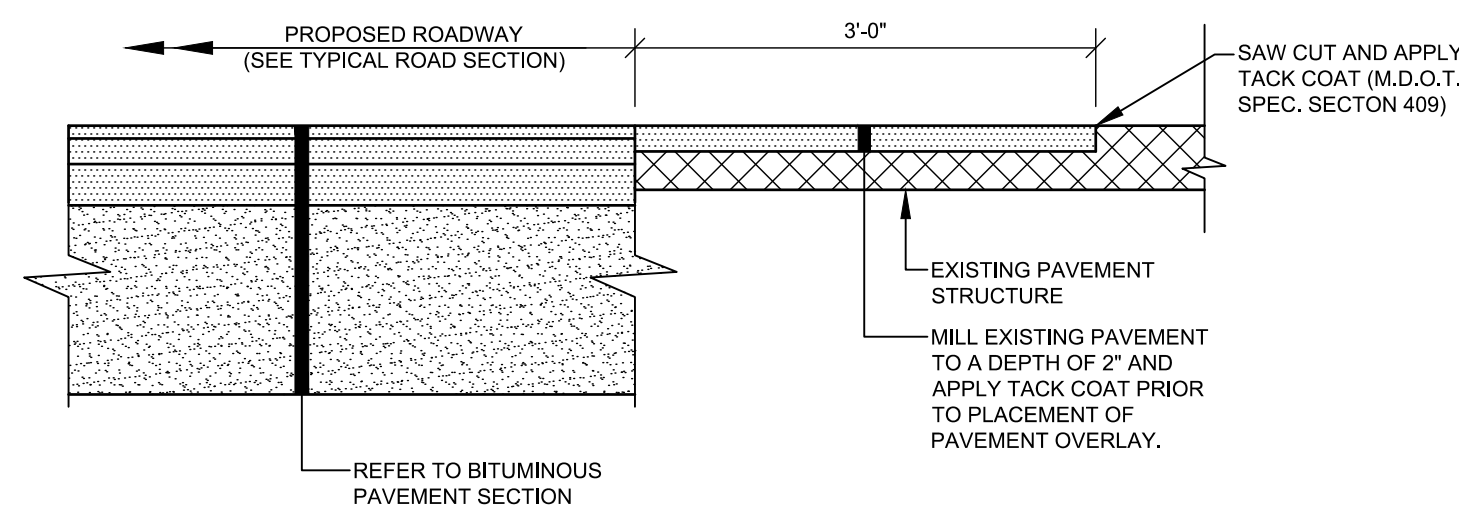


BITUMINOUS SIDEWALK
NOT TO SCALE

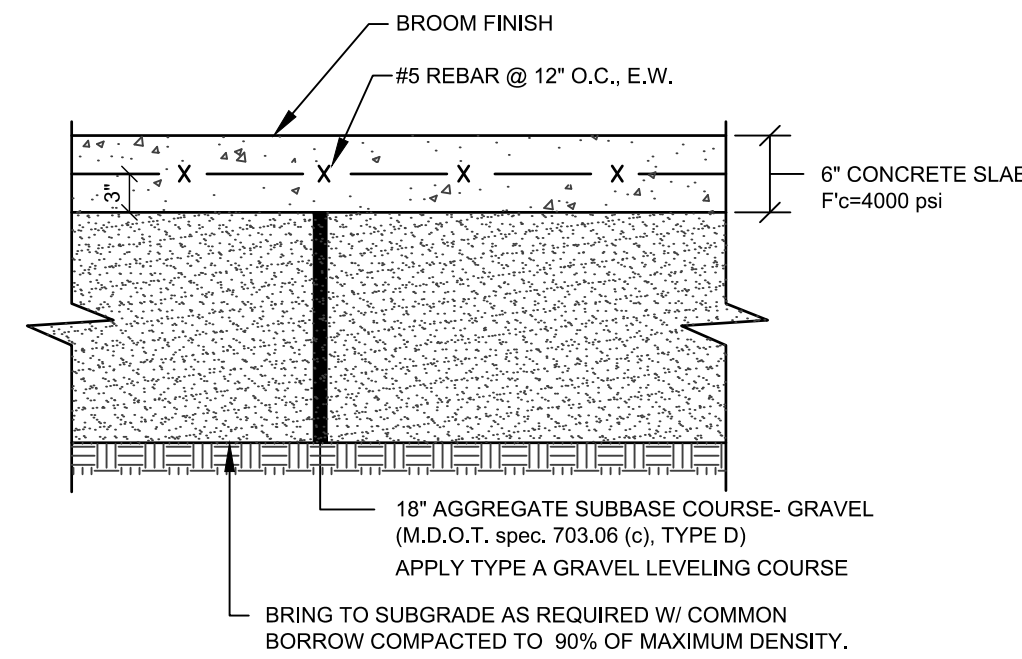


- NOTES:**
1. EXCAVATION INCIDENTAL TO TO COST OF CURB
 2. SUBBASE SHALL BE COMPACTED TO A FIRM EVEN SURFACE PRIOR TO SETTING OF CURB

VERTICAL GRANITE CURB
NOT TO SCALE

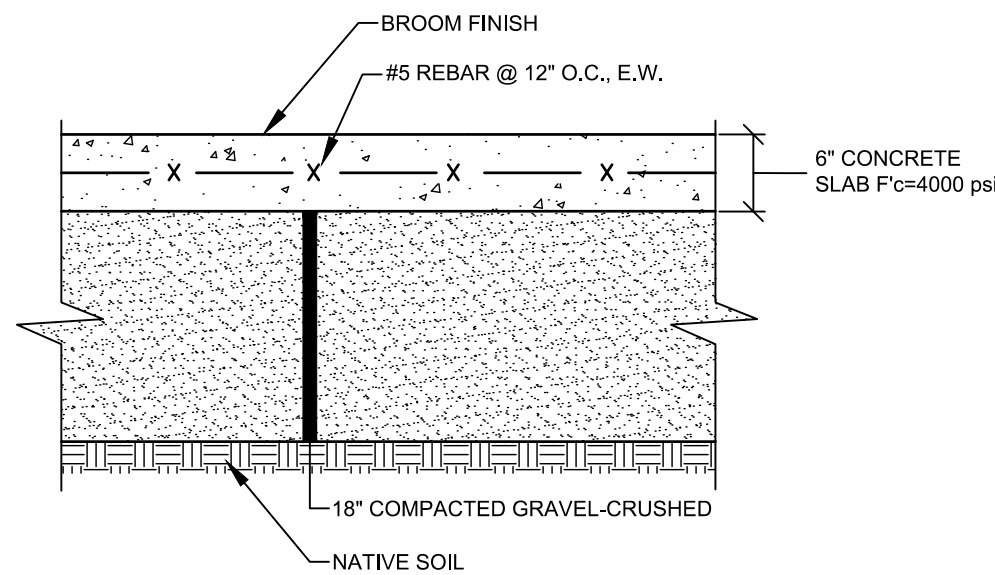


PAVEMENT JOINT
NOT TO SCALE



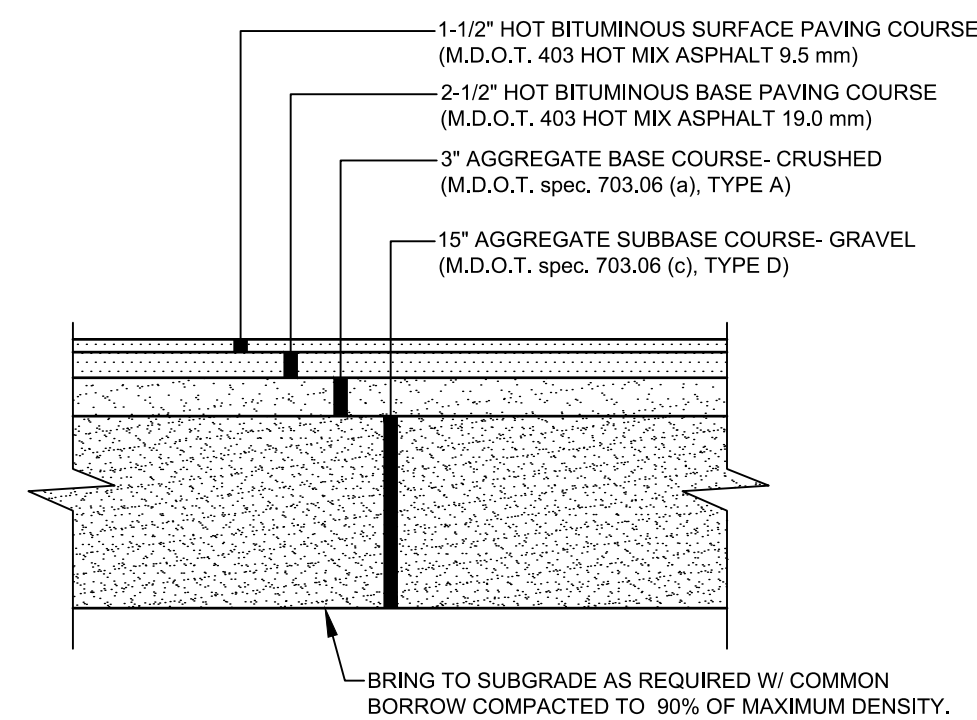
- NOTES:**
1. COMPACT GRAVEL SUBBASE, BASE COURSE TO 95% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
 2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.
 3. PROOF ROLL SUBGRADE PER GEOTECHNICAL REPORT.

TYPICAL CONCRETE TRANSFORMER PAD
NOT TO SCALE



- NOTE:**
1. PROVIDE CONTRACTION CONTROL JOINTS EVERY 6' IN EACH DIRECTION

CONCRETE SLAB
NOT TO SCALE



- NOTES:**
1. COMPACT GRAVEL SUBBASE, BASE COURSE TO 92% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
 2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.
 3. CONTRACTOR MAY REPLACE BITUMINOUS PAVING SECTION WITH TWO (2) 1-3/4" LIFTS OF 12.5mm SUPERPAVE MIX. SUBMIT PAVEMENT MIX DESIGN PRIOR TO CONSTRUCTION.

BITUMINOUS VEHICULAR PAVING
NOT TO SCALE

PROGRESS PRINT

SEBAGO TECHNICS

75 John Roberts Rd.
Sullivan, ME 04106
South Portland, ME 04106
Tel. 207-260-2100

09/24/2021

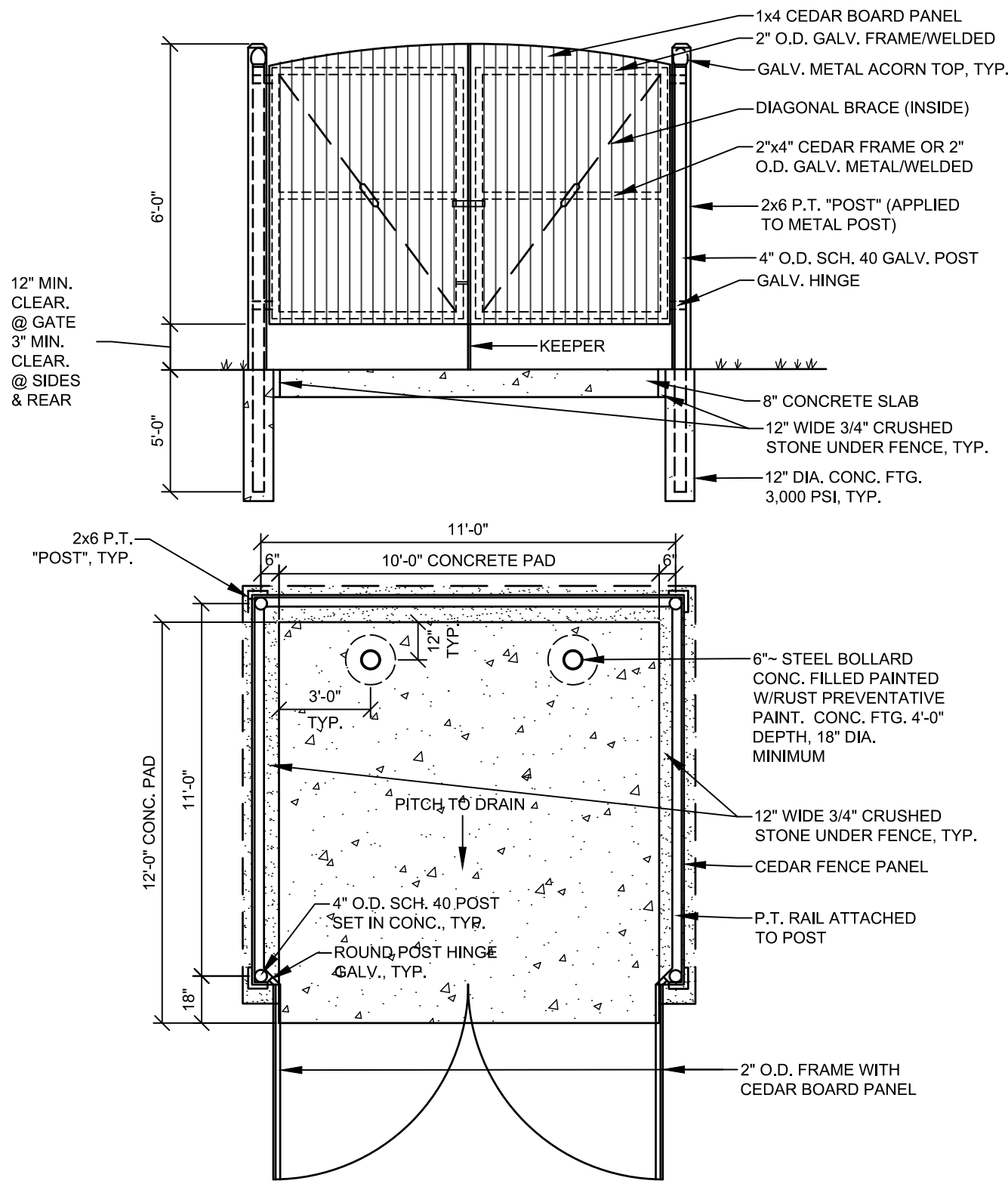
DETAIL 1

OF: VIP MCALISTER
33 MCALISTER FARM ROAD
PORTLAND, ME 04101

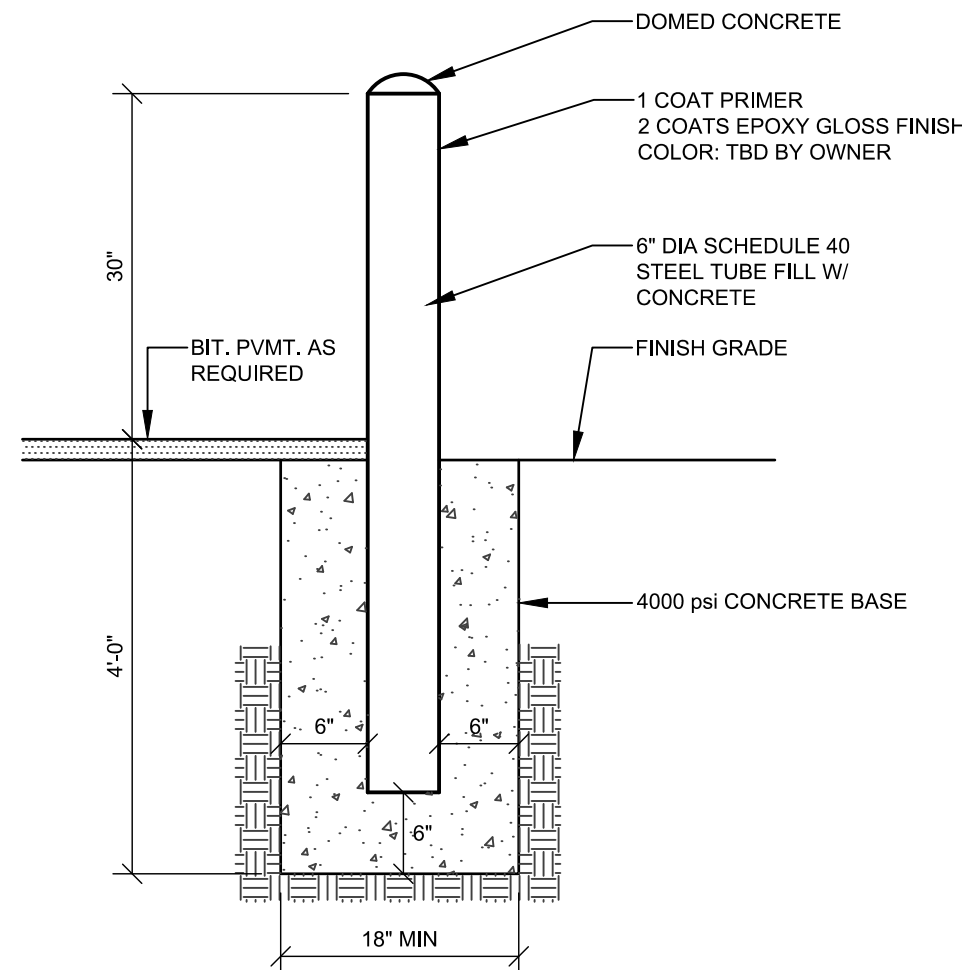
FOR: QUIRK AUTOMOTIVE CORPORATION
24 HARRIMAN DRIVE
AUBURN, ME 04210

DESIGNED	HAH
DRAWN	SRC
CHECKED	HAH
DATE	09-24-21
SCALE	NTS
PROJECT	20576

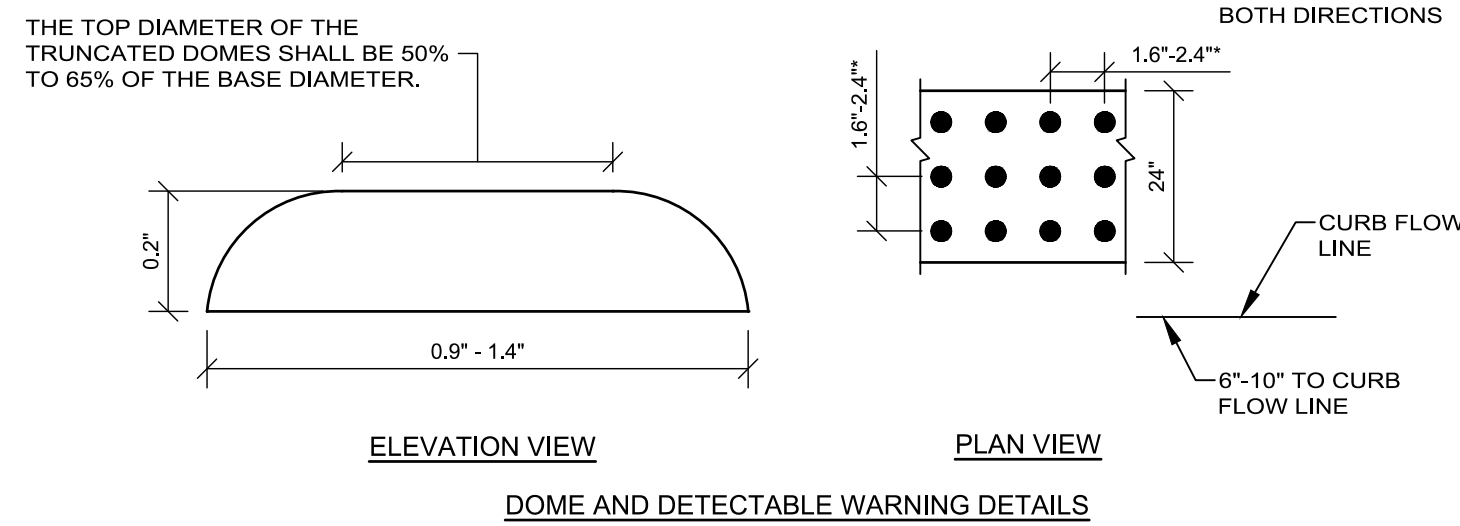
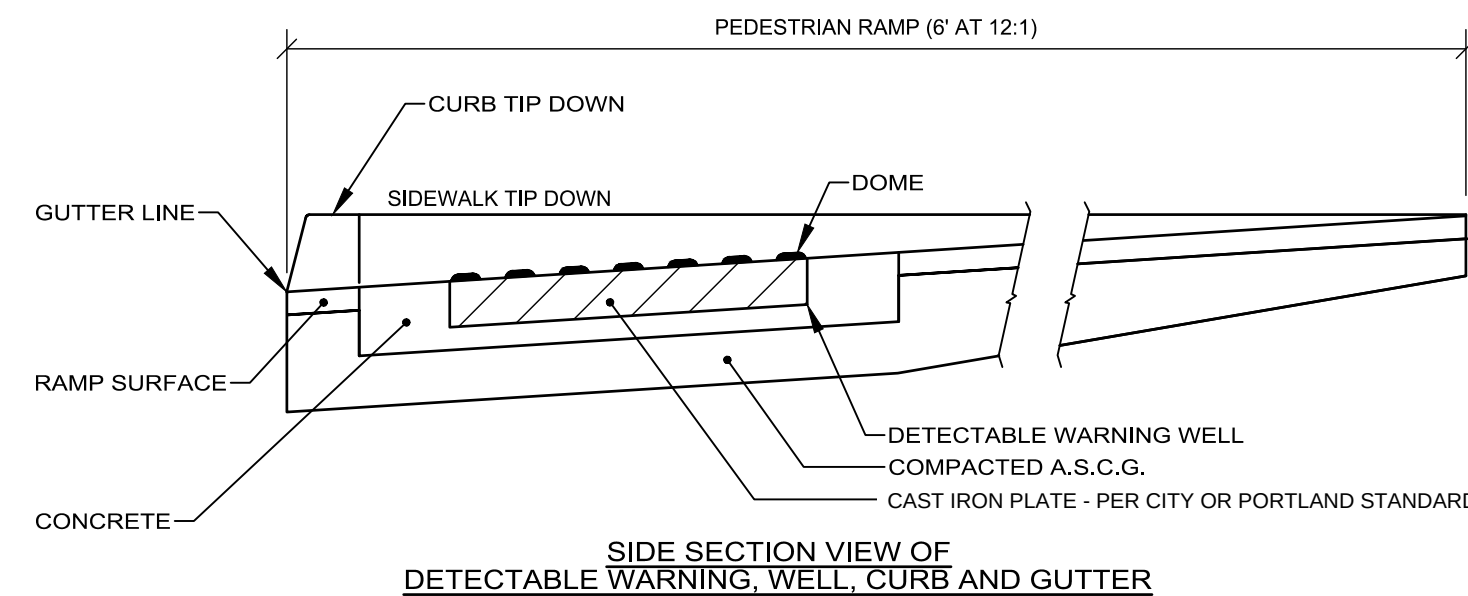
SHEET 9 OF 13



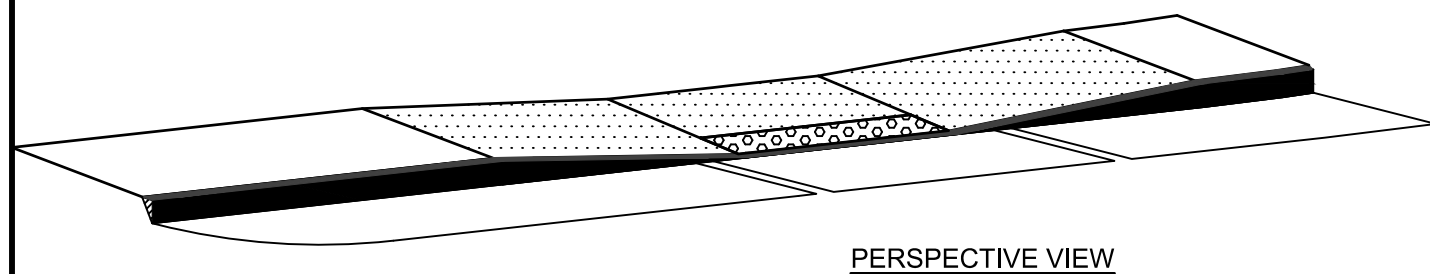
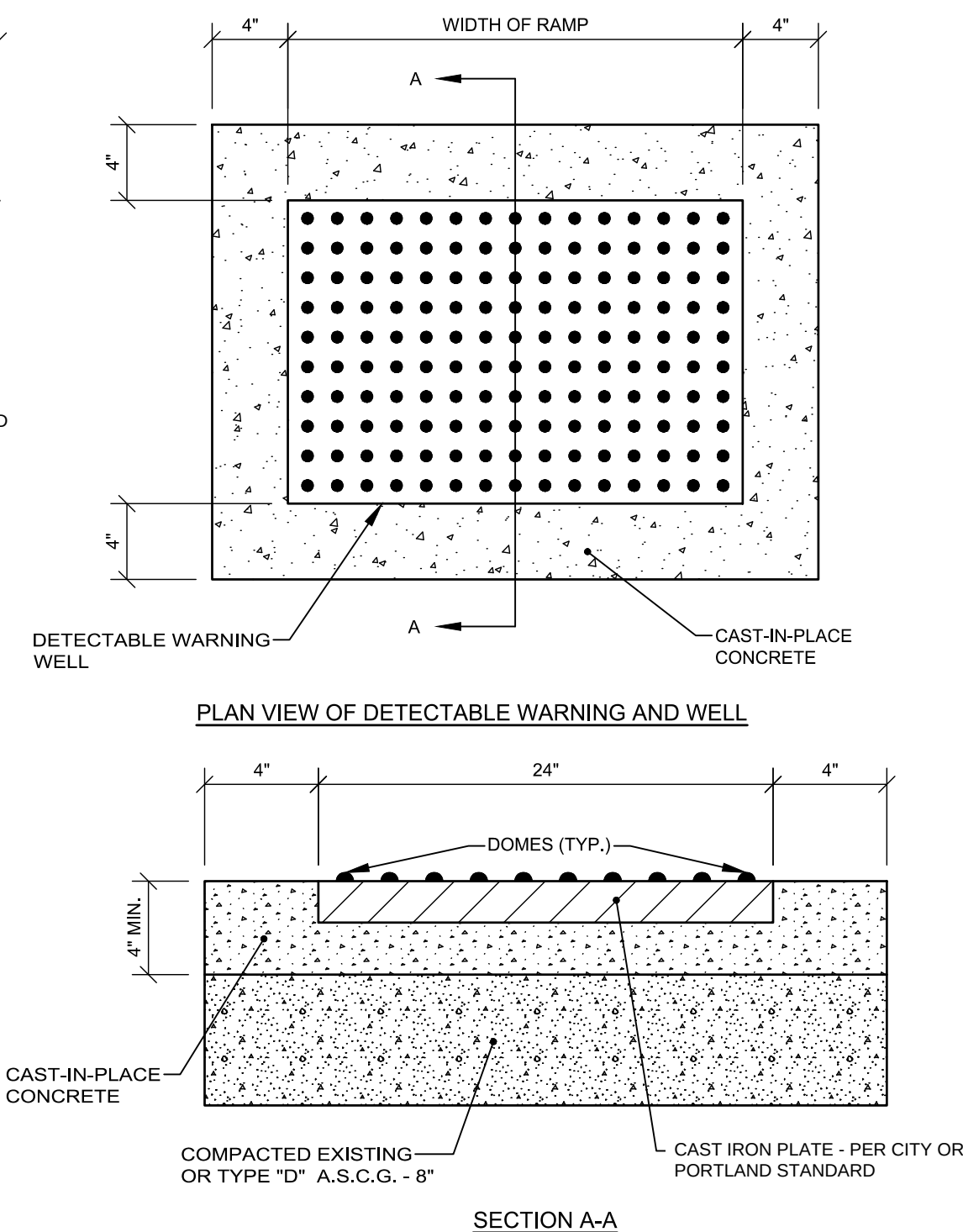
DUMPSTER ENCLOSURE
NOT TO SCALE



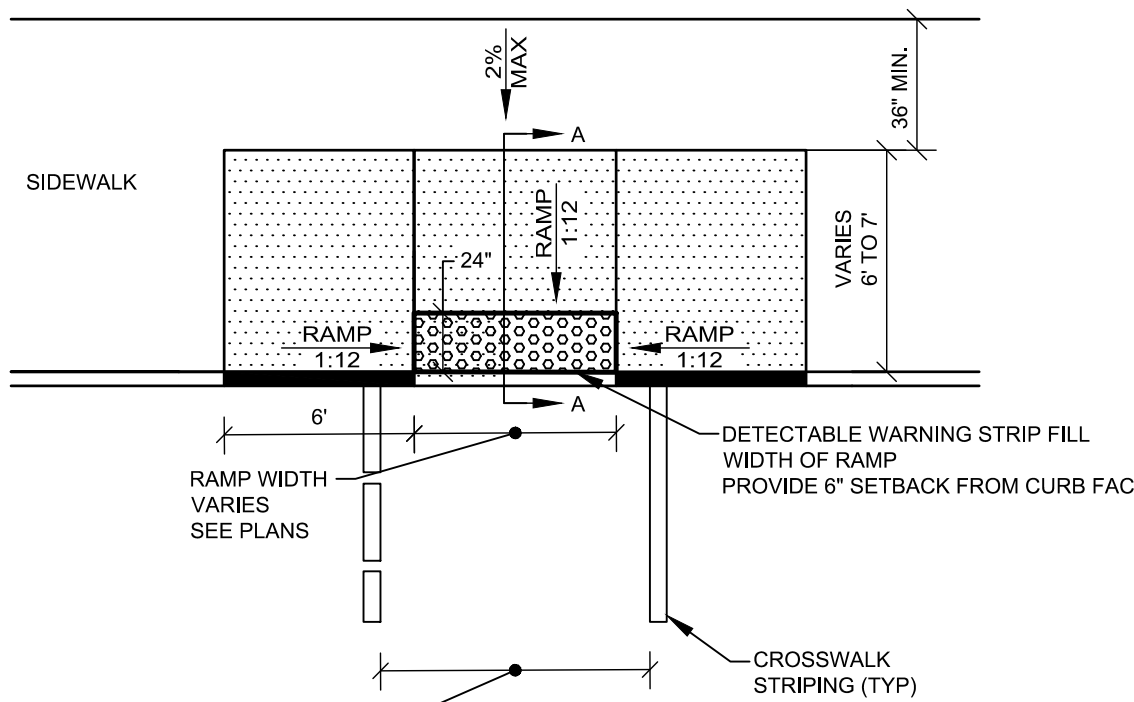
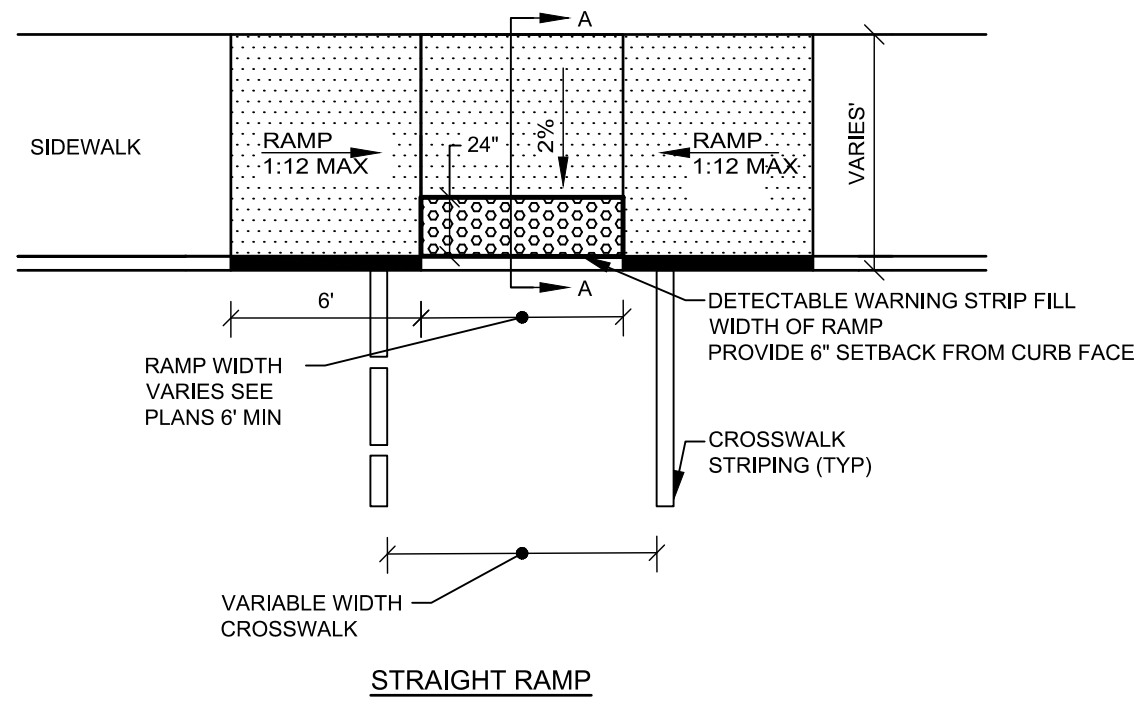
METAL DOMED CONCRETE BOLLARD
NOT TO SCALE



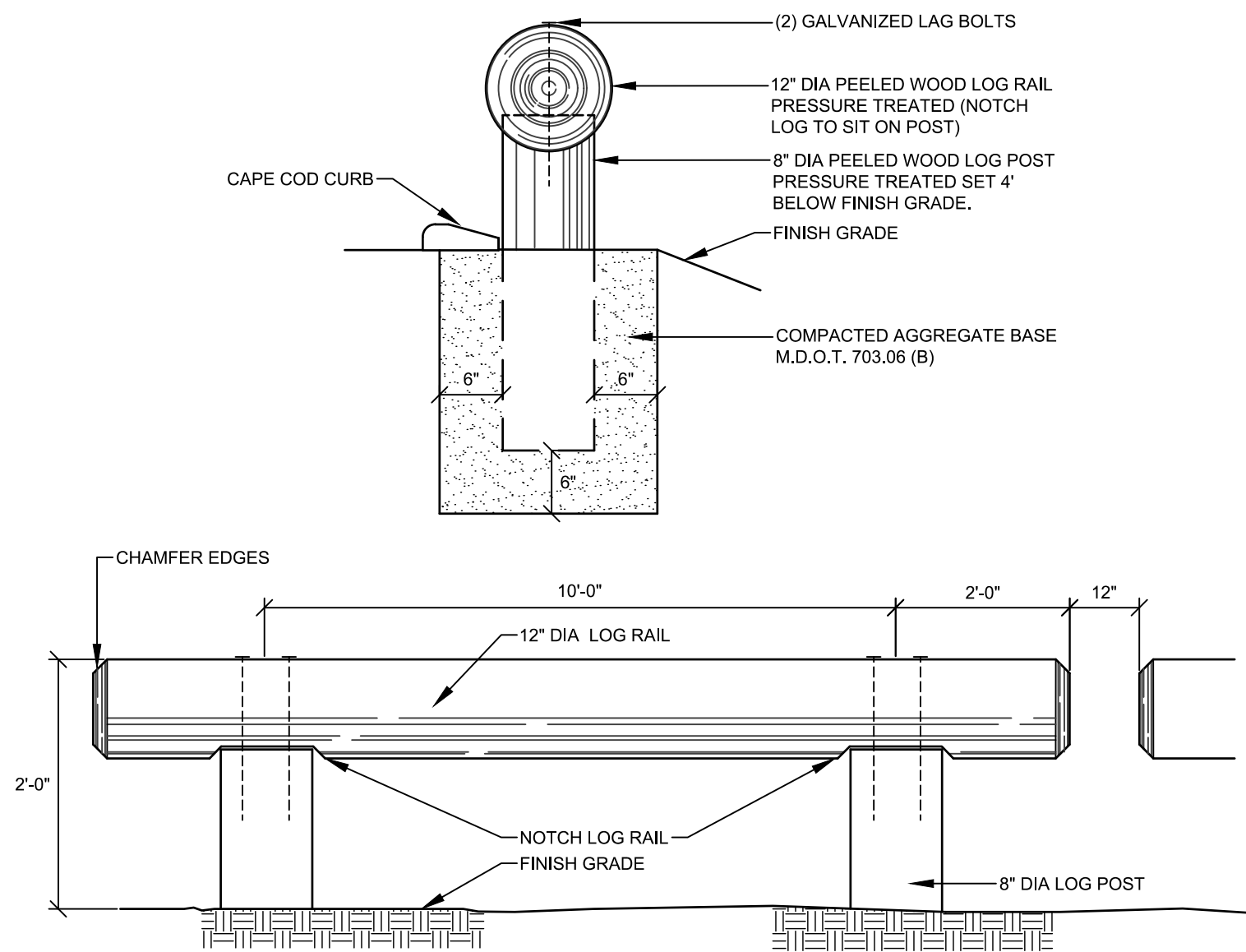
TRUNCATED DOME PAVING
NOT TO SCALE



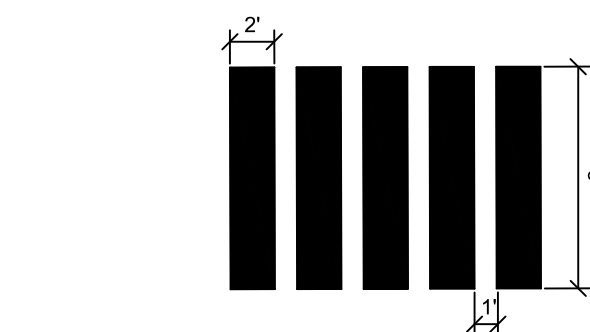
PERSPECTIVE VIEW



PEDESTRIAN RAMPS
NOT TO SCALE

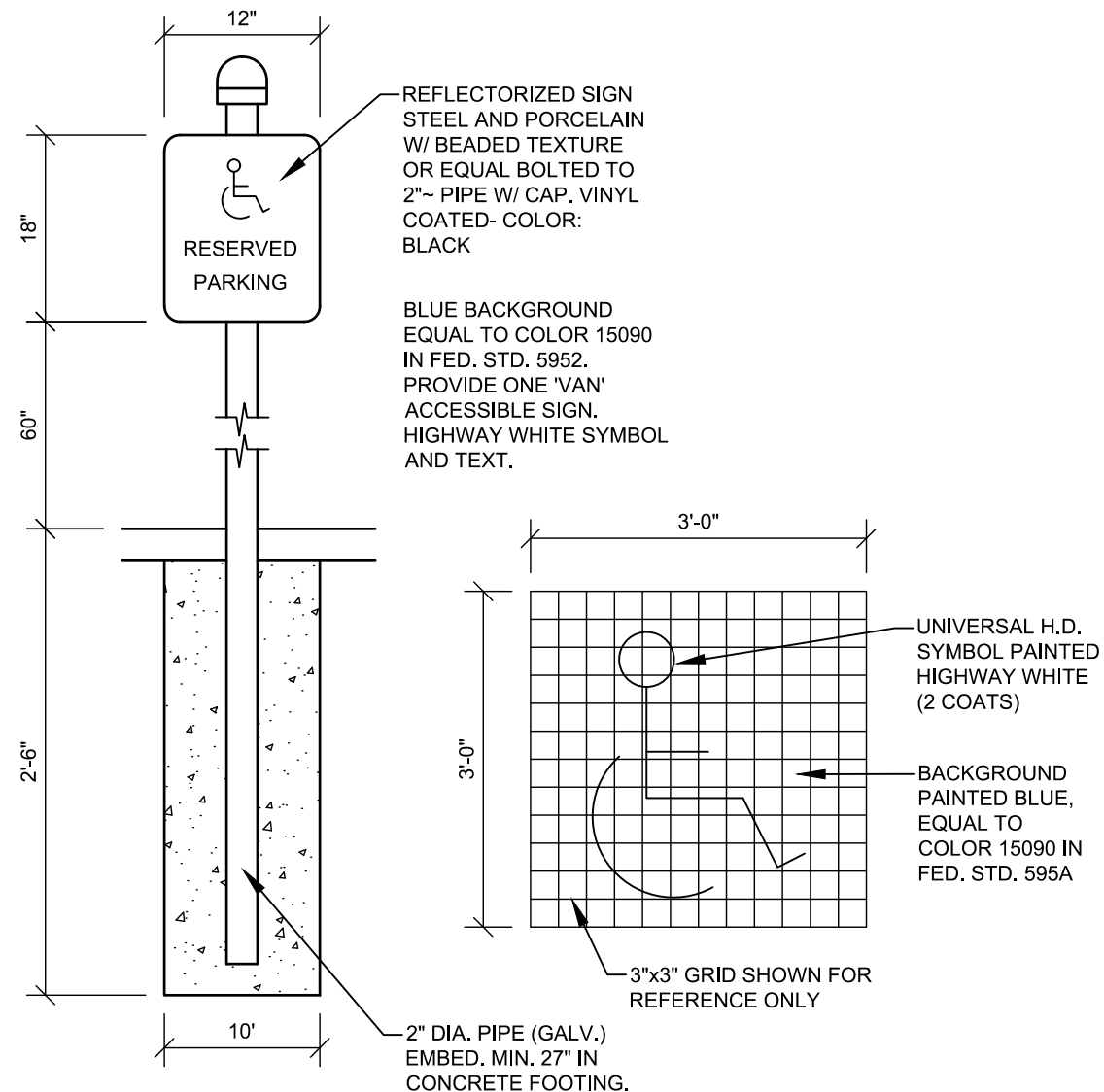


LOG RAIL WOOD GUARDRAIL
NOT TO SCALE

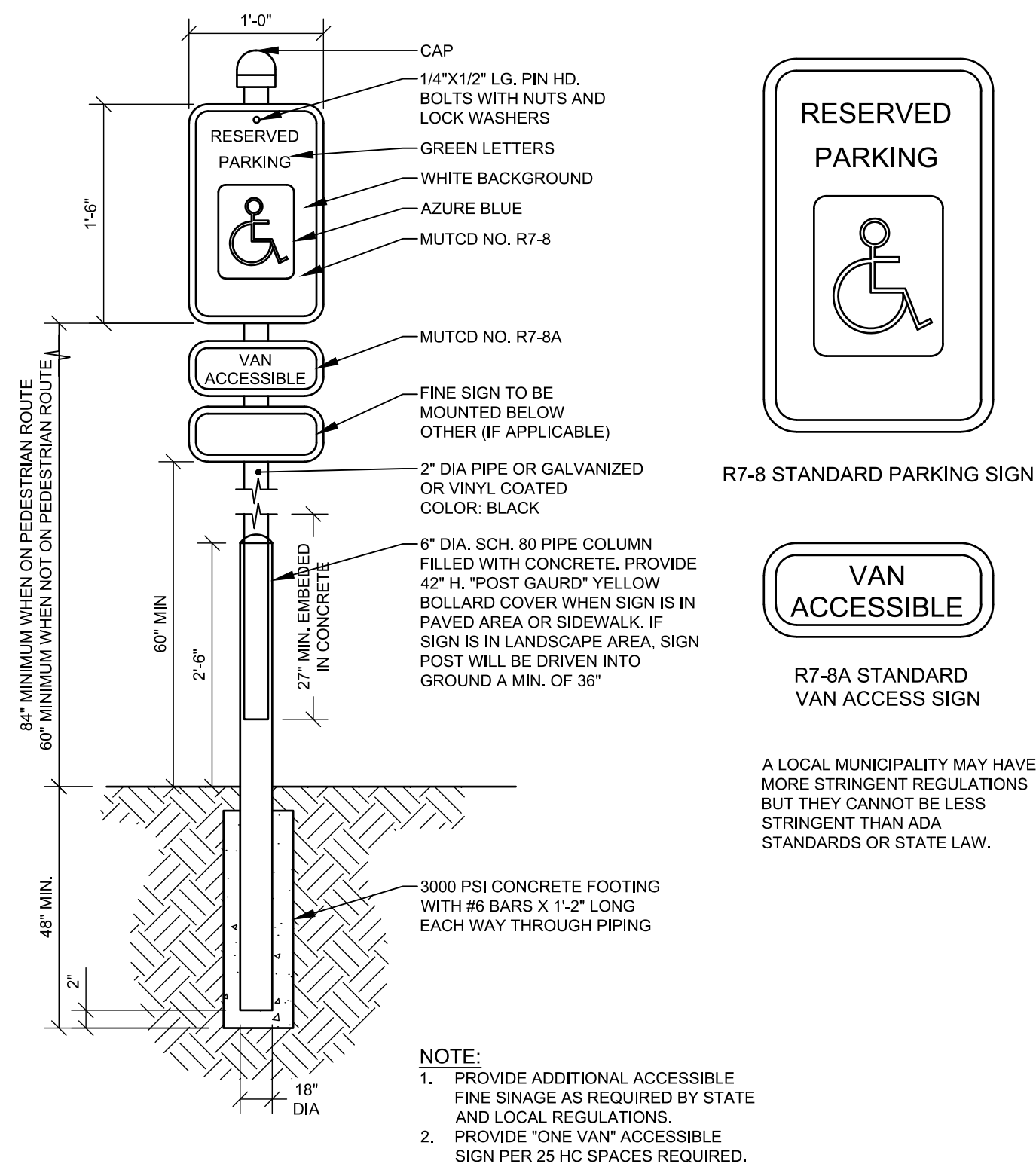


- PAVEMENT MARKING NOTES**
1. ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, U.S. DOT, FHWA, LATEST EDITION.
 2. ALL PAVEMENT MARKING LINES SHALL BE PAINT AND 4" WIDE, EXCEPT FOR:
SWSL-12"
SYCL-12"
CROSSWALK BARS - 24"
 3. PAVEMENT WORD AND SYMBOL MARKINGS SHALL BE WHITE PAINT.
 4. SOLID WHITE STOP LINE SHALL BE A MINIMUM OF 4' BEHIND THE EDGE OF CROSSWALK.

CROSSWALK DETAIL
NOT TO SCALE



ADA ACCESSIBLE SIGNS
NOT TO SCALE



**RESERVED PARKING SIGN
(POLE MOUNTED)**
NOT TO SCALE

PROGRESS
PRINT

HENRY A. HESS, RLA 4841



09/24/2021

REV	BY	DATE	STATUS
A	HAH	09/24/21	UPLOAD TO THE CITY OF PORTLAND FOR MINOR SITE PLAN REVIEW
REV	BY	DATE	STATUS
REV	BY	DATE	STATUS

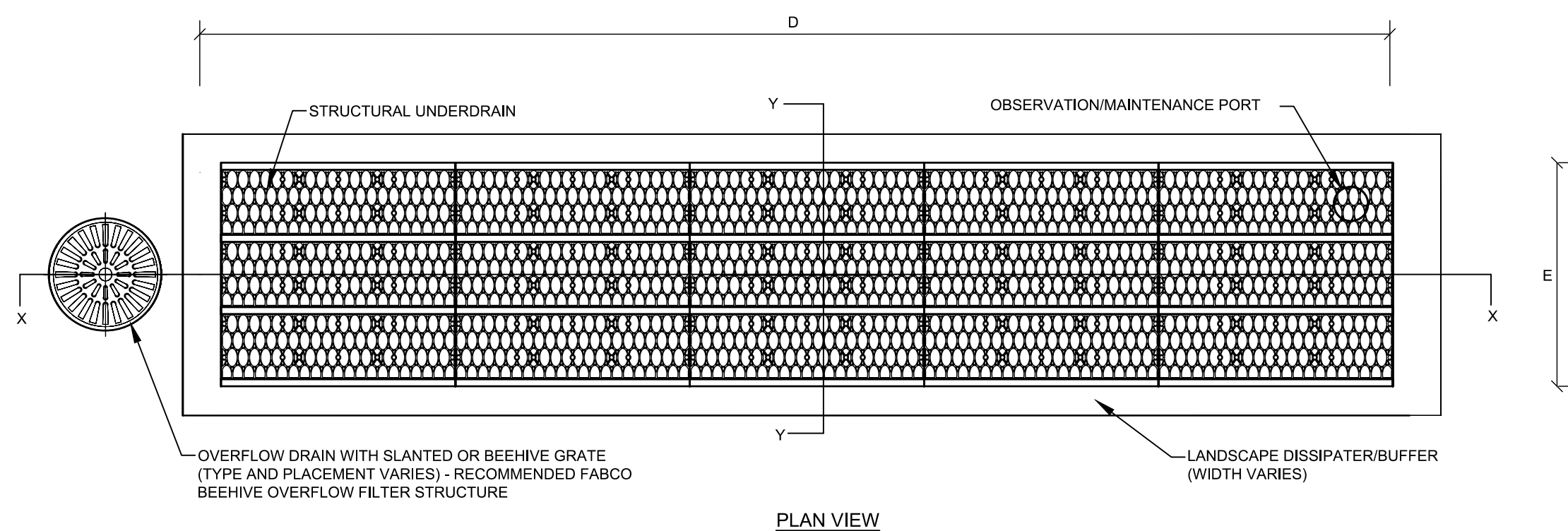
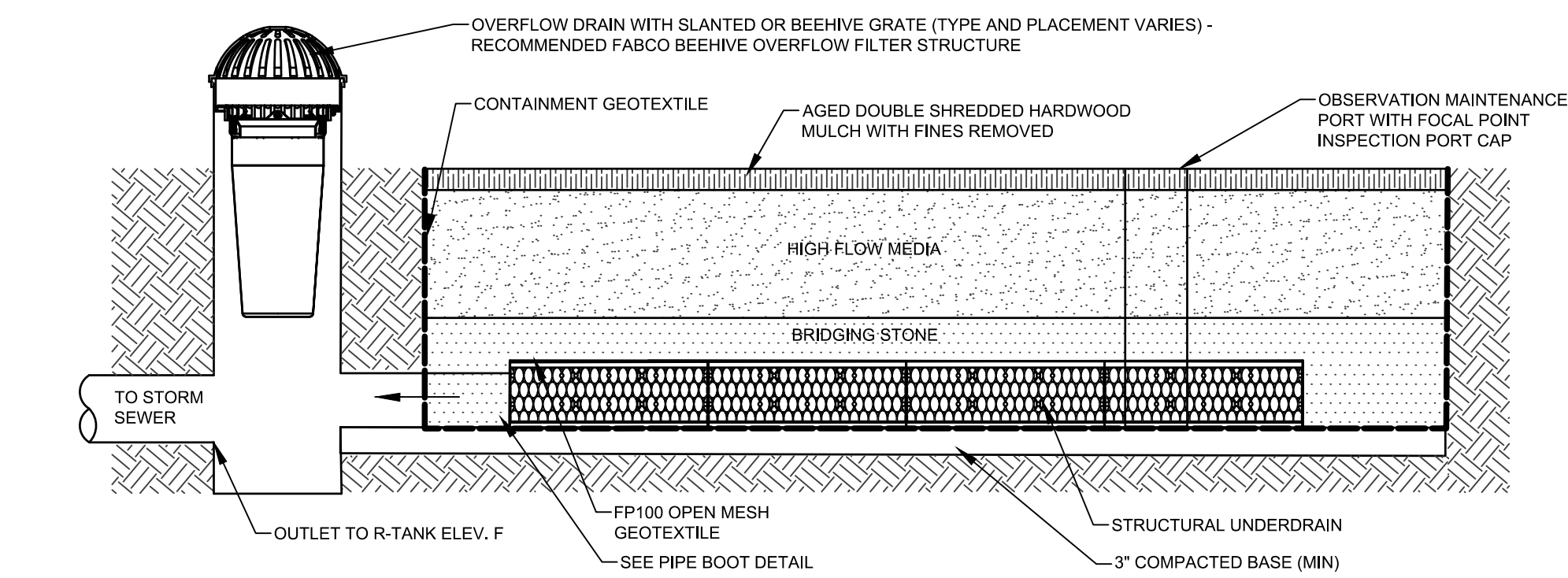
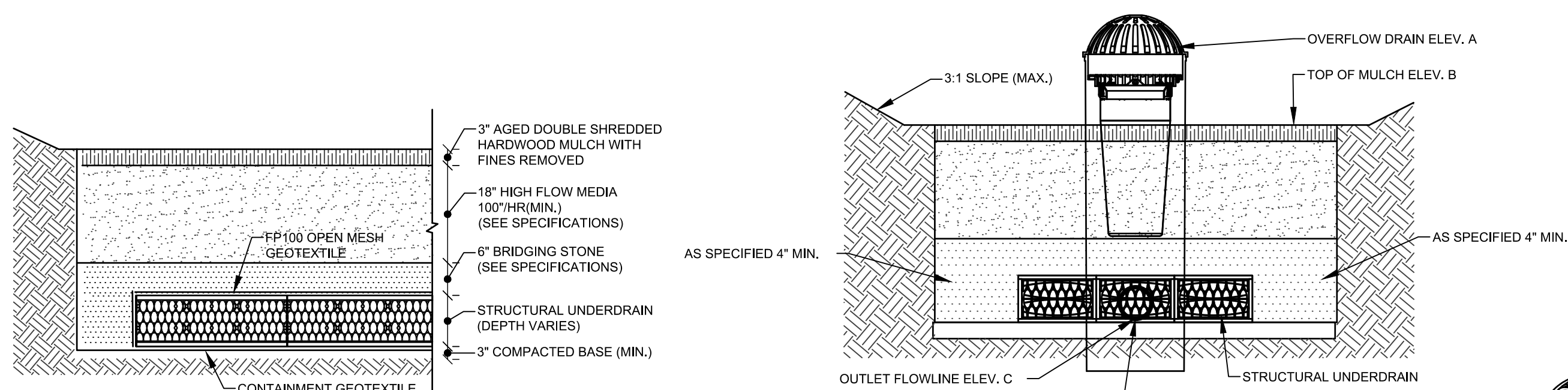
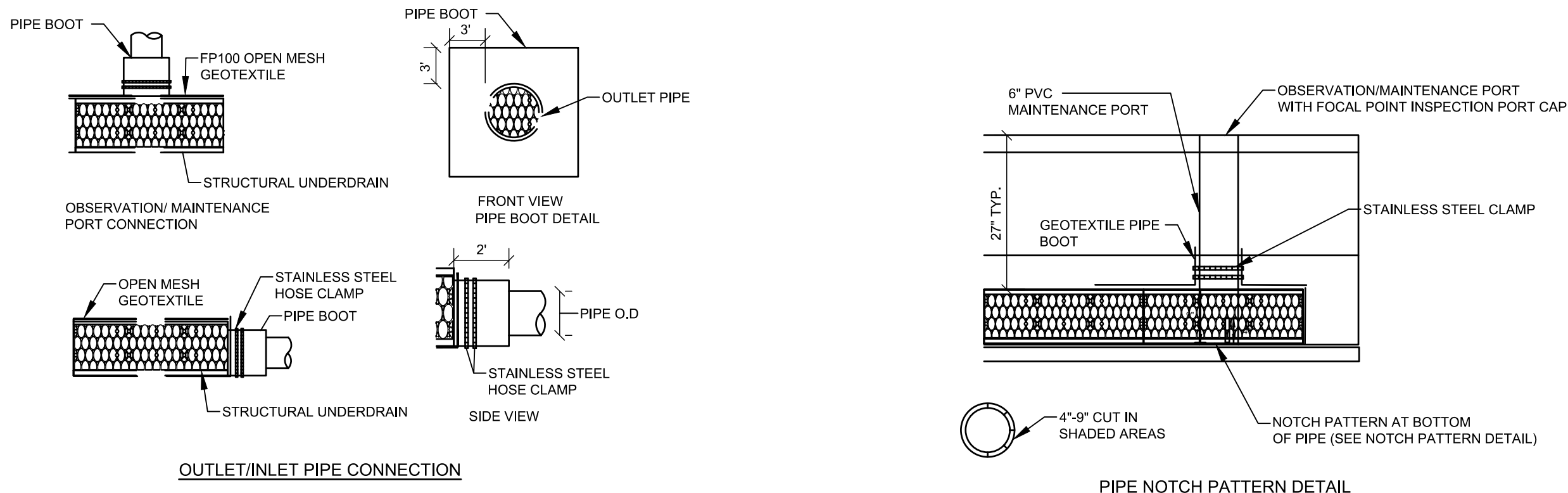
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHINCS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHINCS, INC.



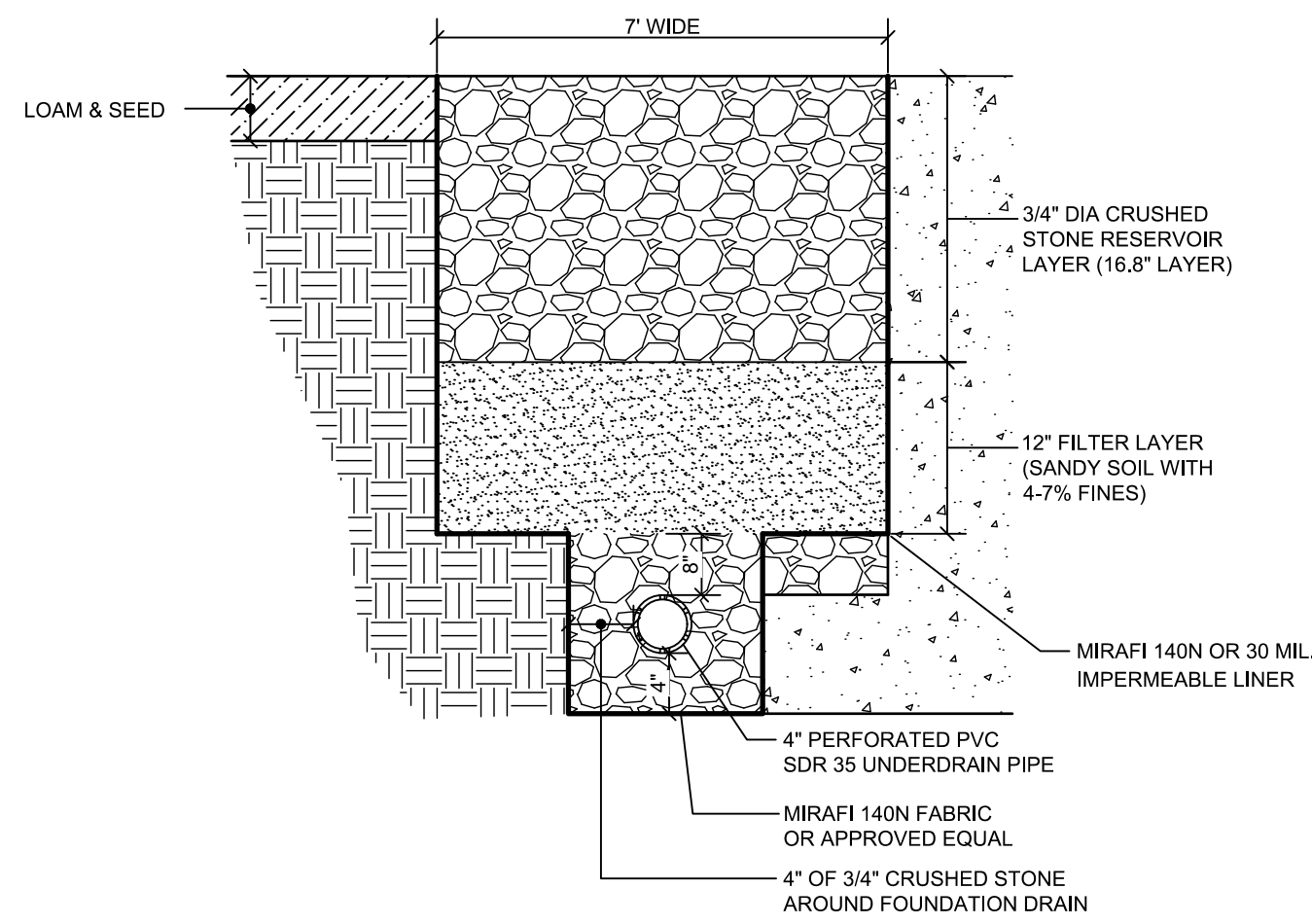
DETAIL 2
OF:
VIP MCALISTER
33 MCALISTER FARM ROAD
PORTLAND, ME 04101
FOR:
QUIRK AUTOMOTIVE CORPORATION
24 HARRIMAN DRIVE
ALBURN, ME 04210

DESIGNED	HAH
DRAWN	SRC
CHECKED	HAH
DATE	09-24-21
SCALE	NTS
PROJECT	20576

SHEET10 OF 13



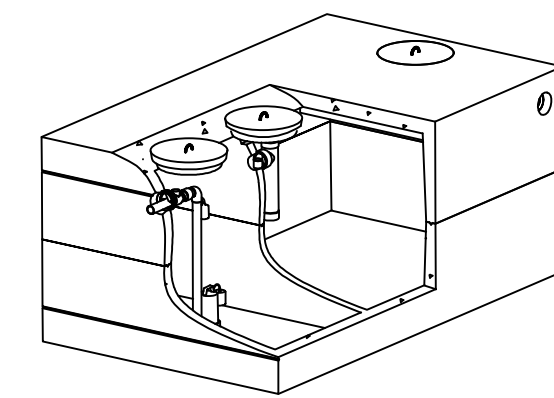
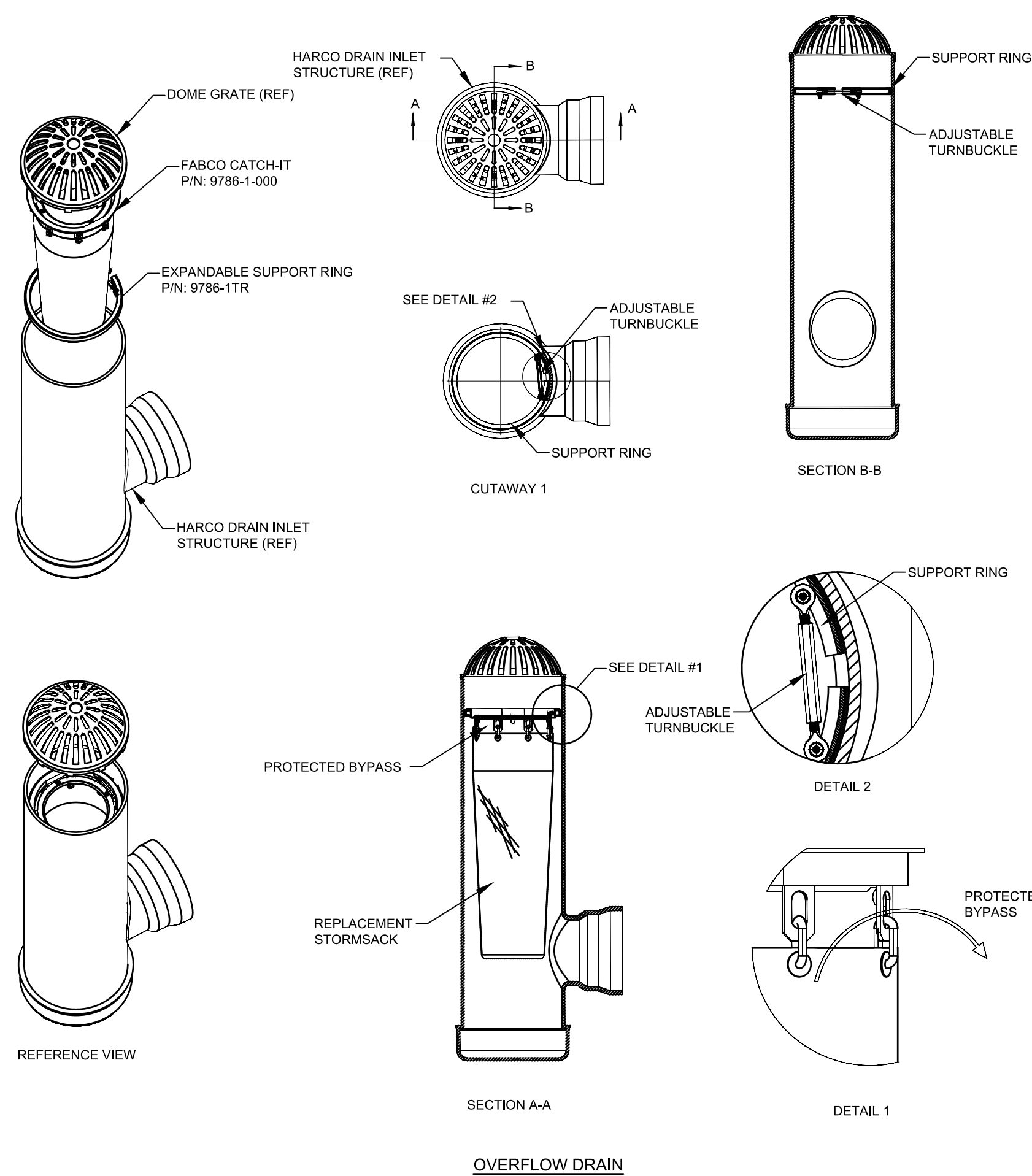
FOCAL POINT DETAIL
NOT TO SCALE



NOTE:
1. ADD PATIO PAVER "SPASH BLOCK" AT DOWNSPOUT LOCATION.
2. DRIP EDGE FILTERS MARKED WITH AN ASTERISK (*) WILL REQUIRE A 30 MIL. IMPERMEABLE LINER IN LIEU OF MIRAFI 140N FABRIC OR APPROVED EQUAL.

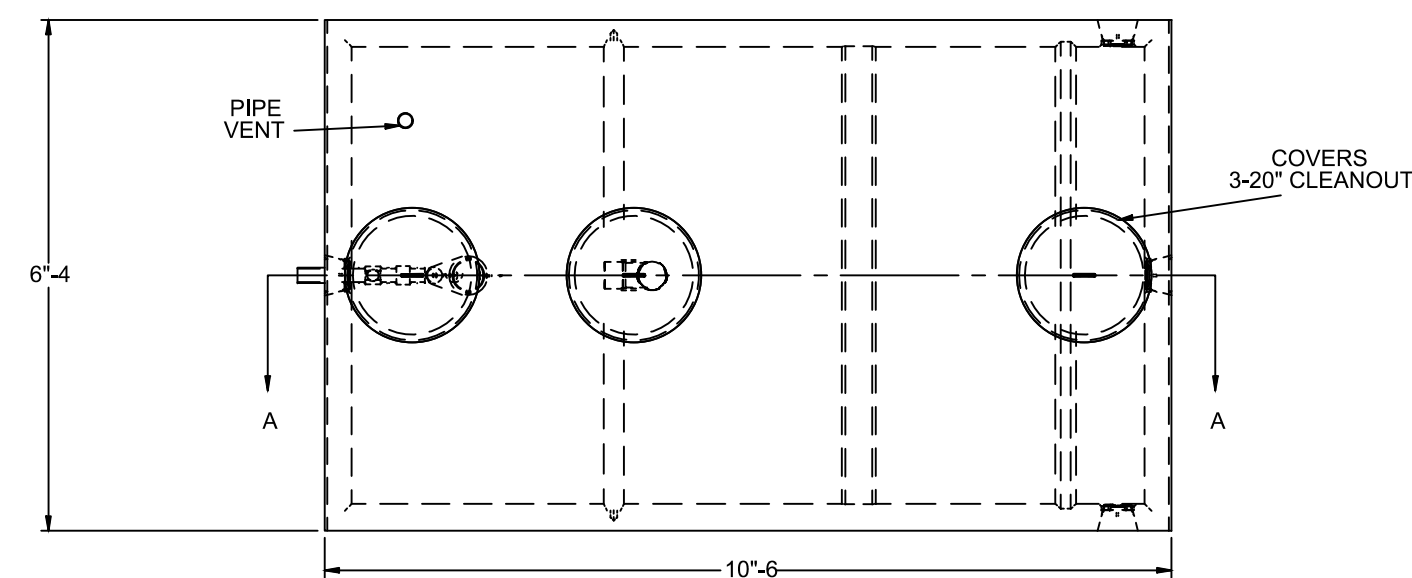
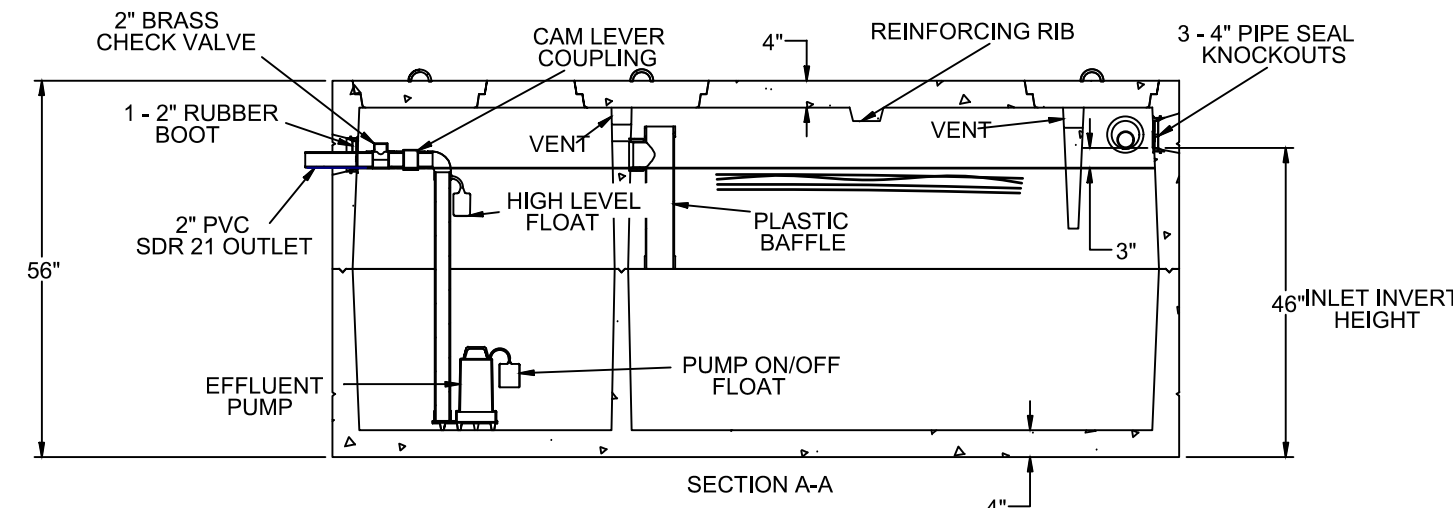
BUILDING DRIP EDGE FILTER
NOT TO SCALE

FOCAL POINT CONSTRUCTION TABLE						
	ELEV. A	ELEV. B	INV. C	DIST D	DIST E	INV. F
FOCAL POINT 1	47.90'	47.50'	44.00'	12.50'	2.00'	43.70'
FOCAL POINT 2	47.80'	47.00'	44.00'	10.00'	2.00'	43.90'

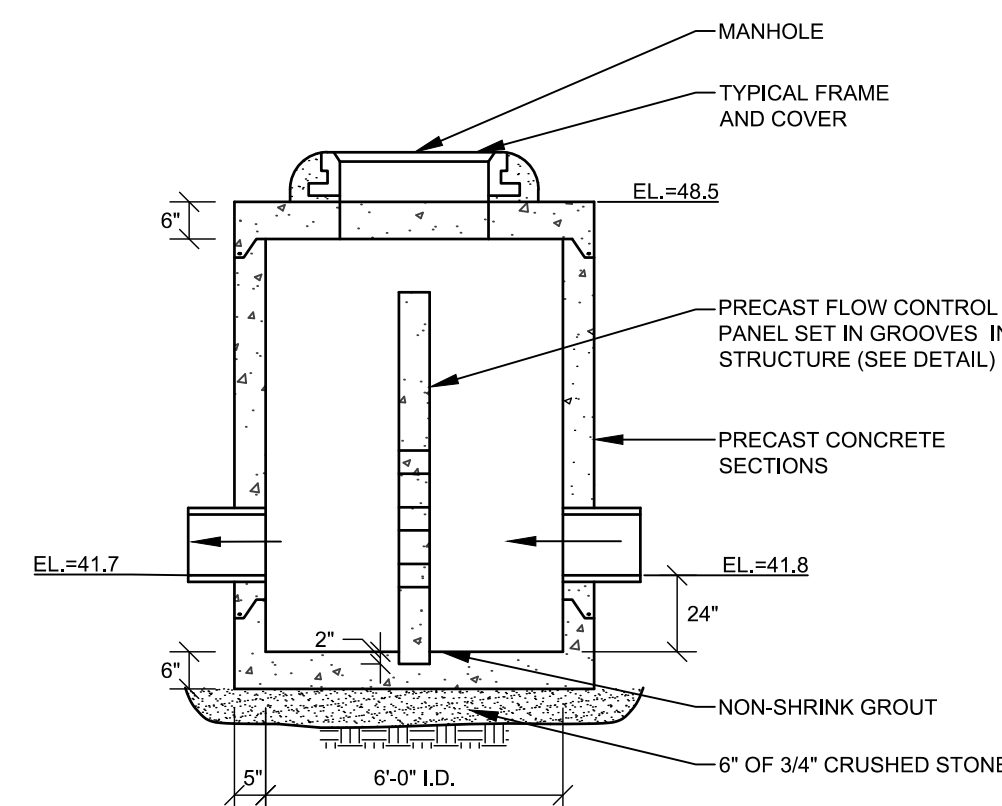


1000/250
TANK CAPACITY GALS.

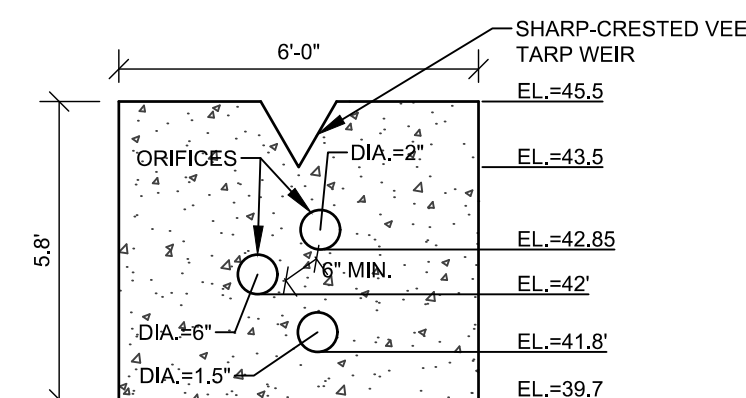
1. WEIGHT = 10500 LBS.
2. CONCRETE: 4000 PSI AFTER 28 DAYS
3. REINFORCING: 6X6 10/10 W.W.M. & FIBERS
4. KEYED JOINT SEALED WITH BUTYL RUBBER
5. EXCAVATION MUST BE AT LEAST 12" WIDER AND LONGER THAN TANK SIZE.
6. HD SEPTIC TANK TOPS ARE 6" THICK REINFORCED WITH 5/8" REBAR @12" O.C. EACH WAY



1250 2 COMPARTMENT SEPTIC PUMP TANK
NOT TO SCALE



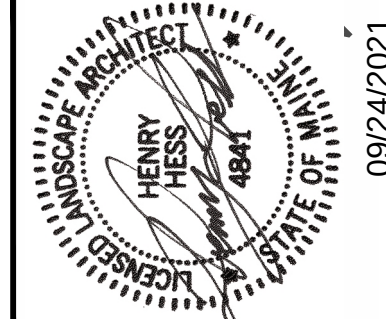
OUTLET STRUCTURE DETAIL
NOT TO SCALE



PRECAST FLOW CONTROL PANEL
NOT TO SCALE

PROGRESS
PRINT

HENRY A. HESS, RLA 4841



REV	BY	DATE	STATUS
A	HAH	09/24/21	UPLOAD TO THE CITY OF PORTLAND FOR MINOR SITE PLAN REVIEW



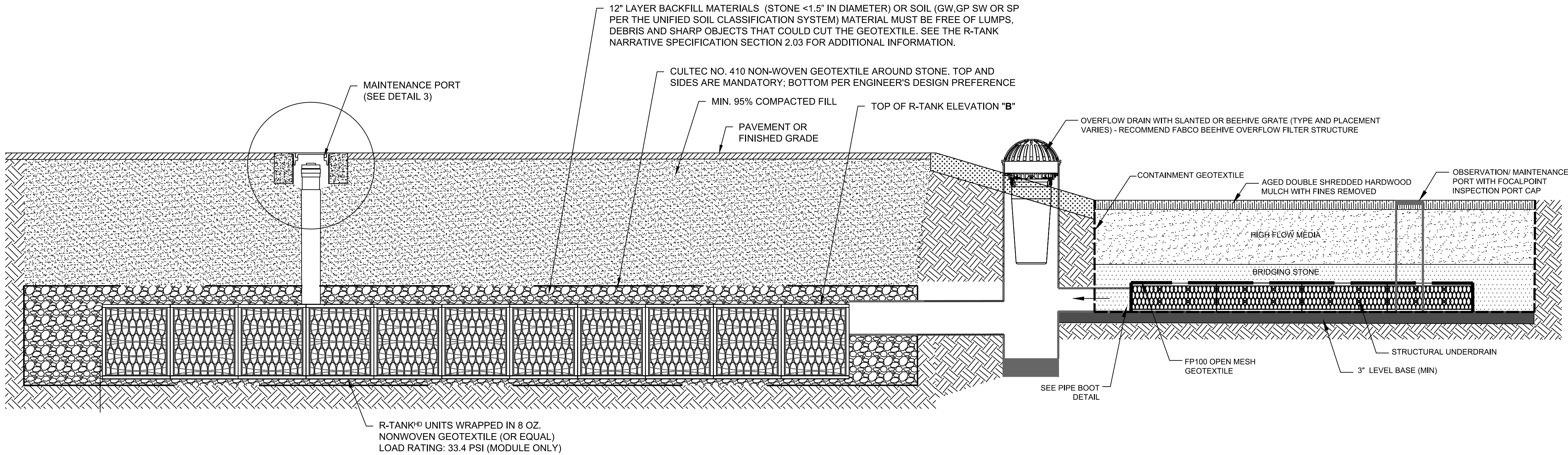
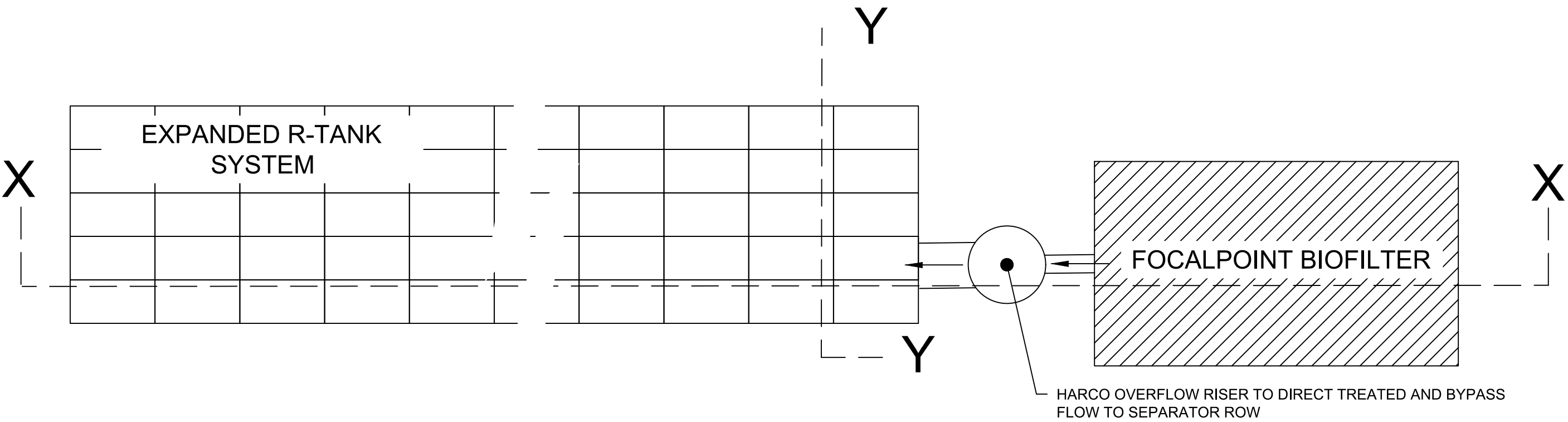
DETAIL 3
OF:
VIP MCALISTER
33 MCALISTER FARM ROAD
PORTLAND, ME 04101
FOR:
QUIRK AUTOMOTIVE CORPORATION
24 HARRIMAN DRIVE
AUBURN, ME 04210

DESIGNED	HAH
DRAWN	SRC
CHECKED	HAH
DATE	09-24-21
SCALE	NTS
PROJECT	20576

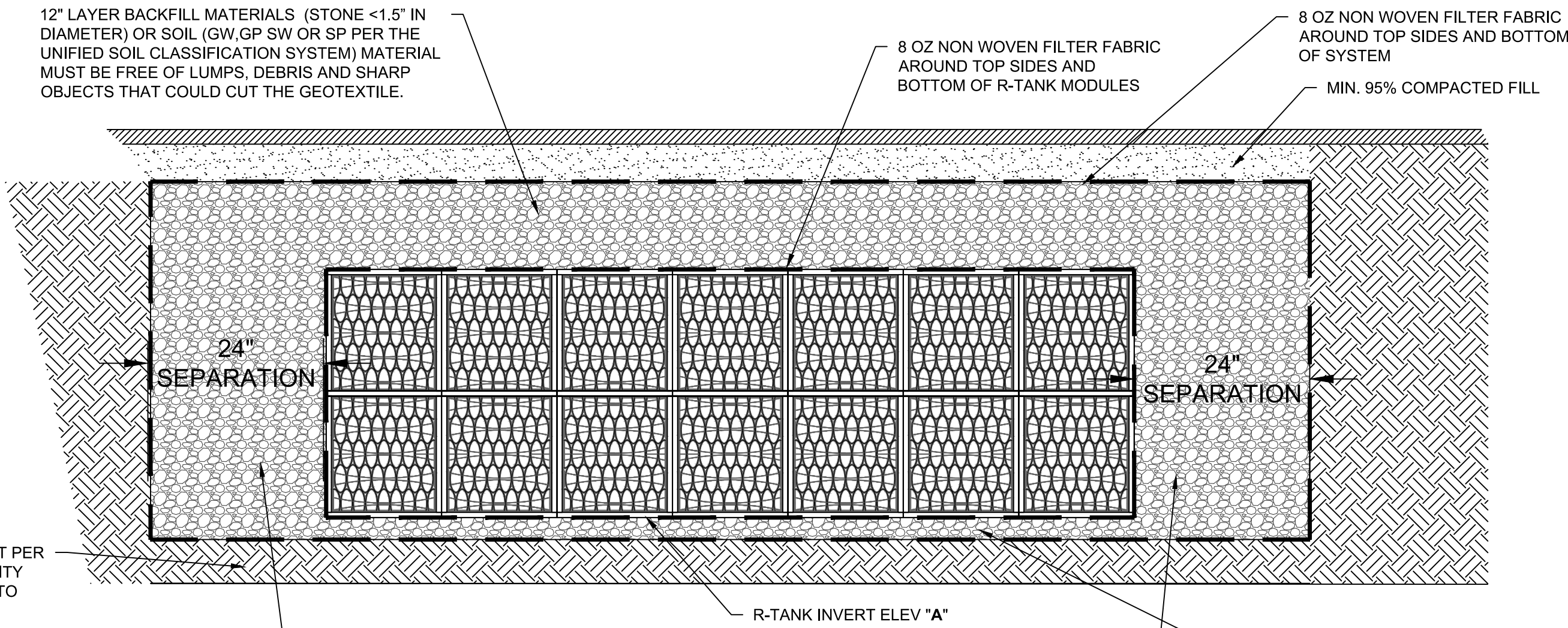
SHEET11 OF 13

FLOW/COMPONENT SCHEMATIC

R-TANK KEY DIMENSIONAL DATA		
A	R-TANK INVERT	41.85'
B	TOP OF R-TANK ELEVATION	44.67'
	NUMBER OF R-TANKS	756 (21 x 36)
	R-TANK MODULE	SIZE 2

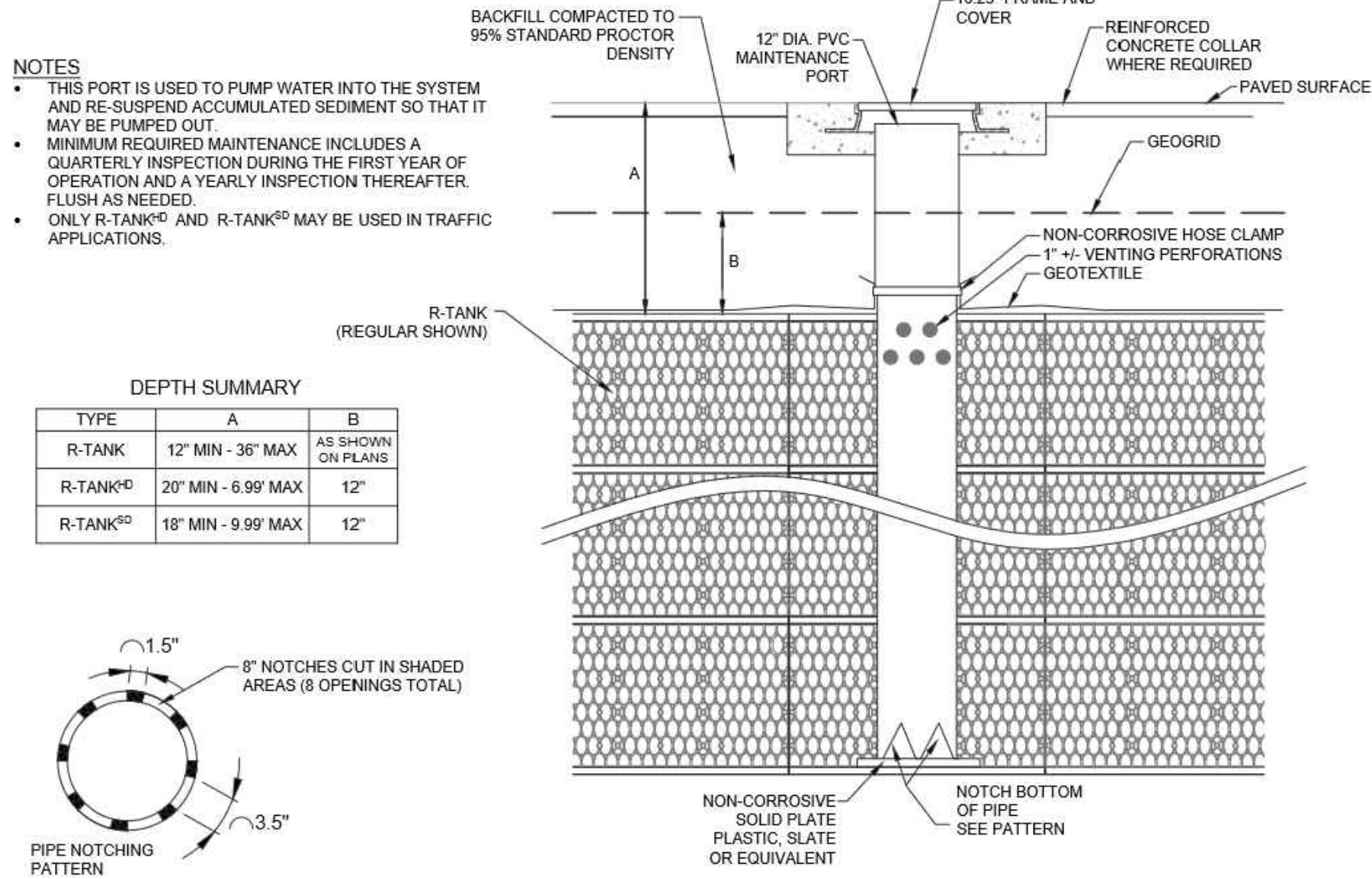


SECTION X-X (NTS)



SECTION Y-Y

MAINTENANCE PORT



PROGRESS
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South Portland, ME 04106
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DETAIL 4

OF:
VIP MCALISTER
33 MCALISTER FARM ROAD
PORTLAND, ME 04101

FOR:
QUIRK AUTOMOTIVE CORPORATION
24 HARRIMAN DRIVE
AUBURN, ME 04210

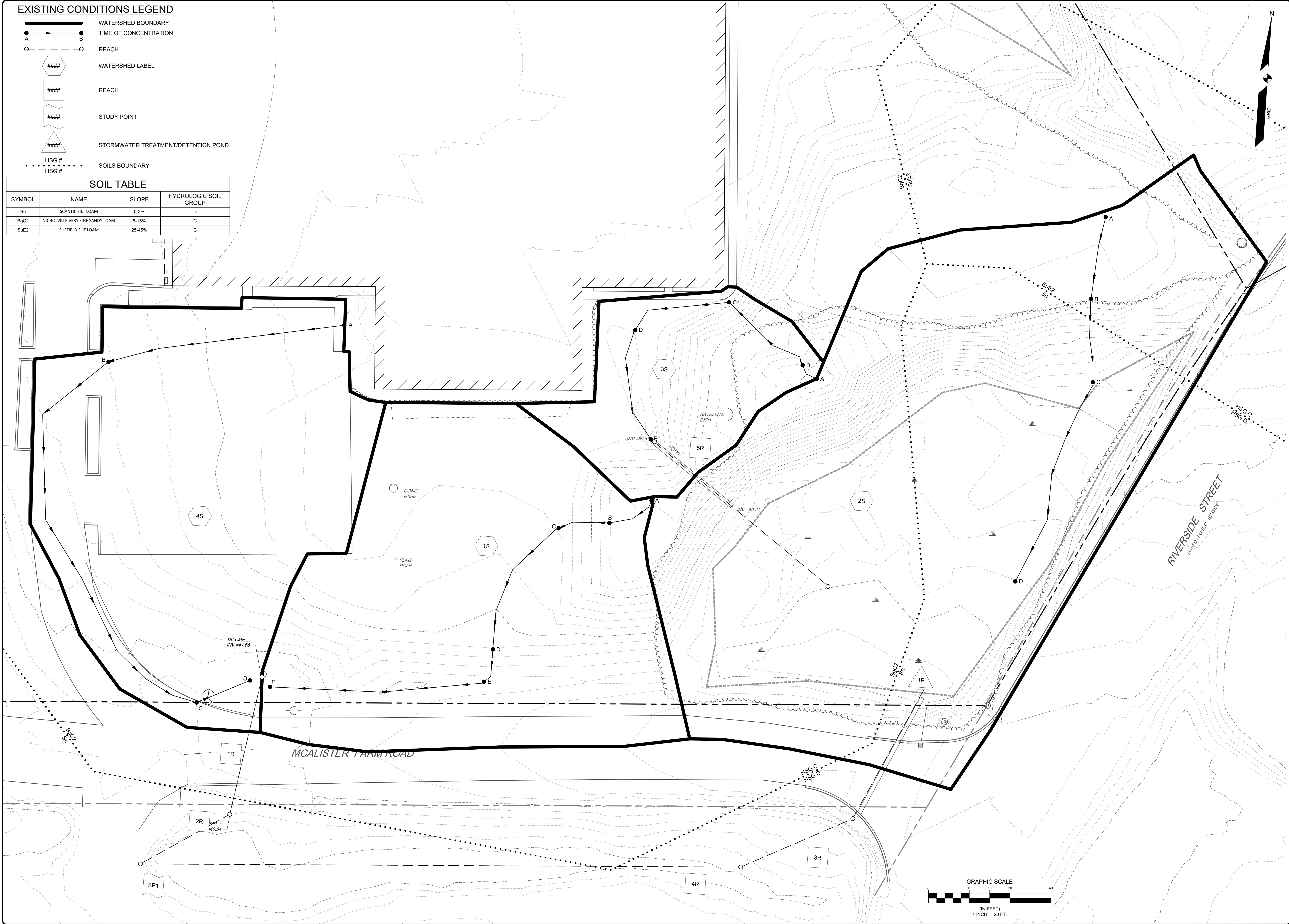
DESIGNED	HAH
DRAWN	SRC
CHECKED	HAH
DATE	09-24-21
SCALE	NTS
PROJECT	20576

SHEET12 OF 13

*MAX BYPASS FLOW IS INTERNAL WEIR FLOW . SITE SPECIFIC ANALYSIS IS REQUIRED TO DETERMINE CURB INLET FLOW CAPACITY



MEET13 OF13



20576 SWP.dwg, TAB PRE

EXISTING CONDITIONS WATERSHED PLAN

OF:
VIP McALISTER
33 McALISTER FARM ROAD
PORTLAND, ME 04101

FOR:
QUIRK AUTOMOTIVE CORPORATION
24 HARRIMAN DRIVE
AUBURN, ME 04210

DESIGNED	HAH
DRAWN	SRC
CHECKED	HAH
DATE	09-24-21
SCALE	1" = 20'
PROJECT	20576

SHEET 1 OF 2

PAUL D. OSTROWSKI, P.E. #11175

STATE OF MAINE
PAUL D. OSTROWSKI, P.E. #11175
PROFESSIONAL ENGINEER
LICENSED 09/24/2021

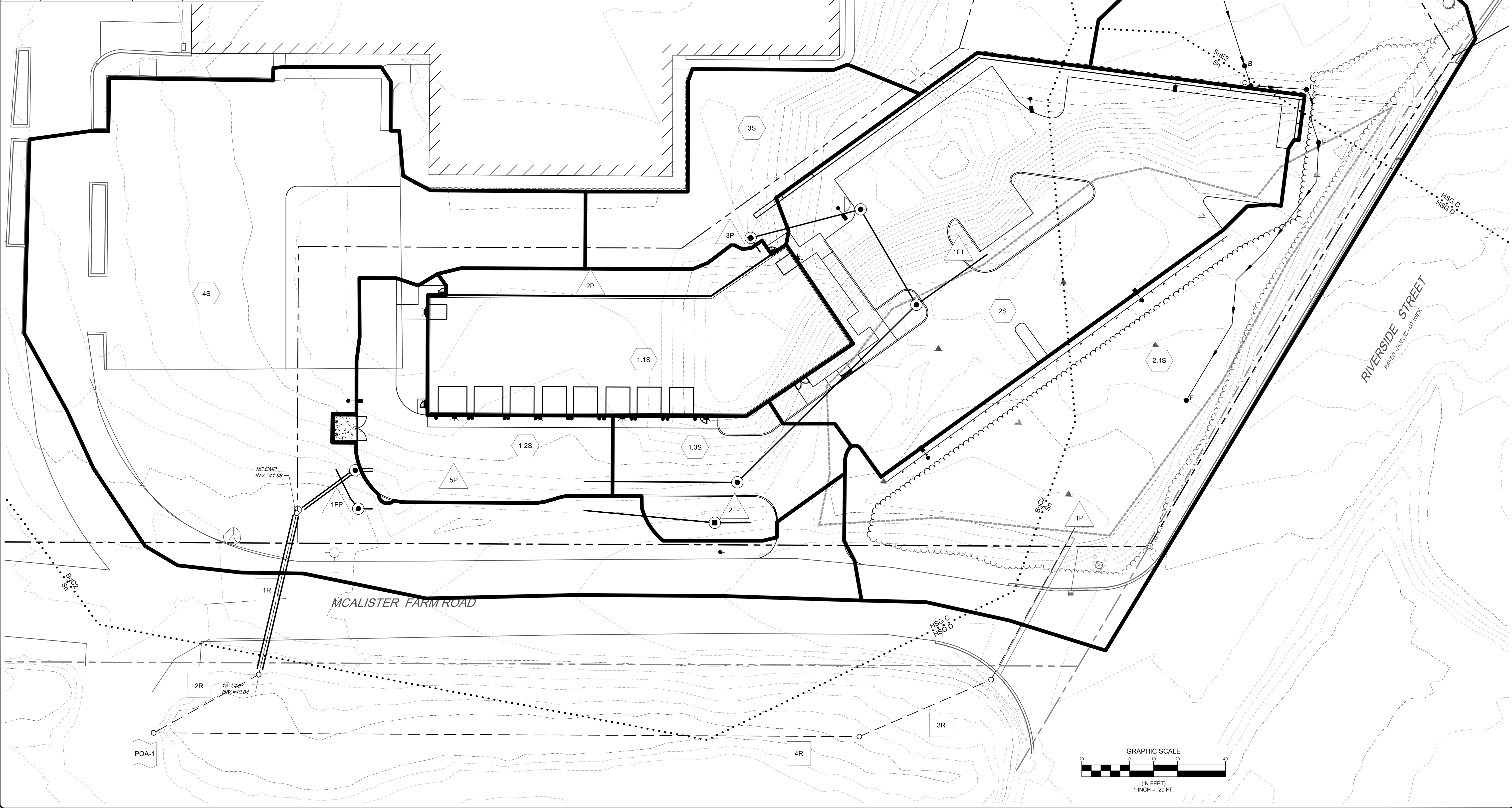
PROGRESS PRINT

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20576 SWP.dwg, TAB PRE

	WATERSHED BOUNDARY
	TIME OF CONCENTRATION
	REACH
	WATERSHED LABEL
	REACH
	STUDY POINT
	STORMWATER TREATMENT/DETENTION POND
	SOILS BOUNDARY

SOIL TABLE			
SYMBOL	NAME	SLOPE	HYDROLOGIC SOIL GROUP
Sn	SCANTIC SILT LOAM	0-3%	D
BgC2	NICHOLVILLE VERY FINE SANDY LOAM	8-15%	C
SuE2	SUFFIELD SILT LOAM	25-45%	C



PROGRESS
PRINT

STATE OF MAINE
PAUL D. OSTROWSKI
No. 11175
LICENSED PROFESSIONAL ENGINEER
09/24/2021

[illegible]

SEBAGO
T E C H N I C S
WWW.SEBAGOTECHNICS.COM

75 John Roberts Rd.
Suite 140
South Plainfield, NJ 07080
Tel. 201-200-2100

PROPOSED CONDITIONS WATERSHD PLAN

OF: **VIP McALISTER**
30 McALISTER FARM ROAD
PORTLAND, ME 04101

FOR: **QUIRK AUTOMOTIVE CORPORATION**
24 HARRIMAN DRIVE
AUBURN, ME 04210

DESIGNED	HAH
DRAWN	SRC
CHECKED	HAH
DATE	09-24-21
SCALE	1" = 20'
PROJECT	20576

SHEET 2 OF 2

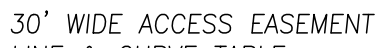


DIMENSIONAL STANDARDS	
MINIMUM STREET FRONTAGE	60 FEET
MINIMUM FRONT SETBACK	1 FT. FOR EACH FT. OF BUILDING HEIGHT
MINIMUM REAR SETBACK	1 FT. FOR EACH FT. OF BUILDING HEIGHT UP TO 25', EXCEPT 35' WHEN ABUTTING A RESIDENTIAL ZONE
MINIMUM SIDE SETBACK	1 FT. FOR EACH FT. OF BUILDING HEIGHT UP TO 25', EXCEPT 35' WHEN ABUTTING A RESIDENTIAL ZONE
MAXIMUM STRUCTURE HEIGHT	75 FEET
MAXIMUM IMPERVIOUS SURFACE RATIO	75%
PAVEMENT SETBACK	10'

FLOOD NOTE:

PLAN REFERENCES

- SCALE : 1" = 100'
-
- A horizontal scale bar with alternating black and white segments. The segments are labeled 0', 50', 100', and 200' from left to right. The bar is divided into four equal segments, each representing 50 feet.



LINE	BEARING	DISTANCE
L1	N21°25'27"W	21.01'
L2	N13°14'00"E	132.66'
L3	N02°41'03"E	208.59'
L4	N74°44'00"E	47.31'
L5	S76°27'38"E	121.81'
L6	S13°32'22"W	35.00'
L7	N76°27'38"W	81.98'
L8	S02°41'03"W	142.02'
L9	S13°14'00"W	132.66'
L10	S21°25'27"E	41.75'
L11	N76°46'00"W	36.47'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	100.00'	60.49'	59.57'	N04°05'44" W	34°39'27"
C2	170.00'	31.30'	31.26'	N07°57'32" E	10°32'57"
C3	40.00'	70.41'	61.67'	S53°06'43" W	100°51'19"
C4	200.00'	36.82'	36.77'	S07°57'32" W	10°32'57"
C5	70.00'	42.34'	41.70'	S04°05'44" E	34°39'27"

LINE	BEARING	DISTANCE
L12	S67°11'35"W	76.71'
L13	N22°48'25"W	28.00'
L14	N67°11'35"E	76.02'
L15	S60°09'04"E	22.66'
L16	S29°47'13"W	16.44'

LINE	BEARING	DISTANCE
L17	N77°05'02"W	15.00'
L18	N12°59'44"E	23.00'
L19	S77°00'16"E	15.00'
L20	S12°59'44"W	22.98'

STATE OF MAINE, CUMBERLAND, ss
 REGISTRY OF DEEDS

RECEIVED _____

AT _____ hr. _____ min. _____ m AND RECORDED

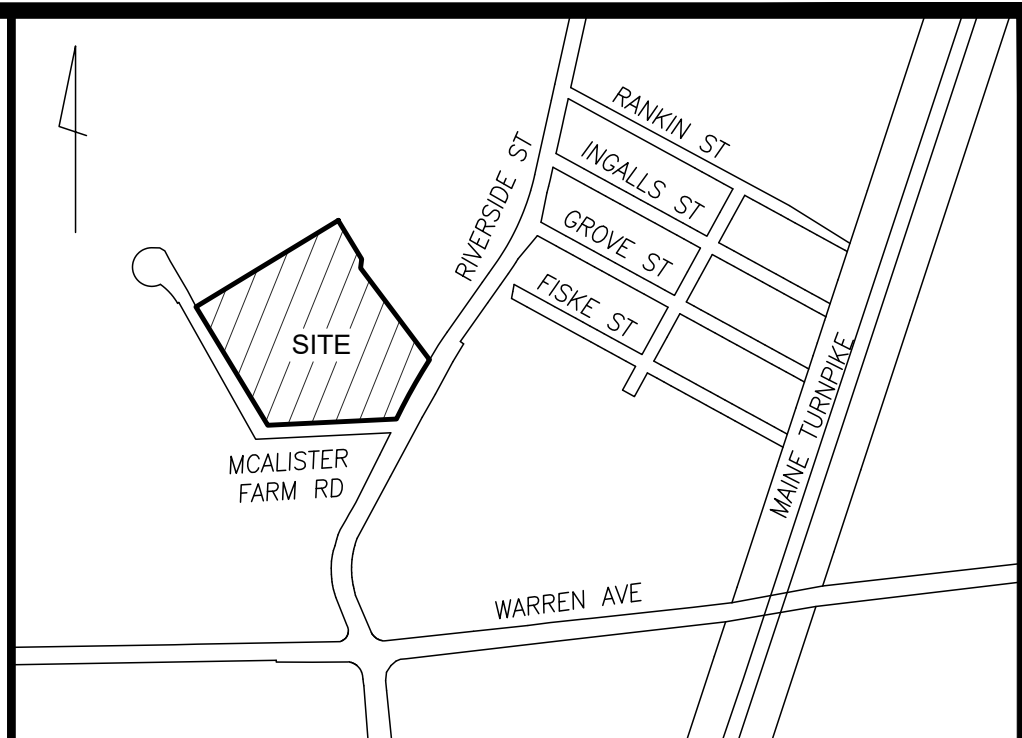
IN PLAN BOOK _____, PAGE _____

ATTEST: _____

REGISTER

**APPROVED BY THE
CITY OF PORTLAND PLANNING BOARD**

DATE _____



LOCATION MAP

LEGEND

- | | | | |
|---------|---------------------------|---|--------------------------|
| ● | IRON PIPE OR ROD FOUND | ===== | CURB |
| ■ | GRANITE MONUMENT FOUND | —OHW— | OVERHEAD WIRES |
| ⊗ | WATER VALVE | —X— | SIGN |
| ⊙ | HYDRANT | —+— | DEED BOOK/PAGE |
| ○ | UTILITY POLE | 000/000 | NOW OR FORMER |
| ○ | MANHOLE | N/F | CONCRETE |
| ⊗ | CATCH BASIN | CONC. | UNDERGROUND EL |
| ⊙ | LIGHT POLE | USE | SETBACK LINE |
| ⊗ EM/GM | ELECTRIC/GAS METER | — · — · — | EASEMENT LINE |
| ⊙ | HANDICAPPED PARKING SPACE | — · — · — | WETLAND LINE |
| | |  | AREA NOT TO BE DISTURBED |

GENERAL NOTES

1. OWNER OF RECORD: PK REAL ESTATE, LLC, 33 MCALISTER FARM ROAD, SUITE 202, PORTLAND, MAINE C.C.R.D. BOOK 31472, PAGE 318
2. PARCEL IS SHOWN AS LOT 5 BLOCK A ON CITY OF PORTLAND'S ASSESSORS MAP 317 AND LOT 6 BLOCK A MAP 320.
3. BEARINGS ARE BASED ON PLAN REFERENCE 2. COORDINATES ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD 83 UTILIZING RTK GPS.
4. ELEVATIONS ARE BASED ON CITY DATUM PER PLAN REFERENCE 8.
5. TOTAL PARKING SPACES: 130 INCLUDING 4 HANDICAPPED SPACES.
6. WETLANDS DELINEATED BY LONGVIEW PARTNERS, LLC AND FIELD LOCATED BY OWEN HASKELL, INC.
7. NATURAL DRAINAGE COURSE SHALL NOT ALTERED OR OBSTRUCTED EXCEPT AS INDICATED ON PLAT. DEEDS TO LOT 2, 4, 5 & 6 SHALL CONTAIN RESTRICTIVE COVENANTS TO THIS EFFECT FOR THE BENEFIT OF EACH OTHER AND LOT 1.
8. 200' WILDLIFE BUFFER IS AS ESTABLISHED BY D.E.P. SITE LOCATION ORDER DATED SEPT. 16, 1987 FOR DEVELOPMENT OF LOT 4 AS DESCRIBED IN PLAN BOOK 165 PAGE 61.
9. THE LOCATIONS OF THE PRESUMPTUOUS RIVER, WILDLIFE BUFFER, SHORELAND ZONE AND AREAS NOT TO BE DISTURBED ARE TAKEN FROM PLAN BOOK 176 PAGE 17.

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 HAS NO KNOWLEDGE OF ANY OTHER 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 ANY LOCATION TO OBTAIN ADDITIONAL INFORMATION. THE LOCATION OF UTILITIES 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.

RANDY R. LOUBIER, PLS #2407

DATE _____

Amended Subdivision Plan
McAlister Farm Road and
380 Riverside Street, Portland, Maine
Made for Record Owner
PK Real Estate, LLC
33 McAlister Farm Road, Portland, Maine




OWEN HASKELL, INC.
 PROFESSIONAL LAND SURVEYORS
 390 US ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0410
 DRAWN BY: RS / JLW DATE: FEB. 14, 2022 JOB NO. 2020-3591
 CHECKED BY: RRL SCALE: 1" = 100' DRWG. NO. 1

Planning Board Report

Planning and Urban Development Department



Conversion of Office to Residential
50 Exchange Street
Major Site Plan
PL-001804-2021
Fifty Exchange, LLC, Applicant

Submitted to:	Portland Planning Board	Prepared By:	Jimmy Dealaman, Planner
Public Hearing Date:	March 8, 2022	Date:	March 4, 2022

I. INTRODUCTION

Fifty Exchange, LLC is seeking approval for a Major Site Plan application for interior renovations to convert the 2nd and 3rd floors of the existing building previously used as commercial office space into four new residential units totaling 4,300 square feet at 50 Exchange Street in the Old Port. The project consists of a 4th story rooftop addition as well as exterior alterations and utility work.

The building is located within the Old Port Historic District and received a Certificate of Appropriateness by the Historic Preservation Board on August 11th, 2021 (HPBR-001562-2021). This application is being referred to the Planning Board for compliance with the City of Portland's Land Use Code Site Plan Standards, Section 14.1.



Figure 1: Development Site and Area Context

The Planning and Urban Development Department mailed 180 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the February 25th and 26th, 2022 editions of the *Portland Press Herald*.

Applicant: Edith Armstrong, Fifty Exchange, LLC
Architect: Patrick Boothe; Josh Jacques, Caleb Johnson Studio
Engineer: Michael Tadema-Wielandt, Terradyn Consultants, LLC

II. REQUIRED REVIEWS

<i>Review</i>	<i>Applicable Standards</i>
Multi-family development of 3 or more units	Major Site Plan (Section 14.6)
Exterior alterations and building addition within Old Port Historic District	Certificate of Appropriateness (Section 17.8) (Approved by Historic Preservation Board 8/11/2021)

III. PROJECT DATA

Existing Zoning	B-3 Downtown Business
Property Size	1,938 square feet
Existing Use	Mixed Use Commercial (Retail (1 st Floor); Office (2 nd and 3 rd Floors))
Proposed Use	Mixed Use (Retail (1 st Floor); Residential (2 nd , 3 rd , and 4 th Floors))

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	1,938 sq. ft.	1,938 sq. ft.	o
Building Floor Area	5,199 sq. ft.	6,033 sq. ft.	+834 sq. ft.
Impervious Surface Area	1,938 sq. ft.	1,938 sq. ft.	o
Parking Spaces	o	o	o
Bicycle Parking Spaces	o	o	o

IV. BACKGROUND

A Certificate of Appropriateness application for the proposed exterior building alterations (rooftop addition, masonry repairs, window restoration, and installation of architectural lighting) was reviewed by the Historic Preservation Board during a workshop held July 7th, 2021 and approved at a public hearing held on August 11th, 2021 (Attachment 1).

Upper Exchange Street was repaved in 2017, however the Department of Public Works has confirmed that the repaving effort did not extend past the front right-of-way of 50 Exchange Street and therefore, the street paving moratorium in effect does not impact the proposed utility work along 50 Exchange Street.

V. EXISTING CONDITIONS AND SURROUNDING AREA

The Cummings and Sturdivant Block at 50 Exchange Street was built in 1868, as a three-story, brick Italianate commercial structure. Originally, the building was abutted on the south by a narrow three-bay building. At some point after 1924, the building was removed. A 24-foot-wide passageway now separates the subject structure from its nearest neighbor to the south. On the north side of 50 Exchange the block consists of mixed-use buildings ranging between three- and five-stories.



Figure 2: Building Frontage – 50 Exchange Street

The existing building is occupied by two retail spaces on the first floor which are intersected by a central entrance leading up to office space on the 2nd and 3rd floors which is currently unoccupied.

The property is located within the heart of Portland's walkable downtown and Old Port Historic District and located in the B-3 Downtown Business zone. The site is also located within the Pedestrian Activities District (PAD) Overlay Zone and the Downtown Entertainment Overlay Zone (DEOZ).

VI. PROPOSED DEVELOPMENT

The proposed Major Site Plan application would facilitate 3,466 square feet of interior renovation to convert the second and third floors of the three-story commercial building into four 1-bedroom residential units. The proposal also includes a 4th floor addition totaling 834 square feet for additional space for the third-floor units to accommodate a bedroom and bathroom, as well as individual rooftop decks. No changes are proposed to the first-floor retail (1,733 square foot) space. The conversion of office space to residential and 4th floor addition totals 4,300 square feet in new residential use and a combined building floor area total of 6,033 square feet.

The proposal includes making upgrades to the underground utility connection and also proposes a single street tree within a granite planter box.



Figure 3: 3D Rendering of Building with Proposed Addition

VII. RIGHT, TITLE, & INTEREST

The owner of the property is Fifty Exchange, LLC, represented by Edith Armstrong. The applicant has a quitclaim deed, recorded at the Cumberland County Registry of Deeds (Book 36392 Page 346, which demonstrates their right, title and interest in the property (Attachment B).

VIII. FINANCIAL & TECHNICAL CAPACITY

The applicant has submitted a Statement of Financial Capacity letter from their financial asset manager, as demonstration of their financial capacity (Attachment C).

The applicant's architect has submitted a commercial portfolio as proof of technical capacity to demonstrate relevant experience to complete the proposed development (Attachment D).

IX. ZONING ANALYSIS

The property is located within the B-3 Downtown Business zone. B-3 is a high-density commercial, residential, and mixed-use zone mapped throughout the City's downtown. The site is also located within the Pedestrian Activities District (PAD) Overlay Zone, Downtown Entertainment Overlay Zone (DEOZ), and subject to the Downtown Height Overlay Map.

The proposed multi-family dwelling use is permitted in the B-3 zone (Land Use Code Table 6-C). Staff analyzed the proposal and found that all relevant dimensional standards including minimum lot size, maximum lot coverage, setbacks, and frontage requirements set forth within the B-3 Zone of the Land Use Code are being met which are summarized below:

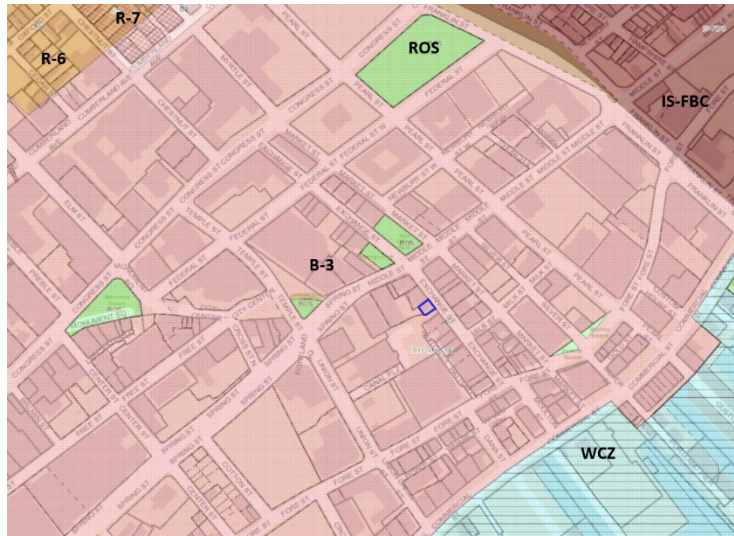


Figure 4: Zoning Context (Site Outlined in Blue)

<i>B-3 Zone</i>	<i>Permitted</i>	<i>Proposed</i>
Lot Size (minimum)	none	1,938 sq. ft.
Street Frontage (minimum)	15 feet	41 feet
Build-to Line (max)	5 feet	0 feet
Blank Wall (maximum)	15 feet	No blank wall along public way
Floor Area (max)	N/A	N/A
Height (min)	35 feet	50 feet
Height (max)	65 feet	50 feet

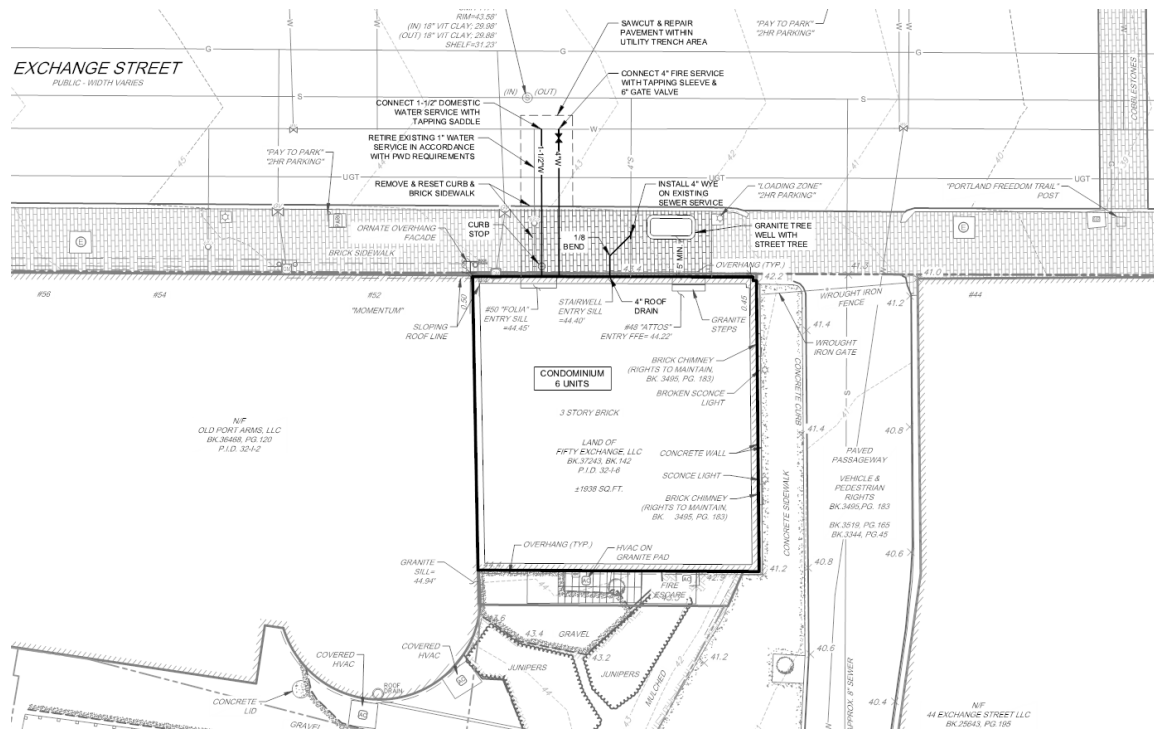


Figure 5: Site Plan

X. SITE PLAN 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 applicant states that the resulting change of use from business (commercial offices) to four residential units *"reduces the burden on the surrounding street systems."*

Planning staff have reviewed the proposal in conjunction with the City's consulting traffic engineer (Attachment 2) and believe that the change to four 1-bedroom residential units from office space will not increase congestion or safety concerns in the surrounding street network, given that the number of overall users accessing the site will be slightly less than that of the previous office use. The site is situated in the heart of Portland's walkable downtown area so pedestrian circulation to and from the site is provided by an existing network of sidewalks and pathway connections to the site. Staff believe the amount of traffic, vehicular circulation, loading and unloading, and parking, brought to the site and adjacent public streets by the residential use will be minimal and overall can be accommodated by the current on-street parking and loading areas in the immediate vicinity as well as minimized by alternative modes of transportation that are readily available.

B. Access and circulation

Exchange Street has on-street parking available on both sides of the street as well as along the site's frontage, which is limited to parking for up to 2-hours. The existing building is fronted by 10-foot wide brick sidewalk in the public right-of-way and is bordered to the south by a private vehicle & pedestrian

way which is typically gated to only allow for pedestrian passage moving through to retail and plaza space as well as parking areas beyond the rear of the property. At the rear of the site, the existing building has a fire escape for emergency egress.

The applicant is proposing no changes to the existing access and circulation.

Staff have reviewed the site and conclude that the project continues to provide safe and reasonable access to users and complies with all applicable access and circulation standards. However, given that the project will involve sidewalk reconstruction as well as sidewalk closure the reviewing Public Works engineer is seeking the applicant verify sidewalk and curb grading and pedestrian access routes are ADA compliant as shown on the site plan and construction management plans, respectively. Additionally, the Public Works engineer is seeking that the applicant submit any construction easements or authorization for scaffolding and dumpster located outside of their property (Attachment 3). Planning staff are recommending a condition of approval that the applicant submit updated plans addressing Public Works comments dated 3/4/2022 prior to issuance of a building permit.

C. Public transit access

Not applicable.

D. Parking

There are no existing parking spaces and the proposal does not include providing parking spaces. Under Table 19-B of the City's Land Use Code, no off-street parking is required for changes of use in the B-3 zone. The project is therefore exempt from providing required parking spaces.

E. Transportation Demand Management (TDM)

Not applicable. A TDM plan is not required.

2. Environmental Quality Standards (Section 14.6.2)

A. Preservation of significant natural features

The site is a fully developed parcel. No significant natural features exist onsite. Not applicable.

B. Landscape preservation

The parcel is almost entirely occupied by the existing building footprint. No existing landscaping exists onsite. Not applicable.

C. Site landscaping and buffers

The project is required to provide one street tree per residential unit and is subject to providing four street trees or alternative. Based on the recommendation of the City Arborist, the project proposes one street tree planted within a granite tree well in the public right-of-way.

Due to the site constraints and based on the additional tree protection measures the applicant has provided, the City Arborist and Planning Staff support a financial contribution into the City's Tree fund for the remaining three street trees (\$1,200), which is recommended below as a condition of approval. The City Arborist has identified several empty tree wells nearby in the vicinity of Tommy's Park on upper Exchange Street where the City will utilize funds to plant the remaining three street trees (Attachment 4).

D. Water quality/storm water management/erosion control

The existing building currently drains stormwater via a single roof drain and internal to the building, the drain line is combined with an existing sanitary sewer riser. Based on the recommendation by Public Works, the proposed plan includes two new roof drains with overflows after the renovation. A new vertical riser dedicated to stormwater will be installed through the building. This new storm water riser will then offset in the basement and go to the street to allow for easier connection to a future stormwater separation on Exchange Street.

Staff have reviewed the proposed stormwater management in conjunction with the City's consulting civil engineer and find them to be acceptable.

Staff have no erosion concerns given there are no exterior site changes proposed.

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

Planning Staff have reviewed the proposal with the City's Fire Marshal and find that all public safety and fire prevention concerns have been addressed.

C. Availability and capacity of public utilities

The applicant has provided an ability to serve letter from the Portland Water District (PWD) (Attachment G) which demonstrated a need for the existing domestic water service line to be increased in size by 1½ inches and the addition of a 4-inch sprinkler supply to serve the building sprinkler system. The applicant has proposed upgrading the existing utility lines on their site plan (Plan 1) to address the wastewater requirements of Public Works as well as providing an adequate water supply to the new residential use.

Staff have reviewed the utilities and find the application has met all applicable requirements.

4. Site Design Standards (Section 14.6.4)

A. Massing, ventilation, and wind impact

The proposal includes making changes to an existing three-story building by adding a 4th floor rooftop addition. The building is adjacent to existing three-story buildings to the east and south, four-story and five-story buildings to the north, and high-rise buildings further to the west. The 4th floor addition is not anticipated to have adverse impacts related to ventilation and wind given the increase of approximately 10 feet is not significant and the project is consistent with building massing found in the immediate vicinity.

B. Shadows

Not applicable. The development is not anticipated to have adverse impacts related to shadows.

C. Snow and ice loading

The applicant has proposed a rooftop addition to have a flat roof in order to prevent snow and ice falling. The structural system has been designed by a professional engineer to ensure that the structure can withstand snow and ice loading. Based on the submitted materials, staff find that the applicant has produced sufficient evidence in their design that prevents significant amounts of accumulated snow and ice from loading or falling onto adjacent properties or public ways.

D. View corridors

The project is located on Exchange street which is a corridor denoted with view protection according to the View Corridor Protection Plan. However, staff have reviewed the proposal and believe the increase in height of approximately 10 feet is minimal and will not obstruct public view corridors facing City Hall.

E. Historic resources

The proposed project is located in the Old Port Historic District and was reviewed by the Historic Preservation Board and received a Certificate of Appropriateness on August 11, 2021.

F. Exterior lighting

The applicant has provided cut sheet information showing the specifications for the proposed fixture (Attachment E). The applicant has shown the existing lighting fixtures on their site plan.

Due to the existing lighting fixtures not being full cutoff, in order to comply with the City's lighting standards, staff are recommending a condition of approval that the applicant propose new fixtures that meet City standards to be reviewed by the Planning and Historic Preservation Staff. .

The site currently has existing street lighting complying with the required specific lighting district requirements.

G. Noise and vibration

No adverse impacts related to noise and vibration are anticipated as mechanical equipment is located facing away from residential properties towards Exchange Street and is located on the rooftop away from traveled public ways. The applicant has also provided cut sheets for HVAC Rooftop unit (Attachment H) to confirm compliance with this standard.

H. Signage and wayfinding

No new signage or wayfinding elements proposed. Staff do not believe additional signage is necessary given the new residential use utilizing the main entrance at the center of the building.

I. Zoning-related design standards

The development is located in the Old Port Historic District therefore the City of Portland Historic Preservation standards supersede the design requirements of this section. See Section H above for compliance with the Historic Preservation Standards.

The project was also reviewed against the B-3 Pedestrian Activities District (PAD) standards. The proposed renovation of the existing building retains the ground floor retail spaces and existing façade design allowing for the continuity of pedestrian-oriented uses along Exchange Street. Therefore, staff find that the proposal meets the PAD standards.



Figure 6: East Elevation (Exchange Street)

XI. NEIGHBORHOOD MEETING & PUBLIC COMMENT

The applicant's neighborhood meeting was held on November 29, 2021 and the required neighborhood meeting documentation has been submitted (Attachment I). No members of the public were in attendance.

At the time of writing this report no written public comment has been received for this project.

XII. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Department staff recommends that the Planning Board approve application #PL-001804-2021 to facilitate converting existing office space into four new residential units at 50 Exchange Street which meet the applicable standards of Portland's Land Use Code.

XIII. PROPOSED MOTIONS

A. SITE PLAN REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on March 8, 2022 for application #PL-001804-2021 relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board [**finds/does not find**] that the plan is in conformance with the site plan standards of the Land Use Code subject to the following conditions of approval:

PRIOR TO ISSUANCE OF A BUILDING PERMIT

1. The applicant shall resubmit for review and approval by the Planning Authority and Public Works an updated site plan and construction management plan and associated materials to address the Public Works engineer's review comments dated 3/4/2022.
2. The applicant shall submit an updated lighting plan and accompanying cut sheets proposing updated lighting fixture types on the south building elevation to be reviewed and approved by the Planning Authority.

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

3. Due to site constraints preventing the planting of required street trees in the right-of-way, the three remaining street trees required in Sec. 14.6.2.C.4 of the Site Plan Ordinance cannot be met; the applicant shall contribute to the tree fund in the amount of \$400 per tree for three trees for a total of \$1,200 (3 x \$400).

XIV. ATTACHMENTS

1. Historic Preservation Board Approval Letter (dated 8.11.2021)
2. Consulting Traffic Engineer Comments (dated 3.2.2022)
3. Department of Public Works Comments (dated 3.4.2022)
4. City Arborist Comments (dated 3.3.2022)

APPLICANT'S SUBMITTAL

- A. Major Site Plan Application Checklist
- B. Right, Title and Interest
- C. Financial Capability Letter
- D. Technical Capability Documentation
- E. Exterior Light Fixture Specification
- F. Ability to Serve – Central Maine Power
- G. Ability to Serve – Portland Water District
- H. HVAC Rooftop Unit Cut Sheet
- I. Neighborhood Meeting Documentation
- J. Zoning Assessment

PLANS

Plan 1. BASEMENT AND 1ST FLOOR PLAN

Plan 2. 2ND & 3RD FLOOR PLANS
Plan 3. 4TH FLOOR & ROOF PLANS
Plan 4. ELEVATIONS 1
Plan 5. ELEVATIONS 2
Plan 6. ARCHITECTURAL SITE PLAN
Plan 7. COVER SHEET
Plan 8. DEMOLITION PLANS
Plan 9. EXISTING BUILDING SURVEY
Plan 10. SITE AND UTILITY PLAN
Plan 11. SITE DETAILS
Plan 12. CONSTRUCTION MANAGEMENT PLAN

CITY OF PORTLAND, MAINE

HISTORIC PRESERVATION BOARD

Penny Pollard, Chair
 Robert O'Brien, Vice Chair
 Hilary Bassett
 Joy Naifeh
 Julia Tate
 John Turk
 Rob Whitten

September 17, 2021

Patrick Boothe, Caleb Johnson Studios
 Edith Armstrong

Re: Certificate of Appropriateness for Rooftop Addition, Masonry Repairs & Architectural
 Lighting – 50 Exchange Street
 HPBR-001562-2021

Dear Mr. Boothe and Ms. Armstrong,

On August 11, 2021, the Historic Preservation Board voted 6-0 (O'Brien absent) to approve your application for a Certificate of Appropriateness for construction of a rooftop addition at 50 Exchange Street. Approval was also granted for masonry repairs and architectural lighting. Approval was based on plans and specifications submitted for the 8/11/21 public hearing.

Although the Board did not stipulate any conditions of approval, the following standard condition applies to any proposed masonry repairs:

- Staff to review and approve a test patch prior to proceeding with any masonry work.

Construction is to be carried out as shown on the plans and specifications submitted for the 8/11/21 public hearing. Any exterior design revisions are to be submitted to HP staff for review. Changes to the approved plans and specifications and any additional work that may be undertaken must be reviewed and approved by this office prior to construction, alteration, or demolition. If, during the course of completing the approved work, conditions are encountered which prevent completing the approved work, or which require additional or alternative work, you must apply for and receive a Certificate of Appropriateness or Non-Applicability PRIOR to undertaking additional or alternative work.

This Certificate is granted upon condition that the work authorized herein is commenced within twelve (12) months after the date of issuance. If the work authorized by this Certificate is not commenced within twelve (12) months after the date of issuance or if such work is suspended

insignificant part for a period of one year after the time the work is commenced, such Certificate shall expire and be of no further effect; provided that, for cause, one or more extensions of time for periods not exceeding ninety (90) days each may be allowed in writing by the Department.

Sincerely,

A handwritten signature in black ink, appearing to read "Deborah Andrews". The signature is stylized with a large initial "D" and a long, sweeping underline.

Deborah Andrews
Historic Preservation Program Manager



Jimmy Dealaman <jdealaman@portlandmaine.gov>

50 Exchange Street - Traffic Review Comments

Tom Errico <thomas.errico@tylin.com>

Wed, Mar 2, 2022 at 11:46 AM

To: James Dealaman <jdealaman@portlandmaine.gov>

Hi Jimmy – I have reviewed the application materials and the change to four 1-bedroom residential units from office space will not negatively impact mobility or safety concerns in the vicinity of the project. I would expect traffic generation from the site will be slightly less than that of the previous office use. The site is located in an area with excellent pedestrian facilities and parking and vehicle loading/unloading can be accommodated along the existing street system or in the project vicinity.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director

The logo for TYLIN INTERNATIONAL, with "TYLIN" in a bold, orange, sans-serif font and "INTERNATIONAL" in a smaller, grey, sans-serif font to its right.

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thomas.errico@tylin.comVisit us online at www.tylin.com

Twitter | Facebook | LinkedIn | Instagram



Jimmy Dealaman <jdealaman@portlandmaine.gov>

50 Exchange Street (Plan Number: PL-001804-2021)

Jennifer Ladd <jwl@portlandmaine.gov>

Fri, Mar 4, 2022 at 10:49 AM

To: Jimmy Dealaman <jdealaman@portlandmaine.gov>

Hi Jimmy,

See minor revision below regarding easements or abutter permission:

- ADA compliant access must be provided to pedestrians navigating around the work zone in the event of a sidewalk closure. This can rely on existing facilities, but if existing facilities do not exist or are not compliant, the applicant shall provide.
- Provide spot grades on the plan at bottom of curb, top of curb and back of sidewalk to enable verification of ADA compliance and curb reveal. The curb to be removed and reset shall be replaced at no less than the existing curb reveal and at no greater than that which provides an ADA compliant cross slope within the sidewalk.
- The applicant must submit construction easements or authorization from abutting property owners for scaffolding and the dumpster needed to complete the work as shown on the approved plans.
- The applicant will need to apply for street occupancy and street opening permits, which will require a traffic control plan.

Let me know if you need anything else on this one!

Jennifer Ladd

Senior Transportation Engineer
City of Portland
Department of Public Works - Engineering
[212 Canco Road](#)
[Portland, Maine 04103](#)
(207) 874-8894
jwl@portlandmaine.gov
(she/her/hers)



Att. 4

Jeff Tarling

to me

Hi Jimmy -

We plan to use the Tree Fund donation to plant trees near the project on Exchange Street.

Thanks

Jeff

...

CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST

Please submit each document as a separate PDF file.

Please confirm by electronically checking the boxes in the left-hand column.

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

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

GENERAL APPLICATION DOCUMENTS

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

MAJOR SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

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

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

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

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

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

MAJOR SITE PLAN DRAWINGS CHECKLIST

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

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

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

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

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

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

Existing Conditions Plan with the following:

- ✓ • Existing structures, with distance from primary building façade(s) to the property line
- ✓ • Approximate location of structures on abutting properties
- ✓ • All streets and intersections adjacent to the site
- ✓ • Existing driveways, pedestrian ways, and bicycle infrastructure, including dimensions and materials
- NA • 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)
- NA • Location of water courses, wetlands, and vegetation, or other significant natural features
- NA • 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
- NA • Any proposed geometric modifications to streets and intersections adjacent to site
- NA • Location, dimensions and materials of all proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines
- NA • Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas
- NA • Location and dimensions of proposed loading areas, including turning templates
- NA • Proposed transit infrastructure with dimensions/ engineering specifications
- NA • Location of vehicle and bicycle parking with dimensions and engineering specifications
- NA • Location of all snow storage areas
- ✓ • Exterior lighting (please see Technical Manual Sec. 12 for photometrics requirements)
- ✓ • Location of fire hydrants

	- NA • Location of solid waste management receptacles ✓ • Location of all proposed HVAC and mechanical equipment, including proposed screening, where applicable - NA • Location of proposed easements and rights-of-way, including dimensions - NA • Please utilize color-coding and/or hatches and shading to delineate changes between the pre and post development condition as needed
✓	UTILITY PLAN including:
	- NA • Proposed electrical infrastructure - NA • 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 - NA • Electric utility infrastructure
NA	GRADING AND DRAINAGE PLAN including:
	- NA • Proposed grades - NA • Proposed stormwater management measures meeting Technical Manual (Section 5) standards - NA • Any proposed alteration of a watercourse or wetlands - NA • Any groundwater protection measures - NA • Proposed buffers and preservation measures for wetlands or significant natural features
NA	LANDSCAPE PLAN including:
	- NA • Existing vegetation to be preserved and preservation measures - NA • Proposed landscaping, screening, and street trees, including caliper widths for trees - NA • 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

DLN: 1002040086193

QUITCLAIM DEED WITH COVENANT

VIRGINIA S. FITZGIBBONS, an individual having a mailing address of 13 Cedarbrook Drive E, Scarborough, Maine 04074, FOR CONSIDERATION PAID, grants to **50 EXCHANGE LLC**, a Maine limited liability company having a mailing address of 50 Exchange Street, Portland, Maine 04101, with QUITCLAIM COVENANTS the following described real property located in Portland, County of Cumberland and State of Maine:

See Exhibit A attached hereto and made a part hereof

WITNESS my hand and seal this 31 day of January, 2020

CALB
Witness

Virginia S. Fitzgibbons
Virginia S. Fitzgibbons

STATE OF MAINE
Cumberland, ss.

January 31, 2020

Personally appeared the above named VIRGINIA S. FITZGIBBONS and acknowledged the foregoing instrument to be her free act and deed.

Before me,

CALB
Notary Public/Attorney at Law *Mar 14/21*
C. Alan Beagle
Print name

EXHIBIT A**Virginia S. Fitzgibbons to 50 Exchange LLC
50 Exchange Street, Portland, Maine**

Beginning on the westerly side of Exchange Street at the centerline of the wall at the southeasterly corner of the parcel of land conveyed by Alice R. Norton to Robert B. Norton by deed dated August 17, 1967, and recorded in Cumberland County Registry of Deeds in Book 3008, Page 335, said point being about 116.90 feet southeasterly from the southwesterly corner of Middle Street and Exchange Street; thence, by land of said Norton through centerline of wall southwesterly, a distance of 47.96 feet, more or less, to a line that is 5.00 feet westerly from and parallel with the westerly face of the brick building on the parcel under description; thence, by land now or formerly of Canal National Bank about S 37° 49' E a distance of 36.02 feet, more or less, to the northerly side of an existing concrete walk and other land now or formerly of Canal National Bank; thence, by the northerly side of said walk and land of said Canal National Bank on the following courses; thence, about N 79° 11' E a distance of 5.61 feet to the westerly face of brick building on land being described; thence by westerly face of said building about S 37° 49' E a distance of 2.45 feet to the southerly face of said brick building; thence, by the southerly face of said brick building about N 51° 21' E, a distance of 42.96 feet to said Exchange Street; thence, by said Exchange Street N 37° 49' 46" W a distance of 41.02 feet, more or less, to the point of beginning.

Together with right to maintain the two existing chimneys which project southerly about 0.33 feet, more or less, southerly of said southerly brick wall.

Courses refer to meridian shown on plan by Fay, Spoffard and Thorndike, Inc., Engineers, dated 1971 made for City of Portland of Spring-Middle Arterial.

Together with and subject to all of the rights, easements, conditions and restrictions contained in the Warranty Deed from William Dickson and Yvonne L.O. Dickson to Virginia S. Fitzgibbons dated September 15, 1980 and recorded in the Cumberland County Registry of Deeds in Book 4661, Page 175, and being the same premises conveyed therein, and in the deed to Robert G. Fitzgibbons from Virginia S. Fitzgibbons dated February 14, 2008, recorded in said Registry in Book 25818, Page 286.

Being the same premises described in the Deed of Trustee to Grantor dated December 17, 2019, and recorded in the Cumberland County Registry of Deeds on December 26, 2019 at Book 36297, Page 332.

50 EXCHANGE, A CONDOMINIUM

WARRANTY DEED
(Maine Statutory Short Form)

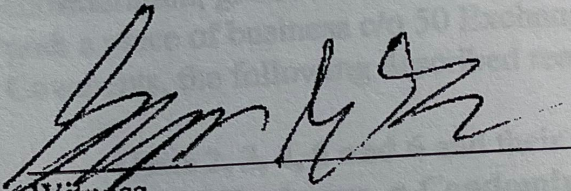
50 EXCHANGE LLC, a Maine limited liability company with a place of business in the City of Portland, County of Cumberland and State of Maine, for valuable consideration, grants to **FIFTY EXCHANGE LLC**, a Maine limited liability company with a place of business c/o 50 Exchange Street, Portland, Maine 04101, with Warranty Covenants, the following described real property:

Units 2, 3, 4, 5 and 6 and their respective appurtenant common percentage interest, in **50 Exchange, a Condominium** located in the **City of Portland, Cumberland County, Maine**, as described in the Declaration of Condominium declared September 23, 2020, and recorded in the Cumberland County Registry of Deeds in Book 37220, Page 271, and as described in all recorded plats and plans recorded in said Registry of Deeds in Plan Book 220, Pages 320 through 321, together with all privileges and appurtenances belonging to said unit pursuant to the aforesaid condominium documents, including use and ownership in common of all common elements and appurtenant limited common elements.

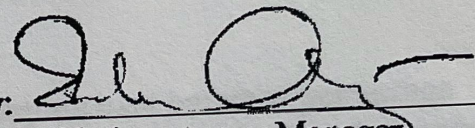
SUBJECT HOWEVER, to all easements and other matters described in the recorded Declaration; to any utility easements of record; rights, restrictions, reservations and obligations as noted on any recorded plans and surveys; and to all rules and regulations established by the 50 Exchange Condominium Owners Association.

Meaning and intending to convey and hereby conveying a portion of the premises conveyed to 50 Exchange LLC by Quitclaim Deed With Covenant from Virginia S. Fitzgibbons, dated January 31, 2020 and recorded in said Registry of Deeds in Book 36392, Page 346.

IN WITNESS WHEREOF, 50 EXCHANGE LLC has caused this instrument to be signed and sealed this 28 day of September, 2020.


Witness

50 EXCHANGE LLC

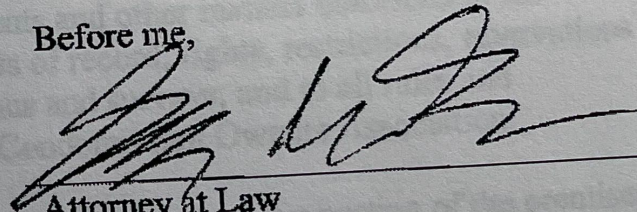
By: 
Edith Armstrong, Manager

STATE OF MAINE
CUMBERLAND, SS.

September ~~28~~ 2020

Personally appeared the above-named, Edith Armstrong, in her said capacity, and acknowledged the foregoing instrument to be her free act and deed, and the free act and deed of said limited liability company.

Before me,


Attorney at Law
Sage M. Friedman
Printed Name

September 27, 2021

Ms. Edie Armstrong
243 Falmouth Road
Falmouth, ME 04105

To whom it may concern:

I am providing this information at the request of Edith Armstrong for whom we currently serve as Investment Advisor. Please accept this letter as confirmation that, as of today's market value, Edith has immediate access to funds in excess of \$1,600,000.

If you require any further information, please contact Caitlin Damon at 207-774-0022.

Sincerely,



Geoffrey K. Alexander
Chief Executive Officer







When a Maine cannabis retailer was ready for a brick and mortar shop, it was essential that the space echo the professional, high-quality product and service. Maneuvering state and federal laws around retail cannabis legality and schedule was an ongoing obstacle. But the client's clear vision and dedication to the design and architecture would anchor the project throughout production.

The building is separated from the surrounding commercial spaces, cutting a low profile just below the road and tucked into a corner adjacent to expansive natural wetlands. Upon arrival, the steel and cedar structure doesn't shout to be noticed; it reveals itself slowly and you experience it with a subtle impact. The design focused on a clean, upscale vibe, unlike your average cannabis shop. The 3,000-square-foot space is flooded with natural light and allows for open interaction without crowding. The ceiling has an inverted gable truss that creates a vaulted space and opens to the backside of the building. Woodhull of Maine completed custom millwork from Maine Ash that serves as a backdrop to showcase products and encourage customer engagement.







Two gallery owners were ready to add on to their popular space in Ogunquit, Maine but did not want to disrupt the existing character of the streetscape.

Regulatory restraints and a historical ordinance from the town board added additional requirements that called for strategic solutions. A traditional design with innovative structural decisions brought cohesion to the surrounding buildings and vibrancy to the busy Main Street intersection.





The ridge of the new structure was turned ninety degrees relative to the two buildings that were already part of the shop. This achieved some variety and allowed for a dramatic tall window that highlights an expanse of glass and beautiful recessed entries. In combination with a large central skylight, natural light from the window bathes the interior space moving from the street through large scale trusses that gradually scale down in size. The second floor and roof stacks on itself, revealing the bones that hold the building up. The finished gallery is light and clean with whitewashed Maine Pine and polished, uncolored concrete floors that allow displayed artwork and goods to add vibrancy throughout.





The building at 265 Main St. had been vacant for decades before the owners had the vision to return the space to its original purpose—a mixed-use building with commercial retail space, artist studios and office spaces, and apartments. Historic tax credits, which fund renovations of underutilized buildings, helped enable the remodel when many lenders were skeptical that Biddeford could support the new development.



The project integrated the history of the original building with a fully modern renovation. Without faking an antique or vintage feel, contemporary additions were left to be contemporary while hints of the past revealed themselves in preserved details—Grateful Dead graffiti, a 19th-century door panel. Old brick was left exposed with generations of multi-colored paint, now juxtaposed against clean white plaster. Original windows were kept and old beams were milled and re-purposed as custom cabinets in the apartments. A striking balance of past and present.

What was once a forgotten building became a vibrant, profitable location for the town in just two years, receiving statewide attention. 265 defied expectations and now houses businesses, artists, and high-end apartments.





A humble budget and thoughtful build out came together to create Elements, an essential cafe and social hub developed in downtown Biddeford at a time when many doubted its viability. A local business owner had the vision to combine what was originally two separate storefronts, opening the space to function as a coffee shop, bar, and bookstore. A dividing wall was removed, steel beam support was added, and much of the historic fabric of the 19th century mixed use building was maintained.



HIGGINS BEACH
INN

34


HIGGINS
BEACH INN
—

SHADE
the EATERY
AT HIGGINS BEACH INN



There is a long-standing connection between the Higgins Beach Inn, the residents of Higgins Beach, and the many people who have made Higgins Beach their vacation destination of choice. The renovation work sought to freshen up the beloved colonial inn with a clean and modern feel that maintains comfortable character and charm. The sleepy New England style gave way to a crisp, modern aesthetic guided by simplicity.

Rooms and communal spaces were updated throughout with fresh colors, textures, and millwork by Woodhull of Maine. The inn's connecting restaurant, Shade, introduced a breezy, uncomplicated experience with contemporary details including a sleek bar and cafe-style seating. Outside, the addition of a canopy extended outdoor seating and the space's range of use.











110 Exchange Street
2nd and 3rd Floors
Portland, ME 04101

207.283.8777
calebjohnsonstudio.com

C
J S

L-011

The L-011 is an unobtrusive, directional fixture available in both low voltage and line voltage configurations. Its compact design brings attention to the lamp's effect, not to the fixture itself. The L-011 can be equipped with several different MR16 LED and halogen lamps and a variety of accessories to produce the desired effect.

Construction All brass components • 0.140" [3.6mm] thick brass housing

Lens Tempered glass, stepped to prevent pooling of water on lens

L-011 12 Volts AC/DC • Remote Transformer Required • Max 15W LED / 50W halogen
GU5.3 MR16 LED • Warm White (3000K)*
Dimming: Most lamps dim to less than 20%. See lamp manufacturer's transformer/dimmer compatibility chart.

Cree chipset 5 Watts	— 5W-SP	15° spot	320 lm
	— 5W-NFL	25° narrow flood	320 lm
	— 5W-FL	40° flood	320 lm
	— 5W-FL/60	60° flood	320 lm
	— 5W-WFL	100° wide flood	320 lm

Lumiled chipset 7 Watts	— 7W-NFL	25° narrow flood	483 lm
	— 7W-FL	40° flood	487 lm
	— 7W-WFL	60° wide flood	483 lm

Sora chipset 8 Watts	— 8W-SP	10° spot	600 lm
	— 8W-NFL	25° narrow flood	630 lm
	— 8W-FL	36° flood	630 lm

L-011-120V 120 Volts GU10 MR16 LED • Warm White (3000K)*

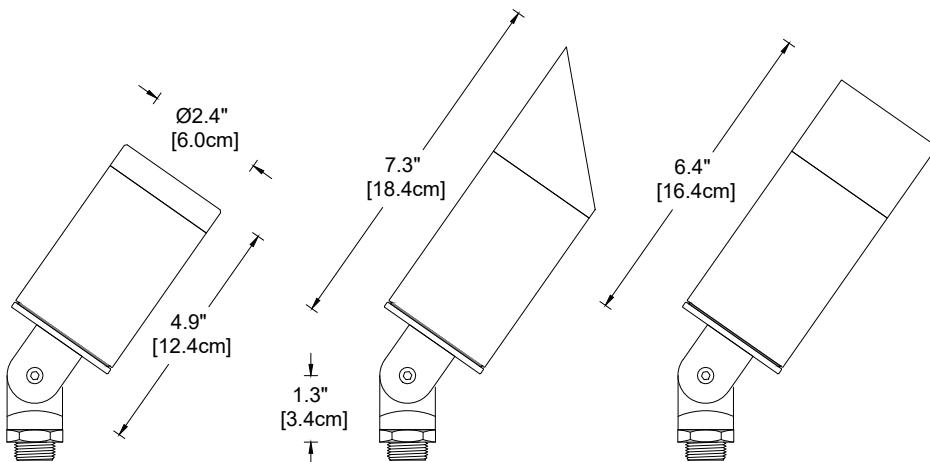
L-011-230V 230 Volts Dimming: Most lamps dim to less than 20%. See lamp manufacturer's transformer/dimmer compatibility chart.

Sora chipset 8 Watts	— 8W-SP	10° spot	600 lm
	— 8W-NFL	25° narrow flood	630 lm
	— 8W-FL	36° flood	630 lm
	— 8W-WFL	60° wide flood	630 lm

* Also available in 2700K. Add color suffix to lamp specification, e.g. "5W-NFL-2700K"

Optical Accessories	— BGS	Brass glare shield, 45° cutoff
	— BGSF	Brass glare shield, full cutoff with weep hole
	— CTO-1/4-2.04	Color Temperature Orange filter 1/4
	— CTO-1/2-2.04	Color Temperature Orange filter 1/2
	— CTO-3/4-2.04	Color Temperature Orange filter 3/4
	— FR	Frosted lens, 1/8" [3mm] thick
	— HL1	Honeycomb louver, 1/8" [3mm] thick
	— HL2	Honeycomb louver, 1/4" [6mm] thick
	— PR	Prismatic spread lens, 1/8" [3mm] thick
	— RT	Rectilinear spread lens, 1/8" [3mm] thick
	— SL	Solite (Soft Focus) lens, 1/8" [3mm] thick

Maximum (2) 1/8" thick accessories or (1) HL2 + (1) CTO Filter



L-011 with BGS Accessory



L-011 with BGSF Accessory



SUITABLE FOR INDOOR
USE UP TO 15W LED /
20W HALOGEN

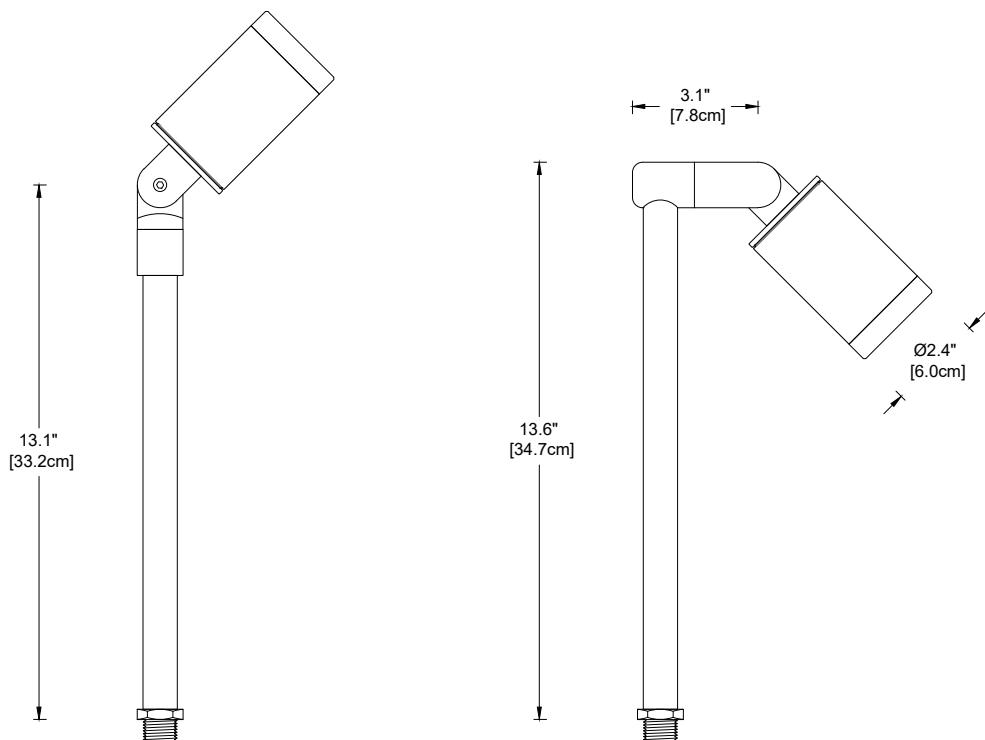
L-011

Mounting Accessories

1/2" male threads mount into any standard j-box or:

- ___ **GS2** Heavy-duty ground spike
- ___ **GS2BC** Heavy-duty ground spike with cast brass cap
- ___ **GS3R** Heavy-duty ground spike with brass cap for telescoping fixture riser
- ___ **GS4** *Standard ground spike with cast brass cap
- ___ **JB** Cast brass junction box
- ___ **SA** Sure Aim locking rotation accessory (not available with **STEM-S**)
- ___ **STEM-C-___** Brass riser for applications where fixture is directed UPWARD (4"/10cm, 8"/20cm, 12"/30cm, 16"/40cm, 20"/51cm or custom height—specify in inches)
- ___ **STEM-S-___** Brass riser for applications where fixture is directed DOWNWARD, such as lighting for steps (8"/20cm, 12"/30cm, 16"/40cm, 20"/51cm or custom height—specify in inches).
- ___ **TDM1** *Brass tree/deck mount with stainless steel screws
- ___ **TDM2-___** *Brass tree mount with nylon strap (48, 72, or 96")
- ___ **TDM2SS-___** *Brass tree mount with stainless steel strap (48, 72, or 96")
- ___ **TDM3** *Brass low-profile deck/wall mount (SA accessory recommended)
- ___ **TDM4** *Brass low-profile tree mount with notch for wire (SA accessory recommended)
- ___ **TMJB-___** Brass tree-mounted junction box, single fixture mount, stainless steel strap (48, 72, or 96")
- ___ **TMJB2-___** Brass tree-mounted junction box, double fixture mount, stainless steel strap (48, 72, or 96")
- ___ **TMJBX** Brass tree-mounted junction box, single fixture mount, stainless steel screws
- ___ **TMJB2X** Brass tree-mounted junction box, double fixture mount, stainless steel screws

* These accessories for 12 Volt only



Fixtures shown on 12-inch stems



L-011-STEM-C-12



L-011-STEM-S-12

Finish: Unfinished is standard; no specification required. The fixture will weather to a natural patina. The patina process is natural with brass and copper. Rate of patina and eventual color is dependent upon climate and proximity to the ocean. Thus, Beachside does not guarantee any specific appearance.

Weight: 2.6 lbs. [1.2 kg]
(excludes Mounting Accessories)

IP 66
CSA Listed, file #190030
10 year fixture warranty
3 year warranty on MR16 LED lamps

Project	By	Date
For ordering purposes, please specify (example: L-011-120V-8W-NFL-BGS-CTO-1/2-2.04-HL1-GS2-STEM-C-12)		
L-011-		
Fixture	Lamp	Accessory
	Accessory	Accessory
	Accessory	Accessory
	Accessory	Accessory





August 12, 2021

Woodhull Construction
C/O Mr. Michael Cleary

RE: Added 1PH 120/208 Service, 50 Exchange St, Portland, Maine

Dear Mr. Cleary,

This letter is to advise you Central Maine Power has ability to serve your added single phase 120/208v electrical need in the area to serve the subject project.

If you have any questions, please feel free to call me at 629-1423.

Sincerely,

Jon Deschenes
Energy Service Specialist





Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

August 13, 2021

Josh Jacques
Caleb Johnson Studio
110 Exchange Street
Portland, ME 04101

Re: 50 Exchange Street, PO
Ability to Serve with PWD Water

Dear Mr. Jacques:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on June 30, 2021. Based on the information provided per plans dated August 12, 2021, we can confirm that the District will be able to serve the proposed project as further described in this letter. **Please note that this letter constitutes approval of the water system as currently designed and is valid for eighteen (18) months after the date of issue. Any changes affecting the approved water system will require further review and approval by PWD.**

Conditions of Service

The following conditions of service apply:

- A new 4-inch fire service and 1.5-inch domestic water service with a 1-inch meter may be installed from the water main in Exchange Street. The services should enter through the property's frontage on Exchange Street at least 10-feet from any side property lines.
- Please note that only one meter and one bill will be associated to each domestic service line. This one master meter would be located in a common space that all tenants could gain access to if necessary.
- An approved backflow prevention device must be installed on each service line directly after the meter and before the sprinkler riser prior to service activation. Please refer to the PWD website for more information on cross-connection control policies.
- The Portland Water District does not have record of any other existing infrastructure in public roads and recommends a survey and test pitting be performed by the development team prior to construction. Any conflicts that arise during construction are at the risk of the developer and may result in job shutdown until new plans are submitted by the developer and reviewed and approved by PWD.
- Our records show that the property is currently served with a 1-inch domestic water service and 5/8-inch meter; please note that this service is undersized for the intended use. The service will need to be retired per PWD standards, which includes shutting and cutting the service at the main and pulling the box and rod at street line. The facility will be without water for a period of time (up to 3 days) during the installation of the new service and retirement of the old service. It will be the responsibility of the owner to ensure the tenants water needs are addressed during this time.



Prior to construction, the owner or contractor will need to complete a Service Application and pay all necessary fees for each proposed service. When the project is ready for construction, an Application for each service can be requested by contacting the MEANS Group at MEANS@pwd.org or 207-774-5961 ext. 3199. Once a completed Application has been submitted with payment, please allow seven (7) days for processing.

Existing Site Service

According to District records, the project site does currently have existing water service. A 1-inch diameter copper domestic service line provides water service to the site. Please refer to the "Conditions of Service" section of this letter for requirements related to the use of this service.

Water System Characteristics

According to District records, there is an 10-inch diameter cast iron water main in Exchange Street and a public fire hydrant located approximately 125 feet from the site. The most recent static pressure reading was 94 psi.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the City of Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project. Based on the high water pressure in this area, we recommend that you consider the installation of pressure reducing devices that comply with state plumbing codes.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

Should you disagree with this determination, you may request a review by the District's Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District



Robert A. Bartels, P.E.
Senior Project Engineer

Job Name:

System Reference:

Date:

Att. H



FEATURES

- Variable speed INVERTER-driven compressor
- Blue Fin Coating on heat exchanger
- Thermal Differential 1°F (with PAC-MKA32/52BC only)
- Branch box for simplified piping and installation flexibility
- Built-in base pan heater
- Quiet outdoor unit operation as low as 53 dB(A)
- High pressure protection
- Compressor thermal protection
- Compressor overcurrent detection
- Fan motor overheating/voltage protection
- H2i[®] hyper heat performance offers 100% heating capacity at 5°F and 74% heating capacity at -13°F
- ENERGY STAR[®] certified¹

¹ENERGY STAR products are third-party certified by an EPA-recognized Certification Body.

SPECIFICATIONS: MXZ-4C36NAHZ2

Indoor unit type			Non-Ducted	Mix	Ducted
Cooling ¹	Maximum Capacity	BTU/H	36,000	36,000	36,000
	Rated Capacity	BTU/H	36,000	36,000	36,000
	Minimum Capacity	BTU/H	15,500	15,500	15,500
	Maximum Power Input	W	2,570	2,730	2,880
	Rated Power Input	W	2,570	2,730	2,880
	Power Factor (208V, 230V)	%	96.7 / 96.7	97.3 / 97.3	97.8 / 97.8
Heating at 47°F ²	Maximum Capacity	BTU/H	45,000	45,000	45,000
	Rated Capacity	BTU/H	45,000	45,000	45,000
	Minimum Capacity	BTU/H	22,500	22,500	22,500
	Maximum Power Input	W	3,340	3,470	3,560
	Rated Power Input	W	3,340	3,470	3,560
	Power Factor (208V, 230V)	%	98.2 / 98.2	98.5 / 98.5	98.8 / 98.8
Heating at 17°F ³	Maximum Capacity	BTU/H	45,000	45,000	45,000
	Rated Capacity	BTU/H	30,000	32,000	34,000
	Maximum Power Input	W	5,730	6,050	6,300
	Rated Power Input	W	3,090	3,480	3,840
Heating at 5°F ⁴	Maximum Capacity	BTU/H	45,000	45,000	45,000
	Maximum Power Input	W	6,590	6,590	6,590
Efficiency	SEER		20.00	18.70	17.50
	EER ¹		14.00	13.20	12.50
	HSPF (IV)		11.3	11.1	11.0
	COP at 47° F ²		3.95	3.80	3.70
	COP at 17° F ³		2.30	2.10	2.00
	COP at 5° F ⁴		2.00	2.00	2.00
	ENERGY STAR® Certified		YES	YES	YES
Electrical	Voltage, Phase, Frequency		208 / 230V, 1-phase, 60 Hz		
	Guaranteed Voltage Range	V AC	198-253		
	Voltage: Indoor - Outdoor, S1-S2	V AC	208 / 230		
	Voltage: Indoor - Outdoor, S2-S3	V DC	24		
	Short-circuit Current Rating (SCCR)	5kA	5		
	Recommended Fuse/Breaker Size (Outdoor)	A	45		
	Recommended Wire Size (Indoor - Outdoor)	AWG	16		
Outdoor unit	MCA	A	42		
	MOCP	A	50		
	Fan Motor Full Load Amperage	A	0.6 + 0.6		
	Fan Motor Output	W	74		
	Airflow Rate Cooling / Heating	CFM	3,885 / 3,885		
	Refrigerant Control		Linear Expansion Valve		
	Defrost Method		Reverse Cycle		
	Heat Exchanger Type		Plate Fin Coil		
	Sound Pressure Level, Cooling ¹	dB(A)	49		
	Sound Pressure Level, Heating ²	dB(A)	53		
	Compressor Type		Hermetic		
	Compressor Model		ANB33FJSMT		
	Compressor Motor Output	kW	2.7		
	Compressor Rated Load Amps	A	19.0		
	Compressor Locked Rotor Amps	A	22.0		
	Compressor Oil Type // Charge	oz.	FV50S // 73		
	External Finish Color		Munsell 3Y 7.8/ 1.1		

SPECIFICATIONS: MXZ-4C36NAHZ2

Indoor unit type			Non-Ducted	Mix	Ducted
	Base Pan Heater		Built-in		
	Unit Dimensions	W: In. [mm]	41-11/32 [1,050]		
		D: In. [mm]	13 [330]		
		H: In. [mm]	52-11/16 [1,338]		
	Package Dimensions	W: In. [mm]	42-15/16 [1,090]		
		D: In. [mm]	17-3/4 [450]		
		H: In. [mm]	56-5/16 [1,430]		
	Unit Weight	Lbs.[kg]	278 [126]		
	Package Weight	Lbs.[kg]	302 [137]		
Outdoor unit operating temperature range	Cooling Intake Air Temp (Maximum / Minimum*)	°F	115 DB / 23°C DB		
	Cooling Thermal Lock-out / Re-start Temperatures		-1 / 3		
	Heating Intake Air Temp (Maximum / Minimum)	°F	70 DB / -13 DB		
	Heating Thermal Lock-out / Re-start Temperatures	°F	-18 / -14		
Refrigerant	Type		R410A	R410A	R410A
	Charge	Lbs, oz	10 lbs 9 oz	10 lbs 9 oz	11 lbs 4 oz
Indoor unit connection	Maximum Number of Connected IDU		4 (3* ^A)		
	Minimum Number of Connected IDU		2		
	Maximum connected capacity	BTU/H	46,000		
	Minimum connected capacity	BTU/H	12,000		
Piping	Gas Pipe Size O.D. (Flared)	In.[mm]	5/8 [15.88]		
	Liquid Pipe Size O.D. (Flared)	In.[mm]	3/8 [9.52]		
	Total Piping Length	Ft. [m]	492 [150]		
	Maximum Height Difference ^B , ODU above IDU	Ft. [m]	164 [50]		
	Maximum Height Difference ^B , ODU below IDU	Ft. [m]	131 [40]		
	Maximum Height Difference ^B , between branch boxes	Ft. [m]	49 [15]		
	Maximum Height Difference ^B , between branch boxes and IDU	Ft. [m]	49 [15]		
	Max. Piping Length between ODU and Branch Box	Ft. [m]	180 [55]		
	Farthest Piping Length from ODU to IDU	Ft. [m]	262 [80]		
	Farthest Piping Length after Branch Box	Ft. [m]	82 [25]		
	Total Piping Length between Branch Boxes and IDU	Ft. [m]	311 [95]		
	Maximum Number of Bends for IDU		15		
	Maximum Number of Bends for ODU		60		

Notes

AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)	¹ Cooling (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB
	² Heating at 47°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 47 DB, 43 WB
	³ Heating at 17°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 17 DB, 15 WB
Conditions	⁴ Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 5 DB, 5 WB

*Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

*^A when 1 or more PLA-A-EA7 connected

*^B Branch box should be placed within the level between the outdoor unit and indoor units

*^C 5°F DB - 115°F DB when optional wind baffles are installed

For reference to connected capacity charts, please refer MXC Series Operational Performance.

Although the maximum connectable capacity is 130%, the outdoor unit cannot provide more than 100% of the rated capacity. Please utilize this over capacity capability for load shedding or applications where it is known that all connected units will NOT be operating at the same time.

ACCESSORIES: MXZ-4C36NAHZ2

Distribution pipe for Branch box (Flare Connection)	□ MSDD-50AR-E
Distribution pipe for Branch box (Brazed Connection)	□ MSDD-50BR-E
Port Adapter size: 3/8" x 5/8"	□ PAC-SG76RJ-E
Port Adapter size: 1/4" x 3/8"	□ PAC-493PI
Port Adapter size: 3/8" X 1/2"	□ MAC-A454JP-E
Port Adapter size: 1/2" X 3/8"	□ MAC-A455JP-E
Port Adapter size: 1/2" X 5/8"	□ MAC-A456JP-E
Branch Box	□ PAC-MKA52BC
Branch Box	□ PAC-MKA32BC
Branch Box Outer Cover	□ BBE-1
Air Outlet Guide	□ PAC-SH96SG-E (two pieces are required)
Front Wind Baffle	□ WB-PA3 (two pieces are required)
Centralized Drain Pan	□ PAC-SH97DP-E
Refrigeration Ball Valve-Flare/Schrader/Insulated — 1/2" size	□ BV12FFSI2
Refrigeration Ball Valve-Flare/Schrader/Insulated — 1/4" size	□ BV14FFSI2
Refrigeration Ball Valve-Flare/Schrader/Insulated — 3/8" size	□ BV38FFSI2
Refrigeration Ball Valve-Flare/Schrader/Insulated — 5/8" size	□ BV58FFSI2
Hail Guard	□ HG-A2
Outdoor Unit 3-1/4 inch Mounting Base (Pair) - Plastic	□ DSD-400P
Condensing Unit Mounting Pad 16" x 36" x 3"	□ ULTRILITE1
Condensing Unit Mounting Pad 24" x 42" x 3"	□ ULTRILITE2
Outdoor Unit Stand — 12" High	□ QSMS1202M
Outdoor Unit Stand — 18" High	□ QSMS1802M
Outdoor Unit Stand — 24"High	□ QSMS2402M
Heavy Duty Wall Mounting Bracket— Coated Steel	□ QSWB2000M-1
Heavy Duty Wall Mounting Bracket— 316 Series Stainless Steel	□ QSWBSS
10' x 3/8" x 10' x 5/8" Lineset (Twin-Tube Insulation)	□ MPLS385812T-10
15' x 3/8" x 15' x 5/8" Lineset (Twin-Tube Insulation)	□ MPLS385812T-15
30' x 3/8" x 30' x 5/8" Lineset (Twin-Tube Insulation)	□ MPLS385812T-30
50' x 3/8" x 50' x 5/8" Lineset (Twin-Tube Insulation)	□ MPLS385812T-50
65' x 3/8" x 65' x 5/8" Lineset (Twin-Tube Insulation)	□ MPLS385812T-65
100' x 3/8" x 100' x 5/8" Lineset (Twin-Tube Insulation)	□ MPLS385812T-100

SYSTEM DESIGN: MXZ-4C36NAHZ2

Outdoor unit			MXZ-4C36NAHZ2-U1	MXZ-5C42NAHZ2-U1	MXZ-8C48NAHZ2-U1 MXZ-8C48NA2-U1	MXZ-8C60NA2-U1
	Rated capacity (kBtu/h)	Cooling	4HP	4.5HP	5HP	7HP
		Heating	36	42	48	60
		Refrigerant	45	48	54	66
			R410A			
Connectable indoor unit	Capacity class		Type 06 to Type 36			
			Caution: The indoor unit which rated capacity exceeds 36 kBtu/h (Type 36) can NOT be connected.			
	Number of units		2 ⁽¹⁾ to 4 units	2 ⁽¹⁾ to 5 units	2 ⁽¹⁾ to 8 units	2 ⁽¹⁾ to 8 units
Connectable branch box	Total system capacity range		33 to 130% of outdoor unit capacity (12 to 46.8 kBtu/h)	29 to 130% of outdoor unit capacity (12 to 54.6 kBtu/h)	25 to 130% of outdoor unit capacity (12 to 62.4 kBtu/h)	20 to 130% of outdoor unit capacity (12 to 78 kBtu/h)
	Number of units		1 or 2 units			

Connectable indoor unit lineups (Heat pump inverter type)								
Model type	Model name	Capacity class [kBtu/h]						
		06	09	12	15	18	24	30
Deluxe Wall-mounted	MSZ-FH06/09/12/15NA, 18NA2	●	●	●	●	●		
Designer	MSZ-EF09/12/15/18NA(W/B/S)		●	●	●	●		
Standard Wall-mounted	MSZ-GL06/09/12/15/18/24NA	●	●	●	●	●	●	
Low static ducted ^{*3 *4}	SEZ-KD09/12/15/18NA		●	●	●	●		
P-series mid static ducted ^{*3 *4}	PEAD-A09/12/15/18/24/30/36AA7		●	●	●	●	●	●
1-way cassette	MLZ-KP09/12/18NA		●	●		●		
P-series 22*22 4-way cassette	SLZ-KF09/12/15NA		●	●	●			
P-series 33*33 4-way cassette	PLA-A12/18/24/30/36EA7 ^{*5}			●		●	●	●
Floor standing	MFZ-KJ09/12/15/18NA		●	●	●	●		
Standard Multi-position air handler ^{*2}	SVZ-KP12/18/24/30/36NA			●		●	●	●

Branch box	PAC-MKA52BC	PAC-MKA32BC
Number of branches (Indoor unit that can be connected)	5 branches (MAX. 5 units)	3 branches (MAX. 3 units)

Note: A maximum of 2 branch boxes can be connected to 1 outdoor unit.

2- branch pipe (joint): Optional parts			
In the case of using 1- branch box	No need		
In the case of using 2- branch boxes			Select a model according to the connection method.
	Model name	Connection method	
	MSDD-50AR-E	flare	
	MSDD-50BR-E	brazing	

Option	Optional accessories for indoor units and outdoor units are available.
--------	--

^{*1} Only one unit connection is possible with ducted unit.

^{*2} When connecting a multi-position unit(s), set additional constraints as follows. For connections other than those specified below, consult your dealer.

• Models other than MXZ-8C60NA2 (For each connected branch box)

Number of connecting multi-position unit	Constraints
2	Any indoor units other than ducted units are not connectable.
1	- The total system wide capacity should be 130% or below including the ducted unit. - Only 1 ducted unit can be included in the connection.

• MXZ-8C60NA2 (For each connected branch box)

Number of connecting multi-position unit	Constraints
2	Any indoor units other than ducted unit are not connectable.
1	- The total system wide capacity should be 100% or below including the ducted unit. - Only 1 ducted unit can be included in the connection.

^{*3} For MXZ-8C60NA2: When connecting the SEZ and PEAD-series units, the total system wide capacity per 1 branch box should be 100% or below including the ducted units. (Only if connecting to branch box)

^{*4} When not outside units 60: A branch box can connect to maximum 3 of the ducted units. When connecting with 3 of the ducted units per 1 branch box, other indoor units cannot be connected.
When outside units 60: A branch box can connect to maximum 2 of the ducted units. When connecting with 1 and over 1 of the ducted units, the total ability including of the ducted units is 100% and below 100%.

^{*5} When the system includes 1 unit of ducted units, the number of the maximum connectable indoor units is decreased as follows:
3 for MXZ-4C36NAHZ2-U1, 4 for MXZ-5C42NAHZ2-U1, and 6 for MXZ-8C48NA(HZ)2-U1 and MXZ-8C60NA2-U1



NOTE

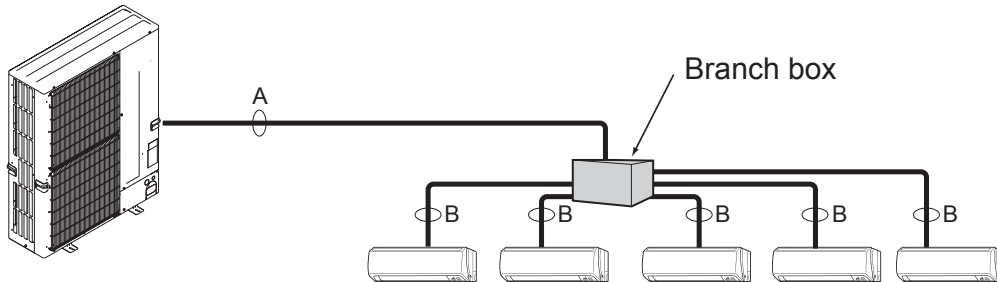
Please refer to Application Note 1039 for more information and exceptions to these rules.

Piping connection size

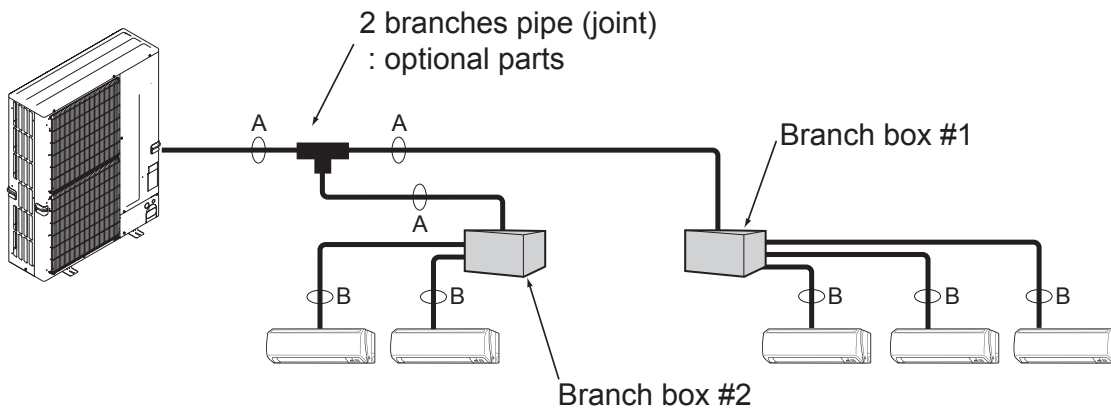
	A	B
Liquid	$\phi 3/8$ inch [9.52 mm]	The piping connection size differs according to the type and capacity of indoor units. Match the piping connection size of branch box with indoor unit. If the piping connection size of branch box does not match the piping connection size of indoor unit, use optional different-diameter (deformed) joints to the branch box side. (Connect deformed joint directly to the branch box side.)
Gas	$\phi 5/8$ inch / $\phi 3/4$ inch* [15.88 mm] / [19.05 mm]	

* MXZ-8C60 only

- In case of using 1-branch box
Flare connection employed (No brazing)

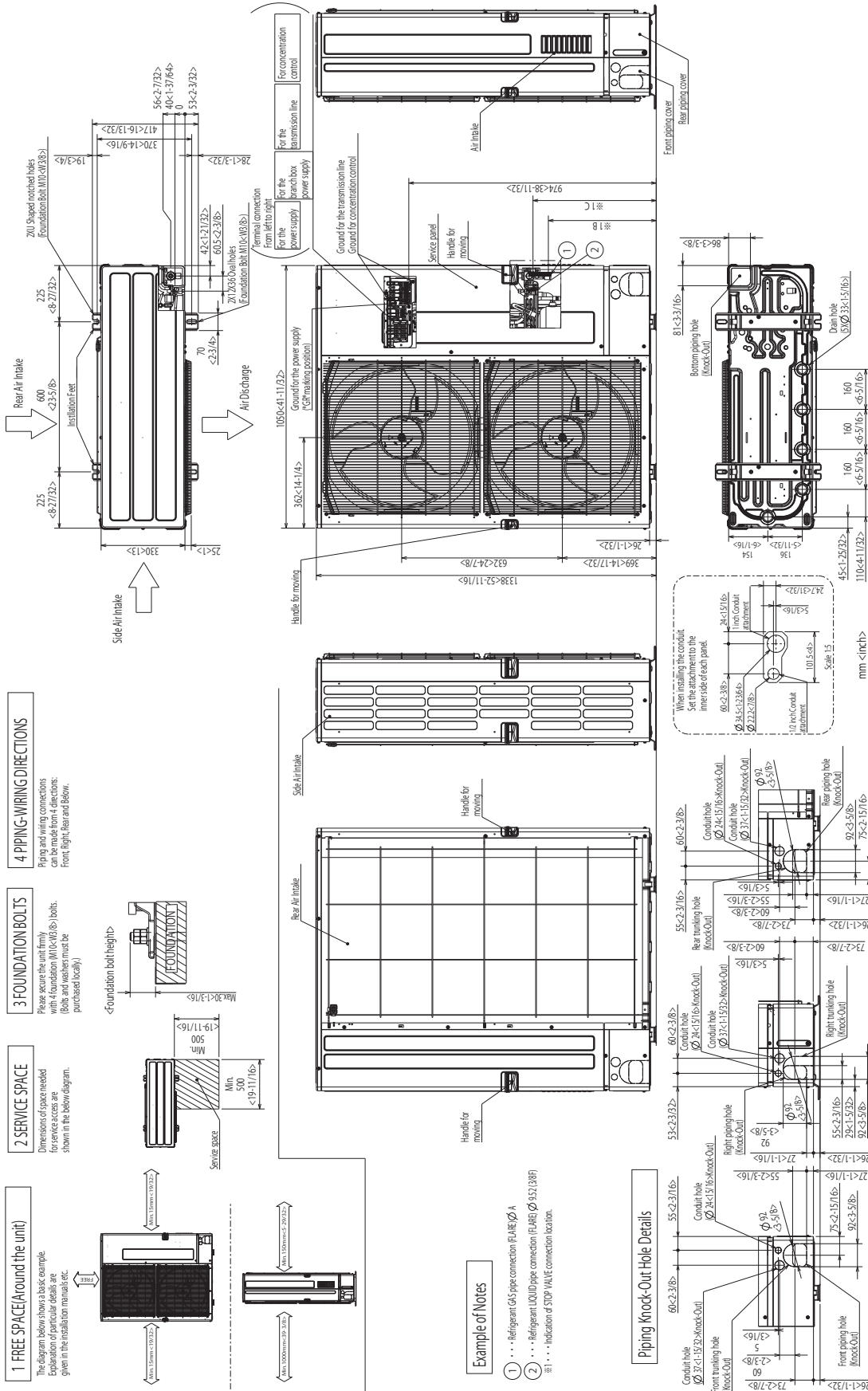


- In case of using 2-branch boxes



- Installation procedure (2 branches pipe (joint))
Refer to the installation manuals of MSDD-50AR-E and MSDD-50BR-E.

Unit: mm <inch>



DIMENSIONS: PAC-MKA52BC AND PAC-MKA32BC BRANCH BOXES

PAC-MKA52BC

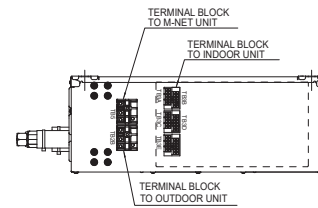
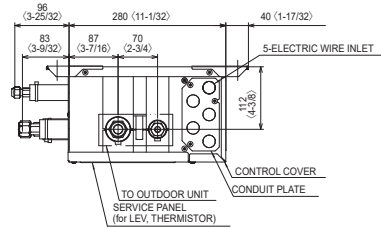
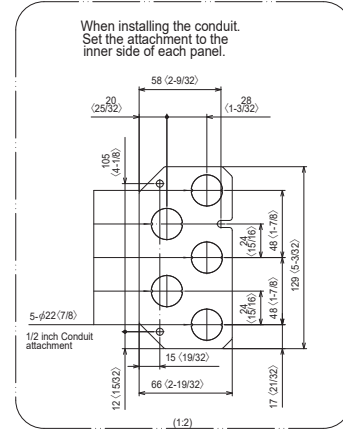
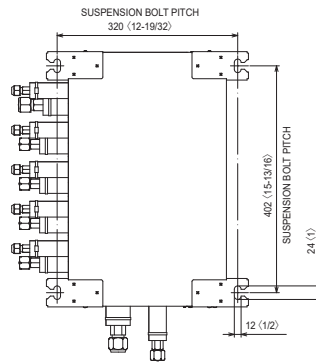
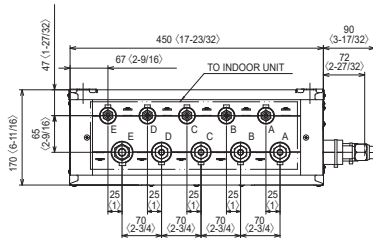
Unit: mm <inch>

SUSPENSION BOLT: W3/8(M10)

REFRIGERANT PIPE FLARED CONNECTION

Unit: inch

	A	B	C	D	E	TO OUTDOOR UNIT
LIQUID PIPE	1/4F	1/4F	1/4F	1/4F	1/4F	3/8F
GAS PIPE	3/8F	3/8F	3/8F	3/8F	1/2F	5/8F



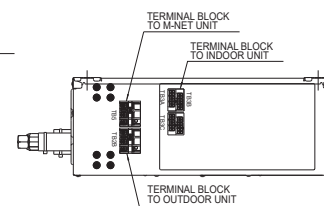
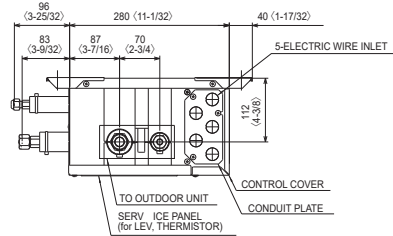
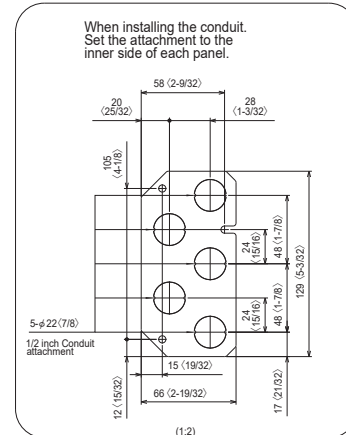
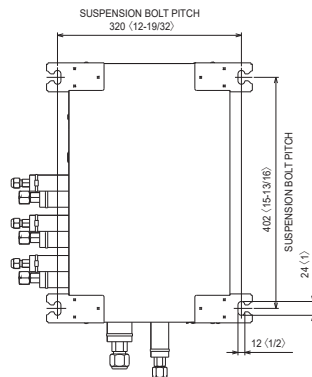
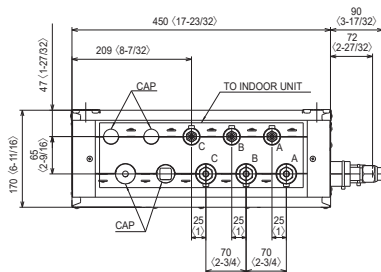
PAC-MKA32BC

SUSPENSION BOLT: W3/8(M10)

REFRIGERANT PIPE FLARED CONNECTION

Unit: inch

	A	B	C	TO OUTDOOR UNIT
LIQUID PIPE	1/4F	1/4F	1/4F	3/8F
GAS PIPE	3/8F	3/8F	3/8F	5/8F



1340 Satellite Boulevard, Suwanee, GA 30024
Toll Free: 800-433-4822 www.mehvac.com

FORM# MXZ-4C36NAH22 - 202009



Neighborhood Meeting Certification

50 Exchange Street Project

I, Josh Jacques, Project Architect for the applicant “Fifty Exchange, LLC” for the proposed project at 50 Exchange Street in Portland, ME hereby certify that a virtual neighborhood meeting was held on November 29th, 2021 at 6:00pm.

I also certify that on November 19, 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 or within 1000 feet of a proposed industrial subdivision or industrial zone change.
2. Residents on the “interested parties” list.

Signed,

A handwritten signature in black ink, appearing to read 'Josh Jacques', with a long horizontal line extending to the right.

Josh Jacques

Project Architect on behalf of the Developer, Fifty Exchange, LLC

Attached to this certification are:

1. Copy of the invitation sent
2. Sign-in sheet
3. Meeting minutes

Neighborhood Meeting Minutes

Project: 50 Exchange Street
Date: November 29, 2021
Meeting: Neighborhood Meeting
Location: Zoom (<https://us02web.zoom.us/j/89051953742>)
Attendees:

CJS:	Patrick Boothe	patrick@calebjohnsonstudio.com
	Josh Jacques	josh@calebjohnsonstudio.com
Owners:	Edith Armstrong	edie@maine.rr.com
	Phoebe Lehy	phoebe.lehy@gmail.com
Neighbors:	None in attendance	

MINUTES:

1. Meeting commenced at 6:00 pm
2. The presentation team waited for potential attendees until 6:15 before beginning the presentation.
3. There were no parties aside from Architecture or Ownership teams in attendance.
4. A project slideshow prepared by Caleb Johnson Studio was walked through with the Owners for record.
A copy of this presentation can be made available if requested.
5. Project slideshow includes information on:
 - a. Team introduction.
 - b. Intentions for meeting and procedure.
 - c. Existing building information.
 - d. Proposed changes as they relate to exterior improvements and the 4th Floor Addition.
 - e. Regulatory process to this point including historic certificate of appropriateness.
 - f. Next steps in the regulatory process.
 - g. Fielding questions from the attendees.
6. Meeting was adjourned at 6:30pm

Signed,



Josh Jacques

Project Architect on behalf of the Developer, Fifty Exchange, LLC



Dear Neighbor:

Please join us for a neighborhood meeting to discuss our plans for the renovation of 50 Exchange Street.

Meeting Location: (Zoom)

<https://us02web.zoom.us/j/89051953742>

Meeting Date: November 29, 2021

Meeting Time: 6:00pm

The Land Use Code requires that neighboring property owners and residents on an “interested party list” be invited to participate in this neighborhood meeting. Participant sign-in will be requested and a record of the meeting will be taken. Both the sign-in log and meeting record will be submitted to the Planning Board.

If you have any questions, Please call Caleb Johnson Studio at 207-283-8777

Sincerely,
Fifty Exchange LLC

Neighborhood Meeting Sign In

Project: 50 Exchange Street
 Date: November 29, 2021
 Meeting: Neighborhood Meeting
 Location: Zoom (<https://us02web.zoom.us/j/89051953742>)

Members of the Public in Attendance

Name	Email
None	

Developer and Consultant Team in Attendance

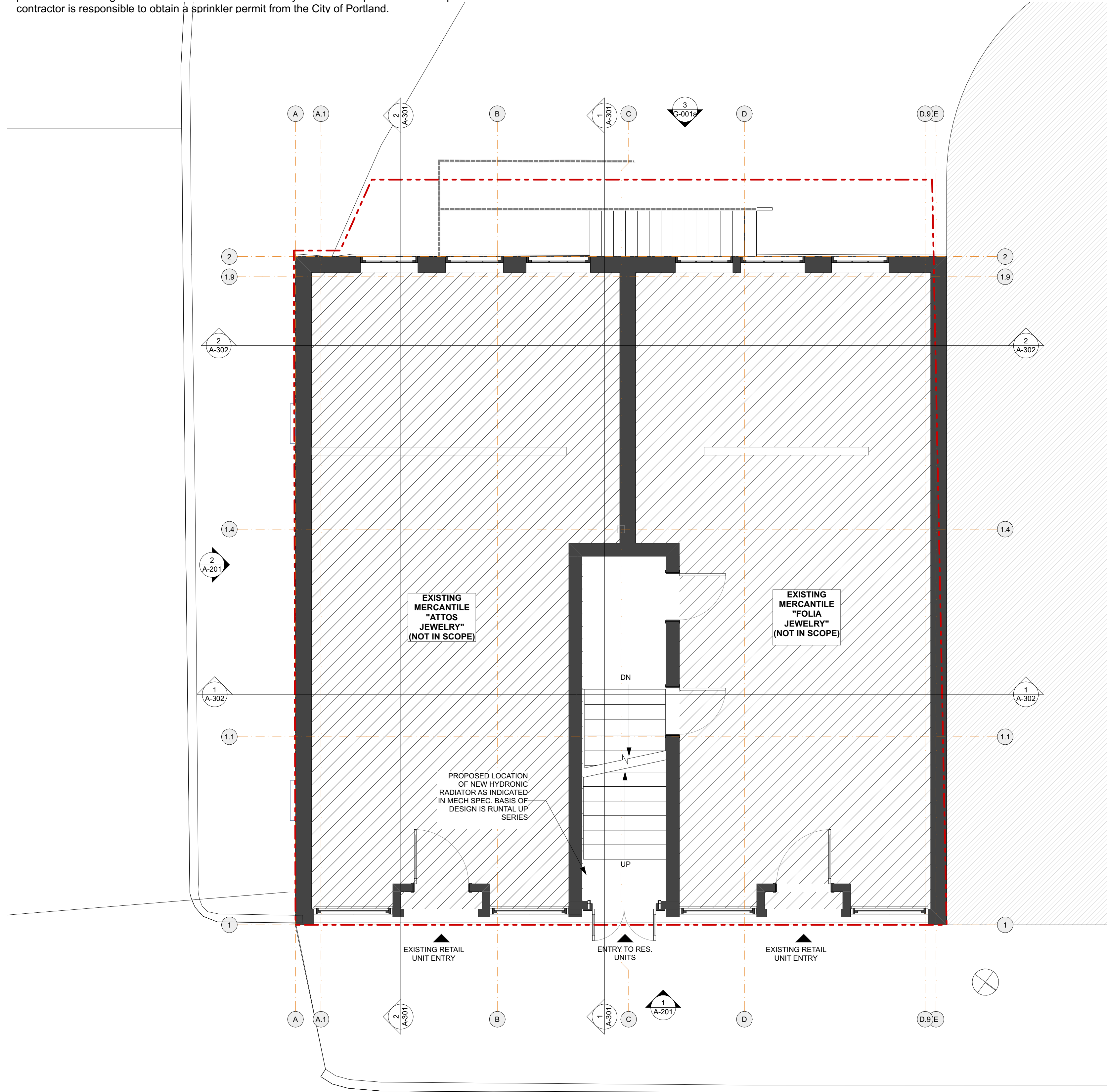
Name	Email
Josh Jacques	josh@calebjohnsonstudio.com
Patrick Boothe	patrick@calebjohnsonstudio.com
Edith Armstrong	edie@maine.rr.com
Phoebe Lehy	phoebe.lehy@gmail.com
Jason Jirele	jjirele@calebjohnsonstudio.com



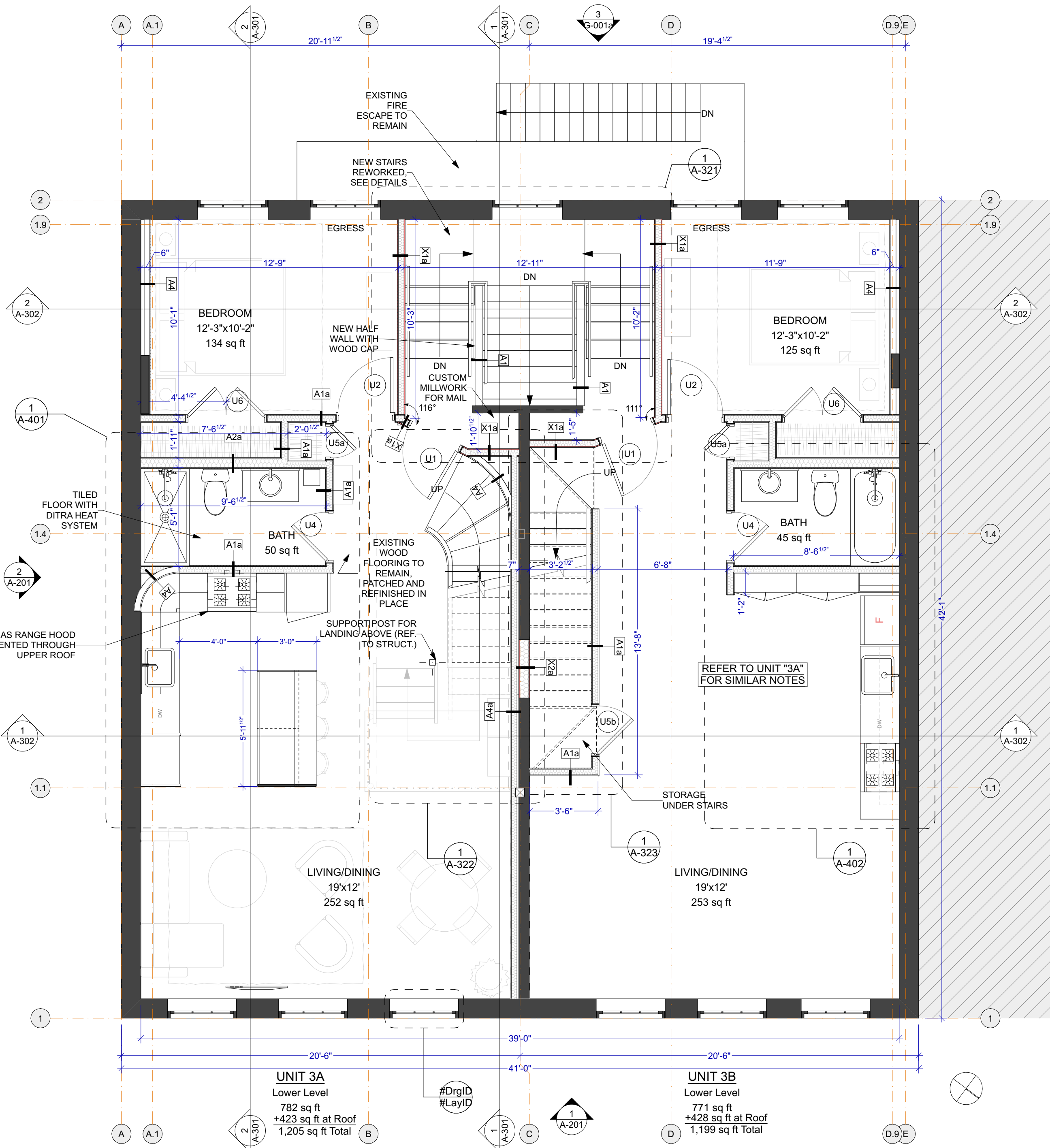
RESIDENCES AT 50
EXCHANGE STREET

A-101

- Contractor is responsible to obtain a sprinkler permit from the City of Portland.
9. Electrical and Lighting Basis of Design: Electrical work is to be design-build by the electrical subcontractor. Contractor is to refer to the basis of design power plans and RCPS for additional information. Refer to RCP and Power Plans. Refer to lighting schedule for fixture selections and quantities.
 10. Life Safety Devices: Refer to Code Analysis and Life Safety sheet G-001 for basis of design for locations and quantities of life safety equipment. Subcontractor responsible to meet state and local codes if in conflict with the basis of design shown.
 11. Finishes and Furnishings: TBD, Forthcoming. Refer to Finishes and Furnishings Plan.
 12. Millwork: TBD Forthcoming, contractor to carry allowances for custom millwork in sizes shown on the plans
 13. WiFi and Networking: Refer to Power Plan on sheet E-111 for more information
 14. Appliances: All appliances are to be Owner-Furnished, Contractor installed. Refer to sheet A-601 for basis of design selections.
 15. Energy Efficiency: Refer to Outline Specification for energy efficiency strategies.



SUBMISSIONS:		CHANGES THIS ISSUE	
ISSUE	DATE	DESCRIPTION	ID
01	06/30/2021	PERMIT SET	
02	08/10/2021	INS-PART II SET	
03	10/06/2021	SITE PLAN REVIEW SET	
04	10/14/2021	DD PRONG SET	



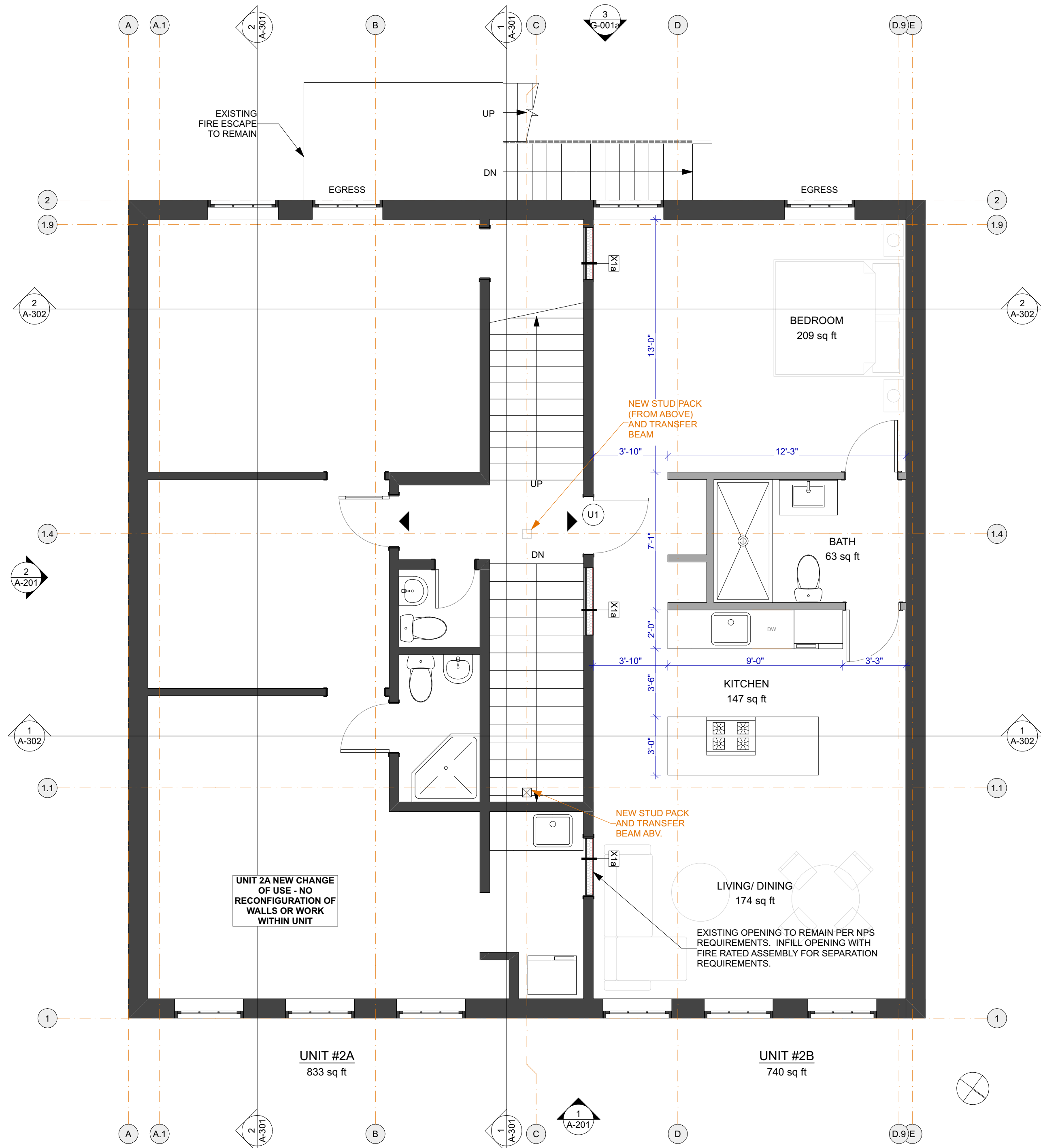
2 3RD FLOOR PROPOSED
SCALE: 1/4" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. **Drawing Set Status:** These Drawings constitute a Building Permit Submission Set. Additional information, dimensions and specifications can be provided by the Architect and/or Owner at a later date or as requested.
2. **Specifications:** Refer to sheets G-003 & G-004 for Project Outline Specifications.
3. **Dimensions:** All floor plan dimensions are from face of core structure material, such as wood studs for all new construction elements, UNO. All dimensions referencing existing elements are from finished face, UNO.
4. **Walls/Floors:** See wall and floor type assemblies on A-601
5. **Mechanical and Plumbing:** Refer to included mechanical and plumbing sheets prepared by project Mechanical Engineer (Ripcord Engineering). Contractor is to review and bring to the Architect's attention if additional information is required. Each trade contractor responsible to meet local code.
7. **Plumbing Fixtures and Bathroom Accessories:** Refer to schedules on sheet A-601 for more information.
8. **Automatic Sprinkler System:** The sprinkler system is to be design-build by the sprinkler contractor. The entire building is to be provided with a new NFPA13 sprinkler system. It is expected a new fire line will be pulled from Exchange Street. Contractor to coordinate any additional requirements. The sprinkler contractor is responsible to obtain a sprinkler permit from the City of Portland.

Contractor is responsible to obtain a sprinkler permit from the City of Portland.

9. **Electrical and Lighting Basis of Design:** Electrical work is to be design-build by the electrical subcontractor. Contractor is to refer to the basis of design power plans and RCPS for additional information. Refer to RCP and Power Plans. Refer to lighting schedule for fixture selections and quantities.
10. **Life Safety Devices:** Refer to Code Analysis and Life Safety sheet G-001 for basis of design for locations and quantities of life safety equipment. Subcontractor responsible to meet state and local codes if in conflict with the basis of design shown.
11. **Finishes and Furnishings:** TBD, Forthcoming. Refer to Finishes and Furnishings Plan.
12. **Millwork:** TBD Forthcoming, contractor to carry allowances for custom millwork in sizes shown on the plans
13. **WiFi and Networking:** Refer to Power Plan on sheet E-111 for more information
14. **Appliances:** All appliances are to be Owner-Furnished, Contractor installed. Refer to sheet A-601 for basis of design selections.
15. **Energy Efficiency:** Refer to Outline Specification for energy efficiency strategies.



1 2ND FLOOR PROPOSED
SCALE: 1/4" = 1'-0"



SUBMISSIONS:		CHANGES THIS ISSUE:	
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06/30/2021	PERMIT SET		
08/10/2021	NPS PART I SET		
10/09/2021	SITE PLAN REVIEW SET		
10/14/2021	DD PRICING SET		

RESIDENCES AT 50
EXCHANGE STREET

2ND & 3RD FLOOR PLANS

A-102

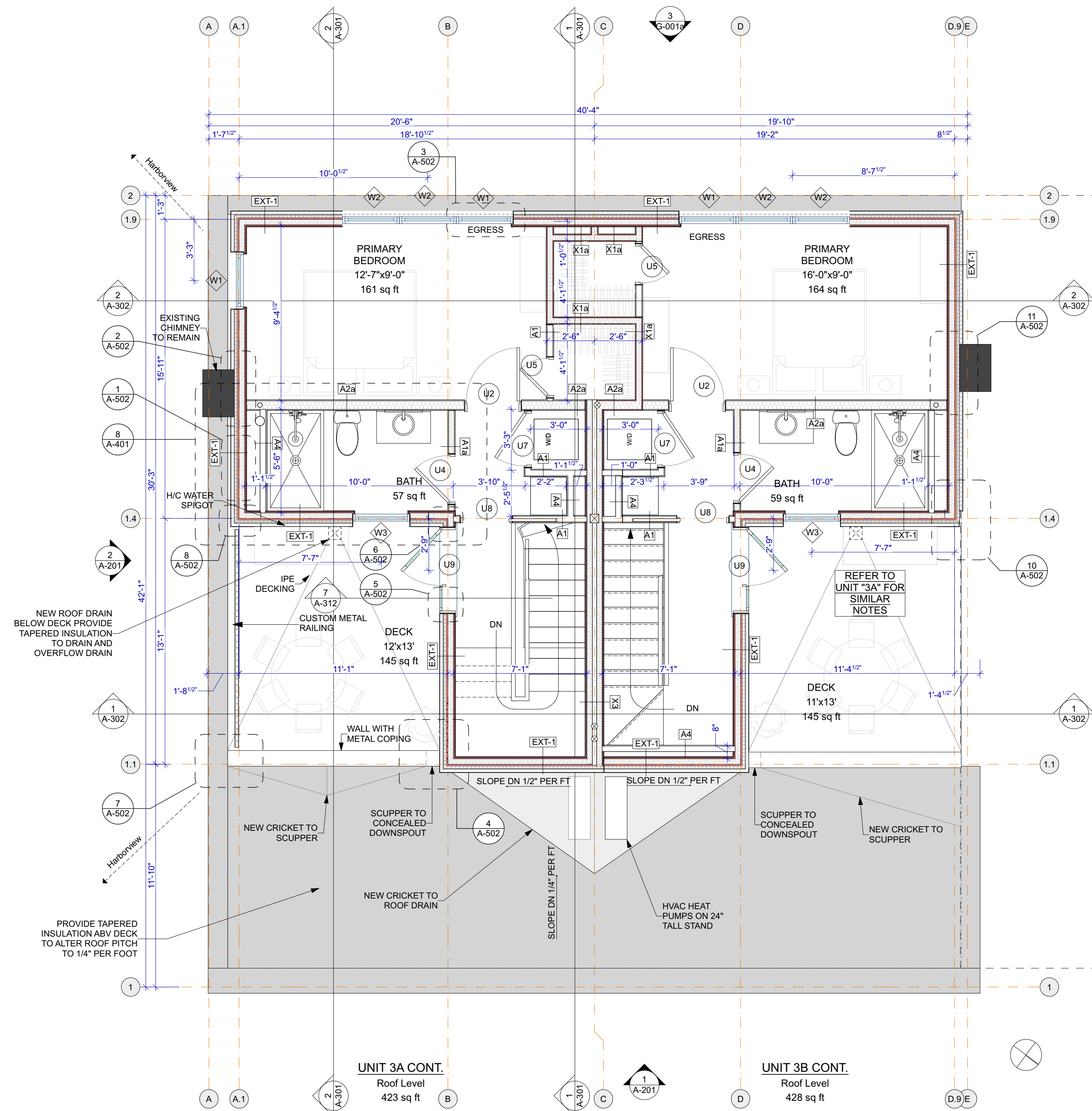
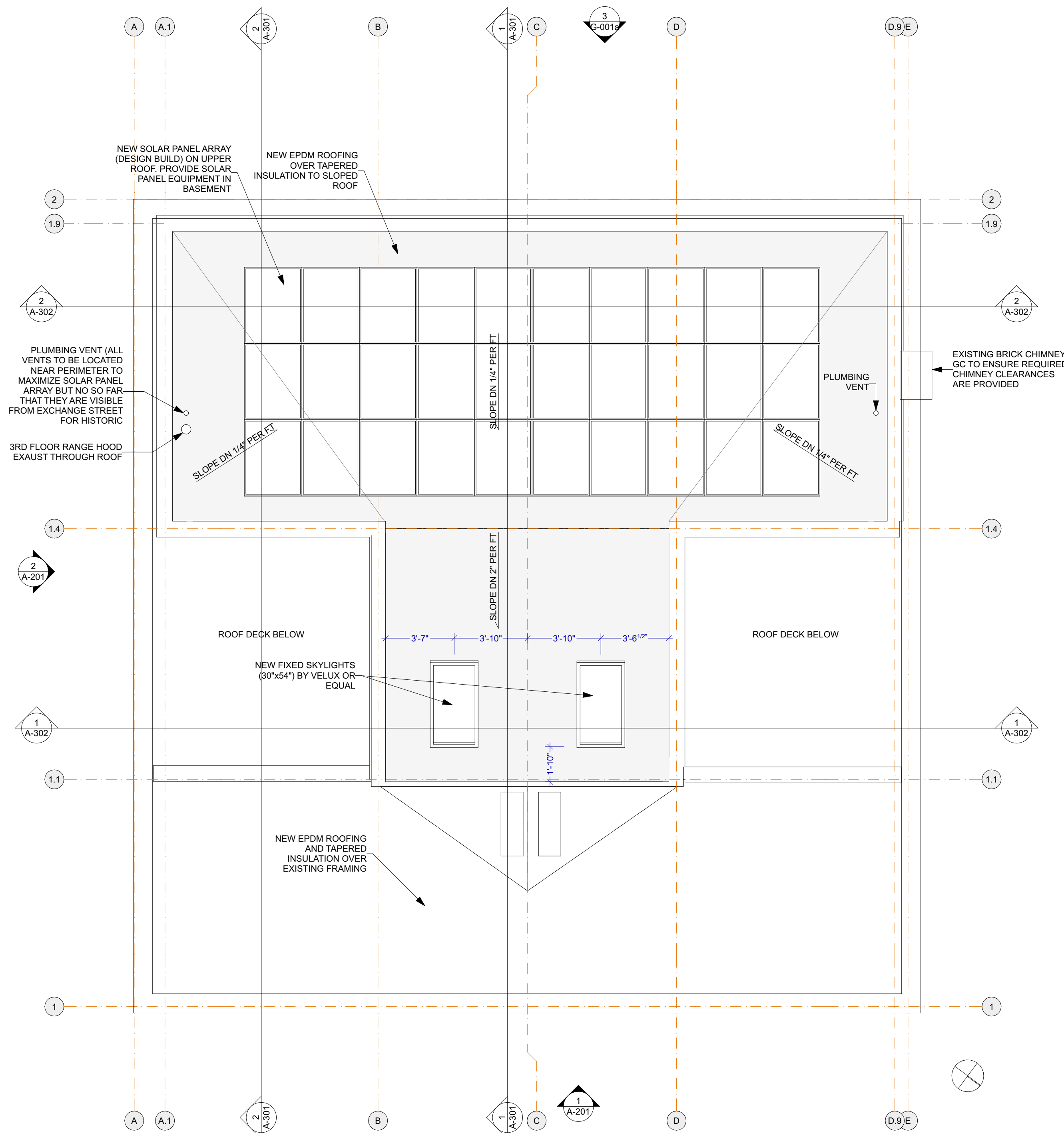
CALEB JOHNSON
STUDIO
110 EXCHANGE ST. 2ND FLOOR, PORTLAND, ME 04101
207.253.8777
calebjohnsonstudio.com

FLOOR PLAN GENERAL NOTES

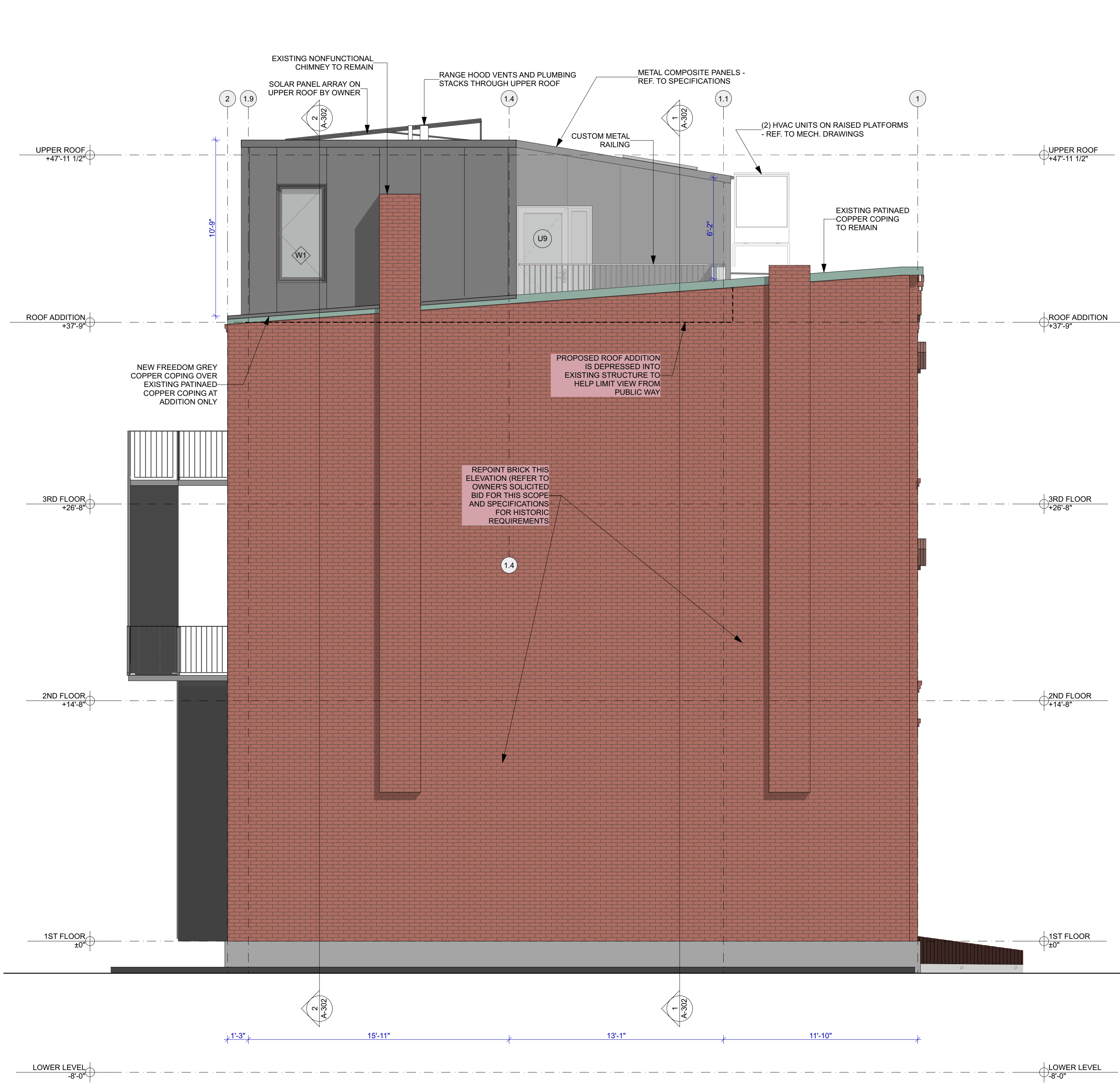
1. **Drawing Set Status:** These Drawings constitute a Building Permit Submission Set. Additional information, dimensions and specifications can be provided by the Architect and/or Owner at a later date or as requested.
2. **Specifications:** Refer to sheets G-003 & G-004 for Project Outline Specifications.
3. **Dimensions:** All floor plan dimensions are from face of core structure material, such as wood studs for all new construction elements, UNO. All dimensions referencing existing elements are from finished face, UNO.
4. **Walls/Floors:** See wall and floor type assemblies on A-601
5. **Mechanical and Plumbing:** Refer to included mechanical and plumbing sheets prepared by project Mechanical Engineer (Ripcord Engineering). Contractor is to review and bring to the Architect's attention if additional information is required. Each trade contractor responsible to meet local code.
7. **Plumbing Fixtures and Bathroom Accessories:** Refer to schedules on sheet A-601 for more information.
8. **Automatic Sprinkler System:** The sprinkler system is to be design-built by the sprinkler contractor. The entire building is to be provided with a new NFPA13 sprinkler system. It is expected a new fire line will be pulled from Exchange Street. Contractor to coordinate any additional requirements. The sprinkler contractor is responsible to obtain a sprinkler permit from the City of Portland.

Contractor is responsible to obtain a sprinkler permit from the City of Portland.

9. Electrical and Lighting Basis of Design: Electrical work is to be design-build by the electrical subcontractor. Contractor is to refer to the basis of design power plans and RCPS for additional information. Refer to RCP and Power Plans. Refer to lighting schedule for fixture selections and quantities.
10. Life Safety Devices: Refer to Code Analysis and Life Safety sheet G-001 for basis of design for locations and quantities of life safety equipment. Subcontractor responsible to meet state and local codes if in conflict with the basis of design shown.
11. Finishes and Furnishings: TBD, Forthcoming. Refer to Finishes and Furnishings Plan.
12. Millwork: TBD Forthcoming, contractor to carry allowances for custom millwork in sizes shown on the plans
13. WiFi and Networking: Refer to Power Plan on sheet E-111 for more information
14. Appliances: All appliances are to be Owner-Furnished, Contractor installed. Refer to sheet A-601 for basis of design selections.
15. Energy Efficiency: Refer to Outline Specification for energy efficiency strategies.

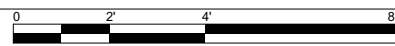


BIMcloud: bimservers24.local - BIMcloud Basic for ARCHICAD 24/50 Exchange Street_CURRENT 20210525



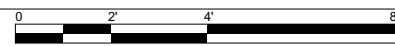
2

SOUTH ELEVATION (ALLEY)
SCALE: 1/4" = 1'-0"



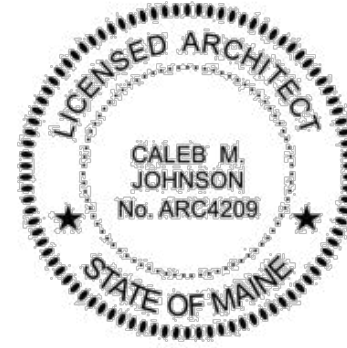
1

EAST ELEVATION (EXCHANGE STREET)
SCALE: 1/4" = 1'-0"



BUILDING ELEVATION GENERAL NOTES:

1. Project is to follow National Park Service Historic guidelines for Historic Rehabilitation including, but not limited to, Masonry repair and Window Refurbishment. Refer to Specifications for all guidelines and information.
2. Windows: The existing, double-hung windows on Floors 1-3 will be retained, re-glazed and repaired. All work to be in accordance with "Preservation Brief 9: The Repair of Historic Wooden Windows." New window units are proposed for the 4th Floor addition - refer to window schedule for further information.
3. Solar Panel Array is by Owner at a future date. GC and Electrical Contractor to coordinate with Owner and provide provisions for future installation of solar system without removal of any new work.
4. Refer to A-203 for Metal Cladding Layouts. GC and manufacturer to verify all dimensions in field. Provide shop drawings of layout and all details to Architect for review.



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10/09/2021	SITE PLAN REVIEW SET		
10/14/2021	DD PRELIM SET		

CJS PROJECT LEAD:	JJ
DATE OF ISSUE:	10/19/2021
PROJECT STATUS:	SITE PLAN REVIEW

**RESIDENCES AT 50
EXCHANGE STREET**

ELEVATIONS

A-201



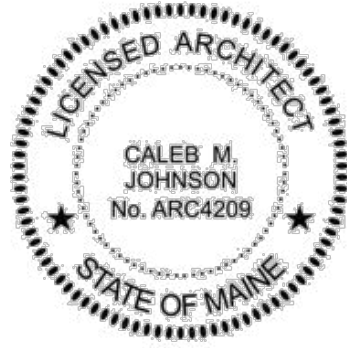
1

WEST ELEVATION (PARKING LOT)
SCALE: 1/4" = 1'-0"



BUILDING ELEVATION GENERAL NOTES:

1. Project is to follow National Park Service Historic guidelines for Historic Rehabilitation including, but not limited to, Masonry repair and Window Refurbishment. Refer to Specifications for all guidelines and information.
2. Windows: The existing, double-hung windows on Floors 1-3 will be retained, re-glazed and repaired. All work to be in accordance with "Preservation Brief 9: The Repair of Historic Wooden Windows." New window units are proposed for the 4th Floor addition - refer to window schedule for further information.
3. Solar Panel Array is by Owner at a future date. GC and Electrical Contractor to coordinate with Owner and provide provisions for future installation of solar system without removal of any new work.
4. Refer to A-203 for Metal Cladding Layouts. GC and manufacturer to verify all dimensions in field. Provide shop drawings of layout and all details to Architect for review.



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CHANGES THIS ISSUE:

ID	DESCRIPTION
01	DESCRIPTION
02	PERMIT SET
03	NPS PART I SET
04	SITE PLAN REVIEW SET
05	DD PRELIM SET

SUBMISSIONS:

ID	DATE	DESCRIPTION
01	06/20/2021	PERMIT SET
02	08/10/2021	NPS PART I SET
03	10/09/2021	SITE PLAN REVIEW SET
04	10/14/2021	DD PRELIM SET

CJS PROJECT LEAD:

JJ
DATE OF ISSUE:
10/19/2021
PROJECT STATUS:
SITE PLAN REVIEW

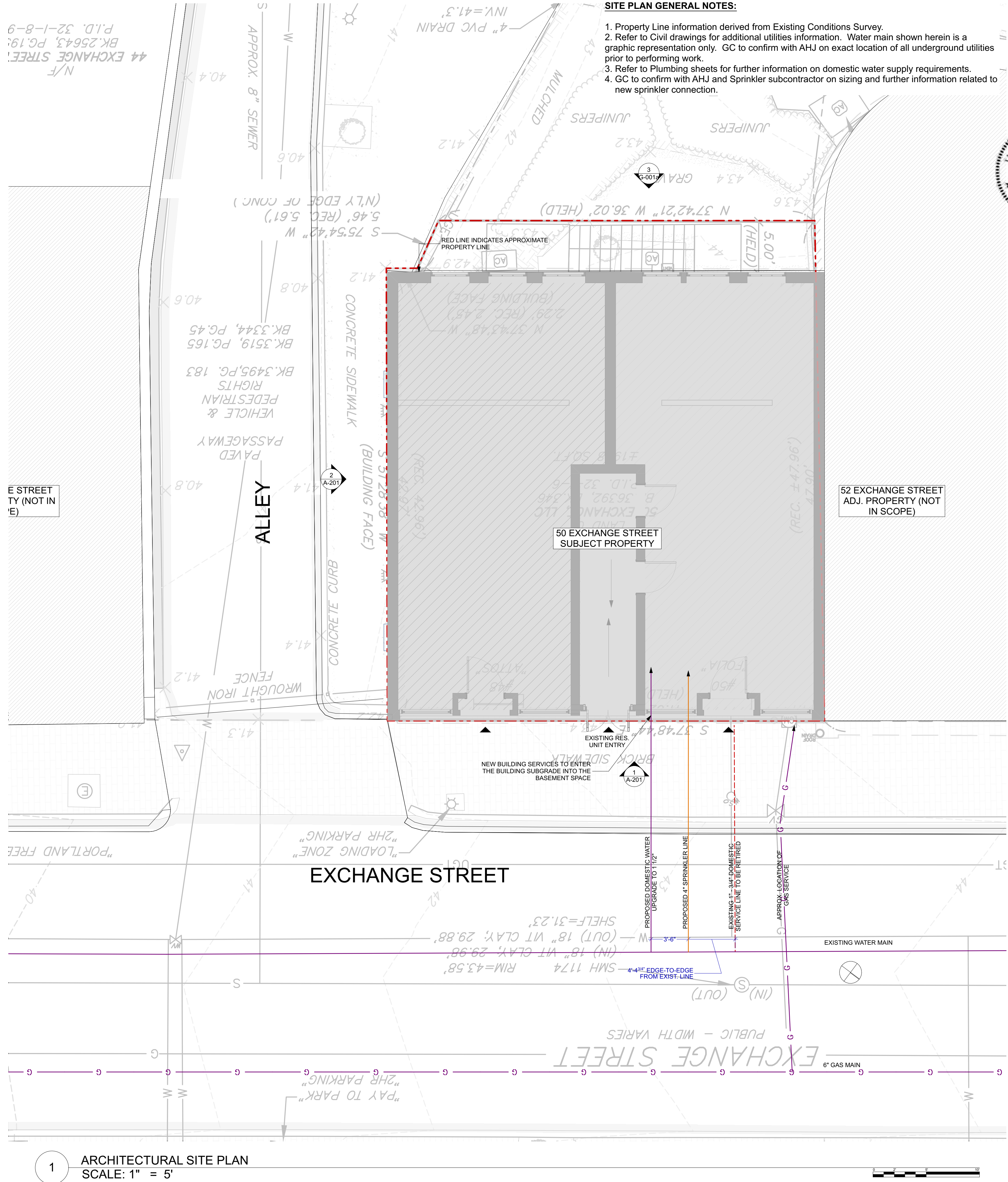
RESIDENCES AT 50
EXCHANGE STREET

ELEVATIONS

A-202

SUBMISSIONS:		ISSUE NUMBER	CHARGE NUMBER	CHRG	CHANGES THIS ISSUE:
ISSUE	DATE	DESCRIPTION	ID	DESCRIPTION	
01	06/30/2021	PERMIT SET			
03	10/06/2021	SITE PLAN REVIEW SET			
04	10/14/2021	DD PRICING SET			

CJS PROJECT LEAD:
JJ
DATE OF ISSUE:
10/19/2021
PROJECT STATUS:
SITE PLAN REVIEW



1. Contractor will review all drawings and specifications and confirm any unclear Information with the Architect before proceeding. Sheets are not to be separated when distributed to subcontractors in order to maintain contextual information.
2. Contractor is responsible for the construction of a complete weather tight building within the scope of the construction documents. If contractor feels performance with the construction documents is in conflict with this goal he shall discuss conflicts with Architect.
3. Contractor is responsible for coordinating and supervising all sub-contractors. Workmanship standards shall be those generally accepted for high-end construction.
4. Contractor warrants all work for a minimum of one year from final completion of job. Other explicit warranties may be in addition to above.

DD PRICING SET

10-14-2021

CONTRACTOR
Woodhull of Maine
110 Exchange Street, 2nd Floor
Portland, ME 04101
207-283-8777
c/o
Michael Cleary
cleary@woodhullofmaine.com

**STRUCTURAL ENGINEERING
CONSULTANT**
Intelligent Design Engineering
90 Saco Falls Way, #201
Biddeford, ME 04005
c/o
Austin Gregory, PE
207-252-9893

	Brick - Elevation
	Brick - Section
	Concrete - Block
	Concrete - CIP
	Earth
	Gravel
	Gypsum
	Insulation - Batt
	Insulation - Rigid
	Metal - Aluminum
	Metal - Steel
	Not in Contract
	Plywood
	Vegetation
	Wood - End Grain



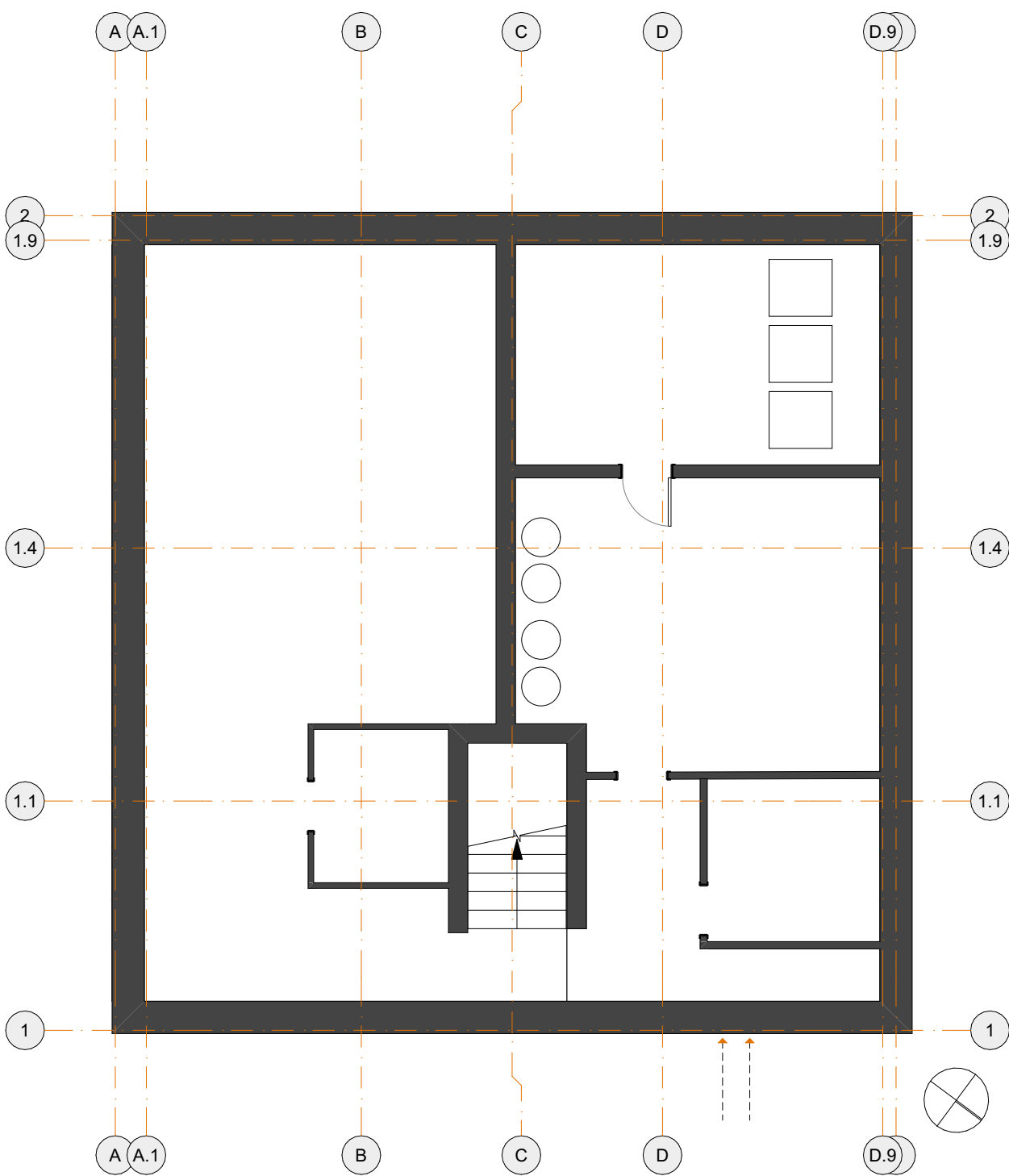
Conversion of an existing 3-story load-bearing masonry building to be mixed-use with new residential uses on the 2nd and 3rd floors. 4 dwelling units total. Scope includes interior renovations and a new 4th story addition to add bedroom and outdoor space for 3rd Floor Units. The building is within the Old Port Historic District and is also intended to be renovated in accordance with National Park Standards for Historic Rehabilitation.

Total Calc Occupants: See Occupancy Chart

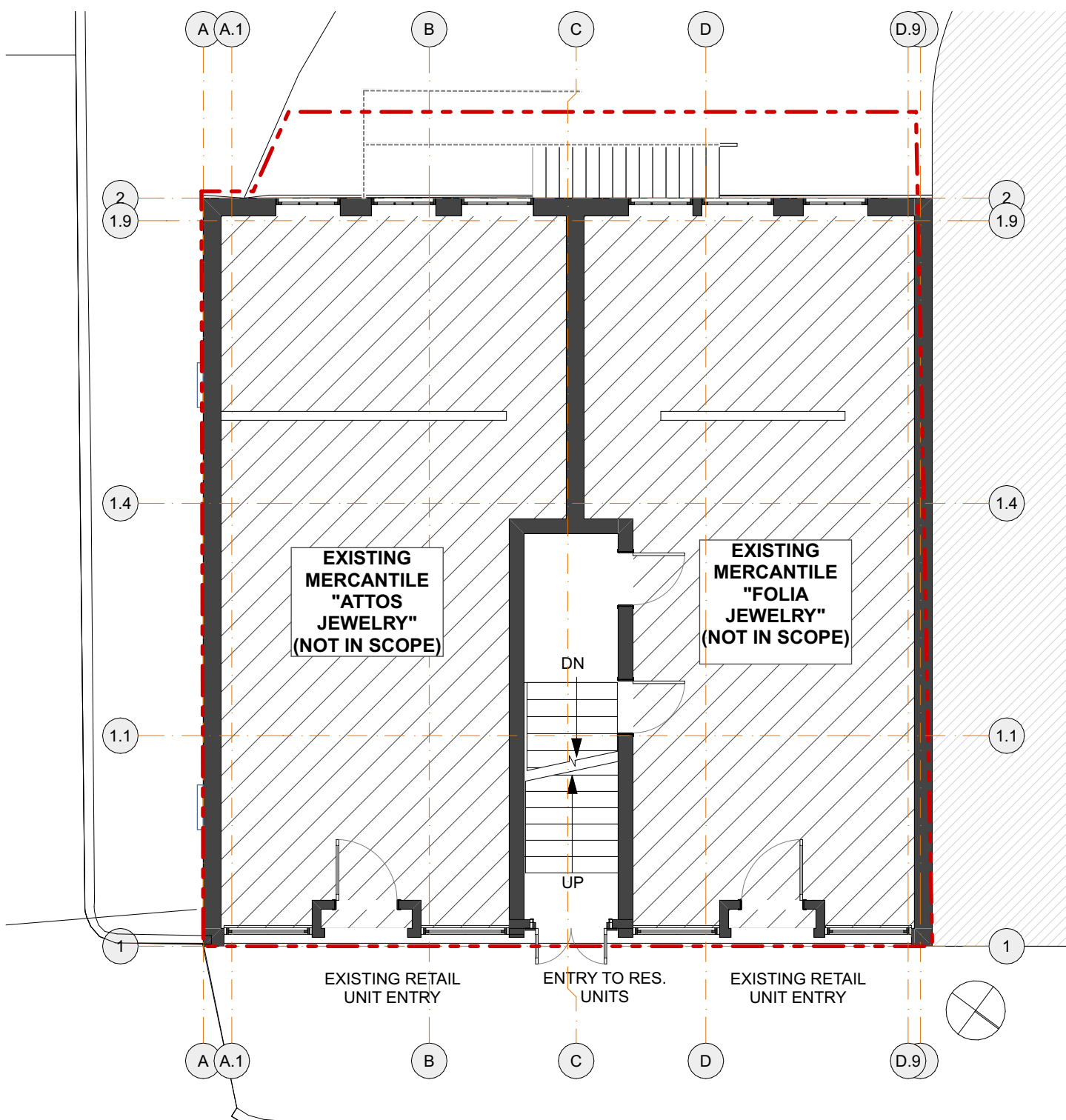
SHEET LIST		ISSUED
GENERAL		
G-000	COVER SHEET	☒
G-001	CODE ANALYSIS & LIFE SAFETY 1	☒
G-001a	CODE ANALYSIS & LIFE SAFETY 2	☒
G-002	HISTORIC: VIEW STUDY FROM PUBLIC WAY	☒
G-003	OUTLINE SPECIFICATIONS	☒
G-004	OUTLINE SPECIFICATIONS	☒
G-005	EXISTING BUILDING SURVEY	☒
G-006	CONSTRUCTION MANAGEMENT PLAN	☒
CIVIL		
C-100	SITE AND UTILITY PLAN	☒
C-200	SITE DETAILS	☒
D - DEMOLITION		
D-101	DEMOLITION PLANS	☒
STRUCTURAL		
S-000	STRUCTURAL GENERAL NOTES	☒
S-001	FOUNDATION AND FIRST FLOOR PLAN	☒
S-002	SECOND FLOOR FRAMING PLAN	☒
S-003	THIRD FLOOR FRAMING PLAN	☒
S-004	FOURTH FLOOR FRAMING PLAN (3RD FLR CLG)	☒
S-005	LOWER ROOF FRAMING (UPPER 3RD FLR CLG)	☒
S-006	FOURTH FLOOR HEADER AND WALL FRAMING	☒
S-007	ROOF FRAMING	☒
S-008	STRUCTURAL SECTION AND DETAILS	☒
ARCHITECTURAL		
A-100	ARCHITECTURAL SITE PLAN	☒
A-101	BASEMENT AND 1ST FLOOR PLAN	☒
A-102	2ND & 3RD FLOOR PLANS	☒
A-103	4TH FLOOR & ROOF PLANS	☒
A-111	3RD & 4TH FLR RCP/ LIGHTING	☒
A-121	3RD & 4TH FLR FURNITURE PLANS	☒
A-201	ELEVATIONS	☒
A-202	ELEVATIONS	☒
A-203	4TH FLOOR CLADDING LAYOUT	☐
A-301	BUILDING SECTIONS	☒
A-302	BUILDING SECTIONS	☒
A-311	WALL SECTIONS	☒
A-312	WALL SECTIONS	☒
A-321	COMMON STAIR DETAILS	☒
A-322	UNIT "3A" STAIR DETAILS	☒
A-323	UNIT "3B" STAIR DETAILS	☒
A-401	UNIT "3A" ENLARGED PLANS/ INT. ELEV'S	☒
A-402	UNIT "3B" ENLARGED PLANS/ INT. ELEV'S	☒
A-501	EXTERIOR DETAILS	☒
A-502	EXTERIOR DETAILS	☒
A-511	3RD FLOOR INTERIOR DETAILS	☒
A-512	4TH FLOOR INTERIOR DETAILS	☒
A-601	SCHEDULES	☒
A-602	SCHEDULES	☒
MECHANICAL		
M-001	MECHANICAL LEGEND	☒
M-002	MECHANICAL LEGEND	☒
M-003	SOLAR PATH	☒
M-004	SOLAR INSOLATION	☒
M-005	3RD & 4TH FLR ENVELOPE PERFORMANCE	☒
M-006	SCHEMATIC	☒
M-007	SCHEMATIC	☒
M-101	BASEMENT & 1ST FLR PLANS	☒
M-102	2ND & 3RD FLR PLANS	☒
M-103	4TH FLR & ROOF PLANS	☒
M-104	3RD & 4TH FLR RCP'S	☒
M-201	EXTERIOR ELEVATIONS	☒
M-202	EXTERIOR ELEVATIONS	☒
M-601	SCHEDULES	☒
M-602	SCHEDULES	☒
M-603	LOADS	☒
PLUMBING		
P-001	PLUMBING LEGEND	☒
P-002	SCHEMATIC	☒
P-101	BASEMENT & 1ST FLR SUPPLY PLANS	☒
P-102	2ND & 3RD FLR SUPPLY PLANS	☒
P-103	4TH FLR SUPPLY PLAN	☒
P-104	BASEMENT & 1ST FLR DWV PLANS	☒
P-105	2ND & 3RD FLR DWV PLANS	☒
P-106	4TH FLR & ROOF DWV PLANS	☒
P-601	SCHEDULES	☒
E-101	ELECTRIC PLANS - SWITCHING	☒
E-111	ELECTRIC PLANS - POWER	☒

RESIDENCES AT 50
EXCHANGE STREET

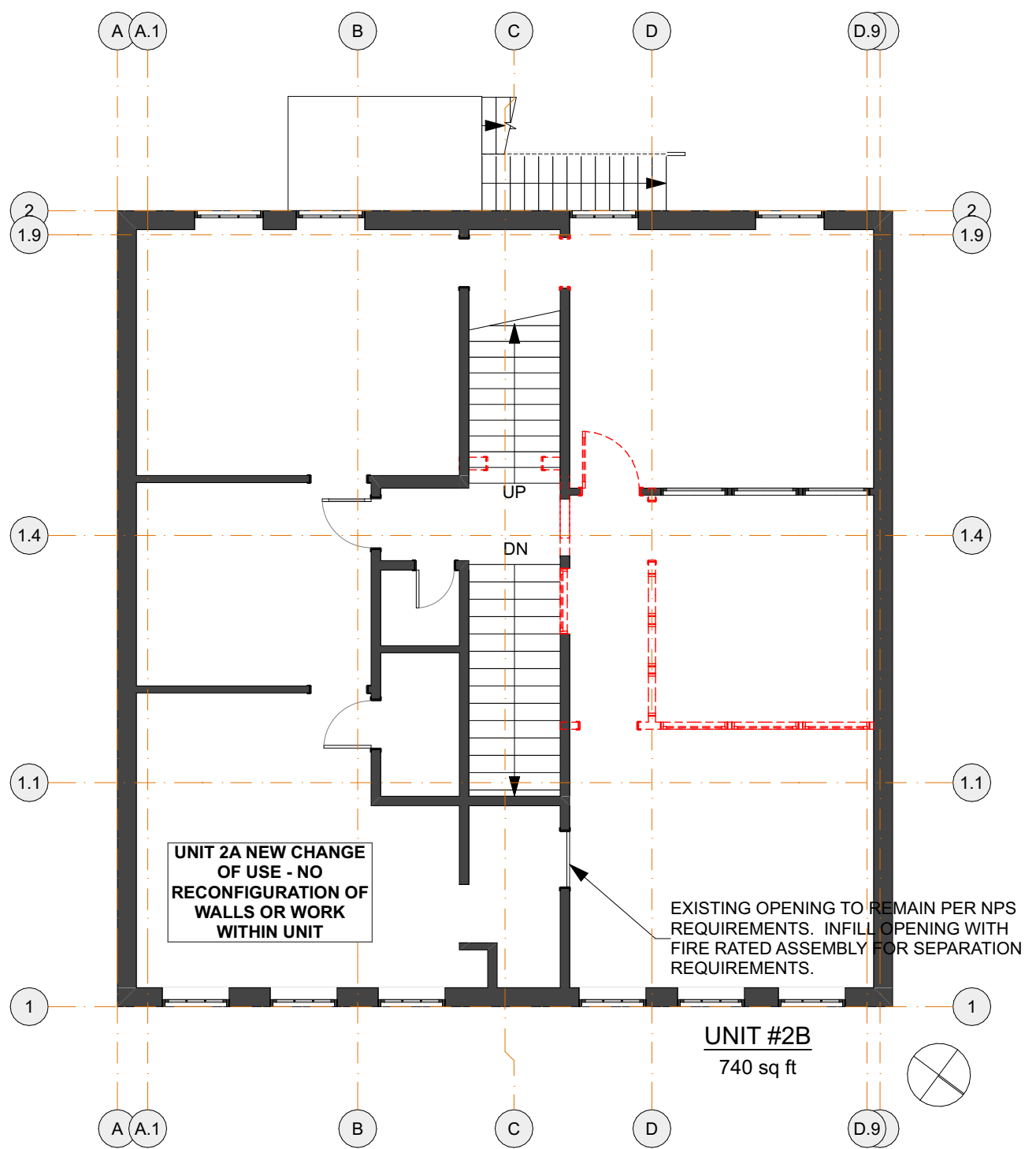
G-000



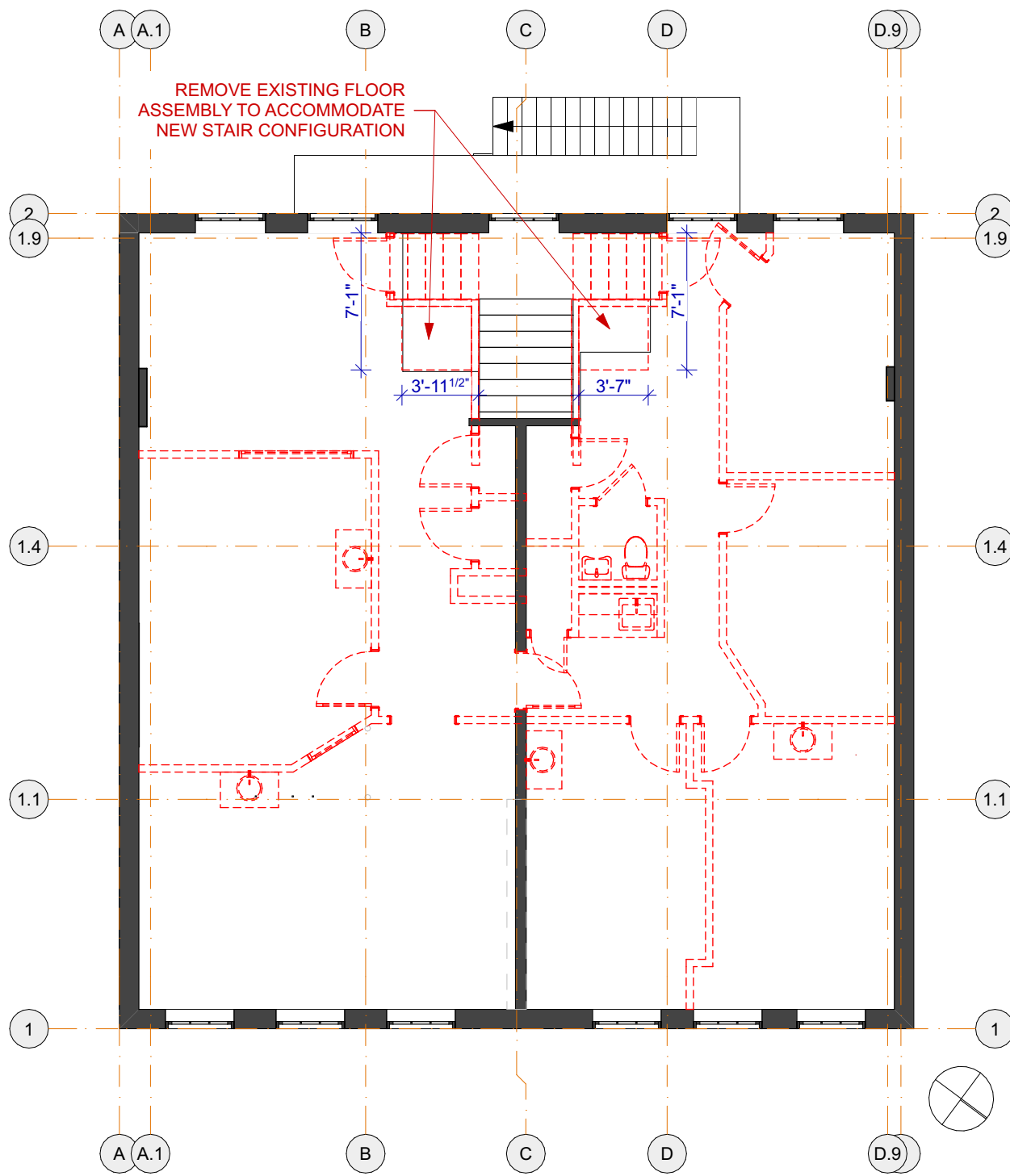
3 BASEMENT DEMO/EXISTING
SCALE: 1/8" = 1'-0"



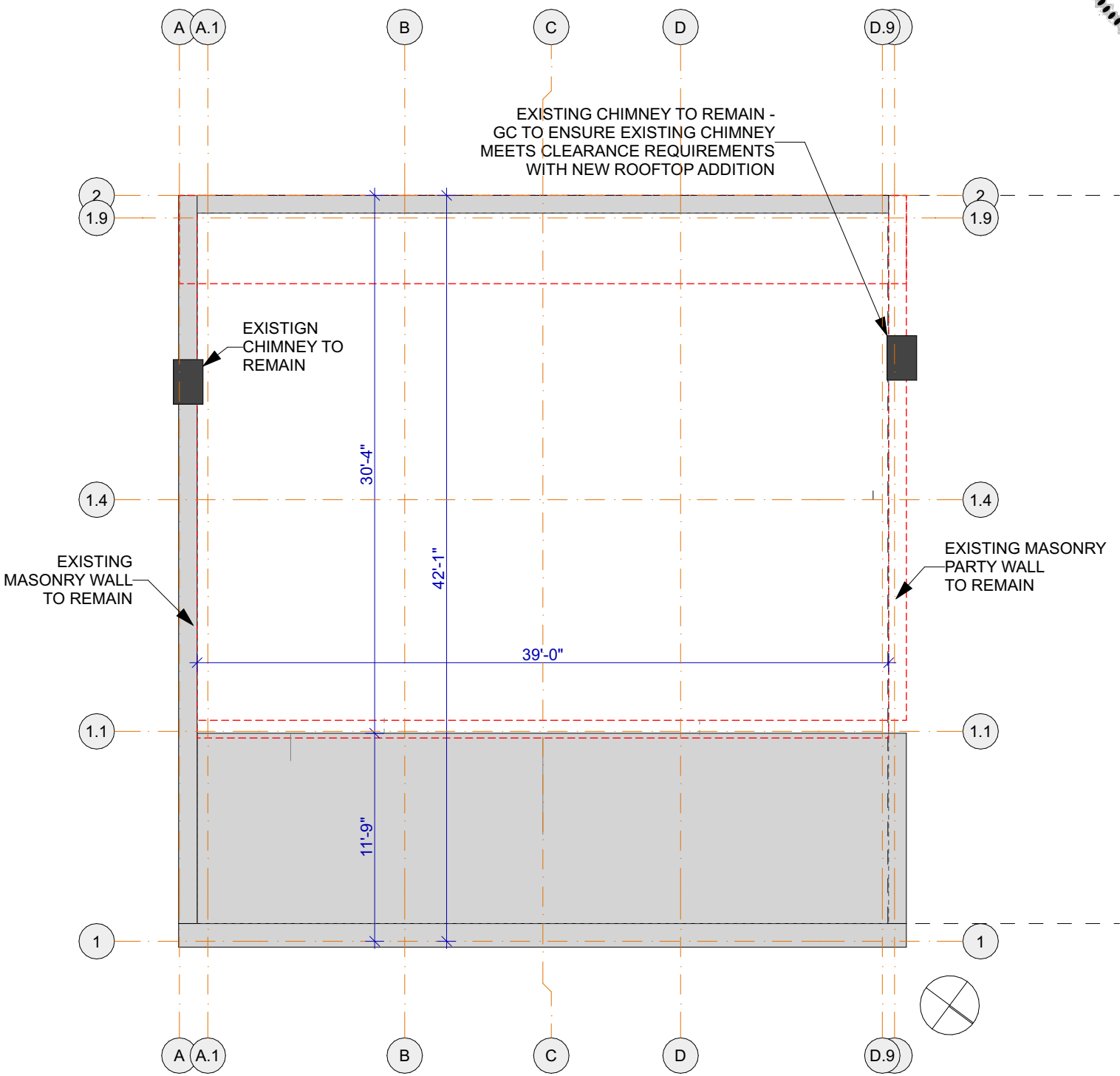
2 1ST FLOOR DEMO/EXISTING
SCALE: 1/8" = 1'-0"



1 2ND FLOOR DEMO/EXISTING
SCALE: 1/8" = 1'-0"



5 3RD FLOOR DEMO/EXISTING
SCALE: 1/8" = 1'-0"

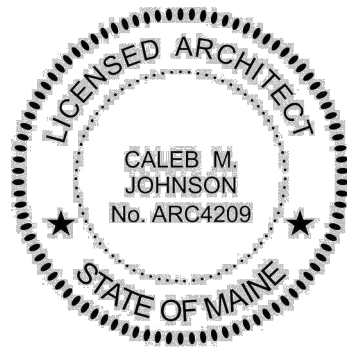


4 ROOF DEMO/EXISTING
SCALE: 1/8" = 1'-0"

DEMOLITION PLAN LEGEND

- Wall to be Demolished
- Existing Wall to Remain
- Room/ Area to be Guted, See Additional Notes
- Door to be Demolished
- Fixture/ Object to be Demolished

- DEMOLITION PLAN GENERAL NOTES
1. Refer to Historic approvals for additional information.
 2. Wood flooring throughout 3rd Floor to remain.
 3. GC to coordinate removal of roof to protect existing occupied areas within building.
 4. GC to bring to the Architect's attention any discrepancies between existing site conditions and drawings.



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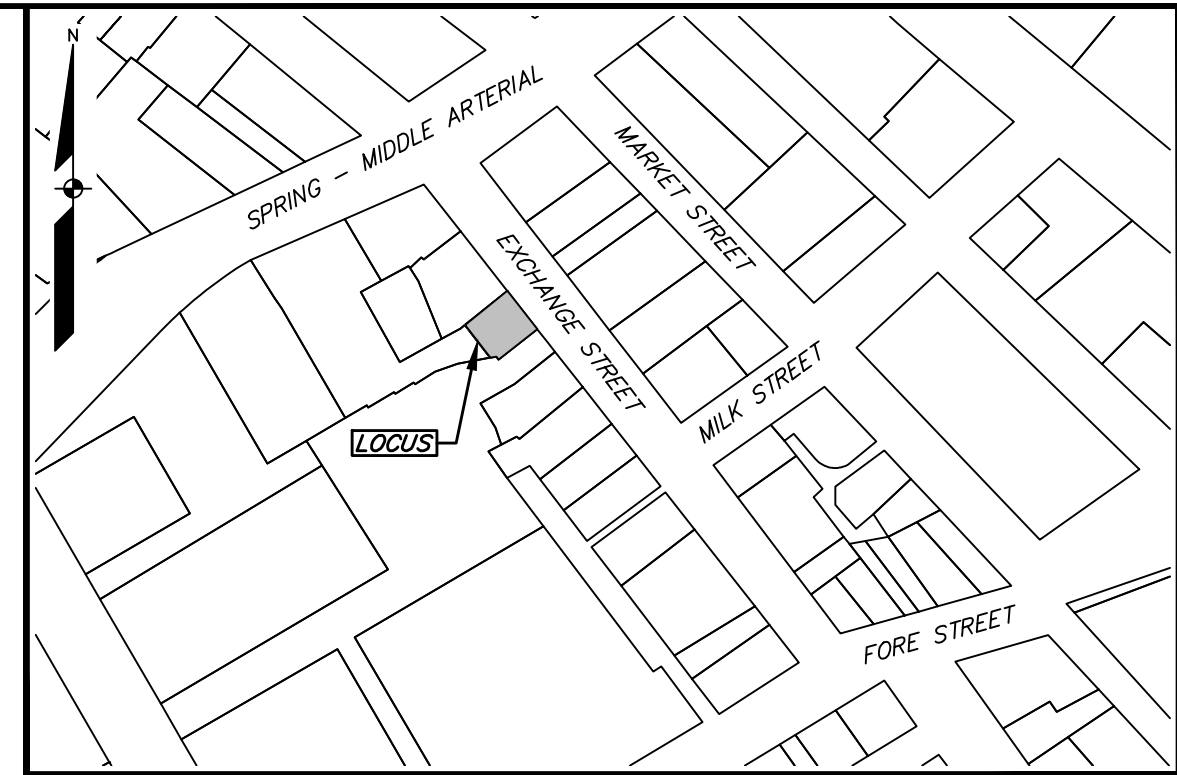
CJS PROJECT LEAD:
JJ
DATE OF ISSUE:
10/19/2021
PROJECT STATUS:
SITE PLAN REVIEW

RESIDENCES AT 50
EXCHANGE STREET

1. THE RECORD OWNER OF THE PARCEL IS 50 EXCHANGE LLC BY DEED DATED FEBRUARY 3, 2020 AND RECORDED AT THE C.R.D. IN BOOK 36392, PAGE 346, AND IS SHOWN AS PART 16-16-16 OF THE CITY OF FALLEN LEAF, MISSISSIPPI ASSESSORS RECORD.
- 1.1. REFERENCE IS MADE TO CONDOMINIUM DECLARATION: BOOK 37220, PAGE 271.
2. UNIT 1 CONVEYED TO SANTANA, LLC: BOOK 37242, PAGE 298.
3. UNITS 2 - 6 CONVEYED TO FIFTY EXCHANGE, LLC: BOOK 37243, PAGE 141.
2. THE PROPERTY IS LOCATED IN THE B3 DISTRICT AND DOWNTOWN ENTERTAINMENT OVERLAY ZONE.
- LAND USE REGULATIONS ARE AS FOLLOWS:
 - MAXIMUM FRONT YARD: 5 FEET
 - MINIMUM SIDE YARD: NONE
 - MINIMUM REAR YARD: NONE
 - MAXIMUM BUILDING HEIGHT: 65 FEET
- SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.
3. TOTAL AREA OF PARCEL IS APPROXIMATELY 1,938 SQUARE FEET.
4. BOUNDARY INFORMATION SHOWN HEREON IS BASED UPON ON-TH-GROUND BOUNDARY SURVEY CONDUCTED BY NORTHERN SURVEY ENGINEERING, LLC IN SEPTEMBER, 2021.
5. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON ON-TH-GROUND MEASUREMENT COMPLETED BY NORTHERN SURVEY ENGINEERING, LLC IN SEPTEMBER, 2021.
6. BOOK AND PAGE REFERENCES SHOWN HEREON ARE IN REFERENCE TO THE CUMBERLAND COUNTY REGISTER OF DEEDS (C.R.D.).
7. BEARINGS SHOWN HEREON ARE IN REFERENCE TO GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83. ELEVATIONS DEPICTED HEREON ARE IN REFERENCE TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29). BASED GPS OBSERVATIONS, WHICH APPROXIMATES THE CITY VERTICAL DATUM.

- UTILITY INFORMATION DEPICTED HEREON IS COMPILED USING PHYSICAL SURFACE EVIDENCE LOCATED IN THE FIELD IN CONJUNCTION WITH ANY RECORD INFORMATION AVAILABLE AT THE TIME OF SURVEY. SURVEYOR HAS CONDUCTED VISUAL INSPECTION OF EXISTING UTILITIES, CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION AND/OR INSTALLATION. SURFACE UTILITIES WERE NOT FIELD MARKED AS PART OF THIS SURVEY AND ARE APPROXIMATE.
9. BOUNDARY NOTES:
- 9.1. EXCHANGE STREET IS VARIABLE IN WIDTH, BEING 52.8 FEET WIDE AT MARKET STREET, AND 49.5 FEET WIDE AT FORE STREET. THE TRUE RIGHT OF WAY LINES RUN BY STORES. THE TRUE RIGHT OF WAY LINES ARE SHOWN ON CITY BLOCK SHEET NO. 27.
- 9.2. 3-FOOT OFFSET MONUMENTS WERE FOUND AND HELD ALONG THE SOUTHWEST SIDE LINE AT THE INTERSECTION WITH MIDDLE STREET AND FORE STREET.
- 9.3. 3 FOOT OFFSET MONUMENTS WERE FOUND AND HELD ALONG THE NORTHEAST SIDE LINE AT THE INTERSECTION WITH MIDDLE, EXCHANGE AND MLK STREETS.
- 9.1,2,3. THE BUILDING FACADES ALONG EXCHANGE STREET EXTEND SLIGHTLY WITHIN THE RIGHT OF WAY LINES AS SHOWN; THE TRUE RIGHT OF WAY LINE MAY FOLLOW THE STREET FRONTS.
- 9.4. THE RECORD DIMENSIONS OF THE SUBJECT PARCEL APPEAR TO BE DERIVED FROM PLAN REF. 8 AND BOOK 3495, PAGE 183. THE MEASUREMENTS SHOWN ON THAT SURVEY APPEAR TO ESTABLISH THE BOUNDARY AS SHOWN. THE SURVEYOR HAS BEEN ADVISED BY RTF ARMS, LLC, THE BUILDING FACE AS SURVEYED WAS HELD TO ESTABLISH THE SOUTHEAST AND SOUTHWEST BOUNDARIES.
- 9.5. BOOK 3495, PAGE 183 AND SUBSEQUENTLY BOOK 3519, PAGE 165 DESCRIBE THE BOUNDARY AS EDGE THE CONCRETE WALKWAY IN 1972. RECORD DIMENSIONS FROM REFERENCED PLANS DO NOT EXACTLY FOLLOW THE EDGE OF THE WALKWAY BUT ARE A REASONABLY APPROXIMATE. THE SURVEYOR IS SENSIBLE THEREFORE THE EDGE OF THE CONCRETE WALKWAY HAS BEEN HELD AS THE BOUNDARY.

1. "CONDOMINIUM PLAT, 50 EXCHANGE STREET CONDOMINIUM" PREPARED FOR 50 EXCHANGE LLC BY OWEN HASKELL, INC., DATED JUNE 12, 2020, RECORDED IN PLAN BOOK 220, PAGE 320 & 321.
2. "PROPOSED SUBDIVISION, 176-188 MIDDLE STREET" PREPARED FOR EAST BROWN COW DEVELOPMENT BY NORTHEAST CIVIL SOLUTIONS, DATED FEBRUARY 3, 2021, RECORDED IN PLAN BOOK 221, PAGE 385.
3. "ALTA/ACSM LAND TITLE SURVEY, 1 CANAL PLAZA, PORTLAND, MAINE" PREPARED FOR COW PLAZA 1 LLC BY NORTHEAST CIVIL SOLUTIONS, DATED NOVEMBER 30, 2009, UNRECORDED.
4. "CONDOMINIUM PLAT BOYD BLOCK CONDOMINIUM 176-188 MIDDLE STREET & 4 CANAL PLAZA, PORTLAND, MAINE MAD FOR RECORD OWNER BUCKSTAR LLC." PREPARED BY OWEN HASKELL, INC. DATED AUGUST 2, 2011 AND RECORDED IN PLAN BOOK 211, PAGE 226.
5. "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR CITY OF PORTLAND, MAINE, SITE PLAN" BY H.I. & E.C. JORDAN, DATED MAY 22, 1979. UNRECORDED.
6. "CANAL PLAZA IN PORTLAND, ME MADE FOR CANAL NATIONAL BANK, PLAZA REALTY TRUST" BY H.I. & E.C. JORDAN, DATED AUGUST 1972, RECORDED IN PLAN BOOK 109, PAGE 8.
7. CITY OF PORTLAND BLUE SHEETS
 1. NO. 27; FORE STREET, 3 SHEETS, DATED JULY 1925.
 2. NO. 74; MIDDLE STREET, 2 SHEETS, DATED SEPTEMBER 1925
 3. NO. 117; EXCHANGE STREET, DATED NOVEMBER 1925.

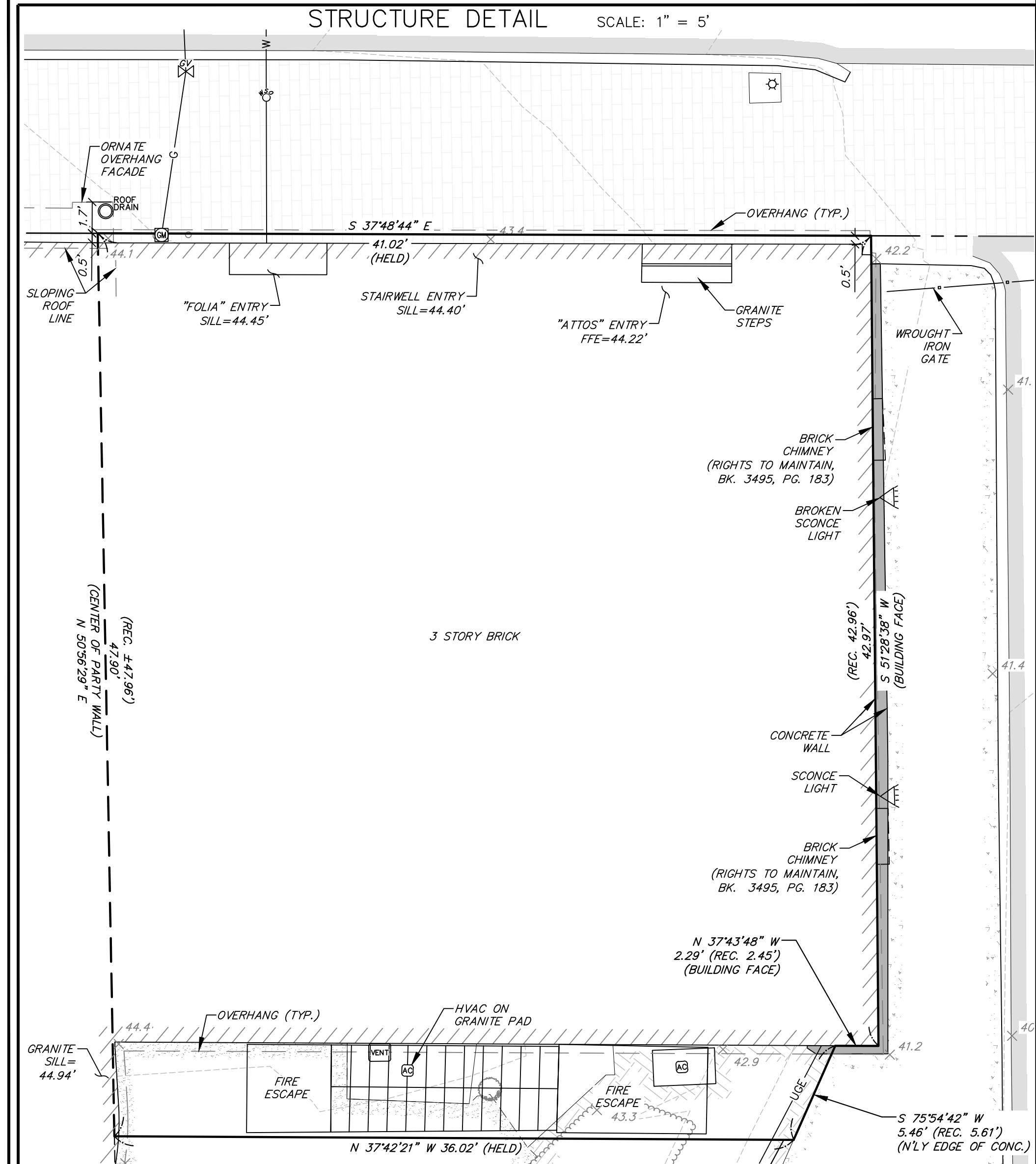


MILK STREET
PUBLIC - 45' WIDE

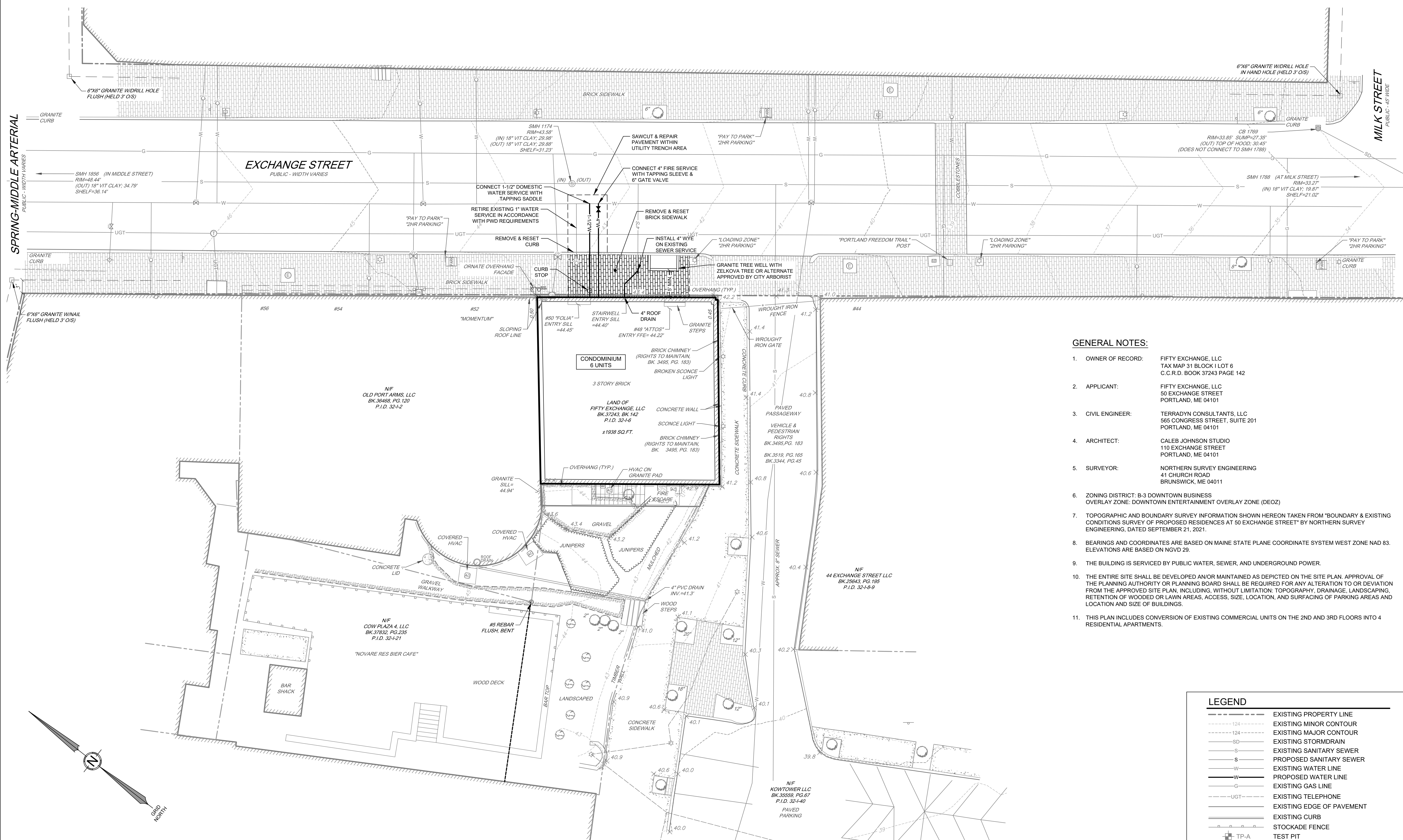
=====	PROPERTY LINE
-----	BUTTER LINE
-----	RIGHT-OF-WAY LINE
-----	TIE LINE
//////	BUILDING
=====	DECK/STEPS
-----	OVERHANG
~~~~~	LANDSCAPING
=====	EDGE BRICK
=====	EDGE PAVEMENT
=====	EDGE CONCRETE
=====	PAVEMENT PAINT
=====	EDGE GRAVEL
=====	CURB LINE
=====	EDGE OF WATER
~~~~~	TREELINE
---120---118---	CONTOURS
o	SPOT GRADE
o	CHAIN LINK FENCE
=====	STOCKADE FENCE
=====	RETAINING WALL
-----G-----	GAS
-----W-----	WATER
-----S-----	SANITARY SEWER
-----SD-----	STORM DRAIN
=====	CULVERT
-----UGU-----	UNDERGROUND UTILITY
N/F	NOW OR FORMERLY
A.G.	ABOVE GRADE
B.G.	BELOW GRADE
P.I.D.	PARCEL TAX I.D.
□	MONUMENT FOUND
⊙	IRON PIPE/ROD FOUND
△	SURVEY CONTROL
◯	DECIDUOUS TREE
◯	CONIFEROUS TREE
⊥	BOLLARD/POST
⊥	SIGN
⊥	GAS GATE VALVE
⊥	GAS METER
⊥	WATER GATE VALVE
⊥	WATER SHUT OFF
⊥	HYDRANT
⊥	SANITARY MANHOLE
⊥	CATCH BASIN
⊥	ELECTRIC METER
⊥	TELEPHONE MANHOLE
⊥	LIGHT POLE
⊥	LIGHT
⊥	PARKING METER

THIS SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT WAS DONE IN ACCORDANCE WITH CHAPTER 90, PART 1 (PROFESSIONAL STANDARDS OF PRACTICE) AND PART 2 (TECHNICAL STANDARDS OF PRACTICE) OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS.

SEAN P. PIERCE MAINE PLS 2517 09/21/21 DATE



BOUNDARY & EXISTING CONDITIONS SURVEY	
OF: PROPOSED RESIDENCES AT 50 EXCHANGE STREET 50 EXCHANGE STREET PORTLAND, MAINE 04101	
FOR: CALEB JOHNSON STUDIO 110 EXCHANGE STREET, 2ND FLOOR PORTLAND, MAINE 04101	
DRAWN SPP	CHECKED DJH
PROJECT NO. 21098	DATE 09/21/21
SHEET SIZE 24" X 36"	SCALE 1" = 10'
SHEET 1 OF 1	



SPRING-MIDDLE ARTERIAL
PUBLIC - WIDTH VARIES

MILK STREET
PUBLIC - 45' WIDE

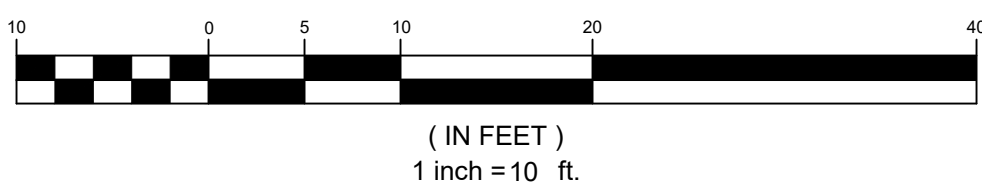
GENERAL NOTES:

- OWNER OF RECORD: FIFTY EXCHANGE, LLC
TAX MAP 31 BLOCK 1 LOT 6
C.C.R.D. BOOK 37243 PAGE 142
- APPLICANT: FIFTY EXCHANGE, LLC
50 EXCHANGE STREET
PORTLAND, ME 04101
- CIVIL ENGINEER: TERRADYN CONSULTANTS, LLC
565 CONGRESS STREET, SUITE 201
PORTLAND, ME 04101
- ARCHITECT: CALEB JOHNSON STUDIO
110 EXCHANGE STREET
PORTLAND, ME 04101
- SURVEYOR: NORTHERN SURVEY ENGINEERING
41 CHURCH ROAD
BRUNSWICK, ME 04011
- ZONING DISTRICT: B-3 DOWNTOWN BUSINESS
OVERLAY ZONE: DOWNTOWN ENTERTAINMENT OVERLAY ZONE (DEOZ)
- TOPOGRAPHIC AND BOUNDARY SURVEY INFORMATION SHOWN HEREON TAKEN FROM "BOUNDARY & EXISTING CONDITIONS SURVEY OF PROPOSED RESIDENCES AT 50 EXCHANGE STREET" BY NORTHERN SURVEY ENGINEERING, DATED SEPTEMBER 21, 2021.
- BEARINGS AND COORDINATES ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD 83. ELEVATIONS ARE BASED ON NGVD 29.
- THE BUILDING IS SERVICED BY PUBLIC WATER, SEWER, AND UNDERGROUND POWER.
- THE ENTIRE SITE SHALL BE DEVELOPED AND/OR MAINTAINED AS DEPICTED ON THE SITE PLAN. APPROVAL OF THE PLANNING AUTHORITY OR PLANNING BOARD SHALL BE REQUIRED FOR ANY ALTERATION TO OR DEVIATION FROM THE APPROVED SITE PLAN, INCLUDING, WITHOUT LIMITATION: TOPOGRAPHY, DRAINAGE, LANDSCAPING, RETENTION OF WOODED OR LAWN AREAS, ACCESS, SIZE, LOCATION, AND SURFACING OF PARKING AREAS AND LOCATION AND SIZE OF BUILDINGS.
- THIS PLAN INCLUDES CONVERSION OF EXISTING COMMERCIAL UNITS ON THE 2ND AND 3RD FLOORS INTO 4 RESIDENTIAL APARTMENTS.

LEGEND

- EXISTING PROPERTY LINE
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING STORMDRAIN
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE
- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- STOCKADE FENCE
- TEST PIT
- EXISTING VALVE
- PROPOSED VALVE
- EXISTING HYDRANT
- EXISTING LIGHT POLE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING DRAIN MANHOLE
- EXISTING SEWER MANHOLE
- EXISTING NATURAL GAS METER
- EXISTING MONUMENT
- EXISTING IRON PIPE
- EXISTING SIGN
- EXISTING BUILDING (ABUTTER)
- EXISTING BUILDING (PROPOSED CONDO)
- EXISTING BRICK SIDEWALK
- EXISTING TREE

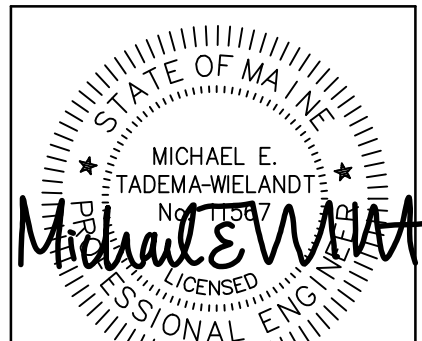
GRAPHIC SCALE



APPROVAL- CITY OF PORTLAND
PLANNING DIRECTOR

DATE

DIRECTOR OF PLANNING AND URBAN DEVELOPMENT

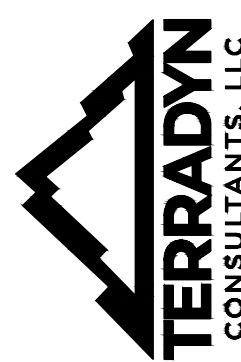


DATE: 2/24/2022
P.E. MICHAEL E. TADEAMA-WIELANDT

NO.	DATE	REVISIONS
2	2/24/2022	REVISED IN RESPONSE TO STAFF COMMENTS
1	2/11/2022	REVISED IN RESPONSE TO STAFF COMMENTS

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102
41 CAMPUS DRIVE
SUITE 101
NEW GLoucester ME 04260

OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com



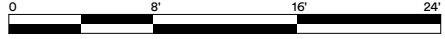
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: EXCHANGE STREET SITE 50 EXCHANGE STREET, PORTLAND, MAINE	CLIENT: CALEB JOHNSON STUDIO 110 EXCHANGE STREET PORTLAND, MAINE 04101
SHEET TITLE: SITE & UTILITY PLAN	RECORD OWNER: FIFTY EXCHANGE, LLC 50 EXCHANGE STREET PORTLAND, MAINE 04101

DATE: 10/6/2021
SCALE: 1" = 10'
DESIGNED: MTW
JOB NO: 21-66
FILE: 21-66B.dwg

SHEET C-100



PLANNING BOARD REPORT PORTLAND, MAINE

Winter Street Townhomes
102 State Street
Major Site Plan
PL-001840-2021
NewHeight Redfern, LLC



Submitted to:	Portland Planning Board	Prepared By:	Charles Tetelman
Public Hearing Date:	March 8, 2022	Date:	March 4, 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 February 25, 2022 and February 26, 2022 editions of the *Portland Press Herald*.

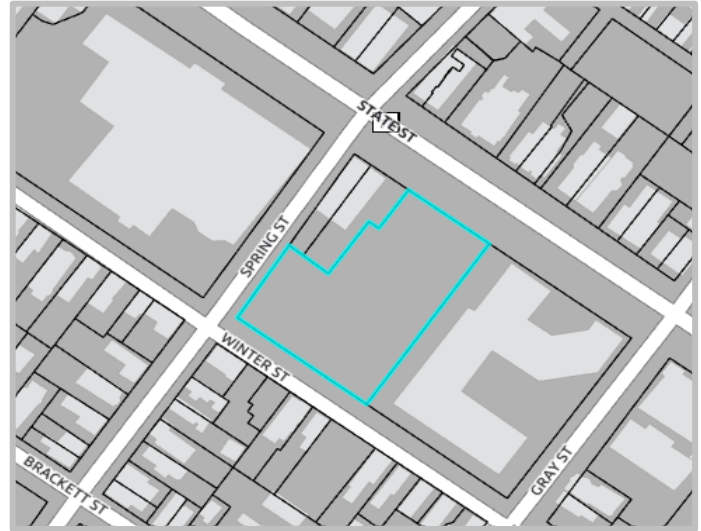


Figure 1: Location of 102 State Street

The Planning Board held a workshop on February 8, 2022.

Applicant: NewHeight Redfern, LLC
Applicant: Acorn Engineering, Inc.
Representatives:

II. REQUIRED REVIEWS

<i>Review</i>	<i>Applicable Standards</i>
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	0	9,493 sq. ft.	+9,493 sq. ft.
Building Floor Area	0	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	18	-126

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](#)) to facilitate the redevelopment of the former Northern Light Mercy Hospital campus. In 2021, the Planning Board approved the adaptive reuse of the existing building at 144 State Street ([PL-001259-2020](#)) which included residential units, commercial retail space, and self-storage space. Community Housing of Maine and the Portland Housing Authority received approval to build two new residential buildings at 73 and 91 Winter Street ([PL-001371-2020](#)).

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 context includes State Street, a wide, historic thoroughfare identified as a priority corridor in the City's Comprehensive Plan that has wide sidewalks and established street trees lined with a variety of building types. The buildings fronting State Street range from residential, retail, and places of assembly to historic mansions converted to other uses including a funeral home, the Portland Club, and offices. The character of Spring and Winter streets is predominantly small-to-mid scale residential, with some exceptions. Immediately to the east of the proposed project is 100 State Street, a six-story tower in the park style multi-family building constructed in 1979. As mentioned above, major housing projects have been approved for the former Northern Light Mercy Hospital building and two new residential buildings at 73 and 91 Winter Street that will bring a mix of affordable and market-rate units to the neighboring properties.

Portland's main thoroughfare, Congress Street, is approximately two blocks north and provides a variety of



Figure 2: Winter Street view of the proposed site

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 (27,558 sq. ft. total floor area) in the Winter Street Lot. The proposed development will have a street wall height of approximately 33 feet, rising to 43 feet on the fourth floor, with an approximately 37 foot setback (creating space for a roof deck). Each unit will be allocated two parking spots in the garage totaling 18 parking spaces.



Figure 3: Proposed Building Elevations along Winter

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 parking 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. PREVIOUS WORKSHOPS

The Planning Board held a workshop for this project on February 8, 2022. At the meeting, the Planning Board discussed the proposed landscaping focusing on the street trees. There were concerns that similar projects in the neighborhood had street trees not survive after the required one year warranty from the developers. Members were curious if the street tree layout alongside the underground electric would lead to difficult street tree conditions. In response to these concerns the applicant worked with the Department of Public Works and the City Arborist to find an optimal solution that bolsters street tree survivability (more information below).

The Planning Board noted that this project, as it relates to nearby developments, contributed to the overall diversity of new housing developments in Portland.

VIII. 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).

IX. 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 (Attachments G + H).

X. 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, medical clinics, schools, commercial retail & office, restaurants, and hotels. The table below shows the relevant dimensional standards required 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. State 45 ft. Winter	48.4 ft. 37.7 ft.
Maximum Impervious Area	100%	91%
Off Street Parking Spaces	9	18

***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*).

City Staff requested an analysis demonstrating to the Planning Board that the introduction of additional setbacks at the street level meet the B-3 Downtown Design Guidelines (Attachment R). The applicant noted that “substantial and viable accessible open space” is provided to the premises that contribute to the overall neighborhood. Furthermore, they mentioned that the additional setback did not detract from the Winter Street street wall and is consistent to the neighborhood character. City Staff find their analysis adequate and that the additional setback meets the standards set forth in the *City of Portland Design Manual*.

XI. SITE PLAN 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. In addition, the applicant proposes to remove the existing site entrance on Winter Street. In addition, the applicant proposes to reduce the total number of parking spaces on the lot and provide two parking spaces for each condo unit built into the first floor of each townhome, which minimizes the need for on-street parking spaces for residents.

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 both lots. The townhomes can be accessed via street level entrances along Winter Street and from the rear of the building (internal site access). The applicant is proposing to reconstruct the sidewalks along the frontages including Winter Street and Spring 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

The applicant proposes to reduce the total number of parking spaces on the lot and provide two parking spaces for each condo unit built into the first floor, which minimizes the need for on-street parking spaces for residents. The applicant exceeded 10% of the minimum requirement of one space per unit for multi-family housing and provided a Parking Demand Memo (Attachment E). The memo discusses demand for multiple spaces in similar units. According to the applicant, additional parking spaces within the townhomes will reduce the need for on-street parking.

City Staff discussed with the applicant about potential locations for bicycle parking on the exterior of the site either on Spring Street or Winter Street. After considering changes to the underground electric utilities and street tree layouts, the applicant deemed that the exterior bicycle racks would be difficult to fit along the sidewalks. City Staff concluded that the proposed bicycle parking in the garage of each unit would meet the bicycle parking requirement.

E. Transportation demand management (TDM)

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 worked with the City Arborist to select appropriate street tree species, using City standard NEENA tree grates, and employing additional base frame systems.

Following comments from the Planning Board, the applicant team has included a Street Tree Maintenance Plan (Attachment T) to be maintained by the Winter Street Town Homes HOA.

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 K).

The applicant's proposal includes a proprietary modular wetland system to provide water quality treatment and stormwater attenuation which will serve both the State Street lot and the Winter Street lot. City Staff find that the water quality treatment and stormwater management on site are adequate and meet City Standards.

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 townhome sites directly on Winter Street and will be able to access the rear of the buildings 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 electric utilities along Winter Street. The applicant worked with the Department of Public Works and have made changes to the utility plan (Attachment Plan 18). Most of the underground electrical conduits have been moved closer to the edge of the Winter Street Right of Way bordering the site project line to provide additional separation between the conduit duct bank and the proposed street trees. The City Arborist confirmed that this utility layout would provide enough space for required ADA access width and ensure street tree health.

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 approximately 37 feet before rising up to a maximum height of approximately 43 feet.

HVAC units are in two potential locations: 1) behind the units adjacent to the garages and below the rear decks and 2) on the top story wall (not on the roof), which is setback approximately 30 feet from Winter Street and out of view from Winter Street (approved by Historic Preservation Board).

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 proposed snow area is shown on the Site Plan (Attachment Plan 17).

D. View corridors

This project is not located in any designated view corridors.

E. Historic resources

The proposed project is located in the West End Historic District and the Historic Preservation Board has approved a Certificate of Appropriateness (Attachment 1).

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 received a Certificate of Appropriateness. City Staff provided a more detailed review of the Historic Preservation Board's determination at the Historic Preservation Board Public Hearing on February 16, 2022 (Attachment 1).

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 (see analysis above).

XII. 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 S). 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.

As of the writing of this report, one public comment has been submitted to the Planning & Urban Development Department (Attachment PC 1).

XIII. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Department staff recommends to the Planning Board that the proposed project, PL-001840-2021, to construct nine four-story townhomes along Winter Street meets the applicable standards of Portland's Land Use Code.

XIV. PROPOSED MOTIONS

A. SITE PLAN REVIEW

On the basis of the application, plans, reports and other information for the public hearing on March 8, 2022 for application PL-001840-2021 relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board [finds/does not find] that the plan is in conformance with the site plan standards of the Land Use Code subject to the following conditions of approval:

PRIOR TO APPLYING FOR A BUILDING PERMIT

1. The applicant shall submit a final plan set that reflects the underground electric utility layout recommendations from Central Maine Power for review and approval by the Planning Authority and Department of Public Works.

PRIOR TO ISSUANCE OF A BUILDING PERMIT

2. The applicant shall submit all Ability to Serve letters for review and approval by the Planning Authority and Department of Public Works
3. The applicant shall submit a final Construction Management Plan for review and approval by the Planning Authority and the Department of Public Works.

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

4. The applicant shall submit a Homeowner's Association agreement and documentation for review and approval by Corporation Counsel and the Planning Authority.

XV. ATTACHMENTS**REPORT ATTACHMENTS**

1. Historic Preservation Certificate of Appropriateness 2.16.22

APPLICANT SUBMITTAL

- A. Cover Letter
- B. Site Plan Checklist
- C. Right, Title, Interest
- D. Zoning Assessment
- E. Parking Demand Memo
- 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. Comment Response Letter 3.22.22
- S. Neighborhood Meeting Certification
- T. Tree Maintenance Plan

DRAWINGS

- 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 II
- 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 1
- Plan 21. Site Details 2

Plan 22. Utility Details 1
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 1
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

PUBLIC COMMENT

PC 1. GR – 3.3.22

March 2, 2022

NewHeight Redfern LLC.
Attn: Jonathan Culley

Dear Mr. Culley,

On February 16, 2022, the Historic Preservation Board voted unanimously to approve your application for a Certificate of Appropriateness for the construction of a 9-unit townhouse development at 102 State Street (Winter Street frontage). Approval was based on application materials submitted for the 2/16/22 public hearing and was made without conditions.

All improvements shall be carried out as shown on the materials submitted for the 2/16/22 public hearing, except as to comply with the conditions above. Changes to the approved plans or specifications, and any additional work that may be undertaken must be reviewed and approved by this office prior to construction, alteration, or demolition. If, during the course of completing the approved work, conditions are encountered which prevent completing the approved work, or which require additional or alternative work, you must apply for and receive a Certificate of Appropriateness or Non-Applicability PRIOR to undertaking additional or alternative work.

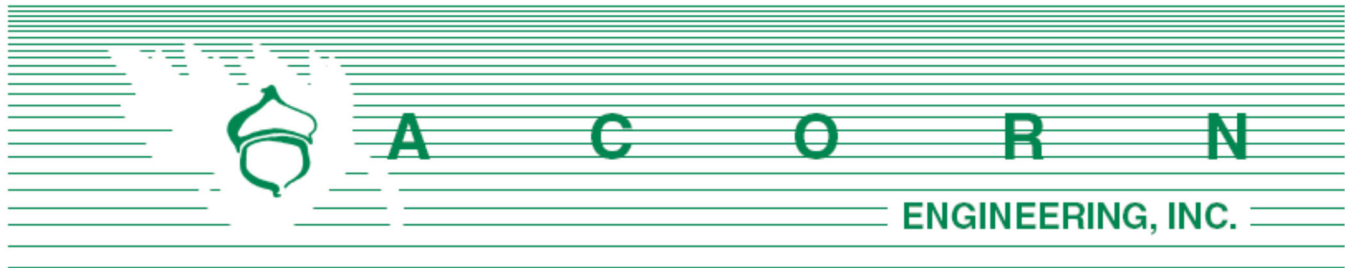
This Certificate is granted upon condition that the work authorized herein is commenced within twelve (12) months after the date of issuance. If the work authorized by this Certificate is not commenced within twelve (12) months after the date of issuance or if such work is suspended in significant part for a period of one year after the time the work is commenced, such Certificate shall expire and be of no further effect; provided that, for cause, one or more extensions of time for periods not exceeding ninety (90) days each may be allowed in writing by the Department.

Sincerely,



Deborah Andrews
Historic Preservation Program Manager

Cc: Ryan Senatore, architect



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.

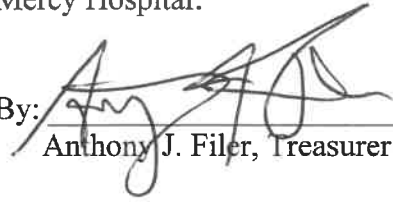
PARCEL 2 (120 STATE STREET, A/K/A 144 STATE STREET, AND 148 STATE STREET):

- 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

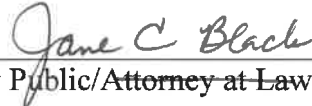
GFE

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:

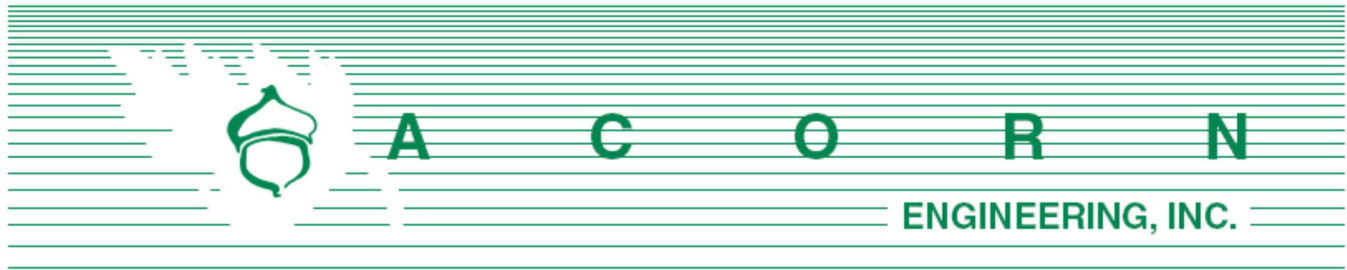
	Required	Proposed
Lot Size	N/A	0.48 Ac
Area Per Dwelling Unit	N/A	0.053 Ac
Minimum Street Frontage	15'	126 ft
Front Yard Minimum	N/A	7.00'
Front Yard Maximum	5'	7.00'
Rear Yard	N/A	34.20'
Yard Right	N/A	0.31'
Yard Left	N/A	4.00'
Side Street Setback	N/A	N/A
Step Back	30'@45' Winter	37.7'
Maximum Lot Coverage	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	18
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):			



Parking Demand Memo

The Winter Street Townhomes project is proposing nine (9) condominium/townhome style residential units. The proposed unit garages currently provide space for a standard residential vehicle, along with adequate room for one compact space or additional storage for a total of up to two (2) spaces per unit which is greater than 10% of the minimum requirement of 1 space/unit for multi-family housing. Each unit will have three (3) bedrooms to provide housing for families, empty nesters and urban professionals. As a result, it is expected that the property would see a number of residents relying on multiple vehicles and a standard commute to their workplace.

Based upon the applicant's research there is a demand for townhomes that include two parking spaces per unit that is presently not being met. With the recently approved larger developments adjacent to the site, providing additional parking within the individual unit garages reduces spillover into the neighborhood and frees up on-street parking for other residents in the area to address concerns associated with the increased parking demand the neighborhood will see associated with new developments. By providing each unit with individual garages underneath the building, the project makes efficient use of space and minimizes the land area dedicated to parking. With the COVID-19 pandemic subsiding, more businesses are having their employees return to the office putting an increased demand on providing off-street parking in the development.

Given the type of proposed unit owners, bedroom count, unit size, lack of available on street parking, neighbors' concerns, and desire for flexibility, the applicant respectfully requests the Planning Board allow the applicant to exceed the minimum parking standard.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Peter Heil".

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

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, appearing to read '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 2 parking spots for each residential unit but decreases total parking on the site by 39. The project design provides 105 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, and one standard space in the garage. Bicycle parking will be provided in the garages. The 102 State Street lot will retain 86 standard 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.

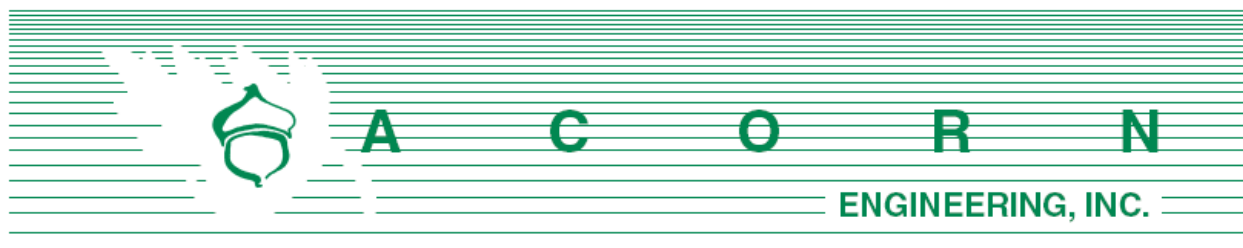
I. Design Standards:

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.





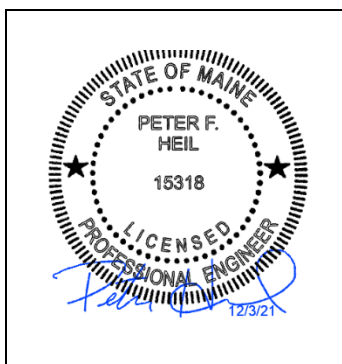
STORMWATER MANAGEMENT **REPORT**

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





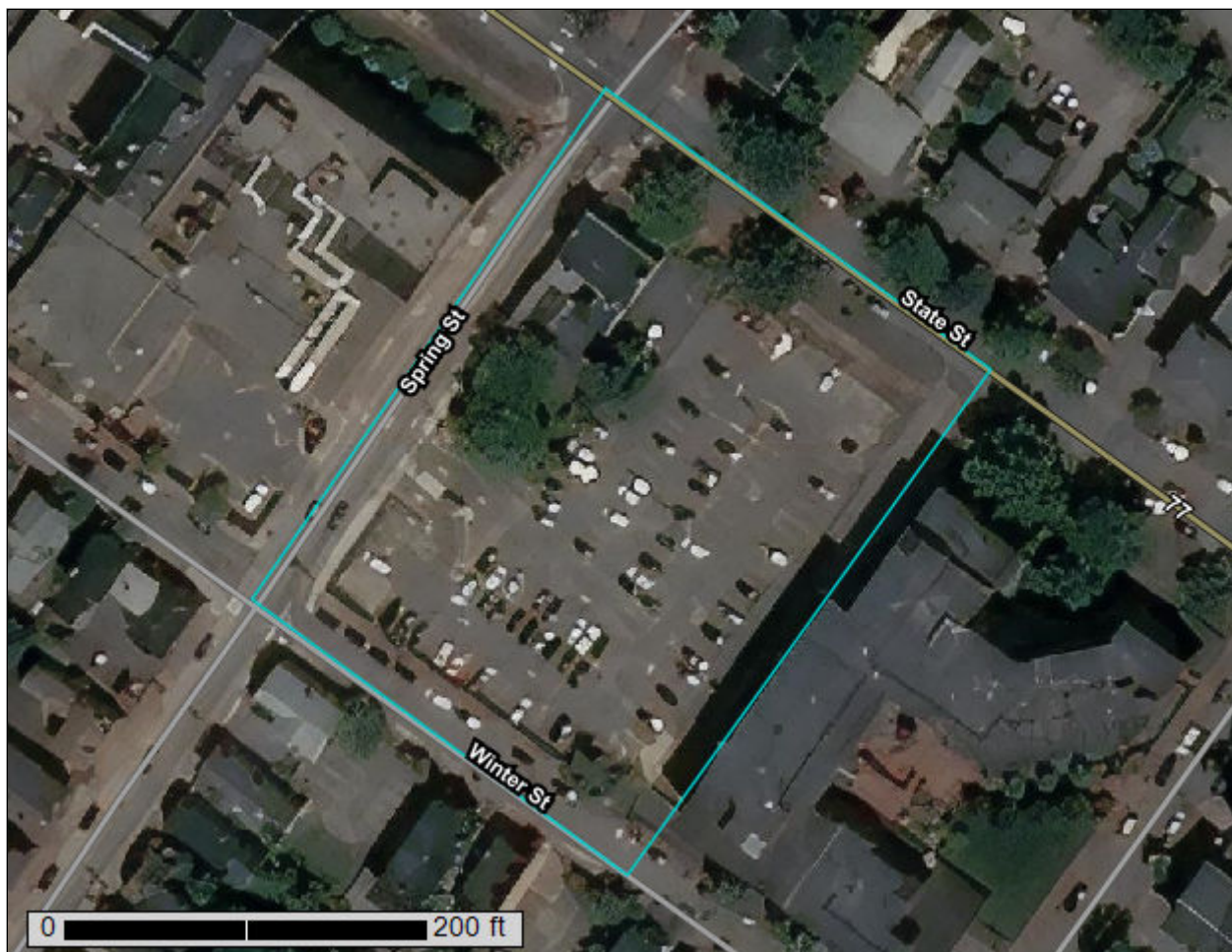
United States
Department of
Agriculture

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

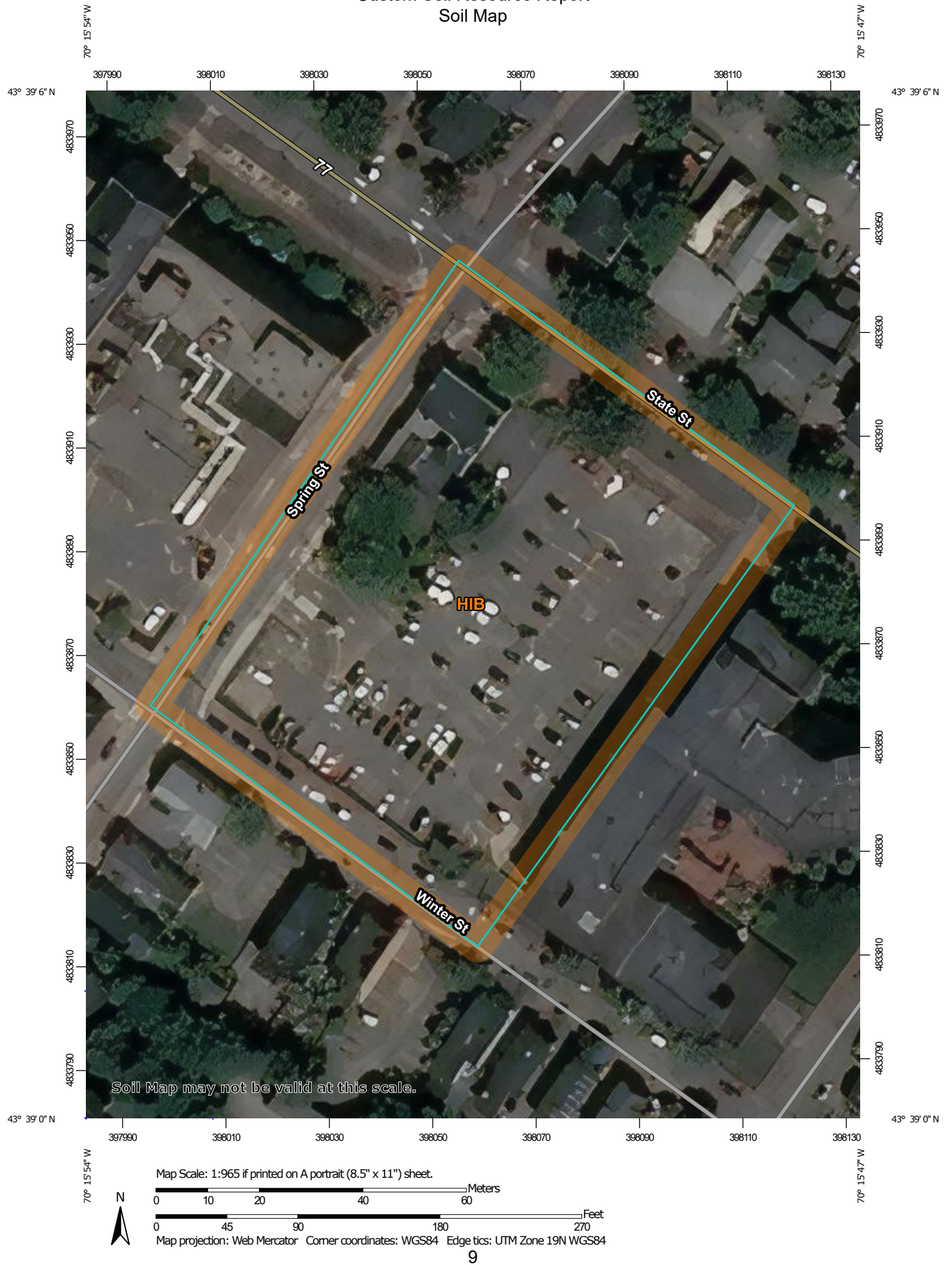
Custom Soil Resource Report

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

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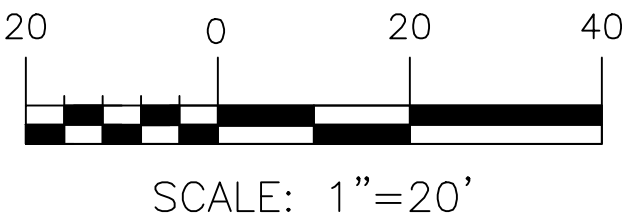
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LAND USE AND POLLUTANT SUMMARY TABLE				
LAND USE	COLOR	POLLUTANT RANKING	EXISTING AREA	WEIGHTED AVE. RANKING
ROADS WHERE IDLING MAY OCCUR PERIODICALLY DUE TO TRAFFIC AND INTERSECTIONS; HIGH USE PARKING LOTS		5	0	0
OTHER ROADS; MEDIUM USE PARKING LOTS		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

ACORN ENGINEERING, INC.

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

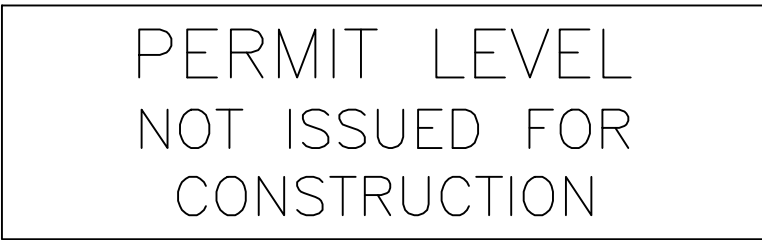
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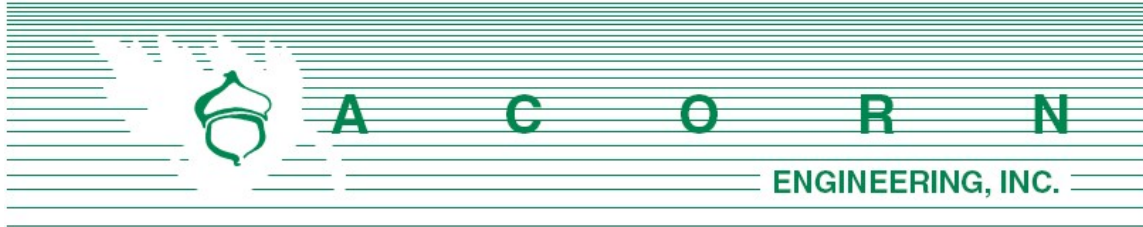
STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
PRE

Page 461

The site plan illustrates the layout of the Smith House development. The central feature is a large red-shaded area representing the townhouses, labeled "TM 45-D-5", "TM 45-D-6", "N/F", "TOWNHOUSES AT EATON SHAW BLOCK CONDOMINIUM 27136/174", and "THE 'SMITH HOUSE'". To the left of the townhouses is a parking area with five accessible spaces marked with wheelchair icons. To the right of the townhouses is a large blue-shaded area representing a parking lot, with dimensions of 127'0" and 127'0" indicated. The bottom of the plan shows a row of townhouses with individual units, each with a carport and a small garden area. The plan also shows surrounding streets, including "24th RCP" at the top, "L21" and "L22" on the left, and "27th St" on the right. Dimensions for the streets and the development are provided throughout the plan.





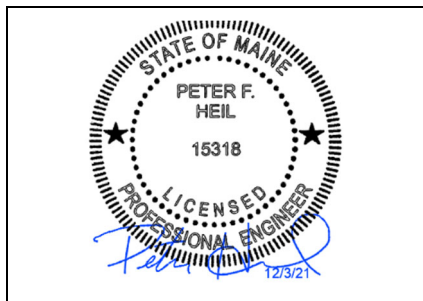
EROSION & SEDIMENTATION **CONTROL REPORT**

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



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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;



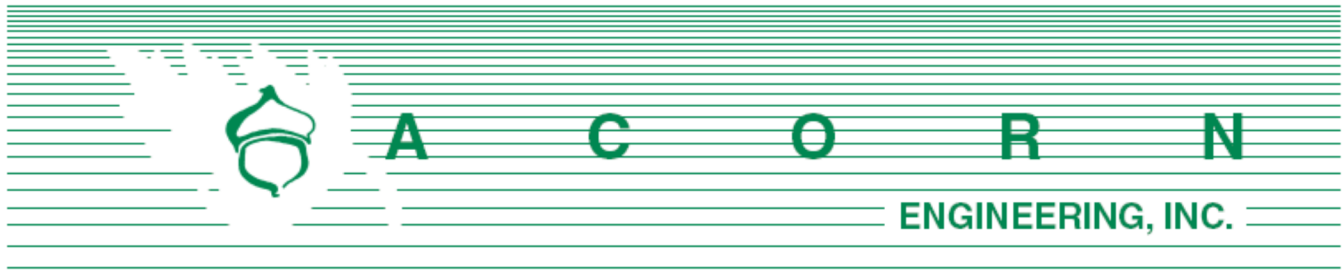
- (f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;
- (g) Uncontaminated air conditioning or compressor condensate;
- (h) Uncontaminated groundwater or spring water;
- (i) Foundation 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

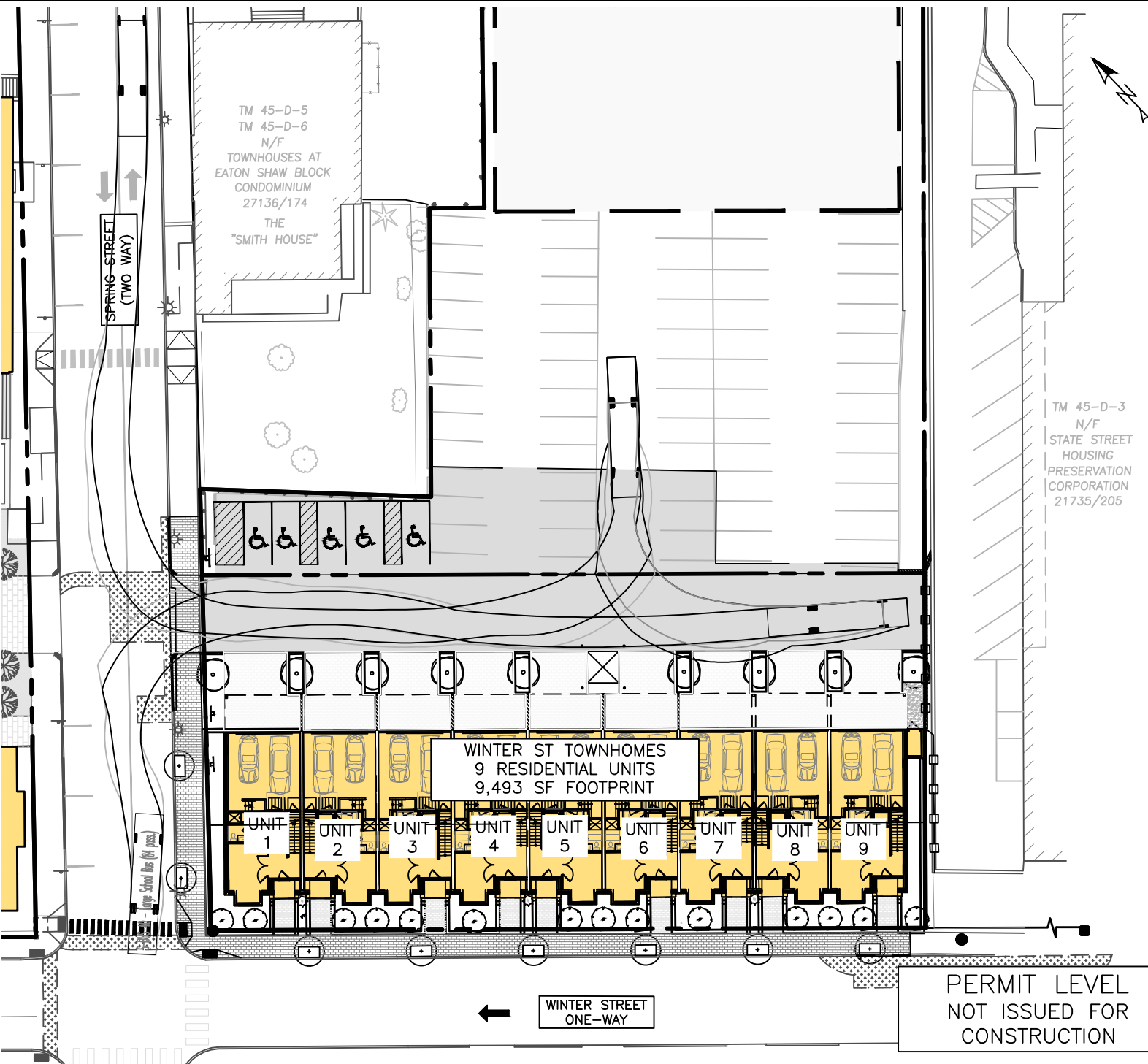
T 601, 602

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	

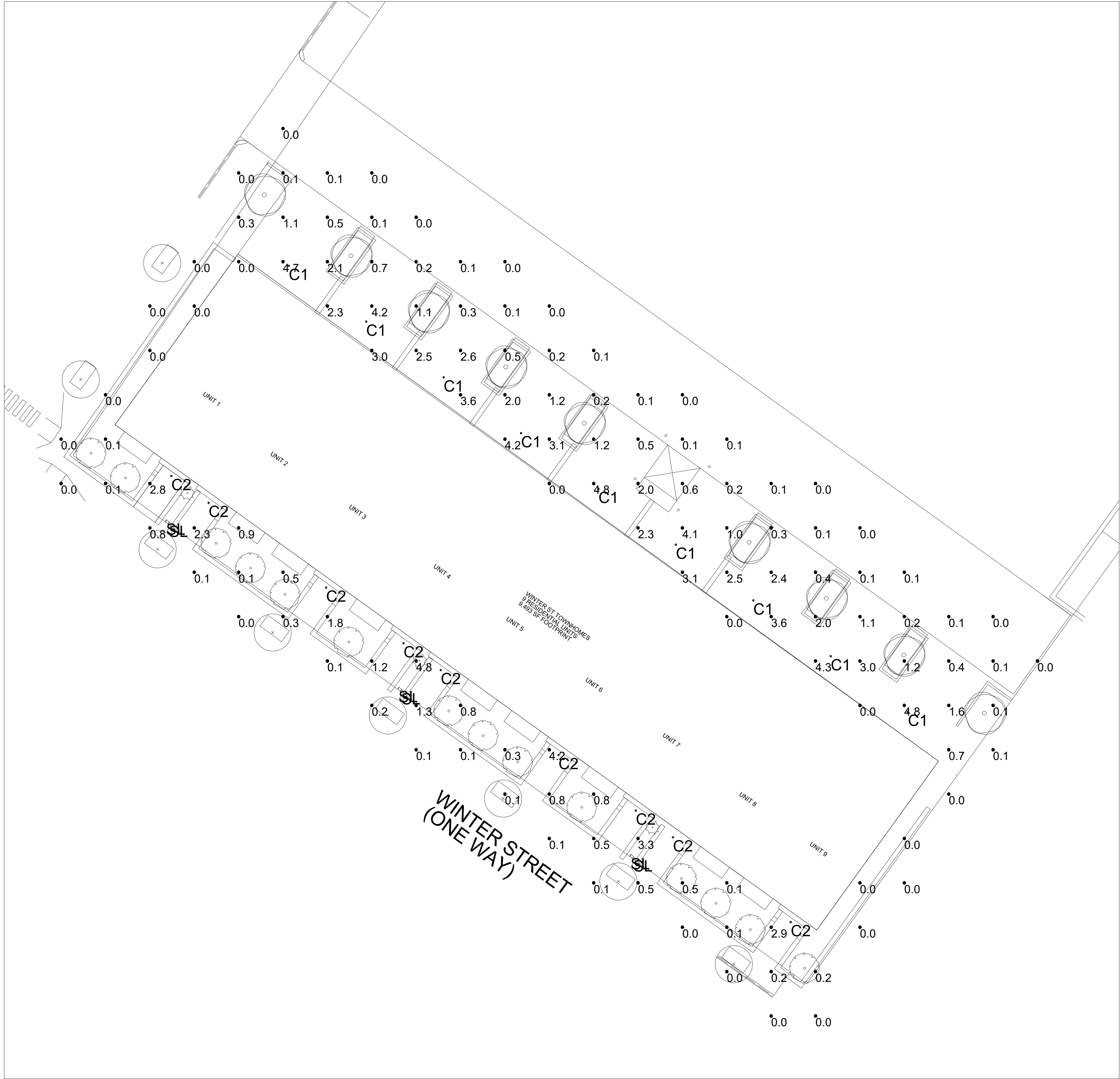
Ramps		1012.2	1:12 (8%) Max slope		7.2.5.3(a)	1:12 max. slope
		1012.6	60" long landings at top and bottom			
		1012.6	2% max slope of landings		7.2.5.3(a)	1:48 max. cross slope
		1012.8	>6" rise must have handrails on both sides of ramp			
Egress Corridors		T 1020.2	44" min. when Occ. >= 50		24.2.6.1	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

TITLE

GENERATED FOR:
ACETO LANDSCAPE
ARCHITECTURE

SCALE: NOT TO SCALE

Page 1 of 1

Date:12/1/2021

GENERATED BY SWANEY LIGHTING, SCARBOROUGH ME - 207-883-7100 - swaneylighting.com



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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		
						RB Surface mounted to recessed mounted 4" octagonal junction box	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									
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							

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)
	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				USAI Power Supply Must Be Specified

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) 1 Not available for 9W 2 Not available for Warm Glow 3 Not available for 24W	

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



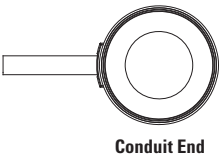
ROUND CONDUIT CUTOUT KEY
EXTENDED DEPTH
KAR-XC



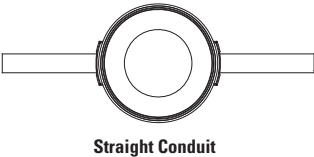
ROUND SOLID COVER KEY
(STANDARD)
KAR-VK



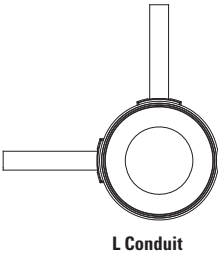
CONDUIT CUTOUT MOUNTING EXAMPLE



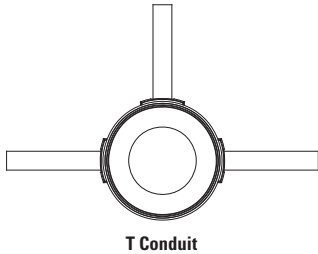
Conduit End



Straight Conduit

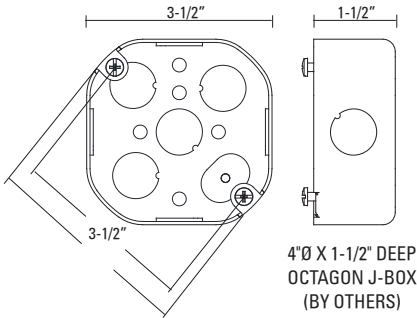


L Conduit



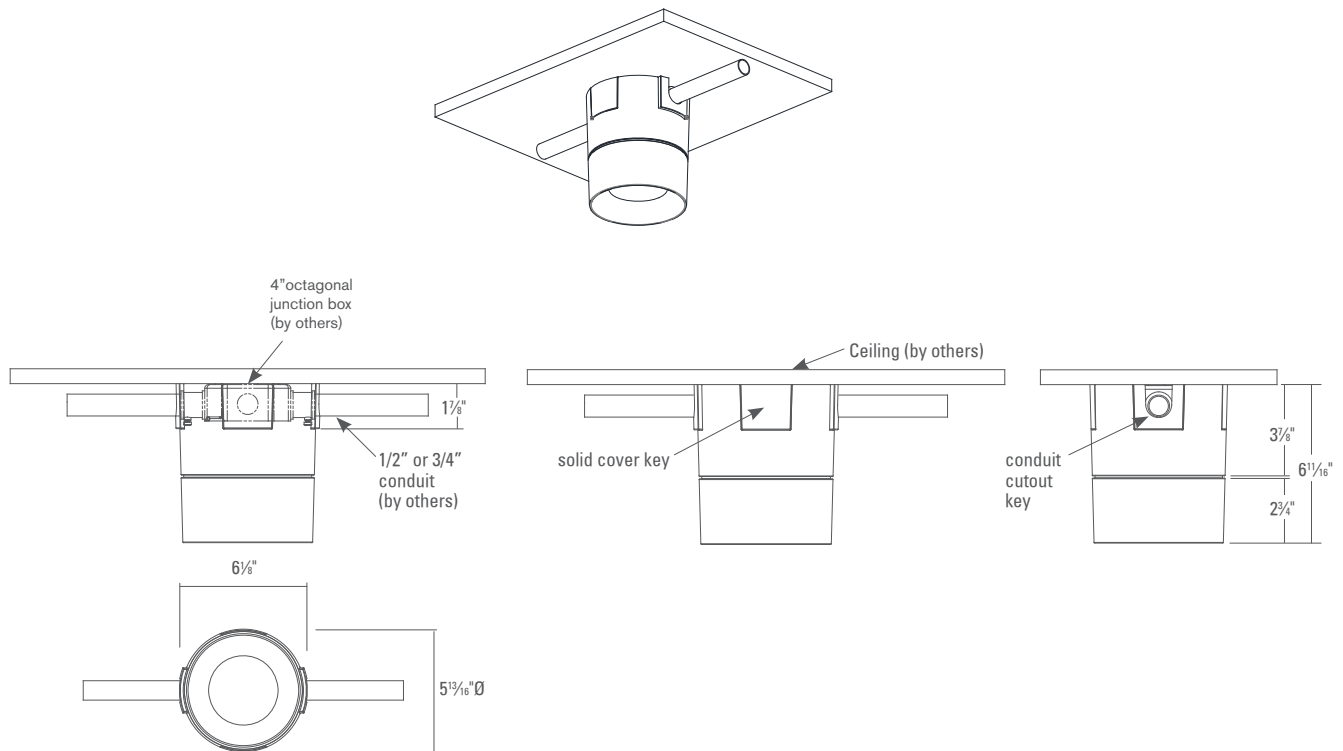
T Conduit

4" OCTAGONAL JUNCTION BOX DETAIL

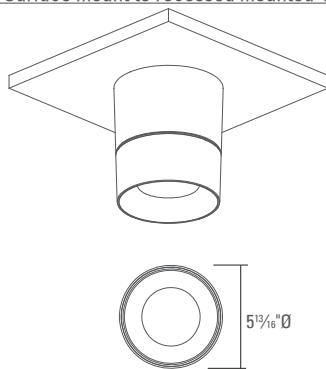


BeveLED Block® Surface - BLRD5 Round Downlight

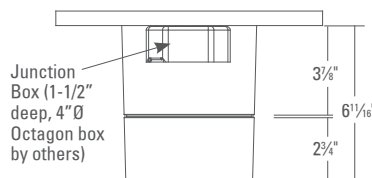
CC - CONDUIT CUTOUT MOUNTED



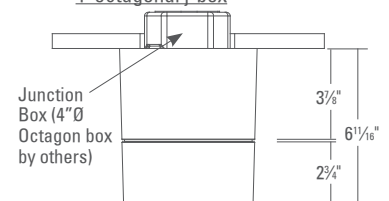
SJ - Surface mount to surface mounted 4" octagonal j-box
RB - Surface mount to recessed mounted 4" octagonal j-box



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

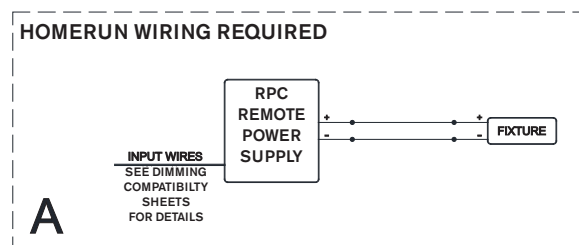
2 Not available for Warm Glow

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

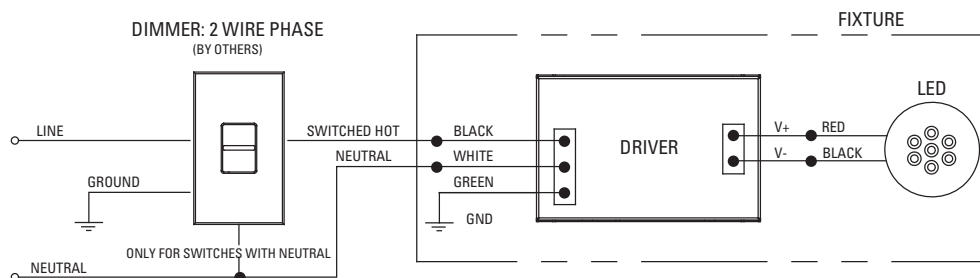
1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance 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.

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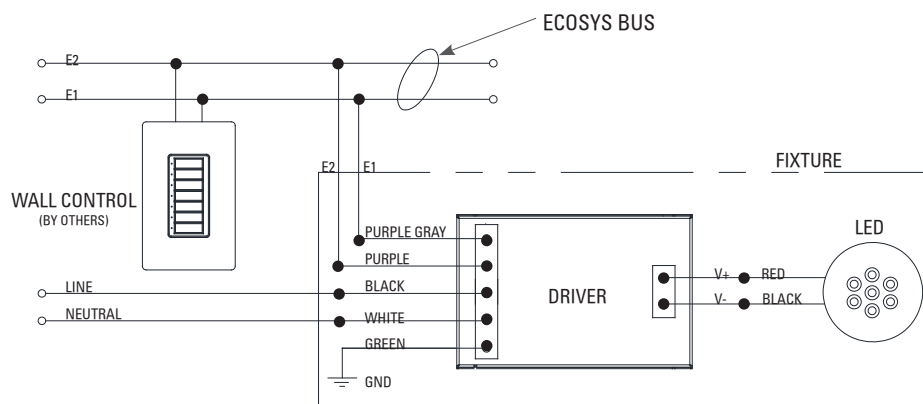
D4A / DIML4A LED: Lutron Hi-Lume Premier EcoSystem LED Driver (Dims down to 0.1%)

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:

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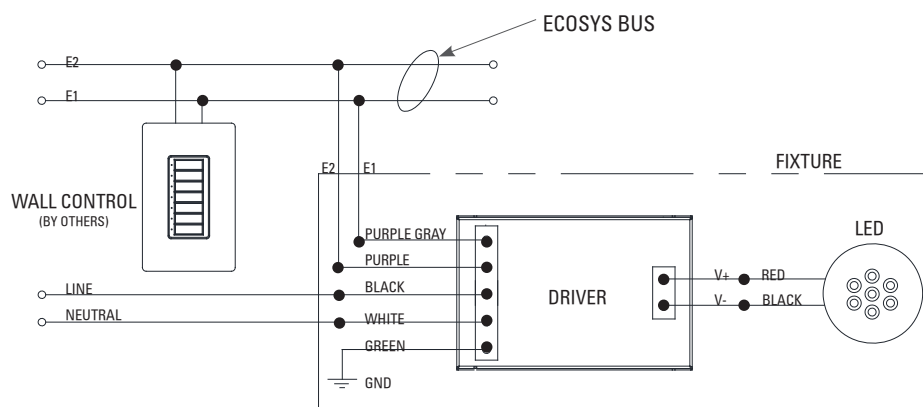
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5. Cap any wires not used separately (not together).

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



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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).

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

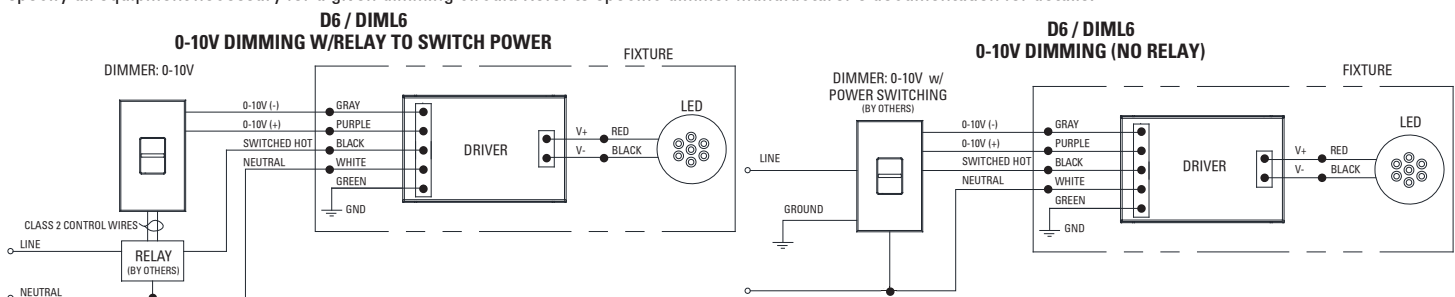
D6B / DIML6B and D6F / DIML6F are logarithmic-programmed dimming drivers for use with the dimming controls listed in the table below.

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:

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IMPORTANT SAFETY INSTRUCTIONS

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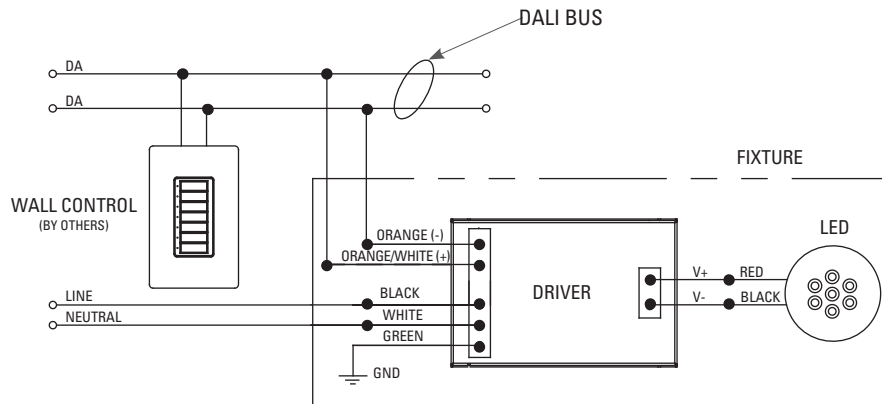
D7 / DIML7 and D7E Dimming Driver Wiring

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:

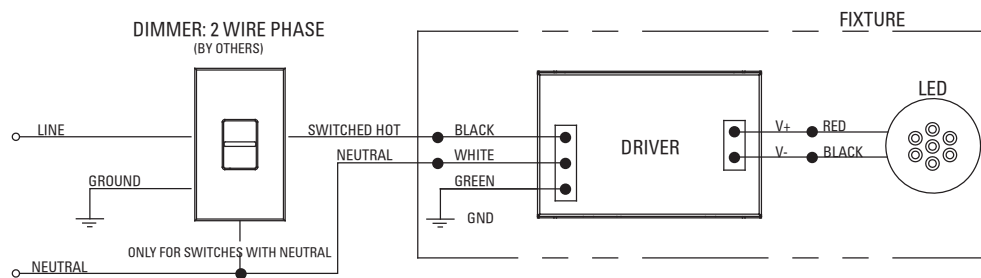
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D19 / DIML19 LED: Hatch XTC series or equivalent - Forward and Reverse Phase Dimming Driver.
Dims down to 1% contingent upon dimmer specification and load. 120V only.

**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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D28 Dimming Driver Wiring

D28 are programmed dimming drivers.

D28 Eldo DMX control dims from 100% to 0.1%

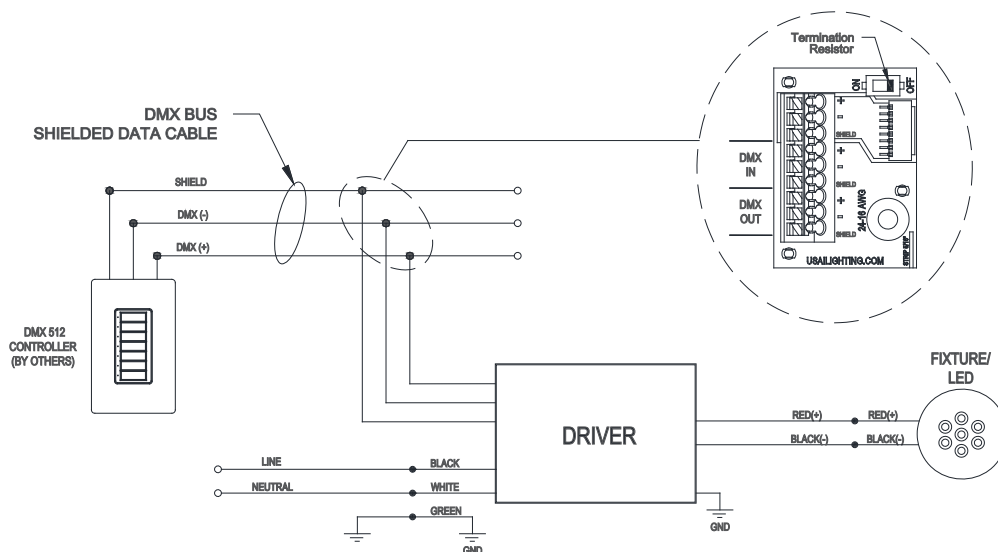
DMX BUS - SHIELDED DATA CABLE

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:
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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

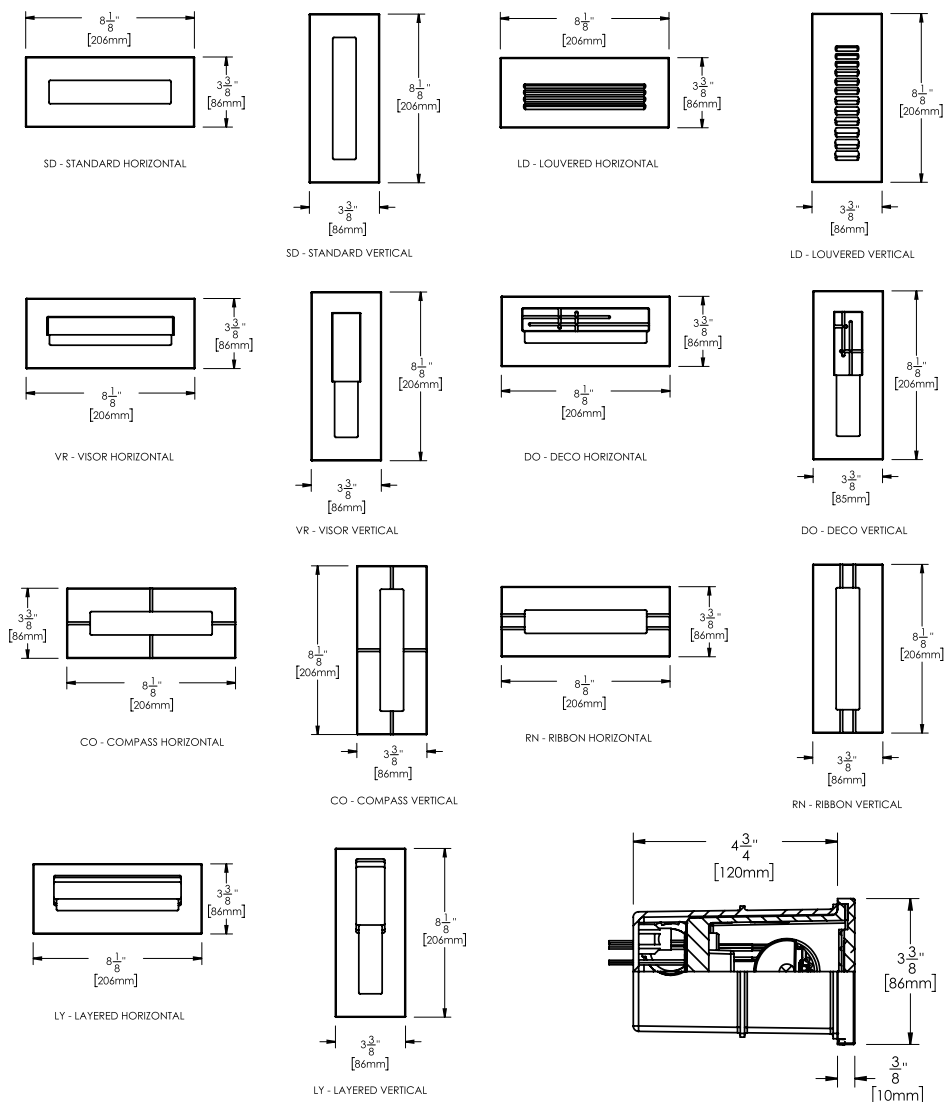
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09/11/2020 SKU-1341
SUB-2819-00

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

MADE IN THE USA

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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.





Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

December 1, 2021

Mike Triglione, EI
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104

Re: 102 State Street, PO
Ability to Serve with PWD Water

Dear Mr. Triglione:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on October 14, 2021. Based on the information provided per plans dated November 29, 2021, we can confirm that the District will be able to serve the proposed project as further described in this letter. **Please note that this letter constitutes approval of the water system as currently designed and is valid for eighteen (18) months after the date of issue. Any changes affecting the approved water system will require further review and approval by PWD.**

Conditions of Service

The following conditions of service apply:

- A new 4-inch fire service and 2-inch domestic water service, with a 1.5-inch meter, may be installed from the water main in Spring Street. The services should enter through the property's frontage on Spring Street at least 10-feet from any side property lines.
- Please note that only one meter and one bill will be associated to each domestic service line. This one master meter would be located in a common space that all tenants could gain access to if necessary.
- The Portland Water District does not have record of any other existing infrastructure in public roads and recommends a survey and test pitting be performed by the development team prior to construction. Any conflicts that arise during construction are at the risk of the developer and may result in job shutdown until new plans are submitted by the developer and reviewed and approved by PWD.
- An approved backflow prevention device must be installed on each service line directly after the meter and before the sprinkler riser prior to service activation. Please refer to the PWD website for more information on cross-connection control policies.

Prior to construction, the owner or contractor will need to complete a Service Application and pay all necessary fees for each proposed service. When the project is ready for construction, an Application for each service can be requested by contacting the MEANS Group at MEANS@pwd.org or 207-774-5961 ext. 3199. Once a completed Application has been submitted with payment, please allow seven (7) days for processing.



Existing Site Service

According to District records, the project site does not currently have existing water service.

Water System Characteristics

According to District records, there is an 8-inch diameter cast iron water main in Spring Street and a public fire hydrant located adjacent to the site. The most recent static pressure reading was 69 psi.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the City of Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

Should you disagree with this determination, you may request a review by the District's Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District



Robert A. Bartels, P.E.
Senior Project Engineer

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.



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

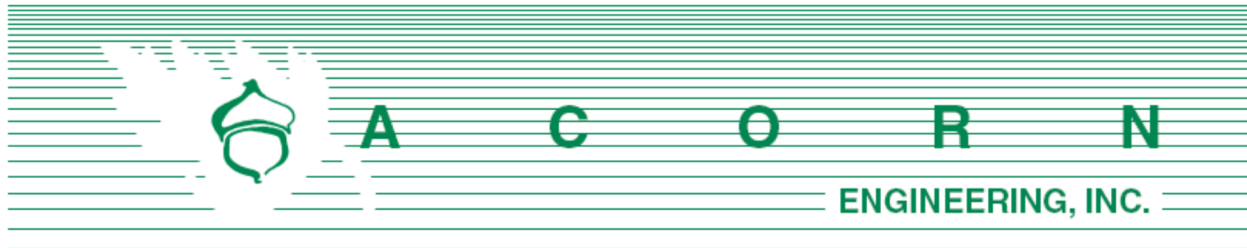
The abutting buildings will be subject to a pre and post construction survey to monitor any effects from construction. The surveys shall consist of photographs of the foundation as viewed from outside and inside if granted permission.



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.





Charles Tetelman, Planner
 Planning & Urban Development Department
 389 Congress Street, 4th Floor
 Portland, ME 04101

March 2, 2022

Subject: Winter Street Townhomes – Comment Response Letter
 102 State Street, Portland, ME

Charles,

On behalf of NewHeight Redfern, LLC, we are pleased to respond to the site/civil related comments received from Staff on February 23, 2022.

GENERAL

Comment – *Please provide updated plans and drawings according to the comments provided at the Planning Board Workshop (2.8.22) and comments found in this document.*

Response – Updated plans and drawings addressing comments received at the Planning Board workshop on February 2, 2022 and found in the below comments have been uploaded to the projects ePlan folder.

Comment – *DPW and applicant discussed moving underground electric either closer to the lot or in the Winter Street ROW. Please make sure to note which option the applicant is moving forward with and provide confirmation with DPW.*

Response – As discussed during a call with DPW to review the proposed underground electric utilities, the majority of the underground electrical conduits have been pushed closer to the edge of the Winter Street ROW / project property line to provide additional separation between the conduit duct bank and the proposed street trees. Please refer to the updated C-20 Utility Plan for additional information.

Comment – *Potential solution to Street Trees and Adequate ADA access on Winter St. frontage: Could the applicant shift the building footprint/ front yard/ etc. one foot back to increase space along frontage. Would be wide enough to allow for adequate ADA path and increased space for raised granite tree wells.*

Response – Based on discussions with the City's Arborist, Jeff Tarling, we understand he is in agreement with the flush tree grates to install the street trees on the backside of the curb. The sidewalk on the backside of the tree grates provides the required ADA access width, while the flush tree grates then provide additional flush conditions for pedestrians. The flush tree grates and street trees mirror the recently approved developments across Spring Street (73 & 91 Winter Street) to provide a consistent design throughout the neighborhood.

Comment – *Please provide a maximum potential build out document for the 102 State Street lot. The applicant showed renderings at the Planning Board Workshop and the City has received comments regarding future development on the site. Where no development is required as part of this application, visualizing the site build out would be helpful for the Board.*

Response – The graphic provided at the Planning Board Workshop was a rendering showing a potential building maximizing the tallest building that could be built within the zoning requirements (85 feet). Within the B3 Zoning District, there are no residential density requirements, lot areas, or setbacks for buildings below 125 feet in height (Table 7-E). The allowed uses within the B3 Zoning District also provide multiple permitted and conditional uses (Table 6-C), including residential. At this time there are no development plans for the remaining 102 State Street land and providing a “maximum potential build out” is unfeasible.

Comment – *The applicant must demonstrate to the Planning Board that the introduction of additional setback at the street level satisfies the following: open space and amenity, prevailing character and continuity, support for existing open space, and quality and orientation. The applicant is required to submit an analysis demonstrating to the Planning Board that the introduction of additional setbacks at the street level satisfies the above.*

Response – In accordance with the B-3 Downtown Business Zone Standards for increasing setback beyond build-to line as outlined in the City’s Design Manual, the additional 2 foot setback from the maximum 5 foot setback (7 feet total from property line) provides the following:

- i. Substantial and viable accessible open space and additional amenities at the street level is provided with the additional setback, including additional room for landscaping and open space between the back side of the sidewalk and the building façade.
- ii. The additional setback does not detract from the prevailing street wall character and maintains the same 7 foot setbacks from the recently approved affordable housing projects (74 & 91 Winter Street) across Spring Street along the Winter Street frontage. To the east of the project, the existing 100 State Street building is setback approx. 18 feet from the ROW. By providing an additional setback, the townhomes maintain the general characteristics of the neighborhood.
- iii. The additional 2 foot setback does not create an excessive amount of open space. The existing site along Winter Street is currently a parking lot, by providing additional room for landscaping, the project supports new open space and does not detract from existing open space (none existing).
- iv. The additional setback is north facing; however the additional setback is not intended to create a sizable open space and therefore, the standard is generally not applicable. The additional space will allow for more viable landscape and residential transition frontage with a buffer between public and private realms.



Comment – *Please clarify where the location of the HVAC units will be in the revised plans. There were some discrepancies noted by the Planning Board.*

Response – As approved by the Historic Preservation Board, the final locations are shown in two potential locations: 1) behind the units adjacent to the garages and below the rear decks and 2) on the top story wall (not on the roof), which is setback approximately 30' from Winter Street and out of view from pedestrians that may be walking along Winter Street.

Comment – *The applicant will need to identify the location of snow storage in the site plan (for final development) and during construction (including projects utilizing the State Street lot for construction staging).*

Response – Please refer to C-10 Site Plan for the location of snow storage on site.

TRANSPORTATION

Comment – *The applicant is proposing 27 parking spaces (three per unit) which exceeds the parking requirements by more than 10%. The applicant will need to provide a Parking Study.*

Response – As discussed with the Board and Staff, the project is proposing 18 spaces total (two per unit) within the interior garages. Please refer to the attached Parking Demand Memo which provides justification on the additional parking more than 10% of the minimum parking spaces per Code for additional information.

Comment – *Although the applicant noted that bicycle parking could be included in the garage of the unit, City Staff would like to see some sort of exterior bicycle parking. As proposed, the Winter St public ROW frontage is too narrow (~7') for bike racks but Spring St is right at 8' so there could be two racks between the two trees on Spring placed 2' off the back of curb with the racks spaced 6' apart on center (min.) and a minimum of 4' from the edge of a tree well. It certainly would be better for the racks to be along the street frontage of the townhouse entrances. They could do this by installing some concrete pads (4'x6') for bike racks in the planting beds in front of the buildings behind the sidewalk. If Winter St frontage is extended, the applicant could place racks along Winter St which would contribute to a better public streetscape.*

Response – Bicycle parking is provided within the garage and interior of the units that meet the City's zoning requirements. Due to narrow space along both Winter Street and Spring Street, parked bicycles could impede on the travel way. Additionally, the subsurface utilities, including electrical manholes, submersible transformers, and concrete encased electrical conduit duct banks within the sidewalk, including between the two street trees on Spring Street would be prohibitive to have bike racks installed on top of these structures and infrastructure. As discussed with Planning Staff, we understand the suggested bike racks are not necessary due to the various site constraints and as the requirement is met within the units.



WATER QUALITY, STORMWATER, & INFRASTRUCTURE

Comment – *City Staff noted that the applicant could look to add additional stormwater storage on site to help alleviate runoff from surrounding sites.*

Response – The project is proposing a proprietary modular wetland system to provide water quality treatment and stormwater attenuation for the entire site, including the townhomes and the remaining 102 State Street land.

Comment – *The applicant shall provide ability server letters from all utility providers associated with the proposed project.*

Response – Please refer to the attached ability to serve letter from the Portland Water District. An Ability to serve letter request was sent to DPW on November 29, 2022 and will be provided to Staff upon receipt. The applicant requests this be a condition of approval.

Comment – *The applicant should provide written confirmation from DPW confirming the approved location for the underground electric utility.*

Response – Final underground electrical utility layout is being finalized by Central Maine Power, however based on our meeting with DPW, we have made their suggested revisions, including reducing the amount of street crossings / openings. The applicant requests final written confirmation from DPW be provide as a condition of approval.

Comment – *Please confirm which sidewalks will be maintained, repaired, or replaced on the plans.*

Response – Please refer to C-10 Site Plan for the limits of the sidewalk replacement, which includes the entire frontage of Winter and Spring Streets for this parcel.

Comment – *CMP Plan indicates sidewalk could be closed for duration of project. Could the applicant mitigate sidewalk closure during ongoing projects?*

Response – Due to the installation of the underground electric utilities below the sidewalk, and installation of street trees, along with grading and reconstruction of the sidewalk, the sidewalk will need to be closed for periods of time. The contractor will coordinate with DPW on the closures as necessary.

ZONING

Comment – *Please include SE and SW corners in the grading plan. Specifically, the locations of the 121 and 127 height calculations on sheet.*

Response – Please refer to the attached revised C-30 Grading & Drainage Plan for the additional spot grades at the SE and SW building corners that correspond to the building height calculation table.



Comment – *Please update the elevations with the following information: Average Grade Line, 30' Setback, 45' or less line, top of High Roof, and 7' setback line.*

Response – Please refer to the revised elevations depicting the requested additional information.

LANDSCAPING & ENVIRONMENTAL QUALITY

Comment – *Applicant team has been working with City Arborist regarding landscaping, street trees, and other elements of the proposal. Please be sure to note the specific changes from the original plans and incorporate the City Arborist's comments into the response.*

Response – Please refer to the revised landscaping plans and Street Tree Maintenance Plan for specific information and approval from the City's Arborist on the proposed designs. Specific updates based on discussions with Jeff Tarling include:

- Specifying Zelkova Serrata "Green Vase" as a street tree species, with a maximum caliper size of 2.5"
- Using the city standard NEENA tree grate and employing the additional base frame system, which further supports the grate and prevents sagging
- Extending the warranty on the street trees by the development team to 3-years (from the standard 1-year required by the city). This was a suggestion of the planning board during the workshop on 2/8/2022
- The Development team will devise a street tree maintenance plan and winter-deicing strategy to be handed off to the Winter Street Town Homes HOA (see attached Street Tree Maintenance Plan).

Comment – *Section below 22' entrance on Spring St. - no vehicle parking curb. End unit could be pulling out onto the landscape area.*

Response – Please refer to the revised plans which includes additional curbing separating the driveway and the landscaped area.

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

Sincerely,

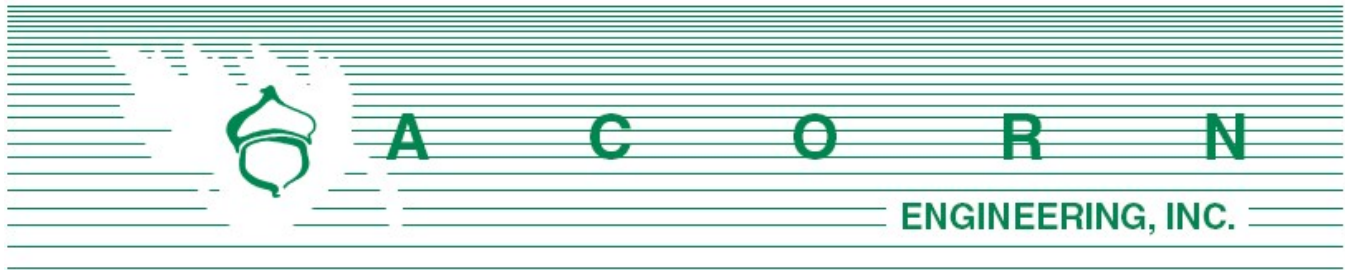


Peter F. Heil, P.E., CPESC
Project Manager
Acorn Engineering, Inc.



William H. Savage, P.E.
Principal
Acorn Engineering, Inc.





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,

A handwritten signature in blue ink, appearing to read "Peter Heil", is located below the "Sincerely," text.

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

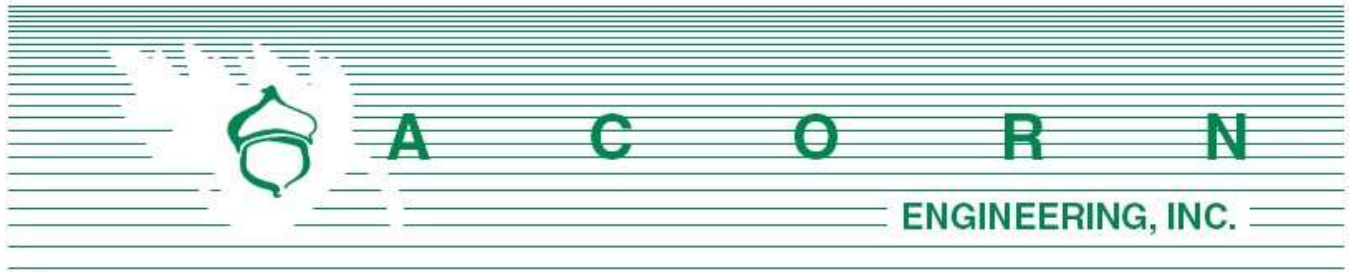
Developer & Consultant Team in Attendance:

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.

Street Tree Maintenance Plan Winter Street, Portland, Maine

1. Material Selection:

Tree Size and Type

Specified trees are salt tolerant, hardy Zelkova Seretta “Green Vase”, with a maximum caliper size of 2.5 inches. The selected tree has proven to be a hardy species and has been used successfully on challenging sites across the City of Portland.

Plant Material Selection Process

The Landscape Architect will select trees from the nursery prior to planting. The landscaper will install the selected trees according to the plans and specifications, and maintain them during establishment in accordance with the specifications.

Planting Medium

The Landscape Architect will specify the location for planting, type and quantity of the soil, any required soil amendments, and inspect and approve the installation of the trees.

Warranty Period

The landscape contractor will provide a one-year warranty, replacing any trees that do not survive. Following the warranty period, the Owner will replace dead or significantly ailing trees for an additional 2 years. This is an extension of the city’s standard required one-year warranty period.

2. Site Design:

Exposure

The Winter and Spring Street sidewalks where the street trees will be planted have a southern and western exposure, and will be in the sun for most of the day, thereby reducing ice and snow build up.

3. Operations

Salt Reduction Strategies

Winter Street Town Homes HOA will conduct an annual site walk to discuss winter operations with the maintenance contractor, including discussion of equipment proposed for use, such as brine applicator to make a pre-storm application of a brine solution, which has been shown to minimize the overall amount of salt used.

To ensure the health of the street trees, maintenance crews will be instructed to use chemical deicing products judiciously, applying it only where and when needed for safety.



Charles Tetelman <ctetelman@portlandmaine.gov>

Public Comment - 102 State Street: Objection to Planning Staff Favoritism to Applicant

George Rheault <george.rheault@gmail.com>

Thu, Mar 3, 2022 at 12:47 PM

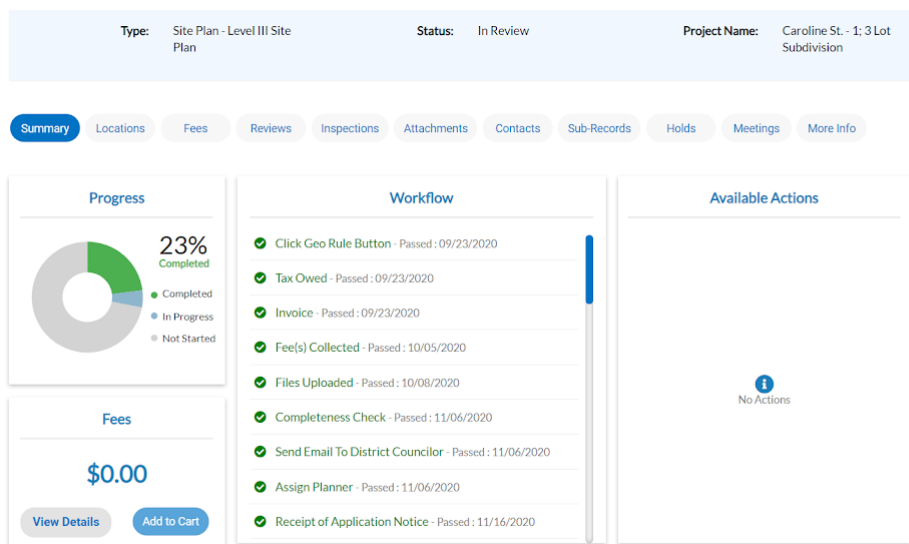
To: Planning Board <planningboard@portlandmaine.gov>, jmy <jmy@portlandmaine.gov>, Abigail Reed <areed@portlandmaine.gov>, Christine Grimando <cdg@portlandmaine.gov>, ctetelman@portlandmaine.gov

I object to the expedited "white glove" treatment that the Planning Department has time and time again bestowed on our community's "elite" developer class, which of course is well-represented in the 102 State Street project.

Portland's citizens have a great many reasons to be anxious today about our community's land use approvals process. Further undercutting confidence in our system should be carefully avoided, especially with major initiatives like ReCode in process.

However, time and time again we see planning staff politicize project approvals, aided and abetted by the Planning Board either looking the other way or sometimes even cheering them on.

A good comparison to the lightning speed which [102 State Street](#) has sailed through to a public hearing is the 'by-right' attempt filed in late summer 2020 to build on some housing lots in the infamous Redlon Woods area. I have included the initial submission cover letter and some attachments showing the ridiculous obstacles the planning staff have thrown in their way.



No rezoning was required or requested on Caroline Street. Yet somehow the planning staff have managed to harass, delay and defer the Caroline Street project from EVEN GETTING AN INITIAL WORKSHOP in front of the Planning Board despite an initial submission date of September 18, 2020.

Housing abundance comes from a healthy pipeline of housing development involving big, medium and small projects. As we have seen with the Caroline Street application and other politically disfavored projects, our planning staff is NOT pursuing a housing abundance policy, but rather impermissibly greenlighting a favored class of politically connected operators while leaving others to twist in the wind. As a result, more and more opportunities for housing are either suspended in limbo or never even attempted so as to avoid getting caught up in a costly and exhausting mess.

The Planning Board should table this application and commit to clearing out the current backlog that planning staff have unfairly created. The Redfern/NewHeight team has plenty on its plate already and should step aside for a few months to let others receive the same "hugs and kisses" treatment.

3 attachments



Caroline Street Comment + Responses (4.26.21 + 7.1.21) (2).pdf

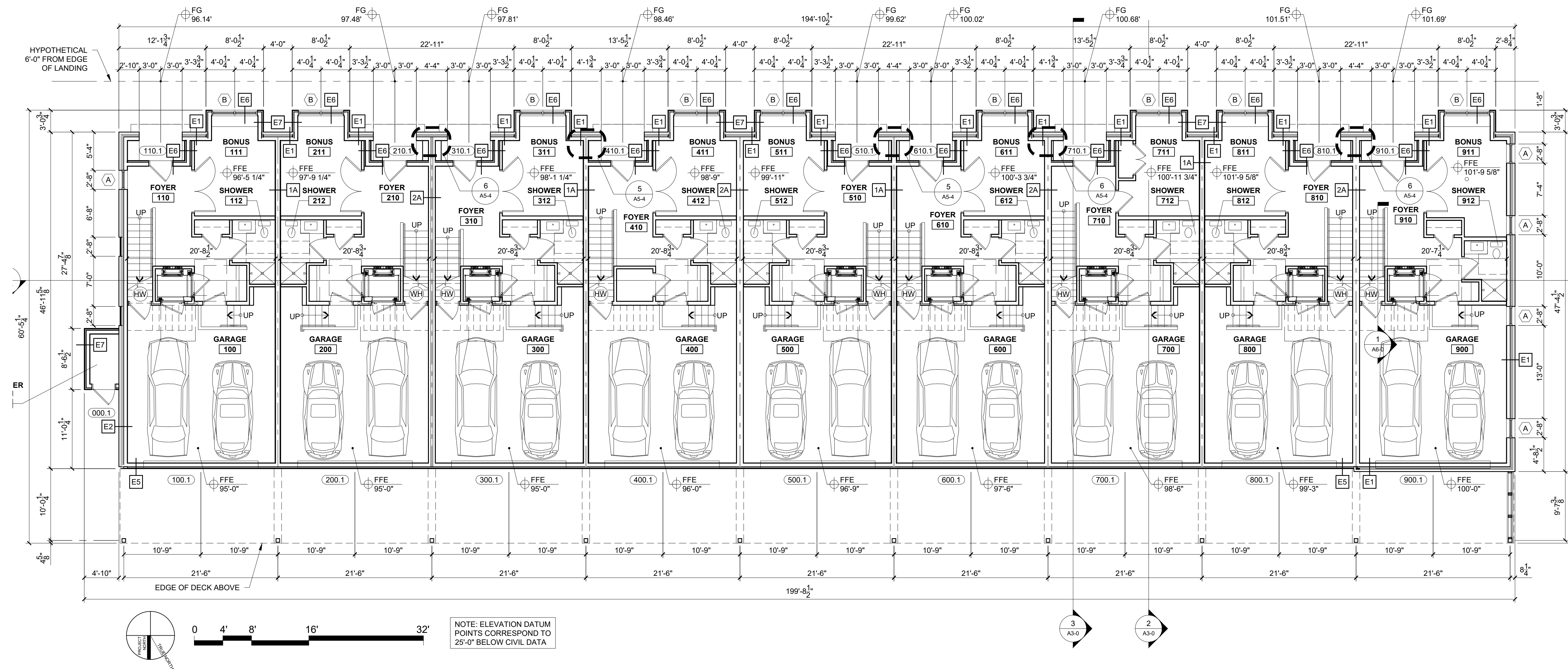
432K



2021.10.19 - RTI Letter (1).pdf
194K



Cover Letter (3).pdf
447K



1 FIRST FLOOR PLAN
1/8" = 1'-0"

WINTER STREET TOWNHOMES
WINTER STREET
PORTLAND, MAINE

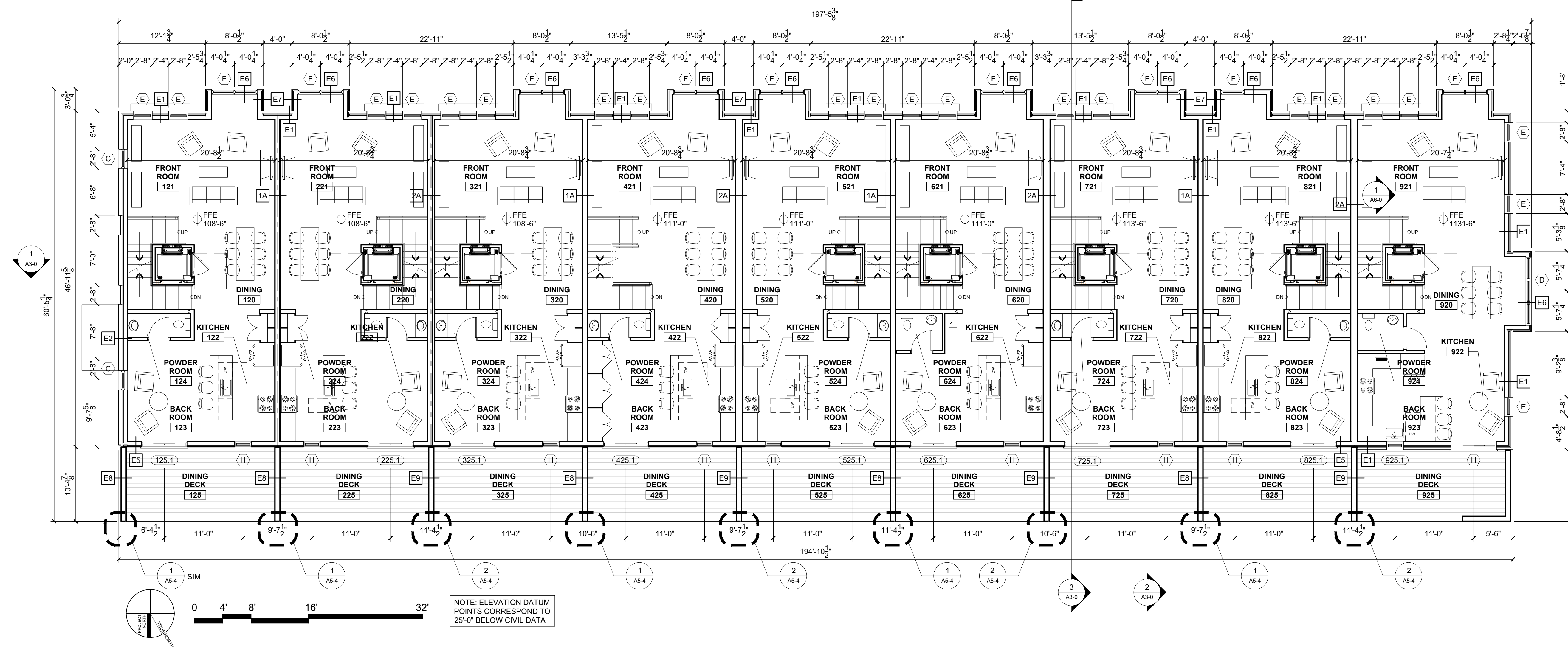
RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET, SUITE 2
PORTLAND, MAINE 04101
O: 207-747-5159
C: 207-650-6414
senatorearchitecture.com

CONSULTANTS:

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FEBRUARY 24, 2022

DATE:
PROJECT No. 2139
DRAWN BY: RJS, ES
CHECKED BY: RJS
SCALE: AS NOTED
SHEET TITLE:
FIRST FLOOR
PLAN

A1-1



1 SECOND FLOOR PLAN
1/8" = 1'-0"

WINTER STREET TOWNHOMES
WINTER STREET
PORTLAND, MAINE

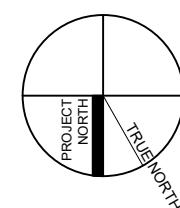
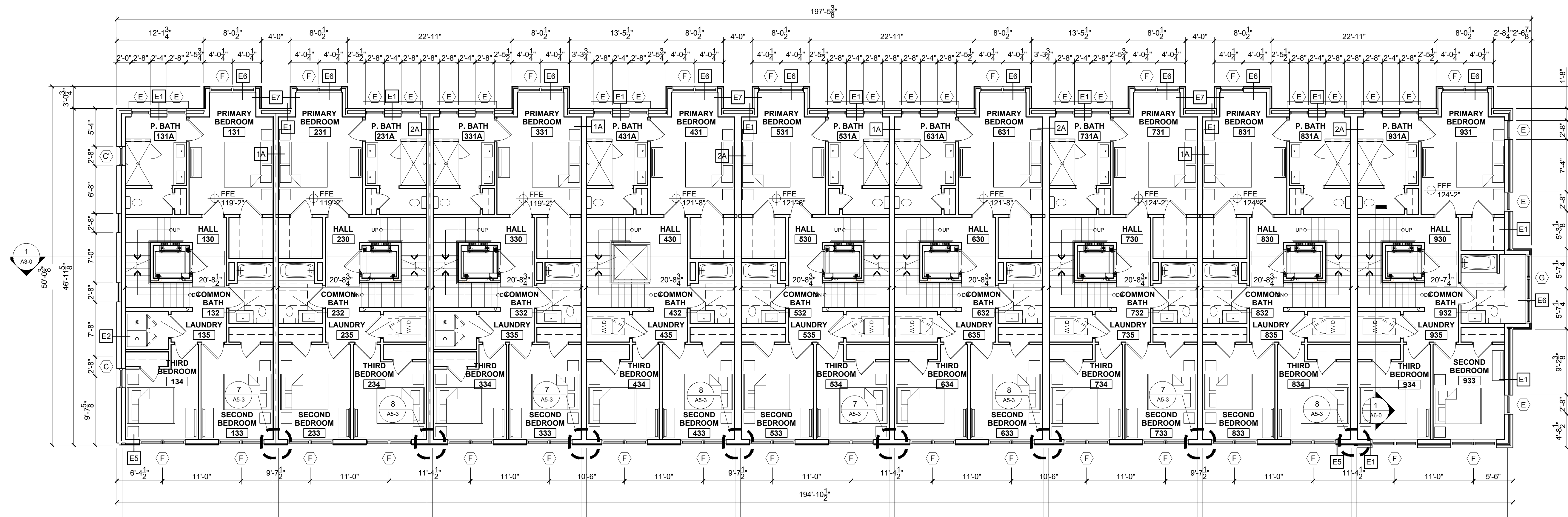
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CHECKED BY: RJS
SCALE: AS NOTED
SHEET TITLE:
SECOND FLOOR PLAN

A1-2



0 4' 8' 16' 32'

NOTE: ELEVATION DATUM
POINTS CORRESPOND TO
25'-0" BELOW CIVIL DATA

1 THIRD FLOOR PLAN
1/8" = 1'-0"

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ARCHITECTURE

WINTER STREET TOWNHOMES
WINTER STREET
PORTLAND, MAINE



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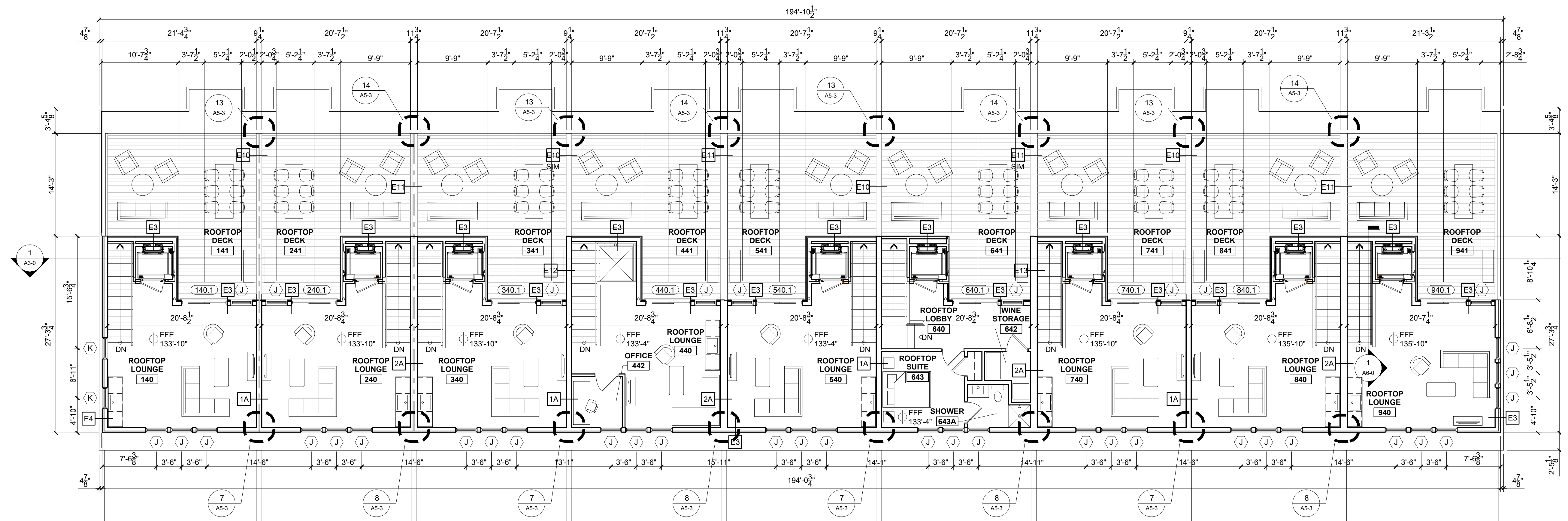
DRAWN BY: RJS, ES

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
THIRD FLOOR
PLAN

A1-3



1 FOURTH FLOOR PLAN
1/8" = 1'-0"

WINTER STREET TOWNHOMES
WINTER STREET
PORTLAND, MAINE

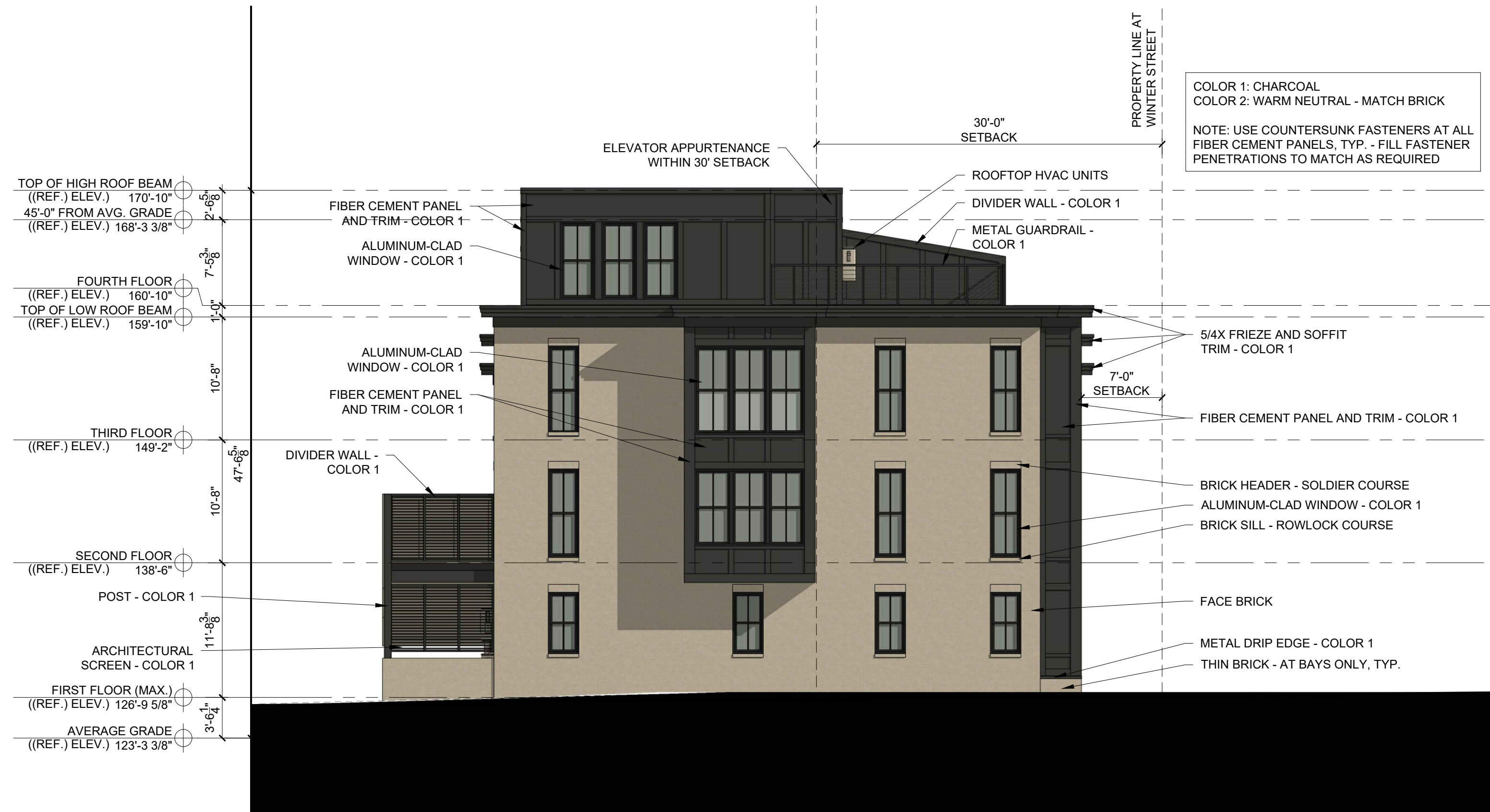
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FEBRUARY 24, 2022

DATE:
PROJECT No. 2139
DRAWN BY: RJS, ES
CHECKED BY: RJS
SCALE: AS NOTED
SHEET TITLE:
FOURTH FLOOR PLAN

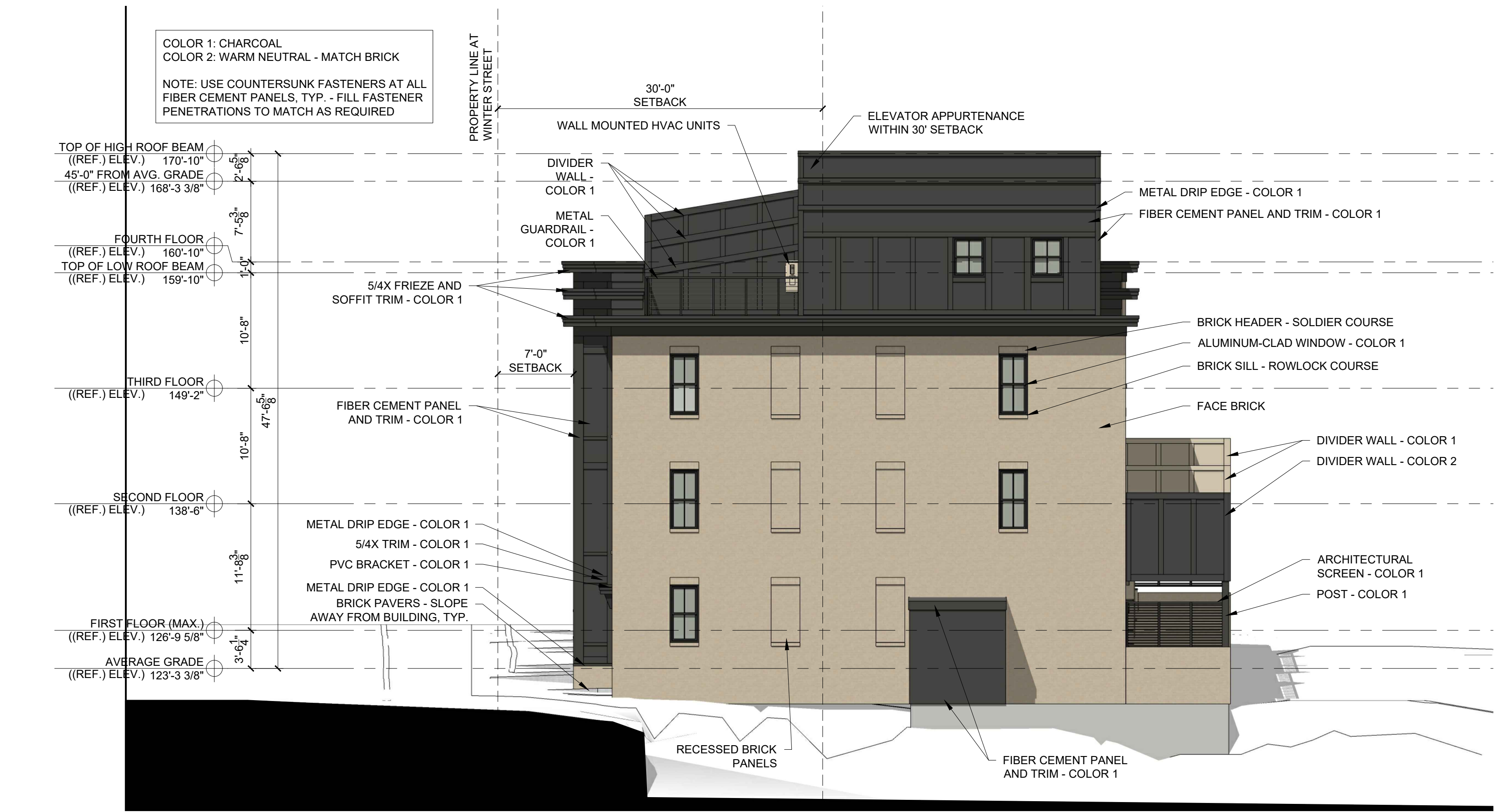
A1-4



2 WEST ELEVATION
1/8" = 1'-0"



1 SOUTH ELEVATION
1/8" = 1'-0"



2 EAST ELEVATION
1/8" = 1'-0"



1 NORTH ELEVATION
1/8" = 1'-0"

WINTER STREET TOWNHOMES
WINTER STREET
PORTLAND, MAINE

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FEBRUARY 24, 2022

DATE:
PROJECT No. 2139
DRAWN BY: RJS, ES
CHECKED BY: RJS
SCALE: AS NOTED

SHEET TITLE:
ELEVATIONS
FOR PLANNING
BOARD

WINTER STREET TOWNHOMES
WINTER STREET
PORTLAND, MAINE

RSA
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ARCHITECTURE
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JANUARY 20, 2022

DATE:

PROJECT No. 2139

DRAWN BY: RJS, ES

CHECKED BY: RJS

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



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C: 207-650-6414
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CONSULTANTS:

REVISIONS:

DATE:

PROJECT No. 2139

DRAWN BY: RJS, ES

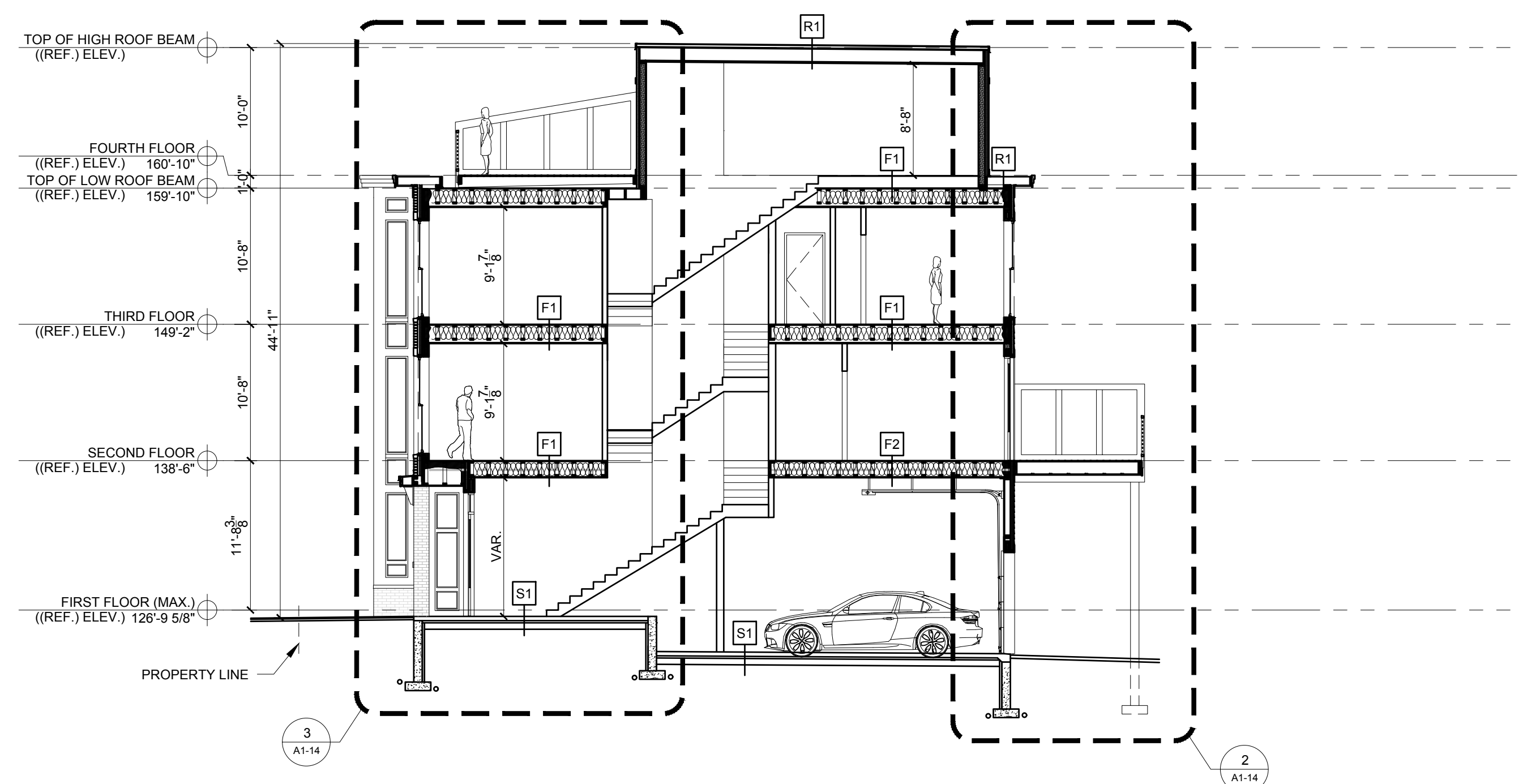
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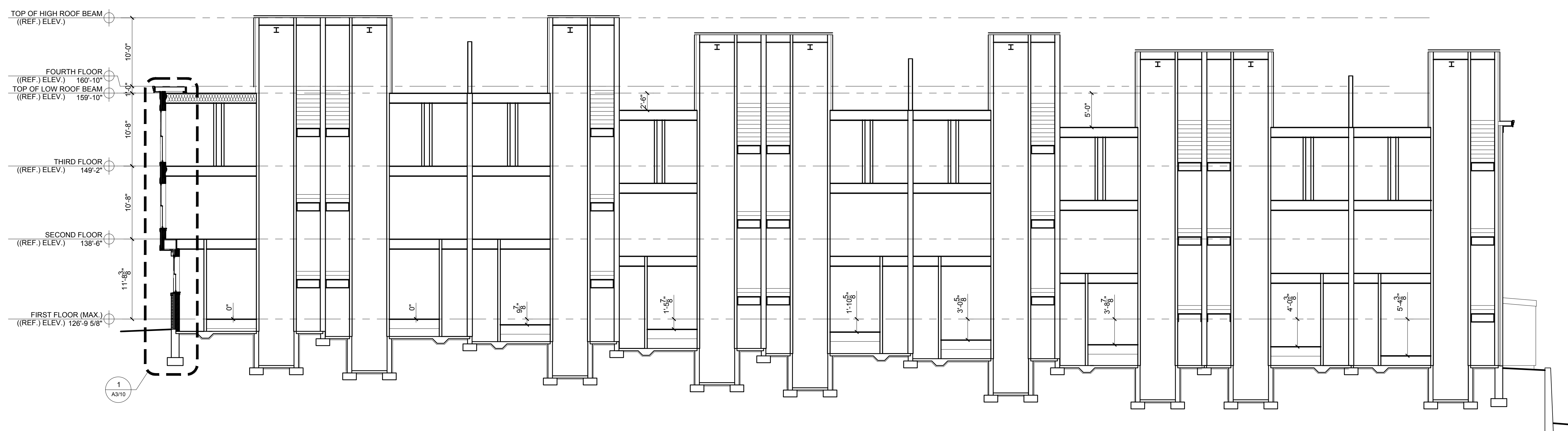
SHEET TITLE:

SECTIONS

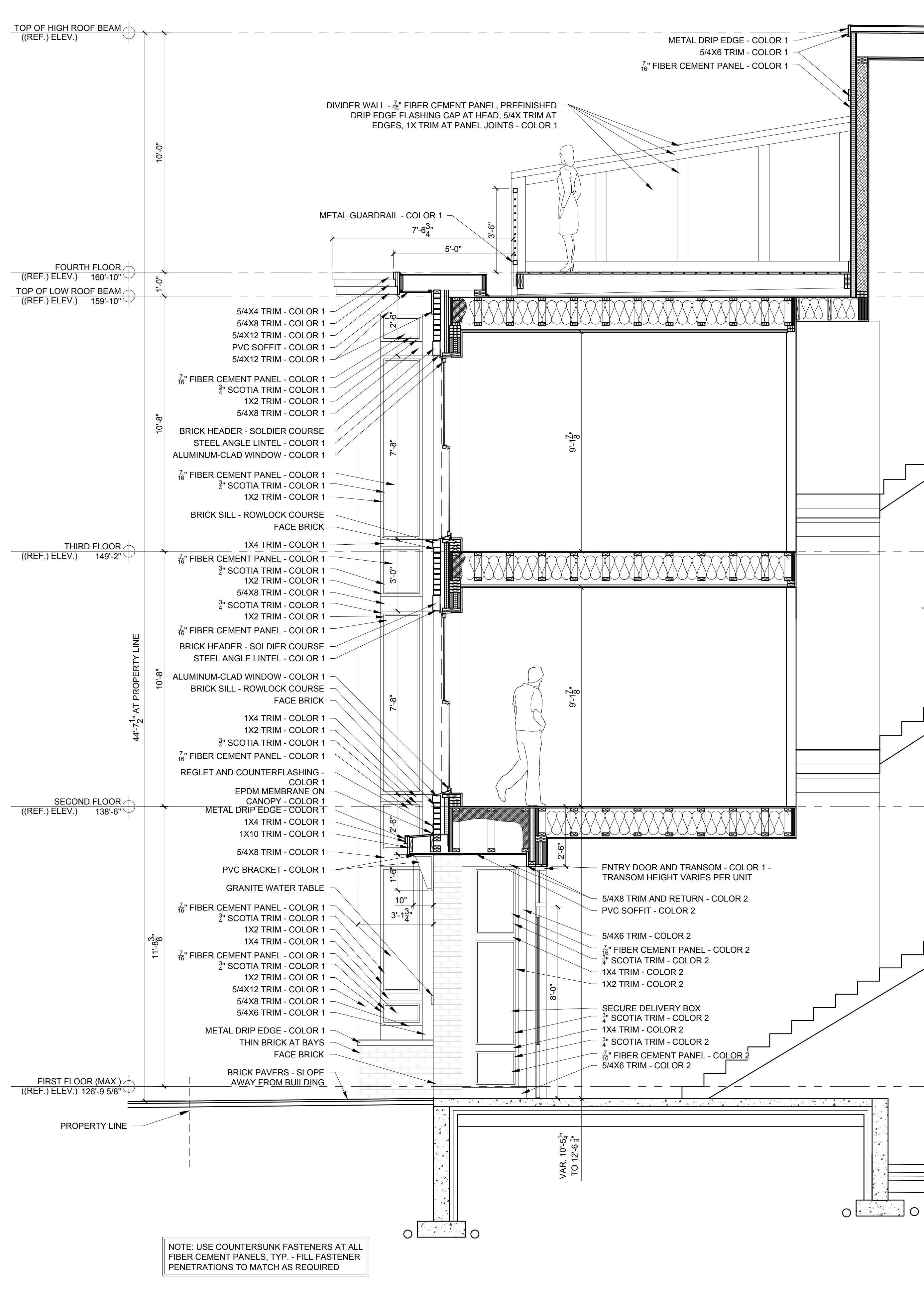
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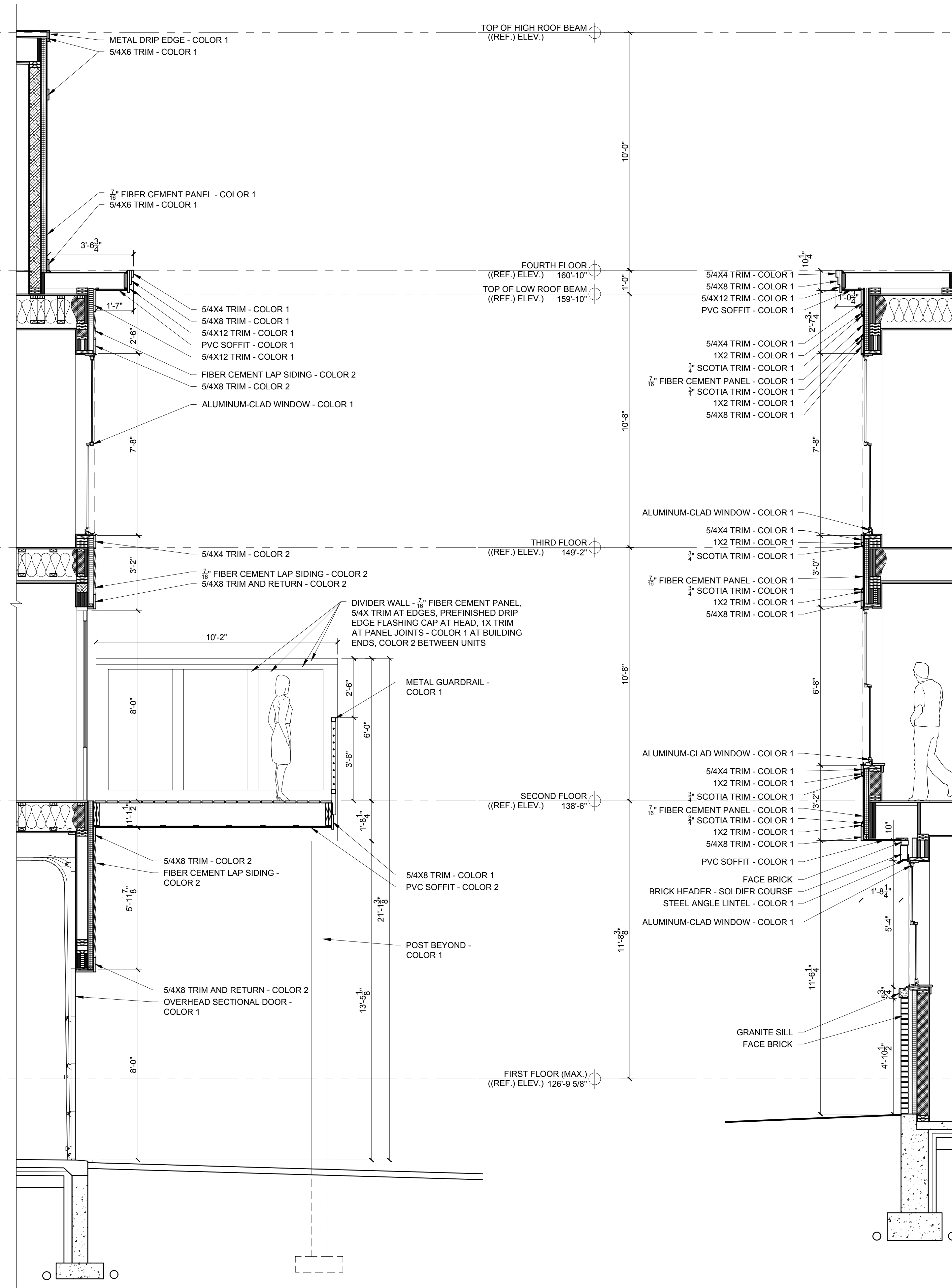
2 SECTION
1/8" = 1'-0"



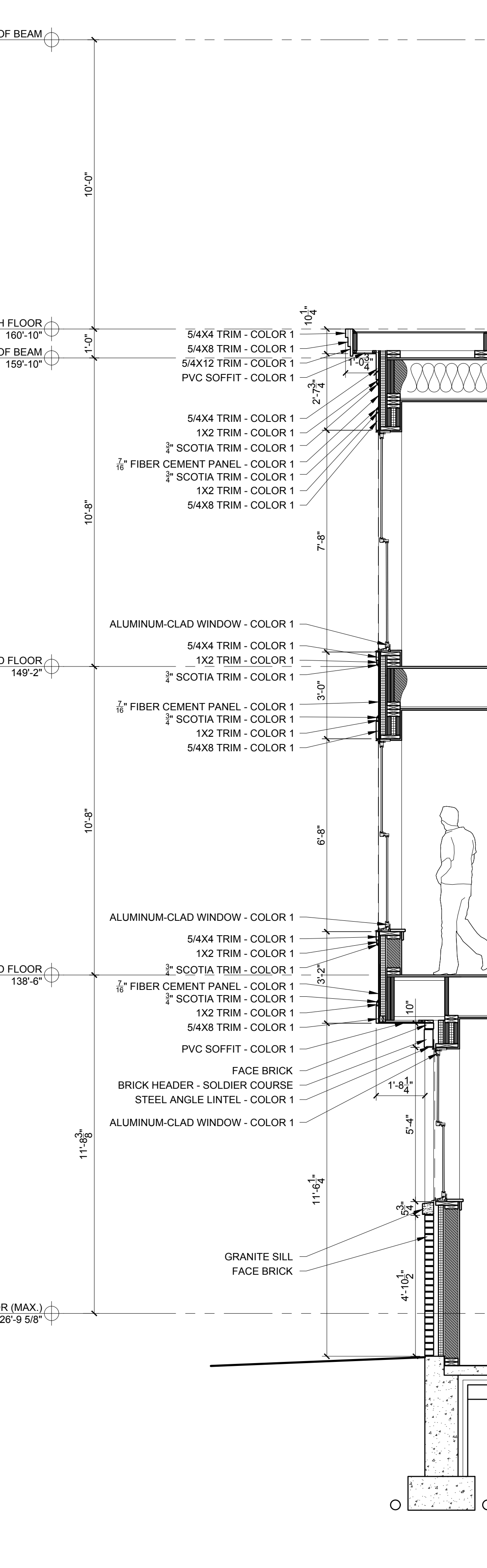
1 SECTION
1/8" = 1'-0"



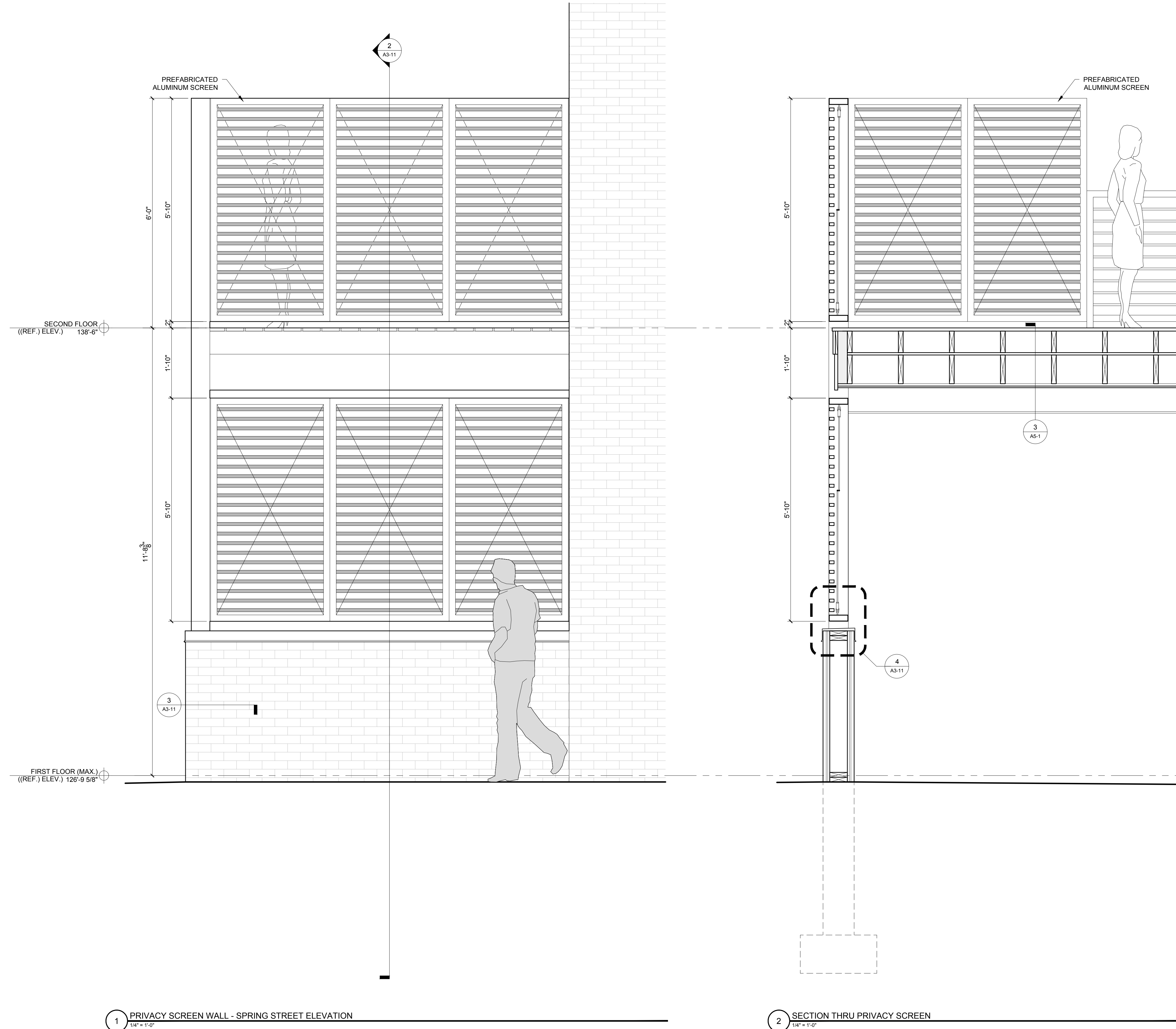
3 TYP. EXTERIOR WALL SECTION AT WINTER STREET ENTRY
3/8" = 1'-0"

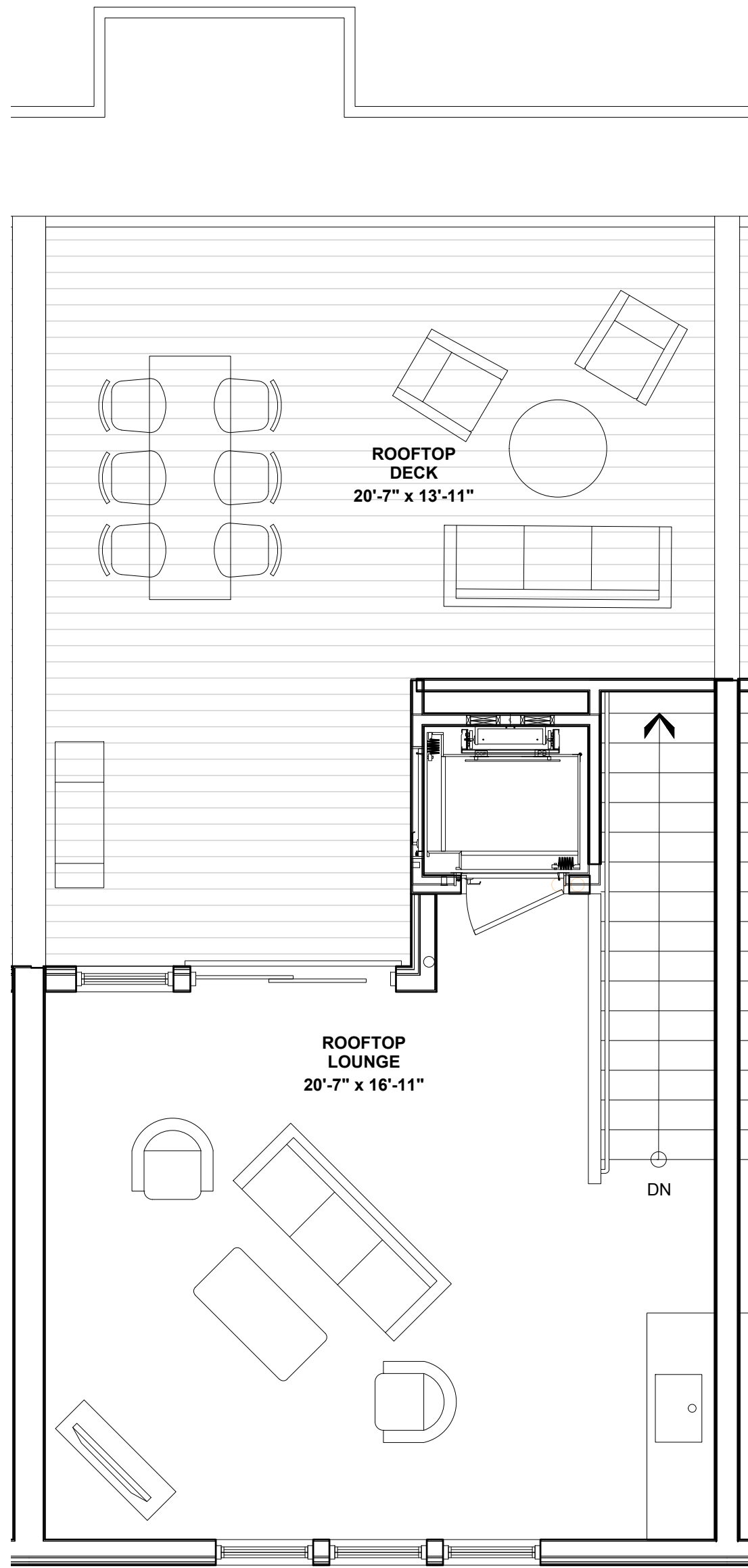


2 TYP. EXTERIOR WALL SECTION AT REAR DECK
3/8" = 1'-0"

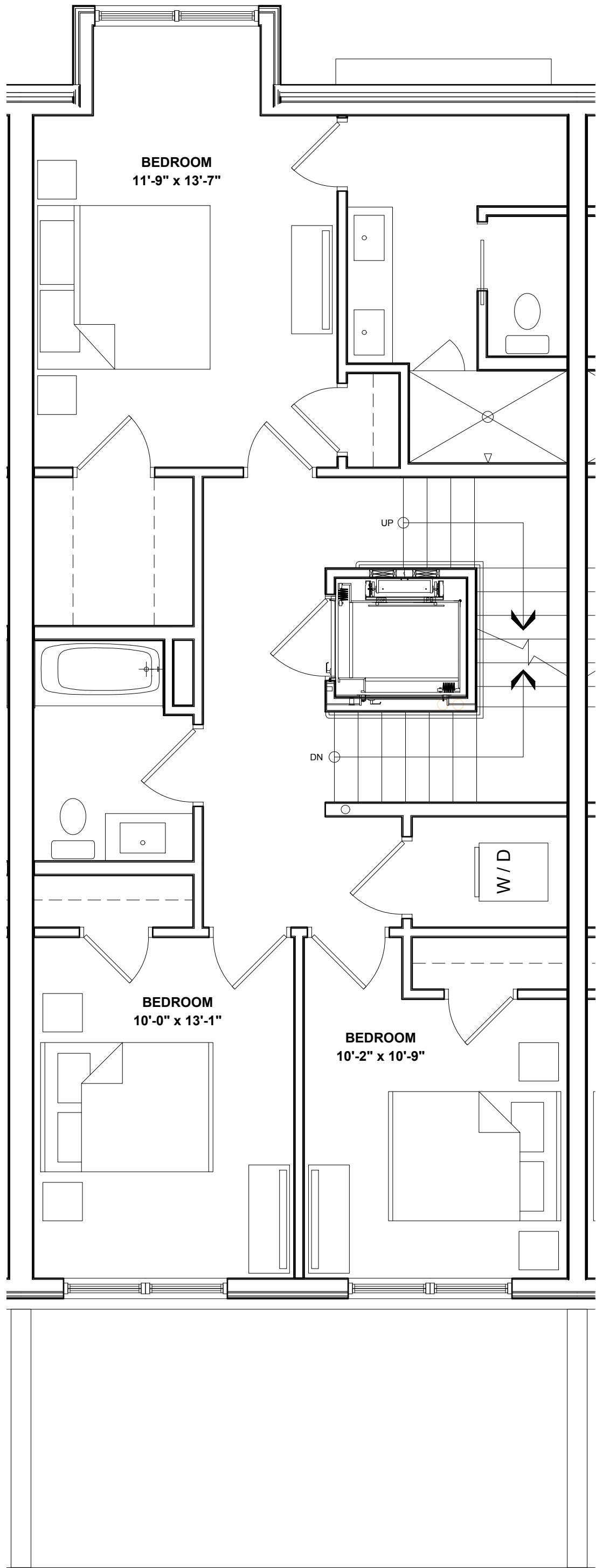


1 EXTERIOR WALL SECTION AT SPRING STREET BAY
3/8" = 1'-0"

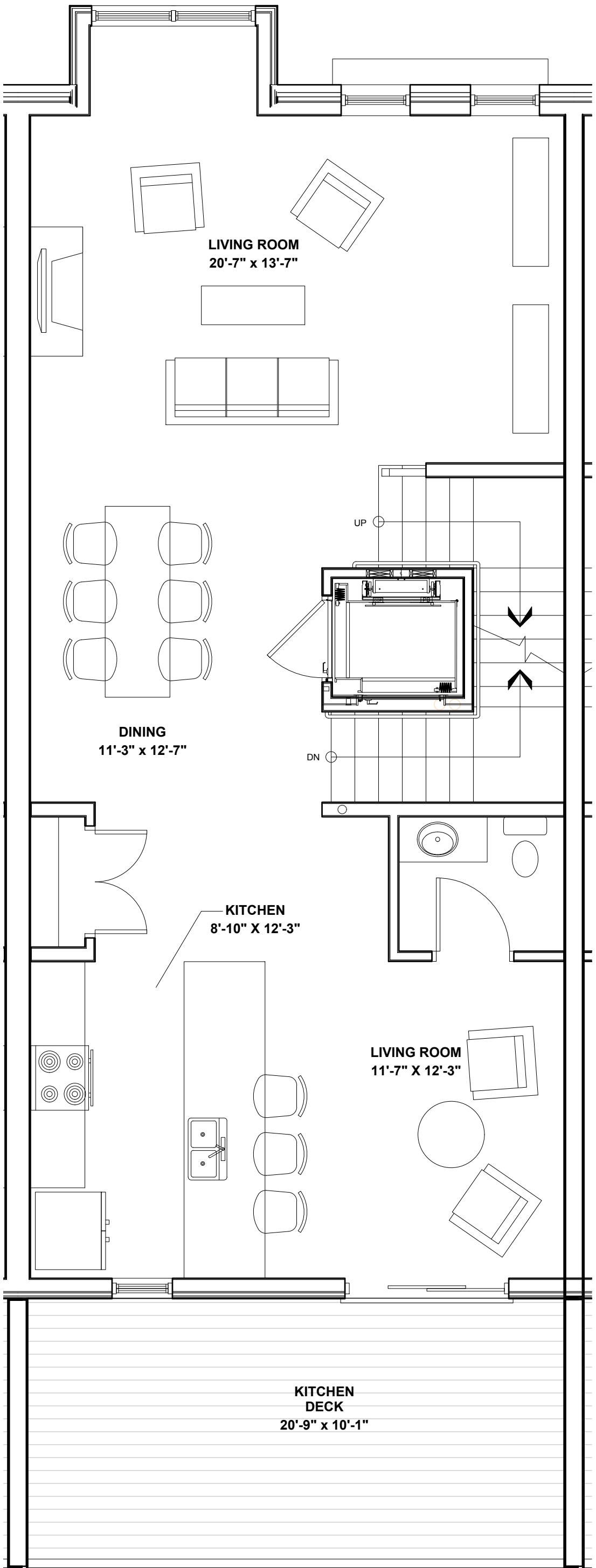




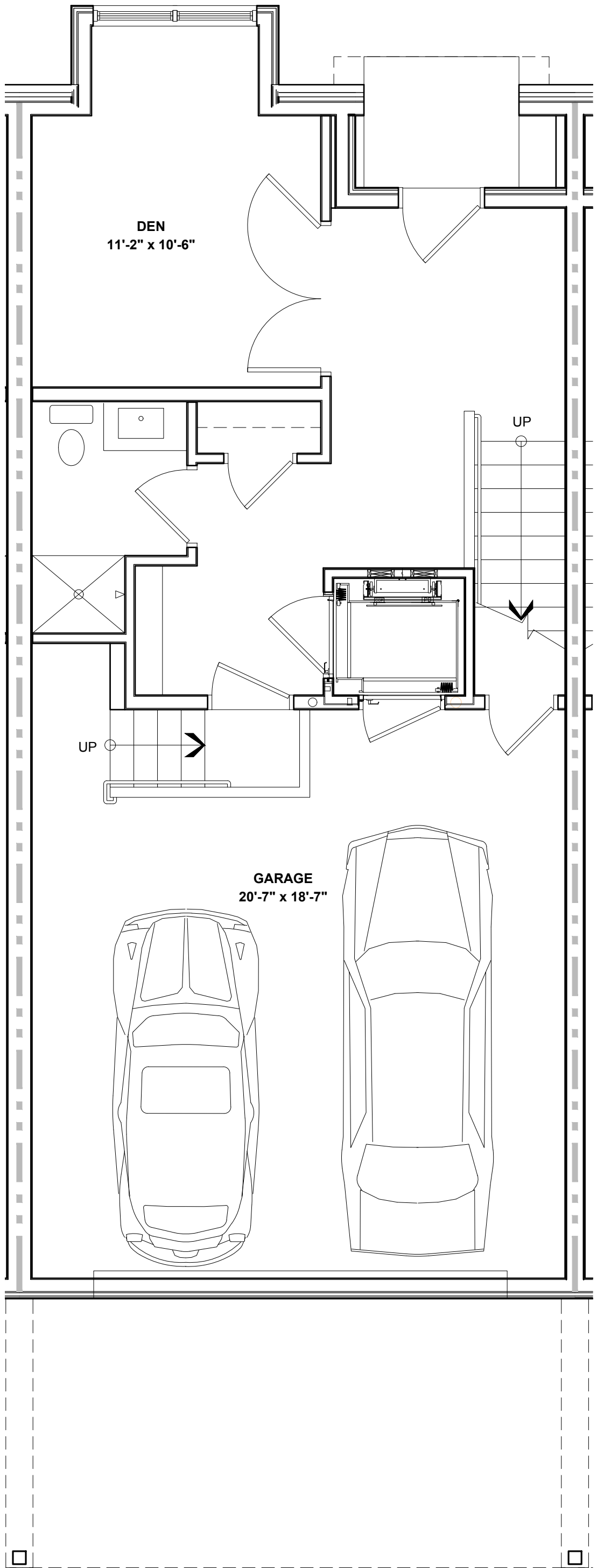
4 FOURTH FLOOR PLAN
1/4" = 1'-0"



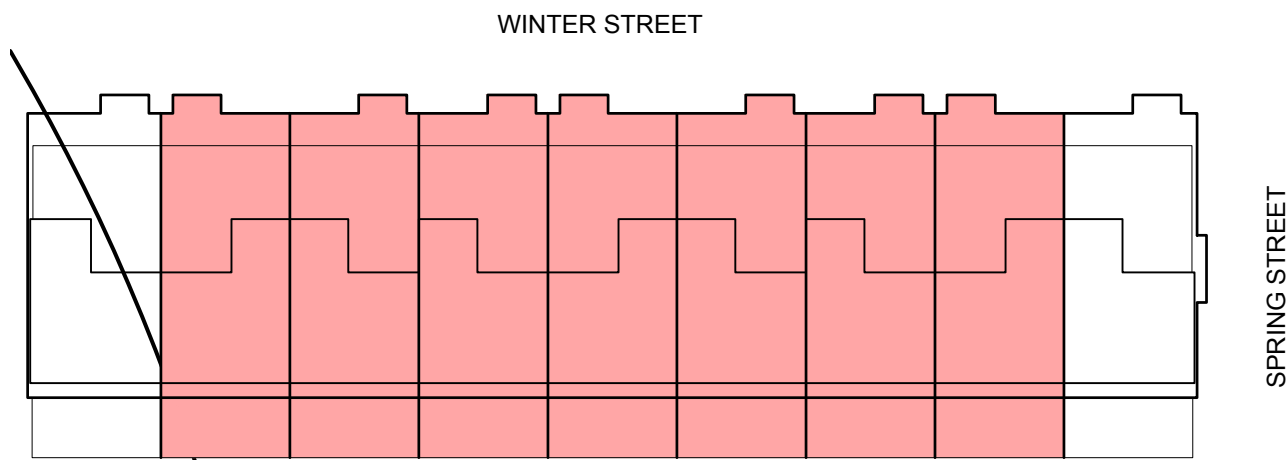
3 THIRD FLOOR PLAN
1/4" = 1'-0"



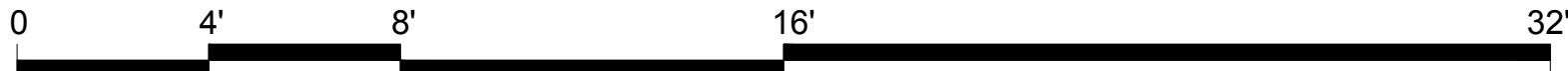
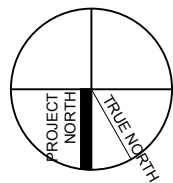
2 SECOND FLOOR PLAN
1/4" = 1'-0"



1 FIRST FLOOR PLAN
1/4" = 1'-0"

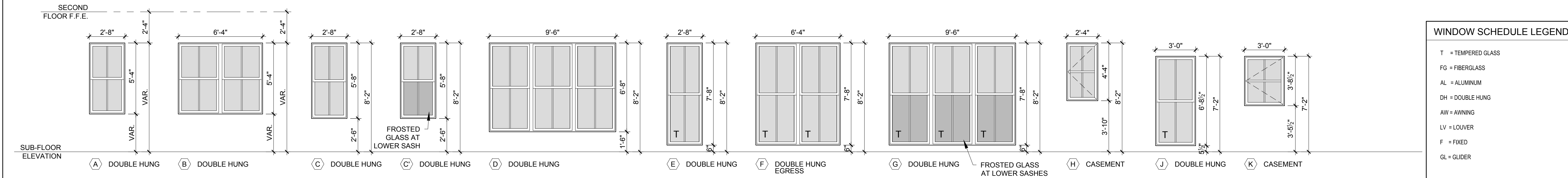


5 KEY PLAN
1/32" = 1'-0"

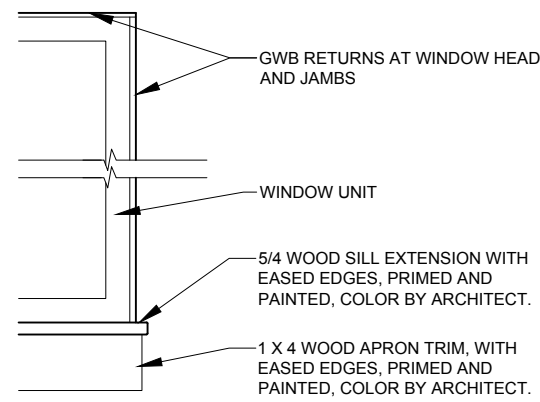


TYPICAL UNIT

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1 WINDOW TYPES
1/4" = 1'-0"

[illegible]

2 TYPICAL WINDOW TRIM WITHIN DWELLING UNIT
NOT TO SCALE

WINDOW NOTES:

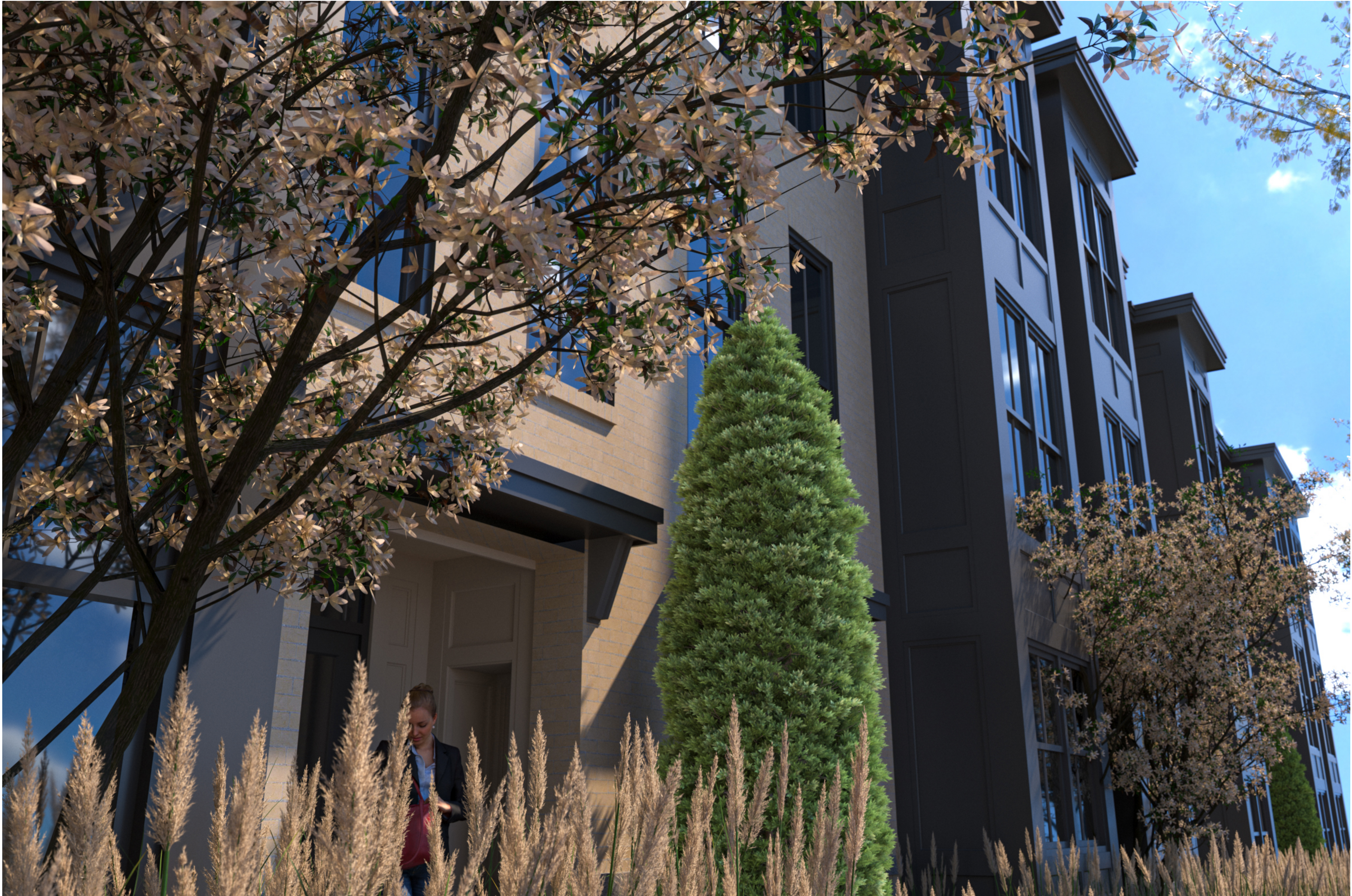
- 1.) COORDINATE AND ADJUST ROUGH OPENING DIMENSIONS TO ACCOMMODATE SILL PAN FLASHING SYSTEM
- 2.) ALL WINDOW UNITS AND MULTI-WINDOW UNIT COMBINATIONS TO MEET OR EXCEED DP-50 RATINGS FOR BOTH STRUCTURAL AND WATER RESISTANCE
- 2.) PROVIDE MULL REINFORCING AT ALL MULTI-WINDOW UNITS AS REQUIRED TO ACHIEVE 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











NEWHEIGHT REDFERN, LLC
PORTLAND, MAINE

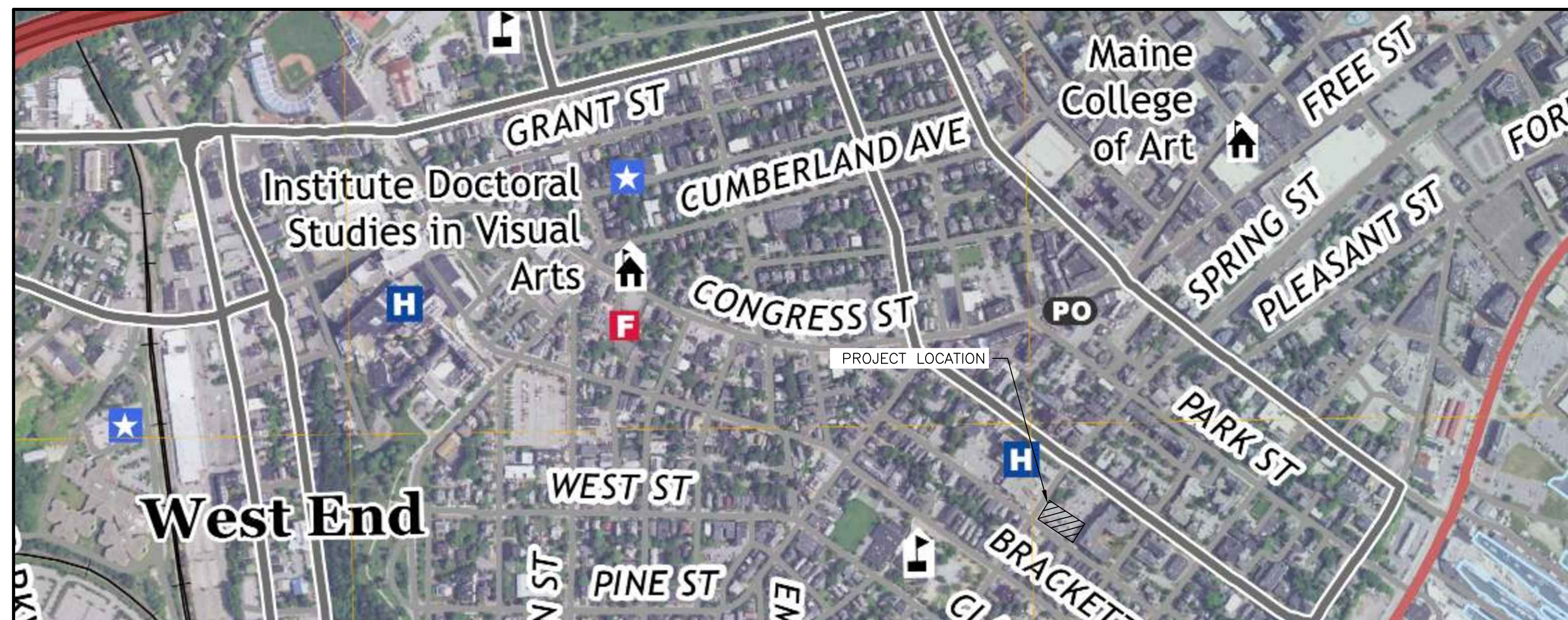
A vertical strip of 18 icons, each enclosed in a rectangular frame. The icons are as follows (from top to bottom):

- A row of five small circles.
- A horizontal line with four small circles spaced along it.
- A row of five small squares.
- A gear or sun-like symbol with eight points.
- A bow tie.
- A light bulb.
- A document with horizontal lines and a circular arrow around it.
- A horizontal line with the text "LGE" below it.
- A horizontal line with the text "1'W" below it.
- A horizontal line with a box containing the number "64" below it.
- A horizontal line with a box containing the number "65" below it.
- A horizontal line with a greater-than sign ">" below it.
- A horizontal line with the letter "S" below it.
- A solid gray rectangle.
- A horizontal line with the letter "S" below it.
- A horizontal line with a greater-than sign ">" below it.
- A horizontal line with the letter "S" below it.
- A horizontal line with a greater-than sign ">" below it.

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
C-40	SITE DETAILS - 1
C-41	SITE DETAILS - 2
C-42	UTILITY DETAILS - 1
C-43	UTILITY DETAILS - 2
C-44	UTILITY DETAILS - 3
C-45	UTILITY DETAILS - 4
C-46	DRAINAGE DETAILS
C-47	EROSION CONTROL DETAILS & NOTES

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UNITIL SERVICE CORP
1075 FOREST AVENUE
PORTLAND, ME 04103
CONTACT: BRIDGET HARMON
(207) 541-2536



VICINITY MAP
SCALE: 1:500

ALA

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

[illegible]

NEWHEIGHT REDFERN, LLC

PROJECT NAME:

CLIENT:

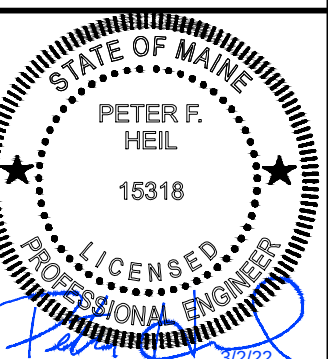
167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101


A C O R N

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

WE CAN DESIGN AND CONSTRUCT ANY TYPE OF STRUCTURE. ACORN ENGINEERING, INC. AND ITS AFFILIATES, AUTHORIZED REPRESENTATIVES OF ACORN ENGINEERING, INC., ASSUME NO LIABILITY TO ACORN ENGINEERING, INC. FOR ANY LOSS OR WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

LE:	1140.1_CIVIL
N:	1140.1
SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	MKT
CHECKED BY:	PFH



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.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN. IF DEEMED NECESSARY BY THE OWNER OR OWNER'S REPRESENTATIVE (IF APPLICABLE), ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULE BASED ON THE PLANS AND FIELD VERIFICATION BY THE CONTRACTOR. ALL MATERIAL SCHEDULES SHOWN WITHIN THE PLAN SET ARE FOR GENERAL INFORMATION ONLY.
4. ALL CONSTRUCTION METHODS, TESTING AND MATERIALS SHALL CONFORM TO THE MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE CITY OF PORTLAND AND SERVICING UTILITY REQUIREMENTS, IF ANY. IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SPECIFICATION SHALL APPLY AT NO ADDITIONAL COST TO THE OWNER.
5. THE SITE CONTRACTOR SHALL MAINTAIN A SET OF PAPER AND CAD DRAWINGS WHICH SHALL RECORD THE ACTUAL LOCATION, DIMENSIONS, ELEVATIONS, MATERIALS OF THEIR WORK, INDICATING THEREON ALL VARIATIONS FROM THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS, IN .DWG FORMAT AND PAPER, STAMPED "AS-BUILT". IF AUTOCAD CAPABILITY IS NOT AVAILABLE, EXCLUDE FROM BID IN WRITING.
6. THE CONTRACTOR WILL REMAIN SOLELY AND COMPLETELY RESPONSIBLE FOR ENFORCEMENT OF AND COMPLIANCE WITH 1) ALL CONTRACT PLANS AND SPECIFICATIONS, 2) APPLICABLE INTERNATIONAL BUILDING CODE REQUIREMENTS, AND 3) ALL SITE WORKING CONDITIONS AND SAFETY REQUIREMENTS, DAY AND NIGHT, FOR BOTH PERSONS AND PROPERTY, IN EACH CASE BOTH BY THE CONTRACTOR AND ITS SUBCONTRACTORS. THESE INCLUDE ALL OSHA, NIOSH, U.S. EPA AND ANY OTHER APPLICABLE GOVERNMENTAL REGULATIONS.
7. EXISTING CONDITIONS, BOUNDARY SURVEY, AND TOPOGRAPHY FROM THE PLAN TITLED BOUNDARY & TOPOGRAPHIC SURVEY BY OWEN HASKELL, DATED 8/4/20, LAST REVISED 11/11/21 VIA CAD .dwg FILE
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THE SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN A SAFE VEHICLE AND PEDESTRIAN ACCESS THOUGH THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE PORTLAND PUBLIC SAFETY DIVISION ROUTINELY REGARDING TEMPORARY IMPACTS OR CHANGES TO SITE ACCESS CONDITIONS.
9. **CONSTRUCTION MANAGEMENT PLAN** SHALL BE REFERRED TO FOR ANTICIPATED PROJECT SCHEDULE AND CLOSURES. TRAFFIC CONTROL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.
11. NO HOLES, TRENCHES, OR STRUCTURES SHALL BE LEFT OPEN OR UNATTENDED OVERNIGHT IN ANY AREA ACCESSIBLE TO THE PUBLIC OR WITHIN THE PUBLIC RIGHT-OF-WAY.
12. THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION SURVEY OF INTERIOR SUBGRADE AND ABOVE GRADE ACCESSIBLE WALLS, CEILINGS, FLOORS, ROOF AND VISIBLE EXTERIOR AS VIEWED FROM THE GRADE LEVEL. THIS IS STRONGLY RECOMMENDED FOR STRUCTURES DIRECTLY ACROSS THE SITE ALONG **WINTER STREET, SPRING STREET, AND STATE STREET**. A COPY OF THE SURVEY SHOULD BE PROVIDED TO THE OWNER. DOCUMENT WITH PICTURES AT A MINIMUM.
13. **THE CONTRACTOR SHALL PROVIDE A GPS MODEL OF THE PROPERTY TO PROVIDE TO ACORN ENGINEERING.**
14. THE CONTRACTOR SHALL SURVEY ROCK SURFACE PRIOR TO EXCAVATION AND DEVELOP VOLUME CALCULATIONS TO SHARE WITH THE ENGINEER, ACORN ENGINEERING INC. (ACORN), IF ANY.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES AND SHRUBS ON THE PROJECT WHICH ARE NOT TO BE REMOVED.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY TRENCH PAVEMENT THAT HAS EXPERIENCED EXCESSIVE SETTLEMENT, CRACKING, OR OPENING OF JOINTS. REPAIRS MAY INCLUDE OVERLAY. REMOVAL OF WORK MAY BE NECESSARY AFTER THE FINAL ACCEPTANCE OF WORK OR PRIOR TO THE END OF THE WARRANTY PERIOD. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

CIVIL SITE NOTES:

1. THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO ACORN TO MODIFY THE CONTRACT DOCUMENTS.
2. ALL SHOP, ERECTION, AND CONSTRUCTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE CONTRACTOR PRIOR TO SUBMISSION FOR ACORN'S REVIEW. ANY UNCHECKED OR NON-STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
3. CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY EXISTING STRUCTURES AND SITE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS. CONTRACTOR TO NOTIFY ACORN OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. DETAILS SHOWN APPLY TO ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
5. ALTHOUGH ALL DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT ALL DETAILS ARE ILLUSTRATED, NOR IS EVERY EXCEPTION CONDITION ADDRESSED WITHIN THE CONTRACT DOCUMENTS.
6. ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK, INCLUDING DIMENSION AND LAYOUT VERIFICATION, MATERIALS COORDINATION, SHOP DRAWING REVIEW, AND THE WORK OF ANY SUBCONTRACTORS.
8. UNLESS OTHERWISE SPECIFICALLY INDICATED, THE DRAWINGS DO NOT DESCRIBE OR DIRECT MEANS OR METHODS OF CONSTRUCTION.
9. THE CONTRACTOR, IN THE PROPER SEQUENCE, SHALL PERFORM OR SUPERVISE ALL WORK NECESSARY TO ACHIEVE THE FINAL COMPLETED STRUCTURE, AND TO PROTECT THE STRUCTURE, WORKMEN, AND OTHERS DURING THE CONSTRUCTION. SUCH WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR EXCAVATION, FORMWORK, SCAFFOLDING, SAFETY DEVICES AND PROGRAMS OF ALL KINDS, SUPPORT AND BRACING FOR CRANES AND OTHER ERECTION EQUIPMENT.
10. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE BRACING IS PROVIDED. PRIOR TO BACKFILLING, CONCRETE SHALL BE CURED PER STRUCTURAL ENGINEER'S SPECIFICATIONS.
11. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE, IF APPLICABLE.
12. ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
13. ACORN BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND SITE OBSERVATION VISITS DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.
14. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CRF PART 1926.650-.652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).
15. ALL TRENCH PAVEMENT REPAIR SHALL BE COMPLETED WITH THE USE OF A STREET PAYER WITH A SCREED WIDTH CAPABLE OF SPANNING THE FULL WIDTH OF THE TRENCH UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

1. ALL SITE SOILS--RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS SHALL BE REVIEWED BY THE PROJECT GEOTECHNICAL ENGINEER.
2. ALL SITE DRAINAGE--RELATED WORK SHALL BE REVIEWED BY ACORN ENGINEERING.
3. NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.
4. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.

1. MONUMENTS DELINEATING PROPERTY LINES OR RIGHT OF WAYS SHALL NOT BE DISTURBED DURING CONSTRUCTION OPERATIONS. IN THE CASE A MONUMENT IS DISTURBED, AT THE CONTRACTOR'S EXPENSE, THE MONUMENT SHALL BE RESET TO ITS ORIGINAL LOCATION AND ELEVATION BY A LICENSED PROFESSIONAL LAND SURVEYOR.
2. ALL DIMENSIONS ON THE FOLLOWING SHEETS TAKE PRECEDENT OVER SCALED DIMENSIONS. EACH DRAWING WITH A BAR SCALE MEANS THAT THE DRAWING/DETAIL HAS BEEN SCALED AS ACCURATELY AS POSSIBLE, AND THE BAR SCALE IS FOR GENERAL REFERENCE ONLY. IF NO BAR SCALE IS PRESENT, THEN THERE IS NO SCALE TO THAT DRAWING/DETAIL. AT NO TIME SHOULD DRAWINGS BE SCALED FROM. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS AND THE FIELD CONDITION SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.
3. SIGNAGE, STRIPING, AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
4. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS & CONDITIONS OF THE CITY OF PORTLAND, MAINE DEPARTMENT OF TRANSPORTATION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
5. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED PROFESSIONAL LAND SURVEYOR TO PROVIDE A MINIMUM OF TWO TEMPORARY BENCHMARKS WITHIN THE SITE AND TO LOCATE PROPOSED STRUCTURE CORNERS.
6. CONTRACTOR TO ENSURE THAT ACCESS, INCLUDING BUT NOT LIMITED TO WALKWAYS, DRIVEWAYS, AND MAILBOXES ADJACENT TO THE PROJECT REMAIN FUNCTIONAL AND AVAILABLE FOR USE AT ALL TIMES.

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF 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.
2. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY; NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING. DEWATERING SHALL INCLUDE TREATMENT OF SILT THROUGH THE USE OF A DIRTBAG BY ACF ENVIRONMENTAL OR APPROVED EQUIVALENT. FLOWS FROM DEWATERING ACTIVITIES SHALL NOT BE DISCHARGED INTO SANITARY SEWERS. **SEE BORING LOGS FOR ADDITIONAL INFORMATION.**
3. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ANY EASEMENT OR TEMPORARY CONSTRUCTION RIGHTS AS NECESSARY BY PRIVATE ADJACENT LAND OWNERS. THE CONTRACTOR SHALL NOT DISTURB ANY SOIL BEYOND THE PROPERTY LINE WITHOUT NOTIFYING AND OBTAINING SUCH EASEMENT OR TEMPORARY CONSTRUCTION RIGHT FROM THE ADJACENT LAND OWNERS. PRIOR TO THE CONTRACTOR PRICING THE WORK, THEY SHALL PROVIDE ACORN WITH PROOF OF SUCH EASEMENT OR TEMPORARY RIGHTS. SHOULD EASEMENTS OR TEMPORARY RIGHTS NOT BE AVAILABLE, THE CONTRACTOR SHALL INCLUDE COST FOR BRACING AND SHORING AS NECESSARY.
4. THE MINIMUM SLOPE SHALL MEET OR EXCEED 0.5% IN ALL CASES WHERE NOT NOTED ON THE GRADING PLAN. SLOPES IDENTIFIED ON THE GRADING PLAN TAKE PRECEDENT. ALL SLOPES SHALL BE AWAY FROM BUILDINGS AND TOP OF PAVEMENT SHALL BE AT OR BELOW EXISTING FINISH FLOOR ELEVATIONS.
5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST **GEOTECHNICAL REPORT PREPARED BY THE PROJECT GEOTECHNICAL ENGINEER.**
6. NO ADDITIONAL PAYMENT WILL BE MADE FOR UNSUITABLE MATERIALS THAT MAY EXIST ON SITE.
7. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF $N=0.012$ OR LESS.
8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
9. NATIVE SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE DISTURBANCE TO SUBGRADE SOILS. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, CONTACT ACORN. THE DISTURBED AREAS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO ADDITIONAL EXPENSE TO THE OWNER.
10. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT **GEOTECHNICAL ENGINEER**, IF APPLICABLE.

1. DISTURBED AREAS ARE DEFINED AS THOSE SURFACES WHERE EXISTING VEGETATION OR STRUCTURES HAVE BEEN REMOVED, EXPOSING NATIVE SOIL TO THE ELEMENTS.
2. ALL ROUTINE WORK ACTIVITIES SHALL BE CONDUCTED IN SUCH A WAY TO LIMIT THE AMOUNT OF DISTURBED AREA AT ONE TIME TO THE EXTENT PRACTICABLE.
3. PRIOR TO THE START OF ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL DEVICES SUCH AS PERIMETER SILT FENCE, AND OTHER APPLICABLE MEASURES. IN THE EVENT THE CONTRACTOR IS NOT SURE A EROSION CONTROL MEASURE SHOULD BE IMPLEMENTED, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD TO CONFIRM IMPLEMENTATION OF ANY EROSION CONTROL DEVICES.
4. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCH SHALL BE APPLIED AS SOON AS POSSIBLE WITHIN 7 DAYS FOLLOWING THE COMPLETION OF ANY SOIL DISTURBANCE, AND PRIOR TO ANY STORM EVENT.
5. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL REFERENCE THE APPROVED EROSION AND SEDIMENTATION CONTROL REPORT FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE D.E.P.'S PERMIT CONDITIONS, FINDINGS OF FACT AND ORDER (IF ANY), AND THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.
6. PRIOR TO PAVING, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT FROM STORM DRAINS, CATCH BASINS, AND APPURTENANCES.

1. THE FOLLOWING ITEMS ARE TYPICAL OF MATERIAL WHICH MAY BE ON SITE:

4. THE CLIENT HAS NOT REQUESTED NOR HAS ACORN COMPLETED A PHASE I – ENVIRONMENTAL SITE ASSESSMENT FOR THE PROPERTY.

[illegible]

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. NECESSARY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. SITE DEMOLITION SHALL NOT OCCUR UNTIL PROPER ABATEMENT PROCEDURES HAVE OCCURRED. ABATEMENT, IF NECESSARY, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. 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.
6. ALL CONSTRUCTION SIGNAGE IS TEMPORARY AND WILL BE REMOVED AT PROJECT COMPLETION. FINAL SIGNAGE, WORDING AND PLACEMENT LOCATION TO BE ACCEPTED BY THE CITY.
7. 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.
8. FOR THE PURPOSE OF THIS SPECIFICATION, THE CITY OF PORTLAND HAS A FIELD LOCATION.
9. CONTRACTOR SHALL PLACE CATCH BASIN INLET PROTECTION ON CATCH BASINS AND FIELD INLETS DOWN-GRADIENT OF ALL NON-STABILIZED SURFACES, PER DETAIL.
10. 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.
11. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING OFF-SITE PARKING TO EMPLOYEES; ON-SITE PARKING WILL NOT BE PROVIDED OR GUARANTEED. CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING THE APPROPRIATE PERMITS FROM THE CITY FOR CLOSING ANY ON-STREET PARKING LOTS DURING THE CONSTRUCTION PERIOD.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR SNOW REMOVAL AND SALTING DURING THE WINTER SEASON AND GATE.
13. REMOVAL OF UNDERGROUND FUEL TANKS TO BE IN ACCORDANCE WITH MAIN DEPT 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.



PERMIT LEVEL
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CONSTRUCTION

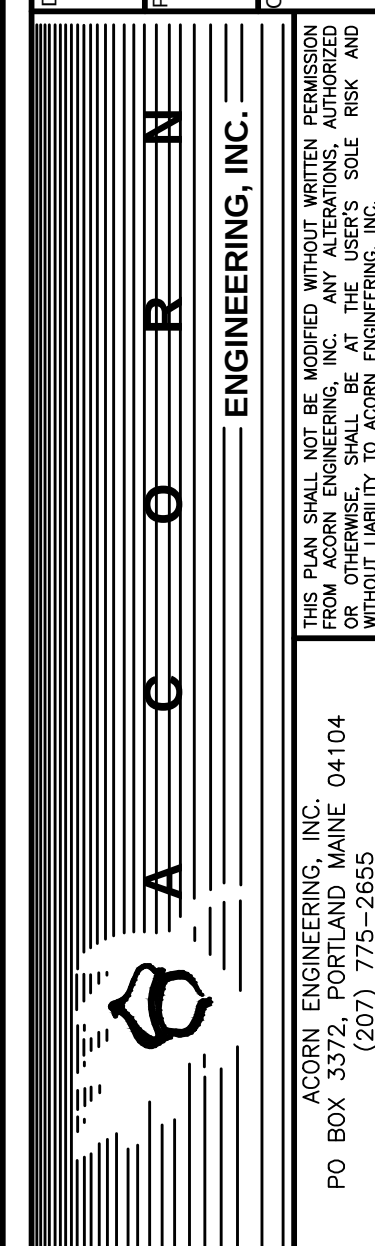
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WINTER STREET TOWNHOMES
PORTLAND, MAINE

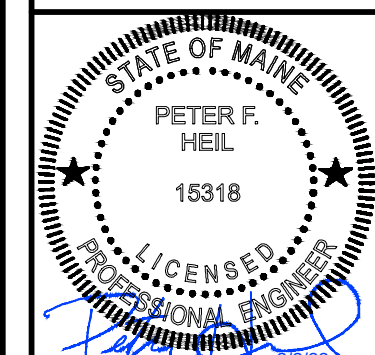
NEWHEIGHT REDFERN, LLC
167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

PROJECT NAME:

CLIENT:



FILE:	1140.1_CIVIL
JN:	1140.1
SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	MKT
CHECKED BY:	PFH

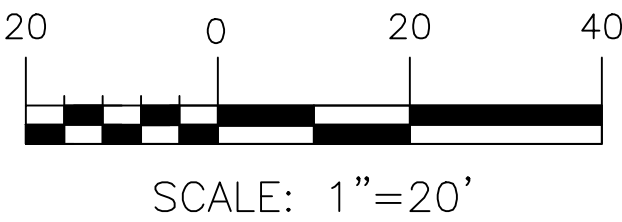
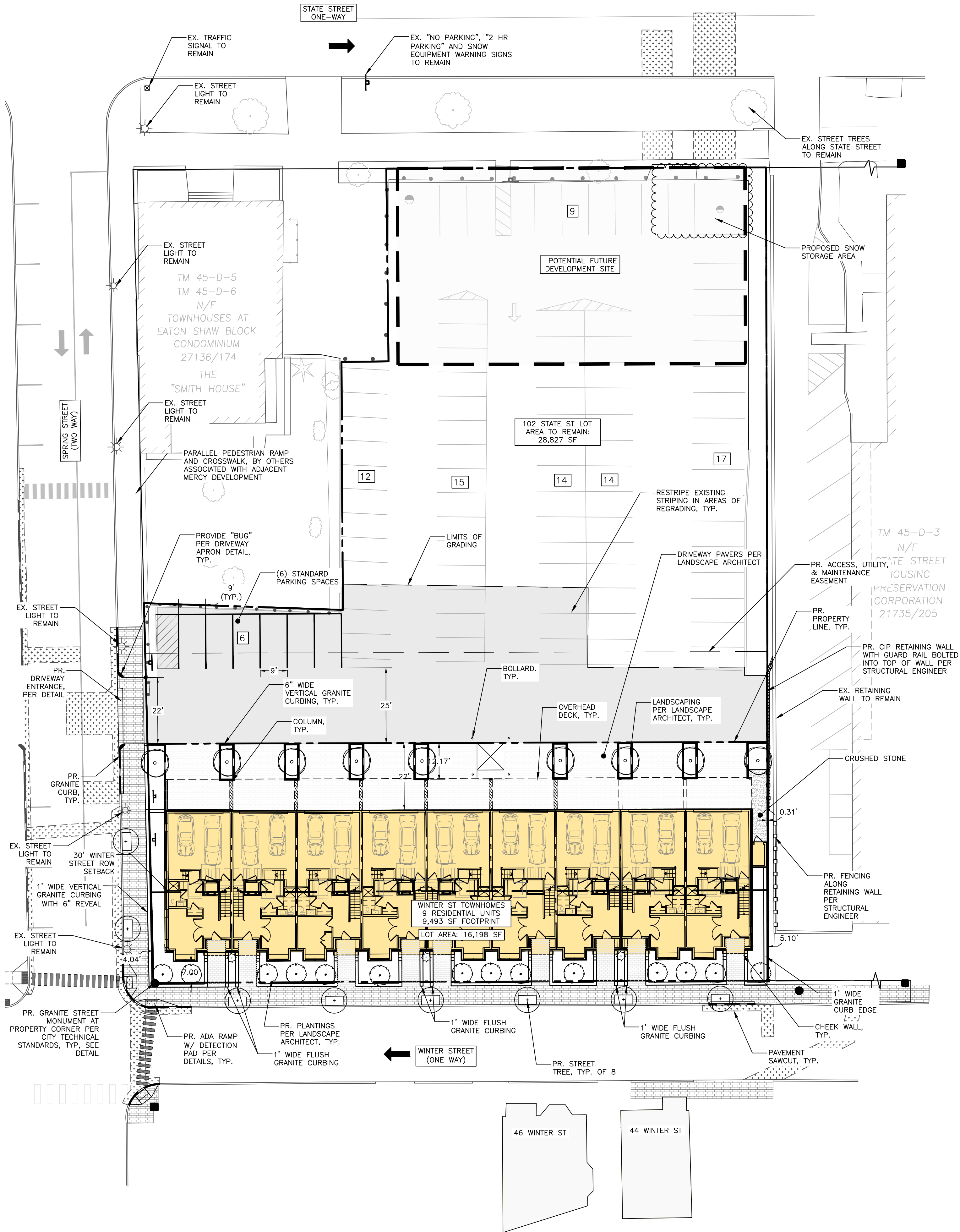


DRAWING NO.

C-03

SPACE AND BULK STANDARDS			
ZONE: B-3	REQUIRED	PROPOSED - WINTER ST LOT	PROPOSED - 102 STATE ST
MINIMUM LOT AREA	NONE	16,198 SF	28,827 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	12.2'	-
MAX IMPERVIOUS COVERAGE	100%	88%	94%
OFF STREET PARKING	9	18	87
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')	9
COMPACT - SOUTH PARCEL (9'x16')	9
ADA - SOUTH PARCEL (8'x18')	0
TOTAL PROPOSED SPACES	105



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
CSS SUBMISSION	DATE
SITE PLAN SUBMISSION	DATE
PARKING LAYOUT	DATE
COMMENT RESPONSE	DATE

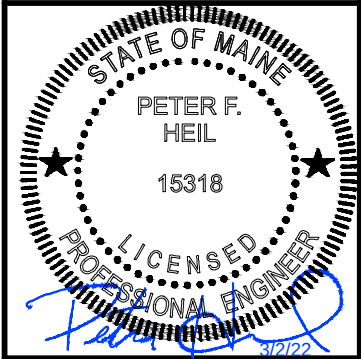
DRAWING NAME:	SITE PLAN
PROJECT NAME:	WINTER STREET TOWNHOMES PORTLAND, MAINE
CLIENT:	NEWHEIGHT REDFERN, LLC 167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

ACORN ENGINEERING, INC. ENGINEERING, INC.

THIS PLAN SHALL NOT BE MOVED, REPRODUCED, COPIED, OR ALTERED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF ACORN ENGINEERING, INC. ANY ALTERATIONS SHALL BE MADE IN THE ORIGINAL PLAN AND SHALL BE MADE WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

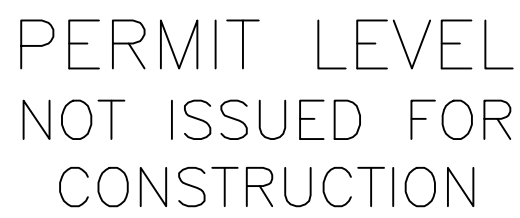
ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04104
(207) 775-2655

FILE:	1140.1_CIVIL
JN:	1140.1
SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	MKT
CHECKED BY:	PFH

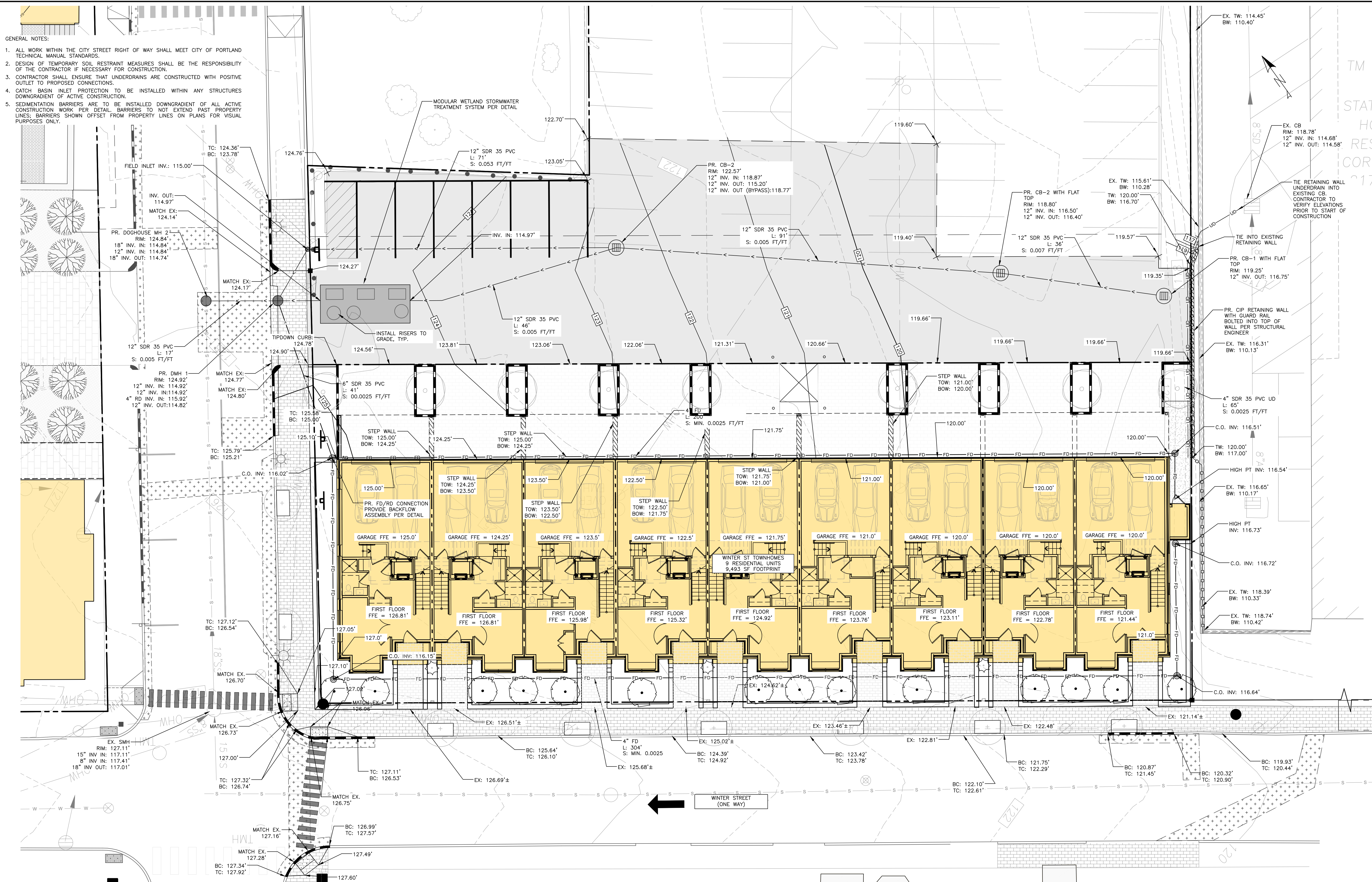


DRAWING NO.
C-10

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 RELIED 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 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. 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 OPTIONS. 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 FINIALIZED 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.



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 DOWNGRADIANT OF ACTIVE CONSTRUCTION.
 5. SEDIMENTATION BARRIERS ARE TO BE INSTALLED DOWNGRADIANT 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
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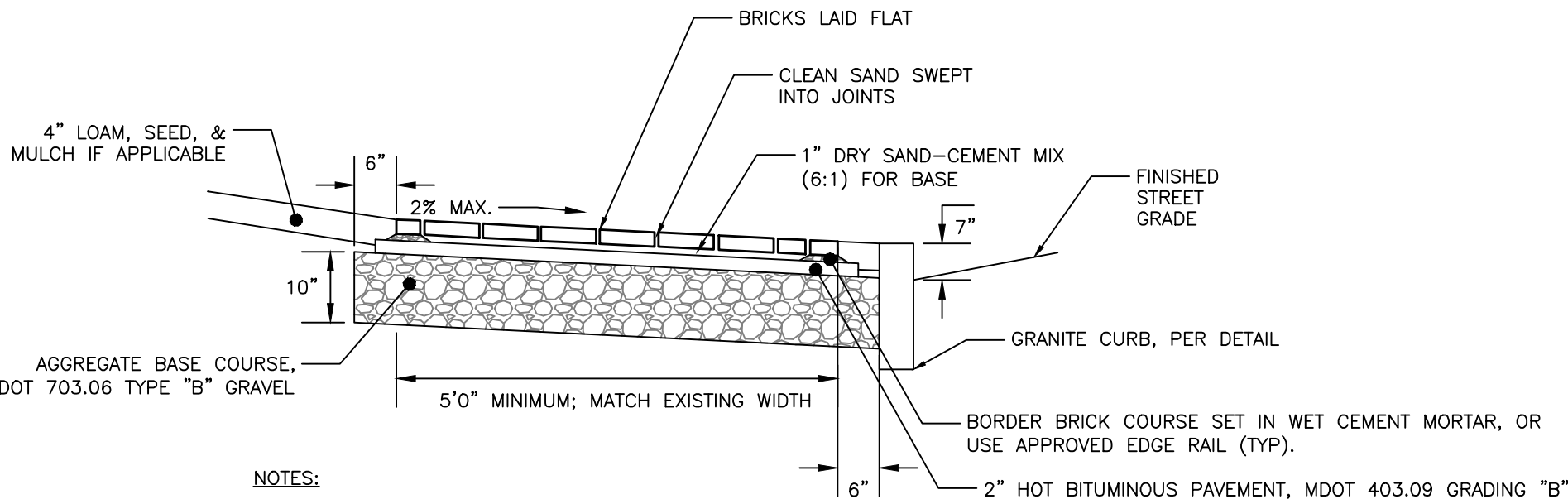
ISSUED FOR		BY
DATE		DATE
SITE PLAN	SUBMISSION	PFH
PARKING LAYOUT		PFH
COMMENT		PFH
RESPONSE		PFH

GRADING & DRAINAGE PLAN	PROJECT NAME:	CLIENT:
WINTER STREET TOWNHOMES	NEWHEIGHT REDFERN, LLC	167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101
PORTLAND, MAINE		

FILE:	1140.1_CIVIL
JN:	1140.1
SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	MKT
CHECKED BY:	PFH

PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

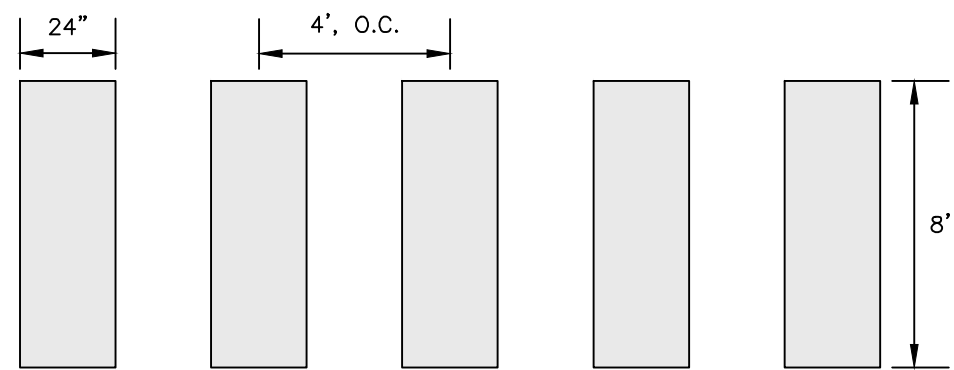
DRAWING NO.
C-30



BRICK SIDEWALK WITH BITUMINOUS BASE DETAIL
NOT TO SCALE

NOTE:

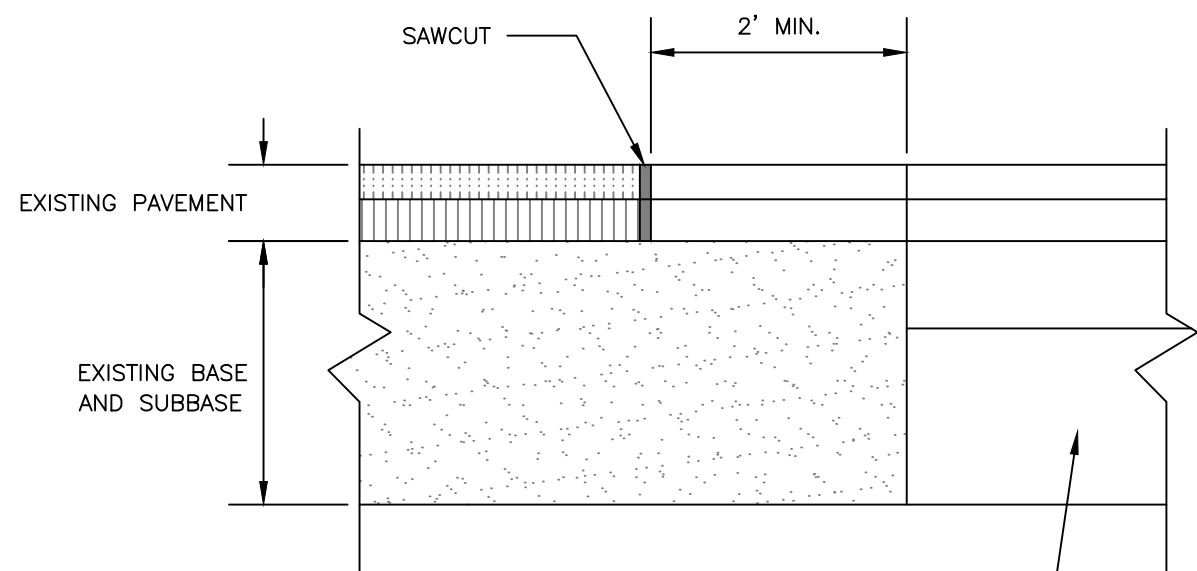
- CROSSWALKS TO BE BUILT IN CONFORMANCE WITH MUTCD STANDARDS, LATEST EDITION.
- CROSSWALKS ARE TO BE PAINTED WHITE MEETING MAINE DOT SPECIFICATIONS.
- 8' LENGTH OF BLOCKS TO BE PARALLEL TO THE DIRECTION OF CAR TRAFFIC.



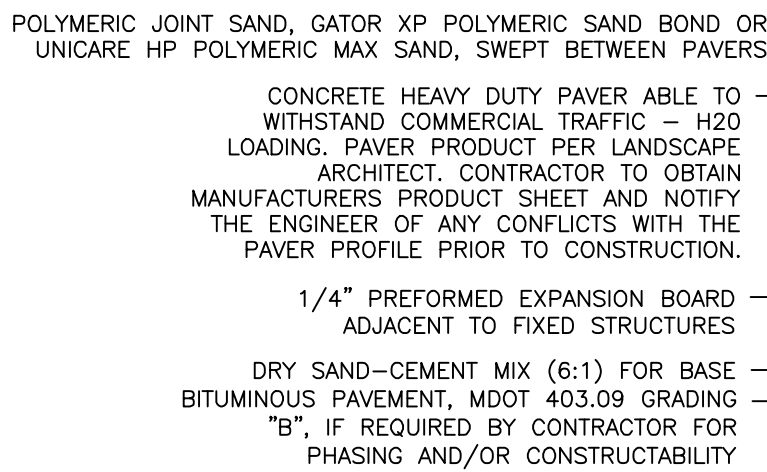
BLOCK CROSSWALK
NOT TO SCALE

NOTES:

- SAWCUT EXISTING PAVEMENT AND REMOVE 2\"/>
- THE NEW PAVEMENT SECTION SHALL MEET THE CITY OF PORTLAND ARTERIAL BITUMINOUS PAVEMENT SECTION DETAIL AT A MINIMUM OR THE THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.



PAVEMENT SAWCUT DETAIL
NOT TO SCALE

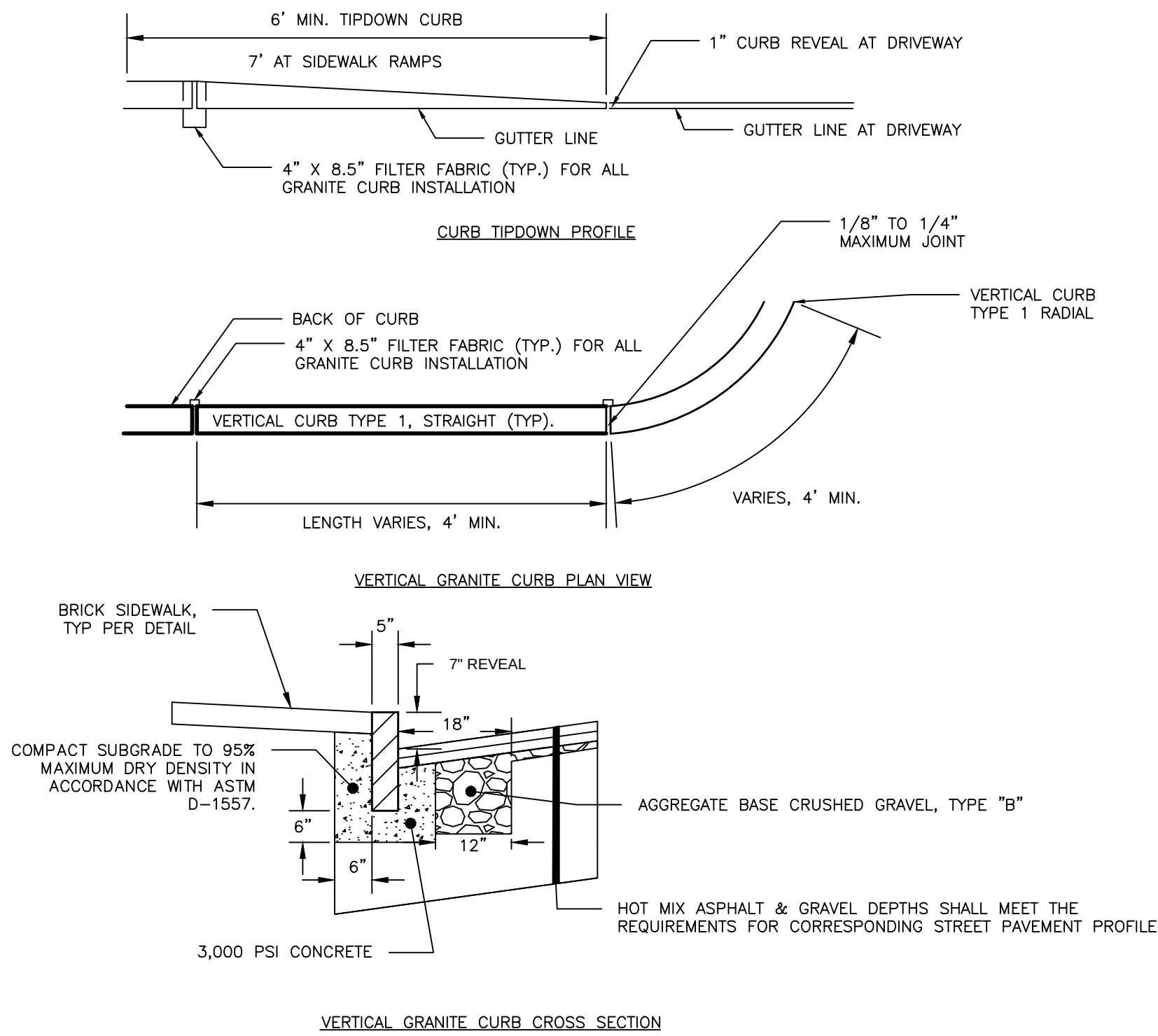


GRADATION REQUIREMENTS FOR JOINT SAND		
SIEVE SIZE	NATURAL SAND PERCENT PASSING	MANUFACTURED SAND PERCENT PASSING
NO. 4 (4.75mm)	100	100
NO. 8 (2.36mm)	95-100	95-100
NO. 16 (1.18mm)	70-100	70-100
NO. 30 (0.60mm)	40-75	40-75
NO. 50 (0.30mm)	10-30	20-40
NO. 100 (0.15mm)	2-15	10-25
NO. 200 (0.075)	0-1	0-10

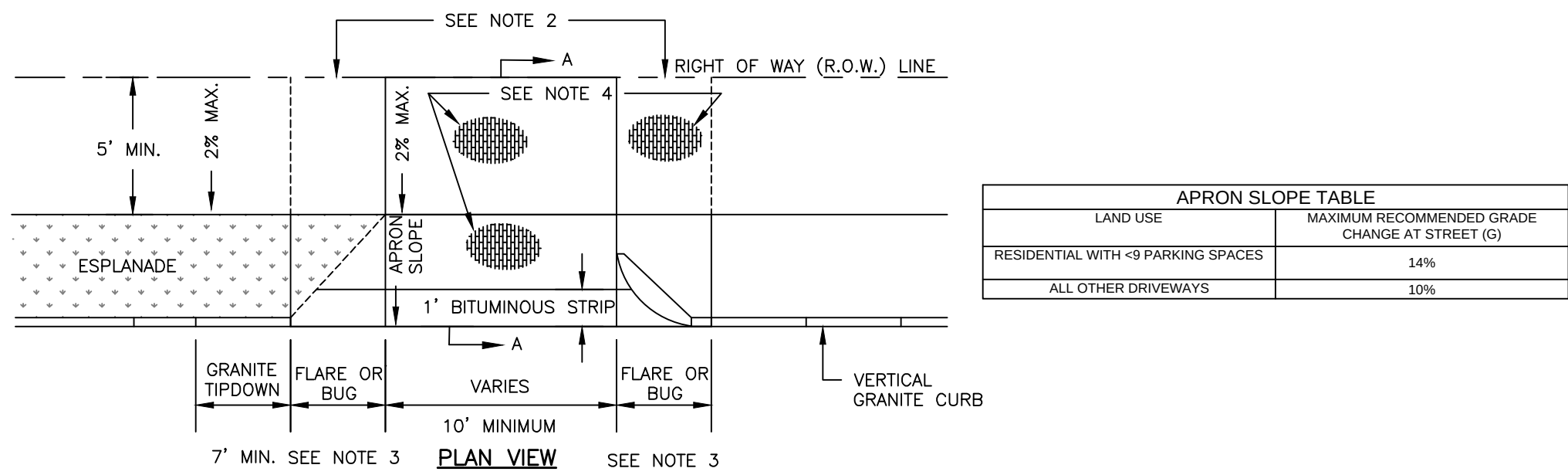
- NOTES:
- COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557.
 - SURFACE AND AGGREGATE MATERIALS SHALL MEET THE CITY OF PORTLAND STANDARDS IN ADDITION TO MDOT STANDARDS.
 - JOINT SAND COMPRESSION STRENGTH: PROVEN RESISTANCE TO COMPRESSION OF 550 PSI AFTER DRYING FOR 7 DAYS UNDER CONTROLLED CONDITIONS (73 DEGREE F AT 50% HUMIDITY).

THICKNESS OF LAYERS	
STANDARD	LAYERS
2-3/4"	CONCRETE PAVES (DEPTH TBD BASED UPON MANUFACTURER)
1"	DRY SAND-CEMENT MIX (6:1)
2"	BITUMINOUS MDOT 403.09 GRADING "B"
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

PAVER PROFILE
NOT TO SCALE

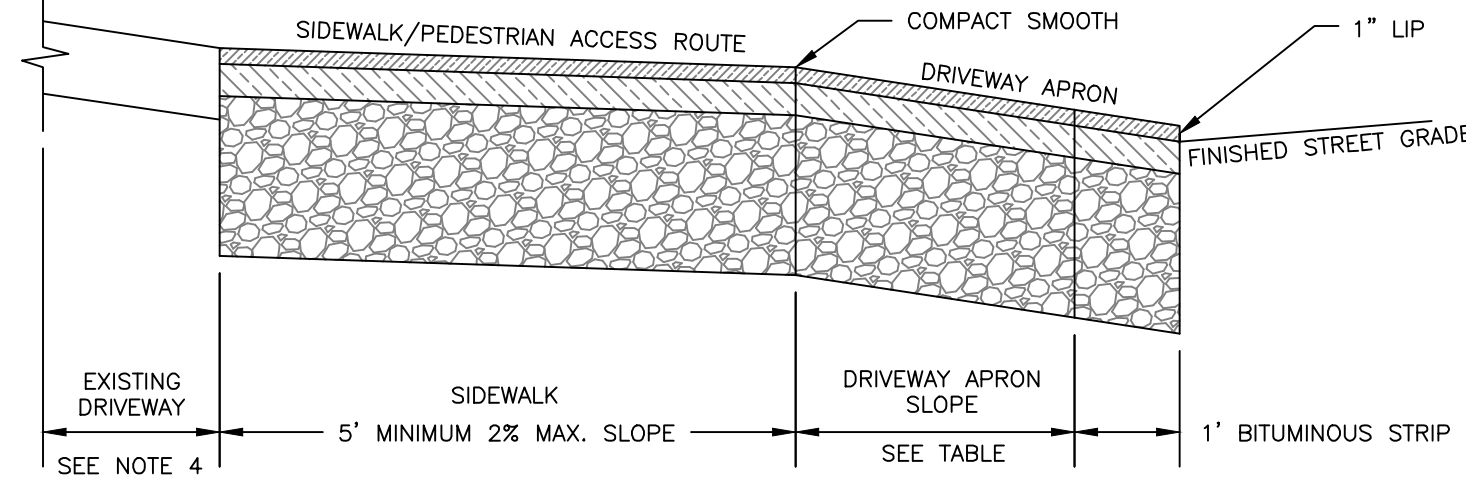


VERTICAL GRANITE CURB AND TIPDOWN INSTALLATION
NOT TO SCALE



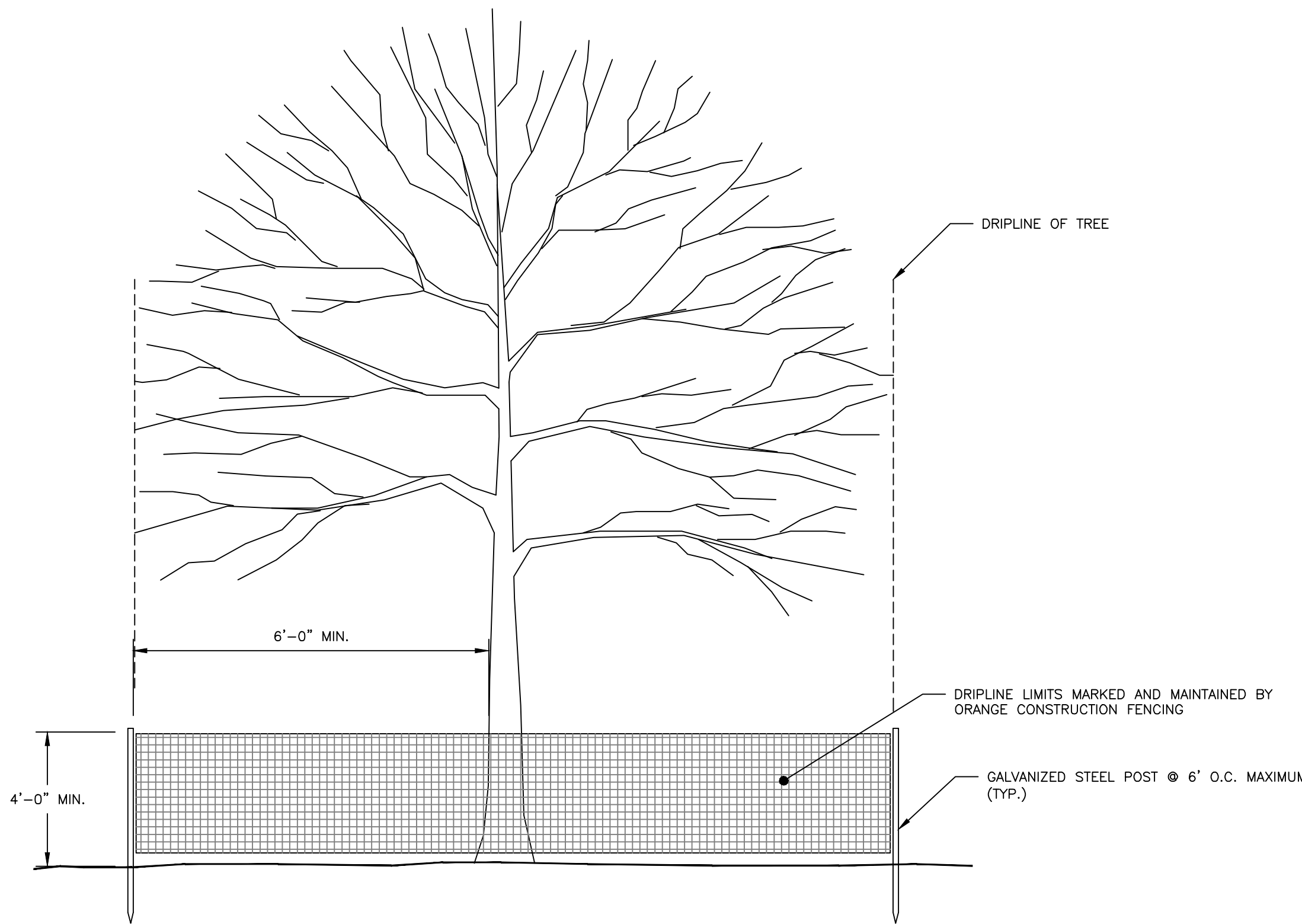
NOTES:

- MATCH EXISTING GRADE AT R.O.W. LINE. WHERE REQUIRED TO MEETE A.D.A. AND DRIVEWAY APRON SLOPE REQUIREMENTS, A CONSTRUCTION EASEMENT MAY BE REQUIRED.
- IF MATCHING THE EXISTING GRADE AT ROW CAUSES APRON SLOPE TO EXCEED RECOMMENDED %, SIDEWALK TRANSITION AREAS MAY BE ADDED, BUT SHALL NOT EXCEED 8.33%.
- TWO-FOOT RADIUS CORNER GRANITE PIECE ("BUGS") ARE REQUIRED AT LOW-VOLUME DRIVEWAYS UNLESS OTHERWISE DIRECTED BY DPW. AT OTHER DRIVEWAYS, STANDARD FLARE/TIPDOWN TREATMENTS SHALL BE USED.
- ALL MATERIALS TO COMPLY WITH CITY'S SIDEWALK & DRIVEWAY MATERIAL POLICY. BRICK IN DRIVEWAY APRONS, WHERE APPLICABLE, SHALL BE ORIENTED IN THE SAME WAY AS THE ADJACENT BRICK SIDEWALK.



SECTION A-A

DRIVEWAY APRON
NOT TO SCALE



NOTES:

- TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY.
- INSTALL PROTECTIVE FENCING TO LIMIT OF DRIPLINE ON TREE OR A MINIMUM OF 6' FROM TRUNK WHEN NECESSARY, WITH PRIOR PERMISSION OF LANDSCAPE ARCHITECT.
- DO NOT STORE CONSTRUCTION EQUIPMENT, MATERIALS, TOOLS, ETC. WITHIN PROTECTIVE FENCING.
- MAINTAIN FENCING IN A NEAT AND ORDERLY FASHION THROUGHOUT CONSTRUCTION PERIOD.

TREE PROTECTION DETAIL
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR

BY

DATE

SITE PLAN

PFH

12/2/21

SUBMISSION

12/2/21

COMMENT

PFH

12/2/21

RESPONSE

12/2/21

SITE DETAILS - 1

WINTER STREET TOWNHOMES
PORTLAND, MAINE

NEWHEIGHT REDFERN, LLC
167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

DRAWING NAME:

PROJECT NAME:

CLIENT:

ACORN ENGINEERING, INC.

11140.1

1140.1

AS NOTED

DESIGNED BY: MKT

DRAWN BY: MKT

CHECKED BY: PFH

STATE OF MAINE

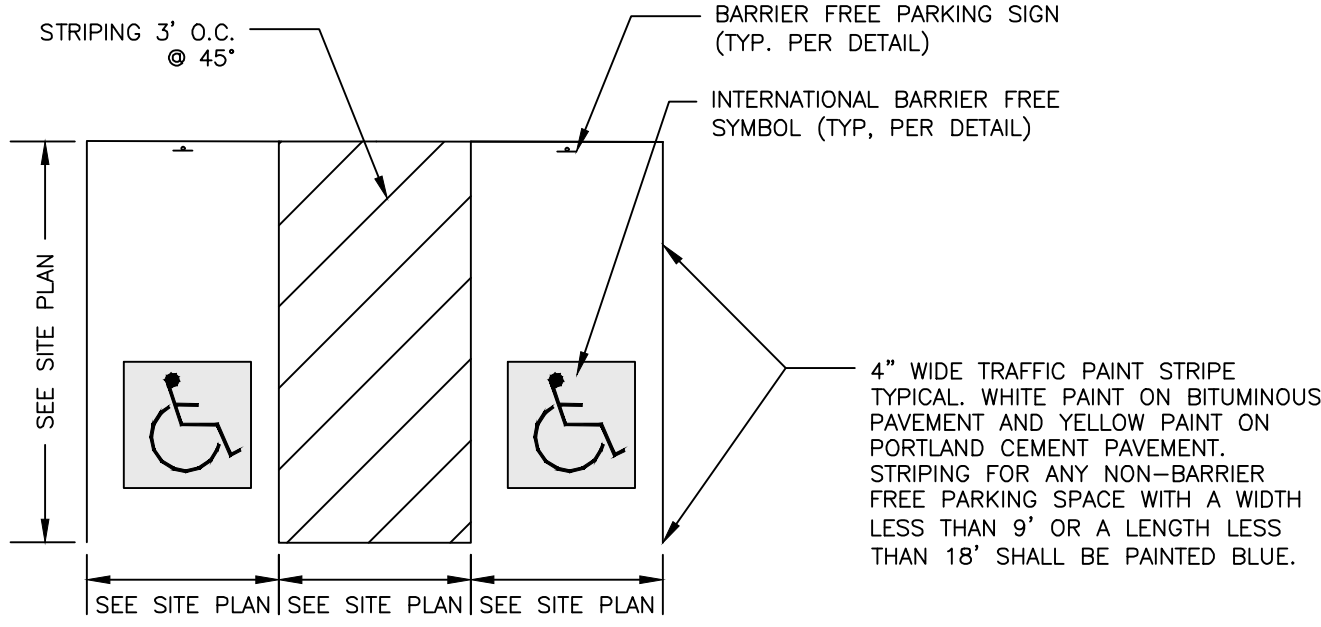
PETER F. HEIL

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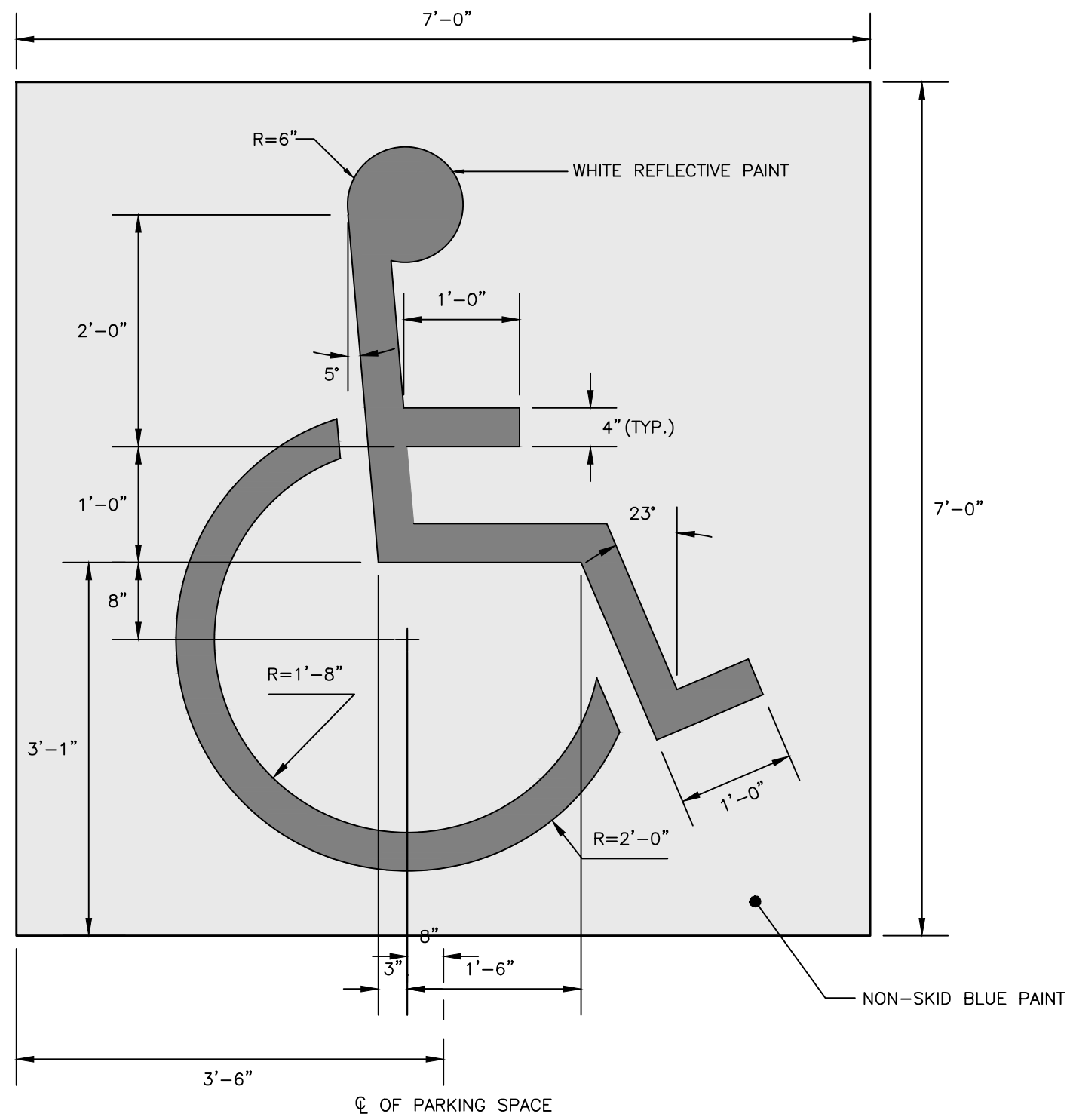
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DRAWING NO.

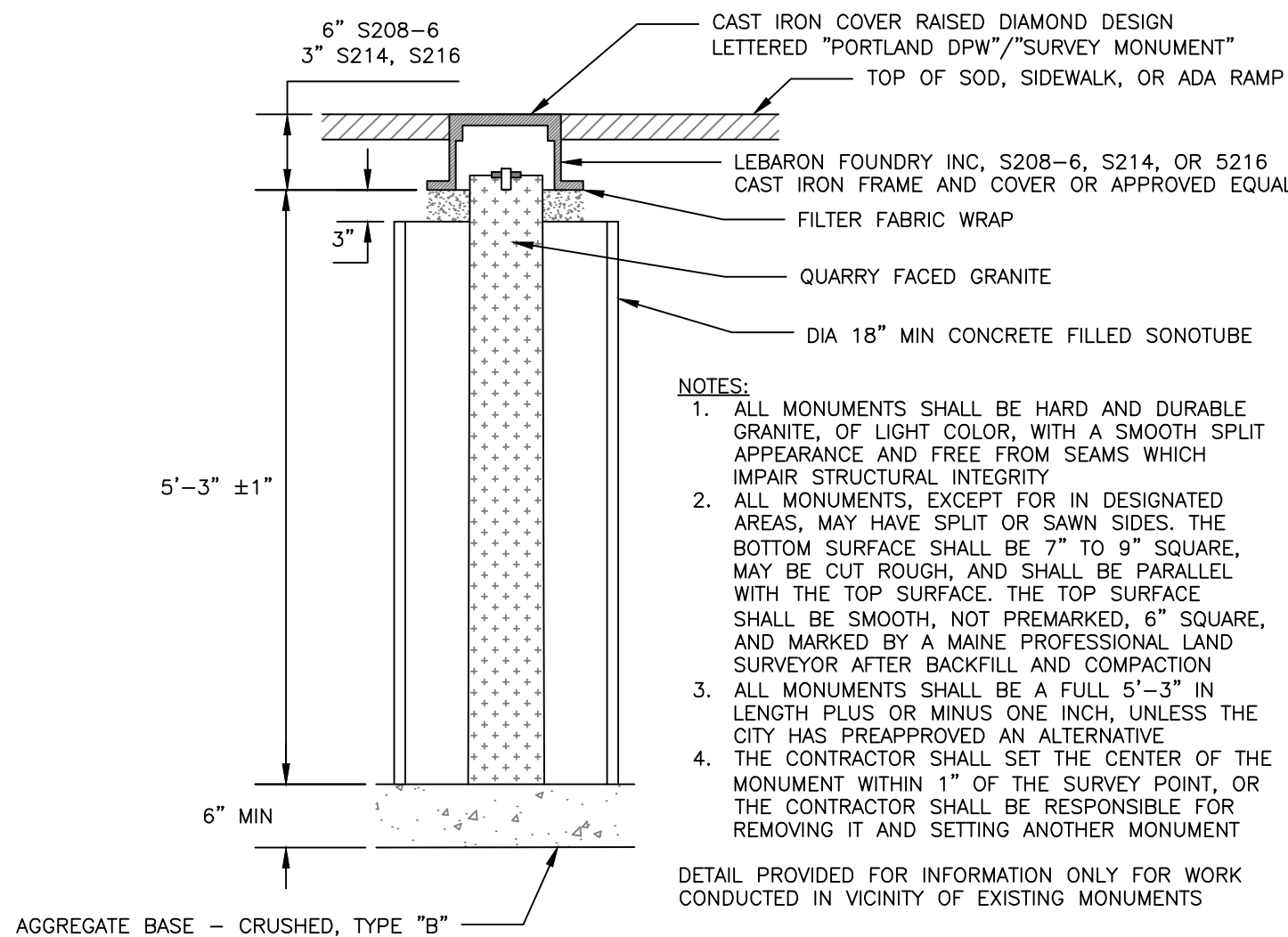
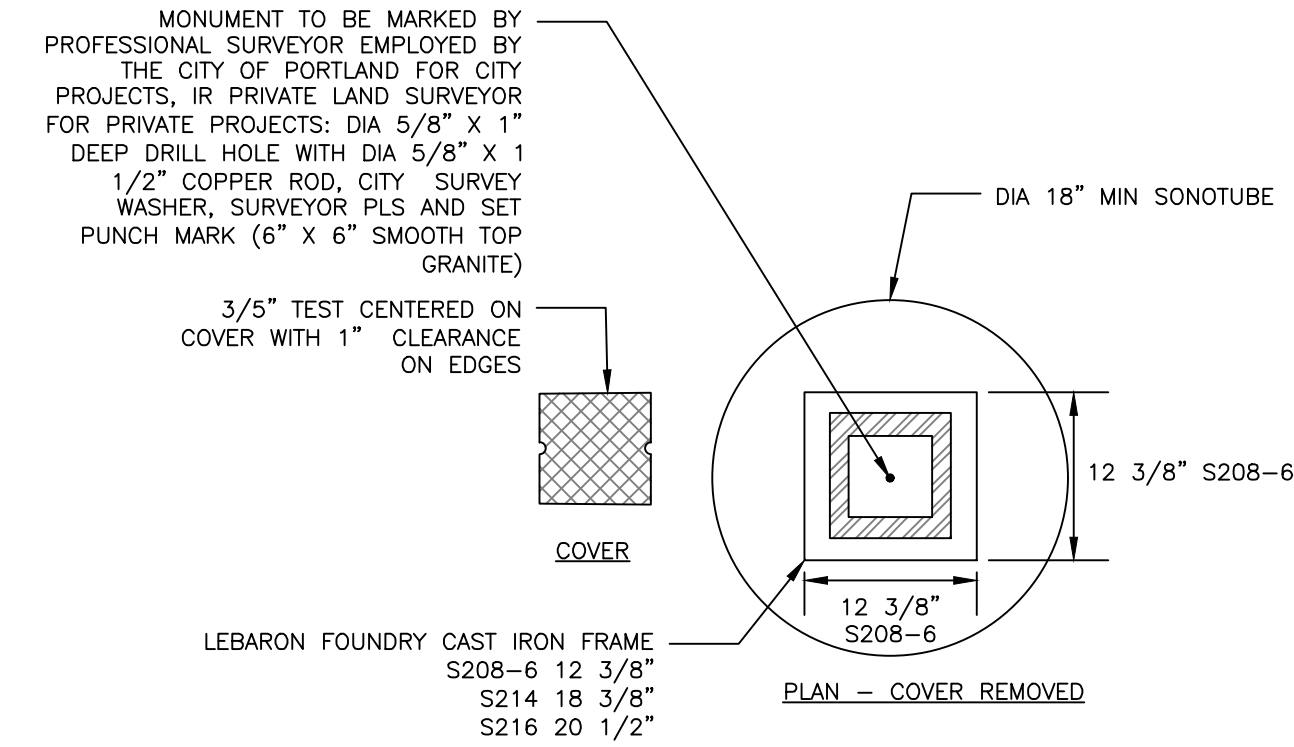
C-40



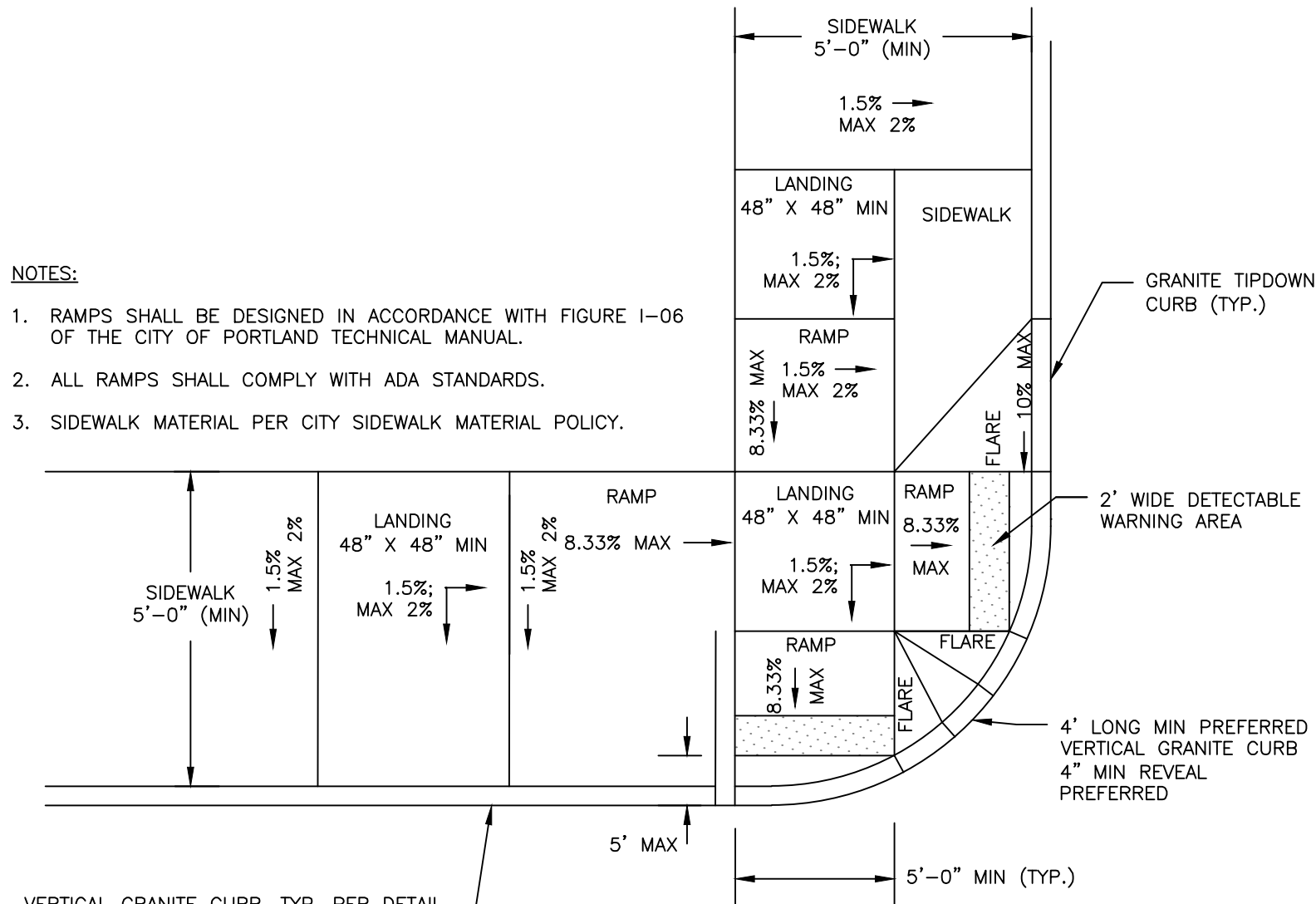
ADA PARKING SPACE DIMENSIONS
NOT TO SCALE



INTERNATIONAL BARRIER FREE SYMBOL
NOT TO SCALE



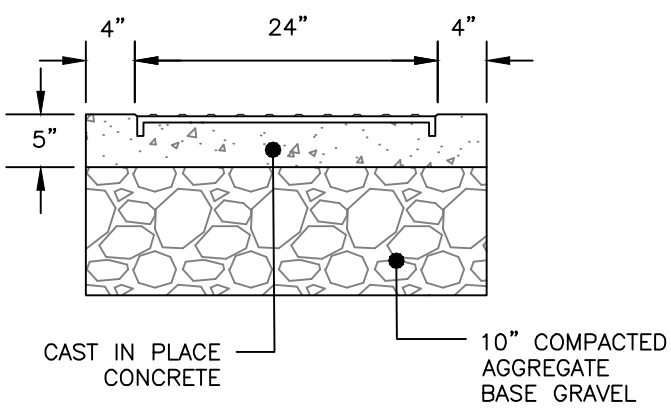
GRANITE STREET MONUMENT
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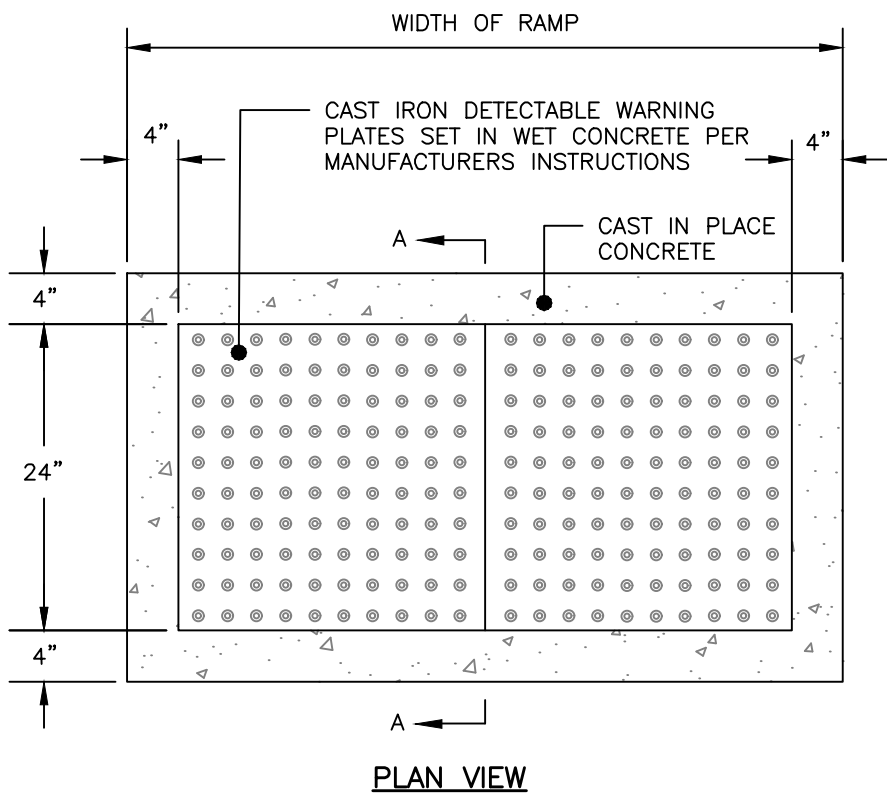
COMBINED PERPENDICULAR RAMP LAYOUT AT INTERSECTION
NOT TO SCALE

NOTES:

1. ALL DETECTABLE WARNING PLATES SHALL BE UNCOATED CAST IRON. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MDOT CLASS A STRUCTURAL CONCRETE. MINIMUM COMPRESSIVE STRENGTH 4,000 PSI. THE EXPOSED CONCRETE BORDER SHALL RECEIVE A UNIFORM BROOM FINISH PERPENDICULAR TO THE FLOW OF PEDESTRIAN TRAFFIC.
3. TRUNCATED DOMES SHALL BE ALIGNED IN ROWS, PARALLEL AND PERPENDICULAR TO THE PREDOMINANT DIRECTION OF TRAVEL. TRUNCATED DOME BRICKS AND GRANITE PAVERS ARE NOT ALLOWED.
4. SIZE: THE DETECTABLE WARNING PLATES SHALL EXTEND 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION TO THE STREET.
5. ORIENTATION: THE DETECTABLE WARNING PANEL SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE. THE PANEL SHALL BE ORIENTED TO THE DIRECTION OF TRAVEL AS IDENTIFIED BY THE POINT OF EGRESS.



SECTION A-A



SIDEWALK RAMP DETECTABLE WARNING PANEL
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
SITE PLAN	PFH
SUBMISSION	12/2/21
COMMENT	PFH
RESPONSE	12/2/21

SITE DETAILS - 2

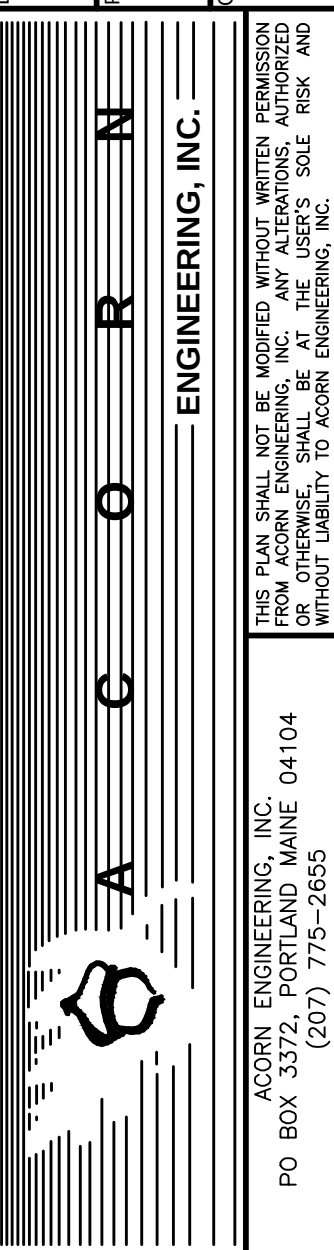
WINTER STREET TOWNHOMES
PORTLAND, MAINE

NEWHEIGHT REDFERN, LLC
167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

DRAWING NAME:

PROJECT NAME:

CLIENT:



FILE: 1140.1_CIVIL

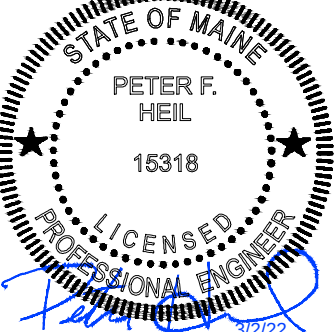
JN: 1140.1

SCALE: AS NOTED

DESIGNED BY: MKT

DRAWN BY: MKT

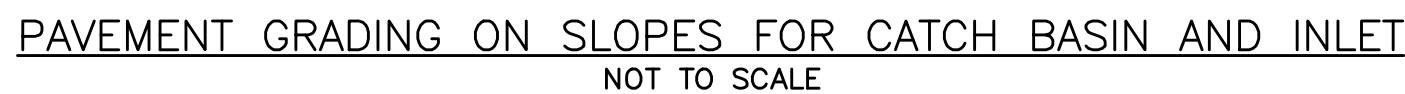
CHECKED BY: PFH



DRAWING NO.

C-41

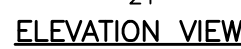
- ### GENERAL NOTES FOR MANHOLES AND CATCH BASINS



- CATCH BASIN HOOD DETAIL
NOT TO SCALE

- CATCH BASIN FRAME & GRATE
NOT TO SCALE

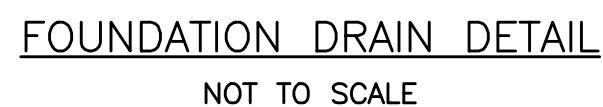
2. ALL PIPES SHALL BE OF UNIFORM SIZE.



MODULAR WETLAND SYSTEM – LINEAR BIOFILTRATION SYSTEM



1. REFER TO THE BUILDING ARCHITECTS PLANS FOR THE BUILDING FOUNDATION, BACKFILL, ROOF DRAIN, SIDEWALK AND OTHER DETAILS.
2. REFER TO THE GEOTECHNICAL REPORT, MOST RECENT VERSION, FOR UNDERDRAIN INSTALLATION AND MATERIAL GRADATIONS.
3. PERFORMING IN UNDERDRAIN PIPE SHALL BE CUTTED DOWN.
4. INSTALL STONE Drip EDGE IN A LOCATIONS SUBJECT TO ROOF RUNOFF. WIDTH SHALL BE A MIN. 12" BEYOND THE PROJECTION OF THE ROOF EAVE.
5. FOUNDATION WALL FOOTINGS SHALL BE CONSTRUCTED TO A MIN. DEPTH OF 4 FT BELOW ADJACENT FINISH GRADE TO TOP OF CONCRETE FOUNDATION. CONSULT ARCHITECTS PLANS FOR ADDITIONAL INFORMATION AND MIN. REQUIREMENTS.
6. IF FOUNDATION DRAIN DAYLIGHTS, INSTALL DRAINAGE SOLUTIONS ANNUAL GUARD 4" EXTERNAL PVC OR CORRUGATED PLASTIC PIPE, OR INDUSTRY APPROVED EQUIVAL.



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

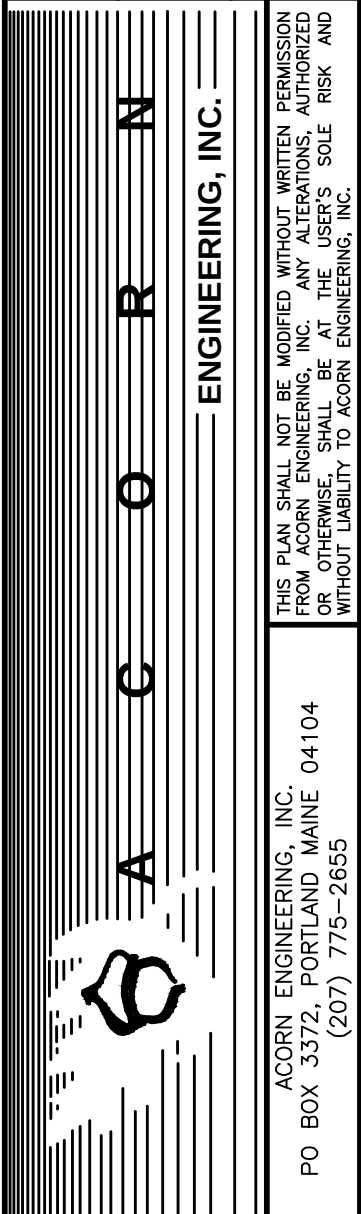
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DRAINAGE DETAILS

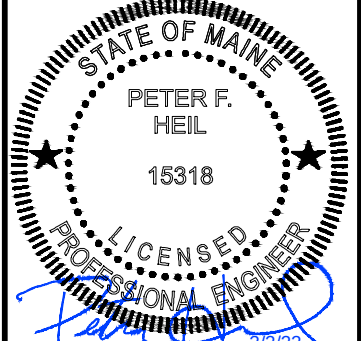
WINTER STREET TOWNHOMES
PORTLAND, MAINE

CLIENT: NEWHEIGHT REDFERN, LLC

167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

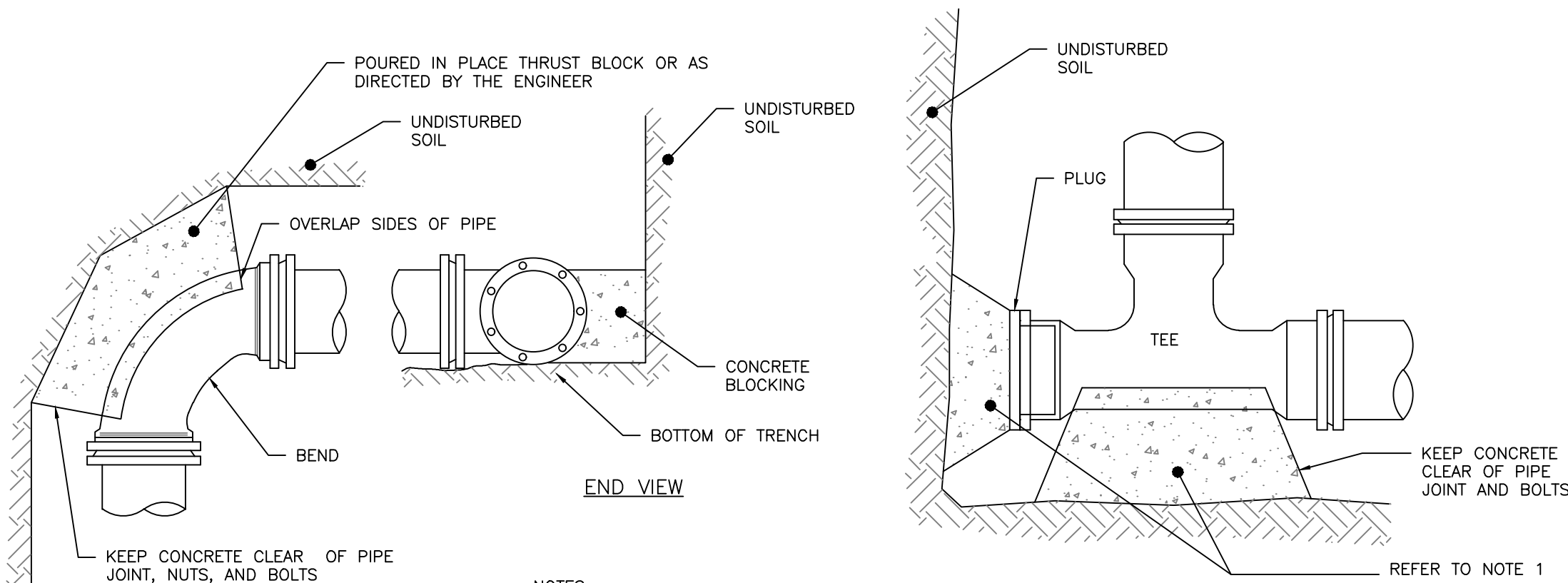


FILE:	1140.1_CIVIL
JN:	1140.1
SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	MKT
CHECKED BY:	PFH



DRAWING NO.

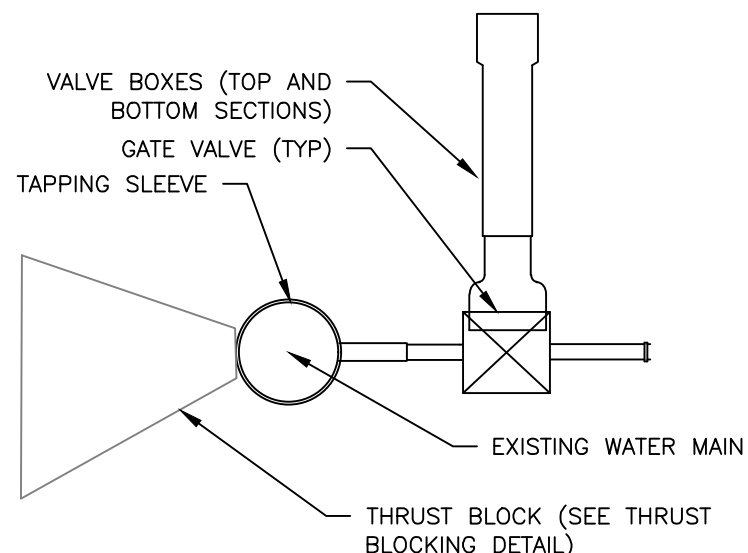
C-45



- NOTES:
1. IF DEAD END WITH TEE, THRUST BLOCK WOULD BE REQUIRED AS DIRECTED BY THE ENGINEER
 2. SEE THRUST/RETAINER GLAND SCHEDULE FOR TYPE OF BLOCKING TO BE USED ON BENDS

THRUST BLOCKING: REGULAR BEND

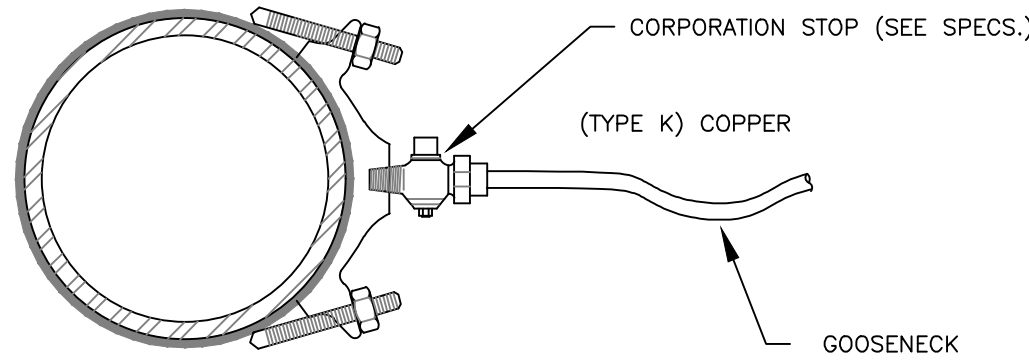
NOT TO SCALE



SIDE VIEW

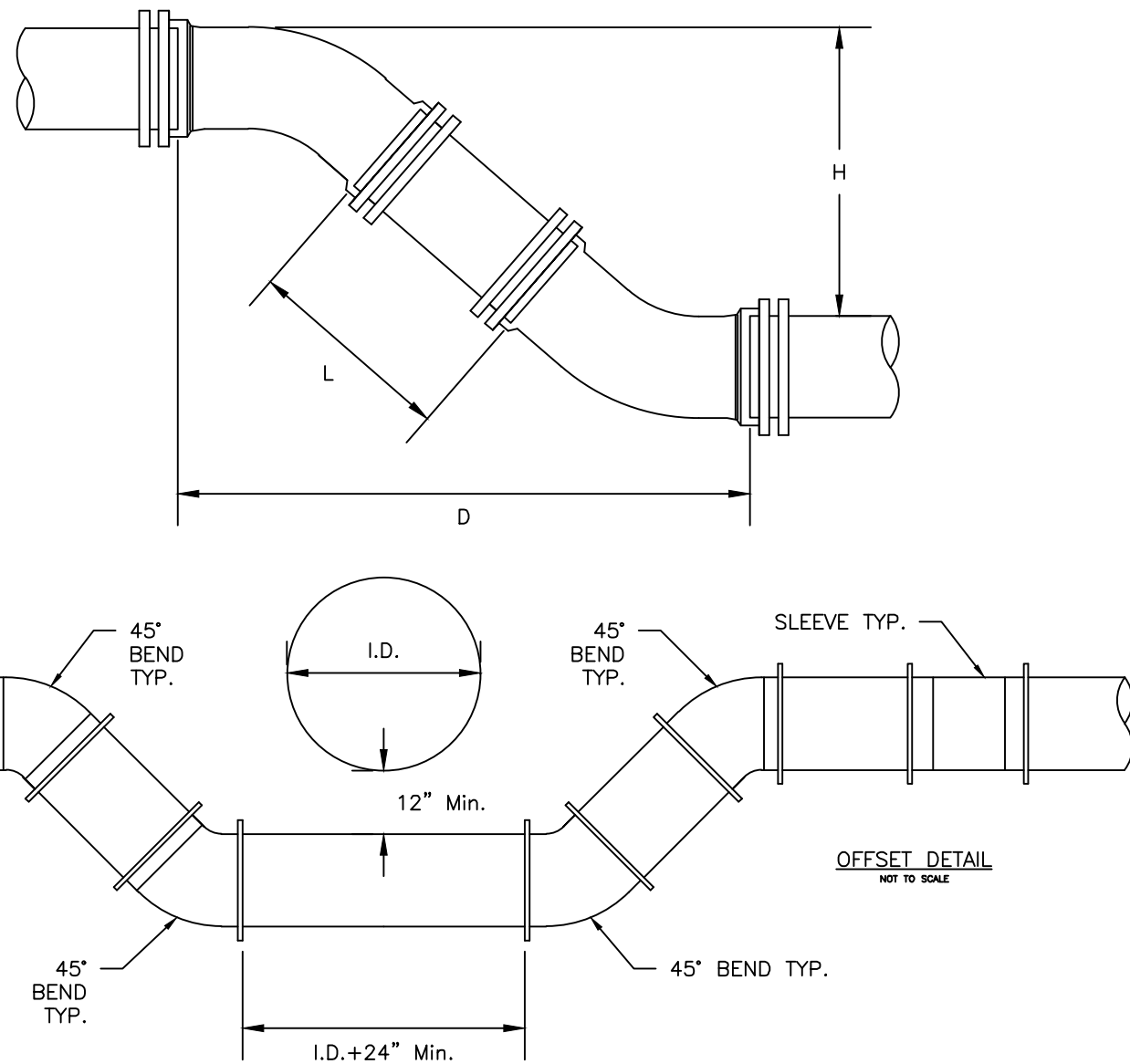
TAPPING SLEEVE AND VALVE

NOT TO SCALE



SERVICE SADDLE: 3" C.C. THREAD

NOT TO SCALE



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.

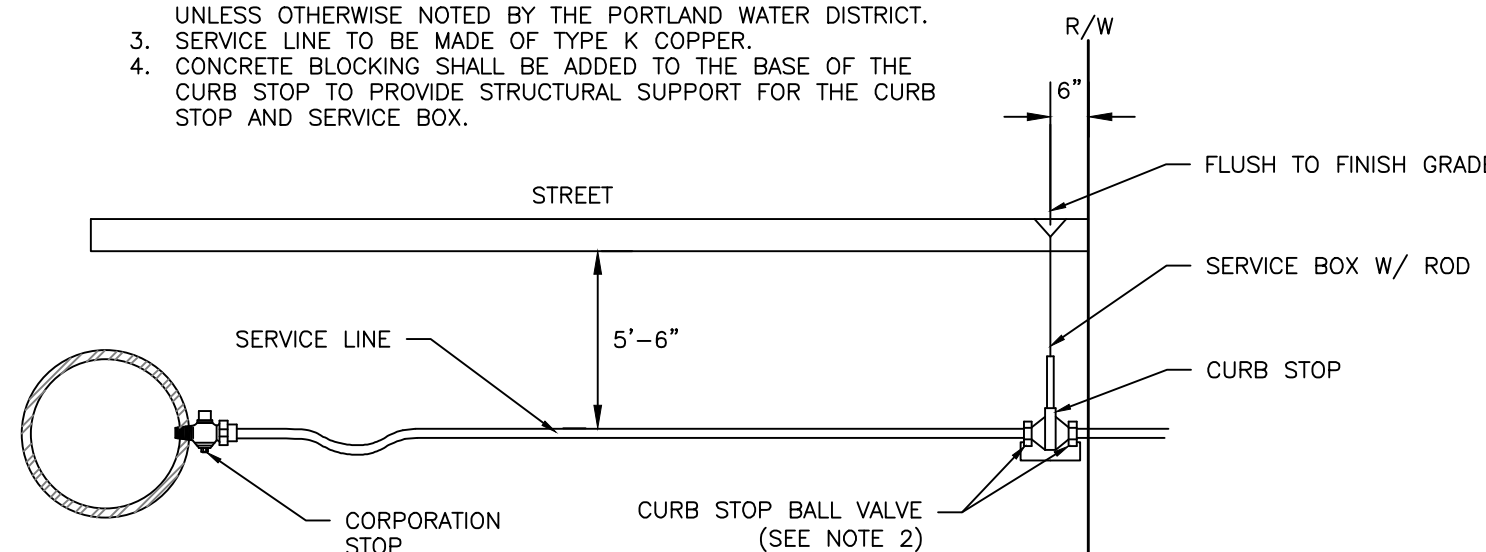
TYPICAL MAIN OFFSET

NOT TO SCALE

H	6" PIPE			8" PIPE			12" PIPE		
	D	L	D	L	D	L	D	L	D
12"	1' 6-1/2"	0' 10-1/2"	1' 7-1/2"	0' 9-1/2"	1' 11-1/2"	0' 5-1/2"			
13"	1' 7-1/2"	0' 11-7/8"	1' 8-1/2"	0' 10-7/8"	2' 0-1/2"	0' 6-7/8"			
14"	1' 8-1/2"	1' 1-5/16"	1' 9-1/2"	1' 0-5/16"	2' 1-1/2"	0' 8-5/16"			
15"	1' 9-1/2"	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"	1' 4-1/8"	1' 11-1/2"	1' 3-1/8"	2' 3-1/2"	0' 11-1/8"			
17"	1' 11-1/2"	1' 5-9/16"	2' 0-1/2"	1' 4-9/16"	2' 4-1/2"	1' 0-9/16"			
18"	2' 0-1/2"	1' 6-15/16"	2' 1-1/2"	1' 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"	2' 0-5/8"	2' 5-1/2"	1' 11-5/8"	2' 9-1/2"	1' 7-5/8"			
23"	2' 5-1/2"	2' 2"	2' 6-1/2"	2' 1"	2' 10-1/2"	1' 9"			
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' 6-1/4"	2' 9-1/2"	2' 5-1/4"	3' 1-1/2"	2' 1-1/4"			
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' 9-1/2"	3' 4-1/2"	2' 5-1/2"			
30"	3' 0-1/2"	2' 11-15/16"	3' 1-1/2"	2' 10-15/16"	3' 5-1/2"	2' 6-15/16"			
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' 4-3/16"	3' 4-1/2"	3' 3-3/16"	3' 8-1/2"	2' 11-3/16"			
34"	3' 4-1/2"	3' 5-9/16"	3' 5-1/2"	3' 4-9/16"	3' 9-1/2"	3' 0-9/16"			
35"	3' 5-1/2"	3' 7"	3' 6-1/2"	3' 6"	3' 10-1/2"	3' 2"			
36"	3' 6-1/2"	3' 8-7/16"	3' 7-1/2"	3' 7-7/16"	3' 11-1/2"	3' 3-7/16"			
37"	3' 7-1/2"	3' 9-13/16"	3' 8-1/2"	3' 8-13/16"	4' 0-1/2"	3' 4-13/16"			
38"	3' 8-1/2"	3' 11-1/4"	3' 9-1/2"	3' 10-1/4"	4' 1-1/2"	3' 6-1/4"			
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' 9-1/16"			
41"	3' 11-1/2"	4' 3-1/2"	4' 0-1/2"	4' 2-1/2"	4' 4-1/2"	3' 10-1/2"			
42"	4' 0-1/2"	4' 4-7/8"	4' 1-1/2"	4' 3-7/8"	4' 5-1/2"	3' 11-7/8"			
43"	4' 1-1/2"	4' 6-5/16"	4' 2-1/2"	4' 5-5/16"	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' 9-1/8"	4' 4-1/2"	4' 8-1/8"	4' 8-1/2"	4' 4-1/8"			
46"	4' 4-1/2"	4' 10-9/16"	4' 5-1/2"	4' 9-9/16"	4' 9-1/2"	4' 5-9/16"			
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' 1-3/8"	4' 7-1/2"	5' 0-3/8"	4' 11-1/2"	4' 8-3/8"			
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' 4-3/16"	4' 9-1/2"	5' 3-3/16"	5' 1-1/2"	4' 11-3/16"			
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' 7-1/16"	4' 11-1/2"	5' 6-1/16"	5' 3-1/2"	5' 2-1/16"			
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"	5' 0-1/2"	5' 9-7/8"	5' 1-1/2"	5' 8-7/8"	5' 5-1/2"	5' 4-7/8"			
55"	5' 1-1/2"	5' 11-5/16"	5' 2-1/2"	5' 10-5/16"	5' 6-1/2"	5' 6-5/16"			

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.

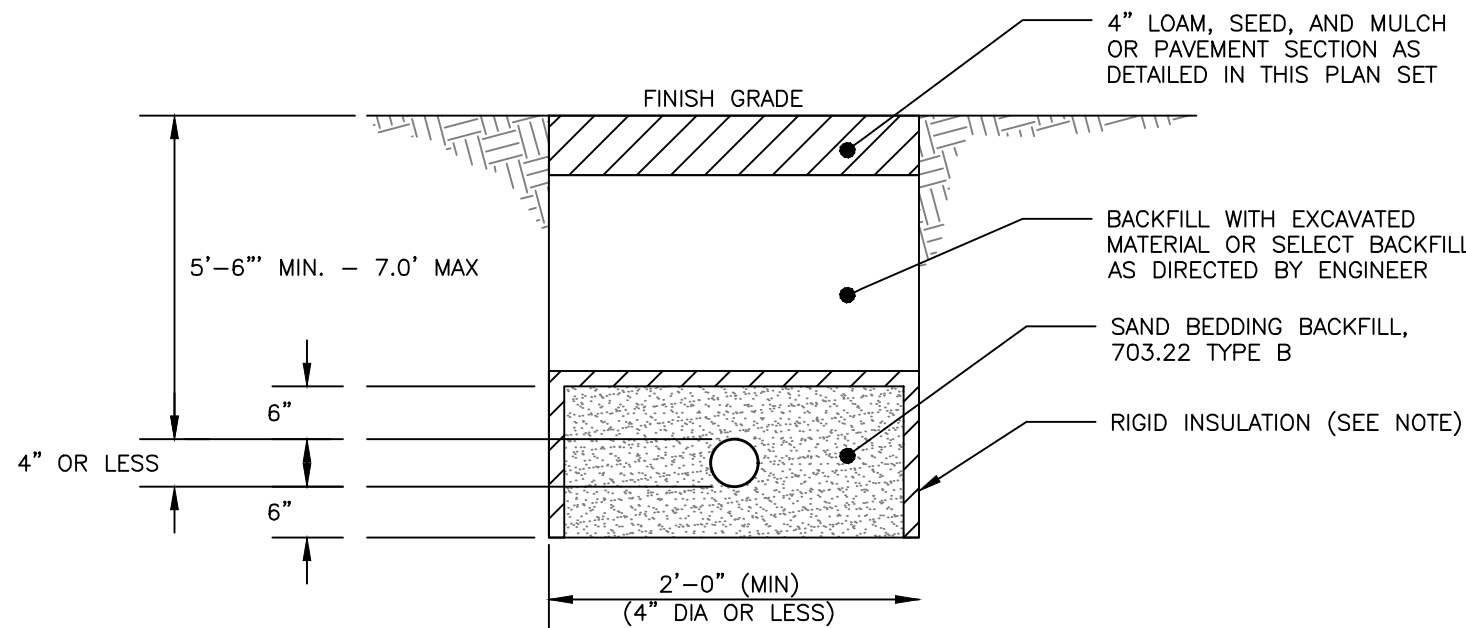


TYPICAL SERVICE CONNECTION

NOT TO SCALE

NOTES:

1. 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.

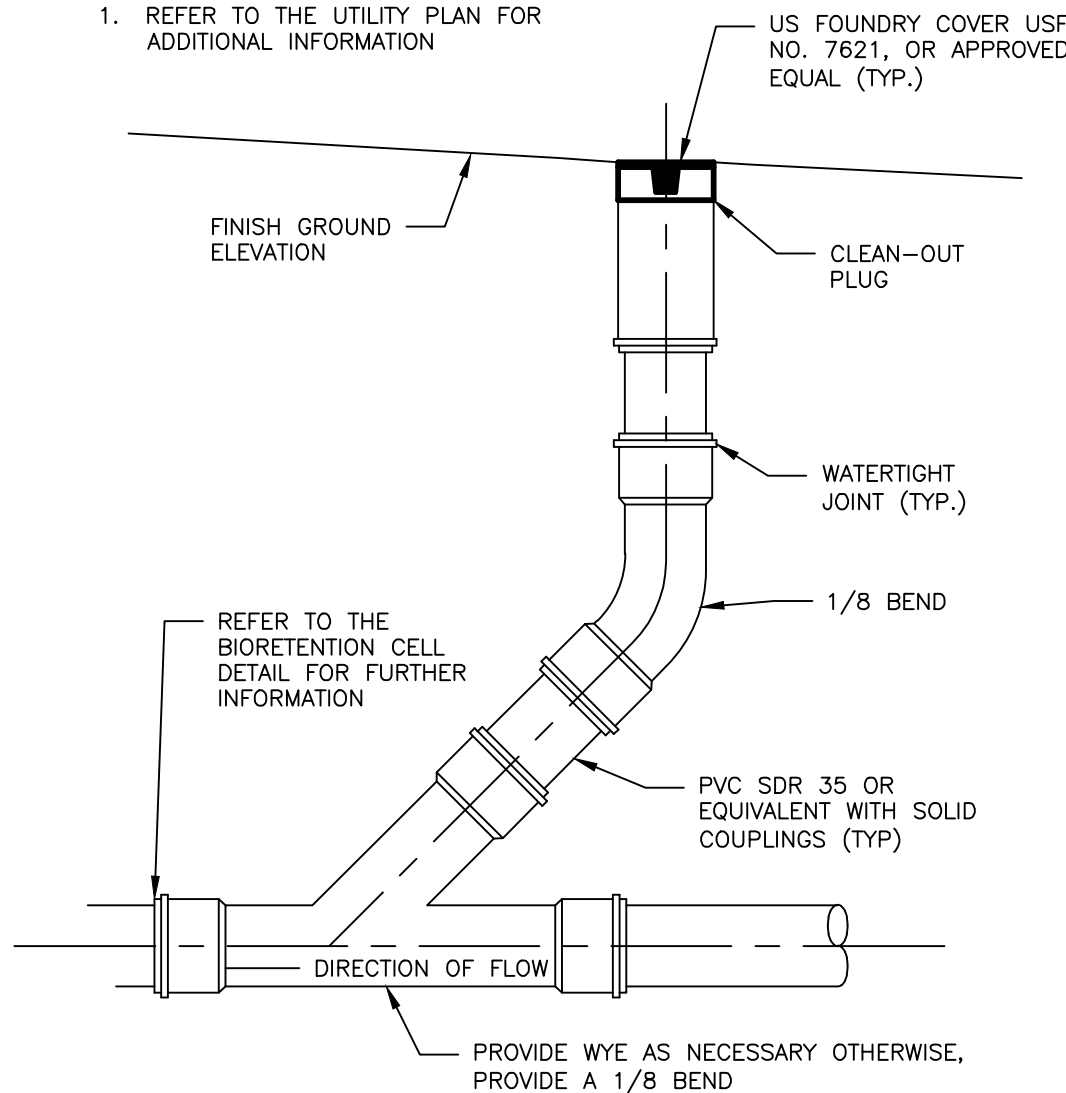


WATER SERVICE TRENCH SECTION DETAIL

NOT TO SCALE

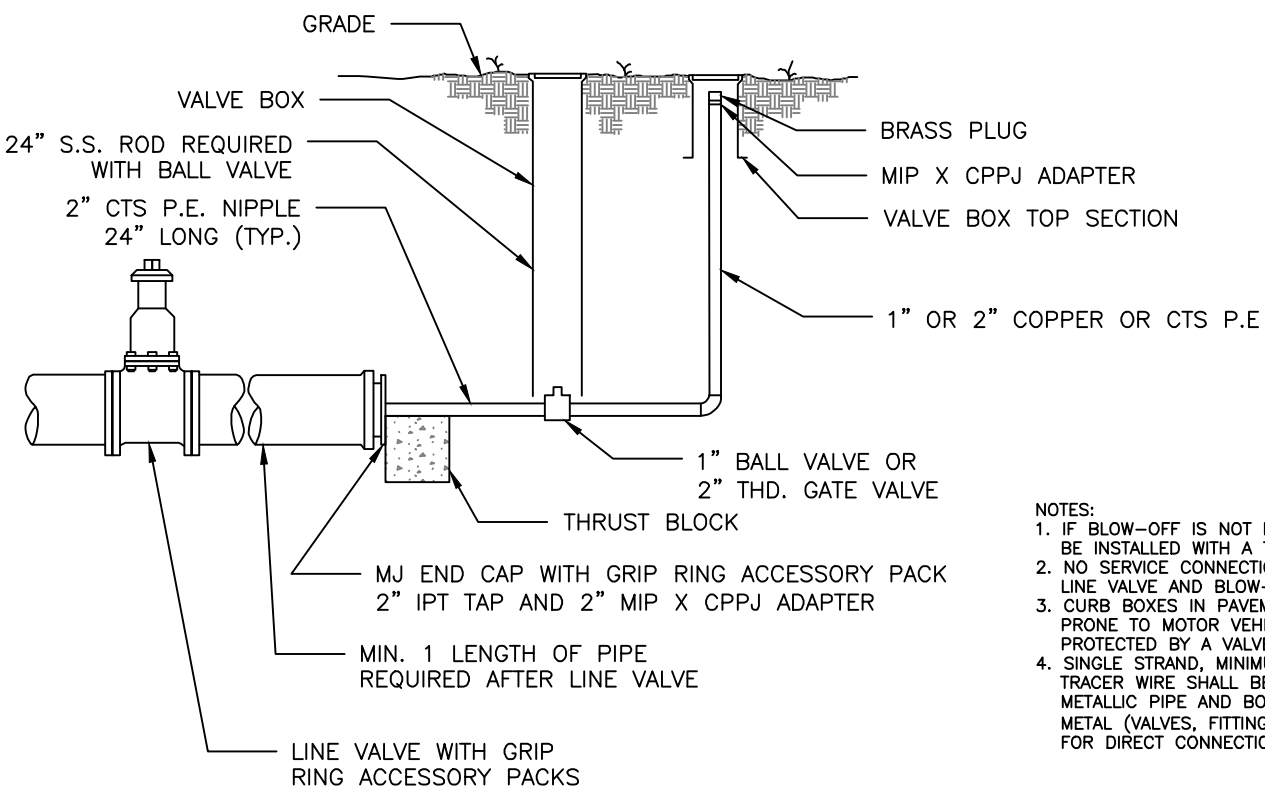
NOTES:

1. REFER TO THE UTILITY PLAN FOR ADDITIONAL INFORMATION



CLEANOUT DETAIL

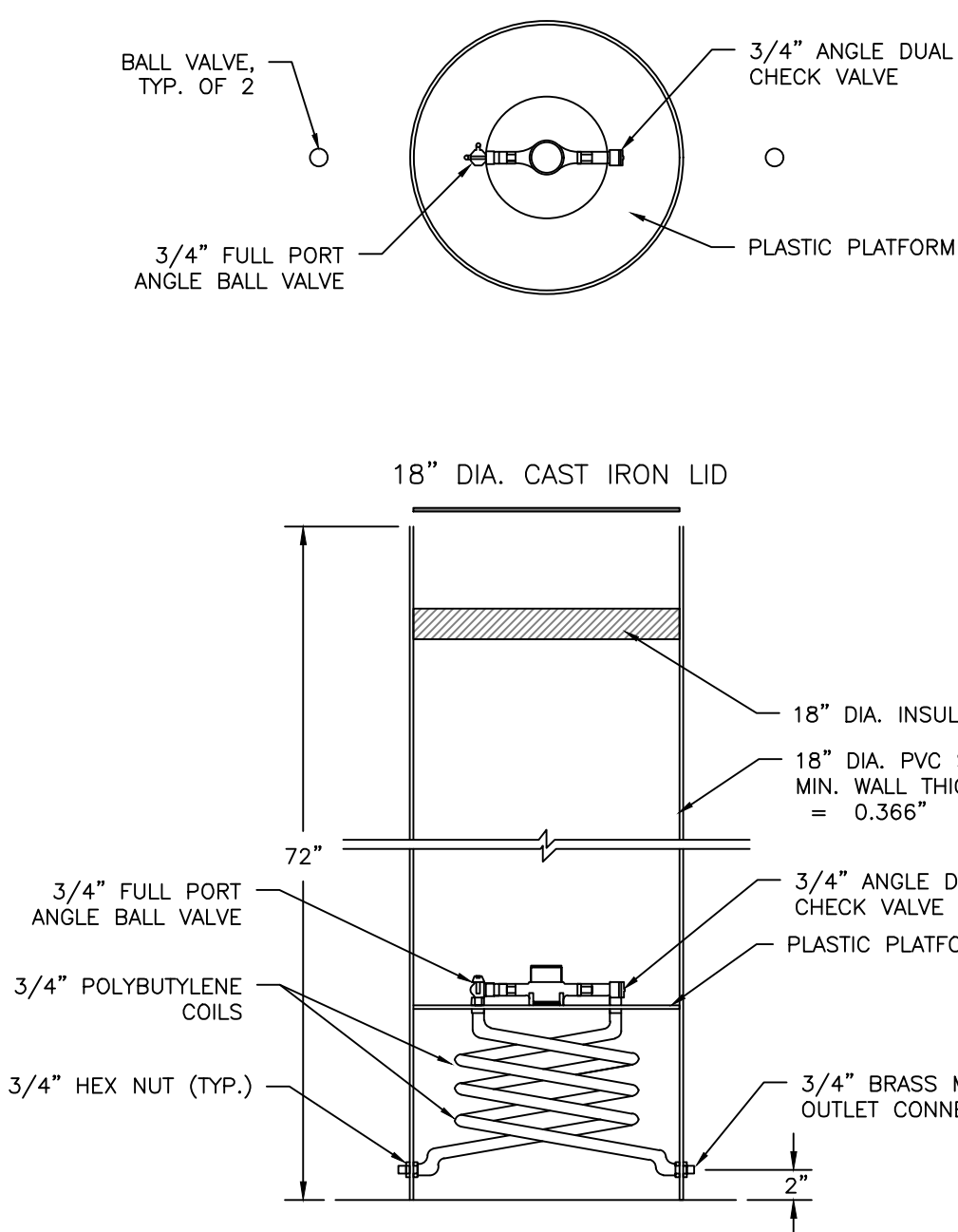
NOT TO SCALE



- 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 PRIOR TO MOTOR VEHICLE TRAFFIC SHALL BE PROTECTED BY A VALVE BOX TOP.
 4. TRACER WIRE SHALL BE TAPED TO ALL NON-METALLIC PIPE AND BONDED TO ASSOCIATED METAL VALVES, FITTINGS, ETC.) AT THE ENDS FOR DIRECT CONNECTION SIGNAL LOCATING.

1-INCH OR 2-INCH BLOW-OFF DETAIL

NOT TO SCALE



PORTLAND WATER DISTRICT NON-ENTRY METER PIT

NOT TO SCALE

- METER PIT AND COVER NOTES
1. CONTRACTOR TO SUPPLY THE METER PIT. METER PIT TO BE McDONALD 790-SERIES SINGLE 18-INCH COIL METER PIT OR 3/4" FORD COIL PIT SETTER OR AN APPROVED EQUAL. CONTRACTOR TO SUBMIT SHOP DRAWINGS TO ACCORN ENGINEERING, INC. AND THE CITY OF PORTLAND.
 2. THE METER SHALL BE LOCATED ON PRIVATE PROPERTY, A MINIMUM OF 5' FROM THE PROPERTY LINE AND 2' FACE-TO-FACE FROM ANY SEWER SERVICE.
 3. THE METER PIT SHALL BE MADE OF PRECAST CONCRETE SUFFICIENT SIZE TO PROVIDE 5'-6" MINIMUM GROUND 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 PIPING SHALL BE SEALED WITH A MODULAR SEAL (LINK-SEAK OR SIMILAR).
 4. 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, 18" MINIMUM IN DIAMETER, COMPATIBLE 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 INHIBITOR PAINT.
 5. WALL-MOUNTED LADDER RUNGS SHOULD NOT BE INSTALLED WITHIN THE METER PIT.
 6. ALL PIPING INSIDE AND EXTENDING THROUGH THE METER PIT SHALL BE MADE OF COPPER, WITH A MINIMUM OF 6" CLEARANCE FROM THE METER PIT FLOOR. BLOCKING SHALL BE INSTALLED AS REQUIRED TO SUPPORT THE PIPE.
- METER NOTES
7. ONLY PORTLAND WATER DISTRICT PERSONNEL ARE AUTHORIZED TO INSTALL WATER METERS. PORTLAND WATER DISTRICT PERSONNEL SHALL BE ADDITIONALLY AUTHORIZED TO OPERATE METER VALVES AS NEEDED FOR INSTALLATION AND MAINTENANCE.
 8. PORTLAND WATER DISTRICT TO SUPPLY THE WATER METER AND NECESSARY FITTINGS FOR INSTALLATION. IF REQUIRED, A FLANGED METER SPOOL WILL BE AVAILABLE FOR CONTRACTOR PICKUP AT DOUGLASS STREET CUSTOMER SERVICE AND MUST BE INSTALLED BY CONTRACTOR PRIOR TO METER SET. ALL OTHER MATERIALS, INCLUDING VALVES, SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.
 9. THE CONTRACTOR SHALL WILL INSTALLED TWO (2) BALL VALVES 24" APART FOR METER INSTALLATION, ALLOWING FOR THE WATER METER TO BE CENTERED UNDER THE METER PIT OPENING. BALL VALVES SHALL BE SOLDERED IN PLACE.
 10. CONTRACTOR TO INSTALL A MINIMUM OF 24" OF RIGID COPPER PIPE BETWEEN THE BALL VALVES.
 11. THE METER PIT MAY HOUSE UP TO TWO 5/8", 3/4" OR 1" METERS. INSTALLATION OF MULTIPLE METERS IN A METER PIT MUST RECEIVE PRIOR APPROVAL FROM THE PORTLAND WATER DISTRICT.
 12. CONTRACTOR TO COORDINATE METER PIT INSTALLATION WITH THE PORTLAND WATER DISTRICT AND COMPLY WITH PORTLAND WATER DISTRICT AND CITY OF PORTLAND TECHNICAL STANDARDS.

ISSUED FOR	BY
SITE PLAN	PFH
SUBMISSION	12/3/21
COMMENT	PFH
RESPONSE	3/2/22

UTILITY DETAILS - 1

WINTER STREET TOWNHOMES
PORTLAND, MAINE

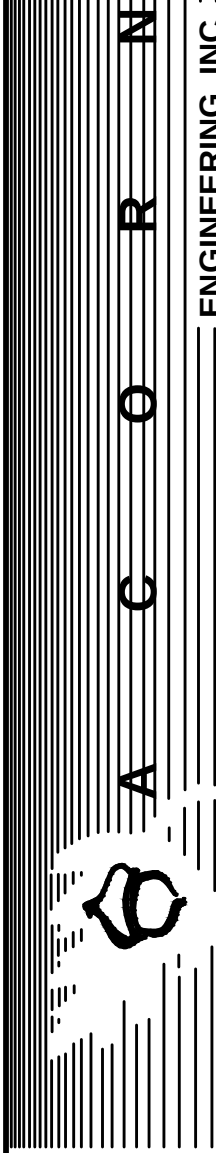
NEWHEIGHT REDFERN, LLC

167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

DRAWING NAME:

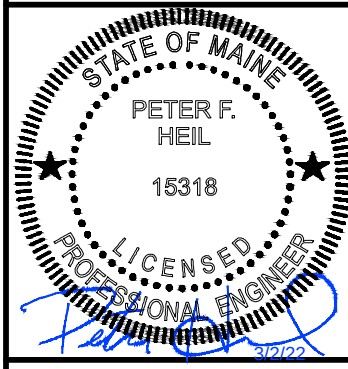
PROJECT NAME:

CLIENT:



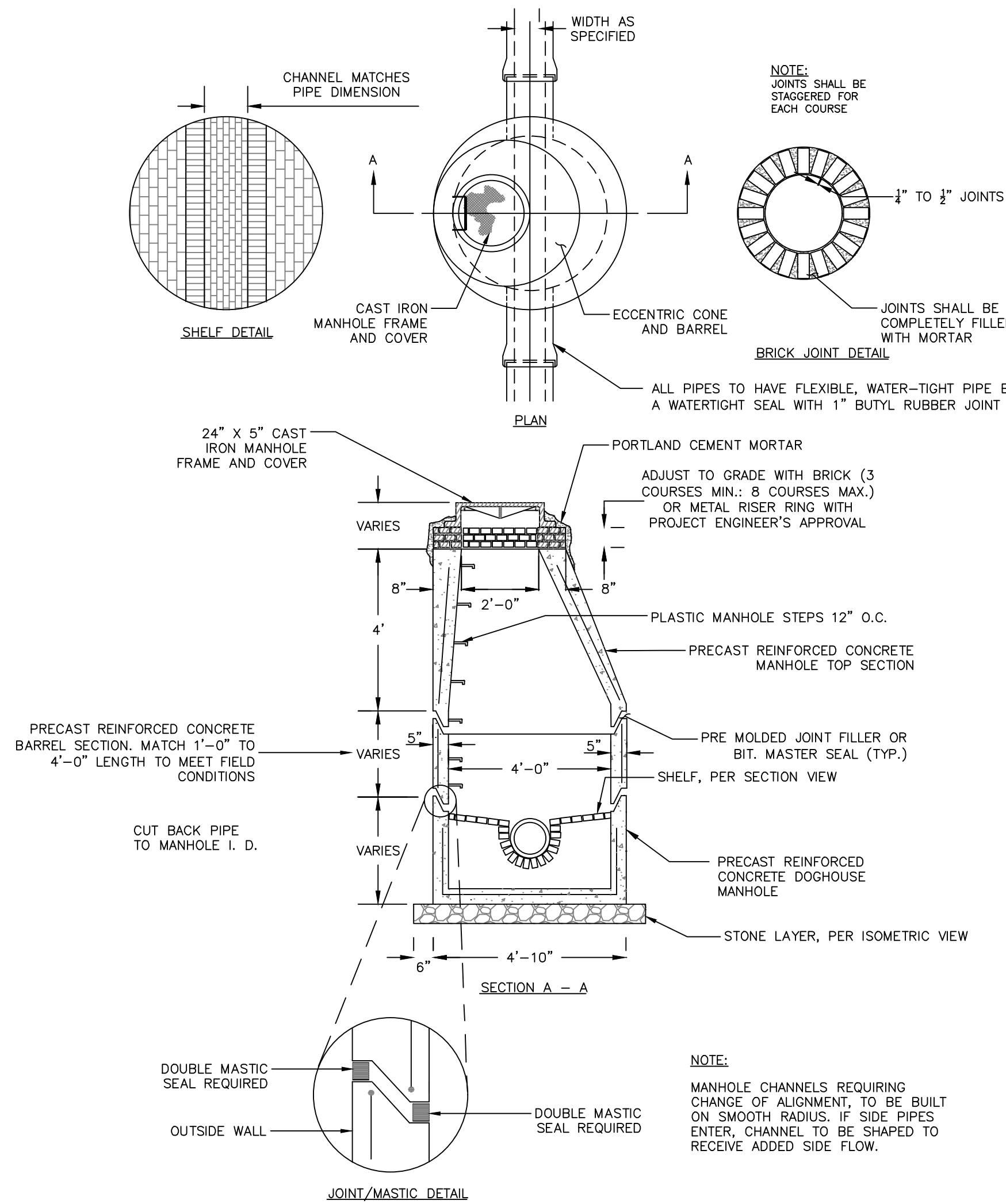
ACCORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04104
(207) 775-2655

FILE:	1140.1_CIVIL
JN:	1140.1
SCALE:	AS NOTED
DESIGNED BY:	MKT
DRAWN BY:	MKT
CHECKED BY:	PFH



DRAWING NO.
C-42

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION



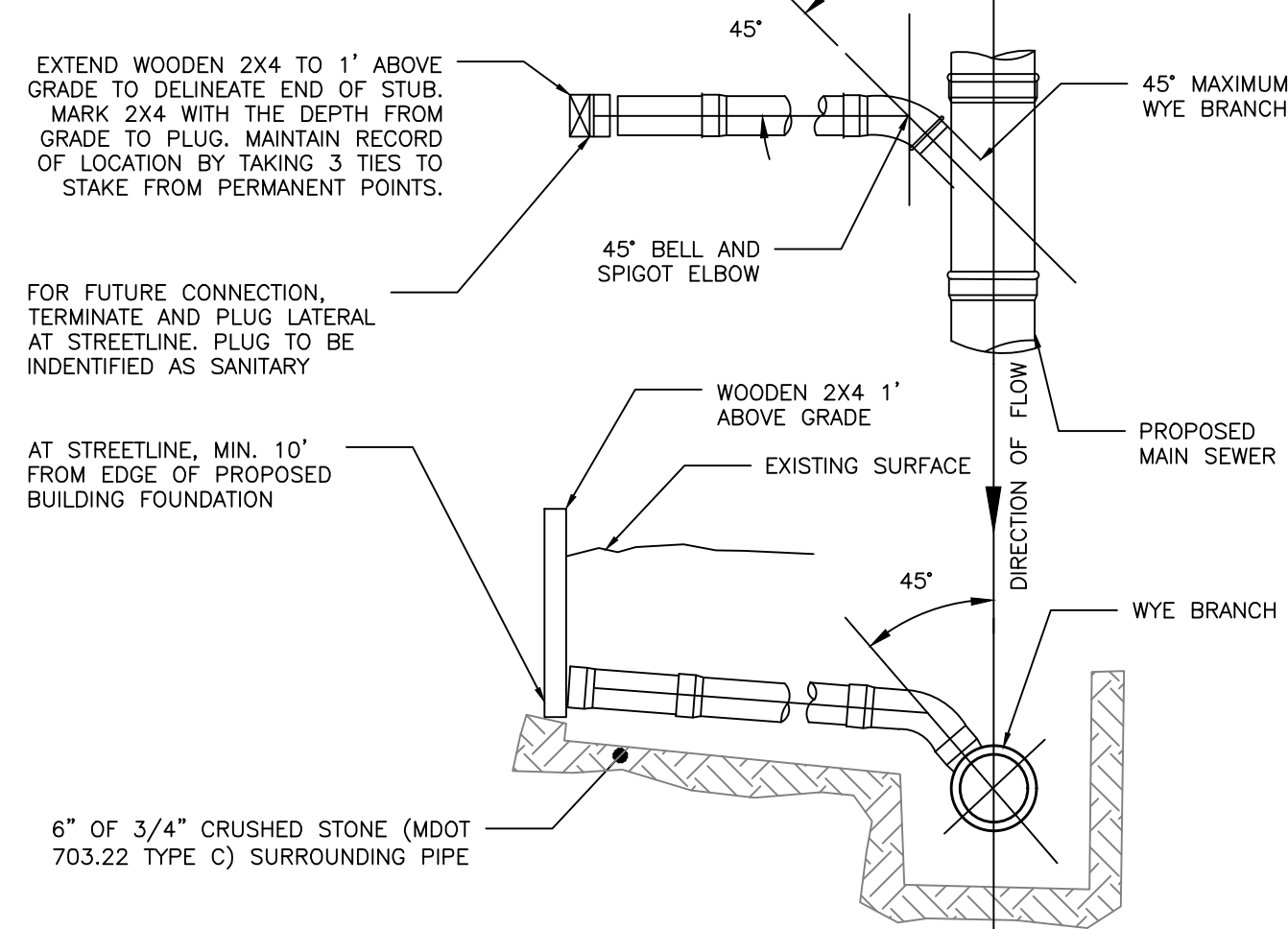
- NOTES:**
1. UNLESS OTHERWISE SPECIFIED, CONCRETE SHALL BE 4000 PSI @28 DAYS.
 2. RECONSTRUCT INTERIOR MANHOLE INVERT AS NECESSARY TO ACCOMMODATE NEW PIPE.
 3. THIS DETAIL IS INTENDED TO PROVIDE ADDITIONAL INFORMATION TO THE CONTRACTOR IN REGARDS TO THE CONNECTION OF THE DOGHOUSE MANHOLE BASE TO THE 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 EITHERIDGE 24" OR APPROVAL EQUAL.
 7. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE. THE MATERIAL SHALL BE MINWAX FIBROUS BRUSH COAT MADE BY THE MINWAX COMPANY, NEW YORK, NEW YORK; TREMCO 121 FOUNDATION COATING, MADE BY THE TREMCO MANUFACTURING COMPANY, CLEVELAND, OHIO; INERTOL NO-7 MADE BY INERTOL COMPANY, NEWARK, NEW JERSEY; CAMGER SUPERSEAL WATER-PROOFING CONCRETE COATING PPS-922-2, MADE BY THE CAMGER COATING SYSTEMS, INC., NORFOLK, MASSACHUSETTS OR APPROVED EQUAL.
 8. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.

PRECAST CONCRETE MANHOLE – CITY OF PORTLAND

NOT TO SCALE

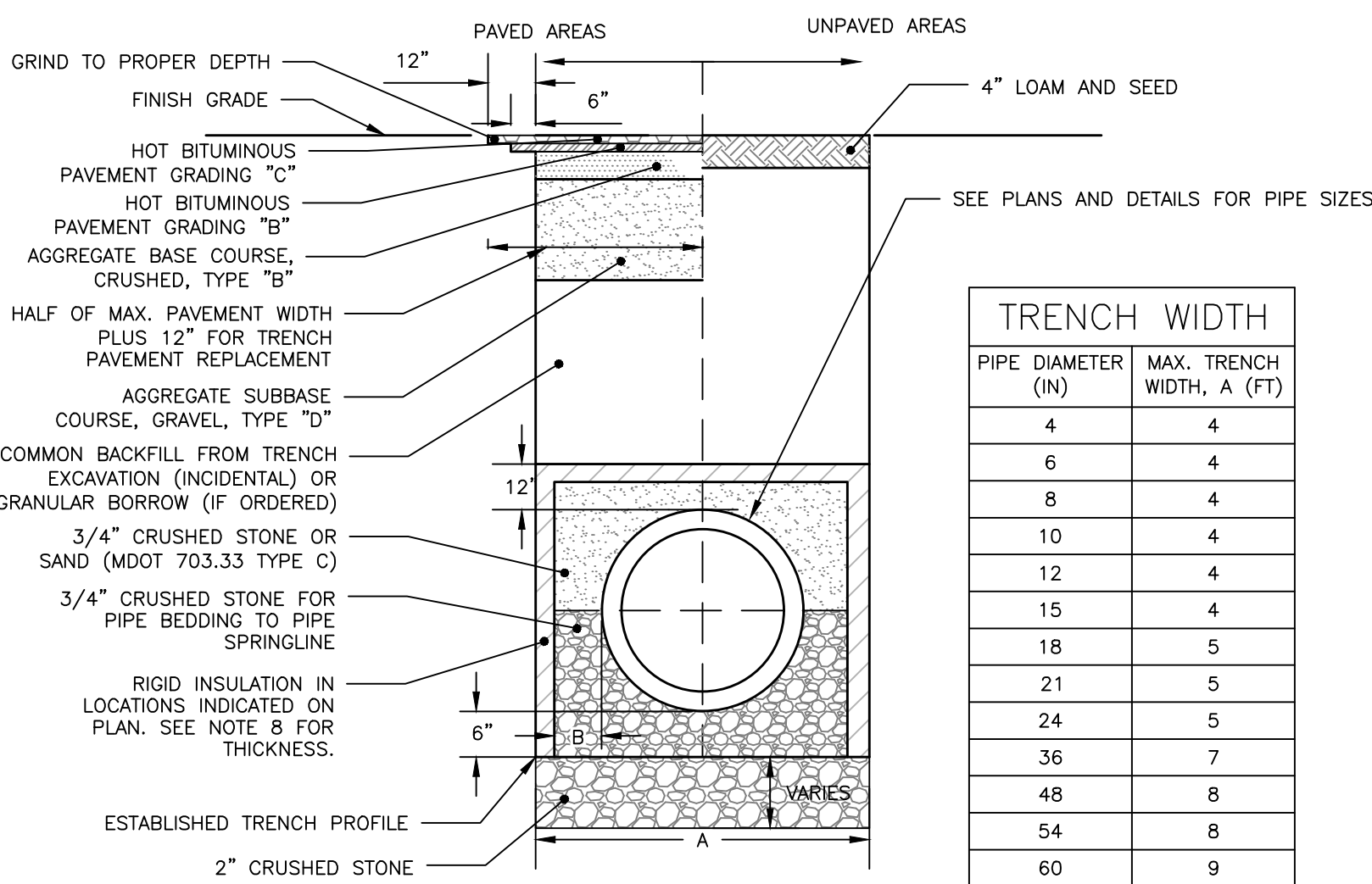
NOTES:

1. LOCATION WITH WARNING TAPE SHALL BE INSTALLED OVER CENTERLINE OF PIPE AT A MAXIMUM OF 24 INCHES BELOW FINISH GRADE.
2. SITE CONTRACTOR TO COORDINATE CONNECTION OF SEWER LATERAL TO STRUCTURE PLUMBING WITH ARCHITECTURAL CONTRACTOR.
3. CONNECTION OF PROPOSED SEWER LATERAL TO STRUCTURE PLUMBING SHOULD INCORPORATE USE OF SIMILAR PIPE MATERIALS. IN THE CASE OF DISSIMILAR PIPES BEING USED, A FERNCO FLEXIBLE COUPLING SHALL BE USED.



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 OF THE CITY OF PORTLAND R.O.W.
8. STORM DRAIN COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" OF RIGID INSULATION, COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" RIGID INSULATION, OTHER UTILITIES: ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.
9. DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.
10. DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 9".
11. DIMENSION A IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE TABLE BELOW.

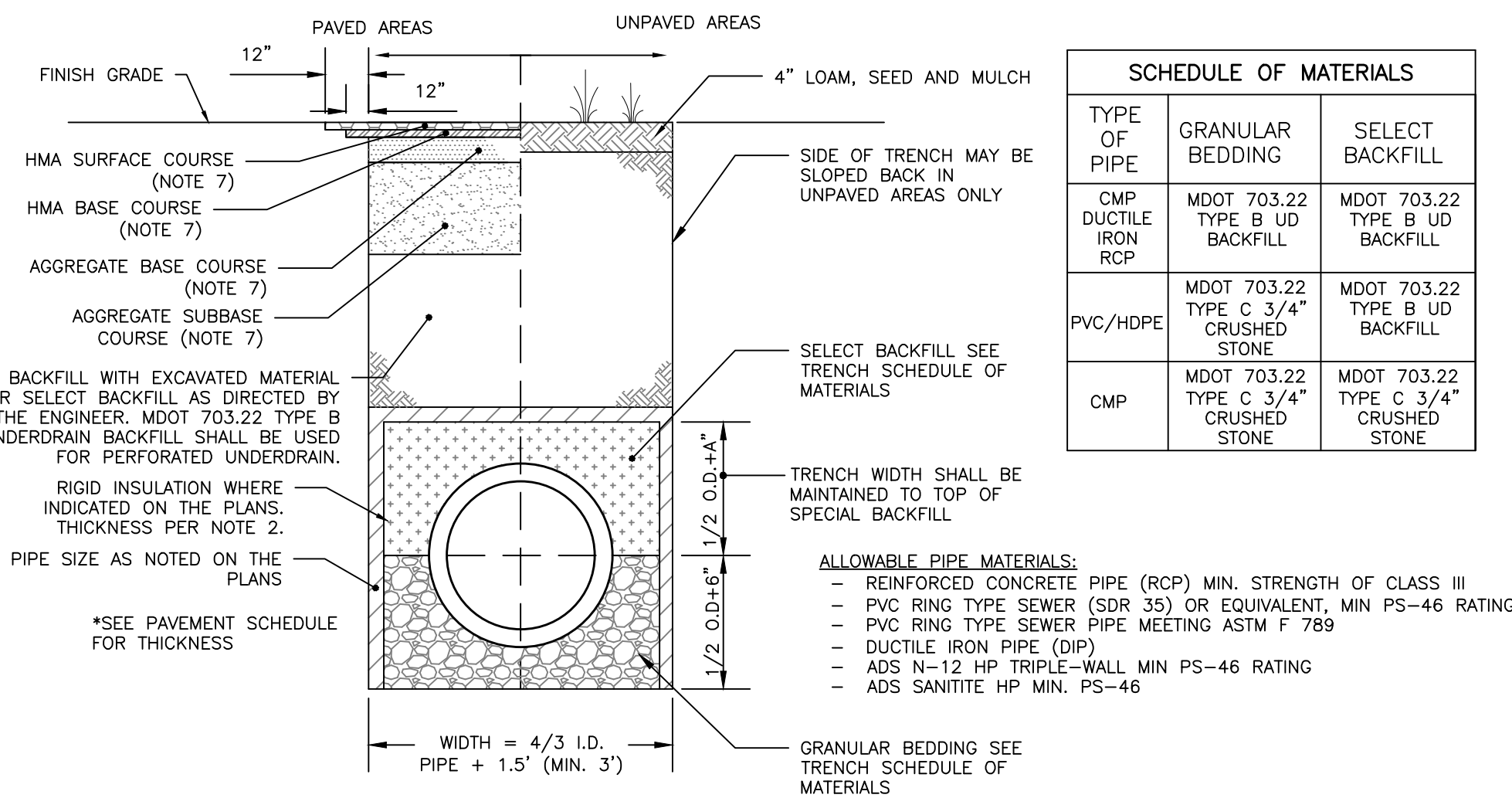


CITY OF PORTLAND TYPICAL PIPE TRENCH DETAIL WITHIN RIGHT-OF-WAY

NOT TO SCALE

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
8. ALL PROPOSED TREES PLANTED WITHIN 10' OF A STORM OR SEWER PIPE SHALL BE PLANTED AT A DEPTH NO GREATER THAN 3' DEEP. PERMEABLE LANDSCAPE FABRIC SHALL CREATE A ROOT BARRIER AROUND THE PIPES. CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE DRAWINGS.



STORM DRAIN AND SEWER TYPICAL TRENCH SECTION WITHIN PROPERTY

NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
SITE PLAN	PH
SUBMISSION	12/2/21
COMMENT	PH
RESPONSE	3/2/22

UTILITY DETAILS – 2

WINTER STREET TOWNHOMES
PORTLAND, MAINE

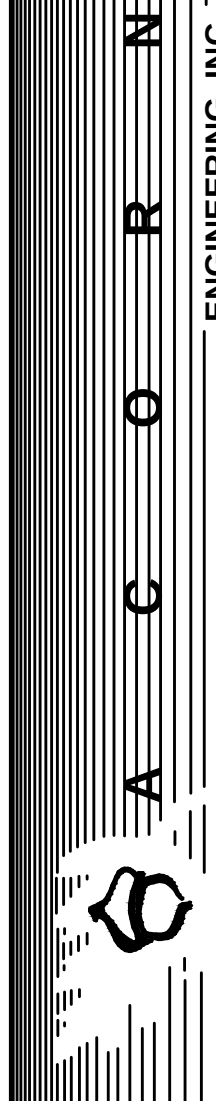
NEWHEIGHT REDFERN, LLC

167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

DRAWING NAME:

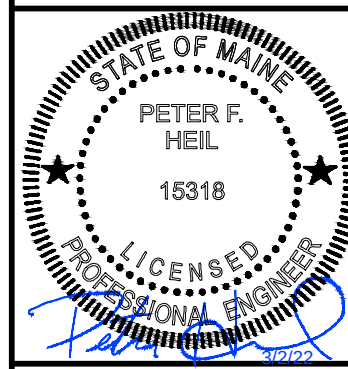
PROJECT NAME:

CLIENT:

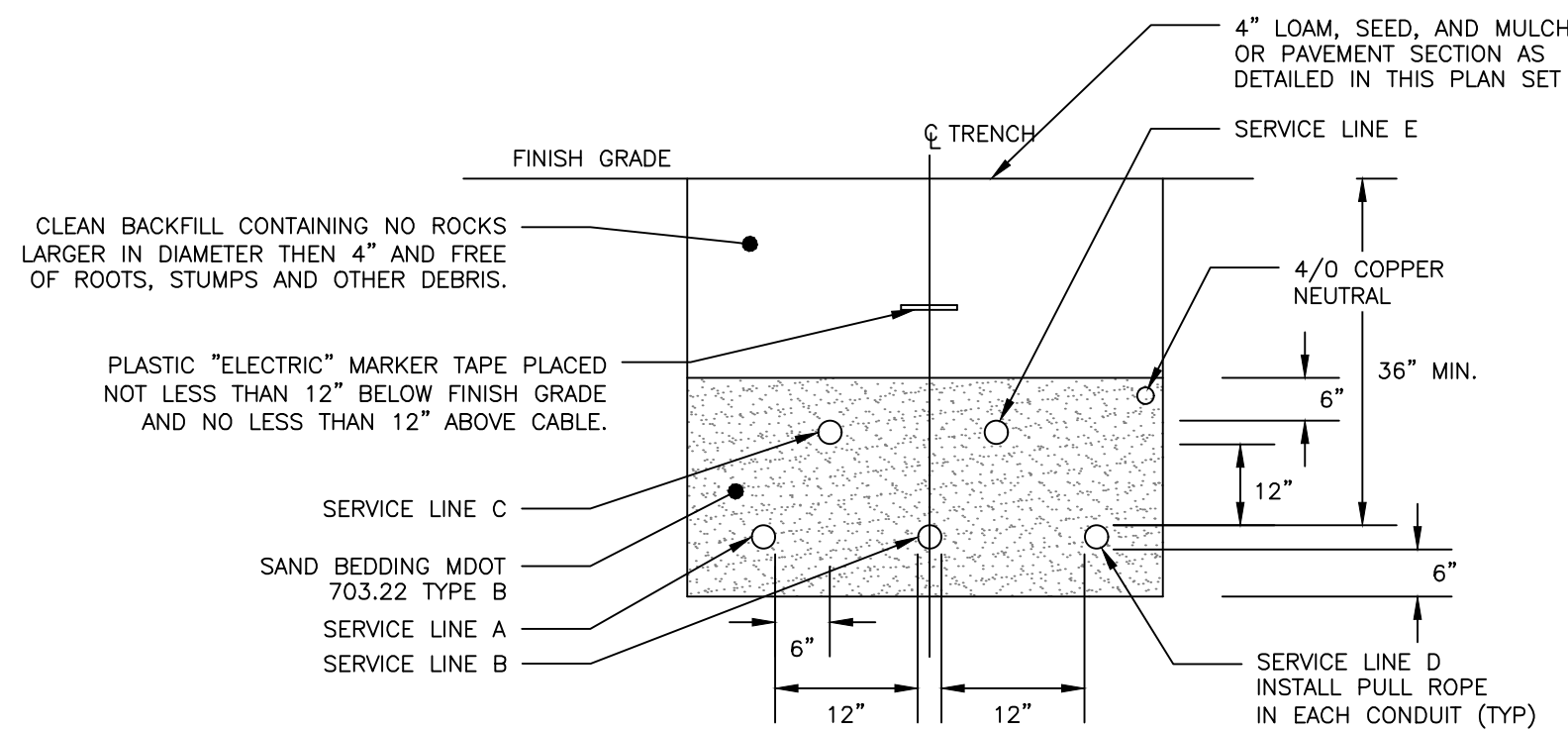


ACCORD ENGINEERING, INC.
167 NEWBURY STREET, SUITE 503
PORTLAND, ME 04101
TEL: (207) 775-2655
FAX: (207) 775-2655
WWW.ACCORDENGINEERING.COM
P.O. BOX 100, PORTLAND, ME 04101
STATE OF MAINE LICENSE NO. 04104
REGISTERED PROFESSIONAL ENGINEER
CIVIL ENGINEERING
I am not responsible for any errors or omissions in this drawing or for any consequences arising therefrom, whether or not caused by negligence.

FILE: 1140.1_CIVIL
JN: 1140.1
SCALE: AS NOTED
DESIGNED BY: MKT
DRAWN BY: MKT
CHECKED BY: PFH



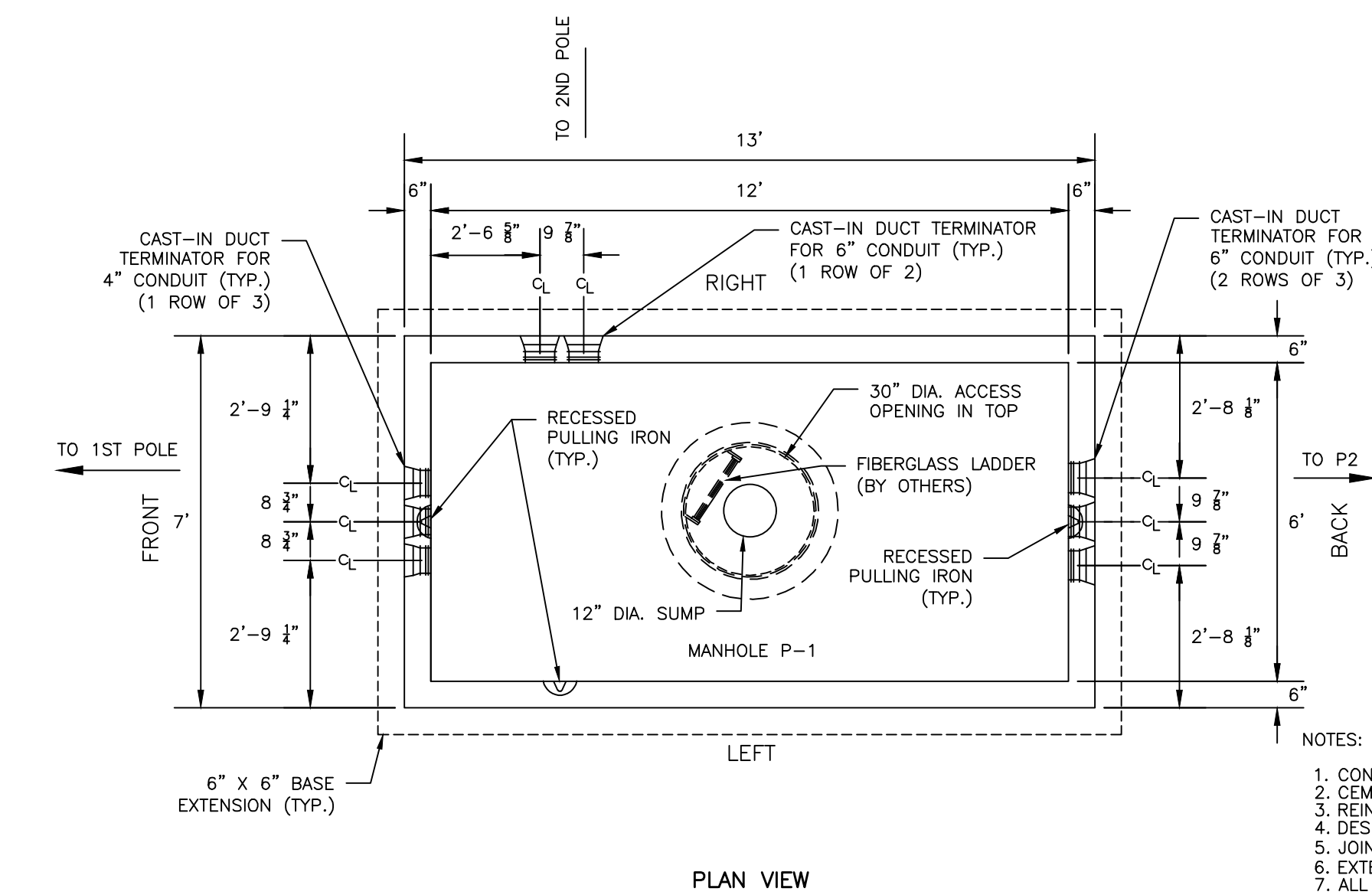
DRAWING NO.
C-43



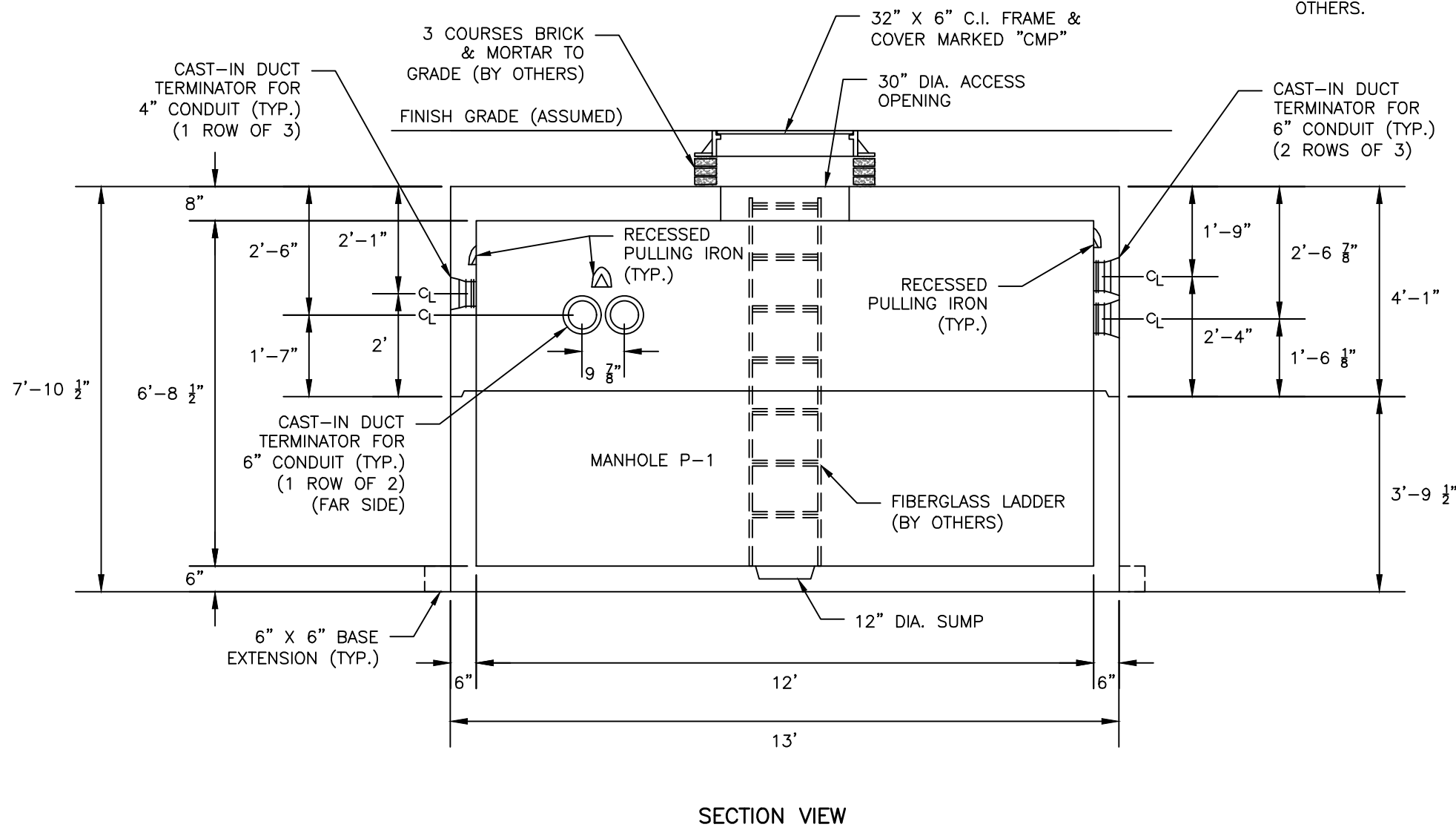
CONDUIT TYPE				
SERVICE	CONDUIT SIZE	GRASS AND PAVED AREAS	UTILITY	REMARKS
A	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
B	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
C	2-4"	SCHEDULE 40 PVC	COMMUNICATION	-
D	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	SPARE	SEE NOTE 1
E	2-4"	SCHEDULE 40 PVC	CABLE	-

- NOTES:
- 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.
 - MINIMUM SEPARATION OF 24 INCHES BETWEEN PRIMARY CABLE/CONDUIT AND GAS LINES SHALL BE MAINTAINED.
 - CONDUITS WITHIN THE CITY RIGHT-OF-WAY SHALL BE ENCASED IN CONCRETE.
 - FINAL SIZE OF CONDUITS TO BE SPECIFIED BY MEP, ELECTRICIAN, OR DESIGN/BUILD ELECTRICAL CONTRACTOR.

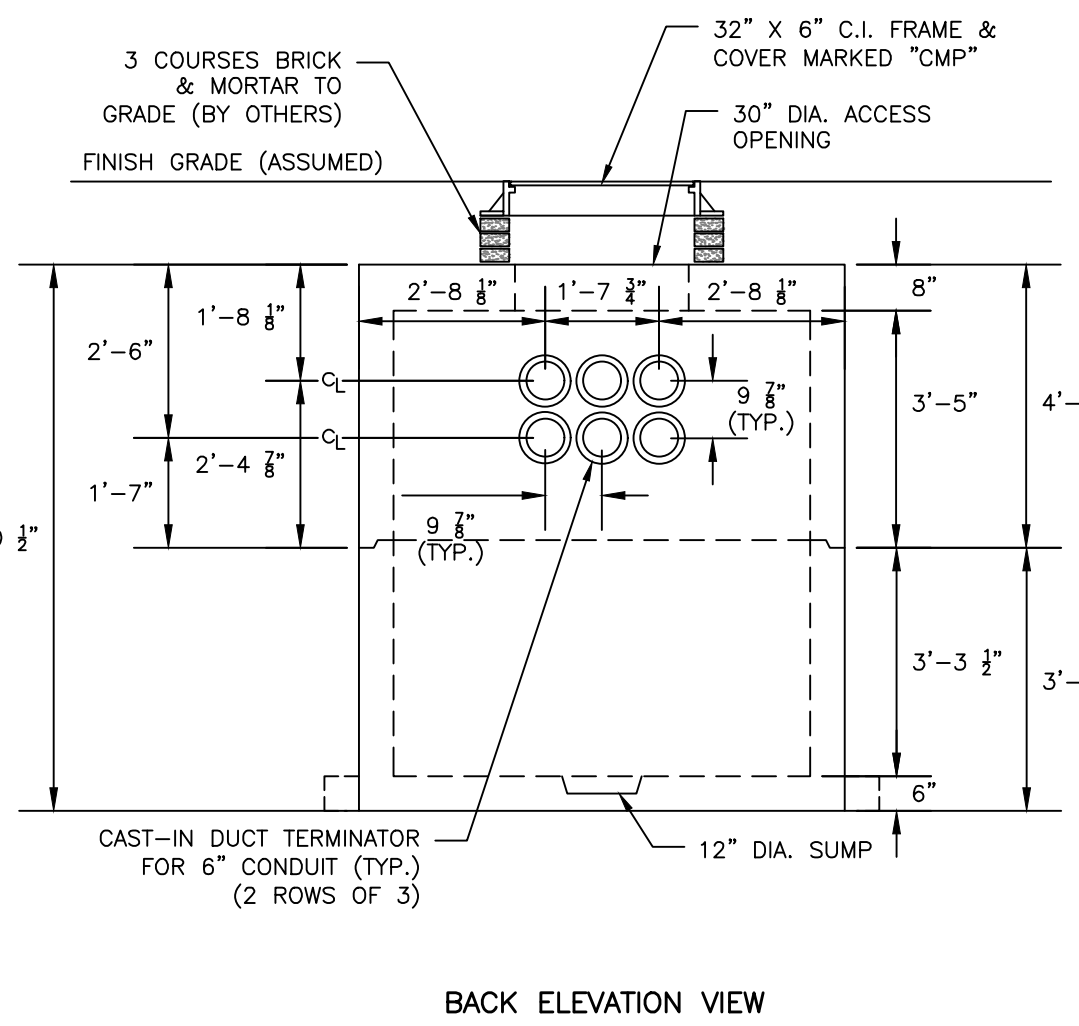
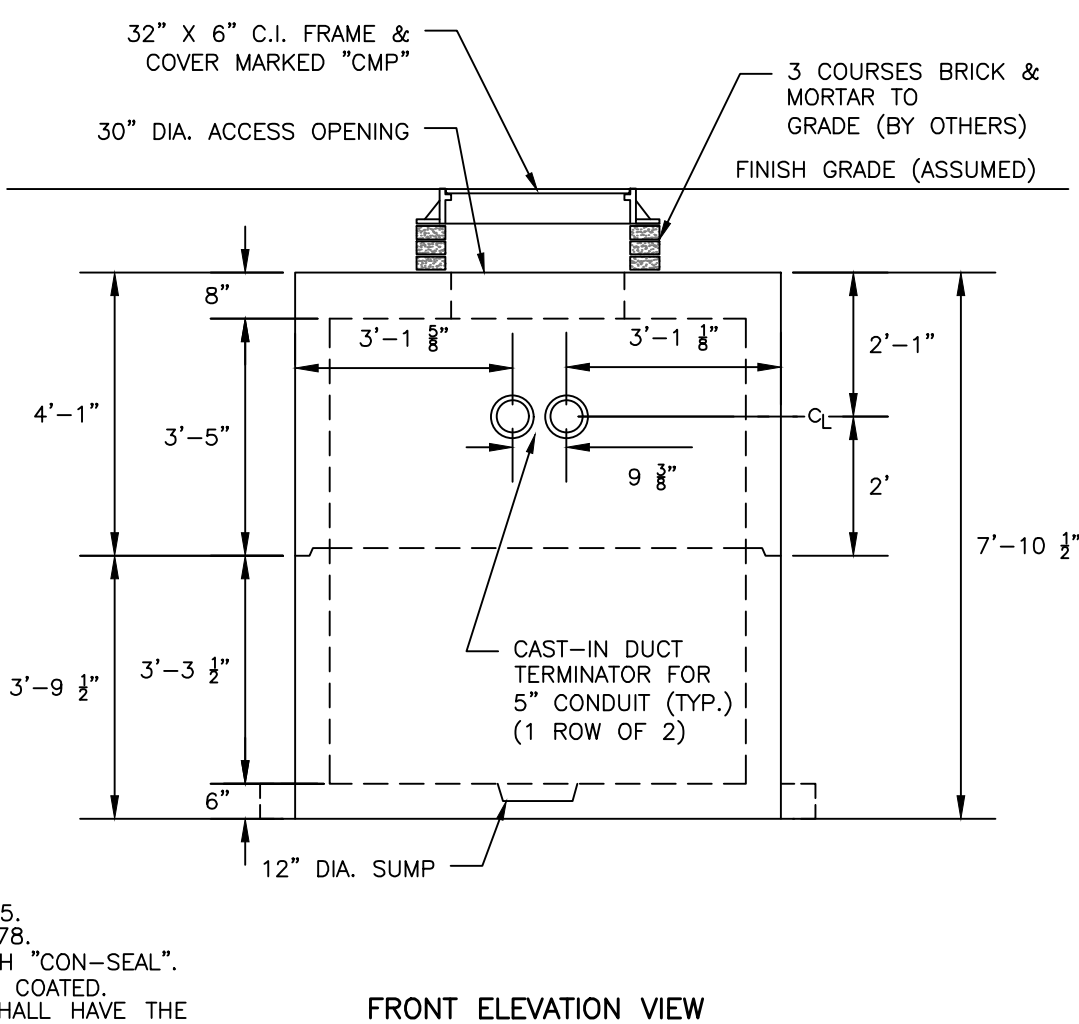
UTILITY TRENCH — PRIMARY AND SECONDARY POWER, TELEPHONE, AND CABLE
NOT TO SCALE



- NOTES:
- CONCRETE: 5,000 PSI @ 28 DAYS.
 - CEMENT: TYPE III PER ASTM C150-81.
 - REINFORCING: GRADE 60 PER ASTM A615.
 - DESIGN LOADING: H-20 PER ASTM C-478.
 - JOINTS TO BE SEALED WATER TIGHT WITH "CON-SEAL".
 - EXTERIOR OF TANK TO BE "AQUA-SAFE" COATED.
 - ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OF THE MANUFACTURER MARKED ON THE INSIDE WALL.
 - LADDER PROVIDED AND INSTALLED BY OTHERS.
 - IDENTIFICATION TAGS FOR CABLES IN MANHOLE SHALL BE SET AT THE TIME OF MANHOLE INSTALLATION BY OTHERS.



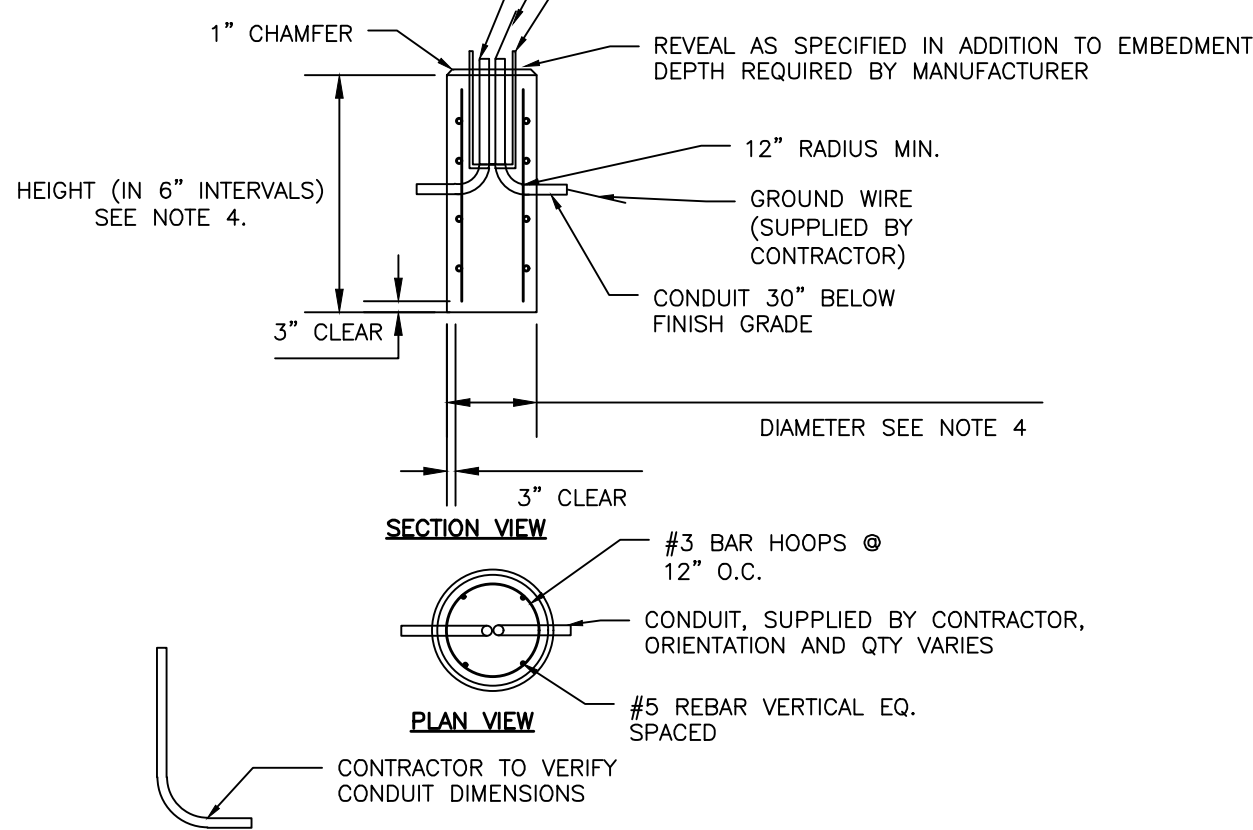
PRECAST CONCRETE 38Y MANHOLE DETAIL
NOT TO SCALE



BACK ELEVATION VIEW

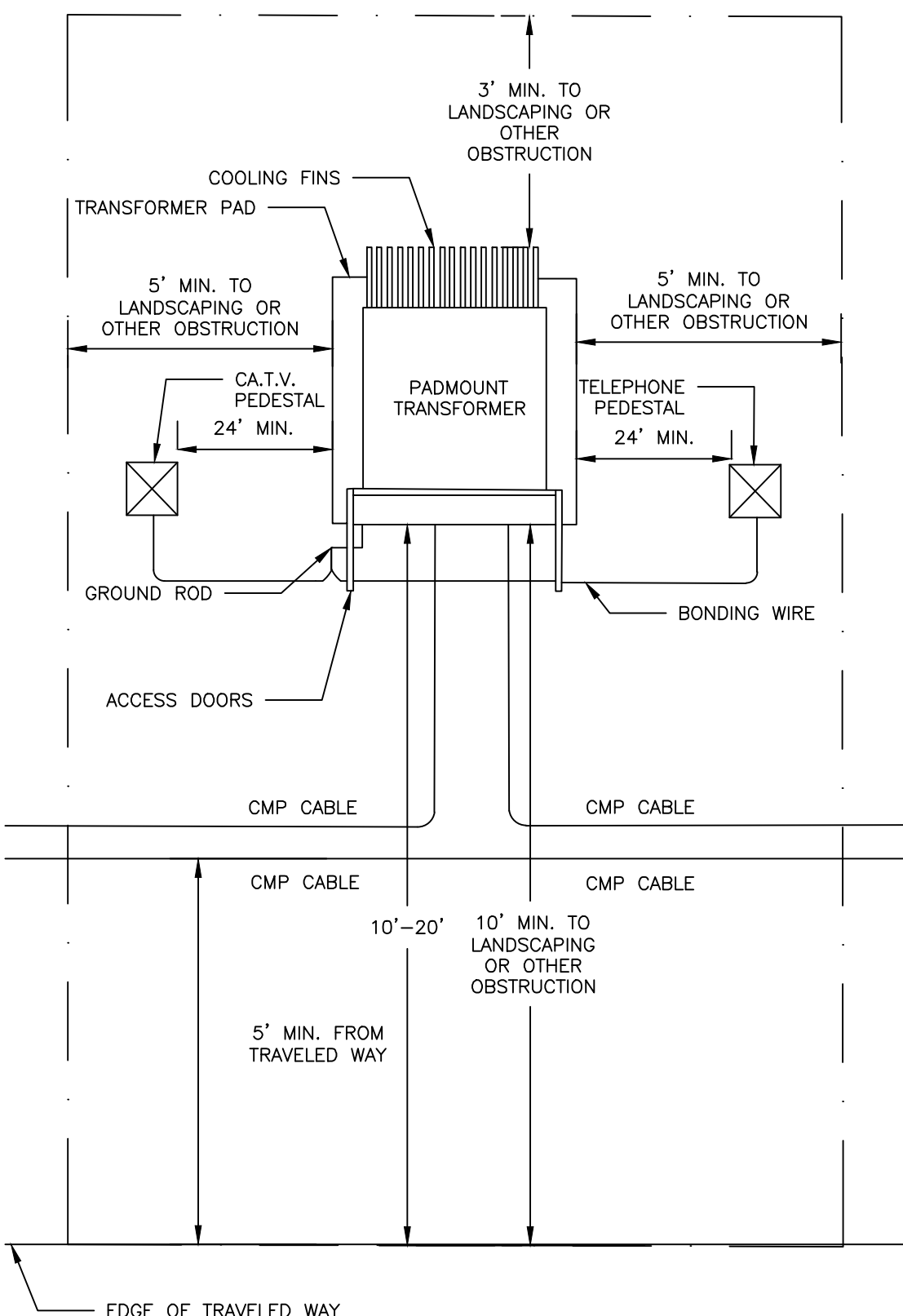
SCHEDULE		
HEIGHT OF POLE	MIN DIAMETER	MIN EMBEDMENT
<20'	18"	5'
20'-40'	2'	6'
>40'	3'	8'

- NOTES:
- CONCRETE: 5000 PSI @ 28 DAYS
 - CEMENT: TYPE III PER ASTM C150-81
 - LIGHT POLE BASE SHALL BE AS SUPPLIED BY GEORGE R. ROBERTS CO., OR APPROVED EQUAL
 - DIAMETER TBD BASED UPON THE MANUFACTURER'S RECOMMENDATION.

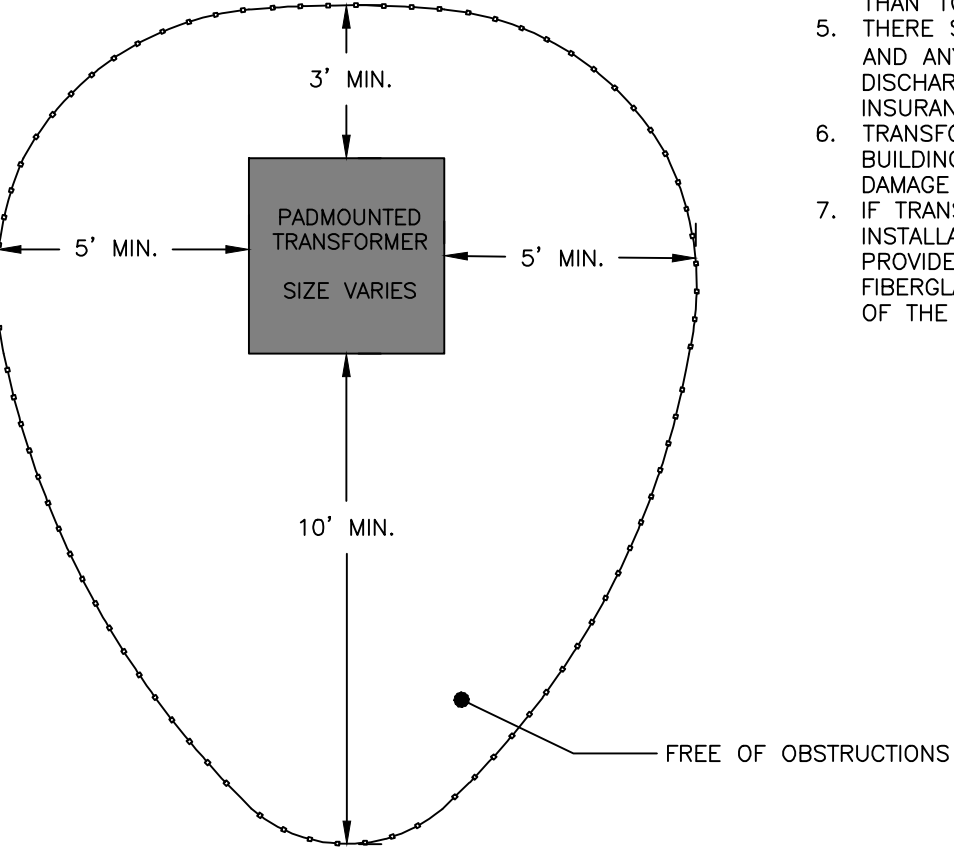


LIGHT POLE BASE
NOT TO SCALE

REVEALS	
APPLICATIONS	REVEAL
STREET/SIDEWALK	4"
OTHER PED HARDSCAPE	FLUSH
PEDESTRIAN LAWN/MULCH	4"
PARKING AREAS (OPEN TRAFFIC)	24-36"



PAD MOUNTED TRANSFORMER
NOT TO SCALE



CMP TRANSFORMER SETBACKS
NOT TO SCALE

- NOTES:
- WHERE DANGER OF FLOW OR TRAFFIC DAMAGE EXISTS, BARRIERS CONSISTING OF CONCRETE FILLED 6 INCH IPS STEEL POSTS SET 4 FEET DEEP SHALL BE PROVIDED FOR PROTECTION (PRESSURE TREATED 6X6 INCH MIN. TIMBER POSTS MAY BE SUBSTITUTED IN RESIDENTIAL AREAS). POSTS SHALL NOT INTERFERE WITH TRANSFORMER ACCESS. GENERALLY THE POSTS SHALL BE LOCATED NEAR THE CORNERS OF THE TRANSFORMERS WITH A MINIMUM CLEARANCE OF 2' FROM EDGE OF POST TO EDGE OF PAD.
 - THE SETBACKS DEPICT CLEARANCES FROM OBSTRUCTIONS INCLUDING TREES, SHRUBS, AND FENCES.
 - THERE SHALL BE NO OPENINGS IN THE BUILDING WALL IN BACK OF, BESIDE, OR OVER THE TRANSFORMER UNLESS THE TRANSFORMER IS A MIN. OF 10 FEET FROM THE BUILDING.
 - SIDE CLEARANCES FROM DOORS OR WINDOWS SHALL NOT BE LESS THAN 10 FEET.
 - THERE SHALL BE A MIN. OF 10 FEET BETWEEN THE TRANSFORMER AND ANY GAS METER/REGULATOR, GAS RELIEF VALVE, GAS VENT DISCHARGE, GAS FILLING CONNECTION, OR PROPANE TANK. SOME INSURANCE COMPANIES MAY REQUIRE INCREASED CLEARANCES.
 - TRANSFORMER SHALL BE LOCATED FAR ENOUGH AWAY FROM BUILDING OVERHANGS SO THAT THEY WILL NOT BE SUBJECT TO DAMAGE BY FALLING ICE AND SNOW.
 - IF TRANSFORMER IS NOT INSTALLED IMMEDIATELY UPON THE INSTALLATION OF THE CABLE IN THE PAD, THE CONTRACTOR SHALL PROVIDE AND INSTALL A CMP APPROVED CONCRETE, STEEL, OR FIBERGLASS COVER OVER THE PAD OPENING TO ELIMINATE EXPOSURE OF THE CABLE.

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

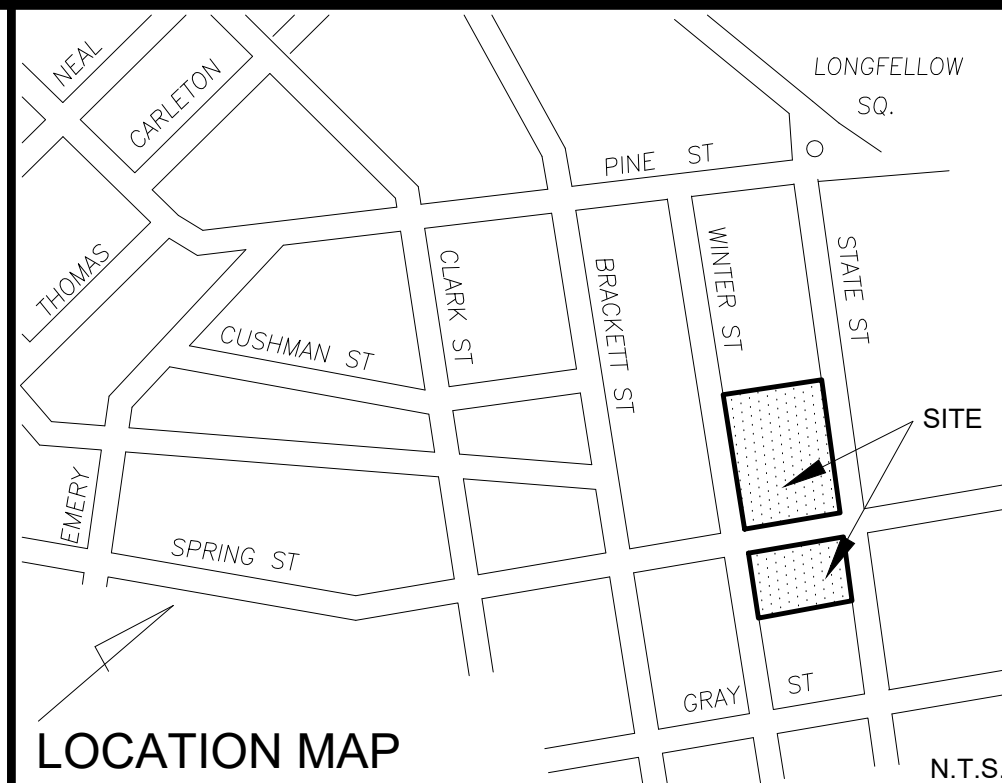
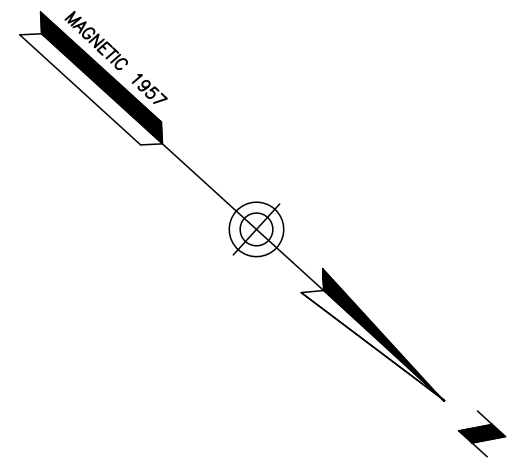
ISSUED FOR: SITE PLAN SUBMISSION
DATE: 12/3/21
COMMENT: PPH
RESPONSE: 3/2/22

UTILITY DETAILS - 3
WINTER STREET TOWNHOMES
PORTLAND, MAINE
NEWHEIGHT REDFERN, LLC
167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

ACORN ENGINEERING, INC.
15318
PETER F. HEIL
REGISTERED PROFESSIONAL ENGINEER

FILE: 1140.1_CIVIL
JN: 1140.1
SCALE: AS NOTED
DESIGNED BY: MKT
DRAWN BY: MKT
CHECKED BY: PPH

DRAWING NO. C-44



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

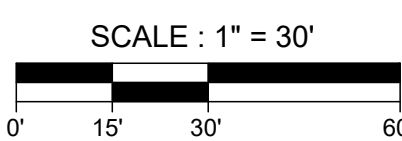
CERTIFICATE
OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

Randy R. Loubier
RANDY R. LOUBIER, PLS #2407
8/4/2020
DATE

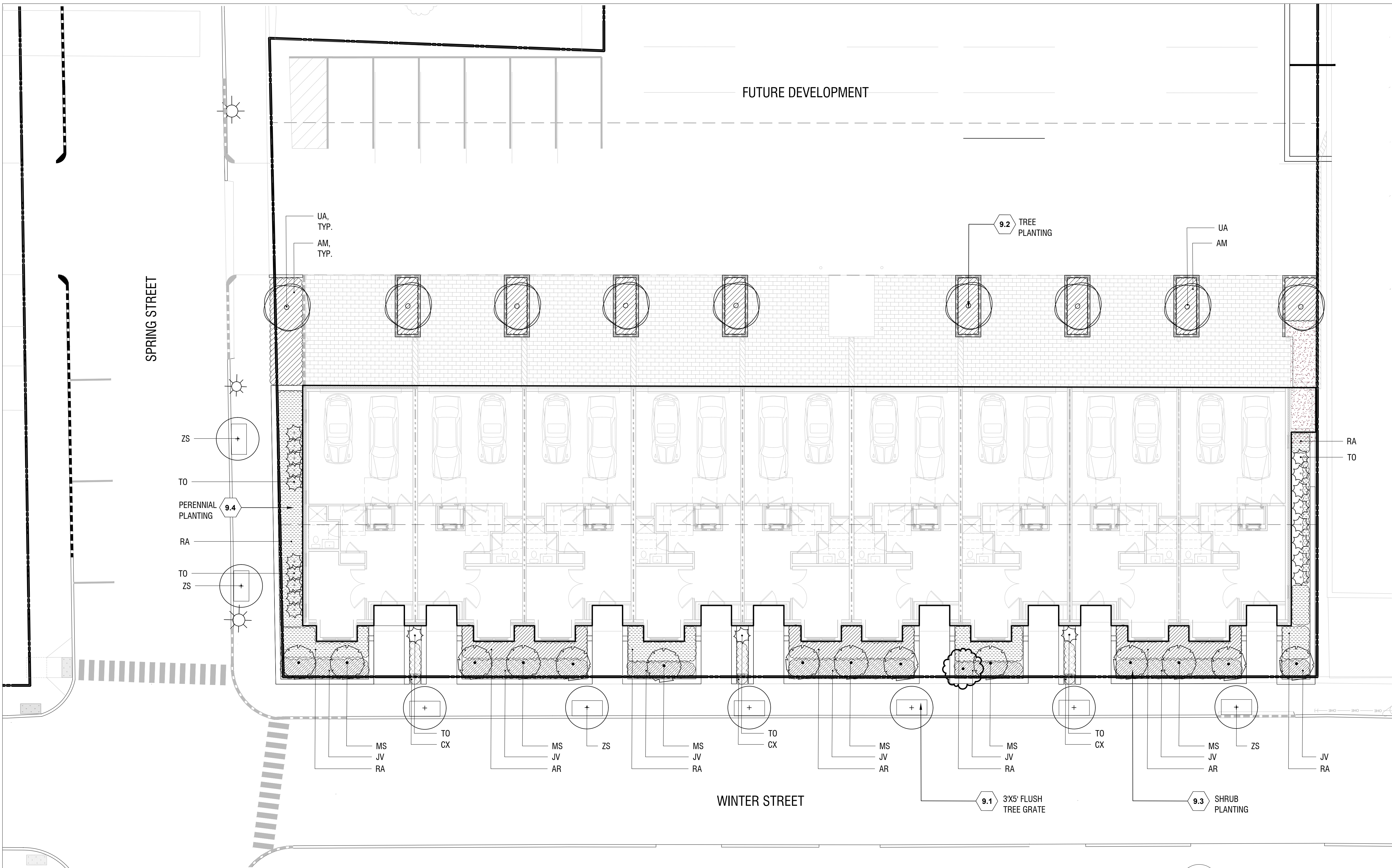
STATE OF MAINE
PROFESSIONAL LAND SURVEYOR
RANDY R. LOUBIER
2407

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

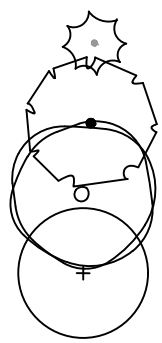
OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 US ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424
DRAWN BY: RS / JLW DATE: AUGUST 4, 2020 JOB NO. 2020-161 P
CHECKED BY: RRL SCALE: 1" = 30' DRWG. NO. 1



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.



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 (MULTI-STEM)	14	5-6'	PER PLAN
UA	ULMUS AMERICANA 'PRINCETON'	PRINCETON ELM	09	2.5" CAL.	PER PLAN
ZS	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ELM	08	2.5" CAL. MAX	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	CONCRETE PAVERS	1/L2-00	6.1	DUMPSTER FENCE	4/L2-01
1.2	CONCRETE PAVERS - ON STRUCTURAL SLAB	2/L2-00	6.2	4-FOOT FENCE	3/L2-01
1.3	CRUSHED STONE	3/L2-00			
1.4	STONE DUST	4/L2-00			
2.0	JOINTING		7.0	SITE LIGHTING	
X.X	NOT USED AT THIS TIME	XXX-XX	X.X	NOT USED AT THIS TIME	XXX-XX
3.0	STEPS		8.0	DRAINAGE	
X.X	NOT USED AT THIS TIME	XXX-XX	X.X	NOT USED AT THIS TIME	XXX-XX
4.0	SITE WALLS/ EMBANKMENTS		9.0	PLANTING AND LANDSCAPE	
4.1	BOULDER	4/L2-00	9.1	DECIDUOUS TREE PLANTING	1/L2-02
5.0	SITE FURNITURE		9.2	EVERGREEN TREE PLANTING	2/L2-02
5.1	BOARDFORM CONCRETE SEATWALL	1/L2-01	9.3	SHRUB PLANTING	3/L2-02
5.2	SEATWALL TOPPER- BACKED	1/L2-01	9.4	PERENNIAL PLANTING	4/L2-02
5.3	BICYCLE RACK	2/L2-01	9.5	METAL EDGING	5/L2-02
5.4	RAISED PLANTER	5/L2-01	10.0	MISCELLANEOUS ELEMENTS	
			10.1	CHALK WALL	5/L2-00

FUTURE DEVELOPMENT

VERTICAL GRANITE
CURB, RE: CIVIL

VERTICAL GRANITE
CURB, RE: CIVIL

SPRING STREET

STONE
EDGING, TYP.

BRICK
SIDEWALK,
CITY OF
PORTLAND
STANDARD,
RE: CIVIL

EX. STREET
LIGHTS, TO
REMAIN, TYP.

PLANTING AREA
(PA, TYP.)

6.1 STONE
BOLLARD, TYP.

4.1 STONE CHEEK
WALL, TYP.

1.1 STONE
PAVING, TYP.

9.1 3'X5' FLUSH
TREE GRATE

10.1 STONE
EDGING, TYP.

WINTER STREET

1.2 CRUSHED
STONE

PA

PA

PA

PA

PA

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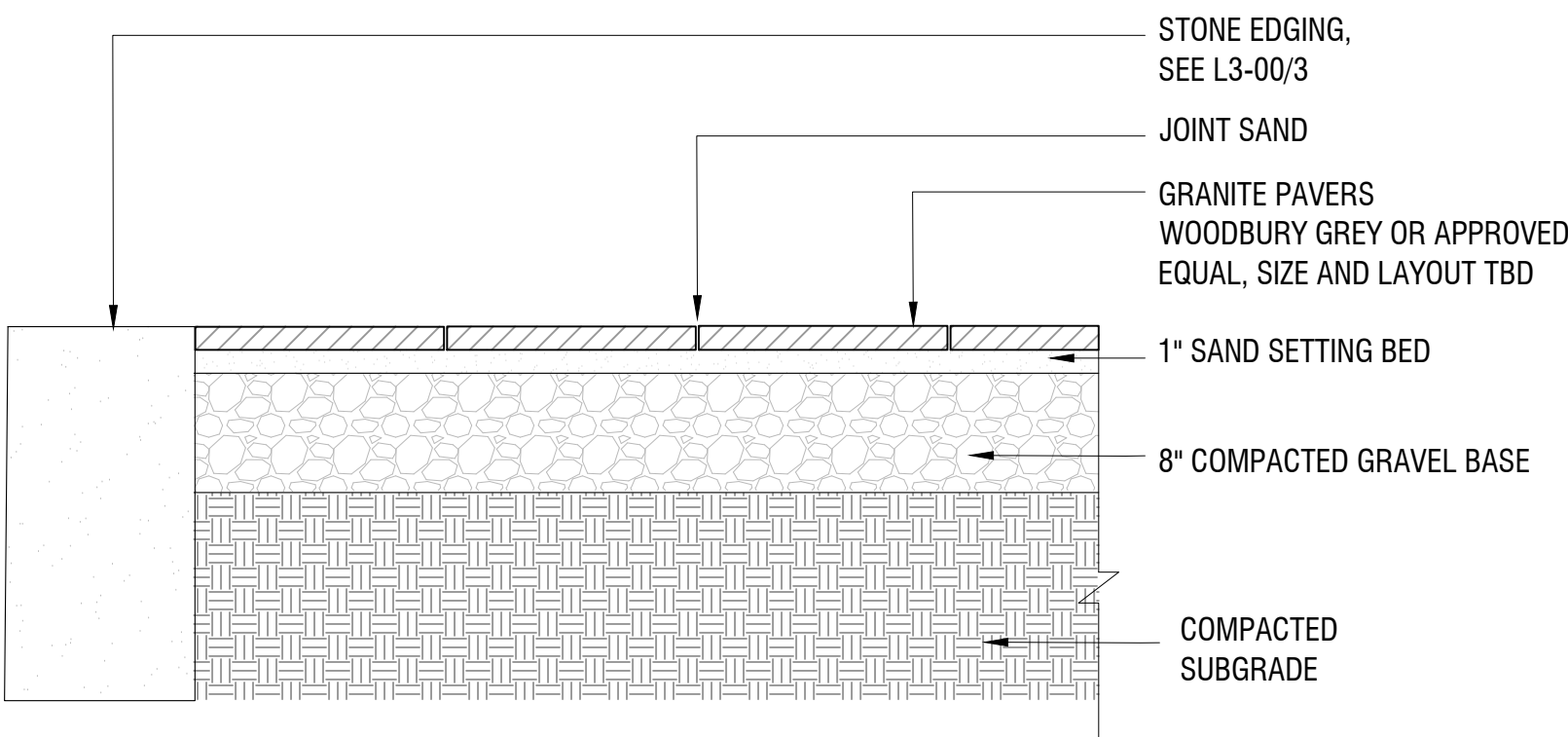
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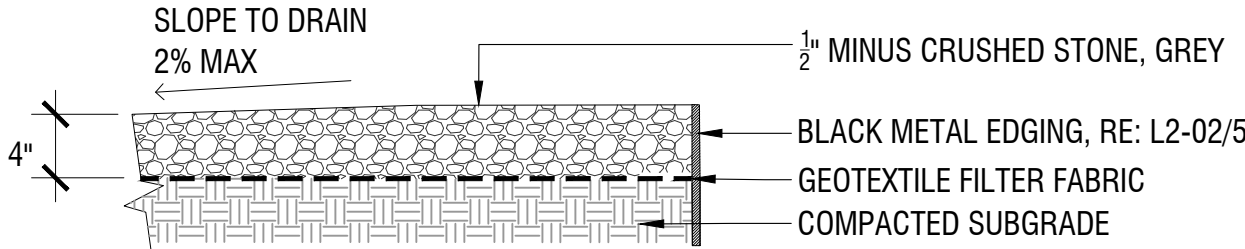
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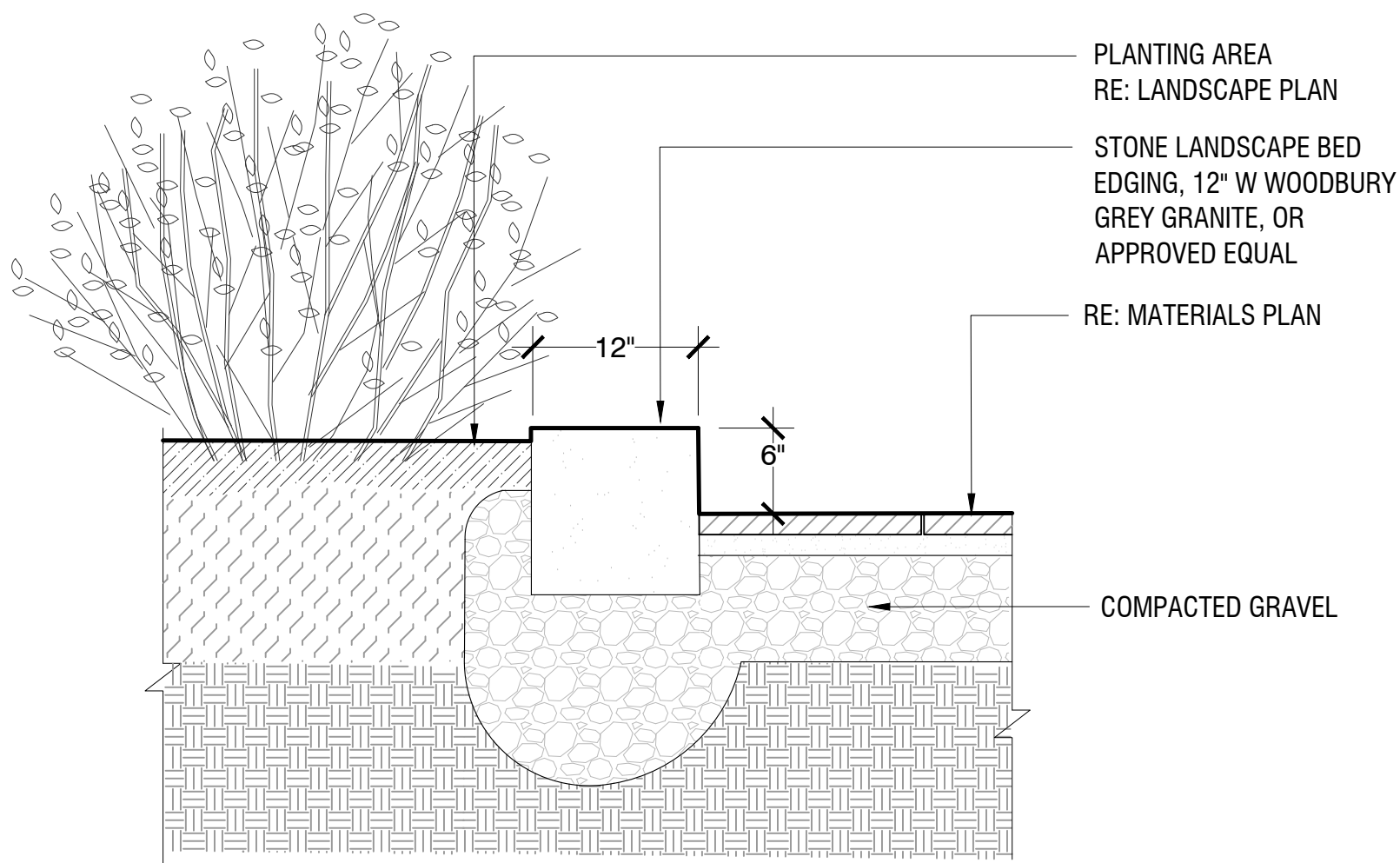




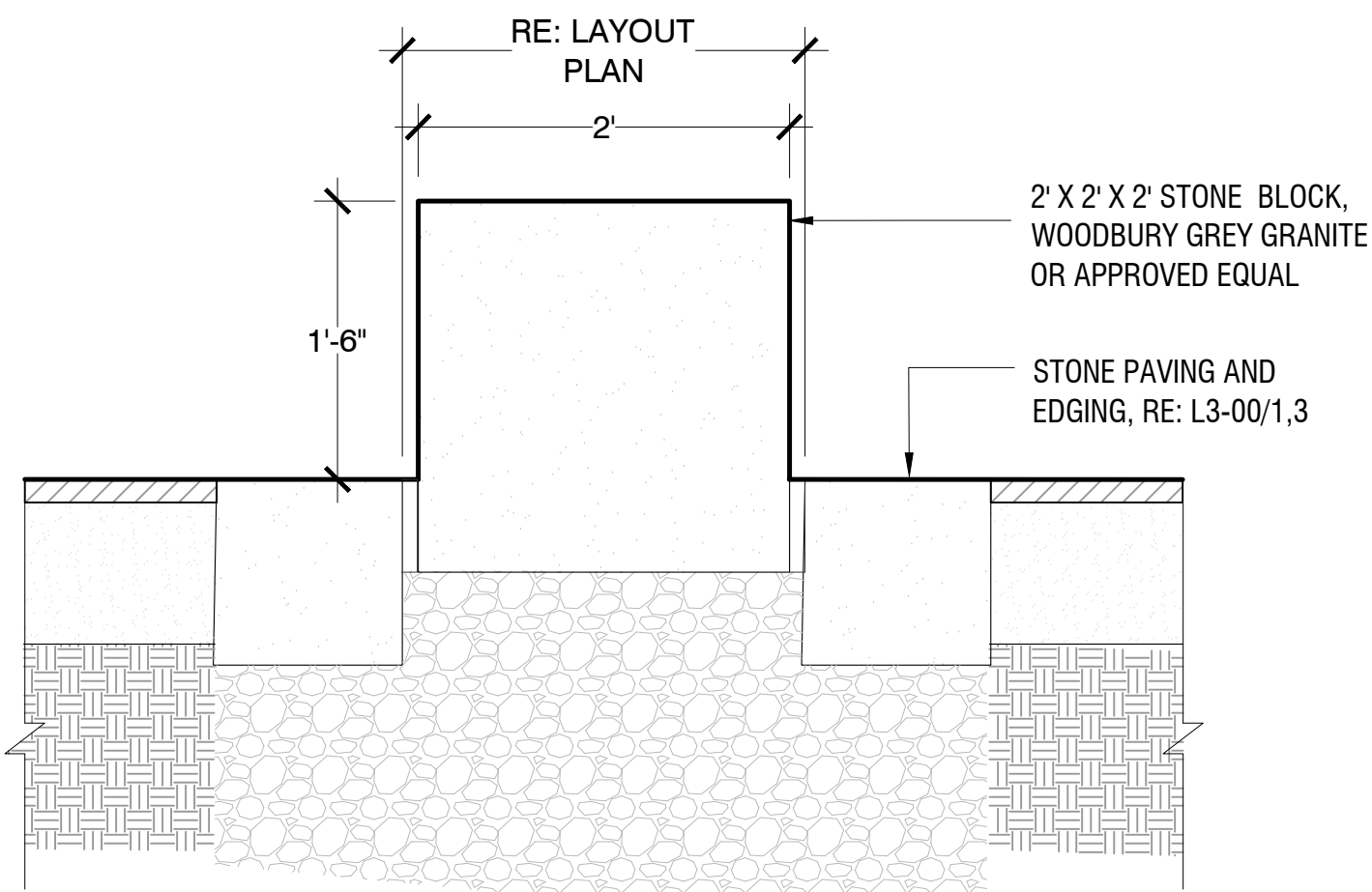
1 STONE PAVING
1":1'-0"



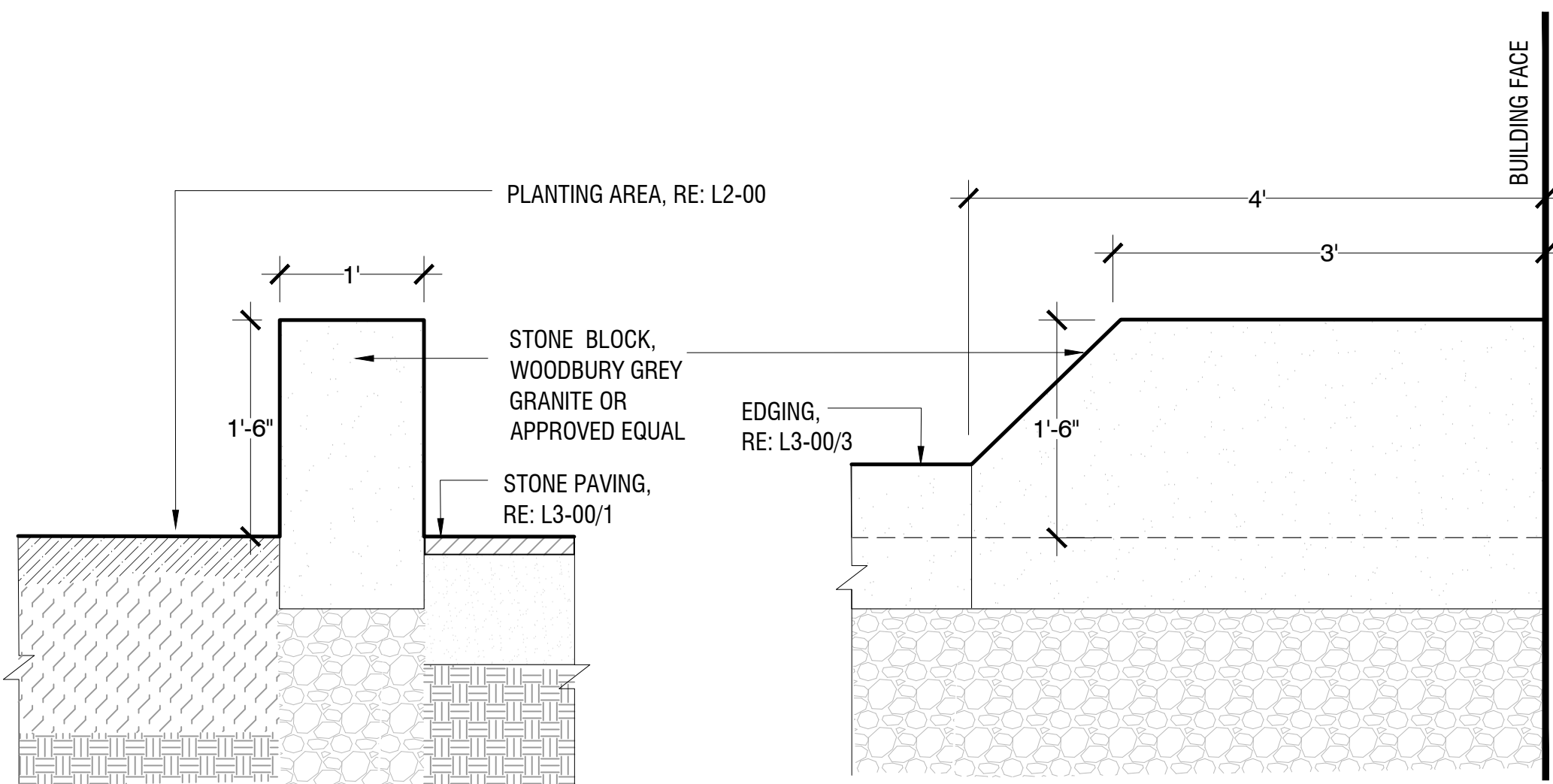
2 CRUSHED STONE
1":1'-0"



3 STONE EDGING
1":1'-0"



4 STONE BOLLARD
1":1'-0"



5 STONE CHEEK WALL
1":1'-0"

SITE KEYNOTES:

1.0	PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	6.0	RAILINGS, BARRIERS, FENCING	DETAIL / SHEET
1.1	CONCRETE PAVERS	1/L2-00	6.1	DUMPSTER FENCE	4/L2-01
1.2	CONCRETE PAVERS - ON STRUCTURAL SLAB	2/L2-00	6.2	4-FOOT FENCE	3/L2-01
1.3	CRUSHED STONE	3/L2-00			
1.4	STONE DUST	4/L2-00			
2.0	JOINTING		7.0	SITE LIGHTING	
X.X	NOT USED AT THIS TIME	X/XX-XX	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	BOULDER	4/L2-00	9.1	DECIDUOUS TREE PLANTING	1/L2-02
5.0	SITE FURNITURE		9.2	EVERGREEN TREE PLANTING	2/L2-02
5.1	BOARDFORM CONCRETE SEATWALL	1/L2-01	9.3	SHRUB PLANTING	3/L2-02
5.2	SEATWALL TOPPER- BACKED	1/L2-01	9.4	PERENNIAL PLANTING	4/L2-02
5.3	BICYCLE RACK	2/L2-01	9.5	METAL EDGING	5/L2-02
5.4	RAISED PLANTER	5/L2-01	10.0	MISCELLANEOUS ELEMENTS	
			10.1	CHALK WALL	5/L2-00



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
COMMENT RESPONSE	03.02.2022

ISSUE DATE

SITE PLAN REVIEW
DECEMBER 01, 2021

SHEET TITLE

LANDSCAPE
DETAILS

SHEET INFORMATION

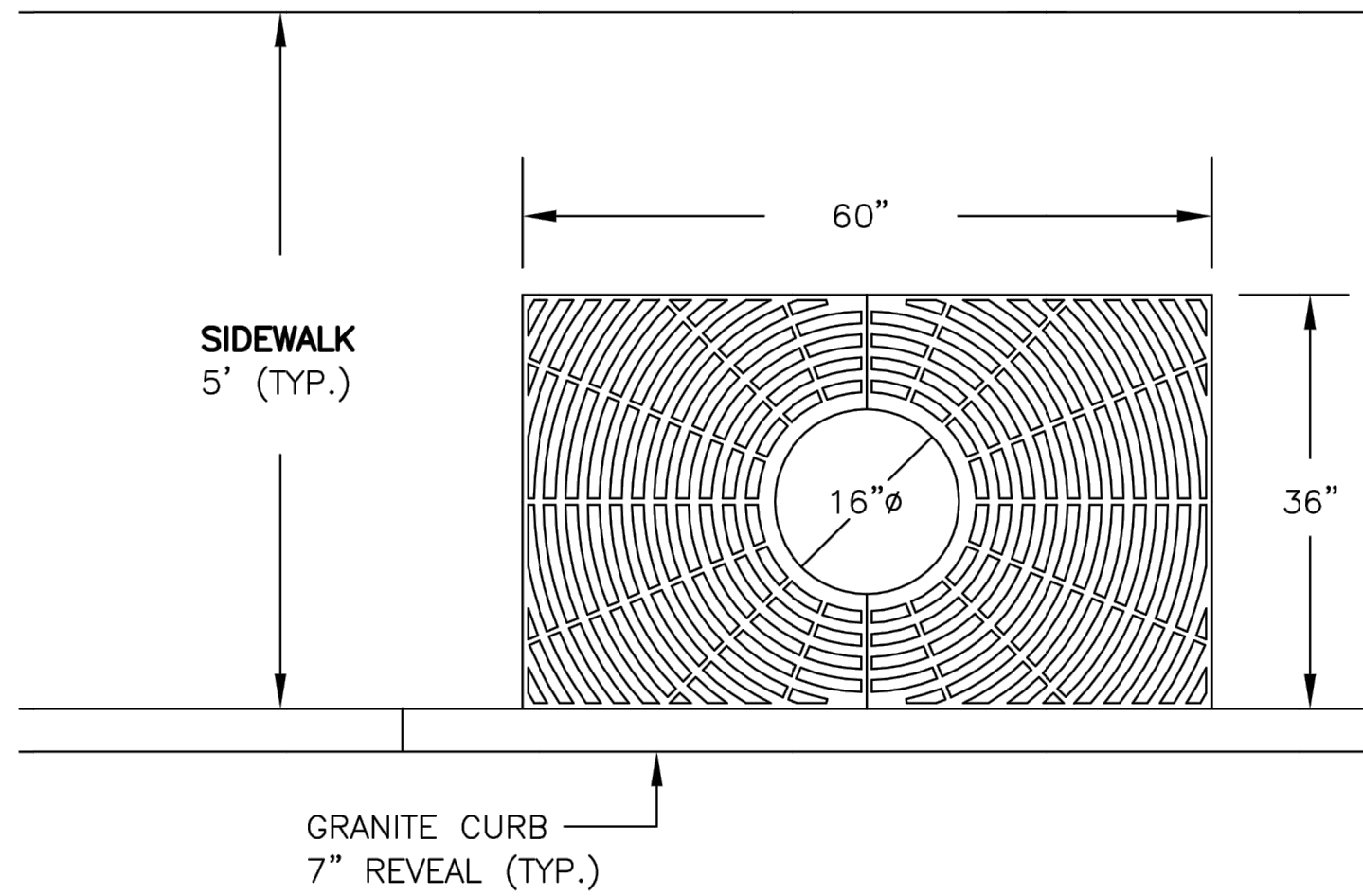
L 3-00
NOT FOR CONSTRUCTION

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

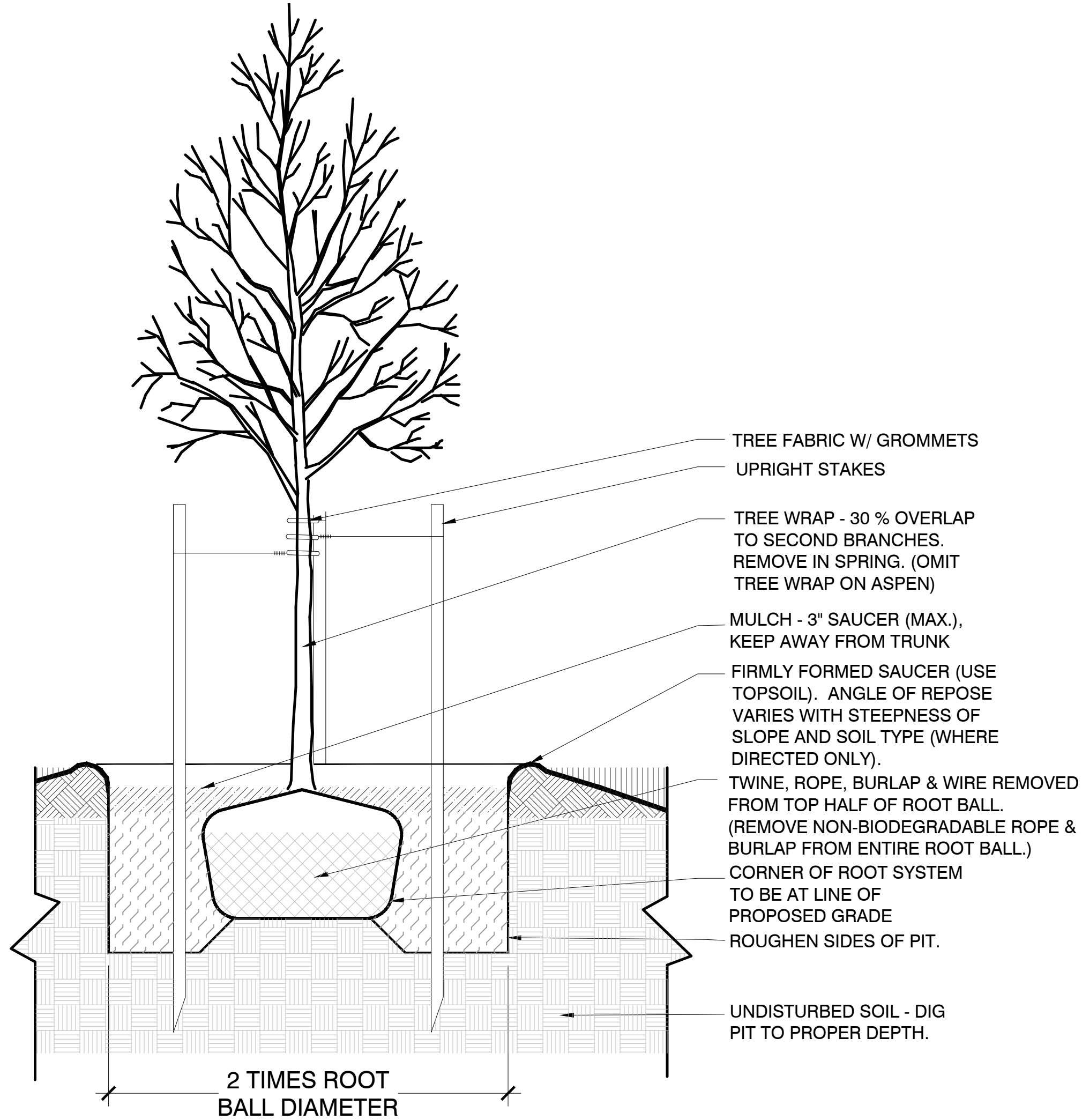
EXPANDABLE TREE GRATE
NEENAH MODEL R-8810

NOT TO SCALE

<http://www.nfco.com/literature/TreeGrateCatalog22/Avenue.pdf>

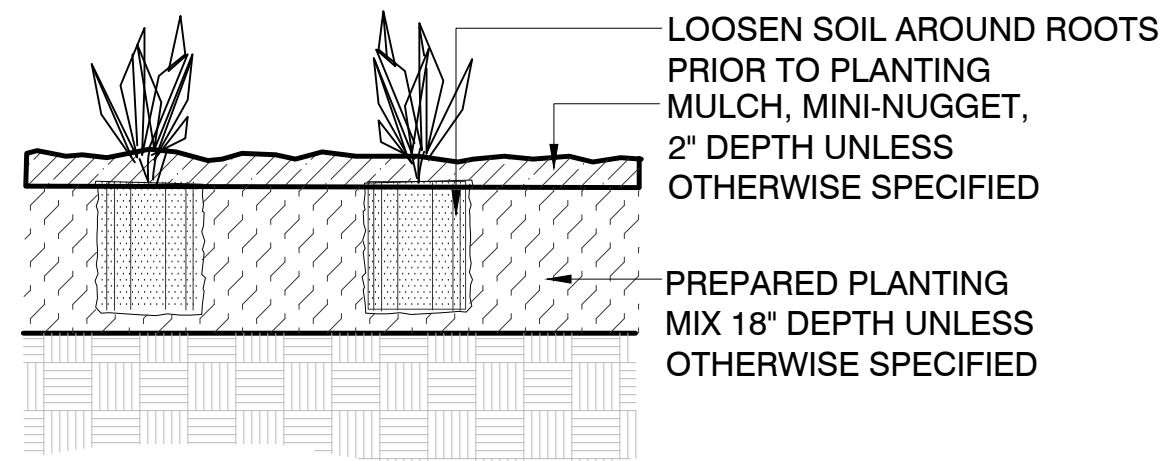
DATE: MARCH 2011 REVISED:	CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL	STDS FOR LANDSCAPING AND PRESERVATION OF EXISTING VEGETATION SECTION IV	FIGURE: IV-4A 134
---------------------------------	---	--	------------------------------------

2 TREE PLANTING
1":1'-0"

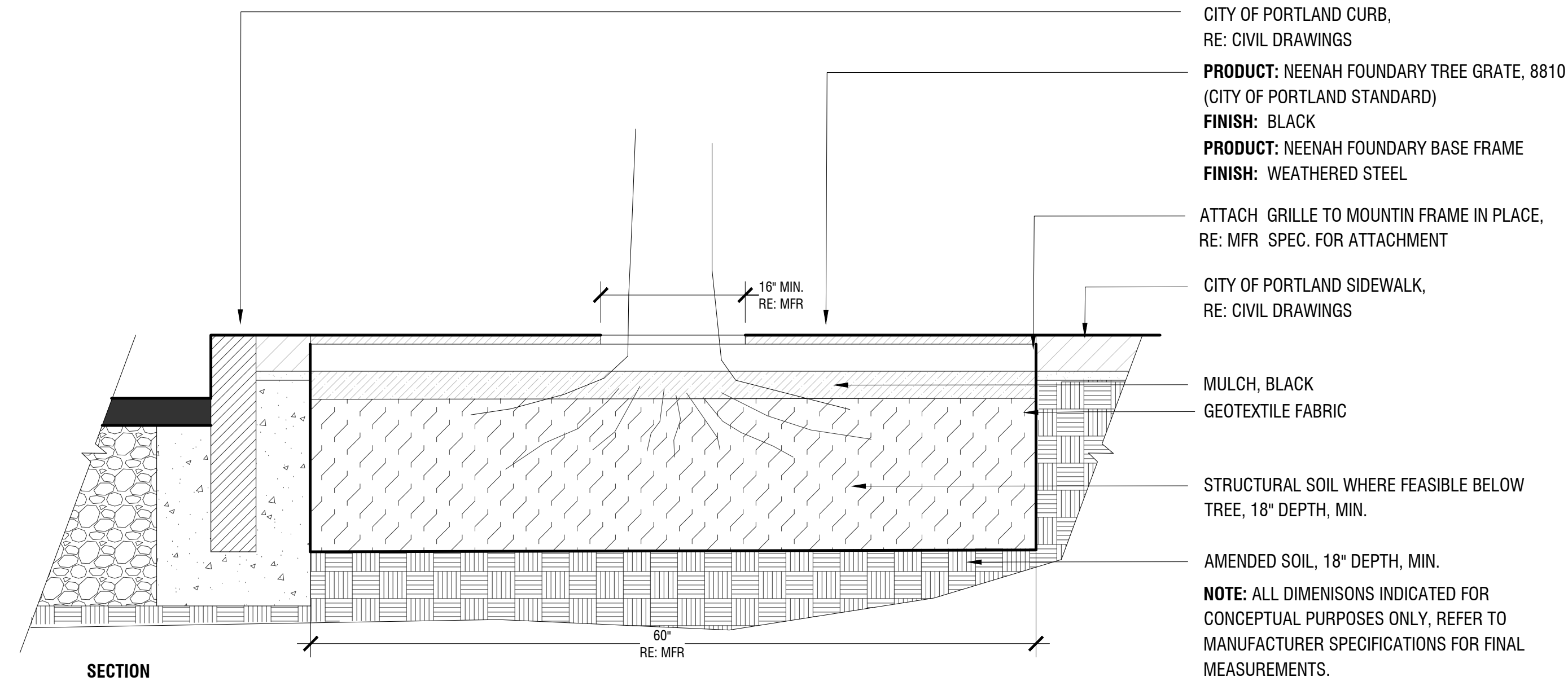


9.2

3 PERENNIAL & GRASS PLANTING
1":1'-0"



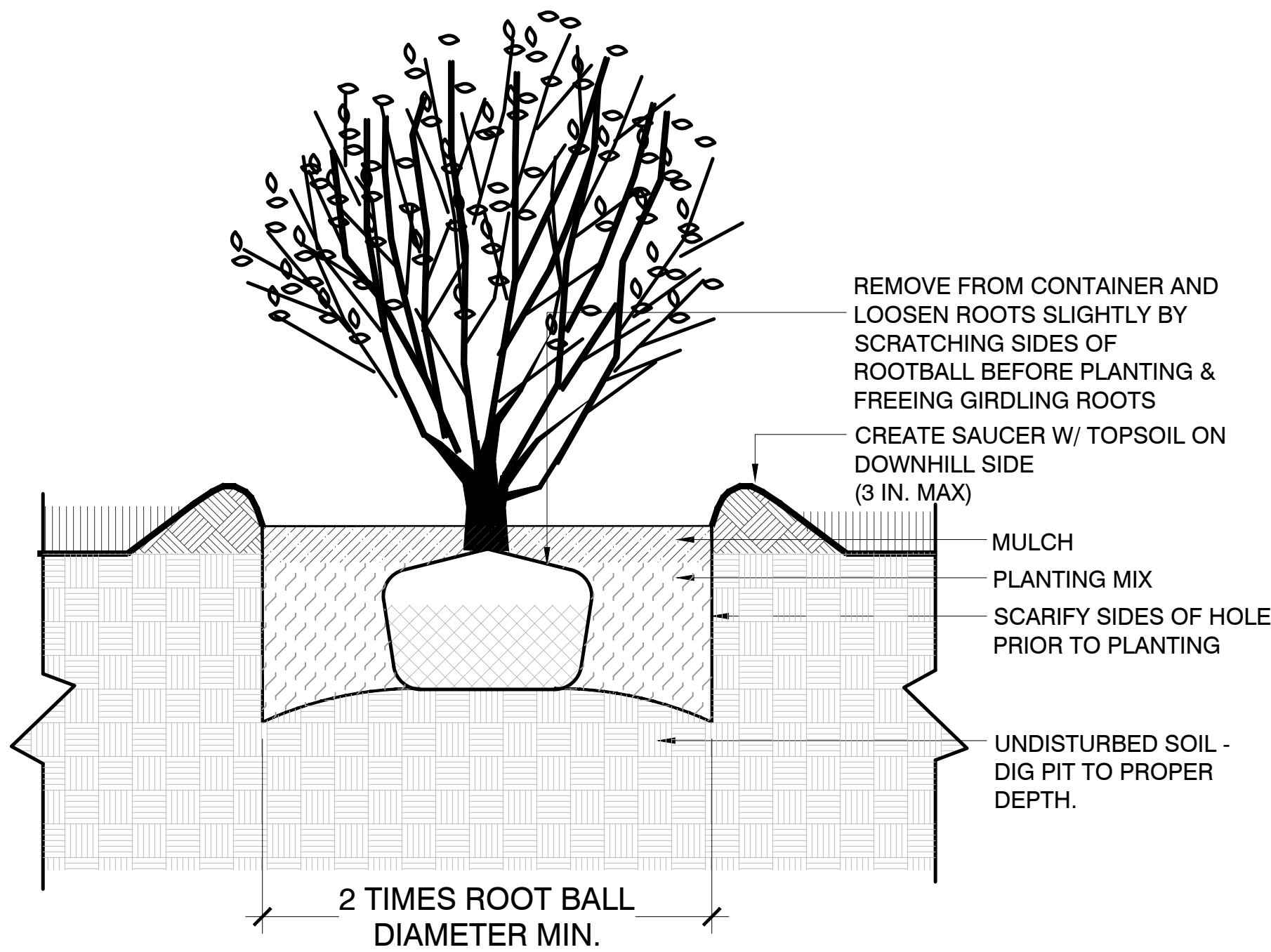
9.4



1 FLUSH TREE GRATE W FRAME
1":1'-0"

9.1

4 SHRUB PLANTING
1":1'-0"



9.3

SITE KEYNOTES:

1.0 PAVEMENTS, RAMPS, CURBS	DETAIL / SHEET	6.0 RAILINGS, BARRIERS, FENCING	DETAIL / SHEET
1.1 CONCRETE PAVERS	1/L2-00	6.1 DUMPSTER FENCE	4/L2-01
1.2 CONCRETE PAVERS - ON STRUCTURAL SLAB	2/L2-00	6.2 4-FOOT FENCE	3/L2-01
1.3 CRUSHED STONE	3/L2-00		
1.4 STONE DUST	4/L2-00		
2.0 JOINTING		7.0 SITE LIGHTING	
X.X NOT USED AT THIS TIME	X/XX-XX	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 BOULDER	4/L2-00	9.1 DECIDUOUS TREE PLANTING	1/L2-02
5.0 SITE FURNITURE		9.2 EVERGREEN TREE PLANTING	2/L2-02
5.1 BOARDFORM CONCRETE SEATWALL	1/L2-01	9.3 SHRUB PLANTING	3/L2-02
5.2 SEATWALL TOPPER- BACKED	1/L2-01	9.4 PERENNIAL PLANTING	4/L2-02
5.3 BICYCLE RACK	2/L2-01	9.5 METAL EDGING	5/L2-02
5.4 RAISED PLANTER	5/L2-01	10.0 MISCELLANEOUS ELEMENTS	
		10.1 CHALK WALL	5/L2-00

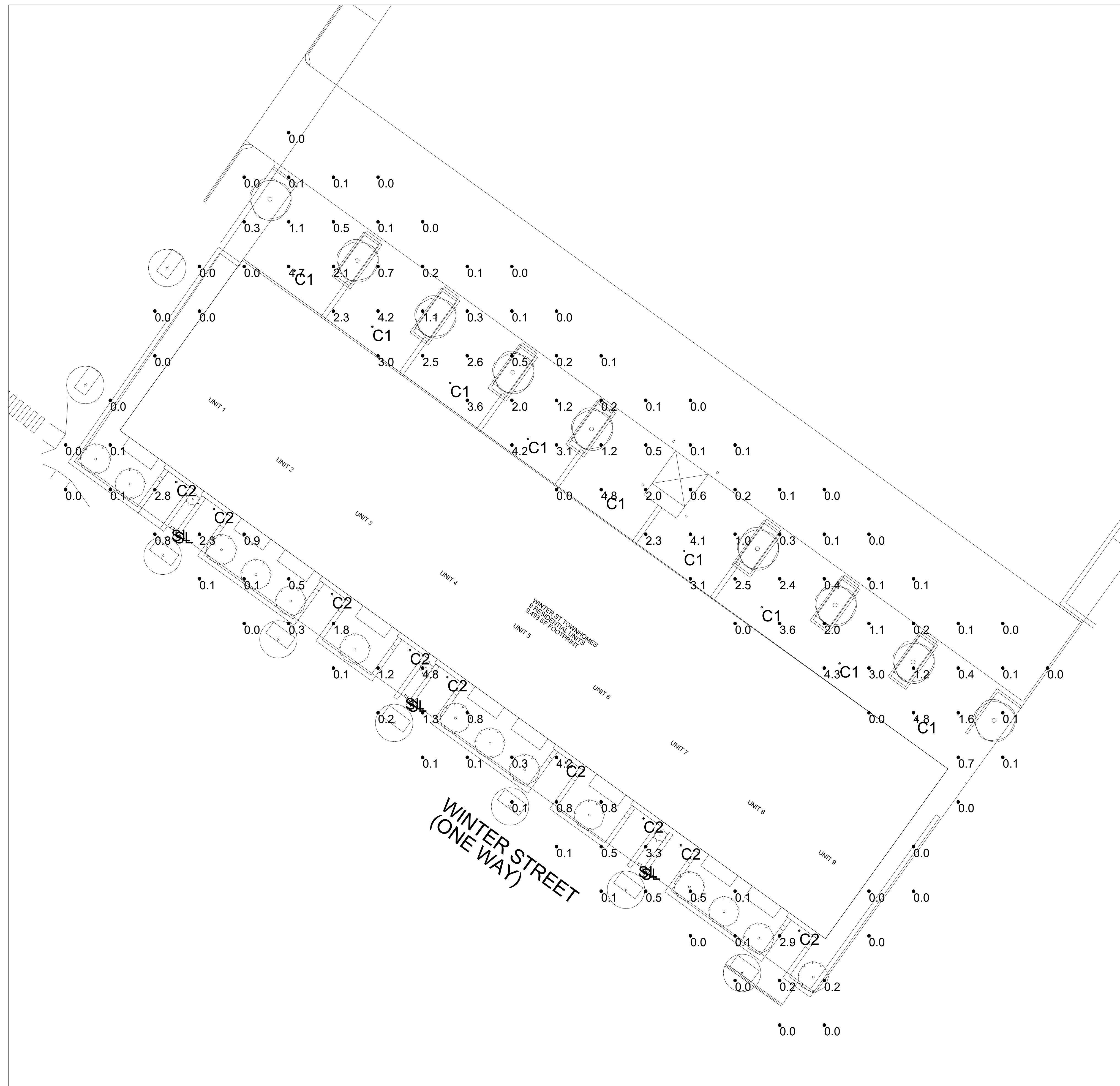
REVISIONS	DATE
COMMENT RESPONSE	03.02.2022











- 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

Page 1 of 1

Date: 12/1/2021

GENERATED BY SWANEY LIGHTING, SCARBOROUGH ME - 207-883-7100 - swaneylighting.com

NOTICE: THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SWANEY LIGHTING ASSOCIATES. ITS ACCEPTANCE CONSTITUTES AN AGREEMENT THAT THE DRAWING WILL BE TREATED AS CONFIDENTIAL AND NOT BE LOANED, REPRODUCED, COPIED, OR OTHERWISE DISSEMINATED. ANY INFORMATION CONCERNING THE OPERATION OF UNITS INDICATED, THIS DRAWING IS TO BE RETURNED UPON REQUEST AND IS NOT TO BE COMMUNICATED, DISCLOSED OR COPIED, EXCEPT AS EXPRESSLY AUTHORIZED BY SWANEY LIGHTING ASSOCIATES. ANY VIOLATION OF THESE TERMS OF AGREEMENT WILL BE CONSIDERED A BREACH OF CONTRACT. ANY PHOTOGRAPHS OF LIGHTING FIXTURES INCLUDED IN THIS DRAWING ARE PROVIDED USING FIXTURE PHOTOGRAPHS FURNISHED BY THE MANUFACTURER. ANY VARIATION IN FIXTURE PERFORMANCE FROM THE PERFORMANCE SHOWN IN FILES IS NOT THE RESPONSIBILITY OF THE MANUFACTURER. ITS USE FOR ANY OTHER PURPOSE IS NOT AUTHORIZED BY SWANEY LIGHTING ASSOCIATES.

SPACE AND BULK STANDARDS			
ZONE: B-3	REQUIRED	PROPOSED - WINTER ST LOT	PROPOSED - 102 STATE ST
MINIMUM LOT AREA	NONE	16,198 SF	28,827 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	12.2'	-
MAX IMPERVIOUS COVERAGE	100%	88%	94%
OFF STREET PARKING	9	27	88
NET RESIDENTIAL DENSITY		9	-
* 45' MAX HEIGHT WITHIN 30' OF WINTER STREET RIGHT OF WAY.			

GENERAL NOTES:

- FOR INFORMATION REGARDING PROPOSED GROUND LEVEL LAYOUT, REFER TO SITE PLAN, SHEET 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 PLAN, SHEET C-30, MOST RECENT VERSION.
- TOTAL SITE AREA FOR 102 STATE STREET INCLUDES 1.03 ACRES (45,025 SF).
- 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.
- R.O.W. WIDTHS FOR STATE STREET, SPRING STREET, AND WINTER STREET ARE 99', 50', AND 40' WIDE, RESPECTIVELY, PER BOUNDARY SURVEY COMPLETED BY OWEN HASKELL, INC. DATED AUGUST 2020.
- SITE BOUNDARIES PER BOUNDARY 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 COOPERRIDER, 167 NEWBURY STREET, #503 PORTLAND, MAINE, DATED AUGUST 2020.
- AS OF 5/19/2020, THE SITE IS BOUNDED BY THE B-3 ZONE ON ALL SIDES PER CITY REZONE APPROVAL.
- LOCUS PARCEL IS SHOWN ON THE CITY OF PORTLAND ASSESSOR'S MAP 45, BLOCK D, PARCEL 1.
- 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.
- THIS SHEET IS THE SUBDIVISION PLAT FOR THE CREATION OF UP TO NINE (9) DWELLING UNITS ON THE EXISTING SUBJECT PROPERTIES.
- THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SIDEWALKS, STORMWATER DEVICES, SITE LIGHTING, TRASH REMOVAL, RETAINING WALLS, AND SNOW REMOVAL.
- 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.
- THE PROPOSED DEVELOPMENT MUST COMPLY TO THE FOLLOWING AS APPROVED BY THE CITY:
 - POST-CONSTRUCTION STORMWATER MANAGEMENT AGREEMENT: BOOK: _____ PAGE: _____

SURVEY NOTES:

- PREMISES IS SHOWN AS 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.
- PLAN REFERENCE NOTES:
 - "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.

CONDITIONS OF APPROVAL:

WAIVERS:

STATE OF MAINE, CUMBERLAND, ss
REGISTRY OF DEEDS

RECEIVED _____

AT ____ hr. ____ min. ____ m AND RECORDED

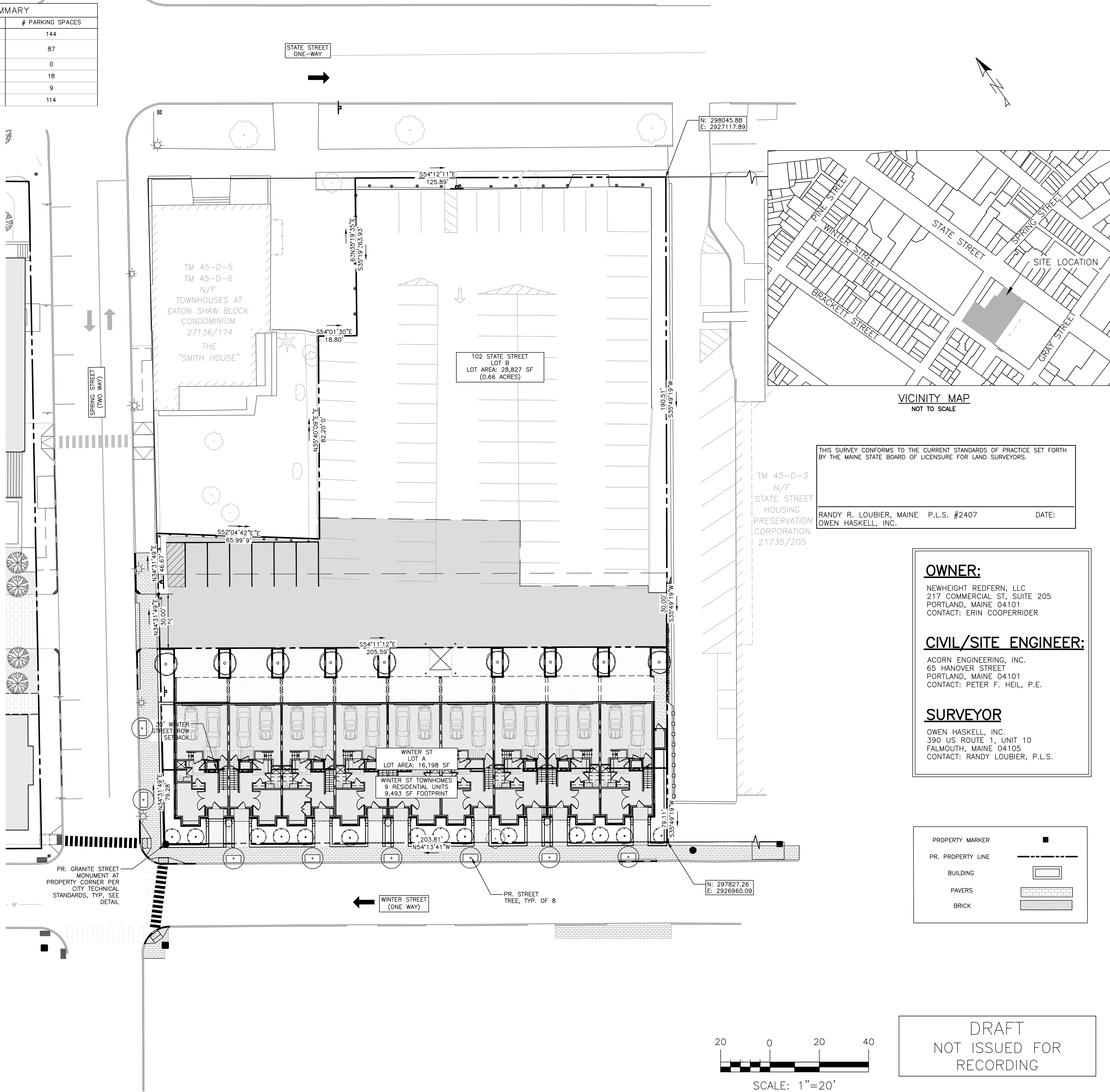
IN PLAN BOOK _____, PAGE _____

ATTEST: _____
REGISTER

APPROVED: PORTLAND PLANNING BOARD

CHARPERSON: _____ DATE: _____

PARKING SUMMARY	
EXISTING	# PARKING SPACES
STANDARD - NORTH PARCEL (9'X18')	87
COMPACT - NORTH PARCEL (9'X16')	0
STANDARD - SOUTH PARCEL (9'X18')	18
COMPACT - SOUTH PARCEL (9'X16')	9
TOTAL PROPOSED SPACES	114



THIS SURVEY CONFORMS TO THE CURRENT STANDARDS OF PRACTICE SET FORTH BY THE MAINE STATE BOARD OF LICENSURE FOR LAND SURVEYORS.

RANDY R. LOUBIER, MAINE P.L.S. #2407 DATE: _____

OWEN HASKELL, INC.

OWNER:

NEWHEIGHT REDFERN, LLC
217 COMMERCIAL ST, SUITE 205
PORTLAND, MAINE 04101
CONTACT: ERIN COOPERRIDER

CIVIL/SITE ENGINEER:

ACORN ENGINEERING, INC.
65 HANOVER STREET
PORTLAND, MAINE 04101
CONTACT: PETER F. HEIL, P.E.

SURVEYOR

OWEN HASKELL, INC.
390 US ROUTE 1, UNIT 10
FALMOUTH, MAINE 04105
CONTACT: RANDY LOUBIER, P.L.S.

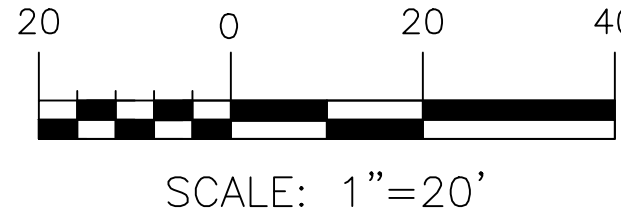
PROPERTY MARKER

PR. PROPERTY LINE

BUILDING

PAVERS

BRICK



DRAFT
NOT ISSUED FOR
RECORDING

ISSUED FOR: _____ BY: _____ DATE: _____

CSS SUBMISSION: _____ PPH: 10/29/21

SITE PLAN SUBMISSION: _____ PPH: 10/29/21

COMMON RESPONSE: _____ PPH: 3/2/22

SUBDIVISION PLAT

WINTER STREET TOWNHOMES
PORTLAND, MAINE

NEWHEIGHT REDFERN, LLC
167 NEWBURY STREET, SUITE 503 PORTLAND, ME, 04101

ACORN ENGINEERING, INC.
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

FILE: 1140.1_CIVIL
JN: 1140.1
SCALE: AS NOTED
DESIGNED BY: MKT
DRAWN BY: MKT
CHECKED BY: PPH

DRAWING NO.
PLAT

WINTER STREET TOWNHOMES

PORTLAND, MAINE

NOVEMBER 3, 2021

1



1 VIEW FROM SPRING STREET INTERSECTION



2 VIEW FROM ACROSS WINTER STREET



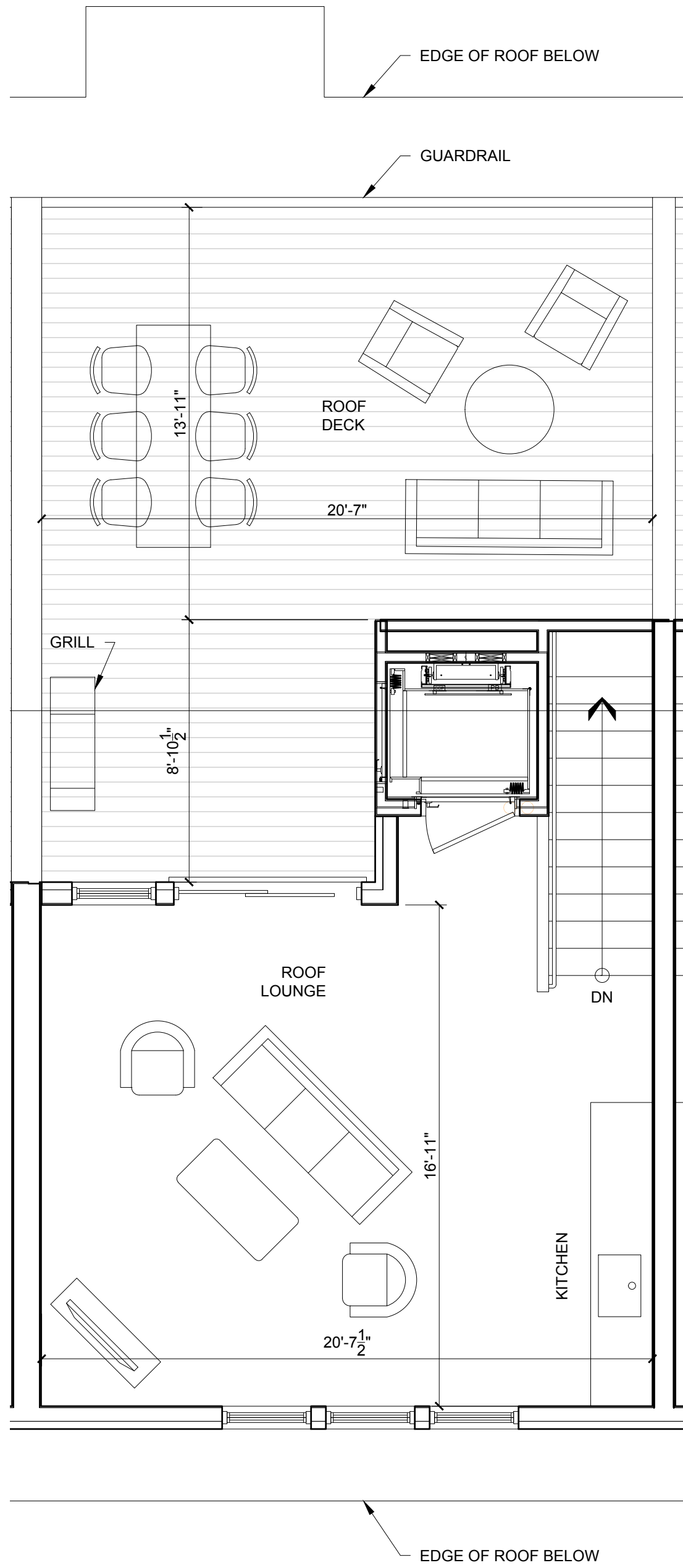
3 VIEW FROM DOWN WINTER STREET



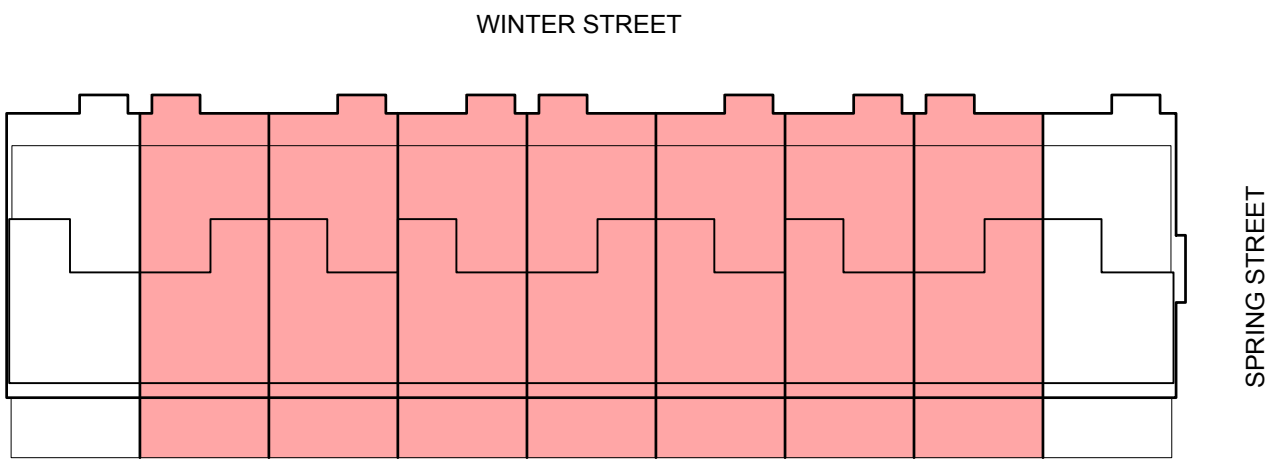
4 VIEW FROM FRONT ENTRY WALK

PROGRESS PRINT ONLY
Not for Construction

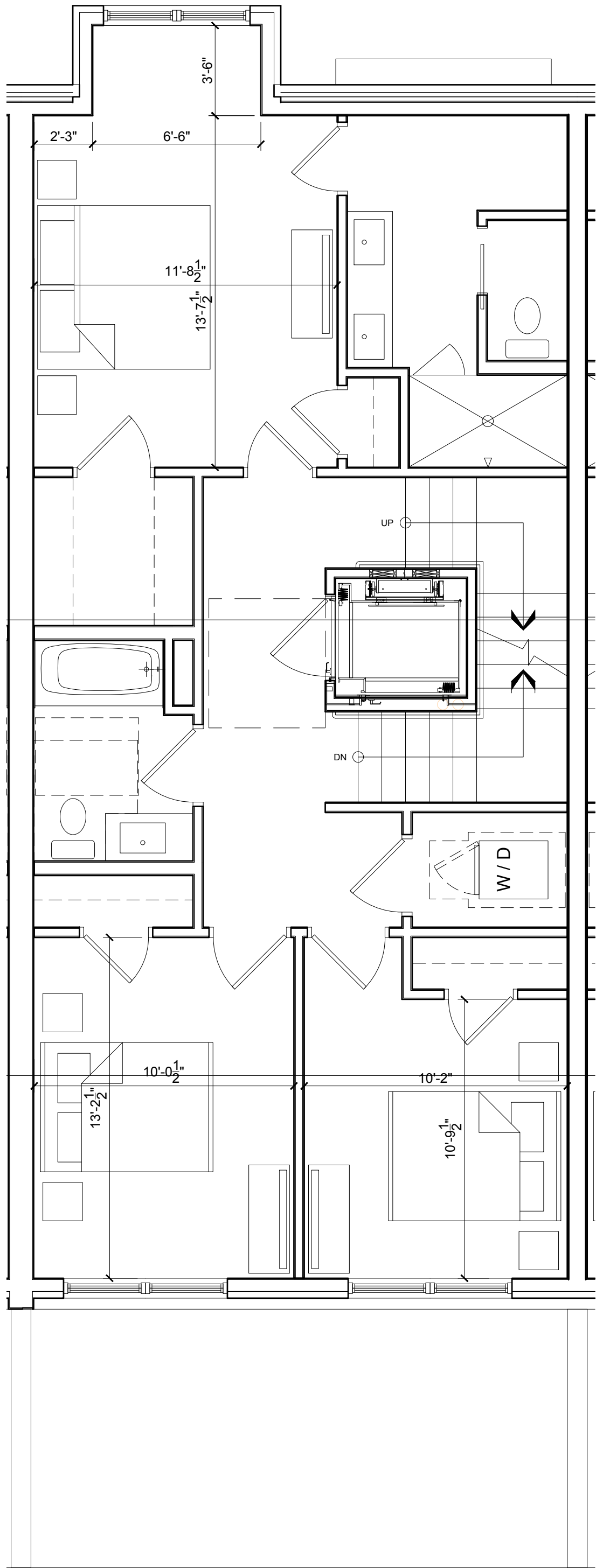
RYAN SENATORE **ARCHITECTURE**



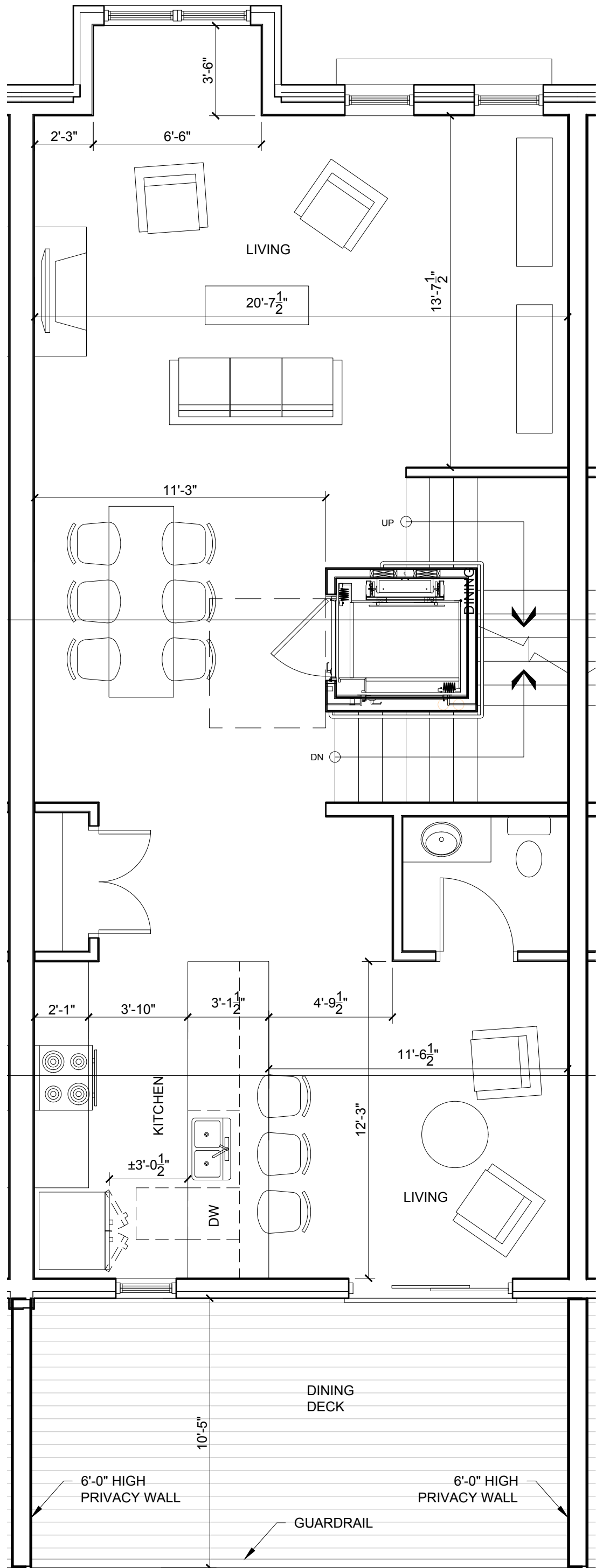
4 ROOF PLAN
1/4" = 1'-0"



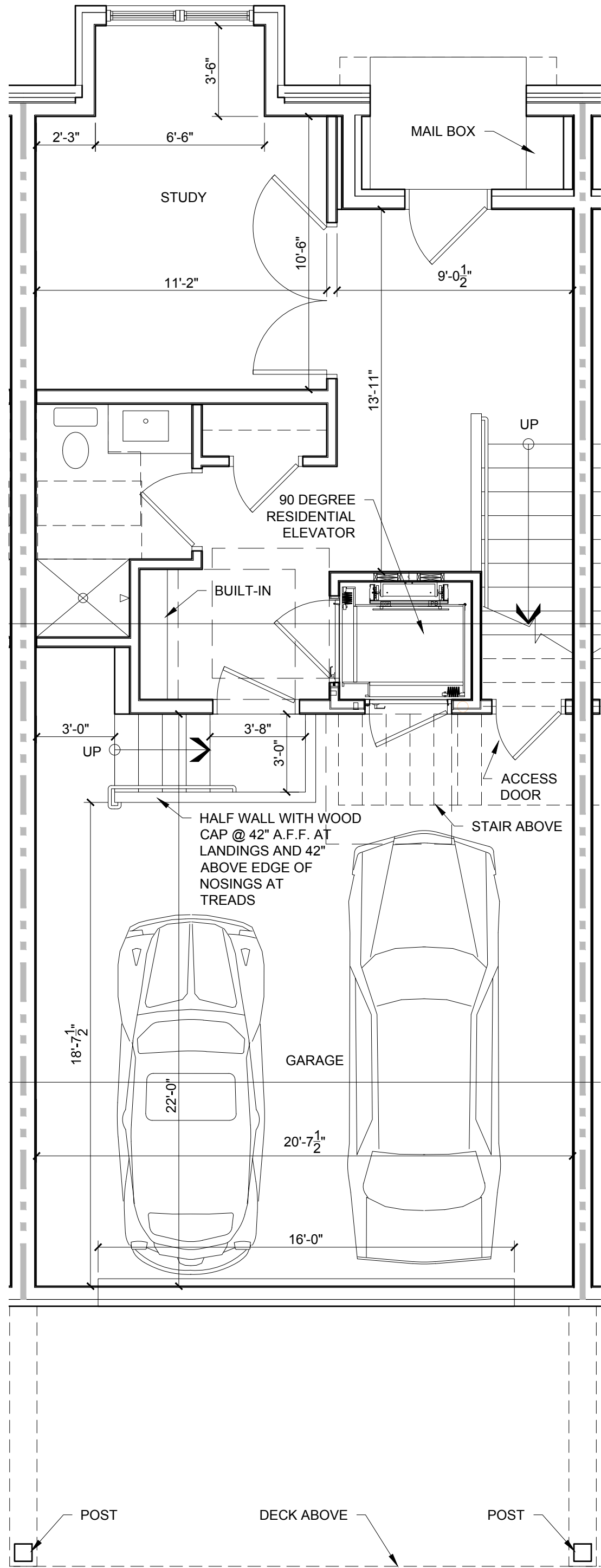
5 KEY PLAN
1/32" = 1'-0"



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

PROGRESS PRINT ONLY
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