

CITY OF PORTLAND, MAINE

PLANNING BOARD



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

AGENDA PORTLAND PLANNING BOARD MEETING

The Planning Board will hold a remote meeting on Tuesday, September 8, 2020, 4:30 pm. This meeting will take place using Zoom.

Virtual meetings are allowed using emergency legislation approved by LD 2167; 1 M.R.S. §403-A, that authorizes cities and towns to conduct meetings online.

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

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 un-muted by the host when it is time for public comment.

ZOOM MEETING INSTRUCTIONS

You are invited to a Zoom webinar.

When: Sep 8, 2020 04:30 PM Eastern Time (US and Canada)

Topic: Planning Board Workshop and Public Hearing 09/08/2020

Please click the link below to join the webinar:

<https://us02web.zoom.us/j/89877582584>

Or iPhone one-tap :

US: +13126266799,,89877582584# or +19292056099,,89877582584#

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Webinar ID: 898 7758 2584

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Public comments will be taken for each item on the agenda and written comments should be submitted to planningboard@portlandmaine.gov

WORKSHOP - 4:30 PM

- i. Level III Site Plan and Conditional Use; 40 West Commercial Street; Maine International Cold Storage Facility, LLC., Applicant. (estimated time 4:30 - 6:00 pm) The Planning Board will hold a workshop to consider a proposal for a 108,024 square foot cold storage facility and associated site improvements at 40 West Commercial Street. The proposed structure is a single-story warehouse building that measures 75 feet in height at its highest point. The subject property is a vacant 17.9 acre parcel and is located within the Waterfront Port Development Zone.
- ii. Zoning Map Amendment; 163 Washington Avenue; Newsclapes, Inc., Applicant. (estimated time 6:00 - 7:00 pm) The Planning Board will hold a workshop to consider a zoning map amendment to facilitate the rezoning of 163 Washington Avenue from a B-1 Business zone to a B-2 Business zone. The subject property is 6,398 square feet in size.

PUBLIC HEARING - 7:00 PM

1. ROLL CALL AND DECLARATION OF QUORUM

2. COMMUNICATION AND REPORTS

3. REPORT OF ATTENDANCE AT THE MEETING HELD ON 8-18-2020

83 Middle Street: Chann, Dundon, Dunfey, Mazer and Smith present; Silk and Stanley recused.

210 Valley Street: Chann, Dundon, Dunfey, Mazer, and Smith present; Silk and Stanley recused.

126-128 North Street: Chann, Dundon, Dunfey, Mazer and Smith present; Silk and Stanley absent.

4. REPORTS OF DECISIONS AT THE MEETING HELD ON 8-18-2020

- i. Level III Subdivision; 83 Middle Street; Community Housing of Maine, Applicant. Dundon moved and Chann seconded a motion to find the proposed conditional use for workforce housing to meet the standards of Section 14-484 of the Land Use Code with one condition of approval. Vote 5-0, Silk and Stanley recused. Dundon moved and Dunfey seconded a motion to approve the subdivision with five conditions of approval. Vote 5-0, Silk and Stanley recused. Dundon moved and Dunfey seconded a motion to reduce the parking requirement to 16 parking spaces with one condition of approval. Vote 5-0, Silk and Stanley recused.
- ii. Level III Site Plan and Subdivision; 210 Valley Street; Avesta Valley Street, LP., Applicant. Dundon moved and Dunfey seconded a motion to waive the Technical Manual standard requiring a twenty-four foot-wide drive aisle for two-way access aisles with ninety degree parking to allow a driveway aisle width of twenty feet. Vote 5-0, Silk and Stanley recused. Dundon moved and Dunfey seconded a motion to waive the Technical Manual standard requiring a minimum driveway width of twenty feet to allow a driveway of eighteen feet in width. Vote 5-0, Silk and Stanley recused. Dundon moved and Chann seconded a motion to find the proposed conditional use for workforce housing to meet the standards of Section 14-484 of the Land Use Code. Vote 5-0, Silk and Stanley recused. Dundon moved and Dunfey seconded a motion to approve the subdivision with two conditions of approval. Vote 5-0, Silk and Stanley recused. Dundon moved and Dunfey seconded a motion to approve the site plan. Vote 5-0, Silk and Stanley recused.
- iii. Level III Site Plan and Subdivision; 126 and 128 North Street; Upright Properties, LLC., and Josh Wojcik, Co-Applicants. Dundon moved and Dunfey seconded a motion to table the site plan application for 126-128 North Street to the next available meeting of the Planning Board. Vote 5-0, Silk and Stanley absent.

5. NEW BUSINESS

- i. Level III Site Plan and Subdivision; 126 and 128 North Street; Upright Properties, LLC., and Josh Wojcik, Co-Applicant. (estimated time 7:00 pm) The Planning Board will hold a remote public hearing on a proposal to develop a three-story, six-unit apartment building at 126 North Street and a four-story, six-unit condominium building with ground floor parking at 128 North Street. Two workforce housing units would be provided within the proposed development. The development site is located within an R-6 zone and the Munjoy Hill Neighborhood Conservation Overlay District.

Memorandum
Planning and Urban Development Department
Planning Division



To: Brandon Mazer, Chair, and Members of the Portland Planning Board
From: Christian Roadman, Planner
Date: September 4, 2020
Re: Cold Storage Facility, 40 West Commercial Street
Project #: PL-001042-2020 CBL: 059 A001
Meeting Date: September 8, 2020



Context of proposed project at 40 West Commercial Street (highlighted in teal)

I. INTRODUCTION / PROPOSED DEVELOPMENT

Maine International Cold Storage Facility, LLC seeks to build a 107,203 gross square foot cold storage facility on state-owned land located at 40 West Commercial Street. This large-scale refrigerated warehouse facility, which would be the only one of its kind in Portland, is intended to support marine-related and other intermodal commerce. While the height of the proposed facility varies (up to 75 feet, based on interior program and zoning restrictions) the entire building is proposed as one story. Future expansion is possible under the current proposal.

The 17.9 acre development site is located adjacent to the International Marine Terminal (IMT) and proposes an interior connection to that site. A significant feature of the proposed site plan is its accommodation of trucks for loading and delivery. While this is central to the project's purpose, Planning staff note expanses of pavement intended for vehicular maneuvering or parking that could be reduced or eliminated to reduce the level of hardscape on the site.

The September 8 Planning Board meeting will be the project's second workshop. A previous workshop, held on June 23, introduced the project and initial site / design considerations. This workshop is intended to focus on transportation impacts and follow up on site design concerns.

The Planning Department sent 83 notices for this workshop to the owners of property within 500 feet of the property in question. Legal advertisements ran August 28 and 29.



Rendering of proposed project at 40 West Commercial Street, in context viewed from the east (image: Applicant)

II. TRAFFIC, TRANSPORTATION, & PARKING CONSIDERATIONS

The proposed project is located at a challenging and congested intersection of the City. The immediate impacts of the proposed project are fairly limited due to a small number of employees and the specificity of the site's use, but come in the context of broader operations at the International Marine Terminal.

The City's consulting traffic engineer reviewed a traffic study provided by the applicant (**Attachment X**) and provided review comments (**Attachment 1**). A Traffic Movement Permit is not required of this project. The consulting traffic engineer noted that "the level of traffic [to be produced by the project] would not be expected to have a significant impact on the area roadway system." However, as the project is anticipated to produce 24 morning peak hour truck

trips, they suggest that the applicant's transportation demand management program include a program to spread this anticipated truck traffic further into non-peak hours. Approximately 12 truck trips are anticipated during the PM peak hour.

Additionally, the consulting traffic engineer suggested that the applicant install two traffic-management devices to the West Commercial Street, Beach Street, and site driveway intersection: an adaptive traffic control device with advance radar detection and a "blank out" sign mandating turn restrictions in the presence of bicyclists and pedestrians. While the former is intended to smooth traffic flow, the latter is intended to promote pedestrian and bicyclist safety. Aside from the aforementioned congestion, the intersection in question is designated a high crash location.

The applicant provided a short Transportation Demand Management narrative as part of their traffic study, which should be enhanced before approval. Specifically, staff request firm best-practice commitments from the applicant (such as subsidized bus fare for employees of the facility). Such commitments could then be used to estimate an anticipated vehicle trip reduction.

The Transportation Demand Management narrative appears to confirm that parking spaces could be reduced. While back to back shifts of 10 workers each could yield an overlapping demand for parking spaces, 20 spaces could accommodate this maximum demand; however, 30 parking spaces are provided. Additionally, the truck deliveries to the facility's 12 loading bays will be scheduled – so the 12 truck parking stalls should not be necessary.

Even without reduction of parking stalls, reduction in pavement by minimizing potential truck movements may be possible per the Department of Public Works (DPW) senior engineer's review (**Attachment 2**). They support reducing the proposed driveway width (which requires a waiver) so that a vehicle turning in or out can be accommodated instead of a design which accommodates both movements at the same time. Per their comments: "as truck arrivals and departures are relatively infrequent, and scheduled, the risk of significant conflict is low."



Intersection of West Commercial Street, Beach Street, and the project's site driveway. North is rightward in this image.

Applicant: Maine International Cold Storage Facility, LLC

Consultants: Woodard & Curran, Inc. (civil engineering); CWS Architects (building design)

III. REQUIRED REVIEWS

Waiver Requests	Applicable Standards
1. Retain existing driveway width of ~108 f.	Technical Manual Section 1.7.2.4: maximum driveway widths shall not exceed 30 ft. for industrial uses.
2. Twelve non-standard parking spaces of 12 x 55 ft. (intended for trucks)	Technical Manual Section 1.14: parking space measurements of 9 x 18 ft.
3. Parking lot drive aisle width of ~116 ft.	Technical Manual Figure I-27: 24 ft. parking drive aisle width.
4. Exemption from south-side sidewalk along West Commercial Street. (Shared-use path infrastructure contribution anticipated)	Land Use Code Sections 14-498, 14-526, 14-506: requiring sidewalks to be constructed on each side of each street
5. Exemption from stormwater flooding standard, because of discharge into tidally-influenced waterbody.	Technical Manual Section 5.III, 5.IV
Review	Applicable Standards
Site Plan	Section 14-526
Conditional Use (Cold Storage Facility)	Sections 14-320 and 14-474
Site Location of Development	Technical Manual Section 14

IV. PROJECT DATA

Existing Zoning	Waterfront Port Development Zone
Existing Use	Industrial, Storage, Vacant
Proposed Use	Industrial, Cold Storage Facility
Property Size	779,724 sf.

	Existing	Proposed	Net Change
Building Footprint (sf.)	0	107,203	+107,203
Building Floor Area (sf.)	0	107,203	+107,203
Impervious Surface Area (sf.)	97,285	217,800	+120,515
Parking Spaces	0	30 standard, 12 truck spaces	+42
Bicycle Parking Spaces	0	6	+6

V. EXISTING CONDITIONS

The property upon which the applicant proposes to develop the cold storage facility is a large state-owned site. While it sits in a generally industrial area along West Commercial Street, it is geographically close (approximately 500 feet) to neighborhoods and residences on the peninsula's West End. According to the applicant (**attachment C**), the site, which is now mostly cleared, previously housed a natural gas / propane distribution facility. Abutting the site to the west is a boat repair and sale yard. On the same property, to the north as well as to the west of the proposed cold storage facility, are storage areas for shipping containers at the IMT. A railroad spur ends at the site.

The IMT is a large facility, the operations of which include loading and unloading of cargo ships and storage of shipping containers. The proposed cold storage facility is proposed as a symbiotically beneficial complement to the IMT, providing more efficient storage of shipped goods requiring refrigeration.

While the zoning for conditional uses on the property allows up to 75 feet in height, such a proposal represents a significant change from the generally level and unobstructed view currently available through the site, including from

the nearby west end neighborhoods situated up the hill. The area was rezoned in 2017 to allow for additional height to help ensure continued viability of the western waterfront for such uses, following a public process including the surrounding neighborhood, concerned residents and stakeholders. The property's southern length is entirely bound by the Fore River.

The applicant describes the development site in their location of development report (**Attachment Z**):

“The area of the 17.9-acre property where the Cold Storage Facility is proposed is currently vacant. There are remnant concrete slabs and pavements, site lights, transformer pads, railroad tracks, and gravels that will be removed. Other portions of the property, outside of the proposed Cold Storage Facility, are currently being used for various IMT operations. There is also a gas facility operated by Unitil located on the parcel.” These existing conditions can be viewed on the site survey (**Attachment W**).

VI. PUBLIC COMMENT AND NEIGHBORHOOD MEETING

The applicant held a remote neighborhood meeting on June 10, 2020, as attested in certification documents (**Attachment U**). According to the provided minutes, questions were asked and answered regarding potential noise from trucks and the facility, building height and capacity, environmental and health impacts of construction, proposed and potential future usage, landscaping, and other project-related specifics.

As of the writing of this report, the Planning Department received 17 public comments (**PC1 – PC17**) expressing concern about the project, specifically relating to its need / economic feasibility, the size of the proposed building, its impacts on views, traffic, pollution, noise, and its appropriateness per zoning.

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

The applicant provided a deed of convenience evidencing the Maine Department of Transportation's ownership of the property in question, and an option to ground lease and subsequent extension (**Attachment E**) between the Maine Port Authority and Maine International Cold Storage Facility, LLC.

The applicant also provided a letter with holdings information (**Attachment J**) from Amber Infrastructure Group, a partner in the project, to evidence financial capacity to undertake the project.

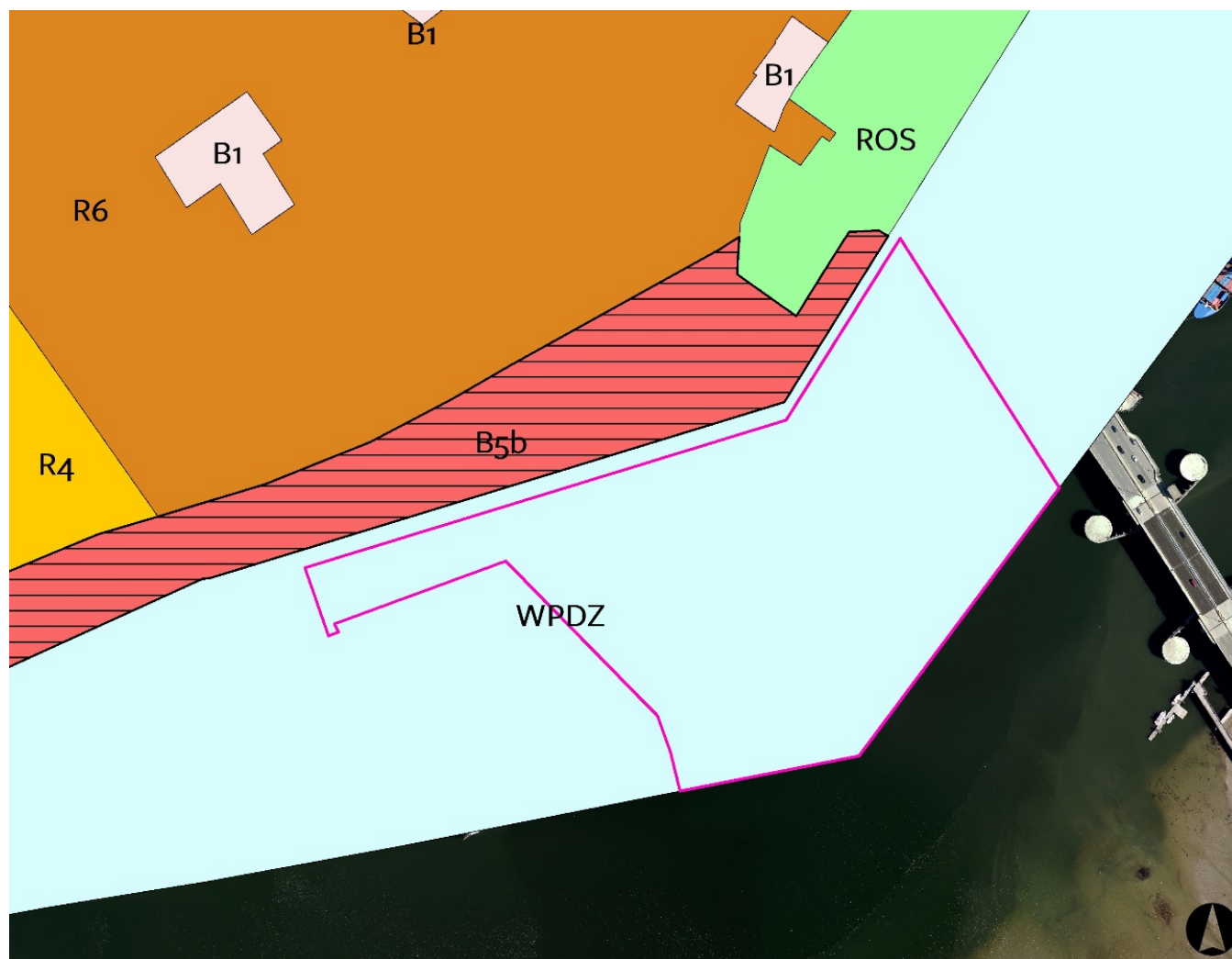
The applicant cited consultant experience and expertise as evidence of technical capacity.

VIII. ZONING ANALYSIS

The subject property is within the Waterfront Port Development Zone (WPDZ). A cold storage facility is a conditional use in this zone. Please note that in the WPDZ, conditional uses have a particular set of dimensional requirements:

	Required	Proposed
Lot Size (sf/ac)	5 acres	17.9 acres
Minimum Street Frontage (ft.)	None	~1,600
Front Yard Minimum (ft.)	None	151
Front Yard Maximum (ft.)	None	151
Rear Yard (ft.)	None	210
Side Yard (ft.)	None	44
Maximum Height (ft)	75	~74

Maximum Lot Coverage (%)	50%	14%
Off-Street Parking	Determined by Planning Board	42



Zoning context of proposed project at 40 West Commercial Street (highlighted in pink)

The City's Zoning Administrator participated in the review of the proposed project (**Attachment 3**), which meets the required dimensional criteria as proposed. However, the applicant must submit a letter from the Federal Aviation Administration confirming that the project will not exceed height limits for nearby runways or create a hazard to navigable airspace. Submission of this confirmation is suggested as a condition of approval prior to issuance of a building permit. Additionally, the applicant will need to submit a flood hazard development permit as part of any building permit application.

The applicant submitted a conditional use application, but should provide responses regarding the conditional use criteria below in advance of a public hearing. Staff assessments are provided.

Sec 14-230: Standards for Conditional Uses in the WPDZ

- *Not impede or preclude existing or potential water-dependent development on other lots*
 - Staff Response: The project is intended to supplement and support water-dependent functions at the IMT.

- *Allow for adequate access to the water*
 - Staff Response: The project is located on an existing, previously developed (though now vacant) industrial site bound by other development. As currently conceived, this project will not provide public access to the water's edge, though it is on a section of West Commercial Street planned for multi-use trail connections between this area of the peninsula and the Fore River. What would constitute adequate access to the water for this site still needs further deliberation in the course of the Board's review.
- *Be compatible with water dependent and marine uses*
 - Staff Response: As noted above, the project is intended to supplement and support water-dependent / marine uses at the IMT.
- *Operationally support one or more water dependent use(s), or be located in a building or structure that is physically adaptable or relocatable to make way for future development of water-dependent uses*
 - Staff Response: As noted above, the project is intended to supplement and support water-dependent / marine uses at the IMT.
- *Meet any additional performance and dimensional standards set forth [in sections 14-320.2 and 14.320.3]*
 - Staff Response: The project conforms to dimensional standards, with additional information required of the applicant noted above. The applicant describes conformance to the zone's performance standards, such as noise and vibration standards, in a document submitted with their application (**Attachment K**).

Section 14-474: Standards for Conditional Uses Generally

- *The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone*
 - Staff Response: The proposed project is industrial and marine related in nature, and located adjacent to shipping and marine-related businesses, including the IMT (a site with significant activity). The zone permits as of right, or allows conditionally, a variety of marine and industrial uses. The applicant is encouraged to reduce pavement and impervious surface through a variety of methods. Reduction of parking spaces appears possible and is recommended by staff. Additionally, vehicular movement and circulation within a reduced hardscape area may be achievable by limiting truck movements and simultaneous passage.
- *The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter*
 - Staff Response: The project is not expected to produce unsanitary or harmful conditions, and is also being reviewed under the City's site plan standards.
- *The design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect / impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.*
 - Staff Response: The project is being reviewed under the City's site plan standards. The City's consulting traffic engineer is involved in the project's review, and their comments (**attachment 1**) are described above.



Rendering of the proposed project in context viewed from the south (image: applicant)

IX. DEVELOPMENT REVIEW

A. SITE PLAN STANDARDS (Section 14-526)

Staff reviewed the proposed development for conformance with the relevant review standards of Portland's site plan ordinance and applicable regulations, and staff comments relative to each standard are below:

a) Transportation Standards

Impact on Surrounding Street Systems and Access and Circulation; Access and Circulation; Public Transit Access; Parking; Transportation Demand Management

Please see traffic and transportation considerations, above.

b) Environmental Quality Standards

Preservation of Significant Natural Features; Landscaping & Landscape Preservation; Water Quality, Storm Water Management and Erosion Control

The project was reviewed for conformance with relevant stormwater, water quality, and erosion control regulations by a third party civil engineer (**Attachment 4**). A stormwater BMP maintenance agreement must be provided for review by the City (this is a standard condition of approval). The applicant requested a waiver from the City / DEP stormwater flooding standard, because the project conveys flows to a tidally influenced waterbody. Per the peer reviewer, this waiver is appropriate. Additional calculations are expected of the applicant regarding the stated water quality volume passing through a proposed StormFilter BMP.

Per DPW review (**Attachment 2**) the applicant must provide a dewatering plan to prevent potentially contaminated groundwater from entering the City's stormwater system or Casco Bay untreated. As any such

plan would be developed by a contractor as part of construction-related documents, this is suggested as a condition of approval prior to application for a building permit.

The project is located on a group of large parcels, and its street frontage could be calculated multiple ways. However, site flexibility within 20 ft. of the City's right of way is limited. Under one calculation of applicable frontage, the project would be expected to provide street trees or a contribution to the street tree fund (for approximately 280 feet of frontage, with trees required at 45 feet on center). This would require provision of 6 street trees per the definition within the City's technical manual, acceptable alternatives, or payment of \$2,400 into the City's street tree fund (\$400 x 6). This is suggested as a condition of approval prior to issuance of a certificate of occupancy.

c) **Public Infrastructure and Community Safety Standards**

A City life safety professional participated in the project's review (**Attachment 5**), requiring placement of an additional fire hydrant and spacing information regarding proposed photovoltaic panels on the cold storage building's roof. The applicant subsequently addressed these comments to the reviewer's satisfaction.

The applicant must provide an ability to serve letter from the Portland Water District. This is suggested as a condition of approval prior to application for a building permit. The Department of Public Works has confirmed the availability of adequate sewer capacity (**Attachment O**).

d) **Site Design Standards**

1. Massing, Ventilation and Wind Impact; Shadows; Snow and Ice Loading; View Corridors; Historic Resources; Exterior Lighting; Noise and Vibration; Signage and Wayfinding

Planning staff reviewed the project's photometric plan (**Attachment D**) and lighting cutsheets (**Attachment D**), and consider them acceptable.

2. Zoning Related Design Standards

The City's Urban Designer reviewed the project (**Attachment 6**), noting that they find the project meets the zone-related design standards, which generally dealt with differentiation of building elements and preventing large uninterrupted mass. Facing landward, the project presents varied heights and materials. From the water view, the building presents more largely and simply, but includes a slight color variation breaking up the form.

B. COMPREHENSIVE PLAN

[*Portland's Plan 2030*](#) identifies a vision statement, policy goals for the City, and principles of future land use. Several of these are relevant to the proposed project. The applicant also provided their own analysis of consistency with the comprehensive plan (**Attachment M**).

Vision statement:

- Sustainable:

"Portland has been built and rebuilt to endure; we will balance our historic fabric, sound infrastructure, and the best of new technology and design for the future."

"Growth should respect and seek to preserve our spectacular natural resources"

- Secure:

“We will strive to create a resilient economy through innovation, investment, and commitment to diversity.”

- Authentic:

“We will support our working waterfront as a commitment to maintaining a vibrant maritime economy in the 21st century.”

Policy goals:

- Environment:

“Support agricultural, forest, and scenic resources appropriate to our urban context.”

“Adopt sustainable land use and transportation policies that support connectivity, walkable neighborhoods, and multi-modal transportation.”

- Historic Resources:

“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.”

Waterfront:

“Prioritize and promote Portland’s unique mix of water-dependent, marine-related uses and compatible non-marine uses.”

“Maintain and modernize infrastructure to support the working waterfront and port capabilities.”

“Ensure the future of the marine economy through support for emerging marine industries and mitigation of market trends that could compromise the balance between marine industries and competing development.”

“Recognize and reinforce waterborne transport of goods and people as foundational to our community.”

“Develop effective public and private partnerships to promote the Port of Portland as an economic engine for the State of Maine.”

C. SITE LOCATION OF DEVELOPMENT

The City of Portland has delegated review authority from the Maine DEP for large projects that trigger Site Location of Development Act (SLODA) review. The standards for this review include the items below, each of which dovetails with Portland’s existing site plan and subdivision standards:

- *Financial & Technical Capacity*: see section V, above.
- *Traffic Movement*: see site plan standards, a, above.
- *No Adverse Effect on the Natural Environment, Ground Water, Flooding, Storm Water Management & Erosion and Sedimentation Control*: see site plan standards, b, above.

- *Soil Types:* The applicant provided a draft geotechnical report and information regarding strategies to appropriately stabilize the building (**Attachment N**).
- *Infrastructure:* see site plan standards, c, above.



Rendering of the proposed project from the north, in context at Beech St. at Commercial Street (image: applicant)

X. Next Steps

The applicant is expected to address the action items and requests detailed above. The Planning Board is asked to weigh in particularly regarding proposed pavement / impervious surface and transportation demand management. A public hearing is the projects anticipated next step.

XI. ATTACHMENTS

Report Attachments

1. Consulting Traffic Engineer Comments
2. DPW Senior Engineer Comments
3. Zoning Administrator Comments
4. Consulting Civil Engineer Memo
5. Life Safety Reviewer Comments
6. Urban Designer Review Comments

Public Comment

- PC1. 4/16/2020
- PC2. 4/17/2020
- PC3. 4/17/2020
- PC4. 6/4/2020
- PC5. 6/16/2020
- PC6. 6/18/2020
- PC7. 6/19/2020
- PC8. 6/23/2020
- PC9. 6/25/2020
- PC10. 8/13/2020
- PC11. 8/14/2020
- PC12. 8/18/2020
- PC13. 8/19/2020
- PC14. 8/31/2020
- PC15. 8/31/2020

PC16. 9/2/2020

PC17. 9/3/2020

Applicant's Submittals

- A. Application Cover & Table of Contents
- B. Application Fees & Checklist
- C. Cover Letter & Project Description
- D. Site Lighting Submission Report
- E. Evidence of Right, Title, & Interest
- F. Easements & Other Burdens
- G. Waiver Table
- H. Evidence of State and or Federal Approvals
- I. Assessment of Zoning
- J. Evidence of Financial & Technical Capacity
- K. Design Standards Narrative
- L. Vehicle Turning Movement Figures
- M. Comprehensive Plan Consistency Analysis
- N. Draft Geotechnical Report
- O. Availability & Adequacy of Public Utilities
- P. Summary of Fire Codes
- Q. Stormwater Management Report
- R. Trip Generation Analysis Memo
- S. Flood Hazard Development Application
- T. Response to Comments Letter 5/15/2020
- U. Neighborhood Meeting Certification Materials
- V. Construction Management Statement
- W. Boundary Survey
- X. Traffic Study
- Y. Solar Information
- Z. SLOD Report

Plans

- P1. Cover Sheet & General Notes
- P2. Demolition
- P3. Site Plan
- P4. Civil Details
- P5. Grading & Drainage
- P6. Utility Plan
- P7. Landscape Plan & Details
- P8. Construction Management
- P9. Floor Plan & Area Floor Plan
- P10. Elevations
- P11. Renderings & Perspectives

Maine International Cold Storage - Draft Traffic Review Comments

Tom Errico <thomas.errico@tylin.com>

Thu, Sep 3, 2020 at 7:57 AM

To: Christian Roadman <croadman@portlandmaine.gov>

Cc: Michael Tremblay <mtremblay@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Bruce Hyman <bhyman@portlandmaine.gov>

Hi Christian – the following presents draft comments following our review of the August 25, 2020 Traffic Study prepared by the applicant.

- I find the contents and methodologies provided to be acceptable.
- Based upon the trip generation estimate for the project, a Traffic Movement Permit is not required. The project is estimated to generate 39 AM peak hour trips and 22 PM peak hour trips. Of these totals, there will be 24 trucks during the AM peak hour and 7 trucks during the PM peak hour. Based upon this trip level the focus of the traffic study was at the West Commercial Street/Beach Street/Site Drive intersection. I would note that most if not all truck trips will arrive and depart towards the west and I-295. The remaining trips (15 AM trips and 15 PM trips) are a function of employee origins/destinations and will route similar to existing commuting patterns. This level of traffic would not be expected to have a significant impact on the area roadway system.
- The study documents long delays and poor levels of service at the West Commercial Street/Beach Street/Site Drive intersection. Given limitations on expanding capacity at this intersection, strategies to improve traffic operating efficiency are suggested. Accordingly, it is recommended that the applicant install a Surtrac adaptive traffic control device at the intersection with advance radar detection for the West Commercial Street approaches.
- The West Commercial Street/Beach Street/Site Drive intersection is classified as a High Crash Location. The recently approved VA Clinic will be implementing improvements that would be expected to mitigate crashes. No further action is requested.
- To address potential safety conflicts between vehicles and pedestrians/bicyclists it is recommended that a blank out sign be mounted on the pedestrian pole on the northeast corner of Beach Street and West Commercial Street set to be active when the permissive left-turn phase is active for eastbound Beach Street traffic and either a bike is detected headed westerly or the pedestrian crossing phase of Beach Street is activated. The sign shall show Yield to Bikes and Pedestrians or the most feasible equivalent.
- As noted above the project is expected to generate 24 truck trips during the AM peak hour. To minimize impacts to the commuter time-period, it is suggested that the TDM plan include a program such that morning truck arrivals are not concentrated during the peak period. It is my understanding truck arrivals will be scheduled and thus a system will be in place that can spread the impact of truck traffic.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director

TYLIN INTERNATIONAL

12 Northbrook Drive

Falmouth, ME 04105

+1.207.781.4721 main

+1.207.347.4354 direct

+1.207.400.0719 mobile

thomas.errico@tylin.com

40 West Commercial Street comments

Mike Tremblay <mtremblay@portlandmaine.gov>

Thu, Sep 3, 2020 at 4:14 PM

To: Christian Roadman <croadman@portlandmaine.gov>

Christian,

Ahead of next week's Planning Board workshop and future submissions, please pass along the following comments with regard to 40 West Commercial Street:

- DPW continues to support an alternative driveway mouth, with material changes that distinguish the main driveway from the truck apron areas. Paint is unlikely to last long. Wide swaths of pavement are more likely to cause unsafe maneuvers into and out of the site, and may cause confusion as to where the correct location is to turn into and out of the site. The Applicant is reminded that they will need a waiver for driveway width, and that there has been little progress to date on reducing this driveway width in a substantial manner.
- DPW continues to support reducing the driveway width to a size that can accommodate a vehicle turning in or out, but not necessarily both at the same time; as truck arrivals and departures are relatively infrequent, and scheduled, the risk of significant conflict is low.
- DPW continues to support reducing impervious area, or otherwise defining areas where vehicles are expected to drive (rather than unused spaces that are also paved), for increased clarity. DPW sincerely appreciates the removal of the rear driveway, but there are still impervious areas that are not necessarily needed for vehicle maneuvering or any other purpose. Where possible, green space, material changes, or paint (in order of preference) should be incorporated to better define the parking area.
- It is unclear why about a dozen truck parking spaces are provided on-site. The Applicant has stated that trucks will be arriving on a schedule. While DPW acknowledges that trucks may arrive off-schedule due to extenuating circumstances, the number of truck parking spaces should be justified. The Applicant is reminded that a waiver on parking space size will be required for approval.
- The Applicant indicates that a guard shack has been added to the plan, which makes some paved area more necessary than previously indicated. The Applicant should resubmit turning templates with this additional context.
- There is existing pavement on-site to remain within the Applicant's property. Much of this pavement is shown in white, which makes it difficult to discern whether an area is paved or something else. The Applicant should show existing pavement to remain on their plan, using a different color gray hatch or another pattern, for clarity.
- Thirty parking spaces are provided in the passenger car parking area. The Applicant's TDM plan indicates that employees will work in shifts of up to 10 workers. Allowing for 100% of employees to arrive by personal automobile, and allowing for overlap during shift changes, it would seem that only 20 parking spaces would be required. The Applicant should adjust plans or justify the extra 10 parking spaces. Reducing the amount of passenger vehicle parking spaces could further reduce impervious areas. It should also be noted that if this parking area is reduced to 25 spaces or less, one of the two accessible spaces could be converted to a standard space, if appropriate.
- The TDM plan provided discusses some measures that will allow employees arrive to the site without a personal automobile. DPW encourages the Applicant to consider additional TDM measures and provide additional detail as to how these measures may reduce vehicle trips to and from the site, parking demand, etc.

Thanks,
Mike

Mike Tremblay, P.E.
Senior Engineer
Engineering Division
Department of Public Works
City of Portland, ME
mtremblay@portlandmaine.gov

P. [207.874.8881](tel:207.874.8881) F. [207.874.8852](tel:207.874.8852)



40 West Commercial Street - Cold Storage Facility follow-up comments

Mike Tremblay <mtremblay@portlandmaine.gov>

Thu, May 28, 2020 at 1:21 PM

To: Christian Roadman <croadman@portlandmaine.gov>

Cc: Doug Roncarati <dar@portlandmaine.gov>

Christian,

I have reviewed the response to comment memo for 40 West Commercial Street, and we discussed this week at the DevRev DPW session. I am going to paraphrase Doug Roncarati's comments as best as possible but I believe he was going to follow up separately as soon as tomorrow, when he returns to the office.

- The site continues to propose a very wide driveway width of about 104 feet. Wide driveways present a safety hazard, especially for bicycle traffic on West Commercial Street eastbound and any pedestrian traffic on the south side of West Commercial Street, as it allows all vehicles to make turns at higher speeds. The driveway width also adds additional impervious surface to the site, which already has a great deal of impervious surface. The entirety of this width, at the edge of the ROW, is justified if it is required that entering and exiting vehicles must be able to maneuver simultaneously. This driveway width could be reduced significantly if truck volumes are low enough that a conflict would be rare, and traffic would be able to yield to one another. In this case, a truck would be able to cross the centerline in the driveway in order to make a maneuver into/out of a narrower driveway opening without much conflict. The applicant should provide estimates of the number of trucks that will be entering and exiting the site during peak hours and over the course of a given day.

- According to the turning templates, there are areas of proposed pavement that are not needed for any turning movements. The applicant should clarify the purpose of these areas and why they must be hardscaped. Any planned use of these areas should be documented in the site plan. A sketch of the areas of question is included at the bottom of this email.

- A waiver of Technical Manual Section 1.14 for parking space dimensions and drive aisle width is required for the truck parking area. The Applicant has justified the space dimensions and drive aisle width for this area. This waiver is supported by DPW after review of turning templates.

- The Applicant notes that the rear access road is required for fire access. A brief discussion with Life Safety indicated that this access road would be beneficial, but not required, in the case of an emergency. This should be confirmed with Life Safety. If this road is not required, DPW recommends that it be removed to reduce the impervious area on-site.

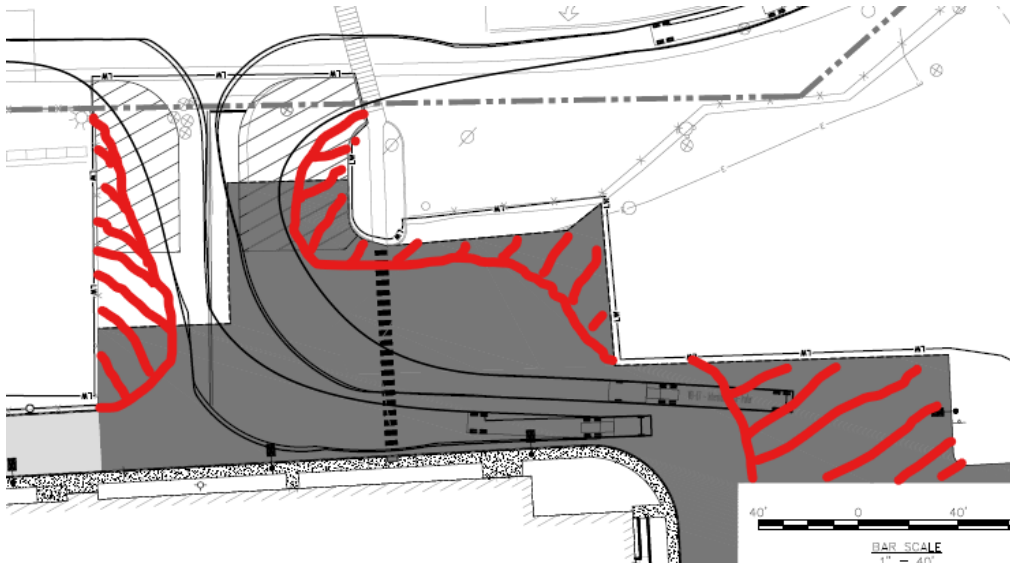
- The city requires a robust stormwater maintenance agreement with the Applicant. The City will not maintain the development's equipment in any way, and this equipment is essential to ensuring that pollutants from the facility and parking lots do not enter Casco Bay untreated/undertreated.

- The City will require an approved dewatering plan before issuance of a building permit, as the site is a VRAP site and any groundwater encountered may be contaminated and should not enter the City's stormwater system or Casco Bay untreated. DPW understands that the Applicant does not expect to encounter groundwater; however, given the possible presence of contaminants in the groundwater, a more robust dewatering plan is required.

- All construction related deliveries should access the site from 295 via the Veterans Bridge/West Commercial Street or Franklin Street/Commercial Street. This should be noted in the CM plan.

- An updated CM plan should include an adjusted construction schedule.

Thanks,
Mike



Mike Tremblay, P.E.
Senior Engineer
Engineering Division
Department of Public Works
City of Portland, ME
mtremblay@portlandmaine.gov
P. 207.874.8881 F. 207.874.8852



40 West Commercial Street - Cold Storage Facility comments

Mike Tremblay <mtremblay@portlandmaine.gov>

Thu, Apr 23, 2020 at 6:46 PM

To: Christian Roadman <croadman@portlandmaine.gov>

Yes and no. The turn templates do not show that the amount of pavement along the driveway is necessary, especially at its widest part. I may simply need more images turns. Some comments on the runs shown:

- Runs should show trucks entering and exiting the site to justify the width of the driveway and inform the locations of alternate pavement material (or hatch markings, as previously proposed). A vehicle existing the parking area to the driveway would also be helpful to see.
- Runs should show that all proposed pavement is necessary. See (very crude) image below. Currently, it is difficult to determine why the blue area is needed. Conversely, if a truck used this width (red line), they may be able to avoid using as much of the opposite side of the double yellow centerline.
- I think it's appropriate to assume that, within the site, entering and exiting vehicles will yield to one another. The site design shouldn't assume that two turning vehicles should be able to pass one another in opposite directions. The applicant should let us know their design controls/assumptions about how vehicles interact within the site.
- Entering the parking spaces, the run shown does clarify that the drive aisle width appears to be useful. I do not think the model entering the space in a crooked manner justifies a 25-foot space width, however. An extra forward-backward maneuver can likely correct this angle.
- The provided run does not show how a vehicle would enter and exit a space south of the deadhead area (the wider area where the truck maneuvers into before backing up. So I'm actually curious how any of the spaces work south of the one they back into; it appears as though each space gets progressively more difficult as you move southward.

Hope this helps.

-Mike

Mike Tremblay, P.E.
Senior Engineer
Engineering Division
Department of Public Works
City of Portland, ME
mtremblay@portlandmaine.gov
P. 207.874.8881 F. 207.874.8852



On Thu, Apr 23, 2020 at 5:32 PM Christian Roadman <croadman@portlandmaine.gov> wrote:

Hi Mike,

I found the attached turning template as an attachment to another document in the application. Does it negate (or change or reaffirm) your request for one re: parking stalls?

Please let me know - thanks!

Christian

--

Christian Roadman
Planner
207.874.8984

Planning & Urban Development Department
[389 Congress Street](#)
[Portland, Maine 04101](#)

On Thu, Apr 23, 2020 at 1:29 PM Christian Roadman <croadman@portlandmaine.gov> wrote:
Super, thanks!

--

Christian Roadman
Planner
207.874.8984

Planning & Urban Development Department
[389 Congress Street](#)
[Portland, Maine 04101](#)

On Thu, Apr 23, 2020 at 1:16 PM Mike Tremblay <mtremblay@portlandmaine.gov> wrote:
Looks good, thanks!

Mike Tremblay, P.E.
Senior Engineer
Engineering Division
Department of Public Works
City of Portland, ME
mtremblay@portlandmaine.gov
P. 207.874.8881 F. 207.874.8852



On Thu, Apr 23, 2020 at 1:10 PM Christian Roadman <croadman@portlandmaine.gov> wrote:
If I'm understanding, what's below is where we've landed. Please let me know if I've misunderstood / misrepresented.

DPW Comments:

- There is no sidewalk proposed along the project frontage. A sidewalk waiver is required. The waiver requirements are outlined in Section 14-501 of the City Code. If a sidewalk is provided, then an acceptable, ADA-accessible driveway crossing must also be provided. If a sidewalk is not provided, a contribution (separate from required impact fees) will be sought for nearby sidewalk and/or path facilities.

- The driveway opening onto West Commercial Street is much larger than the maximum permitted under the Technical Manual (30 feet). DPW understands that this facility will require right turns both into and out of the site by large vehicles, and has reviewed turning templates from a previous submission that justify the large driveway opening. The Applicant must apply for a driveway width waiver as part of their application. Updated turning templates showing the design vehicle entering and exiting the site using the newest site plan should be submitted for DPW review.

- While DPW understands that a wide driveway is required, efforts should be made to guide smaller vehicles entering the site and discourage fast turns, which can be unsafe, especially for pedestrians crossing the driveway or crossing West Commercial Street. The current site plan shows a hatched striping that limits the northbound direction of the driveway to 24 feet. DPW suggests that this treatment be extended, narrowing the drive lanes in each direction to 12 feet. The applicant should also consider using a more durable and tactile material than paint, such as scored concrete, as paint will wear out quickly and does not provide any feedback to motorists.

- Efforts should be taken to reduce the amount of impervious surface on the site plan.

- The 104-foot width of the end of the driveway, closest to the proposed structure, should be justified or reduced.

- The passenger parking area has 20-foot parking stall lengths, These stall lengths should be justified, or reduced to 18 feet.

- The area on the northeast side of the site, where the crosswalk is shown to be re-striped, adds additional pavement south of existing pavement to remain. The applicant should specify the use of the existing-to-remain portions of the site with respect to the proposed project, and make efforts to reduce pavement area where possible. In this location, the crosswalk appears to cross a swath of existing and proposed pavement that is about 83 feet wide.

- The proposed site plan shows about 25 truck parking spaces, each measuring about 25x55, with a 91-foot drive aisle for a total pavement width of 201 feet. DPW does not have standards for truck parking such as this and would support a waiver for parking space and drive aisle size if they can be justified. While parking stall length appears appropriate at 55 feet, the stall width seems excessive, over 2.5x the size of a typical passenger vehicle stall. The drive aisle serves as a maneuvering area and extra width is justifiable, but the Applicant should provide justification (turning movements or otherwise) for the size of the drive aisle and stall width. Large vehicles access narrower loading docks in the urban areas of Portland with significantly less maneuvering space. Any reduction in these dimensions can help reduce the amount of impervious surface at this site, which would in turn reduce effects on stormwater, reduce snow removal burden, reduce heat island effects, and would likely reduce project costs significantly.

- There is a 24-foot access aisle provided around the back of the building, which appears to be a secure area leading to the IMT site east of the project site. This access aisle has entrances from both the passenger vehicle parking lot and the heavy vehicle parking lot; however, it does not appear that the access road is designed to accommodate heavy vehicles turning into or out of the access road. The access road also appears to be redundant behind the proposed cold storage facility; any vehicle entering at the western gate could presumably also do so at the eastern gate. Eliminating this access road may eliminate 17,000+ SF of impervious surface and several drainage structures. The applicant should justify the purpose of this drive aisle or make design changes accordingly.

- The project site includes two van-accessible parking spaces on the west side of the site, which adequately meet requirements based on site's passenger vehicle parking supply. Truck parking spaces need not figure into the ratio of required accessible parking spaces, per ADA. The accessible spaces should be designed to ADA standards (8' x 18' minimum, 8-foot buffer (for van spaces), maximum 2% slope in all directions within the buffer).

- The design of ADA ramps is not noted on the Grading and Drainage plans, nor is a detail provided. A curb ramp detail is requested for all ramp types on the site.

- The large area of loam and seed south of the proposed structure and north of the access road appears to be unprogrammed space. The applicant should consider using this area for storage of stormwater and pretreatment prior to the R-tank, and/or using this area to plant trees to screen the blank south-facing wall from the waterfront. Tree species selection and location should be coordinated with the City Arborist, Jeff Tarling.

--
Christian Roadman
Planner
207.874.8984

Planning & Urban Development Department
389 Congress Street
Portland, Maine 04101

On Thu, Apr 23, 2020 at 12:57 PM Mike Tremblay <mtremblay@portlandmaine.gov> wrote:

Thank's Bruce.

Regarding the 2nd comment: that makes sense. Christian, can you make that slight adjustment to my comment(s) or would you like me to resend the list with the change for your copy/paste convenience?

Mike Tremblay, P.E.
Senior Engineer
Engineering Division
Department of Public Works
City of Portland, ME
mtremblay@portlandmaine.gov
P. 207.874.8881 F. 207.874.8852



On Thu, Apr 23, 2020 at 12:52 PM Bruce Hyman <bhyman@portlandmaine.gov> wrote:

Regarding this topic: There is no sidewalk proposed along the project frontage. A sidewalk waiver is required. The waiver requirements are outlined in Section 14-501 of the City Code. If a sidewalk is provided, then an acceptable, ADA-accessible driveway crossing must also be provided. (Tom/Bruce, I think one of you noted an extensive history with this issue. Feel free to delete this comment if it's been resolved elsewhere; however, a waiver still seems appropriate even if it'll be granted based on some kind of previous agreement.)

I think we are resigned to not having a sidewalk along the IMTs frontage. That said we may want to consider having them make a contribution to near-area sidewalk/pathway facilities that will support pedestrian and bicyclist activity that will be generated by this site *in lieu* of a sidewalk [we did this with Phin Sprague's project just west of here]. I don't know what this category will be for Impact Fees (Industrial I imagine) but a sidewalk is a Site Plan requirement above/beyond Impact Fees. We will be needing money for the W Comm St pathway Ph III east of Beach Street which would be the likely destination for pedestrians to/from the site. I do imagine they would still require to go through the waiver process. I don't have a number in mind yet for a potential contribution.

For others, such as this one: - *Efforts should be taken to reduce the amount of impervious surface on the site plan. For example, the 104-foot width of the end of the driveway, closest to the proposed structure, does not seem necessary.* I would stick to the same format as similar comments below and request justification separating out the example of the 104' driveway from the statement of fact: "Efforts should be taken to reduce the amount of impervious surface on the site plan."

Bruce

On Thu, Apr 23, 2020 at 12:35 PM Mike Tremblay <mtremblay@portlandmaine.gov> wrote:

Christian (including Bruce and Tom to answer my highlighted question below):

Here are my comments for the cold storage facility. A lot of them come down to "reduce the amount of pavement". I understand this is an industrial site and it's a lot easier to move trucks around if there are no obstacles, but there are environmental impacts (stormwater and heat island effects) associated with so much pavement. Stormwater effects are being mitigated with their treatment system, but less water that needs to be treated would be better. I also lightly touch on the fact that the south wall of the building is blank in my comment about possibly adding trees, but building design is so not my purview, so I'm hoping some kind of design review applies. If not, I'd love if someone at planning could suggest a nicer treatment of that wall (if oodles of trees can't be planted to block it from view) even if it's just a suggestion and not a requirement. My \$0.02 there.

- There is no sidewalk proposed along the project frontage. A sidewalk waiver is required. The waiver requirements are outlined in Section 14-501 of the City Code. If a sidewalk is provided, then an acceptable, ADA-accessible driveway crossing must also be provided. (Tom/Bruce, I think one of you noted an extensive history with this issue. Feel free to delete this comment if it's been resolved elsewhere; however, a waiver still seems appropriate even if it'll be granted based on some kind of previous agreement.)
- The driveway opening onto West Commercial Street is much larger than the maximum permitted under the Technical Manual (30 feet). DPW understands that this facility will require right turns both into and out of the site by large vehicles, and has reviewed turning templates from a previous submission that justify the large driveway opening. The Applicant must apply for a driveway width waiver as part of their application. Updated turning templates showing the design vehicle entering and exiting the site using the newest site plan should be submitted for DPW review.
- While DPW understands that a wide driveway is required, efforts should be made to guide smaller vehicles entering the site and discourage fast turns, which can be unsafe, especially for pedestrians crossing the driveway or crossing West Commercial Street. The current site plan shows a hatched striping that limits the northbound direction of the driveway to 24 feet. DPW suggests that this treatment be extended, narrowing the drive lanes in each direction to 12 feet. The applicant should also consider using a more durable and tactile material than paint, such as scored concrete, as paint will wear out quickly and does not provide any feedback to motorists.
- Efforts should be taken to reduce the amount of impervious surface on the site plan. For example, the 104-foot width of the end of the driveway, closest to the proposed structure, does not seem necessary.
- The passenger parking area has 20-foot parking stall lengths, These stall lengths should be justified, or reduced to 18 feet.
- The area on the northeast side of the site, where the crosswalk is shown to be re-striped, adds additional pavement south of existing pavement to remain. The applicant should specify the use of the existing-to-remain portions of the site with respect to the proposed project, and make efforts to reduce pavement area where possible. In this location, the crosswalk appears to cross a swath of existing and proposed pavement that is about 83 feet wide.
- The proposed site plan shows about 25 truck parking spaces, each measuring about 25x55, with a 91-foot drive aisle for a total pavement width of 201 feet. DPW does not have standards for truck parking such as this and would support a waiver for parking space and drive aisle size if they can be justified. While parking stall length appears appropriate at 55 feet, the stall width seems excessive, over 2.5x the size of a typical passenger vehicle stall. The drive aisle serves as a maneuvering area and extra width is justifiable, but the Applicant should provide justification (turning movements or otherwise) for the size of the drive aisle and stall width. Large vehicles access narrower loading docks in the urban areas of Portland with significantly less maneuvering space. Any reduction in these dimensions can help reduce the amount of impervious surface at this site, which would in turn reduce effects on stormwater, reduce snow removal burden, reduce heat island effects, and would likely reduce project costs significantly.
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Please let me know if you have any questions.

Thanks,
Mike

Mike Tremblay, P.E.
Senior Engineer
Engineering Division
Department of Public Works
City of Portland, ME
mtremblay@portlandmaine.gov
P. 207.874.8881 F. 207.874.8852



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Bruce Hyman
Transportation Program Manager

Department of Planning & Urban Development
389 Congress Street
Portland, Maine 04101
(207) 874-8717 phone

bhyman@portlandmaine.gov
<http://www.portlandmaine.gov/1363/Transportation-Division>
<http://www.portlandmaine.gov>

Yes! Transportation's Good Here



40 West Commercial Street - Cold Storage Facility comments

Christian Roadman <croadman@portlandmaine.gov>

Thu, Apr 23, 2020 at 1:10 PM

To: Mike Tremblay <mtremblay@portlandmaine.gov>

Cc: Bruce Hyman <bhyman@portlandmaine.gov>, Tom Errico <thomas.errico@tylin.com>

If I'm understanding, what's below is where we've landed. Please let me know if I've misunderstood / misrepresented.

DPW Comments:

- There is no sidewalk proposed along the project frontage. A sidewalk waiver is required. The waiver requirements are outlined in Section 14-501 of the City Code. If a sidewalk is provided, then an acceptable, ADA-accessible driveway crossing must also be provided. If a sidewalk is not provided, a contribution (separate from required impact fees) will be sought for nearby sidewalk and/or path facilities.
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- The passenger parking area has 20-foot parking stall lengths. These stall lengths should be justified, or reduced to 18 feet.
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buffer (for van spaces), maximum 2% slope in all directions within the buffer).

- The design of ADA ramps is not noted on the Grading and Drainage plans, nor is a detail provided. A curb ramp detail is requested for all ramp types on the site.

- The large area of loam and seed south of the proposed structure and north of the access road appears to be unprogrammed space. The applicant should consider using this area for storage of stormwater and pretreatment prior to the R-tank, and/or using this area to plant trees to screen the blank south-facing wall from the waterfront. Tree species selection and location should be coordinated with the City Arborist, Jeff Tarling.

--

Christian Roadman
Planner
207.874.8984

Planning & Urban Development Department
389 Congress Street
Portland, Maine 04101

[Quoted text hidden]



Christian Roadman <croadman@portlandmaine.gov>

40 West Commercial ST

Ann Machado <amachado@portlandmaine.gov>

Wed, Aug 12, 2020 at 8:59 AM

To: Christian Roadman <croadman@portlandmaine.gov>

I'm satisfied with the height of the pipe (top of penetration) being at 57'.

With the floodplain permits, I just noticed that they only submitted the Minor Flood Hazard Permit. They also need to submit the Flood Hazard Development Application. They can wait to submit this as well as what they have already provided as part of the building permit application since they need to submit an elevation certificate.

Ann

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

[Quoted text hidden]

40 West Commercial St - PL-001042-2020

Ann Machado <amachado@portlandmaine.gov>

Wed, Jun 10, 2020 at 12:54 PM

To: Christian Roadman <croadman@portlandmaine.gov>

Following up on my original email to you.

I went back through my original email and have indicated anything that still needs to be addressed in red.

The maximum building length allowed for a conditional use is 450', but only 300 feet of the building can be higher than 55 feet. According to the zoning analysis sheet the building is 444' (I scaled it at around 404 '). The elevations show that 300 feet of the building is 73'10" tall, but the rest of it is under 55 feet, so this requirement is being met.

Please let me know if you need anything else.

Ann

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

On Tue, Apr 14, 2020 at 4:17 PM Ann Machado <amachado@portlandmaine.gov> wrote:

Christian -

I meant to get you these notes after the Dev. Rev, meeting last week.

A cold Storage Facility is listed as a Conditional Use in section 14-319. Do they also have a Conditional Use Application to go before the Planning Board? **I'm not seeing a Conditional Use Application in Energov.**

Regarding the Zoning Analysis Table I noticed a few discrepancies.

- For minimum lot size since this is a Conditional Use a minimum of 5 acres is required. They are more than meeting it but I wanted the table to be accurate.
- Maximum Building Length for a conditional use - *300ft for buildings or portions of buildings exceeding the maximum applicable height allowed under the permitted use. The part of the building that exceeds 55' of height is 300 feet. The rest of the building is below 55' - OK*
- Have they provided information to show what the average grade is to determine the height? **I still don't see any calculation for how they have determined average grade. They need to clearly indicate the average grade on the elevations because it is close.**

Under section 14-320.2(b) (1)(b) they are required to have a determination from the FAA that structures and equipment will not exceed the applicable height guidelines for the runway approach etc. Also have they provided the view corridor of 90 feet for the lot? **Have both of these been verified?**

They are all set for the Shoreland Zone sections 14-449(a) - no setback required for structures in the WPDZ zone, 14-449(c) - the clearing and removal standards for vegetation do not apply to the WPDZ zone, and 14-449(j) roads and driveways does not have a minimum setback in the WPDZ zone.

Flood Plain. Looking at Plan C-100, part of the building is within the Flood Zone A2 (EL 10) as is the access road. Since the building is in the flood zone, besides the Flood Hazard Development Application, they will need to provide a Flood Hazard Development Permit for New Construction which is a two part application and requires either an elevation certificate or flood proofing certificate. This can be provided when the building permit is applied for. Under section 14-450.8(g) new nonresidential construction in a A2 zone the lowest floor needs to be elevated above the base flood elevation of 10 feet and or be floodproofed to at least two feet above base flood elevation. **The flood zone is not shown on version 2 of Plan C-100.**

[Quoted text hidden]

40 West Commercial St - PL-001042-2020

Ann Machado <amachado@portlandmaine.gov>

Tue, Apr 14, 2020 at 4:17 PM

To: Christian Roadman <croadman@portlandmaine.gov>

Christian -

I meant to get you these notes after the Dev. Rev. meeting last week.

A cold Storage Facility is listed as a Conditional Use in section 14-319. Do they also have a Conditional Use Application to go before the Planning Board?

Regarding the Zoning Analysis Table I noticed a few discrepancies.

- For minimum lot size since this is a Conditional Use a minimum of 5 acres is required. They are more than meeting it but I wanted the table to be accurate.
- Maximum Building Length for a conditional use - *300ft for buildings or portions of buildings exceeding the maximum applicable height allowed under the permitted use.* They are using 450 feet.
- Have they provided information to show what the average grade is to determine the height?

Under section 14-320.2(b) (1)(b) they are required to have a determination from the FAA that structures and equipment will not exceed the applicable height guidelines for the runway approach etc. Also have they provided the view corridor of 90 feet for the lot?

They are all set for the Shoreland Zone sections 14-449(a) - no setback required for structures in the WPDZ zone, 14-449(c) - the clearing and removal standards for vegetation do not apply to the WPDZ zone, and 14-449(j) roads and driveways does not have a minimum setback in the WPDZ zone.

Flood Plain. Looking at Plan C-100, part of the building is within the Flood Zone A2 (EL 10) as is the access road. Since the building is in the flood zone, besides the Flood Hazard Development Application, they will need to provide a Flood Hazard Development Permit for New Construction which is a two part application and requires either an elevation certificate or flood proofing certificate. This can be provided when the building permit is applied for. Under section 14-450.8(g) new nonresidential construction in a A2 zone the lowest floor needs to be elevated above the base flood elevation of 10 feet and or be floodproofed to at least two feet above base flood elevation.

I'm happy to talk with you about any of these issues/concerns.

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

MEMORANDUM

TO:	Christian Roadman, Planner	DATE:	8/18/2020
FROM:	Michael Guethle, PE	PROJECT NO.:	20308A
SUBJECT:	40 W Commercial Street – Level III Site Plan, PL-001042-2020		

Wright-Pierce has reviewed the initial Level III Site Plan Application information provided for the redevelopment at 40 W Commercial Street, as defined in the above subject line. The proposed project is located on a 7.4+/- acre site, part of the International Marine Terminal. The proposed project includes redevelopment of a former natural gas distribution facility with a Cold Storage Facility to support the International Marine Terminal (IMT) operations. Appurtenant portions of the site development include utility connections, stormwater management, parking, pedestrian access, and landscaping.

Documents Reviewed by Wright-Pierce:

- Level III Site Plan application, dated (most recent) August 5, 2020
- Engineering Permitting Plans, uploaded (most recent) August 5, 2020
- Comment Response Letter, dated August 4, 2020

Comments:

For stormwater treatment, Level III Site Plan applications with the City of Portland must submit a stormwater plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules. This includes conformance with the Basic, General, and Flooding Standards (Ref: Technical Manual, Section 5. II. Applicability in Portland. C. a.; and Ref: City of Portland Code of Ordinances Sec. 14-526. Site Plan Standards, (b). 3. b.)

- 1) Basic Standard: Per the City's Technical Manual *Portland Stormwater Management Standards And Maine Dep Chapter 500 Stormwater Management*, an Erosion & Sediment Control management plan, notes, and details per the Chapter 500 Rules must be provided to meet the Basic Standard.

- a. Erosion and Sedimentation Control best practices were observed on the updated Grading, Drainage, and Erosion Control Plan and associated Details. No further action necessary.
- 2) General Standard: The applicant has provided information regarding the size and scope of the project, and has indicated the project is subject to the General Standard under the requirements of the Site Location of Development Act (SLODA). The project is being reviewed under the redevelopment guidelines and requirements.
 - a. The applicant has provided an impact analysis to compare pre-development and post-development land use pollutant rankings under MaineDEP redevelopment guidelines. The written analysis indicated that the site revisions did not change the general standard application; the proposed development has pollutant ranking between 0 and 1 greater than the existing site, and is therefore required to treat 60% of the proposed site's disturbed surface area.
 - i. An updated summary of pollutant rankings was provided and reviewed, and the proposed pollutant rankings are agreed to. No further action necessary.
 - b. High-pollutant surface areas are prioritized for stormwater treatment under the redevelopment standard. No further action necessary.
 - c. An executed maintenance contract for the BMP systems is required. Maintenance agreements may be provided as a condition of approval.
- 3) R-Tank and Stormwater Filter
 - a. A letter from the manufacturer(s) stating the proposed project was designed in accordance with the MaineDEP standards is required. See comment 3.d, below.
 - b. Revised site grading proposes no access of flood waters to catch basins in the identified 100-year flood elevation, no further action necessary.
 - c. Revised R-Tank is designed with consistent elevations in HydroCAD, Site Plans, and Details. Revised design confirms layout of R-Tank unit and StormFilter, no further action necessary.

- d. Treatment filter system has been modified to a StormFilter device. The updated design, as well as inspection and maintenance requirements for the StormFilter and R-Tank system, have been provided.
 - i. We agree that up-slope flows are conveyed to the StormFilter for greater than 60% of the redeveloped area; the design provides a water quality volume prioritizing treatment for impervious surfaces; and provides maintenance requirements in accordance with the manufacturer, and MaineDEP.
 - ii. The applicant has clarified how treatment for the water quality rain event for 60.5% of the redeveloped area is provided. It is appreciated that the channel protection volume for the full surface area can be reduced due to the project discharging to tidal waters. It is unclear on how the bypass elevation is set for the StormFilter in relation to the water quality rain event; please provide calculation indicating that the stated water quality volume passes through the StormFilter in the design storm.
- 4) Flooding Standard: The applicant has previously requested a waiver to the flooding standard, on the basis that the project conveys flows to a tidally influenced waterbody. The basis of this waiver request has been reviewed with the updated site plan modifications and is justified and supported by the reviewer.
- 5) Grading and Drainage:
 - a. Prior comments have been addressed. No further action necessary.
- 6) Utility Connections
 - a. Ability to serve letters have not been provided for utilities impacted by the proposed project but have been requested by the applicant for applicable utilities. The applicant has indicated that ability to serve letters will be submitted to Planning upon receipt. This can be completed as a condition of approval if necessary.



Christian Roadman <croadman@portlandmaine.gov>

40 West Commercial (Hydrant & Solar Spacing)

Jason Grant <jgrant@portlandmaine.gov>

Mon, Jun 1, 2020 at 8:23 AM

To: Christian Roadman <croadman@portlandmaine.gov>

Christian,

The hydrant location looks good, For the solar panels I think that it's enough info for it to be approved at this point. It is hard to tell for sure that they are meeting all of the codes with this limited information but it appears they are putting in the required pathway so we can review the rest at the building permit phase. So Fire approves the changes.

Jason Grant CFI-2, CFPE
Life Safety CEO / Plan Reviewer
Permitting and Inspections Department
City of Portland
[389 Congress Street Rm 315](#)
[Portland, Maine 04101](#)
Phone:(207) 756-8187

[Quoted text hidden]

40 West Commercial Street

Jason Grant <jgrant@portlandmaine.gov>

Wed, Apr 15, 2020 at 3:50 PM

To: Christian Roadman <croadman@portlandmaine.gov>

Christian,

I only have 2 comments for 40 West Commercial Street.

1. Add a hydrant in the location shown on the plans.
2. Any photovoltaic arrays will need to meet the requirements of NFPA 1 Fire Code 2018 edition for roof coverage and other applicable sections.

Other than that I am good with everything.

Jason Grant CFI-2, CFPE
Life Safety CEO / Plan Reviewer
Permitting and Inspections Department
City of Portland
[389 Congress Street Rm 315](#)
[Portland, Maine 04101](#)
Phone:(207) 756-8187



C-100 site plan hydrant location.pdf

289K

The map illustrates the proposed development site. Key features include:

- EXISTING BUILDING FOOTPRINT**: Located at the top left of the site.
- PROPOSED BUILDING FOOTPRINT**: A larger rectangular area situated below the existing building.
- PARKING AREA**: Indicated by several small circles representing parking spaces, located between the existing and proposed buildings.
- STREET**: Labeled as "ST. JAMES ST." running horizontally across the bottom of the site.
- PROPERTY LINE**: Shown as a dashed line along the eastern boundary of the site.
- NORTH ARROW**: Points towards the upper right corner of the map.





Christian Roadman <croadman@portlandmaine.gov>

Design Review Memos: 40 West Commercial Street

Caitlin Cameron <ccameron@portlandmaine.gov>

Wed, Sep 2, 2020 at 3:12 PM

To: Christian Roadman <croadman@portlandmaine.gov>

With regards to design review, Staff have no further comments and find the proposal to meet the zone-related design standards as outlined in the memorandum from May 22, 2020.

[Quoted text hidden]

--

Caitlin Cameron, AICP, Associate AIA, LEED AP

Urban Designer

Planning & Urban Development Department

389 Congress Street

Portland, ME 04101

phone: (207) 874-8901

email: ccameron@portlandmaine.gov

Planning and Urban Development Department

Planning Division



Subject: WPDZ Design Review – 40 West Commercial (Cold Storage)
Written by: Caitlin Cameron, Urban Designer
Date of Review: Friday, May 22 2020

The project at 40 West Commercial Street – Cold Storage Facility – was reviewed according to the adopted WPD Zone performance standards by Caitlin Cameron, Urban Designer and Christian Roadman, Planner.

Design Review Comments: *(questions and unmet standards in red)*

Sec. 14-320.3 Performance Standards

(k) Lighting – Applicant has provided a photometric plan, cut sheets, analysis. Minimal amount of building lighting is provided that would be visible from the residential neighborhoods. All fixtures appear to be full cut off, and mounted low on the building or under canopies so as not to produce glare for vessels or neighboring residential properties.

(l) Signs – Signs will come under separate permit application according to Sign Ordinance in Division 22.

(o) Design and Visual Character:

1) *Long Views/Building Design:* Change in roof form provides some visual interest to meet the standard. Rooftop mechanicals are placed on a lower portion of the building to reduce visibility from long views and are screened. PV panels and roof drainage systems have low profiles. Massing variation provides some variation and smaller scale to the overall form.

2) *Massing:* Massing emphasizes administrative uses with a smaller-scale, one-story portion of the building at the ROW interface that indicates the active portions of the building and street-facing entrances. A second change in massing occurs at the loading dock.

3) *Façades – equal treatment:* All façades include equal treatment of materials and openings. The roof form is somewhat varied. Materials are placed according to function and massing and break up the scale of the building from some perspectives. For functional reasons, two of the façades have no massing or material variation with minimal openings and no articulation other than stoops at the entrances. To address the design requirements, the applicant proposes a color change related to the massing change to visually break up the façades. Staff support this approach in lieu of the ability to provide openings or massing variation.

4) *Façades – variation and articulation:* Project provides some visual interest with varied roof line and massing, change in material texture, windows, canopies, roof drains.

Two of the façades have no massing or material variation with minimal openings and no articulation other than stoops at the entrances, roof drains – a color change is proposed to address the standard. Staff suggest the proposed colors might be darker to be more recessive or else have greater contrast between the two to emphasize the visual break. A brighter, more dynamic color is another direction if visual interest is a priority.

5) Scale and Articulation: Project meets articulation requirement with canopy, entrances, and fenestration. The building also includes massing variation/stepbacks at the street-facing façade.

Planning Board Considerations

- Does the change in color sufficiently address the design standards regarding visual interest and equal treatment of facades for the two functional, water-facing elevations?
- Does the Board have further comments about the color selection or placement in relation to the standards – the intent is to prevent large expanses of blank wall while considering the functional constraints of buildings in an industrial zone.



MAINE INTERNATIONAL COLD STORAGE FACILITY

LEVEL III SITE PLAN

40 West Commercial
Street
Portland, ME

41 Hutchins Drive
Portland, ME 04102
800-426-4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0232277.00
**Maine International Cold
Storage Facility LLC**
March 13, 2020

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1. APPLICATION

A Level III Site Plan has been filed through the City of Portland Citizen Self Service and Eplan online system. The Level III Site Plan Checklist is attached.

1.1 APPLICATION FEES

The Application Fee will be paid by the Applicant online. It is our understanding that the application fee includes:

- Level III Site Plan Over 300,000 SF \$7,000
 - Site Location of Development Permit \$3,500
- TOTAL: \$10,500

1.2 ATTACHMENTS

- Level III Checklist

CITY OF PORTLAND
Planning & Urban Development Department

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

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

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

GENERAL APPLICATION DOCUMENTS

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

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

TRANSPORTATION

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

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

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

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

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

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

RECENT BOUNDARY SURVEY (stamped by Maine Licensed Surveyor)

- ☒ Must be in compliance with Technical Manual, Section 13

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

Existing Conditions

- ☒ Approximate location of structures on abutting property
- ☒ Topography
- ☒ Locate water courses (Fore River)
- ☒ Delineate wetlands (Fore River)
- ☐ Zone lines

Proposed Site Plan

- ☒ Ground floor area, and grade elevations for all buildings

Access, Circulation, and Parking

- ☒ Streets and intersections adjacent to site, any proposed geometric modifications
- ☒ Location, dimensions and materials of all existing and proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines
- ☒ Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas
- ☒ Location and dimensions of proposed loading areas
- ☐ Existing and proposed transit infrastructure with dimensions/ engineering specifications
- ☒ Location of vehicle and bicycle parking with dimensions and engineering specifications

Site Considerations

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

UTILITY PLAN including:

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

GRADING AND DRAINAGE PLAN including:

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

EROSION CONTROL

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

LANDSCAPE PLAN including:

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

RECORDING PLAT, if applicable
☐ If Subdivision, must be in compliance with requirements of Section 14-496 (b)
ARCHITECTURAL PLANS AND RENDERINGS including:
☒ Exterior building elevations, color renderings, illustrations of all sides
☒ Location and dimensions of all existing and proposed HVAC and mechanical equipment, all proposed screening
☒ Provide context drawings, if applicable (Design Manual, page 1)
☒ Floor plans



March 13, 2020

James Rather
City of Portland Development Review Services Manager
389 Congress Street
Portland, ME 04101

Re: Maine International Cold Storage Facility | 40 West Commercial Street
Level III Site Plan Application
Site Location of Development Application

Dear James:

On behalf of Maine International Cold Storage Facility LLC, Woodard & Curran is submitting a Level III Site Plan for the proposed Cold Storage Facility located at 40 West Commercial Street in Portland, Maine. The proposed development resides within the Waterfront Port Development Zone on a currently vacant area of 17.9-acre property. The proposed work includes construction of a single story, 108,024 square-foot building, truck loading area, truck and employee parking areas, fire access drive, and associated site and utility improvements. The interior program will include common business administration space, mechanical rooms, maintenance space, cold storage warehousing, and shipping and receiving docks. A 24-foot wide fire access road will circulate around the building to provide emergency access to all four sides of the building.

The Application documents were prepared in accordance with City of Portland's Chapter 14, Land Use Code of Ordinances and meet the applicable sections of the City of Portland Design and Technical Manuals. The Site Location of Development Application has been prepared in accordance with Maine Department of Environmental Protection Chapter 500 regulations, and it is our understanding that the City will review it under its Delegated Review Authority. The Application reports, attachments and design drawings have been uploaded into the project Eplan folder. If there are any questions on the uploaded materials, please don't hesitate to let me know.

Thank you for coordinating the review of this project. If you have any questions regarding this application, please feel free to contact me at (207) 558-3662 or by email at dstairs@woodardcurran.com.

Sincerely,

WOODARD & CURRAN INC.

Darrin Stairs, PE
Project Manager

cc: Eric Carlson, Jedd Steinglass - Woodard & Curran, Inc.
Matthew Dieterich - Treadwell Franklin Infrastructure Capital

2. PROJECT DESCRIPTION

Woodard & Curran is submitting this Level III Site Plan Application for the Cold Storage Facility on behalf of the Maine International Cold Storage Facility LLC. A letter authorizing Woodard & Curran to act at the agent on behalf of the Applicant is attached to this Section.

2.1 INTRODUCTION

The proposed Cold Storage Facility project will be located on a parcel of industrial land located along the Fore River at 40 West Commercial Street in Portland, Maine as shown on **Figure 1** (the Site). The Site was operated by Portland Gas Light Company (Portland Gas) between 1852 and 1965. During this time, coal was delivered to the Site by ship and rail and then converted into coal gas, which was used for lighting, heating, and cooking purposes. In 1965, Portland Gas ceased operations at the Site, and the manufactured gas plant (MGP) was decommissioned. In 1966, Portland Gas merged with Lewiston Gas Light Company to form Northern Utilities, Inc. (Northern Utilities). Northern Utilities and a tenant (NGL Energy Partners, LP) operated a natural gas/propane distribution facility at the Site until 2016. The Site is currently owned by the State of Maine (acquired through eminent domain on April 30, 2014) and is currently operated by the Maine Port Authority as part of the adjacent International Marine Terminal (IMT), an intermodal container shipping facility that supports cargo coming and going from the Site via rail, ship, and truck.

In 2014, the State of Maine acquired 23 acres of vacant land (which includes the Site) adjacent to the IMT to develop intermodal rail access and construct a larger trucking yard for freight transfer operations. In addition, logistics and freight capabilities have been expanded through improvements at the container terminal and ocean shipping operations facility at the IMT.

The parcel where the project will be located is a 17.9 +/- acre site. The attached Location Map and Tax Maps show the project location. The property is Tax Map 59, Block A, Lots 1,2,5-11. The project is located within the City of Portland Waterfront Port Development Zone (WPDZ). A portion of the site is also within the Shoreland Protection Zone.

2.2 PROJECT PURPOSE AND NEED

The proposed cold storage facility, when operated in cooperation with existing facilities at the neighboring IMT, will satisfy the need for a northern New England refrigerated logistics facility that can support the domestic and international transport and distribution of refrigerated products.

2.3 EXISTING CONDITIONS

The Existing Conditions Plan, included in the drawings submitted with this application, depicts the existing conditions of the project area, based on a ground-level survey and site observations completed by Owen-Haskell on October 23, 2019. A portion of the development is within the 100-year flood plain; a FEMA flood zone map has been attached to this Section for reference. The Base Flood Elevation for the site is 10, and it is in Special Flood Hazard Area AE.

The area of the 17.9-acre property where the Cold Storage Facility is proposed is currently vacant. There are remnant concrete slabs and pavements, site lights, transformer pads, railroad tracks, and gravels that will be removed. Other portions of the property, outside of the proposed Cold Storage Facility, are being currently being used for various IMT operations. There is also a gas facility operated by Unitil located on the parcel. Topography slopes generally from West Commercial Street towards the Fore River, from approximate elevation 15' down to 10' at the approximate top of bank, before breaking in slope down to the river. The Highest Annual Tide Line is at Elevation 7.2 (NGVD 1929).

2.4 PROPOSED DEVELOPMENT

The intent of the project is to construct a 108,024 square foot cold storage facility within the Waterfront Port Development Zone in Portland. The building will be a single-story structure with varying roof heights. The interior program will include common business administration space, mechanical rooms, maintenance space, the main cold

storage spaces and shipping and receiving docks. A 24-foot wide fire access road will circulate around the building to the west and south along the Fore River, with “knox box” gated accesses located near the passenger car parking areas, and the truck parking areas. Emergency vehicles will have access to all four sides of the building. The access road along the Fore River extends to the Unitil Gas facility. The project will include associated utility and site improvements.

2.4.1 Civil Engineering Approach

The Cold Storage Facility has been designed to separate passenger car traffic from truck traffic. Trucks entering from West Commercial Street will turn east to the loading dock side of the building, which is closer to the rest of the IMT facility. Employee passenger cars will enter from West Commercial Street and turn to the west, to a passenger car parking area located on the west side of the building. Pedestrian walkways will connect the passenger car parking area with the administration portions of the building. A striped crosswalk will provide pedestrian access to West Commercial Street. Pedestrians can then cross at the signalized intersection of West Commercial Street and Beach Street to a sidewalk on the north side of West Commercial Street.

Site work will also include utility improvements to support the cold storage facility. Utility requirements are described in further detail in Section 13 of this report. A set of project design plans showing the proposed Cold Storage Facility is attached to this application. The set includes site, utility, grading and drainage plans, and details to support the site design.

2.4.2 Architectural Approach

The proposed facility is in line with the intended building uses within the Waterfront Port Development Zone. The building is a “working waterfront” facility positioned on a site that is an active part of the Portland “working waterfront.” In response to this, CWS Architects has been careful to incorporate a design approach that aligns with the City of Portland’s Land Use Ordinance while recognizing the limitations of the building’s inherent cold storage facility features. Efforts have been made to break up the form and bring it down to a human scale as well as to introduce interest and respect the context of the surrounding properties.

2.4.2.1 The Massing

In starting the design process, it was apparent that there would be a distinct need break up the bulk of the main cooler portion of the building. A logical solution was to take the spaces that don’t require tall open ceiling conditions and place them along the Commercial Street side of the building creating a natural step in the building’s overall form. This lower portion of the building houses administration and building utility entrance spaces. This lower form has been carried around the eastern corner and has been pulled away from the western corner helping accent these locations and to break up the form even further. The east elevation incorporates the main loading dock bays and has a lower roof than the main cooler which creates another step in the primary form. The introduction of metal panel joints and accented building elements creates variation and interest on the south and west elevations, breaking up the larger scale of these exposed facades.

2.4.2.2 The Building as a Structure

In areas of the building where the use of the building requires mechanical equipment to be set upon exposed roof areas, two screening alternatives have been incorporated. Along the primary Commercial Street façade, a tall parapet has been incorporated to hide roof top units. Two chillers will need to be placed upon the western roof of the mechanical room. In order to create interest and to assist in hiding the equipment, an open mesh screen wall has been proposed. This will allow openness for required air flow while hiding the equipment. A limited amount of piping will need to extend from this portion of the building to the main roof top. These pipes will need to remain exposed and will celebrate the industrial use. The upper main roof is a pitched roof structure incorporating scuppers and downspouts controlling watershed on both the east and west elevations. This further exemplifies the cold storage use and the inability to utilize

internal roof drains within cooler limits. These downspouts become accent elements assisting in breaking up the wall planes.

2.4.2.3 Details, Color, Texture, Consistency

As employees and visitors arrive on site, they will be directed to the main parking lot area on the Western side of the building. From this lot, the sidewalk circulation will bring them to the main entrance mid-way down the Commercial Street main façade. Because of this, design considerations have been given to introducing human scale elements and common commercial building design assemblies along this façade. The primary façade material will be horizontally oriented insulated metal paneling. This paneling will be 8'-0" long and 30 inches high placed in a stacked bond. A dusty gray/blue accent color has been proposed. Much of the main façade has been opened up with large areas of aluminum storefront window assemblies allowing for natural light and creating transparency along the façade and the wrapped corner conditions. A projecting louver system above the window units will assist in light control and help humanize the scale of the wall. A red brick wainscot with a precast concrete cap has been detailed to draw upon a common Old Port context element.

The primary wall assemblies throughout the build are insulated metal wall paneling oriented vertically. Two colors are proposed. The main cooler assembly will require white or a slightly off-white color in order to avoid excessive heat gain within the space. A gray accent color has been proposed for the mechanical room along the Commercial Street side of the building. The orientation of these panels allows for the incorporation of a horizontal butt joint that creates an accent line around the building breaking up the height of the wall plane.

2.4.2.4 Summary

In summary, we believe that the overall design approach to the project is in alignment with the Waterfront Port Development Zone. CWS has incorporated design elements directly responding to the Design and Visual Character outlined for the ordinance. The project itself will increase commerce and bring added vitality to the Western end helping to continue to on-going redevelopment of the area.

2.4.3 Landscaping Approach

The landscape concept for the Cold Storage Building focuses on two distinct areas of the site: the main building façade and perimeter landscaping, as described in the following sections. Trees, shrubs, and ground covers have been selected based on exposure, type of use, color/flowering characteristics, and growing conditions. Shrubs and groundcovers will be a mixture of evergreen and deciduous plants, providing year-round interest and appropriate to the shady microclimate of the site. We anticipate working closely with the City Arborist on the final selection of these plant species.

2.4.3.1 Main Building Façade

It is recognized that the mass and height of the Cold Storage Building will not be effectively screened or buffered by any amount of landscaping treatment, it is an industrial building in an industrial site. The project site is most visible at the entrance to the property at the intersection of Commercial and Beach Streets in Portland. The building façade on this end of the building is designed to step down from the actual refrigerated building and accommodate the main entrance, offices, break rooms, and mechanical space. It becomes the public face of the project and justifies a significant level of landscape treatment. A fairly narrow planting strip runs the length of this facade, varying in width from 6 ft on the northeast side to over 12 ft in width on the northwest side. Landscape treatment here includes tree planting (River Birch) against the solid wall on the northeast, with evergreen and deciduous planting below and in front of office windows on both sides of the main pedestrian entrance to the building. All plantings in this area will be connected by an understory of New York Fern, providing a low maintenance, naturalized, unifying element along this face of the building. Moving to the west, the landscape area becomes wider (12 ft), and larger shade trees can be

utilized to soften the building massing and break up the façade. We are proposing that this area be seeded as a mowed lawn, projecting a manicured look against the building. Trees in this area are proposed to be Armstrong Maple. We are also proposing to install a massing of evergreen and deciduous shrubbery at the northwest corner of the building to screen the generator and transformer from view.

2.4.3.2 Perimeter Landscaping

The other defined landscapes on the site include shade tree planting (Honeylocust) along the west elevation adjacent to the employee parking area, and groupings of evergreen and deciduous trees (Spruce and Maple) at the northwest and southeast corners of the site to soften the building massing from West Commercial Street and the waterside. Ground treatment in these perimeter areas is proposed to be seeded with a meadow mix, providing a stable vegetated surface that would likely be mowed 2-3 times a year.

2.5 ATTACHMENTS

- Agent Letter
- Location Map
- Tax Map
- FEMA Map
- Civil, Landscape, & Architecture Design Plans (uploaded to Drawings folder in Eplan)
- Architectural Renderings (uploaded to Drawings folder in Eplan)

February 28, 2020

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

Re: Maine International Cold Storage Facility – Authorization for Permitting

To Whom it May Concern:

On behalf of Maine International Cold Storage Facility, LLC, Woodard & Curran is authorized to apply for Planning Board approval for the proposed Maine International Cold Storage Facility to be located at approximately 40 West Commercial Street in Portland. Furthermore, Woodard & Curran is authorized to act on behalf of Maine International Cold Storage Facility, LLC throughout the permitting process.

Should you have any further questions, please do not hesitate to contact me at Tom.Oshaughnessy@amberinfrastructure.com

Regards,



Tom O'Shaughnessy, President Maine International Cold Storage Facility, LLC



Service Layer Credits: Esri, HERE, Garmin
(c) OpenStreetMap contributors, and the GIS user community

0 1,000 2,000
Feet

IMT COLD STORAGE FACILITY

COMMERCIAL STREET
PORTLAND, ME

FIGURE 1 - SITE LOCATION MAP



Project #: 0232277.00
Map Created: September 2019

D9SW

D9SE

D10SW

059 A001

059 A011

059 A001

059 A001

600

18134

44188

120

169406

059 A008

059 A009

059 A010

059 A006

87200

059 A005

059 A007

059 A003

68492

059 A004

70114

**City of
South
Portland**

AN

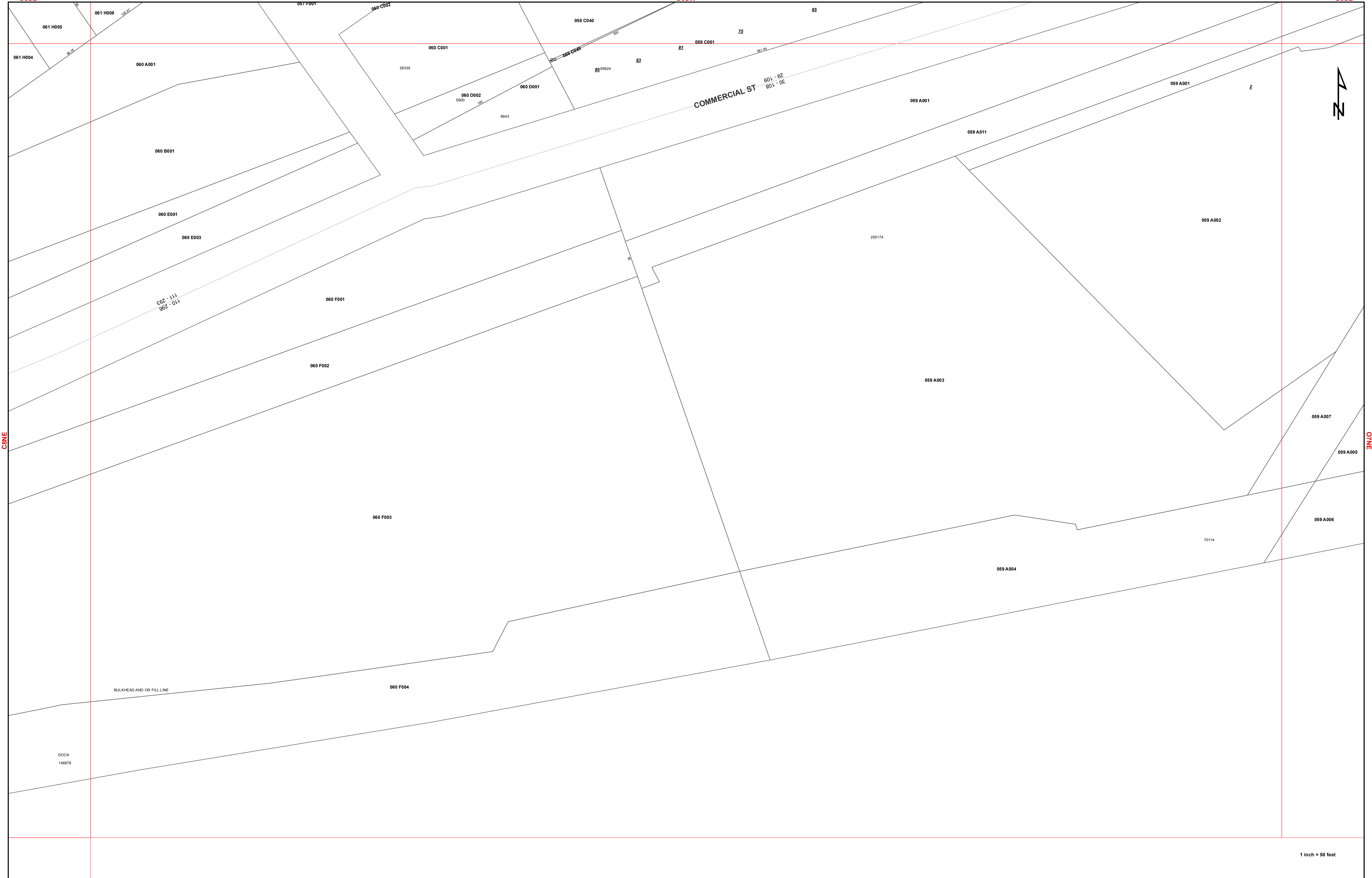
07NE

1 inch = 50 feet

D8SE

D9SW

D9SE



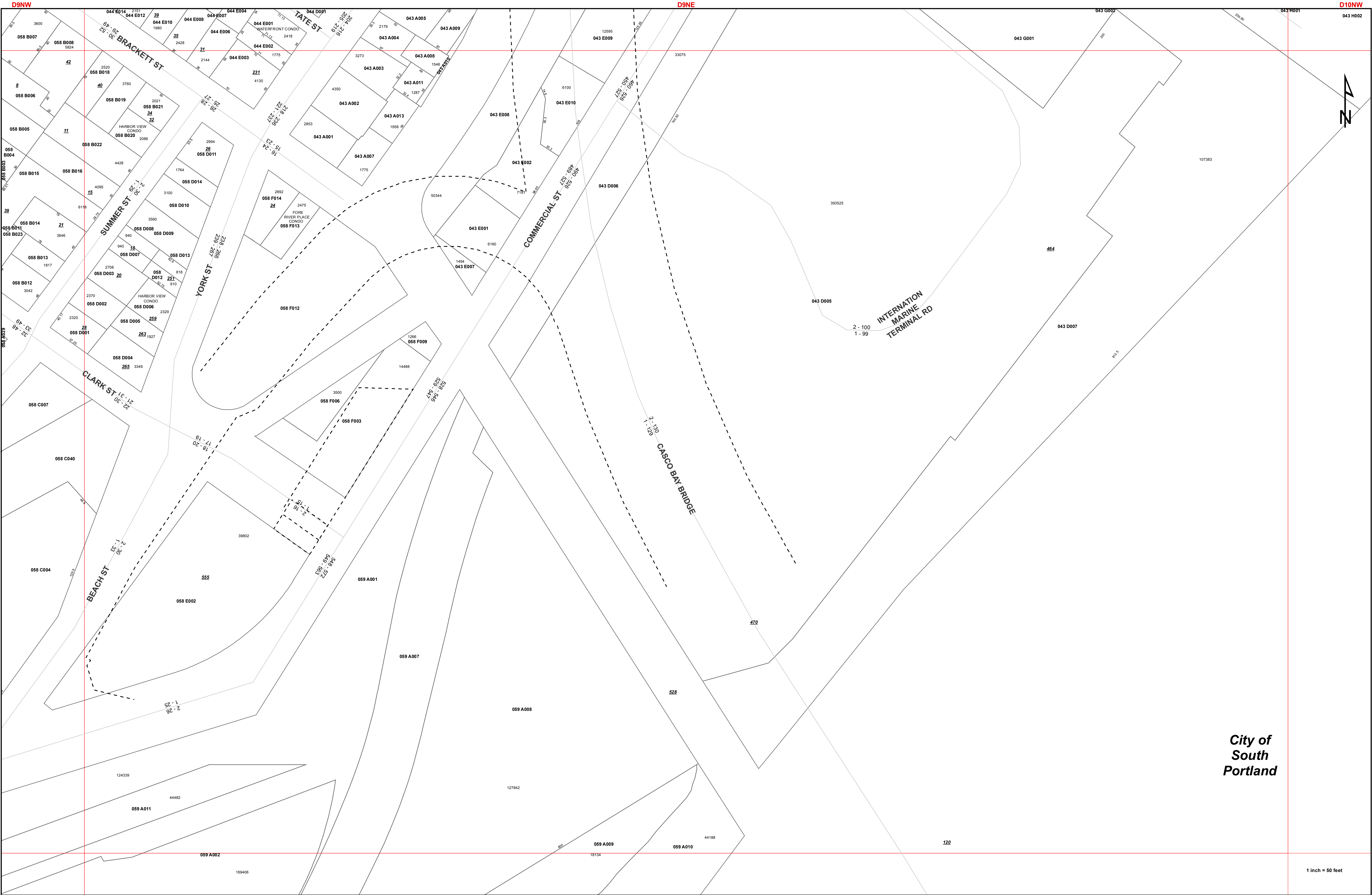
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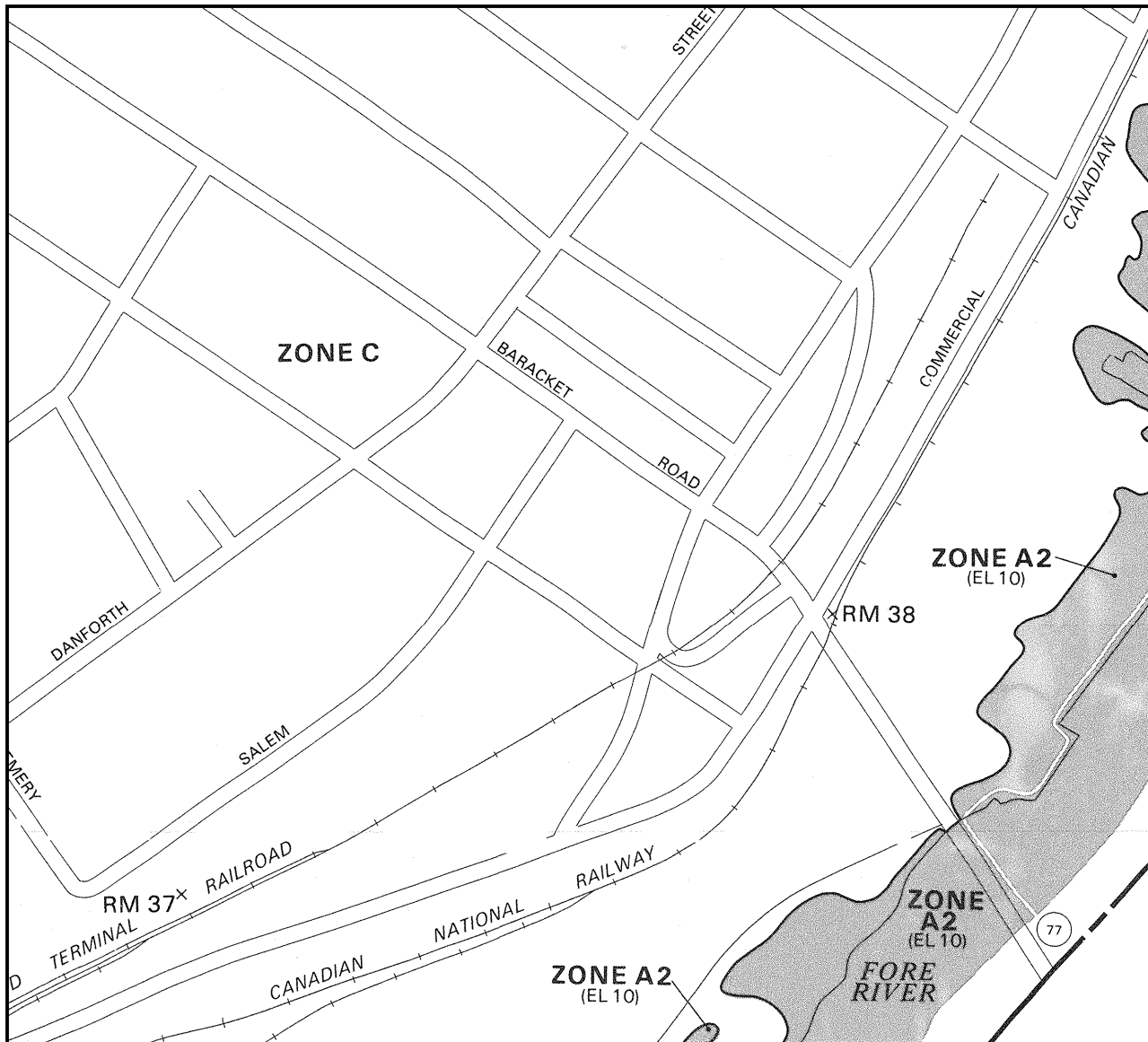
C8SE

April 1 2012 fy 2013

Tax Map Index; <http://www.portlandassessors.com/taxmaps.htm>

Index Number - C9NW





APPROXIMATE SCALE

400 0 400 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND, MAINE
CUMBERLAND COUNTY

PANEL 13 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

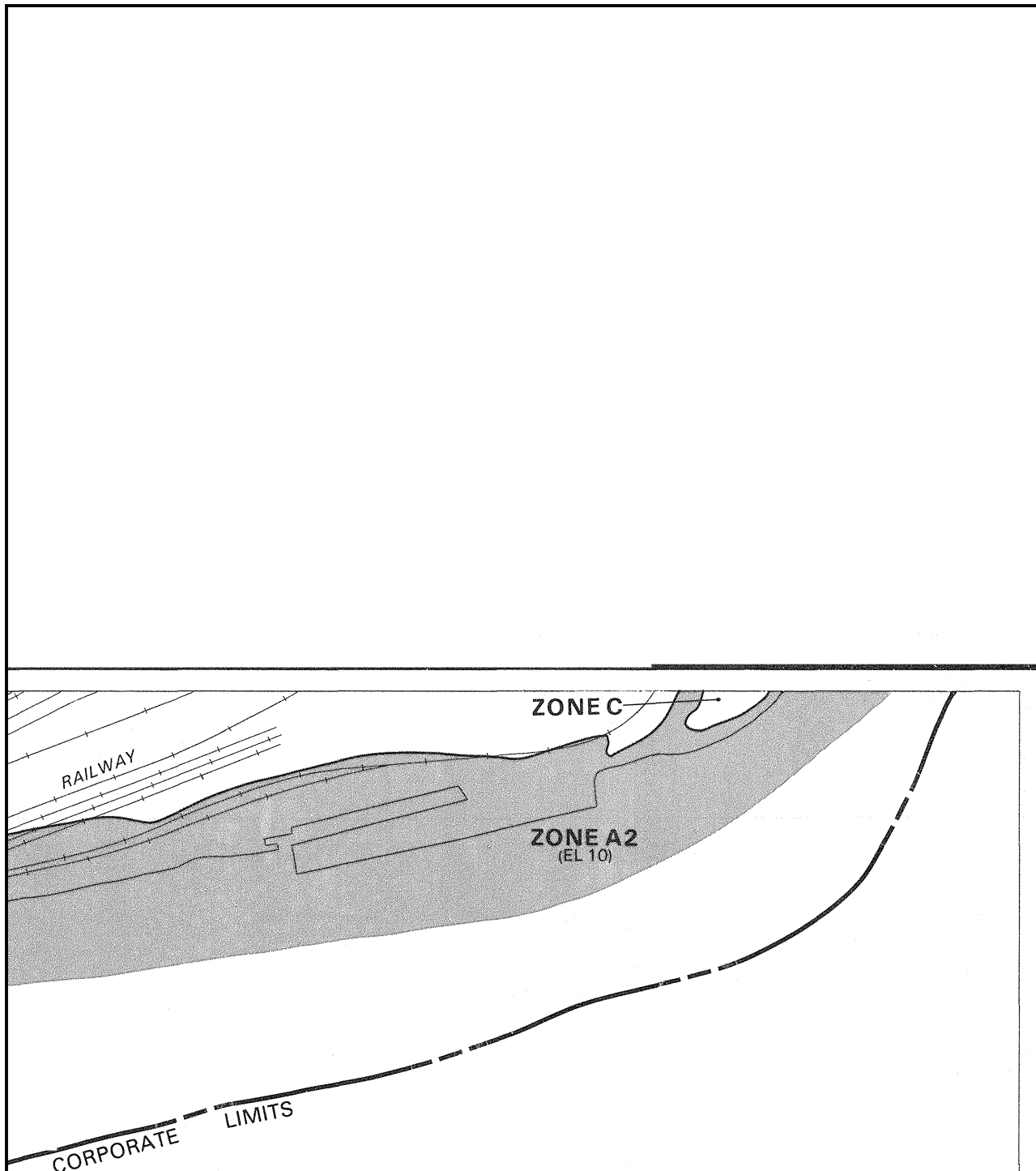
COMMUNITY-PANEL NUMBER
230051 0013 B

EFFECTIVE DATE:
JULY 17, 1986

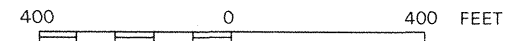


Federal Emergency Management Agency

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



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND, MAINE
CUMBERLAND COUNTY

PANEL 16 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230051 0016 B

EFFECTIVE DATE:
JULY 17, 1986



Federal Emergency Management Agency

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

Bartlett Design
LIGHTING & ELECTRICAL ENGINEERING
 5 PALMER STREET BATH, MAINE 04530
 TEL (207) 443-5447

Main Port Authority Cold Storage Facility
 Portland, Maine

March 2, 2020
 Revised May 11, 2020
 Revised July 29, 2020

PROPOSED SITE LIGHTING

Basis of Site Lighting Design

The *Illuminating Engineering Society of North America (IESNA)* publishes recommended lighting standards for marine port facilities in RP-40-19 Recommended Practice: Lighting Port Terminals. RP-40-19 recommends the following horizontal illuminance levels:

Average Illuminance at Grade:	38 Lux (3.5 footcandles)
Minimum Illuminance at Grade:	11 Lux (1.0 footcandle)
Maximum-to-Minimum Uniformity Ratio:	6.0-to-1 or less

The *IESNA* also publishes recommended lighting standards for open parking facilities in RP-8-19 Recommended Practice for Design and Maintenance of Roadway and Parking Facility Lighting. RP-8-18 recommends the following horizontal illuminance levels for parking areas and associated drive areas that are paved with asphalt:

Minimum Illuminance at Grade:	5 Lux (0.46 footcandles)
Maximum-to-Minimum Uniformity Ratio:	15.0-to-1 or less

Section 12 of the City of Portland Technical Manual stipulates the following illuminance design criteria:

Average Illuminance at Grade:	1.25 footcandles
Minimum Illuminance at Grade:	0.2 footcandle
Maximum Illuminance at Grade:	5.0 footcandles
Maximum-to-Minimum Uniformity Ratio:	20.0-to-1 or less

Additionally, The Technical Manual stipulates that the maximum lighting pole height for large industrial facilities (> 50,000 SF) be not greater than 30-feet.

The proposed site lighting design has been prepared to provide user safety while respecting reasonable design criteria. The requirement to keep the marine port loading/unloading and dock vehicle areas clear of lighting poles makes the lighting layout a challenge given the width of the paved area. Lighting for the marine port loading/unloading and dock vehicle areas is proposed to consist of lighting poles along the perimeter of the paved area, as well as building mounted lighting.

The following design criteria serve as the basis for the overall site lighting design:

- Illuminance Levels:

Parking Lot and Access Drives	
Average Illuminance at Grade:	1.25 footcandles
Minimum Illuminance at Grade:	0.5 footcandle
Maximum Illuminance at Grade:	5.0 footcandles
Maximum-to-Minimum Uniformity Ratio:	15.0-to-1 or less
Marine Cold Storage Loading/Unloading Area	
Average Illuminance at Grade:	2.5 footcandles
Minimum Illuminance at Grade:	0.75 footcandle

Maximum Illuminance at Grade:	5.0 footcandles
Maximum-to-Minimum Uniformity Ratio:	6.0-to-1 or less

- Mounting Heights
 - Parking Lot and Access Drives
 - Lighting Poles: 20-feet (maximum)
 - Building Mounted Lights: 20-feet (maximum)
 - Marine Cold Storage Loading/Unloading Area
 - Lighting Poles: 35-feet (maximum)
 - Building Mounted Lights: 30-feet (maximum)

Requirements for site lighting are addressed by the City of Portland in two documents: The City of Portland, Maine - Code of Ordinances, and the City of Portland - Technical Manual. Listed below are the issues pertaining to the proposed site lighting as relates to the two city documents.

The City of Portland - Maine Code of Ordinances

Chapter 14 – Land Use

Article V Site Plan

14-526.6 Exterior Lighting

a. Site Lighting

- (i) *All exterior site lighting, including lighting of building entrances, shall be full cut-off with no light emitted above the horizontal plane or spilled onto adjacent properties and streets. Illumination levels shall be adequate but not excessive for safety, comfort and convenience of occupants and users of the site and shall conform to applicable standards of Section 12 of the Technical Manual.*

RESPONSE: The *Illuminating Engineering Society of North America (IESNA)* classifies exterior luminaires in the publication *IESNA TM-15-11 Luminaire Classification System for Outdoor Luminaires* according to their potential for producing uplight. The rating system is a numeric index that ranges from zero (no uplight) to five (greater than 1000 lumens uplight). All the proposed site lighting luminaires are classified as having an uplight rating of (U0) Zero Uplight Component.

14-526.6 Exterior Lighting

a. Site Lighting

- (ii) *For major or minor site plans within or abutting a residential use or zone where light from the proposed development may adversely impact adjacent residential properties, exterior lighting shall employ house-side shielding.*

RESPONSE: Not applicable (project does not abut a residential zone)

The City of Portland Technical Manual

Section 12 Site Lighting Standards

12.3 General Standards

Outdoor lighting standards listed below apply to all new developments. 12.3.

1. *Uniformity: As measured in foot candles at grade, maximum-to-minimum illumination levels shall not exceed a ratio of twenty (20) to one (1).*

RESPONSE: The maximum-to-minimum illumination ratio for the proposed site lighting is:

- | | |
|---------------------------------|----------|
| • Access Drives | 6.4-to-1 |
| • Parking Lot | 3.6-to-1 |
| • Marine Loading/Unloading Area | 4.7-to-1 |
| • Loading Dock | 5.0-to-1 |

2. *Illumination Levels: Minimum, Maximum, and Average illumination levels for areas intended to be lighted, as measured at grade, shall be:*

Minimum	0.2 footcandles (fc)
Maximum	5.0 footcandles (fc)
Average	1.25 footcandles (fc)

RESPONSE: The horizontal illumination levels for the proposed site lighting are as follows:

- Front Entrance/Exit Drive:
 - Average Illuminance at Grade: 1.2 footcandles
 - Minimum Illuminance at Grade: 0.5 footcandles
 - Maximum Illuminance at Grade: 3.2 footcandles
- West Parking Lot:
 - Average Illuminance at Grade: 1.2 footcandles
 - Minimum Illuminance at Grade: 0.5 footcandle
 - Maximum Illuminance at Grade: 1.8 footcandles
- Marine Port Loading/Unloading Area:
 - Average Illuminance at Grade: 2.1 footcandles
 - Minimum Illuminance at Grade: 0.9 footcandle
 - Maximum Illuminance at Grade: 3.9 footcandles
- Loading/Unloading Docks Area:
 - Average Illuminance at Grade: 2.7 footcandles
 - Minimum Illuminance at Grade: 1.0 footcandle
 - Maximum Illuminance at Grade: 5.0 footcandles

The proposed minimum and maximum illuminance levels conform to the 12.3.2 standard. The average illuminance at the marine port loading/unloading area exceeds the 1.25 footcandle criteria as stipulated in the City Technical Manual. The average illuminance in this area is proposed as being necessary to promote the safety of loading/unloading activities.

3. **Lumens:** No fixture shall exceed 20,000 lumens (+/- 3%)

Types of Lighting	Maximum Lumens Allowed
Building Entrance	3,500 lumens

RESPONSE: The lumen ratings of the proposed site lighting luminaires at building entrances are all less than 3,500 lumens. The lumen rating of the proposed site lighting luminaires along the access drives, and at the parking lot are less than 20,000 lumens.

- Fixture Type S1A 2,846 lumens Fixture Type S4A 5,272 lumens
- Fixture Type S2A 1,424 lumens Fixture Type S4C 5,272 lumens
- Fixture Type S2B 9,300 lumens

The lumen output of luminaire Type S2B will be reduced to 6,268 lumens by means of dimming controls. The lumen output of the parking lot pole lights Type S4C will be reduced to 3,690 lumens by means of dimming controls. The lumen output of luminaire Type S4A will be reduced to 2,636 lumens at the Front Entrance/Exit Drive by means of dimming controls.

The lumen rating of the pole lights (Types S4D and S4E) that illuminate the marine port loading/unloading area exceed 20,000 lumens. Although this exceeds the 12.3.3 standard it is suggested that this is appropriate considering the potential for user safety at these areas.

- Fixture Type S4D 30,400 lumens Fixture Type S4E 25,913 lumens

4. Light Trespass: The maximum illumination level at a property line shall not exceed 0.1-foot candle, as measured at grade, except where abutting industrial, or other non-sensitive uses. When a commercial or industrial use abuts a public right-of-way, or another commercial or industrial use, lighting must be designed so that the illumination at the property boundary line does not exceed 1.0 foot-candles.

RESPONSE: No illuminance level across the property line exceeds 0.1 footcandle.

5. Luminaire Types: All fixtures must be LED and shall not exceed 3000K Correlated Color Temperature (CCT). Screw in light fixtures must have LED lamp specified to be maximum of 3000K CCT.

RESPONSE: All proposed light fixtures utilize LED lamps with 3000K CCT.

6. Full Cut-off Fixtures and Shielding Required: All outdoor lighting fixtures, including pole mounted and wall mounted luminaires, shall be constructed Full "cut-off" or with full shielding, type where lenses, refractors or lamp sources do not extend below the surface of the fixture housing and no direct light shall be directed at or above the horizontal plane.

Where the light source from an outdoor light fixture is visible beyond the property line, shielding shall be required to reduce glare so that the light source is not visible from within any residential dwelling unit.

Light fixtures mounted under a canopy shall be recessed to that the lens cover is recessed into, or flush with, the underside (ceiling) of the canopy.

RESPONSE: All proposed site lighting luminaires are classified as "full cut-off". The construction of the proposed canopies does not allow for recessed light fixtures. The proposed canopy-mounted light fixtures (Type S1A) are surface mounted on the underside of entrance canopies, and they include flush lenses that do not project below the fixture housing.

8. Fixture Height: Fixtures shall be mounted at the lowest height necessary to meet city standards and the height is measured from grade to the bottom of the light fixture.

Type of Lighting	Maximum Fixture Height
Residential (Pedestrian) Uses	20 feet
Commercial/ Office Uses	20 feet
Large Industrial Uses (50,000 sf or more- gross floor area)	30 feet
Building Mounted/ Entrances	below the roof eave and not to exceed 20 feet, whichever is lower
Bollard Fixtures	42 inches (3.5 feet)

RESPONSE: The maximum height of proposed site lighting fixtures at access drives, the parking lot, and at entrance/exit doors is less than 20 feet. The maximum height of proposed site lights at the marine port loading/unloading area is 34 feet. Given the width of the loading/unloading apron area, and the requirement for increased illumination levels to promote safety, it is necessary to set the pole height in this area to 34 feet. This matches the height of the existing site lighting poles that were installed in this area under the most recently IMT project.

9. Lighting Curfew: For surface and structured parking, lighting in vehicle parking areas containing twenty (20) or more parking spaces shall be reduced to 50% of permitted levels from one hour after business closing to one hour before business opening. If lighting levels are already below 50% of permitted levels, no curfew adjustment is required. Motion sensor activated lighting shall be permitted during closing hours to activate additional lighting above the 50% permitted, for the purposes of public safety.

RESPONSE: The facility operation extends 24 hours per day. Accordingly, it is proposed that the site lighting be operational for all hours from dusk until dawn.

10. *Continued Maintenance: Lighting installations must be maintained in good repair to meet the provisions of this ordinance on an on-going basis.*

RESPONSE: All proposed lighting will be maintained in full working order.

11. *General Exceptions: proposed uses that demonstrate a need to exceed the specific site lighting limits shown below for safe and reasonable exercise of the proposed use must provide a professionally produced lighting plan which adheres to the current Illuminating Engineering Society of North America (IESNA) recommendations for the proposed use. The planning Authority may grant exceptions to the lighting standards with the finding that the light impacts do not create a public nuisance for abutting residential property. Unless otherwise specified below, exterior lighting shall conform to the recommendations put forth in Lighting for Exterior Environments RP-33-14, or its successor, published by the Illuminating Engineering Society of North America (IESNA). Lighting fixtures other than full cut-off fixtures may be allowed only if acceptable luminaires shall include internal and/or external glare control louvers and installed so as to minimize uplight and offsite light trespass.*

RESPONSE: The proposed lighting conforms to the recommendations published in Lighting for Exterior Environments RP-33-14

The following exceptions to the City of Portland Technical Manual are requested:

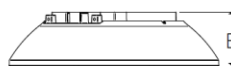
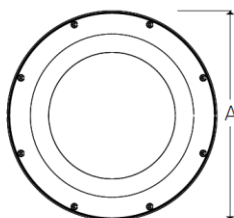
- Paragraph 12.3.2
Proposed average illuminance at the marine port loading/unloading area:
2.1 footcandles
Proposed average illuminance at the marine port loading/unloading dock area:
2.7 footcandles
- Paragraph 12.3.3
Proposed lumen rating for Type S4D pole lights at the marine port loading/unloading area:
30,400 lumens
Proposed lumen rating for Type S4E pole lights at the marine port loading/unloading area:
25,913 lumens
- Paragraph 12.3.8
Proposed luminaire height for Type S4D and Type S4E pole lights at the marine port loading/unloading area:
34 feet

Maine Port Authority Cold Storage Facility
Portland, Maine
June 1, 2020

PROPOSED SITE LIGHTING LUMINAIRES AND LIGHTING POLES

- TYPE S1A:** UNDER-CANOPY LIGHTS WITH AN IES TYPE 5QW DISTRIBUTION PATTERN.
- TYPE S2A:** WALL LIGHTS ABOVE ENTRANCE/EXIT DOORS.
- TYPE S2B:** WALL LIGHTS ILLUMINATING THE MARINE PORT LOADING/UNLOADING AREA. THE LUMINAIRES WILL HAVE AN IES FORWARD THROW DISTRIBUTION PATTERN AND WILL BE DIMMED TO 65% RATED OUTPUT.
- TYPE S4A:** POLE LIGHT WITH 18-FOOT TALL POLE INSTALLED ON A CONCRETE FOUNDATION BASE WITH 6-INCHES OF THE BASE EXPOSED ABOVE GRADE. THE LIGHTING POLE TO INCLUDE A 24" BRACKET ARM. THE LUMINAIRE WILL HAVE AN IES TYPE 4W DISTRIBUTION PATTERN AND WILL BE DIMMED TO 50% RATED.
- TYPE S4C:** POLE LIGHT WITH 14-FOOT TALL POLE INSTALLED ON A CONCRETE FOUNDATION BASE WITH 48-INCHES OF THE BASE EXPOSED ABOVE GRADE. THE LIGHTING POLE TO INCLUDE A 24" BRACKET ARM. THE LUMINAIRE WILL HAVE AN IES TYPE 4W DISTRIBUTION PATTERN AND WILL BE DIMMED TO 70% RATED OUTPUT.
- TYPE S4D:** POLE LIGHT WITH 30-FOOT TALL POLE INSTALLED ON A CONCRETE FOUNDATION BASE WITH 48-INCHES OF THE BASE EXPOSED ABOVE GRADE. THE LIGHTING POLE TO INCLUDE A 96" BRACKET ARM. THE LUMINAIRE WILL HAVE AN IES TYPE 4W DISTRIBUTION.
- TYPE S4E:** POLE LIGHT WITH 30-FOOT TALL POLE INSTALLED ON A CONCRETE FOUNDATION BASE WITH 48-INCHES OF THE BASE EXPOSED ABOVE GRADE. THE LIGHTING POLE TO INCLUDE A 96" BRACKET ARM. THE LUMINAIRE WILL HAVE AN IES TYPE 4W DISTRIBUTION .

SRT1 EDGE-LIT



A	B	Weight
12" (304mm)	3.1" (78mm)	8lbs (3.6kg)

- For ceiling mount and parking garage applications from an 8–15 foot mounting height
- Edge-lit flat lens for optimal visual comfort and uniformity across the lens
- Two optical distributions specifically design for parking garage and canopy applications are available making the Beacon Edge-Lit luminaire both versatile and functional
- UL/cUL listed for wet locations, IP65 and 3G vibration rated
- Occupancy sensor available for complete on/off and dimming operation

HOUSING

- Die-cast aluminum housing ensures long electrical component life and luminaire performance
- Corrosion resistant powder coat finish both protects and provides architectural appearance
- One piece molded silicone gasket ensures weather proof seal
- Thermally isolated driver mounted to dedicated bracket reduces operating temperatures and increases driver life and reliability

OPTICS

- Edge-lit acrylic light guide provides blended non-pixelated light for unprecedented visual comfort
- Choice of multiple light outputs with lumen range of 2500–6000
- Two distribution types: Type 5 Square Wide, Type 5 Concentrated
- Wide variety of CCT's and CRI's offered: 3000K (70CRI), 3000K (80CRI), 3500K (80CRI), 4000K (70CRI), 4000K (80CRI) or 5000K (70 CRI) CCT

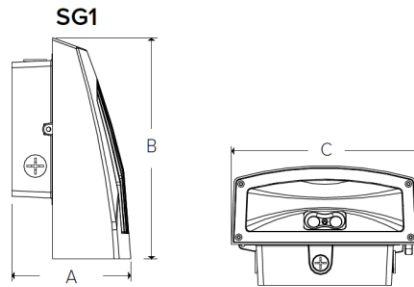
Series	Engine	CCT	Distribution	Voltage	Color/Finish
SRT1 Edge-Lit Parking Garage Size 1	20 20W Nominal 2500 lm 35 35W Nominal 4000 lm 55 55W Nominal 6000 lm	3K7 3000K, 70 CRI 3K8 3000K, 80 CRI 35K7 3500K, 80 CRI 4K7 4000K, 70 CRI 4K8 4000K, 80 CRI 5K7 5000K, 70 CRI	5QW Type 5 Square Wide 5C Type 5 Concentrated	UNV 120V-277V 120 120V 208 208V 240 240V 277 277V	BL Textured Black DB Textured Dark Bronze GT Graphite Textured GYS Smooth Gray PS Smooth Plat. Silver

Nominal Watts	Nominal Lumens	Distribution	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 70 CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
20	3000	5C	3093	136.86	1	0	1	3078	136.21	1	0	1	2960	130.97	1	0	1
		5QW	2974	131.60	1	0	1	2960	130.97	1	0	1	2846	125.93	1	0	1

Type S1A: 5QW Distribution



SLING SERIES



A	B	C	Weight
4.19" (107mm)	7.80" (198mm)	6.61" (168mm)	4.4lbs (2kg)

HOUSING

- Rugged die-cast aluminum housing with corrosion resistant powder coat finish
- Heating dissipating fins provide superior thermal performance extending the life of the electronic components
- Impact resistant tempered glass offers zero uplight
- Comfort lens available as an option or accessory to reduce glare (7-10% lumen reduction) and provide better uniformity

OPTICS

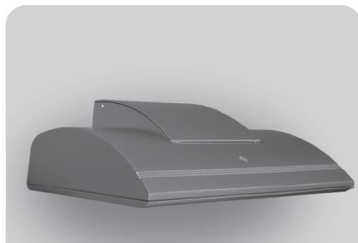
- 3000K, 4000K and 5000K CCT nominal with 70 CRI
- Smaller SG1 housing has 2 LEDs, larger SG2 housing has 3 LEDs

- SG1 Series replaces from 100W-150W HID; SG2 Series replaces from 150W-250W HID
- Comfort lens available as an option or accessory provides glare control and enhanced uniformity
- Knuckle and trunnion accessory mounting kits available for flood applications
- IP65 and certified to UL 1598 for use in wet locations up to 40°C ambient
- DLC (DesignLights Consortium Qualified - see www.designlights.org)

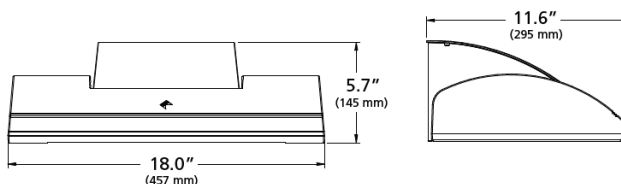
Housing	CCT/CRI	Distribution	Voltage	Color/Finish	Control Options	Options
SG1-10 Size 1, 10W	3K7 3000K, 70 CRI	FT Fwd Throw	UNV 120V-277V	DB Textured Dark Bronze	PCU Universal Button Photocontrol (120-277V)	CS Comfort Lens
SG1-20 Size 1, 20W	4K7 4000K, 70 CRI		120 120V	BL Textured Black	SCP ^{1,2,3} Occupancy Sensor Programmable (Dim)	E ^{1,2} Battery 0°C
SG1-30 Size 1, 30W	5K7 5000K, 70 CRI		277 277V	WH Textured White	SWP ^{1,2} SiteSync Pre-commission	EH ^{1,2} Battery w/ heater -20°
SG1-40 Size 1, 40W			UHV 347V-480V	GYS Smooth Gray	SWPM ^{1,2} SiteSync Pre-commission w/ Sensor	
SG2-50 Size 2, 50W				PS Smooth Plat. Silver	Specify MTG HT for SCO/SCP & SWPM	
SG2-80 Size 2, 80W				CC Custom Color	8F Up to 8'	
					20F Up to 20'	

Description	# of LEDs	Drive Current	System Watts	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
SG1-10	2	140mA	11	1349	122	1	0	0	1424	129	1	0	0	1003	91	1	0	0
SG1-20	2	250mA	21	2449	115	1	0	0	2310	110	1	0	0	2054	95	1	0	0





Wall Director® Medium



Housing

- Optical housing is a one-piece, die-cast low copper (<0.6%) aluminum alloy with integral heat sink. The housing rotates against mounting arm housing to provide -5° to 10° of adjustment with degree markers cast into the housing. At 0° adjustment, lens is totally concealed from view above horizontal with fixture mounted in the downward position.
- Mounting arm housing is one-piece die-cast, low copper (<0.6%) aluminum alloy with provisions for tilt mechanism. Mounting arm fastens to the mounting plate with keyhole slots freeing both hands for securing and wiring. One stainless steel socket-head screw on the tilt mechanism frees the optical housing to rotate for aiming. Tightening the screws locks the housing and lens frame together with sealing provided by a silicone gasket. For visual aiming, adjustment may be accomplished with the fixture on.
- Lens Frame is a one-piece, die-cast low copper (<0.6%) aluminum alloy with integral cooling fins to dissipate driver thermal.
- Luminaire housing shall be free of any visible heat fins, hardware or fasteners.
- Bracketry and hardware shall be stainless steel.

Specifications

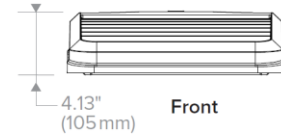
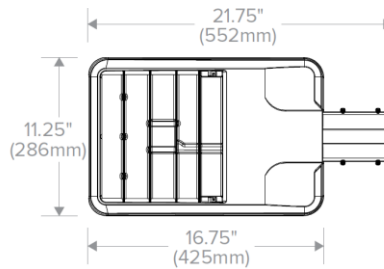
- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array shall have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C.
- luminaires not configured with a control system shall be provided with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

Fixture	Mounting	Source	Wattage	Light Engine	Distribution	Voltage
WDM Wall Director Medium	D Down U¹ Up	48L 48 LEDs	55 55 Watts 65 65 Watts 85 85 Watts 105 105 Watts 130 130 Watts	3K7 3000K/70CRI 3K8 3000K/80CRI 4K7 4000K/70CRI 4K8 4000K/80CRI 5K7 5000K/70CRI	1 Type I 2 Type II 3 Type III 4W Type IV Wide 4F Type IV Forward WG² Wall Graze SP Spot/Column FTD² Forward Throw Diffuse WTD² Wide Throw Diffuse	UNV 120-277V 347 347V 480 480V

LED #	Nominal Lumen Package	Nominal Wattage	Lens Options	Distribution	3000K					4000K					5000K				
					Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w
						B	U	G			B	U	G			B	U	G	
48L	10,000	88	Clear Lens	1	11194	1	0	1	127	11476	1	0	1	130	11607	1	0	1	132
				2	10601	2	0	2	120	10867	2	0	2	123	10991	2	0	2	125
				3	10779	1	0	2	122	11050	1	0	2	126	11177	1	0	2	127
				4F	10576	1	0	2	120	10842	1	0	2	123	10966	1	0	2	125
				4W	10285	2	0	2	117	10544	2	0	2	120	10665	2	0	2	121
				SP	11870	5	0	1	135	12168	5	0	1	138	12308	5	0	1	140
			Diffuse Lens	WG	10695	3	0	1	122	10964	3	0	1	125	11090	3	0	1	126
				FTD	9300	2	0	2	106	9534	2	0	2	108	9643	2	0	2	110
				WTD	10065	2	0	2	114	10318	2	0	2	117	10436	2	0	2	119

KIMLIGHTING

VIPER S



CONSTRUCTION

- Manufactured with die cast aluminum
- Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D522 cracking and loss of adhesion test requirements
- IFS polyester powder-coat electrostatically applied and thermocured. IFS finish consists of a five stage pretreatment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish
- The finish meets the AAMA 2604 performance specification which includes passing a 3,000-hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds
- External hardware is corrosion resistant

OPTICS

- Cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one-piece optical system
- One-piece silicone gasket ensures a weatherproof seal around each individual optic
- One-piece optical cartridge system consisting of an LED engine, optics, gasket and stainless steel bezel

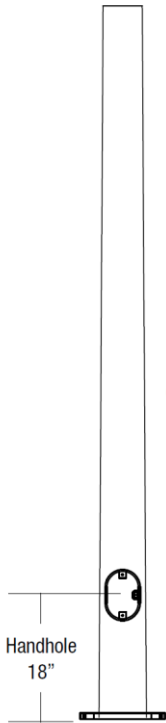
VPS	LED Engine	CCT/CRI ⁷	Distribution	Rotation	Voltage
Series					
VPS Viper Small	24L-55 55W, LED array	3K7 3000K, 70 CRI	FR Type 1/Front Row	Blank No rotation	UNV 120-277V
	36L-65 65W, LED array	4K7 4000K, 70 CRI	2 Type 2	L Optic rotation left ⁵	347 347V
	36L-80 80W, LED array	5K7 5000K, 70 CRI	3 Type 3	R Optic rotation right ⁵	480 480V
	48L-110 110W, LED array		4 Type 4		
	60L-136 136W, LED array		4W Type 4 Wide		
Mounting	Color	Control Options			
A Rectangular Arm (formerly RA) for square or round pole	BL Black Textured	7PR 7-Pin Receptacle only (shorting cap, photo control, or wireless control provided by others)			
MAF Mast Arm Fitter (formerly SF2) for 2 3/8" OD horizontal arm	DB Dark Bronze Textured	7PR-SC 7-Pin Receptacle w/Shorting Cap			
K Knuckle (formerly PK2) limit to 30° tilt or 2 3/8" OD horizontal arm or vertical tenon	GYS Light Gray Smooth	7PR-TL 7-Pin Receptacle w/Twist-Lock® photo control			
	PS Platinum Silver Smooth				

DELIVERED LUMENS

# of LEDs	DRIVE CURRENT (mA)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
				LUMENS	LPW	B	U	G	LUMENS	LPW	B	U	G	LUMENS	LPW	B	U	G
24	700 mA	55W	FR	6357	118	1	0	1	6486	120	1	0	1	5804	107	1	0	1
			2	6132	114	1	0	1	6257	116	1	0	2	5599	104	1	0	1
			3	6015	111	1	0	2	6137	114	1	0	2	5492	102	1	0	2
			4	5921	110	1	0	2	6034	112	1	0	2	5400	100	1	0	2
			4W	5793	108	1	0	2	5909	110	1	0	2	5272	98	1	0	2



TYPES S4A & S4C



CONSTRUCTION

- SHAFT: One-piece tapered aluminum with round cross section, made of 6061-T6 shaft and 356-T6 cast aluminum base

GROUP 2

- ANCHOR BOLTS: Supplied with (4) galvanized anchor bolts with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling
- BOLT COVER: Four individual bolt covers provided
- POLE CAP: Pole shaft supplied with removable cover when applicable; Tenon and post-top configurations also available
- HANDHOLE: 4" X 6" handhole opening with cover and grounding provision handhole 3" x 5" for 20' pole. The handhole is located 18" from the base of the pole.

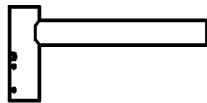
FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Decorative finish coat available in six standard colors; Custom colors available, RAL number preferred

MOUNTING	DRILL PATTERN	FINISH	OPTIONS
1 Single arm mount	B1 Cruiser, "AM" arm	DB Dark Bronze Textured	GFI' 20 Amp GFCI Receptacle and Cover
2 Two fixtures at 180°	B3 2 bolt (2-1/2" spacing Viper "A" arm)	BBT Basic Black Textured	EHH' Extra Handhole
2L Two fixtures at 90°		BL Black Textured	C05' .5" Coupling
3T Three fixtures at 90°	S2 2 bolt (3-1/2" spacing Viper "AD" arm)	BZT Bronze Textured	C07' .75" Coupling
3Y Three fixtures at 120°		WH White Textured	C20' 2" Coupling
4 Four fixtures at 90°		PS Platinum Silver Smooth	VM2 2nd mode vibration damper
TA Tenon (2.375" OD)		GT Graphite Textured	LAB Less Anchor Bolts
TB Tenon (2.875" OD)		GYS Gray Smooth	
TC Tenon (3.5" OD)		CC Custom Color	
OT Open Top (includes pole cap)			

Catalog Number	Height		Nominal Shaft Dimensions	Wall Thickness	Bolt Circle	Bolt Circle Range	Base Plate Size	Base Plate Shape	Anchor bolt size	Bolt Projection	Pole weight
	Feet	Meters									
Group 1											
RTA-B-10-40-A	10	3.0	4" x 3"	.125"	7"	-	7.25	Triangular	3/4x17x3"	3.25"	24
RTA-B-12-40-A	12	3.7	4" x 3"	.125"	7"	-	7.25	Triangular	3/4x17x3"	3.25"	27
RTA-B-14-40-A	14	4.3	4" x 3"	.125"	7"	-	7.25	Triangular	3/4x17x3"	3.25"	32
RTA-B-16-50-A	16	4.9	5" x 3"	.125"	8"	-	8.31	Triangular	3/4x17x3"	3.25"	35
RTA-B-18-50-A	18	5.5	5" x 3"	.125"	8"	-	8.31	Triangular	3/4x17x3"	3.25"	42

SPOKE TYPE BRACKETS



CONFIGURATION	LENGTH	POLE TENON SIZE	COLOR
1	8"	PT20 2" pipe tenon (2.38" O.D.)	DB Dark bronze textured
2-180	12"	PT25 2.5" pipe tenon (2.88" O.D.)	BL Black textured
2-90	18"	PT35 3.5" pipe tenon (4.0" O.D.)	WH White textured
3-120	24"		GR Gray textured
3-90	30"		PS Platinum silver smooth
4-90			GYS Light gray smooth

Type S4A: 18-Foot Pole with 6-Inches Exposed Concrete Foundation Base

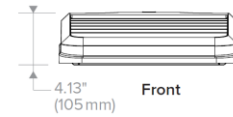
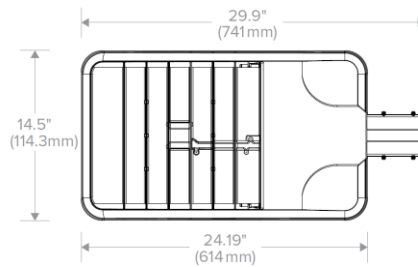
Type S4C: 14-Foot Pole with 48-Inches Exposed Concrete Foundation Base



TYPES S4D & S4E



VIPER S



CONSTRUCTION

- Manufactured with die cast aluminum
- Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D522 cracking and loss of adhesion test requirements
- IFS polyester powder-coat electrostatically applied and thermocured. IFS finish consists of a five stage pretreatment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish
- The finish meets the AAMA 2604 performance specification which includes passing a 3,000-hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds
- External hardware is corrosion resistant

OPTICS

- Cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one-piece optical system
- One-piece silicone gasket ensures a weatherproof seal around each individual optic
- One-piece optical cartridge system consisting of an LED engine, optics, gasket and stainless steel bezel

Series	LED Engine	CCT/CRI ⁷	Distribution	Rotation	Voltage
VPL Viper Large	64L-135 135W LED array 80L-180 180W LED array 80L-235 235W LED array 96L-220 220W LED array 96L-280 280W LED array 96L-315 315W LED array 96L-395 395W LED array	3K7 3000K, 70 CRI 4K7 4000K, 70 CRI 5K7 5000K, 70 CRI	FR Type 1/Front Row 2 Type 2 3 Type 3 4 Type 4 4W Type 4 Wide 5QM Type 5QM 5QN Type 5QN	Blank No rotation L Optic rotation left ⁵ R Optic rotation right ⁵	UNV 120–277V 347 347V 480 480V
Mounting	Color	Control Options			
A Rectangular Arm (formerly RA) for square or round pole MAF Mast Arm Fitter (formerly SF2) for 2 3/8" OD horizontal arm K Knuckle (formerly PK2) limit to 30° tilt	BL Black Textured DB Dark Bronze Textured GYS Light Gray Smooth	7PR 7-Pin Receptacle only (shorting cap, photo control, or wireless control provided by others) 7PR-SC 7-Pin Receptacle w/Shorting Cap			

Type S4D: 96L 395

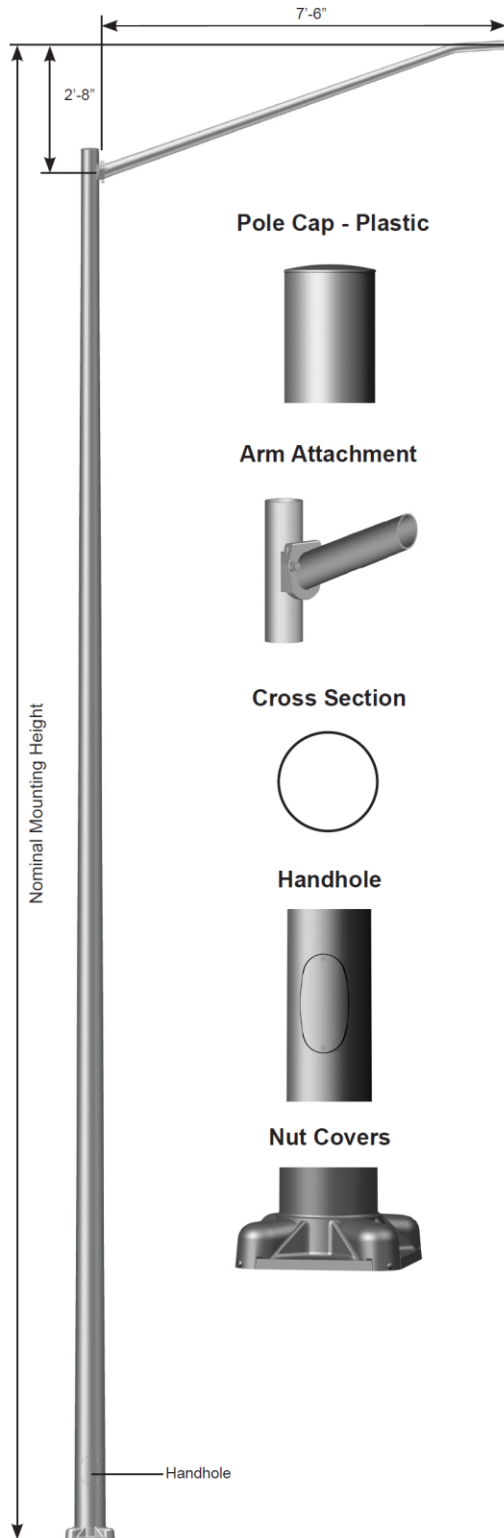
Type S4E: 96L 315



DELIVERED LUMENS

# of LEDs	DRIVE CURRENT (mA)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
				LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G
96	1000mA	315W ²	1A	35666	113	3	0	2	36769	117	3	0	2	31989	101	2	0	2
			2	33725	107	3	0	4	34768	110	3	0	4	30248	96	3	0	4
			3	33782	107	3	0	5	34827	110	3	0	5	30299	96	3	0	4
			4	33012	105	2	0	5	34033	108	2	0	5	29609	94	2	0	5
			4W	29571	94	3	0	5	30485	97	3	0	5	25913	82	2	0	5
			5QM	33785	107	5	0	3	34830	110	5	0	3	30302	96	5	0	2
			5QN	35280	112	5	0	1	36371	115	5	0	1	31643	100	5	0	1
			5R	34080	108	5	0	5	35134	111	5	0	5	30567	97	5	0	5
			5W	32302	102	5	0	4	33301	106	5	0	4	28972	92	5	0	4
			TC	30568	97	2	1	3	31513	100	3	1	3	27416	87	2	1	3
96	1225mA	395W ²	1A	39569	101	3	0	4	43125	110	3	0	3	37518	96	3	0	2
			2	39569	101	3	0	4	40793	104	3	0	4	35490	91	3	0	4
			3	39619	101	3	0	5	40845	104	3	0	5	35535	91	3	0	5
			4	38723	98	3	0	5	39921	101	3	0	5	34731	88	2	0	5
			4W	34691	86	3	0	5	35764	89	3	0	5	30400	76	3	0	5
			5QM	39623	101	5	0	3	40848	104	5	0	3	35538	90	5	0	3
			5QN	41394	105	5	0	1	42675	109	5	0	1	37127	95	5	0	1
			5R	39969	102	5	0	5	41205	105	5	0	5	35848	91	5	0	5
			5W	37877	97	5	0	4	39048	100	5	0	4	33986	87	5	0	4
			TC	35850	90	3	1	3	36959	93	3	1	3	32154	81	3	1	3





SPECIFICATIONS

Pole - The pole shaft is extruded from seamless alloy aluminum.

Pole Top - A removable pole cap is provided.

Luminaire Arm - Luminaire arms are conically tapered from seamless alloy aluminum to 2.38" OD at the luminaire end.

Luminaire Arm Attachment - Connection allows arm to be erected and held in place by gravity and secured by two bolts.

Handhole - A covered handhole with hardware and grounding provision are provided.

Base Cover - Optional decorative base covers available as special order.

Anchor Base - The anchor base is cast from 356 alloy aluminum. The completed assembly is heat-treated to a T6 temper. Aluminum nut covers are included with anchor base unless otherwise specified.

Anchor Bolts - Anchor bolts conform to ASTM F1554 Grade 55 and are provided with two hex nuts and two flat washers. Bolts have an "L" bend on one end and are galvanized a minimum of 12" on the threaded end.

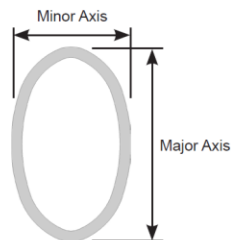
Hardware - All structural and non-structural fasteners are stainless steel.

Finish - The standard finish for the pole assembly and components is satin brushed, natural anodize, duranodic or polyester powder applied coating in accordance with Valmont's Specifications. Additional finish options available upon request.

Design Criteria - Please reference Design Criteria Specification for appropriate design conditions.

ARM DATA

Ovalized Arm Cross Section



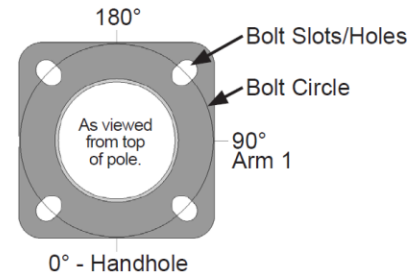
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valmont 
STRUCTURES

ANCHORAGE DATA

POLE		BASE PLATE				ANCHOR BOLTS		
BASE OD (IN)	WALL THK (IN)	BOLT CIRCLE		SQUARE (IN)	THK (IN)	DIA x LENGTH x HOOK (IN)	PROJECTION (IN)	± (IN)
		DIA (IN)	± (IN)					
6.00	0.156	9.50	0.75	10.32	0.630	0.75 x 17.00 x 3.00	3.50	N/A
6.00	0.188	9.50	0.75	10.32	0.630	0.75 x 17.00 x 3.00	3.50	N/A
7.00	0.156	10.56	0.43	11.26	0.750	1.00 x 36.00 x 4.00	4.13	N/A
8.00	0.156	11.63	0.37	12.05	0.750	1.00 x 36.00 x 4.00	4.13	N/A
8.00	0.188	11.63	0.37	12.05	0.750	1.00 x 36.00 x 4.00	4.13	N/A
8.00	0.250	11.63	0.37	12.05	0.750	1.00 x 36.00 x 4.00	4.13	N/A
9.00	0.156	13.25	0.75	12.48	1.250	1.00 x 36.00 x 4.00	4.13	N/A
9.00	0.188	13.25	0.75	12.48	1.250	1.00 x 36.00 x 4.00	4.13	N/A

Anchor Base Detail



LOAD AND DIMENSIONAL DATA

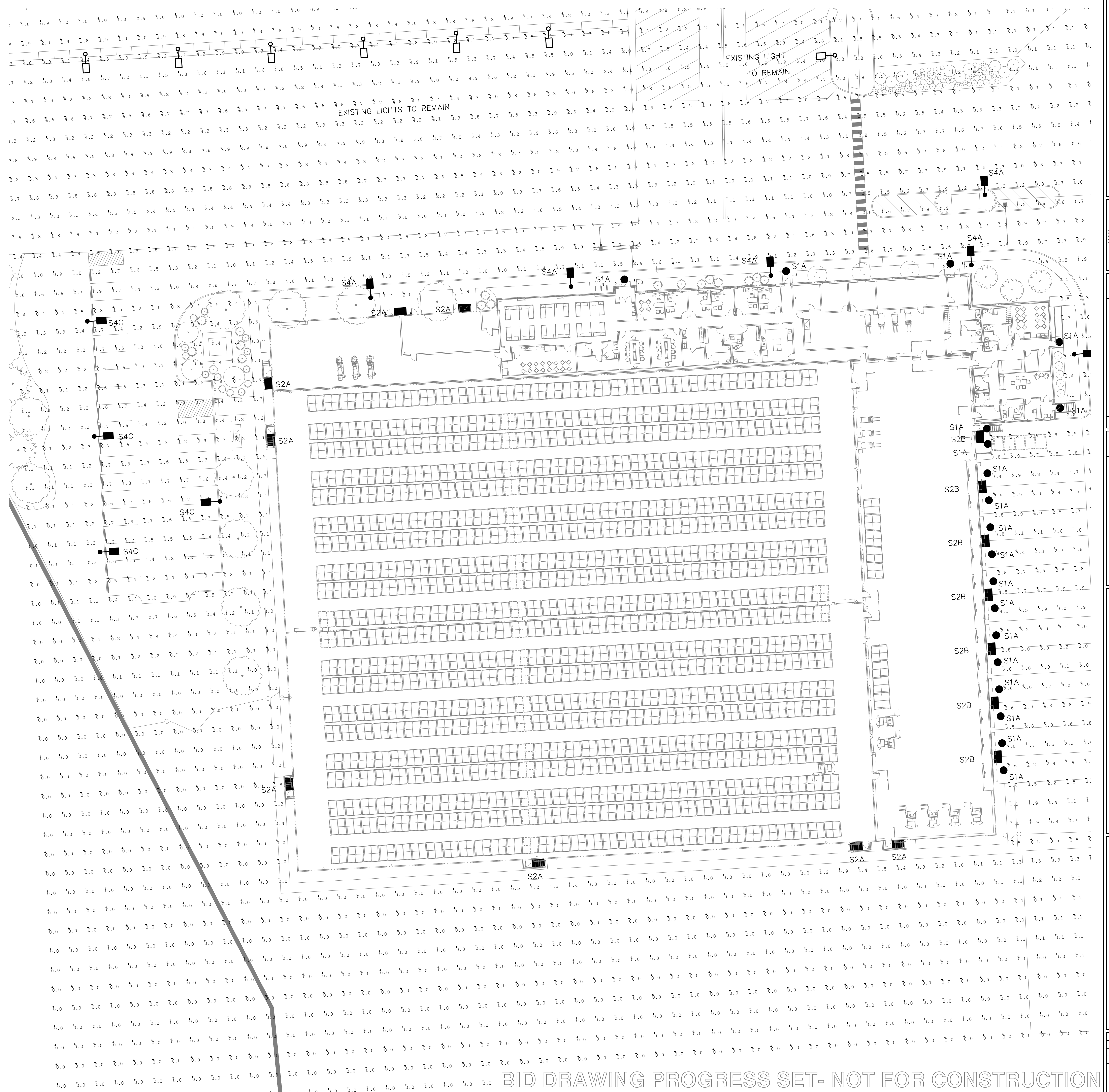
DESIGN INFORMATION							POLE DIMENSIONS					MODEL NUMBER
NOMINAL MOUNTING HEIGHT	MAX WEIGHT¹ (LBS)	70 MPH w/1.3 GUST	80 MPH w/1.3 GUST	90 MPH w/1.3 GUST	100 MPH w/1.3 GUST	110 MPH w/1.3 GUST	POLE HEIGHT	BASE OD (IN)	TOP OD (IN)	WALL THK (IN)	STRUCTURE WEIGHT² (LBS)	
		MAX EPA¹ (SQ FT)	MAX EPA¹ (SQ FT)	MAX EPA¹ (SQ FT)	MAX EPA¹ (SQ FT)	MAX EPA¹ (SQ FT)						
20'-0"	65	4.5	3.2	2.4	1.7	1.3	17'-8"	6.00	4.00	0.156	72	1MA0832S-170840605T4
25'-0"	50	4.5	3.2	1.9	0.8	N/A	22'-8"	6.00	4.00	0.156	86	1MA0832S-220840605T4
	60	4.5	3.2	2.4	1.7	1.0	22'-8"	6.00	4.00	0.188	98	1MA0832S-220840606T4
	65	4.5	3.2	2.4	1.7	1.3	22'-8"	7.00	4.00	0.156	94	1MA0832S-220840705T4
30'-0"	50	4.5	3.2	2.0	0.8	N/A	27'-8"	7.00	4.00	0.156	110	+1MA0832S-270840705T4
	75	4.5	3.2	2.4	1.7	1.3	27'-8"	8.00	4.50	0.156	123	1MA0832S-270845805T4
35'-0"	70	4.5	3.2	2.1	0.9	N/A	32'-8"	8.00	4.50	0.156	142	+1MA0832S-320845805T4
	75	4.5	3.2	2.4	1.7	1.2	32'-8"	8.00	4.50	0.188	166	1MA0832S-320845806T4
	75	4.5	3.2	2.4	1.7	1.3	32'-8"	8.00	4.50	0.250	211	1MA0832S-320845808T4
	75	4.5	3.2	2.4	1.7	1.3	32'-8"	9.00	4.50	0.156	157	+1MA0832S-320845905T4
	75	4.5	3.2	2.4	1.7	1.3	32'-8"	9.00	4.50	0.188	183	1MA0832S-320845906T4
39'-0"	75	4.5	3.2	1.9	0.7	N/A	36'-8"	8.00	4.50	0.188	188	+1MA0832S-360845806T4
	75	4.5	3.2	2.4	1.2	N/A	36'-8"	9.00	4.50	0.156	178	+1MA0832S-360845905T4
	75	4.5	3.2	2.4	1.7	1.3	36'-8"	8.00	4.50	0.250	239	1MA0832S-360845808T4
	75	4.5	3.2	2.4	1.7	1.3	36'-8"	9.00	4.50	0.188	207	+1MA0832S-360845906T4

- EPA represents the Effective Projected Area of each luminaire. Designs are limited to one luminaire per arm. Variations from sizes above are available upon inquiry at the factory. Satisfactory performance of poles is dependent upon the pole being properly attached to a supporting foundation of adequate design.
- Structure weight is a nominal value which includes the pole shaft, base plate and luminaire arm(s).
+ Pole includes factory installed vibration damper.

PRODUCT ORDERING CODES

CROSS SECTION	MODEL NUMBER	COLOR		OPTIONS
R			—	
R = Round	1MA0832S-170840605T4 1MA0832S-220840605T4 1MA0832S-220840606T4 1MA0832S-220840705T4 +1MA0832S-270840705T4 1MA0832S-270845805T4 +1MA0832S-320845805T4 1MA0832S-320845806T4	Polyester Powder DWH = White DSS = Sandstone BR = Burgundy HG = Hunter Green DNA = Natural Aluminum DCG = Charcoal Gray DMR = Medium Bronze	Anodized 204 = Clear Natural 311 = Light Bronze* 312 = Medium Bronze* 313 = Dark Bronze* 335 = Black* *Duranodic Anodize	See Accessories at valmontstructures.com (Please Specify with Code)

Type S4D & Type S4E: 30-Foot Pole with 48-Inches Exposed Concrete Foundation Base



BID DRAWING PROGRESS SET- NOT FOR CONSTRUCTION

1. ALL PROPOSED LIGHTS HAVE "CUT-OFF" OPTICS.

2. PROPOSED LIGHTING FIXTURES:

TYPE S1A: BEACON LIGHTING # SRT1-20-3K8-50W-UNV-GYS-CD-SRT1WIG
DOWNLIGHT MOUNTED ON UNDERSIDE OF CANOPY

TYPE S2A: BEACON LIGHTING # S01-20-3K7-FT-UNV-GYS-SCP-20F
WALL LIGHT MOUNTED AT 3- FEET ABOVE PERSONNEL DOORS; AND AT
16- FEET ABOVE GRADE AT THE TRANSFORMER/GENERATOR YARD

TYPE S2B: KIM LIGHTING # WDM-D-48L-85-3K7-FTD-UNV
WALL LIGHT MOUNTED AT 30 FEET ABOVE GRADE

TYPE S3A: NOT USED

TYPE S4A: BEACON LIGHTING # VPS-24L-55-3K7-4W-UNV-MAF-GYS-7PR-TL (LUMINAIRE)
BEACON LIGHTING # SBI-24-PT20-GYS (BRACKET ARM)
BEACON LIGHTING # RTA-B-18-50-A-TA-XX-GYS-VMZ (POLE)
AREA POLE LIGHT WITH AN IES TYPE 4W DISTRIBUTION PATTERN AND WITH
24-INCH BRACKET ARM MOUNTED ON A 18-FOOT TALL TAPERED
ALUMINUM POLE WITH A 6-INCH EXPOSED CONCRETE FOUNDATION BASE
LUMINAIRE TO BE DIMMED AT 50% LIGHT OUTPUT

TYPE S4B: NOT USED

TYPE S4C: BEACON LIGHTING # VPS-24L-55-3K7-4W-UNV-MAF-GYS-7PR-TL (LUMINAIRE)
BEACON LIGHTING # SBI-24-PT20-GYS (BRACKET ARM)
BEACON LIGHTING # RTA-B-16-50-A-TA-XX-GYS-VMX (POLE)
AREA POLE LIGHT WITH AN IES TYPE 4W DISTRIBUTION PATTERN AND WITH
30-INCH BRACKET ARM MOUNTED ON A 16-FOOT TALL TAPERED
ALUMINUM POLE WITH A 30-INCH EXPOSED CONCRETE FOUNDATION BASE
LUMINAIRE TO BE DIMMED AT 70% LIGHT OUTPUT

TYPE S4D: BEACON LIGHTING # VPL-96L-395-3K7-4W-UNV-MAF-GYS-7PR-TL (LUMINAIRE)
VALMONT LIGHTING # R-1MA08325-27084580574-DNA-204 (POLE AND ARM)
AREA POLE LIGHT WITH AN IES TYPE 4W DISTRIBUTION PATTERN MOUNTED ON
A 30-FOOT TALL TAPERED ALUMINUM WITH AN ATTACHED 8-FOOT BRACKET
ARM AND WITH A 48-INCH EXPOSED CONCRETE FOUNDATION BASE

TYPE S4E: BEACON LIGHTING # VPL-96L-315-3K7-4W-UNV-MAF-GYS-7PR-TL (LUMINAIRE)
VALMONT LIGHTING # R-1MA08325-27084580574-DNA-204 (POLE AND ARM)
AREA POLE LIGHT WITH AN IES TYPE 4W DISTRIBUTION PATTERN MOUNTED ON
A 30-FOOT TALL TAPERED ALUMINUM WITH AN ATTACHED 8-FOOT BRACKET
ARM AND WITH A 48-INCH EXPOSED CONCRETE FOUNDATION BASE

3. ALL PROPOSED LIGHTING FIXTURES UTILIZE 3K LED LAMPS.

TYPE S1A: 21.6 WATTS 2,846 LUMENS

TYPE S2A: 21.0 WATTS 1,424 LUMENS

TYPE S2B: 88.0 WATTS 9,643 LUMENS(6,268 LUMENS)*
*ALL TO BE DIMMED TO 65% OUTPUT

TYPE S4A: 55.0 WATTS 5,272 LUMENS (2,636 LUMENS)*
*DRIVE LIGHTS TO BE DIMMED TO 50% OUTPUT

TYPE S4C: 55.0 WATTS 5,272 LUMENS (3,690 LUMENS)*
*PARKING LOT LIGHTS TO BE DIMMED TO 70% OUTPUT

TYPE S4D: 395 WATTS 30,400 LUMENS

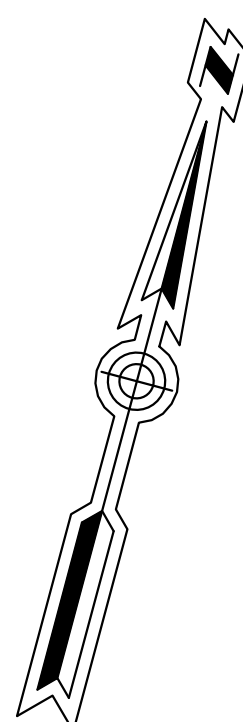
TYPE S4E: 315 WATTS 25,913 LUMENS

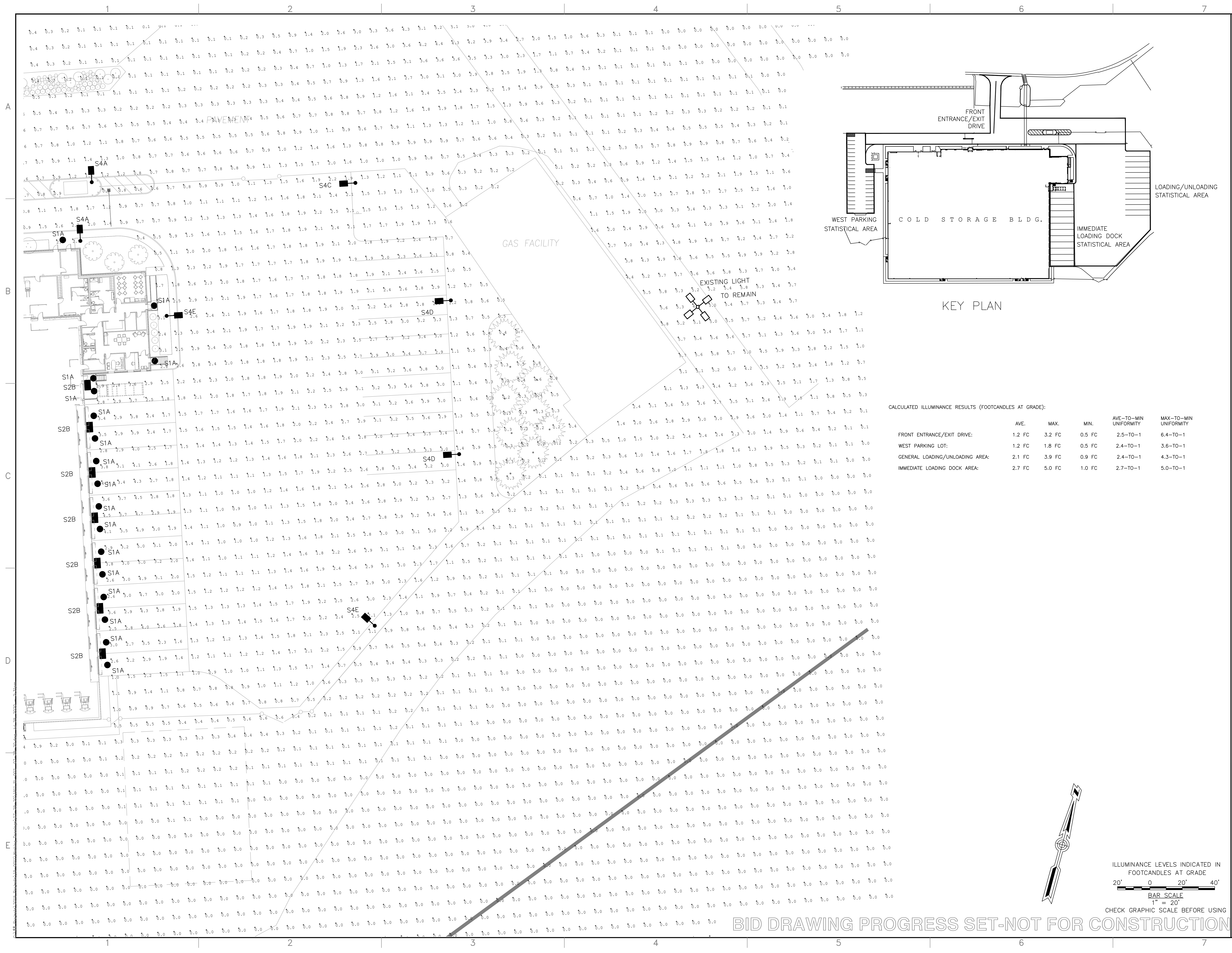
4. EXTERIOR LIGHTS WILL OPERATE CONTINUOUSLY DUSK-TO-DAWN (CONTROLLED BY PHOTOCELL) TO FACILITATE 24-HOUR OPERATIONS.

ILLUMINANCE LEVELS INDICATED IN
FOOTCANDLES AT GRADE

BAR SCALE

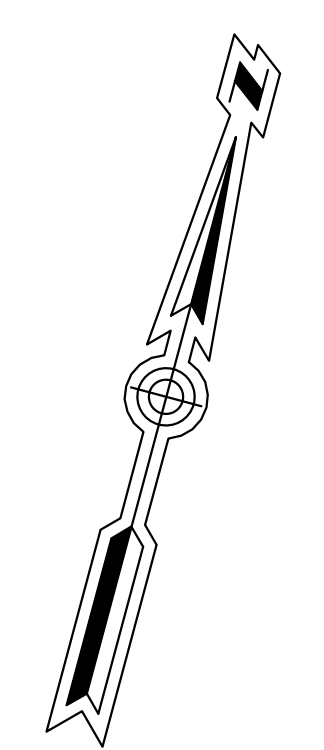
CHECK GRAPHIC SCALE BEFORE USING





CALCULATED ILLUMINANCE RESULTS (FOOTCANDLES AT GRADE):

	AVE.	MAX.	MIN.	AVE-TO-MIN UNIFORMITY	MAX-TO-MIN UNIFORMITY
FRONT ENTRANCE/EXIT DRIVE:	1.2 FC	3.2 FC	0.5 FC	2.5-TO-1	6.4-TO-1
WEST PARKING LOT:	1.2 FC	1.8 FC	0.5 FC	2.4-TO-1	3.6-TO-1
GENERAL LOADING/UNLOADING AREA:	2.1 FC	3.9 FC	0.9 FC	2.4-TO-1	4.3-TO-1
IMMEDIATE LOADING DOCK AREA:	2.7 FC	5.0 FC	1.0 FC	2.7-TO-1	5.0-TO-1



ILLUMINANCE LEVELS INDICATED IN
FOOTCANDLES AT GRADE

20' 0 20' 40'

BAR SCALE

1" = 20'

CHECK GRAPHIC SCALE BEFORE USING

BID DRAWING PROGRESS SET-NOT FOR CONSTRUCTION

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

WOODARD & CURRAN

COMMITMENT & INTEGRITY DRIVE RESULTS

MAINE PORT AUTHORITY
PORTLAND, MAINE

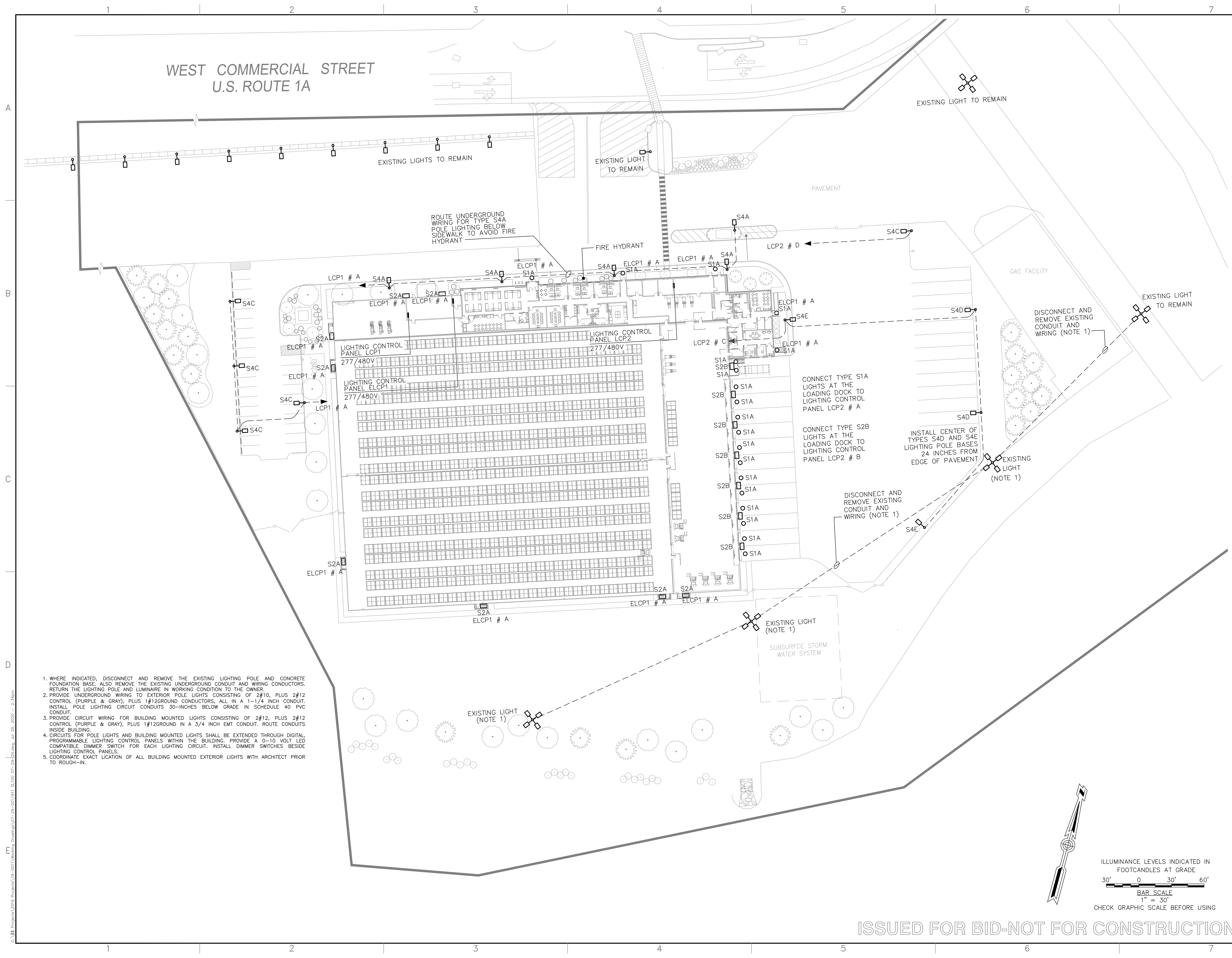
MAINE PORT AUTHORITY
COLD STORAGE FACILITY

JOB NO.: 0232277.00
DATE: JULY, 2020
SCALE: 1"=20'-0"
SHEET: # OF XX

SL-002

DESIGNED BY: JLB
DRAWN BY: JLB
CHECKED BY: JLB
DATE: 07/29/20
REV: 1
DESCRIPTION: REVISED SITE LIGHTING

LAURENCE E. BARTLETT
No. 7928
Professional Engineer
Maine
07/29/20



1. WHERE INDICATED, DISCONNECT AND REMOVE THE EXISTING LIGHTING POLE AND CONCRETE FOUNDATION BASE. ALSO REMOVE THE EXISTING UNDERGROUND CONDUIT AND WIRING CONDUCTORS. RETURN THE LIGHTING POLE AND LUMINAIRE IN WORKING CONDITION TO THE OWNER.
2. PROVIDE UNDERGROUND WIRING TO EXTERIOR POLE LIGHTS CONSISTING OF 2#10, PLUS 2#12 CONTROL (PURPLE & GRAY), PLUS 1#12GROUND CONDUCTORS, ALL IN A 1-1/4 INCH CONDUIT. INSTALL POLE LIGHTING CIRCUIT CONDUITS 30-INCHES BELOW GRADE IN SCHEDULE 40 PVC CONDUIT.
3. PROVIDE CIRCUIT WIRING FOR BUILDING MOUNTED LIGHTS CONSISTING OF 2#12, PLUS 2#12 CONTROL (PURPLE & GRAY), PLUS 1#12GROUND IN A 3/4 INCH EMT CONDUIT. ROUTE CONDUITS INSIDE BUILDING.
4. CIRCUITS FOR POLE LIGHTS AND BUILDING MOUNTED LIGHTS SHALL BE EXTENDED THROUGH DIGITAL, PROGRAMMABLE LIGHTING CONTROL PANELS WITHIN THE BUILDING. PROVIDE A 0-10 VOLT LED COMPATIBLE DIMMER SWITCH FOR EACH LIGHTING CIRCUIT. INSTALL DIMMER SWITCHES BESIDE LIGHTING CONTROL PANELS.
5. COORDINATE EXACT LOCATION OF ALL BUILDING MOUNTED EXTERIOR LIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN.

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**WOODARD
& CURRAN**

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COMMITMENT & INTEGRITY DRIVE RESULTS

REV	DESCRIPTION	DATE	REV	DESCRIPTION	DATE
3	REVISED ISSUE FOR BID	07/29/20	3	REVISED PER REVIEW COMMENTS	08/28/20
2	REVISED PER REVIEW COMMENTS	08/28/20	2	REVISED PER REVIEW COMMENTS	08/28/20
1	REVISED LUMINAIRE LOCATIONS	04/21/20	1	REVISED LUMINAIRE LOCATIONS	04/21/20

DESIGNED BY: LEB

DRAWN BY: LEB

CHECKED BY: LEB

DATE: 07-29-2024

MAINE PORT AUTHORITY
PORTLAND, MAINE

MAINE PORT AUTHORITY
COLD STORAGE FACILITY

JOB NO.: 02332277.00
DATE: JULY, 2020
SCALE: 1"=30'-0"
SHEET: # OF XX

SL-100

ISSUED FOR BID-NOT FOR CONSTRUCTION

Maine International Cold Storage Facility LLC (“Optionee”)
1330 Avenue of the Americas
Floor 28
New York, NY
10019

Maine Port Authority
Attn: Jon Nass, CEO
460 Commercial Street
Portland, ME
04101

Office of the Attorney General
Attn: Timothy Steigelman, AAG
6 State House Station
Augusta, ME
04333

June 5, 2020

Dear Jon,

**OPTION TO GROUND LEASE DATED MARCH 12, 2020 BETWEEN THE MAINE PORT AUTHORITY AND
OPTIONEE (THE “OPTION”) – EXTENSION NOTICE**

Pursuant to this letter, Optionee hereby exercises its right under Section 2(a) of the Option to extend the Option Period (as such term is defined in the Option) for one (1) additional three (3) month period (until September 12, 2020).

Your sincerely,



Thomas O'Shaughnessy
For an on behalf of Optionee

4. EVIDENCE OF RIGHT, TITLE AND INTEREST

As noted on the survey, the Cold Storage Facility will be located on a parcel of land currently owned by the Maine Port Authority. A copy of the deed and the Option to Ground Lease Agreement, which serves as evidence of right, title, and interest, has been attached to this Section.

4.1 ATTACHMENTS

- Deed of Convenience, dated March 11, 2020, Cumberland County Registry of Deeds, Book 36501, Pg 146.
- Option to Ground Lease Agreement, dated March 12, 2020, between Maine Port Authority and Maine International Cold Storage Facility LLC.

DEED OF CONVENIENCE

The **STATE OF MAINE**, acting by and through its **DEPARTMENT OF TRANSPORTATION** (the "Grantor" or "MaineDOT"), under and pursuant to the provisions of 23 M.R.S. § 4424, for consideration, hereby **TRANSFERS** all its right, title and interest in and to land and rights in land situated on the southerly side of West Commercial Street in the City of Portland, County of Cumberland, State of Maine, as further described herein to **THE MAINE PORT AUTHORITY**, a body both corporate and politic in the State of Maine (the "Grantee" or "MPA"), having a mailing address of 460 Commercial Street, Portland, Maine 04101.

Said property (the "Premises") is more particularly described in the attached **Exhibit A Legal Description** and shown on the attached **Exhibit B Plans**, being copies of the following MaineDOT Right of Way Maps:

- A. Plan entitled "State of Maine Department of Transportation Right of Way Map, Land Acquisition Plan Part II, West Commercial Street, Portland, Cumberland County, Maine" dated April 25, 2014 and recorded in Plan Book 219, Page 37 of the Cumberland County Registry of Deeds, and being further identified in MaineDOT's records as D.O.T. File No. 3-596.
- B. Plan entitled "State of Maine Department of Transportation Right of Way Map, Land Acquisitions, West Commercial Street, Portland, Cumberland County, Maine" dated April 2014, revised March 9, 2020 and recorded in Plan Book 220, Page 63 of said Registry of Deeds and being further identified in MaineDOT's records as D.O.T. File No. 3-595.

The Premises are conveyed **SUBJECT TO** the following:

1. All easements and encumbrances of record;
2. All Certificates of Completion, all recorded covenants and restrictions, and all conditions and protections affecting the Premises as set forth in the records of the Maine Department of Environmental Protection's ("DEP") Voluntary Response Action Program ("VRAP") referencing the former Portland Gas Works site. Recorded covenants and restrictions encumbering the property include the following:
 - a. Declaration of Environmental Covenant dated May 24, 2015 and recorded in Book 32334, Page 6 of said Registry of Deeds;
 - b. Declaration of Environmental Covenant dated September 18, 2019 and recorded in Book 36025, Page 267 of said Registry of Deeds; and
 - c. Declaration of Environmental Covenant dated September 18, 2019 and recorded in Book 36025, Page 291 of said Registry of Deeds.
3. The condition subsequent that, in the event MPA no longer uses the Premises for port-related transportation purposes, MaineDOT shall have the right, upon sixty (60) days prior written notice, to reenter and retake the Premises, and MPA shall surrender

Deed of Convenience
MaineDOT to Maine Port Authority
Portland, Maine

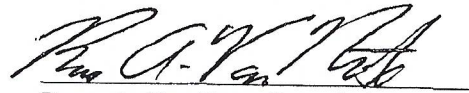
the same and execute any documentation that MaineDOT reasonably requires to evidence the vesting of fee simple title in Maine DOT.

4. The condition that MPA shall not convey the Premises, or any portion thereof, to a third party without obtaining MaineDOT's prior written permission, which shall be granted at MaineDOT's sole discretion.
5. The terms of an existing Easement Agreement between MaineDOT and Northern Utilities, Inc. d/b/a Unitil dated December 15, 2016 and recorded in Book 33716, Page 257 of said Registry of Deeds.
6. All utility easements and installations of record and located on the Premises and to those rights that any utility enjoys over the Premises for maintenance, location or relocation of poles and other installations.

The Grantor makes no representations or warranties with respect to the Premises conveyed. The representations and warranties so excluded encompass, but are not limited to, those pertaining to: land use and environmental matters; fitness of the Premises or any portion thereof for any particular purpose; water quality or quantity; the condition or quality of the soil; inchoate or unrecorded liens; or the existence, status, or condition of access to, or public utilities serving the Premises. Any subsequent use of, improvement to, or construction on the parcel is subject to all applicable laws, regulations, ordinances, and permitting requirements.

IN WITNESS WHEREOF, the said State of Maine, acting by and through its Department of Transportation, has caused this instrument to be executed by Bruce A. Van Note, its Commissioner, thereunto duly authorized this 11th day of March in the year two thousand twenty.

STATE OF MAINE
Department of Transportation

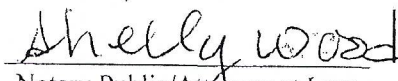

Bruce A. Van Note, Commissioner

STATE OF MAINE
County of Kennebec

March 11, 2020

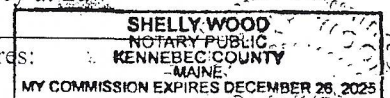
Personally appeared the above-named Bruce A. Van Note, Commissioner of the Maine Department of Transportation, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of the State of Maine.

Before me,


Notary Public/Attorney at Law

Print name:

My commission expires:



Deed of Convenience
MaineDOT to Maine Port Authority
Portland, Maine



EXHIBIT A
Legal Description

THREE CERTAIN PARCELS OF LAND, together with any improvements held by the Grantor thereon and not otherwise excepted or excluded herein, situated on the southerly side of West Commercial Street in the City of Portland, County of Cumberland and State of Maine described as follows (the "Premises") and depicted on the attached **Exhibit B Plans** (the "Right of Way Maps"):

PARCEL ONE:

All land, and rights in land located within the following described boundaries:

COMMENCING at a granite monument found in a manhole located in the southerly sideline of West Commercial Street about 393' northerly of the intersection of the said West Commercial Street and Clark Street, as shown on said Right of Way Map;

THENCE S 32°36'10" W along the southerly sideline of West Commercial Street 86.09 feet to the **point of beginning**, said point being the northeasterly corner of property conveyed by Portland Terminal Company to New Yard, LLC by deed dated July 31, 2013 and recorded in Book 30887, Page 247 of the Cumberland County Registry of Deeds;

THENCE from said point of beginning S 32°31'38" E along the westerly line of land now or formerly of the City of Portland 580 feet, more or less to mean low water;

THENCE westerly and southwesterly along mean low water 64 feet, more or less, to a point on the easterly line of land now or formerly of Casco Wharf & Storage as described in Book 1507, Page 126 of said Registry of Deeds (which is a part of the parcel herein described);

THENCE S 32°31'38" E along said easterly line of said Casco Wharf & Storage 50 feet more or less to the Former Harbor Commissioner's Line of 1929;

THENCE S 37°45'10" W along said Harbor Commissioner's Line 600 feet, more or less to a point;

THENCE S 62°18'00" W along said Harbor Commissioner's Line 400 feet, more or less, to a point;

THENCE S 78°39'00" W along said Harbor Commissioner's Line 117 feet, more or less, to the southerly corner of a parcel shown on said Right of Way Map as "Parcel 5";

Deed of Convenience
MaineDOT to Maine Port Authority
Portland, Maine

THENCE N 21°46'06" W 60 feet, more or less, to the mean low water line as shown on said Right of Way Map;

THENCE continuing N 21°46'06" W 105 feet, more or less, through land now or formerly of New Yard, LLC to the southerly corner of a parcel of land formerly owned by Northern Utilities, Inc., d/b/a Until;

THENCE N 43°25'17" W along the westerly boundary of said land formerly of said Northern Utilities (which is a part of the parcel herein described) and the easterly boundary of land now or formerly of said New Yard, LLC 435.50 feet to the northwest corner of said former Northern Utilities parcel and a point that represents the northeast corner of said land now or formerly of said New Yard, LLC;

THENCE S 70°47'58" W along the northerly boundary of said land now or formerly of said New Yard, LLC 381.52 feet to land formerly of Portland Terminal Company and Maine Central Railroad Company and now of the State of Maine as described in a Notice of Condemnation recorded in Book 31408, Page 301 of said Registry of Deeds (said land now of the State of Maine being Parcel Two described herein);

THENCE N 16°58'37" W along land of the State of Maine and now or formerly owned by Portland Terminal Company and Maine Central Railroad Company 149.35 feet to the southerly side of West Commercial Street;

THENCE N 73°01'23" E along the southerly sideline of said West Commercial Street 1053.20 feet to a point;

THENCE N 32°36'10"E along the southerly sideline of said West Commercial Street 551.51 feet to the **point of beginning**.

The above described parcel contains 18 acres, more or less.

EXCEPTING FROM THE ABOVE DESCRIBED PARCEL any existing gas facilities, including without limitation, natural gas and propane pipelines, buildings, associated fixtures and related appurtenances, improvements and other personal property that are owned by or are in the custody and control of Northern Utilities, Inc., d/b/a Until.

MEANING AND INTENDING TO CONVEY all rights acquired by the Grantor through the following:

- a. Notice of Condemnation filed in said Registry of Deeds on April 30, 2014 in Book 31470, Page 191 of said Registry of Deeds; and

Deed of Convenience
MaineDOT to Maine Port Authority
Portland, Maine

- b. Notice of Condemnation filed in said Registry of Deeds on May 11, 2016 in Book 33101, Page 252 of said Registry of Deeds

PARCEL TWO:

All land and rights in land within the following described boundaries:

COMMENCING at a point on the southerly sideline of West Commercial Street at the northwesterly corner of land now or formerly of New Yard, LLC recorded in the Cumberland County Registry of Deeds in Book 30887, Page 247;

THENCE, S 16°58'37" E along the westerly line of land of said New Yard, LLC 90.30 feet to the **point of beginning**;

THENCE from said point of beginning S 16°58'37" E continuing along the westerly line of land of New Yard, LLC 67.90 feet;

THENCE the following courses and distances through land of Maine Central Railroad Company:

S 66°19'39" W for a distance of 57.45 feet;
S 62°41'27" W for a distance of 125.13 feet;
S 59°26'10" W for a distance of 495.19 feet;

THENCE, along a curve to the right with a radius of 725.74 feet, having an arc length of 165.42 feet, having a chord bearing of S 65°57'58" W and chord length of 165.07 feet;

THENCE, S 72°29'45" W for a distance of 519.07 feet;

THENCE, along a curve to the right with a radius of 725.78 feet, having an arc length of 185.34 feet, having a chord bearing of S 79°48'41" W and chord length of 184.84 feet;

THENCE, S 87°07'38" W for a distance of 21.45 feet to a point;

THENCE, S 02°52'22" E for a distance of 26 feet, more or less, to the spring high tide line;

THENCE, generally westerly along the spring high tide line 1316 feet, more or less, to land now or formerly of Cianbro Corp. recorded in said Registry of Deeds in Book 3424, Page 116, being on a bearing of S 74°55'10" W a distance of 1075.68 feet from the last mentioned point;

THENCE, the following courses and distances along land of said Cianbro Corp.:

N 16°59'42" W for a distance of 171.32 feet;
S 79°48'18" W for a distance of 347.84 feet;

Deed of Convenience
MaineDOT to Maine Port Authority
Portland, Maine

N 16°59'42"W for a distance of 53.00 feet to the southerly sideline of Cassidy Point Road;

THENCE, N 73°00'18" E along the southerly sideline of Cassidy Point Road 263.93 feet to the southerly sideline of West Commercial Street;

THENCE, N 82°56'03" E continuing along the southerly sideline of West Commercial Street 543.92 feet to an angle point;

THENCE, N 77°41'31" E continuing along the southerly sideline of West Commercial Street 16.88 feet;

THENCE, the following courses and distances through land of Maine Central Railroad Company:

N 84°41'57" E for a distance of 219.48 feet;

N 86°01'33" E for a distance of 312.82 feet;

N 87°07'38" E for a distance of 273.21 feet;

N 72°29'45" E for a distance of 542.24 feet;

THENCE, along a curve to the left with a radius of 673.74 feet, having an arc length of 153.57 feet, having a chord bearing of N 65°57'58" E and chord length of 153.24 feet;

THENCE, N 59°26'10"E a distance of 693.10 feet to the point of beginning.

The above described parcel contains 5.0 acres, more or less.

EXCEPTING FROM THE ABOVE DESCRIBED PARCEL the premises conveyed by the State of Maine to Cianbro Corporation by Governor's Deed dated January 8, 2015 and recorded in Book 32199, Page 285 of said Registry of Deeds containing 5780 square feet, more or less.

MEANING AND INTENDING TO CONVEY all rights acquired by the Grantor through its Notice of Condemnation filed in said Registry of Deeds on March 27, 2014 in Book 31408, Page 301 of said Registry of Deeds, excepting the aforementioned premises conveyed to Cianbro Corporation in Book 32199, Page 285.

PARCEL THREE:

All right, title and interest in and to the intertidal and submerged lands adjoining the parcels described above and located between the spring high tide line and the Former Harbor Commissioner's Line of 1929 as shown on said Right of Way Maps and acquired by the Grantor by virtue of the above-referenced Notices of Condemnation, to the extent that such rights are not otherwise excepted herefrom.

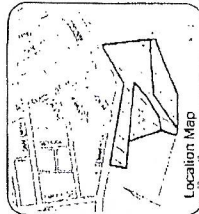
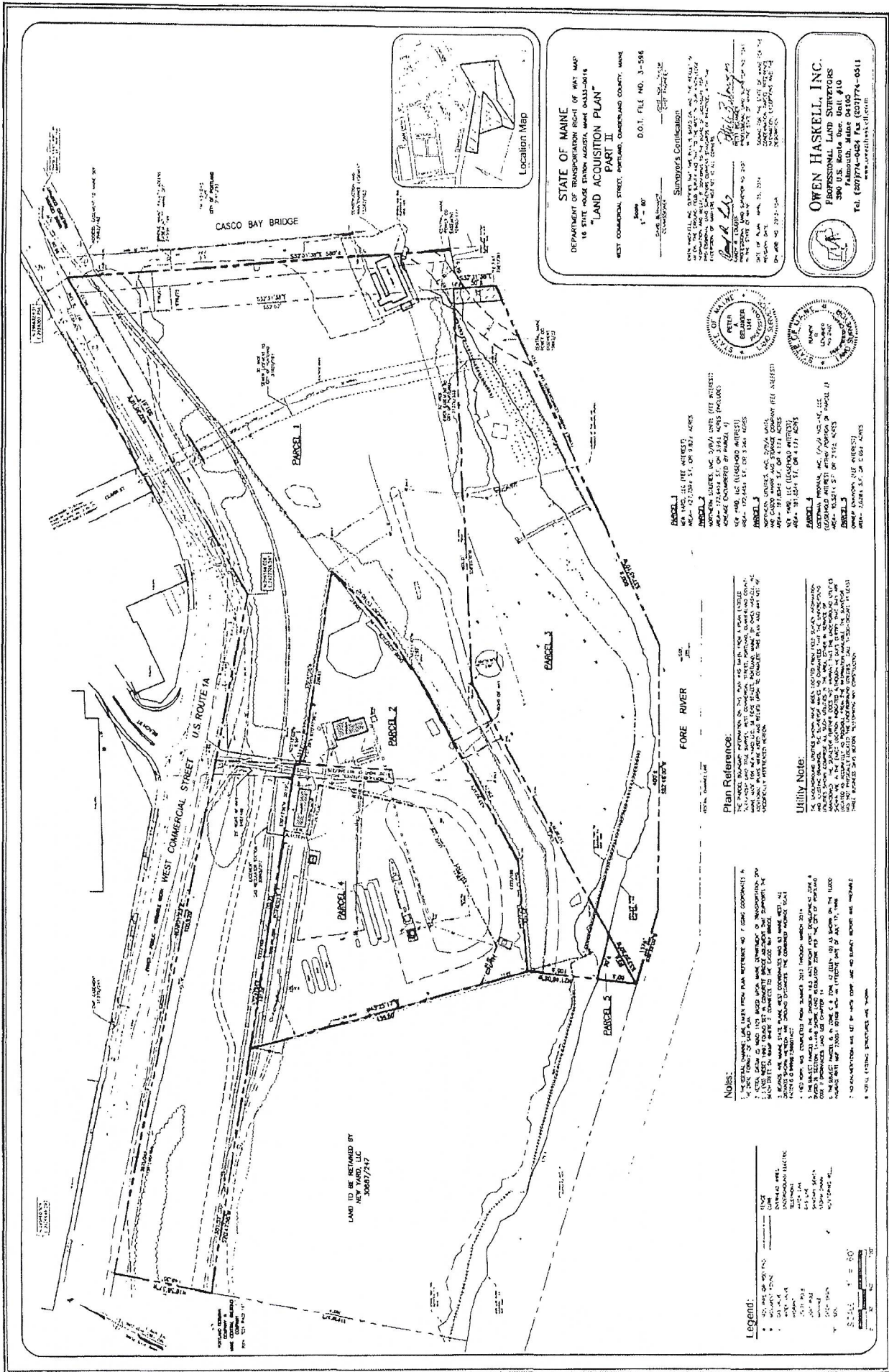
Deed of Convenience
MaineDOT to Maine Port Authority
Portland, Maine

EXHIBIT B

Plans

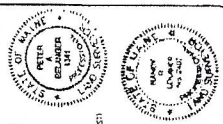
(see following two pages)

Deed of Convenience
MaineDOT to Maine Port Authority
Portland, Maine



STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP
 16 STATE ROAD STATION AUGUSTA MAINE 04303-0016
"LAND ACQUISITION PLAN"
PART II
 WEST COMMERCIAL STREET, PORTLAND, CAMDEN AND COUNTY, MAINE
 Scale: 1" = 60'
 D.O.I. FILE NO. 3-556
 SURVEYOR'S CERTIFICATION
 I, the undersigned, being duly sworn, depose and say that the foregoing is a true and correct copy of the original map on file in the office of the State Engineer, and that the same was prepared by me or under my direct supervision and to the best of my knowledge and belief it is a true and correct copy of the original map on file in the office of the State Engineer.

OWEN HASKELL, INC.
 PROFESSIONAL LAND SURVEYORS
 390 U.S. Route One, Unit #10
 Portland, Maine 04103
 Tel: (207) 774-0424 Fax: (207) 774-0511
 www.owenhaskell.com



PARCEL 1
 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 AREA: 12,720.61 S.F. OF 0.27 ACRES
PARCEL 2
 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 AREA: 12,720.61 S.F. OF 0.27 ACRES
PARCEL 3
 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 AREA: 12,720.61 S.F. OF 0.27 ACRES
PARCEL 4
 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 AREA: 12,720.61 S.F. OF 0.27 ACRES
PARCEL 5
 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 AREA: 12,720.61 S.F. OF 0.27 ACRES

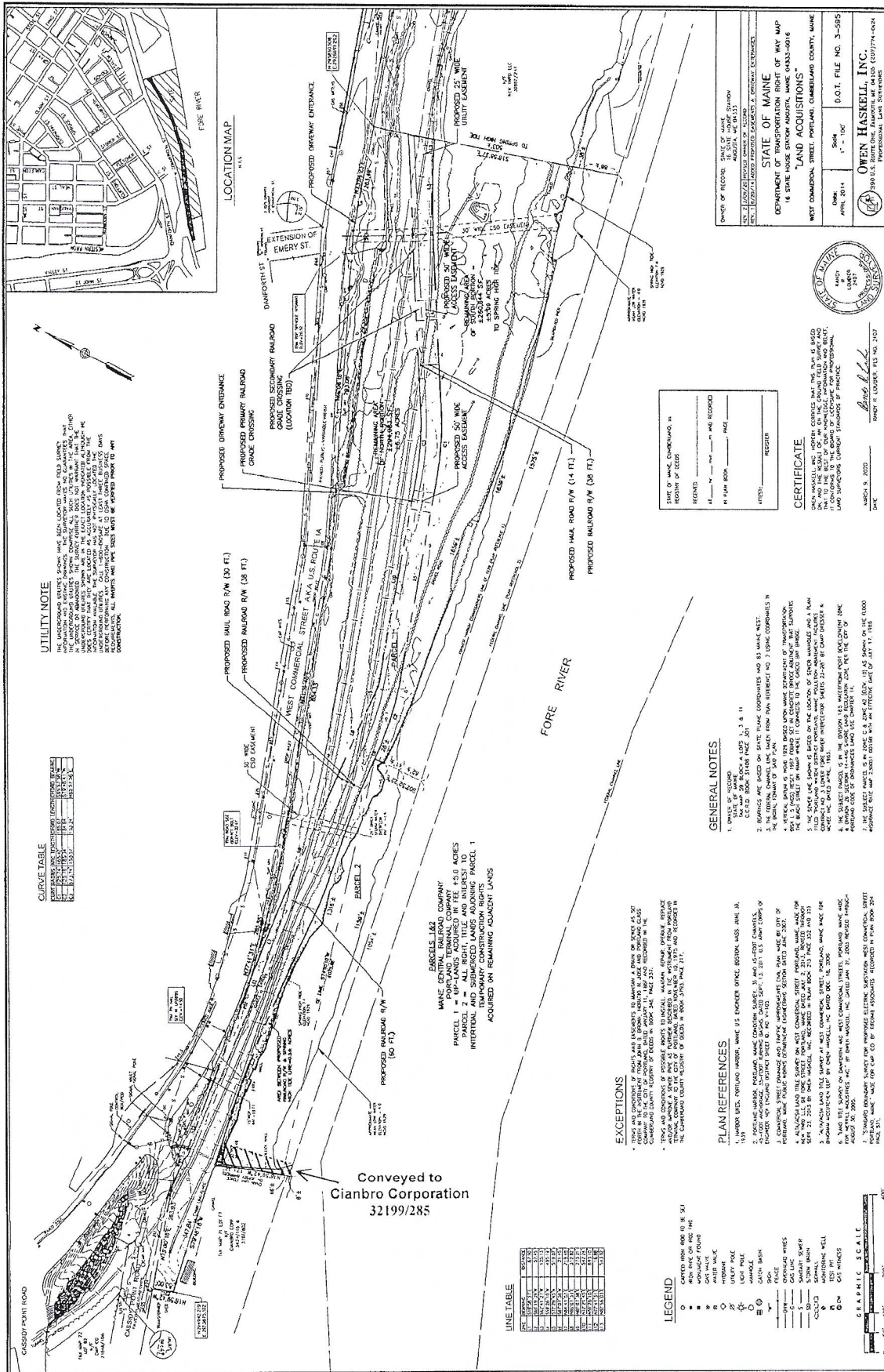
Plan Reference:
 The parcel boundary information on this map was taken from a plan (noted) in the office of the State Engineer, and the same was prepared by me or under my direct supervision and to the best of my knowledge and belief it is a true and correct copy of the original map on file in the office of the State Engineer.

Utility Note:
 The utility lines shown on this map were taken from a plan (noted) in the office of the State Engineer, and the same was prepared by me or under my direct supervision and to the best of my knowledge and belief it is a true and correct copy of the original map on file in the office of the State Engineer.

Notes:
 1. ALL DIMENSIONS ARE GIVEN FROM THE PLAN REFERENCE TO THE CORNER OF THE LOT.
 2. ALL DIMENSIONS ARE GIVEN FROM THE PLAN REFERENCE TO THE CORNER OF THE LOT.
 3. ALL DIMENSIONS ARE GIVEN FROM THE PLAN REFERENCE TO THE CORNER OF THE LOT.
 4. ALL DIMENSIONS ARE GIVEN FROM THE PLAN REFERENCE TO THE CORNER OF THE LOT.
 5. ALL DIMENSIONS ARE GIVEN FROM THE PLAN REFERENCE TO THE CORNER OF THE LOT.

Legend:
 1. 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 2. 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 3. 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 4. 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 5. 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)

LAND TO BE RETAINED BY
 NEW YARD, LLC
 306617417



Received
Recorded Register of Deeds
Mar 12, 2020 08:21:19A
Cumberland County
Nancy A. Lane

OPTION TO GROUND LEASE AGREEMENT

This OPTION TO GROUND LEASE AGREEMENT (this “**Agreement**”) is entered into as of the Effective Date by and between Owner and Optionee. In consideration of the mutual promises of the parties herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Optionee and Owner hereby agree as follows:

BASIC OPTION PROVISIONS

EFFECTIVE DATE	<u>March 12</u> , 2020.
OWNER	The Maine Port Authority, a State of Maine “body both corporate and politic,” a quasi-governmental entity created under Maine Statute at 23 M.R.S. §§ 4420-4430.
OPTIONEE	Maine International Cold Storage Facility LLC, a limited liability company.
PROPERTY	That real property consisting of the parcel(s) located in the City/Town of Portland, County of Cumberland, State of Maine, as more particularly depicted in <u>Exhibit A</u> , together with any improvements located thereon and rights, benefits and easements appurtenant to the parcel(s).
LAND	The Land is co-extensive with the Property (see Exhibit A).
OPTION PERIOD	Three (3) months from the Effective Date, which Optionee may extend for an additional period of three (3) months pursuant to <u>Section 2(a)</u> .
OPTION PAYMENT	An amount equal to 10 and 00/100 Dollars (\$10.00), to be paid up front on the Effective Date (the “ Option Payment ”).

LIST OF EXHIBITS

EXHIBIT A – Depiction of the Land (entitled “Existing Conditions,” “IMT WEST COLD STORAGE FACILITY,” July 2015)

EXHIBIT B – Letter of Intent from Amber Infrastructure Group (January 27, 2020)

EXHIBIT C – Design-Build Agreement between Maine Port Authority and Woodard & Curran Constructors, LLC (Feb. 13, 2019, and as amended May 28, 2019)(without exhibits)

EXHIBIT D– Deed of Convenience, Book 36501, Page 146 (March 11, 2020)

1. **Grant of Option.** Owner hereby grants to Optionee the exclusive option (the “**Option**”) to lease all or any portion of the Land and obtain any easements upon other portions of the Property reasonably required for access and utility connections (the “**Easements**” and together with the Land, the “**Premises**”) that Optionee deems necessary for the Project (defined below), in accordance with this Agreement. If Optionee exercises the Option in accordance with Section 3 below, the parties shall enter into the ground lease agreement (the “**Lease**”) as discussed in Section 4 below. “**Project**” shall mean the construction of the Maine International Cold Storage Facility as discussed in the Letter of Intent (attached as Exhibit B) (the “**LOI**”).

2. **Option Period and Payment.**

(a) **Option Period.** The period during which the Option may be exercised shall commence on the Effective Date and continue until the expiration of the Option Period as described in the Basic Option Provisions above. Optionee shall have the right to extend the Option Period for one (1) additional three (3) month period, provided that Optionee delivers notice to Owner of its intent to extend the Option Period at least five (5) days prior to the original expiration of the Option Period. Notwithstanding the foregoing, the Option Period shall automatically terminate upon the earlier of (i) execution of the Lease by Owner and Optionee; (ii) Optionee providing written notice of its election to cancel this Agreement (in Optionee's sole and absolute discretion); or (iii) 5:00 p.m. (in the time zone where the Property is located) on the date of expiration of the Option Period (or extended Option Period, if Optionee so extends under this section).

(b) **Option Payment.** Within twenty (20) days after the Effective Date, Optionee shall pay to Owner the Option Payment.

3. **Notice of Exercise of Option.** Optionee may exercise the Option at any time during the Option Period by delivering to Owner a written notice exercising the Option (the "**Option Notice**").

4. **Lease Agreement.** If Optionee delivers an Option Notice to Owner, then Owner and Optionee shall, in good faith, negotiate and agree to a Lease over the Property. The terms and conditions of the Lease shall in all events include the relevant sections of the LOI, unless otherwise agreed by the parties.

5. **Closing.** Upon delivery of the Option Notice to Owner in accordance with Section 3 above, the execution of the Lease by Owner and Optionee (the "**Closing**") shall take place on a date mutually agreed by the Parties.

6. **Due Diligence; Title.**

(a) **Due Diligence.** Owner has already provided Optionee with a certain Design-Build Agreement between the Maine Port Authority and Woodard & Curran Constructors, LLC (attached as **Exhibit C**, without underlying exhibits). In furtherance of providing Exhibit C and related exhibits and papers, the Owner has already shared with Optionee all documents that Owner considers relevant to analyzing the Project contemplated in the LOI (Ex. B). Optionee may, at its discretion, utilize Exhibit C and its underlying documents during the Option Period or during the follow-on project, to whatever extent the Optionee deems appropriate. Owner provided Exhibit C and its related exhibits and papers to Optionee on an as-is, where-is basis without warranty, but Owner is not aware of any information contradicting Exhibit C and its underlying exhibits. If Owner becomes aware of additional documents or information that undermine or contradict any information contained in Exhibit C, Owner will notify Optionee of the same within ten (10) days.

(b) **Title.** Optionee, at its sole cost, may obtain a preliminary title report (the "**Title Report**") and/or survey (the "**Survey**") for the Property. If Optionee, in its sole discretion, determines that the existence, use, operation, implementation, or exercise of any matters identified by the Title Report or Survey could materially delay, interfere with, impair or prevent Optionee's development, operation or financing of the Project, then Optionee may notify Owner of such issues and Owner shall cooperate with Optionee in efforts to obtain a release, subordination, non-disturbance agreement, consent, or other agreement (in a form reasonably acceptable to Optionee) from the holder(s) of such rights. In the event that any holder(s) of such rights are unwilling to enter into a reasonable agreement to resolve the identified issue(s), the Optionee may, in its discretion, either accept the issue and execute the Option, thereby, subject to the terms of any definitive agreements (including the Lease), accepting the known issue, or terminate this Option, in which event the Owner will retain the Option Payment and this matter will be concluded.

7. **Right of Entry**

(a) **Investigations.** Beginning on the Effective Date and throughout the Option Period, Owner shall provide to Optionee, its employees, agents, contractors, and current or potential lenders or investors, reasonable access to the Property to conduct the Survey, evaluate, conduct and perform inspections, including soil and water testing, environmental assessments (Phase I and/or Phase II), engineering surveys, topographical, structural and geo-technical tests, and such other tests and inspections (collectively, the “**Investigations**”) that Optionee may deem necessary or advisable in its sole discretion, upon Optionee providing at least twenty-four (24) hours’ prior notice to Owner. Optionee shall keep the Property free from any liens arising out of any work performed, materials furnished, or obligations incurred by or on behalf of Optionee in connection with the Investigations. Optionee shall remove, or cause the removal of, any such lien by bond or otherwise within ten (10) days after Optionee becomes aware of the existence of such lien and if Optionee shall fail to do so, Owner may pay the amount necessary to remove such lien, without being responsible for investigating the validity thereof; provided, however, that the Optionee will be responsible to indemnify Owner in respect of the amounts paid to remove any such liens in accordance with § 7(b), *infra*.

(b) **Optionee Indemnification of Owner.** Optionee shall indemnify, defend and hold Owner harmless from and against all claims, losses, liabilities, damages, losses, costs or expenses (including, without limitation, reasonable attorneys’ fees) (collectively, “**Claims**”) which Owner may incur as a direct result of any act or wrongful omission by Optionee, its agents, or contractors in connection with the use of the Property; provided, however, that Optionee shall have no obligation or duty to indemnify, defend or hold Owner harmless from Claims (including, without limitation, Claims that the Property has declined in value) (i) arising out of, resulting from, or incurred in connection with the results or findings of Optionee’s Investigations, (ii) to the extent such Claims are due to the acts or wrongful omissions of Owner or its employees, agents or contractors during the Option Period, (iii) to the extent such Claims are for any consequential or indirect loss or damage, or (iv) to the extent such Claims exceed amounts recovered by Optionee under the insurances required to be taken out pursuant § 10, *infra*. Notwithstanding the foregoing, Optionee’s indemnification obligations shall not extend to any conditions on, at, or under the Property in existence as of the Effective Date, except and to the extent such conditions are aggravated by the gross negligence or willful misconduct of Optionee or its employees, agents or contractors. Optionee’s obligations hereunder shall survive the termination or expiration of the Option Period for two years.

8. **Owner’s Representations and Warranties.** Owner makes the following representations and warranties, which shall be true as of the Effective Date, the date the Option is exercised by Optionee, and shall survive the expiration or termination of this Agreement:

(a) **Authority.** Pursuant to a vote of the Owner’s Board at a duly noticed public meeting on February 10, 2020, Owner has the full legal right, power and authority, without the consent of any additional party or parties, to enter into this Agreement and to perform its obligations hereunder. The execution and delivery of this Agreement and the consummation of all transactions and performance of all obligations contemplated hereby have been duly authorized and will not conflict with, or result in a breach of any of the terms or provisions of, or constitute a default under, any document or instrument to which Owner is a party.

(b) **Binding on Owner.** Pursuant to a vote of the Owner’s Board at a duly noticed public meeting on February 10, 2020, the person executing this Agreement on behalf of Owner has full power and authority to bind Owner to the obligations set forth herein, and upon execution and delivery of the same, this Agreement will constitute a valid and binding instrument enforceable in accordance with its terms.

(c) **Exclusivity.** Owner represents and warrants it will not enter into any option, lease agreement, or similar transaction relating to the Premises with any other person or entity other than the Optionee during the Option Period (or Option Period as extended, if applicable).

(d) **Claims or Actions.** There are no current, pending or contemplated actions, administrative inquiries or proceedings, suits, arbitrations, claims or proceedings commenced by any person or governmental entity affecting Owner, the Property, or any portion thereof; provided, however, that this representation and warranty is further limited by § 8(g), *infra.*

(e) **No Violation of Laws.** To the best of Owner's knowledge, the Property is not in violation of any applicable federal, state, local or other laws, regulations or codes (the "**Laws**") and Owner has not received notice pertaining to the violation of any Laws affecting the Property or any portion thereof, and Owner has no knowledge of any facts which might be a basis for any such notice; provided, however, that this representation and warranty is further limited by § 8(g), *infra.*

(f) **Bankruptcy.** Owner has not (i) made a general assignment for the benefit of creditors; (ii) filed any voluntary petition in bankruptcy or suffered the filing of any voluntary petition by its creditors; (iii) suffered the appointment of a receiver to take possession of all or substantially all of its assets; or (iv) suffered the attachment or other judicial seizure of all or substantially all of its assets.

(g) **Fee Owner; Liens.** Owner holds the entire fee simple interest in the Property, except for the limitations on ownership detailed in the relevant Deed of Convenience from the Maine Department of Transportation to the Maine Port Authority, which is recorded at Book 36501 and Page 146 in the Cumberland County Registry of Deeds (a copy of which is attached hereto as **Exhibit D**) (the "**Deed**"), and any other encumbrances, covenants, and restrictions of record. Except as previously disclosed by Owner to Optionee in writing or as disclosed in the Title Report or Survey, Owner represents that there are no liens upon Owner's right, title or interest in the Property other than liens for monetary obligations for which Owner shall make best efforts to pursue a SNDA pursuant to § 9(a), *infra.* Except as otherwise listed in the Basic Option Provisions, Owner has not granted or entered into any other options, rights of first refusal, offers to purchase or lease or agreements to sell or lease all or any part of the Property ("**Third Party Interests**") other than with Optionee pursuant hereto.

(h) **Disclaimer of Certain Representations and Warranties.** Notwithstanding any of the foregoing representations and warranties, Owner makes no representations or warranties as to the legal or factual status of: land use and environmental matters; fitness of the Premises or any portion thereof for any particular purpose; water quality or quantity; the condition or quality of the soil; inchoate or unrecorded liens; or the existence, status, or condition of access to, or public utilities serving the Premises. Further reference is made to certain recorded covenants and restrictions, and all conditions and protections affecting the Premises as set forth in the records of the Maine Department of Environmental Protection's ("**DEP**") Voluntary Response Action Program ("**VRAP**") referencing the former Portland Gas Works site, some or all of which are listed in the relevant Deed (**Exhibit D**).

During the Option Period, Owner shall timely notify Optionee in writing of any changes affecting any of the foregoing representations and warranties.

9. **Owner's Covenants.** Owner hereby covenants and agrees that, from and after the Effective Date, though the Option Period and, if the Option is exercised, thereafter during the period up to and including the Closing:

(a) **Owner Mortgages.** Owner shall use commercially reasonable efforts to deliver to Optionee a subordination, non-disturbance and attornment agreement(s), in form and substance reasonably

acceptable to Optionee (each, a “SNDA”) from the current holder(s) of any deed of trust, mortgage or other lien encumbering the Property. Owner shall make all payments required under any loan secured by a mortgage or deed of trust encumbering the Property and pay all real property taxes and assessments levied or imposed against the Property and before any of the same become delinquent. During the Option Period, Owner shall not mortgage or otherwise encumber its interest in the Property without providing Optionee with fifteen (15) days prior written notice thereof and an SNDA reasonably acceptable to Optionee from such holder(s) of any deed of trust, mortgage or other lien encumbering the Property. Notwithstanding anything in this § 9(a), Optionee is aware of the Maine Department of Transportation’s residual interests in the Land as discussed in the Deed (Ex. D), and the Owner shall use commercially reasonable efforts to obtain such assurances or documents from the Department of Transportation as the Optionee may reasonably require.

(b) **Mortgage of Optionee’s Interest.** Optionee shall have the right to obtain financing from one or more Financing Parties (such term to be defined in the Lease) by way of a direct or collateral assignment of this Agreement to a Financing Party, after providing seven days’ written notice to the Owner. Owner agrees that, amongst other Financing Party protections and cure rights, Owner shall (a) acknowledge and consent to, amongst other things, Optionee assigning the Lease and the Easements and any other easements benefitting the Premises by way of direct or collateral assignment to a Financing Party, assignment of the Easements and a lease of the storage facility from such Financing Party to Optionee, grant the Financing Parties a sublease or other real property interest in Optionee’s interest in and to the Premises, grant a first priority security interest in Optionee’s interest in the improvements and/or the Lease and Optionee’s other interests in and to the Premises, including, but not limited to, any Easements, rights of way or other similar interests; and (b) agree to execute such subordination agreements, consents, estoppels and other acknowledgements of the foregoing as Optionee or the Financing Parties may request. Notwithstanding the foregoing, Owner retains discretion to decline to acknowledge, consent, and/or agree to the items listed in this § 9(b), provided that such acknowledgement, consent, and/or agreement shall not be unreasonably withheld. Notwithstanding anything in this § 9(b), Optionee is aware of the Maine Department of Transportation’s residual interests in the Land as discussed in the Deed (Ex. D), and the Owner shall use commercially reasonable efforts to obtain such additional assurances or documents from the Department of Transportation as the Optionee may reasonably require.

(c) **Permits; Cooperation with Development.** Optionee shall have the right to apply for applications for land use entitlements, environmental approvals and permits, site plans, and subdivision or minor land division requests and parcel maps. Owner shall cooperate with Optionee in Optionee’s efforts to obtain such approvals by executing such documents as are reasonably necessary. Nothing in this § 9(c) relieves Optionee’s obligations further discussed in § 7, *supra*; by way of example only and not limitation, these obligations include Optionee’s obligation to pay for its investigations and indemnify Owner for same.

(d) **Use of the Property.** During the term of this Option, Owner will not commit waste on the Property or otherwise materially change the Property, nor will Owner agree to grant or permit any easement, lease, license, right of access or other possessory right in the Premises to any third party without the prior written consent of Optionee. Owner shall comply with all Laws applicable to the Property.

10. **Insurance.** Effective as of the date Optionee enters the Property for the Investigations, and continuing through the Option Period, Optionee shall obtain and maintain liability insurance for its activities on the Property. Such insurance will be in the amount of One Million Dollars (\$1,000,000) per occurrence and a Ten Million Dollar (\$10,000,000) policy limit, and will name Owner as an additional insured but only for liability arising out of Optionee’s operations on the Property including, without limitation, coverage for damage or harm caused or incurred by Optionee and its employees and agents.

11. **Assignment.** Optionee shall have the right to assign its rights and obligations under this Agreement to any Optionee affiliate, third party, and/or party providing financing to Optionee only with the prior written consent of Owner. Owner shall not have any right to assign its rights and obligations under this Agreement without Optionee's prior written consent, not to be unreasonably withheld, conditioned or delayed.

12. **Termination.**

(a) **Default.** Each of the following events shall constitute an event of default by the applicable party and shall permit the non-defaulting party to terminate this Agreement and pursue the remedies at law described below, which, as to Owner, shall consist solely of the remedies at law described in Section 11(b) below, and, as to Optionee, shall consist solely of the remedies at law contained in Section 11(c) below.

(i) The failure of Optionee to pay the amount required to be paid hereunder when due.

(ii) The failure of either party to perform any of the other terms, agreements or conditions set forth in this Agreement, where such failure continues for thirty (30) days (or such longer period required to cure such failure, not to exceed sixty (60) days), after receipt of written notice from the other party; or

(iii) A party files for bankruptcy or has an involuntary petition in bankruptcy or a request for appointment of a receiver filed against it, where such involuntary petition or request is not dismissed within ninety (90) days after filing.

(b) **Owner Remedies – Liquidated Damages.** EXCEPT FOR OPTIONEE'S INDEMNIFICATION OBLIGATIONS CONTAINED IN THIS AGREEMENT, OWNER'S SOLE REMEDY AT LAW UPON AN EVENT OF DEFAULT BY OPTIONEE SHALL BE TO RETAIN THE OPTION PAYMENTS IT HAS THEN RECEIVED AS LIQUIDATED DAMAGES FOR SUCH DEFAULT OF OPTIONEE, AND IN SUCH EVENT, OPTIONEE SHALL HAVE NO FURTHER RIGHT WHATSOEVER TO LEASE THE PREMISES AND OWNER SHALL HAVE NO RIGHT TO SEEK ANY FURTHER DAMAGES OR REMEDY AT LAW. THE PARTIES AGREE THAT IT WOULD BE IMPRACTICAL AND/OR EXTREMELY DIFFICULT TO ASCERTAIN THE ACTUAL DAMAGES THAT WOULD BE SUFFERED BY OWNER AS A RESULT OF ANY SUCH DEFAULT BY OPTIONEE, AND THAT UNDER THE CIRCUMSTANCES EXISTING AS OF THE DATE OF THIS AGREEMENT, THE LIQUIDATED DAMAGES PROVIDED FOR IN THIS SECTION REPRESENT A REASONABLE ESTIMATE OF THE DAMAGES WHICH OWNER WILL INCUR AS A RESULT OF ANY SUCH DEFAULT BY OPTIONEE. SUCH RETENTION OF THE OPTION PAYMENTS BY OWNER IS INTENDED TO CONSTITUTE LIQUIDATED DAMAGES TO OWNER AND SHALL NOT BE DEEMED TO CONSTITUTE A FORFEITURE OR PENALTY.

(c) **Optionee Remedies – Liquidated Damages.** OPTIONEE'S SOLE REMEDY AT LAW UPON AN EVENT OF DEFAULT BY OWNER SHALL BE TO RECOVER AN AMOUNT EQUAL TO THE OPTION PAYMENT(S) IT HAS THEN PAID AS LIQUIDATED DAMAGES AS RECOMPENSE FOR SUCH DEFAULT OF OWNER. THE PARTIES AGREE THAT IT WOULD BE IMPRACTICAL AND/OR EXTREMELY DIFFICULT TO ASCERTAIN THE ACTUAL DAMAGES THAT WOULD BE SUFFERED BY OPTIONEE AS A RESULT OF ANY SUCH DEFAULT BY OWNER, AND THAT UNDER THE CIRCUMSTANCES EXISTING AS OF THE DATE OF THIS AGREEMENT, THE LIQUIDATED DAMAGES PROVIDED FOR IN THIS SECTION REPRESENT A REASONABLE ESTIMATE OF THE DAMAGES WHICH OWNER WILL INCUR AS A RESULT OF ANY SUCH DEFAULT BY OWNER. SUCH RECOVERY OF AN AMOUNT EQUAL TO THE OPTION

PAYMENTS TO OWNER IS INTENDED TO CONSTITUTE LIQUIDATED DAMAGES FOR OPTIONEE AND SHALL NOT BE DEEMED TO CONSTITUTE A FORFEITURE OR PENALTY.

(d) **Equitable and Statutory Remedies.** Notwithstanding any of the foregoing, both parties retain all rights to pursue equitable remedies (e.g. injunctive relief) and non-monetary statutory relief (e.g. forcible entry and detainer) as may be cognizable against the other. In no event will money damages, costs of suit, attorney's fees, interest, or any other amounts of money of any description be awarded to either party against the other to exceed the amount of liquidated damages described in § 12(b)-(c), *supra*. In the event the Parties are unable to negotiate to a mutually agreeable Lease, the maximum equitable remedy available will be an order to continue negotiating in good faith for a reasonable amount of time; in no event can either party be ordered to enter into a Lease as specific performance of this Option.

(e) **Termination by Optionee Absent Default by Owner.** If Optionee determines, in its sole and absolute discretion, that the Land is unsuitable or undesirable for leasing by Optionee, Optionee shall have the right to terminate this Agreement by giving written notice thereof to Owner and this Agreement shall terminate on the date specified in Optionee's written notice. If the Agreement is terminated during the Option Period pursuant to the preceding sentence, then neither party shall have any further rights or obligations hereunder; provided, however, that Owner shall retain all Option Payments it shall have received hereunder prior to the date of termination of the Option Agreement and any provisions hereof that expressly survive termination of this Agreement shall remain in effect.

13. **Miscellaneous.**

(a) **Investigatory Results.** For any Investigation undertaken by Optionee that involved entry onto the Premises by Optionee or any of its employees, contractors, or agents of any kind, Optionee will provide a copy of such investigatory reports, findings, or results of any kind to Owner within fourteen (14) days of such investigatory reports, findings, or results, at no charge to Owner. These materials may be provided electronically. By way of example only and not limitation, expressly included in this duty to turn over reports and findings are any soil sample findings and land survey results.

(b) **Waiver of Jury Trial and Selection of Venue.** EACH PARTY HERETO WAIVES, TO THE FULL EXTENT PERMITTED BY LAW, THE RIGHT TO A JURY TRIAL IN ANY LITIGATION CONCERNING THIS AGREEMENT OR ANY DEFENSE, CLAIM, COUNTERCLAIM, CLAIM OF SET-OFF OR SIMILAR CLAIM OF ANY NATURE. THE PARTIES AGREE THAT ANY DISPUTES OVER THIS AGREEMENT WILL BE LITIGATED EXCLUSIVELY IN THE MAINE STATE COURTS, AND WAIVE THE RIGHT TO PURSUE ANY DEFENSE, CLAIM, COUNTERCLAIM, CLAIM OF SET-OFF OR SIMILAR CLAIM OF ANY NATURE IN ANY OTHER FORUM. EACH PARTY CONSENTS IN ADVANCE TO PERSONAL JURISDICTION IN THE MAINE STATE COURTS.

(c) **Counterparts.** This Agreement may be executed in counterparts. All executed counterparts shall constitute one agreement, and each counterpart shall be deemed an original. The parties hereby agree signatures transmitted by facsimile or email shall be legal and binding and shall have the same full force and effect as if an original of this Agreement had been delivered and hereby waive any defenses to the enforcement of the terms of this Agreement based on the foregoing forms of signature.

(d) **Time Periods.** If any date for exercise of any right, giving of any notice, or performance of any provision of this Agreement falls on a Saturday, Sunday or holiday, the time for performance will be extended to the next business day.

(e) **No Waiver.** The failure of either party to require strict performance by the other party of any provision of this Agreement will not be considered a waiver of any other provision, nor prevent any party from enforcing that or any other performance at any time thereafter.

(f) **Further Assurances.** The parties shall at their own cost and expense execute and deliver such further documents and instruments and shall take such other actions as may be reasonably required or appropriate to carry out the intent and purposes of this Agreement.

(g) **Governing Law.** This Agreement is made pursuant to, and shall be construed and enforced in accordance with, the laws of the State of Maine.

(h) **Amendments; Entire Agreement.** This Agreement contains the entire agreement between the parties and is intended by the parties to set forth their entire agreement with respect to the subject matter hereof, and any agreement hereafter made shall be ineffective to change, modify or discharge this Agreement, in whole or in part, unless such agreement is in writing and signed by the party against whom enforcement of the change, modification or discharge is sought. Owner and Optionee agree that all prior or contemporaneous oral or written agreements between or amongst themselves or their agents are merged in or revoked by this Agreement.

(i) **Partial Invalidity.** If any term or provision of this Agreement is, to any extent, determined by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this Agreement shall not be affected thereby, and each remaining term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

(j) **Successors and Assigns.** This Agreement, and the rights and obligations of the parties hereto, shall be binding upon and inure to the benefit of the parties and their respective successors, heirs, executors, administrators and permitted assigns.

(k) **Interpretation.** Each party acknowledges that it has been represented by or had the opportunity to be represented by legal counsel in its review of this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Agreement or any amendments or exhibits hereto.

(l) **Survival of Terms.** All covenants, representations and warranties contained in this Agreement shall survive Closing. Those provisions in this Agreement which by their terms are intended to be or must be performed in whole or in part after the Closing or after termination of this Agreement shall survive Closing and the termination of this Agreement.

(m) **Headings.** The headings herein are inserted only for convenience and shall have no effect in interpreting the meaning of any provision.

(n) **Time is of the Essence.** Time is of the essence in this Agreement and each and every provision of this Agreement.

(o) **Notices.** All notices, approvals, disapprovals or elections required or permitted to be given under this Agreement shall be in writing and shall be (i) delivered personally; (ii) mailed by certified or registered mail, return receipt requested; (iii) sent by email transmission; (iv) sent by facsimile transmission; or (v) sent by Federal Express or other professional carrier, to the parties at the addresses listed below or at such other addresses as shall be designated by Optionee or Owner in writing. Except as expressly set forth in this Agreement, notices shall be deemed given upon delivery or tender of delivery to the intended recipient; provided, however, that (x) notice sent by email or facsimile shall only be deemed received when

both (A) the sender has electronic confirmation that it was sent to all parties (and has retained a confirmation of the delivery) and (B) at least one addressee entitled to notice for the applicable party has acknowledged receipt of the transmission; and (y) if a post office box is provided as the notice address, notice shall be deemed to have been given or made five (5) days after being deposited in the United States mail with appropriate postage prepaid. Copies of notices are for informational purposes only, and a failure to give or receive copies of any notice shall not be deemed a failure to give notice.

Owner Address

Maine Port Authority
Attn: Jon Nass, CEO
460 Commercial Street
Portland, ME 04101

Phone: 207-200-2400
E-mail: jon.nass@maineports.com

With a copy to:

Office of the Attorney General
Attn: Timothy Steigelman, AAG
6 State House Station
Augusta, ME 04333

Phone: 207-626-8509
E-mail: timothy.steigelman@maine.gov

Optionee Address

Attn: Thomas O'Shaughnessy
230 Park Avenue,
19th Floor
New York
10169
Phone: (347) 263-3213

With a copy to:

Attn: General Counsel
Amber Infrastructure Limited
3 More London Riverside
London, United Kingdom
SE1 2AQ

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, and intending to be bound hereby, the parties hereto have executed this Agreement on the date written above.

“Owner”

Maine Port Authority
a State of Maine “body both corporate and politic.” 23 M.R.S. § 4420.

By:


Name: Jon Nass

Title: Chief Executive Officer

“Optionee”

Maine International Cold Storage Facility LLC,
a Delaware limited liability company

By:


Name: Tom O'Shaughnessy

Title: President

Exhibit A

**Depiction of the Land
(entitled "Existing Conditions," "IMT WEST COLD STORAGE FACILITY," July 2015)**

Exhibit B

Letter of Intent from Amber Infrastructure Group (January 27, 2020)

Exhibit C

**Design-Build Agreement between Maine Port Authority Woodard & Curran Constructors, LLC
(Feb. 13, 2019, and as amended May 28, 2019)(without exhibits)**

Exhibit D

**Deed of Convenience
Book 36501, Page 146 (March 11, 2020)**



5. EASEMENTS AND OTHER BURDENS

There are several easements currently located on the property. They are as follows:

- 20-foot wide easement to CMP
- 30-foot wide easement to CMP (10892/32 & 10600/111)
- 30-foot wide sewer easement to the City of Portland (31021/187 & 31378/333)
- 25-foot wide easement to N.E.T&T (2361/361)

These easements are on the eastern portion of the property and none of them will be impacted by the proposed project.

There are no new proposed easements with the development of the Cold Storage Facility. The Boundary Survey attached to Section 12 shows and describes easements located within the parcel. Proposed work will not change or restrict access to facilities, utilities, amenities, or resource, public or private.

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.
City of Portland Land Use Code Section 14-526(a)2.c.(i)	All proposed developments shall provide sidewalks along all frontages in accordance with Sections 14-498 and 14-499 of the City Code. An applicant may request a waiver from curb and sidewalk installation requirements if they meet applicable waiver criteria.	We are requesting a waiver from the sidewalk requirement. The site meets the waiver criteria listed in Section 506(b) (Items 2. and 3.).	The frontage of the proposed project is comprised of an existing driveway opening. No sidewalk exists on either side of the driveway opening on the southern side of West Commercial Street. An existing internal sidewalk in a landscaped island at the site
City of Portland Technical Manual Section 1.7.2.4	Maximum widths shall not exceed the following, although confirmation of exact capacity requirements will be necessary: • Commercial - 24 feet • Industrial – 30 feet	We are requesting a waiver from the maximum driveway width requirement.	The proposed facility and previously approved adjacent IMT facility require turns into and out of the site by large vehicles. Please refer to attached turning movement figures and previously approved IMT turning
City of Portland Technical Manual Section 1.14. Parking Lot and Parking Space Design Section 1.14	Parking spaces shall meet the following dimensional requirements: • Standard parking space: 9 feet wide by 18 feet long. Parking lot layout shall conform to Figures I-28 thru I-32	55'x12' truck parking spaces and 116' drive aisle.	These dimensions are required to accommodate tractor trailer movements and parking. The Land Use Ordinance does not address large vehicle parking areas, only passenger car parking areas.



6. EVIDENCE OF STATE AND/OR FEDERAL APPROVALS

In addition to the City's Level III Site Plan Review, the proposed project requires the following permits:

- MaineDEP Site Location of Development (reviewed by City of Portland under Delegated Review Authority);
- MaineDEP Natural Resources Protection Act Permit-by-Rule;
- ACOE Category II Permit;
- City of Portland Flood Hazard Development Permit;
- Maine Construction General Permit Notice of Intent; and
- FAA Notice of Proposed Construction.

Permit approvals will be submitted to the City upon receipt.



STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
284 STATE STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041



March 17, 2020

Darrin Stairs
Woodard & Curran
41 Hutchins Drive
Portland, ME 04102

RE: Information Request – 40 West Commercial Street Cold Storage Facility Project, Portland

Dear Darrin:

Per your request received on March 04, 2020, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and inland fisheries habitat concerns within the vicinity of the *40 West Commercial Street Cold Storage Facility* in Portland.

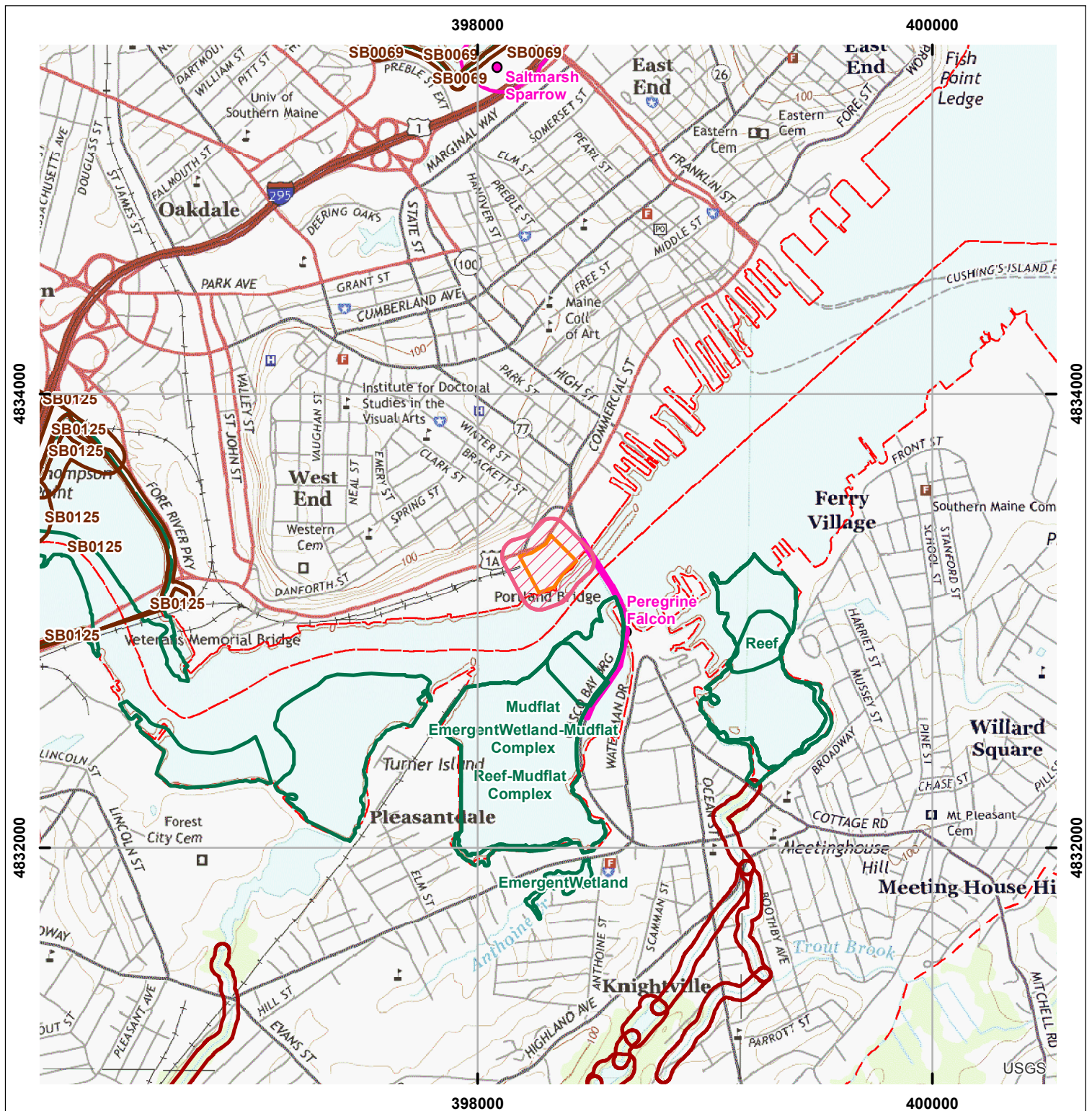
Our information indicates no locations of Endangered, Threatened, or Special Concern species within the project area that would be affected by your project. Additionally, our Department has not mapped any Essential or Significant Wildlife Habitats or inland fisheries habitats that would be directly affected by your project.

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance we recommend additional consultation with the municipality, and other state resource agencies including the Maine Natural Areas Program, Maine Department of Marine Resources, and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

Becca Settele
Wildlife Biologist

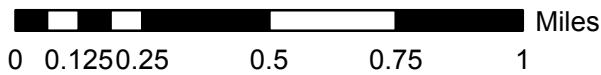


Environmental Review of Fish and Wildlife Observations and Priority Habitats

Project Name: 40 West Commercial Street cold storage facility, Portland (Version 1)



Maine Department of
Inland Fisheries and Wildlife



Projection: UTM, NAD83, Zone 19N

Date: 3/5/2020

- | | | |
|-----------------------------|----------------------------------|---|
| ProjectPoints | Deer Winter Area | Roseate Tern |
| ProjectLines | LUPC p-fw | Piping Plover and Least Tern |
| ProjectPolys | Cooperative DWAs | Aquatic ETSc - 2.5 mi review |
| ProjectSearchAreas | Seabird Nesting Islands | Rare Mussels - 5 mi review |
| Maine Cliff and Talus Areas | Shorebird Areas | Maine Heritage Fish Waters |
| | Inland Waterfowl and Wading Bird | Arctic Charr Habitat |
| | 2008 lwwh - Shoreland Zoning | Redfin Pickerel and Swamp Darter Habitats - buffer100ft |
| | Tidal Waterfowl and Wading Bird | Special Concern occupied habitats - 100ft buffer |
| | Significant Vernal Pools | Wild Lake Trout Habitats |
| | Environmental Review Polygons | |



9. ASSESSMENT OF ZONING

The project is located within the City of Portland Waterfront Port Development Zone (WPDZ) and partially within the Shoreland Overlay Zone and is subject to the requirements of the City of Portland Code Ordinances, Chapter 14 Land use, Division 18.5, Division 26 and Division 26.5. The purpose of the WPDZ ordinance, as defined by the Ordinance, is to ensure the continued viability of the Port of Portland.

9.1 PERMITTED USES (14-319)

Cold storage facility, warehousing, and storage of goods which are awaiting shipment via cargo carriers are permitted uses within the WPD Zone.

9.2 DIMENSIONAL REQUIREMENTS (14-320.2)

The attached Zoning Assessment Table shows the project complies with conditional use dimensional standards specified in the City's Land Use Ordinance.

9.3 PERFORMANCE STANDARDS (14-320.3)

a) *Outdoor Storage of Materials*

There will be no outdoor storage of materials as part of the proposed construction, all storage will be within the Cold Storage building.

b) *Noise*

An acoustic study was performed by Tech Environmental for the proposed refrigeration facility and summarized in a report dated February 25, 2020 attached to Section 8. The results indicate noise associated with facility operations will not exceed regulated levels and will not negatively impact surrounding development in its urban setting. Table 3 of the letter report presents the results from the model and demonstrate that the project will comply with City of Portland Code of Ordinance Chapter 14 Sec. 14-320.3.

c) *Vibration*

There will be no change to the vibration generated on site as part of the proposed Cold Storage building construction. Vibration associated with the proposed development will not exceed regulated levels.

d) *Federal and State Environmental Regulations*

The proposed development will comply with applicable federal and state environmental statutes and regulations regarding emissions into the air.

e) *Discharge into Harbor Areas*

The proposed development will not discharge wastewater into harbor areas, the proposed Cold Storage building will tie into existing sanitary sewer infrastructure onsite, which ultimately connects into the City of Portland Collection System.

f) *Storage of Vehicles*

There will be no storage of vehicles onsite due to the proposed development.

g) *Landfill of Docking and Berthing Areas*

There will be no landfill of docking and berthing areas due to the proposed development.

h) *Off-Street Parking*

Adequate off-street parking has been provided as described in Section 8 of this Report.

i) *Off-street Loading*

Off-street loading has been provided in accordance with Division 21 of the City of Portland Land Use Ordinance as described in Section 8 of this Report.

j) *Shoreland and Flood Plain Management Regulations*

Portions of the proposed building, emergency access driveway, loading area and parking areas are located within two hundred fifty (250) feet horizontal distance of the normal high water line of Fore River as shown on the design drawings. Portions of the proposed development are also located within special flood hazard area A2 identified on the FEMA FIRM map attached to Section 2 of this Report. Compliance with Division 26, Shoreland Regulations, and Division 26.5, Flood Plain Management Regulations, is addressed in Sections 9.4 and 9.5 respectively.

k) *Lighting*

Site lighting has been provided in accordance with City standards. A Photometric Plan and cut sheets for proposed lighting fixtures are provided in Section 8 of this Report.

l) *Signs*

All signs proposed will be in conformance with Division 22 of the City of Portland Land Use Ordinance.

m) *Storage of Pollutants and Oily Wastes*

There will be no change in the storage of pollutants and oily wastes at the IMT. All storage will be in conformance with the City of Portland Land Use Ordinance.

n) *Compatibility of Nonmarine Uses with Marine Uses*

The proposed Cold Storage Building will not interfere with marine activities.

o) *Design and Visual Character*

All mechanical equipment will be visually screened to minimize negative visual impacts onsite, refer to attached drawing set for location of proposed mechanical equipment and screening. Design and visual character is discussed in greater detail in Section 2.4.2.

9.4 SHORELAND REGULATIONS (14-449)

a) *Principal and accessory structures*

The proposed building is not located within 75-feet of the normal high water line of the Fore River as shown on the design drawings. A portion of the proposed development is located within Flood Zone AE and FEMA Special Flood Hazard Zone A2, including a section of the proposed building. A City of Portland Flood Hazard Development Permit will be submitted to the City for review. The lowest floor elevation of the proposed building (14 feet) is located more than one foot above the 100-year flood elevation (10 feet).

b) *Piers, docks, wharves, bridges and other structures and uses extending over or below the normal high water line of a water body or within a wetland*

A new outlet will be installed to discharge stormwater into the Fore River; a separate Maine DEP NRPA Permit-by-Rule and Army Corps of Engineers Category II permit will be obtained for work below normal high water.

c) *Clearing or removal of vegetation*

The project is located within the Waterfront Port Development Zone; therefore, this section does not apply.

d) *Erosion and sedimentation control*

Adequate erosion controls will be provided for the proposed development as described in the Stormwater Management Plan attached to Section 8 of this Report.

e) *Soils*

Soil will be handled, managed and disposed per the required Soil Management Plan for the Site, as described in Section 13.1 of this Report.

f) *Water quality*

Adequate provisions have been made to treat stormwater runoff from the proposed development as described in the Stormwater Management Plan attached to Section 8 of this Report. No other discharges are proposed.

g) *Archaeological sites*

The project is not located within a Historic District and does not directly impact any historic landmarks.

h) *Installation of public utility service*

No public utilities are proposed. Private utility service connections are described in Section 13 of this Report.

i) *Essential services*

No essential services are proposed in the Shoreland Zone; this section does not apply.

j) *Roads and driveways*

There is no setback requirement for roads and driveways in the Waterfront Port Development Zone. Runoff from the proposed emergency access driveway will largely be captured and conveyed through the stormwater management system. Runoff for areas not captured by the drainage system will sheet flow across the roadway into the adjacent vegetated area; concentrated flows are not anticipated.

k) *Parking areas*

There is no setback requirement for parking areas in the Waterfront Port Development Zone; this section does not apply.

l) *Septic waste disposal*

No septic waste disposal is proposed; this section does not apply

m) *Stormwater runoff*

As demonstrated by the Stormwater Management Report attached to Section 8 of this Report, the proposed project has been designed to comply with the City of Portland Technical Manual. An Operations and Maintenance Plan has been developed for the project and is included in the Stormwater Management Report.

n) *Agriculture*

No agricultural operations are proposed; this section does not apply.

o) *General site plan features*

As demonstrated in the sections above, the proposed development is in conformance with the Shoreland Regulations.

9.5 FLOOD PLAIN MANAGEMENT REGULATIONS (14-450)

Portions of the proposed development are located within special flood hazard area A2 identified on the FEMA FIRM map attached to Section 2 of this Report. A Flood Hazard Area Development Permit will be submitted to the City under separate cover.

9.6 ATTACHMENTS

- Zoning Table


ZONING ANALYSIS Relevant Zone(s) WPDZ & Shoreland Overlay
All Projects:

	Required	Proposed
Lot Size	None	17.9 acres
Area Per Dwelling Unit	NA	N/A
Minimum Street Frontage	None	N/A
Front Yard Minimum	N/A	N/A
Front Yard Maximum	N/A	N/A
Rear Yard	N/A	N/A
Yard Right	N/A	N/A
Yard Left	N/A	N/A
Side Street Setback	N/A	N/A
Step Back	N/A	N/A
Maximum Lot Coverage	50%	14%
Minimum Lot Coverage	N/A	N/A
Maximum Height	75	<75
Open Space	N/A	N/A
Maximum Impervious Area	N/A	N/A
Pavement Setback	N/A	N/A
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces	TBD**	
Loading Bays	N/A	12
Other 1 Maximum Building Length	450	444
Other 2		
Other 3		

****Note:** Per Section 14-332.2(c) of the City's Ordinance, the Planning Board shall establish the parking requirements based upon parking analysis submitted by the Applicant.

Planned Residential Unit Developments (PRUD) Requirements**N/A**

	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)**N/A**

	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):			



ZONING ANALYSIS Relevant Zone(s) WPDZ & Shoreland Overlay

All Projects:

	Required	Proposed
Lot Size	None	17.9 acres
Area Per Dwelling Unit	NA	N/A
Minimum Street Frontage	None	N/A
Front Yard Minimum	N/A	N/A
Front Yard Maximum	N/A	N/A
Rear Yard	N/A	N/A
Yard Right	N/A	N/A
Yard Left	N/A	N/A
Side Street Setback	N/A	N/A
Step Back	N/A	N/A
Maximum Lot Coverage	50%	14%
Minimum Lot Coverage	N/A	N/A
Maximum Height	75	<75
Open Space	N/A	N/A
Maximum Impervious Area	N/A	N/A
Pavement Setback	N/A	N/A
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces	TBD**	
Loading Bays	N/A	12
Other 1 Maximum Bldg. Length, over 60' height	450	444
Other 2		
Other 3		

****Note:** Per Section 14-332.2(c) of the City's Ordinance, the Planning Board shall establish the parking requirements based upon parking analysis submitted by the Applicant.

Planned Residential Unit Developments (PRUD) Requirements**N/A**

	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)**N/A**

	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):			



7. EVIDENCE OF FINANCIAL & TECHNICAL CAPACITY

7.1 FINANCIAL CAPACITY

Attached to this Section is a letter from President of Amber Infrastructure LLC, which includes annual audited account information, demonstrating that Maine International Cold Storage Facility LLC has financial capacity to support the proposed project.

7.2 TECHNICAL CAPACITY

On behalf of the Applicant, Woodard & Curran is preparing this application for the proposed development. Woodard & Curran has extensive experience with design for site development projects and specifically on the peninsula within the City of Portland. Woodard & Curran, a 1,000-person Portland-based firm, has provided engineering services to the public and private sector for over 40 years, including permitting, civil/site engineering, stormwater and construction management services.

Woodard & Curran has been involved in numerous development projects in the Greater Portland Area and has developed working relationships with various consultants who are called upon, as necessary, to provide specialized services. The project is also supported by a design team including CWS Architects, Pat Carroll Landscape Architects, Thornton Tomasetti Structural Engineers and Bartlett Electrical Engineering. Copies of resumes or project examples can be provided upon request.

7.3 ATTACHMENTS

- Financial Capacity Letter

Ms Christine Grimando
AICP Planning Director
Planning & Urban Development
Department 389 Congress Street 4th Floor
Portland
ME 04101

February 28, 2020

Re: the Maine International Cold Storage Facility ("MICSF")

Dear Ms. Grimando,

It is my pleasure to provide this letter confirming Amber Infrastructure Group's ("Amber") relationship with Maine International Cold Storage Facility LLC.

MICSF LLC is a wholly owned subsidiary of Amber and has been created as a Special Purpose Entity to undertake the development, financing, construction, ownership and operation of the proposed MICSF to be constructed in partnership with the Port Authority at the Portland Marine Terminal.

Amber is an international infrastructure developer and fund manager with over \$8bn under management. Amber invests in eight countries internationally across six funds. Amber's core business focuses on sourcing, developing and investing in infrastructure sectors that support the lives of people, homes and businesses internationally. Amber is headquartered in London with offices in Europe, North America and Australia and employs approximately 125 infrastructure professionals.

I have attached Amber's latest set of annual audited accounts for your review. These demonstrate our available cash resources which exceed £107m (\$139m) which exceed the anticipated financing requirement of the development and financing of the MICSF.

Should you require any further information please do not hesitate to contact me.

Yours sincerely



Tom O'Shaughnessy, President, Amber Infrastructure LLC

8. CONSISTENCY WITH PORTLAND DESIGN STANDARDS & DESIGN MANUAL

Section 14-526 of the City of Portland's Land Use Code outlines the site plan standards that must be met by Level III Site Plan projects. The proposed development will follow the City's design standards as described in the following section.

8.1 TRANSPORTATION

1. *Impact on Surrounding Street Systems*

The attached preliminary Trip Generation Analysis was prepared by Sewall for the proposed development. Based upon the results of the analysis, a TMP should not be required since peak hour trip generation will not exceed the 100-trip threshold.

2. *Access and Circulation*

The Cold Storage Facility has been designed to separate passenger car traffic from truck traffic. Trucks entering from West Commercial Street will turn east to the loading dock side of the building, which is closer to the rest of the IMT facility. Employee passenger cars will enter from West Commercial Street and turn to the west, to a passenger car parking area located on the west side of the building. Pedestrian walkways will connect the passenger car parking area with the administration portions of the building. A striped crosswalk will provide pedestrian access to West Commercial Street. Pedestrians can then cross at the signalized intersection of West Commercial and Beach Streets to a sidewalk on the north side of West Commercial Street. A turning movement figure is attached to this Section.

3. *Loading & Servicing*

The proposed development will safely accommodate delivery and service vehicles. A clear route and travel way is provided on the northern and eastern sides of the building from West Commercial Street to the truck loading area. Twelve spaces are provided for trucks at the loading dock and an additional twelve spaces are provided across the 91-foot wide driveway aisle. Truck berths will be 15 feet wide and 55 feet long. The site design permits safe turning and backing.

4. *Sidewalks*

The project frontage is comprised entirely of the entrance driveway. There are no existing sidewalks on either side of the driveway entrance on West Commercial Street; therefore, no crosswalk is proposed across the driveway entrance. A crosswalk will be provided from the proposed building to the existing crossing at West Commercial Street, as described in Section 8.1.2 above.

5. *Public Transit Access*

No changes to public transit access are proposed as part of this project.

6. *Parking*

In accordance with Section 14-322.2(c), where construction is proposed of new structures having a total floor area in excess of fifty thousand (50,000) square feet, the planning board shall establish the parking requirement for such structures. The proposed cold storage facility is estimated to have 25 employees. The Institute of Transportation Engineers (ITE) provides peak period parking demand on an employee basis by land use (*Parking Generation*, 4th Edition). Based on ITE parking data, the average peak demand for warehousing is 0.78 spaces per employee and the 85th percentile rate is 1.01 space per employee. Therefore, 25 parking spaces should be provided for the 25 projected employees. An employee parking lot with 29 standard parking spaces and 2 accessible parking spaces (31 total spaces) will be provided on the west side of the facility. Six bicycle parking spaces will be provided for the site.

7. *Snow Storage*
Snow storage locations are located within lawn areas adjacent to the proposed parking area as shown on the design drawings attached to Section 2 of this Report.
8. *Transportation Demand Management (TDM)*
The proposed building exceeds 50,000 SF of total floor area; therefore, TDM requirements apply to this development per Section 14-526(a)5.a.(ii). However, as previously mentioned, only 25 employees are anticipated to work at the facility. A waiver from this standard is requested.

8.2 ENVIRONMENTAL & LANDSCAPE FEATURES

1. *Preservation of Significant Natural Features*
The IMT property was previously developed and there are no known areas of significant natural features including unusual natural areas, threatened or endangered botanical features, areas of significant wildlife habitats, aquifers, waterbodies, or wetland areas within the work area for the project. The attached Official Species List identifies the northern long-eared bat, which has been listed as a Federally Threatened Species, in association with the project area (a common designation across the state); however, there are no critical habitat areas located within the project area. Based on US Fish & Wildlife information, the northern long-eared bat typically lives in caves during the winter months, and in trees larger than three inches in diameter during the summer, with migration between these two habitats in the spring in the fall. The project is located in an existing urban, developed area and no trees meeting the criteria for bat habitat are proposed to be impacted by the project. Other publicly available data indicates that the project is not located in any significant plant or animal habitat, on any identified conservation land, or in wetlands as shown in the figures attached to this Section.
2. *Landscaping & Landscape Preservation*
The existing site was previously developed and a few small trees exist on the site. Site disturbance will be limited to the greatest extent to construct the project. Landscaping Plans are included in the Design Drawings attached to Section 2 of this application.
3. *Site Landscaping & Street Trees*
The frontage of the project site is comprised entirely of the access driveway, which prevents the planting of required street trees in the City right-of-way. The applicant intends to contribute to the City's Tree Fund. Landscaping Plans are included in the drawings referenced in Section 2 of this Report.

8.3 ENVIRONMENTAL & STORMWATER

1. *Water Quality, Stormwater Management & Erosion Control*
The project must comply with the water quality, stormwater management, and erosion control standards identified by the City of Portland in the Land Use Chapter of the Code of Ordinances, as well as the MaineDEP Chapter 500 Stormwater Standards associated with Site Location of Development Act Permit requirements. The existing site manages Stormwater through a series of catch basins that discharge to the Fore River. The proposed site upgrades will connect to the existing collection system. The Stormwater Management Plan included with this application demonstrates that the proposed development meets the applicable standards.

The project has been designed to minimize the impact of stormwater leaving the site. The project will not result in the flooding of adjacent lots or City property. Additionally, the project is not located within the

watershed of an Urban Impaired Stream and is not anticipated to pose a risk of groundwater contamination during or after construction. Erosion and sediment control measures are described in the attached Stormwater Management Plan and detailed on the drawings. The development has also been designed to provide for the adequate and sanitary disposal of sewage, as further described in Section 13 of this Report.

8.4 PUBLIC INFRASTRUCTURE & SAFETY

1. *Consistency with City Master Plan*

The development's consistency with City Master Plan is described in Section 10 of this Report.

2. *Public Safety and Fire Prevention*

Provisions for public safety have been incorporated into the design of site visibility, access, and territorial reinforcement. Adequate emergency vehicle access is provided via the proposed access driveway. Compliance with the Portland Fire Department Site Review Checklist is described in Section 14 of this Report. The full plan set will be provided to the Fire Department Reviewer, along with a cover letter including the items in the Portland Fire Department Site Review Checklist, as described in Section 14 of this Report.

3. *Availability and Adequate Capacity of Public Utilities*

The availability and adequate capacity of public utilities is described in Section 13 of this Report.

8.5 SITE DESIGN

1. *Massing, ventilation, and wind impact*

The proposed building will not result in any reduction in ventilation to abutting structures or unsafe wind conditions on the site.

2. *Shadows*

No adverse impacts from shadows are anticipated to result from the proposed project.

3. *Snow and ice loading*

The proposed building has been designed to accommodate appropriate snow and ice loads and to prevent significant amounts of accumulated snow and ice from falling onto adjacent properties or public ways.

4. *View corridors*

The proposed development will not obstruct public view corridors identified in the City's Downtown Vision View Corridor Protection Plan.

5. *Historic Resources*

The project is not located within a Historic District and does not directly impact any historic landmarks.

6. *Exterior Lighting*

A Site Lighting Report by Bartlett Design dated March 2, 2020, and accompanying cut sheets for proposed lighting fixtures, Photometric Plans, and Site Lighting Plan are attached to this Section.

7. *Noise and Vibration*

Construction activities will be limited to hours permitted by the City. HVAC and primary mechanical equipment will be located and screened to mitigate noise impacts. Final HVAC equipment is in the process of being selected. HVAC and primary mechanical equipment will be located on the project in such a way as to direct exhaust away from adjacent properties and will meet federal emissions standards.

An acoustic study was performed for the proposed refrigeration facility. The study is summarized in the Noise Modeling Analysis Report by Tech Environmental dated February 25, 2020 attached to this Section. The acoustic modeling included thirty-two residential receptors and three property line receptors. Two modeling scenarios were performed: daytime, which consisted of twenty refrigerated trucks and one condenser, and nighttime, which consisted of ten refrigerated trucks and one condenser. The results of the acoustic study were compared to the City of Portland Code of Ordinance. The pre-existing sound levels are in the 50-60 dBA range for daytime and nighttime sound levels. The results indicate noise associated with facility operations will not exceed regulated levels and will not negatively impact surrounding development in its urban setting. Table 3 of the letter report presents the results from the model and demonstrate that the project will comply with City regulations.

8. *Signage and Wayfinding*

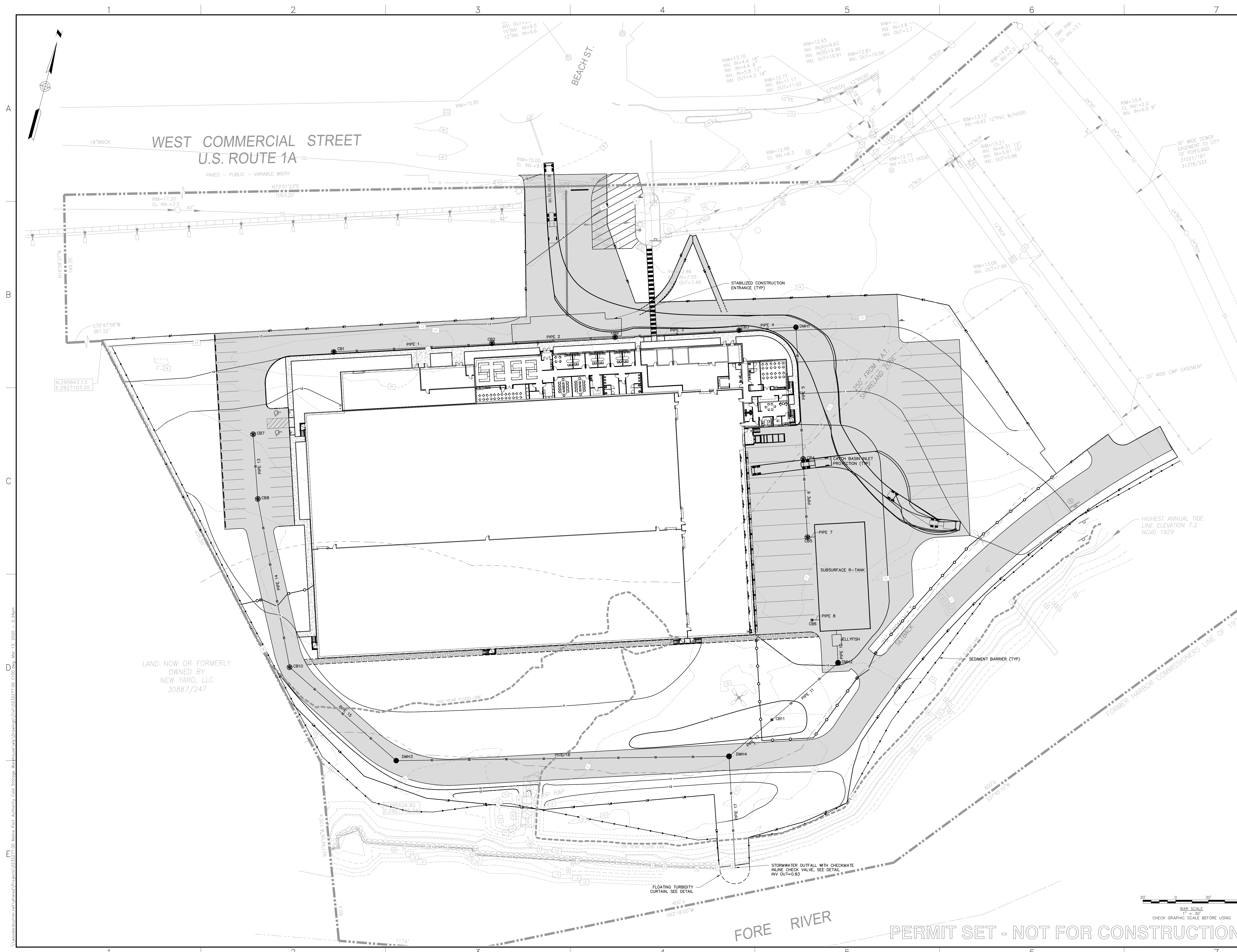
No building signage is proposed at this time. Sign permit applications will be submitted under separate cover. The size, scale, proportions, design, materials, placement, quantity and source and intensity of illumination shall be designed to complement and enhance the architectural attributes of the proposed building.

9. *Zoning Related Design Standards*

An assessment of the City Zoning requirements is provided in Section 9 of this Report.

8.6 ATTACHMENTS

- Traffic Assessment prepared by Sewall (uploaded separately in Eplan)
- Turning Movement Figure
- Stormwater Management Plan (uploaded separately in Eplan)
- Official Species List
- Plant and Animal Habitat Map
- Conservation Land Map
- National Wetlands Inventory Map
- Noise Modeling Analysis prepared by Tech Environmental
- Site Lighting Report, Cut Sheets, Photometric Plans and Site Lighting Plan prepared by Bartlett Design





United States Department of the Interior

FISH AND WILDLIFE SERVICE

Maine Ecological Services Field Office

P. O. Box A

East Orland, ME 04431

Phone: (207) 469-7300 Fax: (207) 902-1588

<http://www.fws.gov/mainefieldoffice/index.html>



In Reply Refer To:

February 24, 2020

Consultation Code: 05E1ME00-2020-SLI-0741

Event Code: 05E1ME00-2020-E-02460

Project Name: MPA Cold Storage Facility

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies the threatened, endangered, candidate, and proposed species and designated or proposed critical habitat that may occur within the boundary of your proposed project or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC Web site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the Endangered Species Consultation Handbook at: <http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

This species list also identifies candidate species under review for listing and those species that the Service considers species of concern. Candidate species have no protection under the Act but are included for consideration because they could be listed prior to completion of your project. Species of concern are those taxa whose conservation status is of concern to the Service (i.e., species previously known as Category 2 candidates), but for which further information is needed.

If a proposed project may affect only candidate species or species of concern, you are not required to prepare a Biological Assessment or biological evaluation or to consult with the Service. However, the Service recommends minimizing effects to these species to prevent future conflicts. Therefore, if early evaluation indicates that a project will affect a candidate species or species of concern, you may wish to request technical assistance from this office to identify appropriate minimization measures.

Please be aware that bald and golden eagles are not protected under the Endangered Species Act but are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). Projects affecting these species may require development of an eagle conservation plan: http://www.fws.gov/windenergy/eagle_guidance.html Information on the location of bald eagle nests in Maine can be found on the Maine Field Office Web site: <http://www.fws.gov/mainefieldoffice/Project%20review4.html>

Additionally, wind energy projects should follow the wind energy guidelines: <http://www.fws.gov/windenergy/> for minimizing impacts to migratory birds and bats. Projects may require development of an avian and bat protection plan.

Migratory birds are also a Service trust resource. Under the Migratory Bird Treaty Act, construction activities in grassland, wetland, stream, woodland, and other habitats that would result in the take of migratory birds, eggs, young, or active nests should be avoided. Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g.,

cellular, digital television, radio, and emergency broadcast) can be found at:
<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm> and at:
<http://www.towerkill.com>; and at:
<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Maine Ecological Services Field Office

P. O. Box A

East Orland, ME 04431

(207) 469-7300

Project Summary

Consultation Code: 05E1ME00-2020-SLI-0741

Event Code: 05E1ME00-2020-E-02460

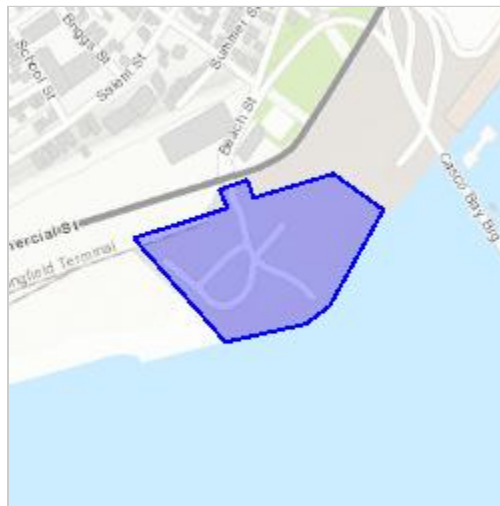
Project Name: MPA Cold Storage Facility

Project Type: DEVELOPMENT

Project Description: Proposed development located at 40 West Commercial Street in Portland, ME.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/43.64488761927891N70.2617886507607W>



Counties: Cumberland, ME

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

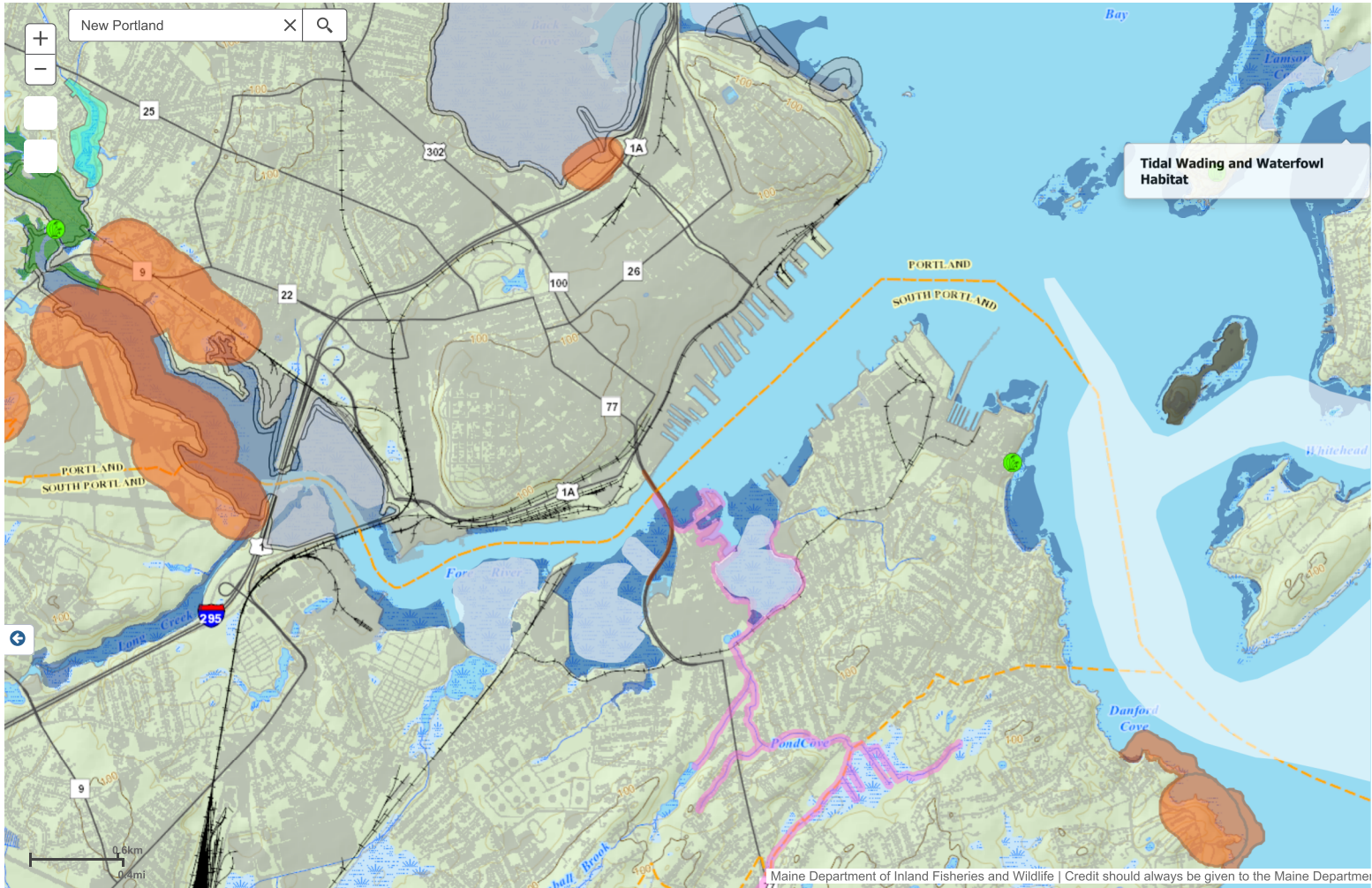
THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Plant and Animal Habitats

Welcome Layers Legend

Legend:

- State Listed Animal Habitats
- Deer Wintering Areas
- Inland Wading Bird and Waterfowl Habitat
- Tidal Wading Bird and Waterfowl Habitat
- Essential Plover and Tern Habitat
- Shorebird Habitat
- Seabird Nesting Islands
- Significant Vernal Pools
- Rare Plant Locations
- Natural Communities
- Shellfish Beds
- Endangered Fish Species
- Wild Brook Trout Habitat
- Atlantic Salmon Spawning Habitat
- Atlantic Salmon Rearing Habitat



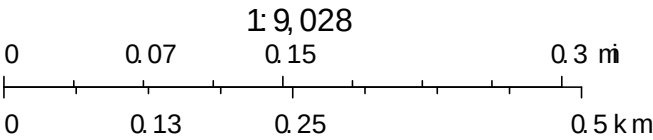
Maine Department of Inland Fisheries and Wildlife | Credit should always be given to the Maine Department of Inland Fisheries and Wildlife

Maine Conserved Lands



9/26/2019, 1:34:29 PM

Maine Conserved Lands - All



Source: Esri, Digital Globe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



U.S. Fish and Wildlife Service

National Wetlands Inventory

2019.09.26 Wetlands Map



September 26, 2019

Wetlands

 Estuarine and Marine Deepwater	 Freshwater Emergent Wetland	 Lake
 Estuarine and Marine Wetland	 Freshwater Forested/Shrub Wetland	 Other
	 Freshwater Pond	 Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

February 25, 2020

Mr. Jedd Steinglass, LSP
Project Manager
Woodard & Curran
41 Hutchins Drive
Portland, ME 04102

Ref 4496

Re: Noise Modeling Analyses for SLODA- Compliance Demonstration

Dear Mr. Steinglass:

This letter report presents the results of an acoustic study for the proposed refrigeration facility located at 40 West Commercial Street, Portland, Maine (herein referred to as the Project). The proposed project is a total of 125,572 square feet, with 12 loading docks. The current Project location is a vacant lot that is located in a waterfront port development zone.

The acoustic modeling includes 32 residential receptors, and 3 property line receptors. Two modeling scenarios were performed:

1. daytime: which consists of up to 20 refrigerated trucks, 1 outdoor condenser, and
2. nighttime: which consists of having 10 refrigerated trucks, 1 outdoor condenser.

One-third octave bands were not available for the equipment data used in the model, so as per Maine DEP regulations a 5 dBA penalty was added to the predicted project sound levels.

The results of the acoustic study were compared to the Maine Department of Environmental Protection (Maine DEP) Noise Policy and the City of Portland Zoning Bylaw. **Tables 1** and **2** present the results from the model and demonstrate that the Proposed Project will comply with both the Maine DEP Noise Policy and the City of Portland Code of Ordinance.

1.0 THE DECIBEL SCALE FOR SOUND

All sounds originate with a source – a human voice, vehicles on a roadway, or an airplane overhead. The sound energy moves from the source to a person's ears as sound waves, which are minute variations of air pressure. The loudness of a sound depends on the sound pressure level, which has units of decibel (dB). The decibel scale is logarithmic to accommodate the wide range of sound intensities to which the human ear is subjected. On this scale, the quietest sound we can hear is 0 dB, while the loudest is 120 dB. Every 10-dB increase is perceived as a doubling of loudness. Most sounds we hear in our daily lives have sound pressure levels in the range of 30 dB to 90 dB.

Community noise studies and regulations use an A-weighting scale (dBA) when measuring sound pressure levels as this approximates the response of the human ear to sounds, we experience in everyday life. Typical sound levels associated with various activities and environments are presented in **Figure 1**. Here are examples of sound levels we all encounter. A quiet suburban area at night without any traffic typically has an average sound level of 40 to 45 dBA. The freight train you hear in the distance may be 50 dBA, and crickets and tree frogs in the summer sing a sound level of 55 dBA. Two people having a conversation in a normal tone of voice will hear each other speak at 65 dBA. Standing near a road, a car passing by can produce 75 dBA, and a truck passing by is louder at 80 dBA.

There are various measures of sound pressure designed for different purposes. To establish the background ambient sound level in an area, the L_{90} metric, which is the sound level exceeded 90 percent of the time, is typically used. The L_{90} can also be thought of as the level representing the quietest 10 percent of any time period. The L_{10} metric, which is the sound level exceeded 10 percent of the time is typically used to assess transient noise highway or rail activities. The L_{eq} , or equivalent sound level, is the steady-state sound level over a period of time that has the same acoustic energy as the fluctuating sounds that actually occurred during that same period. It is commonly referred to as the average sound level. The L_{max} , or maximum sound level, represents the one second peak level experienced during a given time period. These are a broadband sound pressure measure, i.e., it includes sounds at all frequencies.

Sound level measurements typically include an analysis of the sound spectrum into its various frequency components to determine tonal characteristics. The unit of frequency is Hertz (Hz), measuring the cycles per second of the sound pressure waves, and typically the frequency analysis examines eleven octave bands from 16 to 16,000 Hz.

2.0 APPLICABLE NOISE REGULATIONS

This section provides a summary of the Maine Department of Environmental Protection (Maine DEP) Noise Policy and the City of Portland Code of Ordinance.

2.1 Maine Department of Environmental Protection Noise Policy

The Maine Department of Environmental Protection (Maine DEP) 06-096 Chapter 375 (10) Control of Noise. There are three criteria that could apply, the first is at the industrial fenceline, Chapter 375 (10) (1) (a) (i), and the second is at the fenceline of the residential locations, Chapter 375 (10) (1) (a) (ii). Both of these assume that the background is less than these limits. If the background is great than these limits because of existing background sound then the limit for the industrial fenceline, the residential fenceline, or possibly both could be an incremental increase Chapter 375 (10).

(1)(a)(i) At any property line of the development or contiguous property owned by the developer, whichever is farther from the proposed development's regulated sound sources:

75 dBA at any time of day.

(1)(a)(ii) At any protected location in an area for which the zoning, or, if unzoned, the existing use or use contemplated under a comprehensive plan, is not predominantly commercial, transportation, or industrial;

*60 dBA between 7:00 a.m. and 7:00 p.m.
(the "daytime hourly limit"), and
50 dBA between 7:00 p.m. and 7:00 a.m.
(the "nighttime hourly limit").*

Tech was provided with the "City of Portland Baseline Sound Monitoring Report" which included sound measurements taken near the project site, at Location: 10- Casco Bay Bridge, where the lowest measured day time and night time sound levels were 66 dBA and 57 dBA respectively. Location 3- Fore and Union, is a representative location for the residential area and the lowest measured day and nighttime sound levels were 60 dBA and 54 dBA.

Based on the provided Maine regulations "Notwithstanding the above, the developer need not measure or estimate the pre-development ambient hourly sound levels at a protected location if he demonstrates, by estimate for example, that the hourly sound levels resulting from routine operation of the development will not exceed 50 dBA in the daytime or 40 dBA at night" The pre-existing background of the project location and residential area are above 50 dBA (day) and 40 dBA (night). Which demonstrates that the developer does not need to take measurements and instead can use the limits presented in Chapter 375 (10) stated above.

2.2 City of Portland Code of Ordinance

The Project is located in a zoning area labeled as waterfront port development. The City of Portland Code of Ordinance Chapter 14 Sec. 14-320.3 states the following:

All uses in the waterfront port development zone shall comply with the following standards.

(b) Noise:

1. The level of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American National Standards Institute, Inc.), inherently and recurrently generated within the waterfront port development zone between the hours of 7:00 p.m. and 7:00 a.m. from industrial facilities or operation commenced on or after July 1, 1988, shall not exceed fifty-five (55) decibels on the A scale at or within the boundaries of any residential zone, except for sound from construction activities, sound from traffic on public streets, sound from temporary activities such as festivals, and sound created as a result of, or relating to, an emergency, including sound from emergency warning signal devices.

To comply with the City of Portland Code of ordinance the proposed project predicted sound levels cannot exceed fifty-five (55) decibels on the A scale at or within the boundaries of any residential zone.

3.0 ACOUSTIC MODELING APPROACH AND RESULTS

This section provides a summary of the acoustic modeling approach and results.

3.1 Acoustic Modeling Approach

The future sound levels from the Project, when it is producing maximum electrical power, were calculated with the Cadna/A acoustic model. Cadna/A is a three-dimensional model for sound propagation and attenuation based on International Standard ISO 9613¹. Atmospheric absorption, the process by which sound energy is absorbed by the air, was calculated using ANSI S1.26-1995.² Digital terrain data for the Project areas were analyzed to obtain terrain heights. The model assumes the most-favorable sound propagation conditions, as occur under downwind conditions or during a ground-based temperature inversion on a clear night. Under these atmospheric conditions, sound travels further than if a person is upwind from a source and the atmosphere is well mixed, which would dampen the sound. Tech used refrigerated truck sound data from past noise projects to model twenty (20) refrigerated trucks for the daytime, and ten (10) refrigerated trucks during the nighttime, and was provided sound data to model one (1) condenser. A safety factor of 2 dBA was added onto each sound source.

Figure 2 shows modeling receptors included in Cadna/A representing both the residential and property line receptors.

3.2 Acoustic Modeling Results

Presented in this section is the predicted daytime and night sound levels for the Project and a comparison of compliance to the Maine DEP Noise Policy and Portland Noise Bylaw. Attachment A presents the acoustic modeling results.

Table 1 presents the predicted project daytime and nighttime sound levels, and one-third octave bands were not available for the equipment data used in the model, as per Maine DEP regulations a 5 dBA penalty was added to the predicted project sound levels. The predicted sound level increases were zero decibels above daytime and nighttime sound levels limits. The predicted project sound levels compared to the City of Portland noise limits are presented in **Table 2**, the predicted sound level increases were zero decibels above daytime and nighttime sound level limits.

Decibel-level contour maps of the predicted Project daytime and nighttime sound levels are presented in **Figures 3 and 4**.

¹ International Standard, ISO 9613-2, Acoustics – Attenuation of Sound During Propagation Outdoors, -- Part 2 General Method of Calculation.

² American National Standards Institute, ANSI S1.26-1995, “American National Standard Method for the Calculation of the Absorption of Sound by the Atmosphere,” 1995.

**Table 1:
Predicted Project Sound Levels Compliance with Maine DEP Noise Limits**

Receptor #	Address	Predicted Project Sound Levels (dBA)		Predicted Project Sound Levels (dBA) with additional 5 dBA for Tonal Sound		Maine DEP Noise Limits (dBA)		Compliance	
		Day	Night	Day	Night	Day	Night	Day	Night
1	65 Summer St 1FL	34	33	39	38	60	50	Yes	Yes
2	65 Summer St 2FL	34	33	39	38	60	50	Yes	Yes
3	51 Summer St 1FL	34	33	39	38	60	50	Yes	Yes
4	51 Summer St 2FL	34	33	39	38	60	50	Yes	Yes
5	49 Summer St 1FL	34	32	39	37	60	50	Yes	Yes
6	49 Summer St 2FL	34	33	39	38	60	50	Yes	Yes
7	45 Summer St 1FL	32	30	37	35	60	50	Yes	Yes
8	45 Summer St 2FL	33	32	38	37	60	50	Yes	Yes
9	33 Summer St 1FL	30	28	35	33	60	50	Yes	Yes
10	33 Summer St 2FL	31	29	36	34	60	50	Yes	Yes
11	28 Summer St 1FL	28	26	33	31	60	50	Yes	Yes
12	28 Summer St 2FL	29	27	34	32	60	50	Yes	Yes
13	265 York St 1FL	29	27	34	32	60	50	Yes	Yes
14	265 York St 2FL	32	30	37	35	60	50	Yes	Yes
15	78 Salem St 1FL	32	31	37	36	60	50	Yes	Yes
16	78 Salem St 2FL	33	32	38	37	60	50	Yes	Yes
17	82 Salem St 1FL	34	33	39	38	60	50	Yes	Yes
18	82 Salem St 2FL	35	35	40	40	60	50	Yes	Yes
19	90 Salem St 1FL	33	32	38	37	60	50	Yes	Yes
20	90 Salem St 2FL	34	33	39	38	60	50	Yes	Yes
21	84R Salem St 1FL	31	30	36	35	60	50	Yes	Yes
22	84R Salem St 2FL	32	32	37	37	60	50	Yes	Yes
23	88 Salem St 1FL	31	29	36	34	60	50	Yes	Yes
24	88 Salem St 2FL	32	32	37	37	60	50	Yes	Yes
25	263 York St 1FL	29	27	34	32	60	50	Yes	Yes
26	263 York St 2FL	31	29	36	34	60	50	Yes	Yes
27	259 York St 1FL	28	26	33	31	60	50	Yes	Yes
28	259 York St 2FL	30	28	35	33	60	50	Yes	Yes
29	251 York St 1FL	28	26	33	31	60	50	Yes	Yes
30	251 York St 2FL	29	27	34	32	60	50	Yes	Yes
31	24 Brackett St 1FL	28	26	33	31	60	50	Yes	Yes
32	24 Brackett St 2FL	30	27	35	32	60	50	Yes	Yes
33	Property Line Receptor 1	56	56	61	61	75	75	Yes	Yes
34	Property Line Receptor 2	42	39	47	44	75	75	Yes	Yes
35	Property Line Receptor 3	69	64	74	69	75	75	Yes	Yes

**Table 2:
Predicted Project Sound Levels Compliance with City of Portland Noise Limits**

Receptor #	Address	Predicted Project Sound Levels (dBA)		City of Portland Noise Limits (dBA)		Compliance	
		Day	Night	Day	Night	Day	Night
1	65 Summer St 1FL	34	33	55	55	Yes	Yes
2	65 Summer St 2FL	34	33	55	55	Yes	Yes
3	51 Summer St 1FL	34	33	55	55	Yes	Yes
4	51 Summer St 2FL	34	33	55	55	Yes	Yes
5	49 Summer St 1FL	34	32	55	55	Yes	Yes
6	49 Summer St 2FL	34	33	55	55	Yes	Yes
7	45 Summer St 1FL	32	30	55	55	Yes	Yes
8	45 Summer St 2FL	33	32	55	55	Yes	Yes
9	33 Summer St 1FL	30	28	55	55	Yes	Yes
10	33 Summer St 2FL	31	29	55	55	Yes	Yes
11	28 Summer St 1FL	28	26	55	55	Yes	Yes
12	28 Summer St 2FL	29	27	55	55	Yes	Yes
13	265 York St 1FL	29	27	55	55	Yes	Yes
14	265 York St 2FL	32	30	55	55	Yes	Yes
15	78 Salem St 1FL	32	31	55	55	Yes	Yes
16	78 Salem St 2FL	33	32	55	55	Yes	Yes
17	82 Salem St 1FL	34	33	55	55	Yes	Yes
18	82 Salem St 2FL	35	35	55	55	Yes	Yes
19	90 Salem St 1FL	33	32	55	55	Yes	Yes
20	90 Salem St 2FL	34	33	55	55	Yes	Yes
21	84R Salem St 1FL	31	30	55	55	Yes	Yes
22	84R Salem St 2FL	32	32	55	55	Yes	Yes
23	88 Salem St 1FL	31	29	55	55	Yes	Yes
24	88 Salem St 2FL	32	32	55	55	Yes	Yes
25	263 York St 1FL	29	27	55	55	Yes	Yes
26	263 York St 2FL	31	29	55	55	Yes	Yes
27	259 York St 1FL	28	26	55	55	Yes	Yes
28	259 York St 2FL	30	28	55	55	Yes	Yes
29	251 York St 1FL	28	26	55	55	Yes	Yes
30	251 York St 2FL	29	27	55	55	Yes	Yes
31	24 Brackett St 1FL	28	26	55	55	Yes	Yes
32	24 Brackett St 2FL	30	27	55	55	Yes	Yes

4.0 CONCLUSION

Tech performed an acoustic modeling study for the proposed refrigeration facility located at 40 West Commercial Street. The future sound levels from the Project, were calculated with the Cadna/A acoustic model. The model included twenty (20) refrigerated trucks for the daytime, and ten (10) refrigerated trucks during the nighttime, and one (1) condenser; and 32 residential receptors, and 3 property line receptors. One-third octave bands were not available for the equipment data used in the model, so as per Maine DEP regulations a 5 dBA penalty was added to the predicted project sound levels.

The study demonstrated that because the pre-existing sound levels are in the 50-60 dBA range for day time and nighttime sound levels, the Project operations will not cause an increase in the existing sound levels. The results of the acoustic study were then compared to the Maine Department of Environmental Protection (Maine DEP) Noise Policy and the City of Portland Zoning Bylaw. If Project includes the equipment that were modeled and the surrounding area does not have a pre-existing tonal sound, there would be no observed tonal sounds predicted at the site property lines or the residential receptors. Therefore, the Projects will comply with both the Maine DEP Noise Policy and the City of Portland Code of Ordinance.

Please call if you have any questions regarding this report.

Sincerely,

TECH ENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read "Michael T. Lannan". The signature is fluid and cursive, with a long horizontal stroke at the end.

Michael T. Lannan, P.E.

President

4496/ Letter Report December 2019

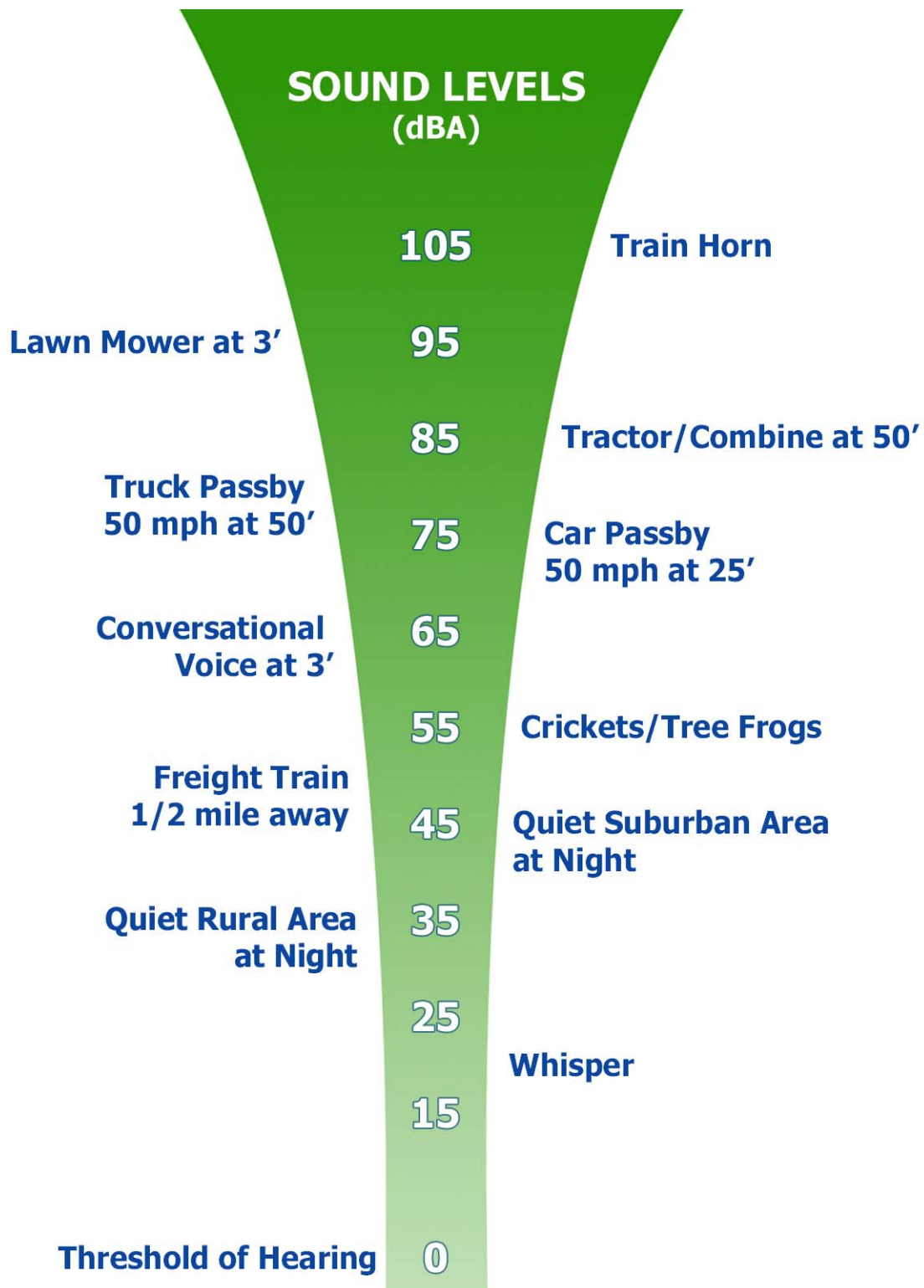


FIGURE 1.
Common Outdoor Sound Levels

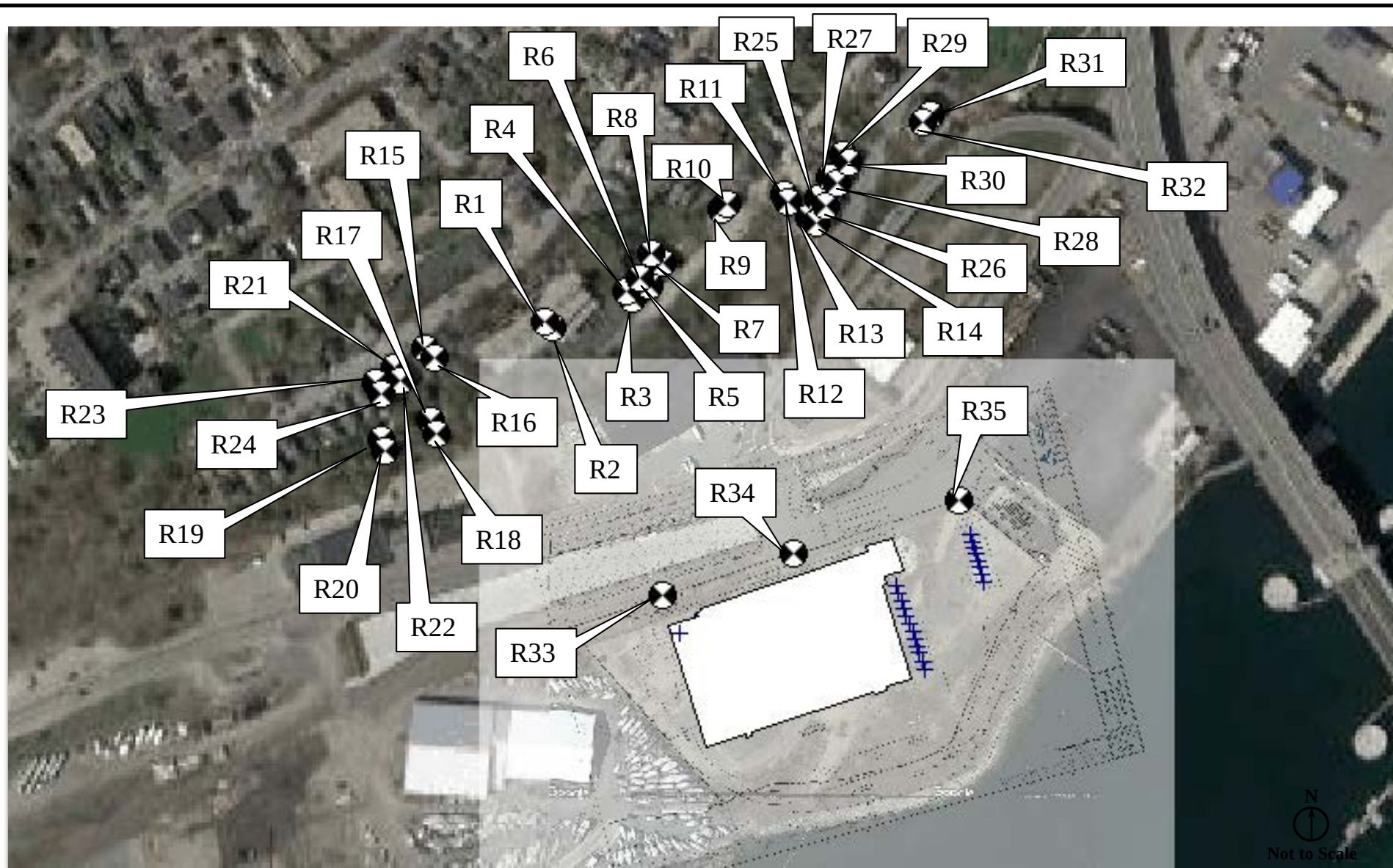


FIGURE 2.
Modeling Receptors Location
40 West Commercial Street, Portland, ME

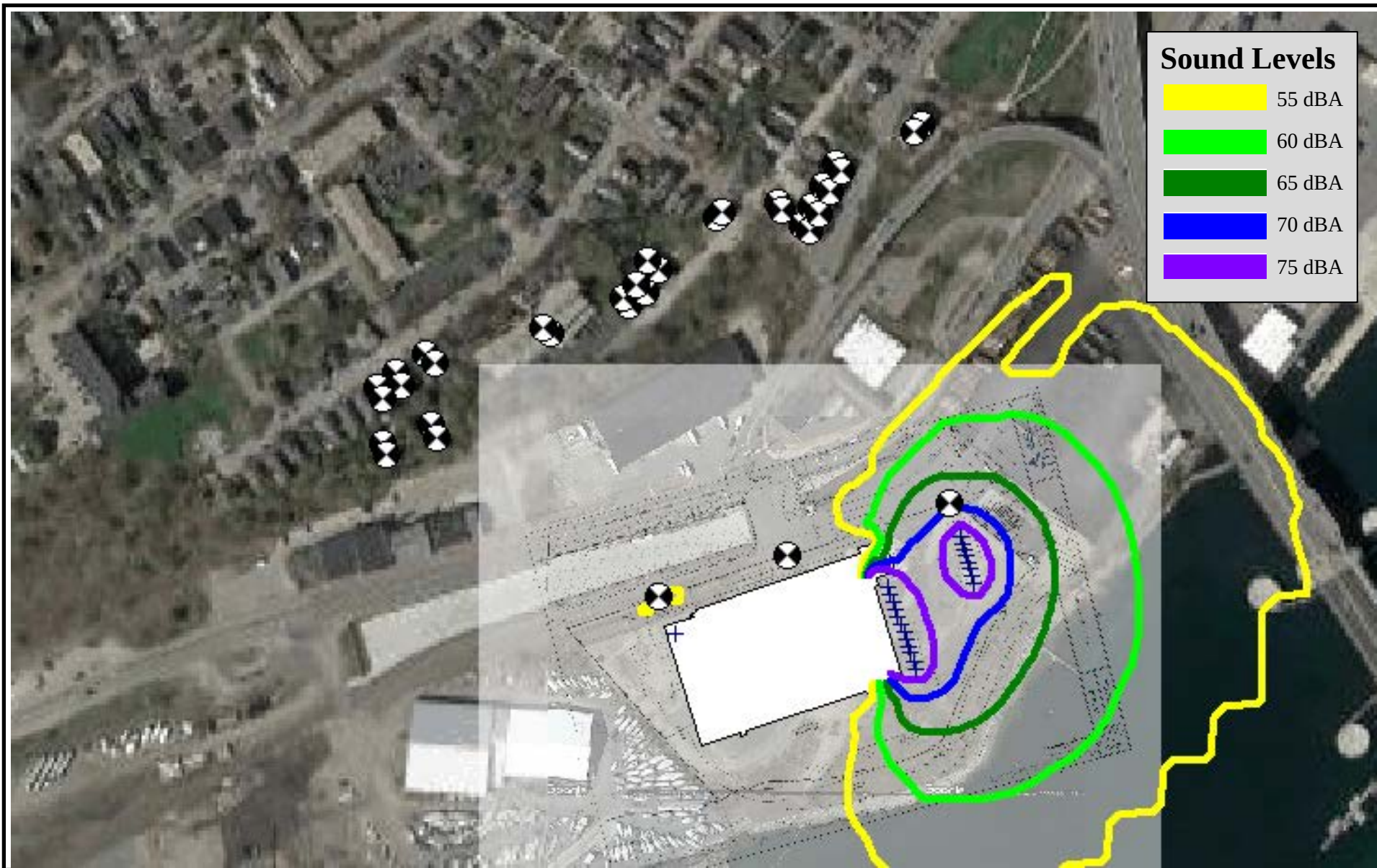


FIGURE 3.
Daytime Predicted Sound Levels
40 West Commercial Street, Portland, ME

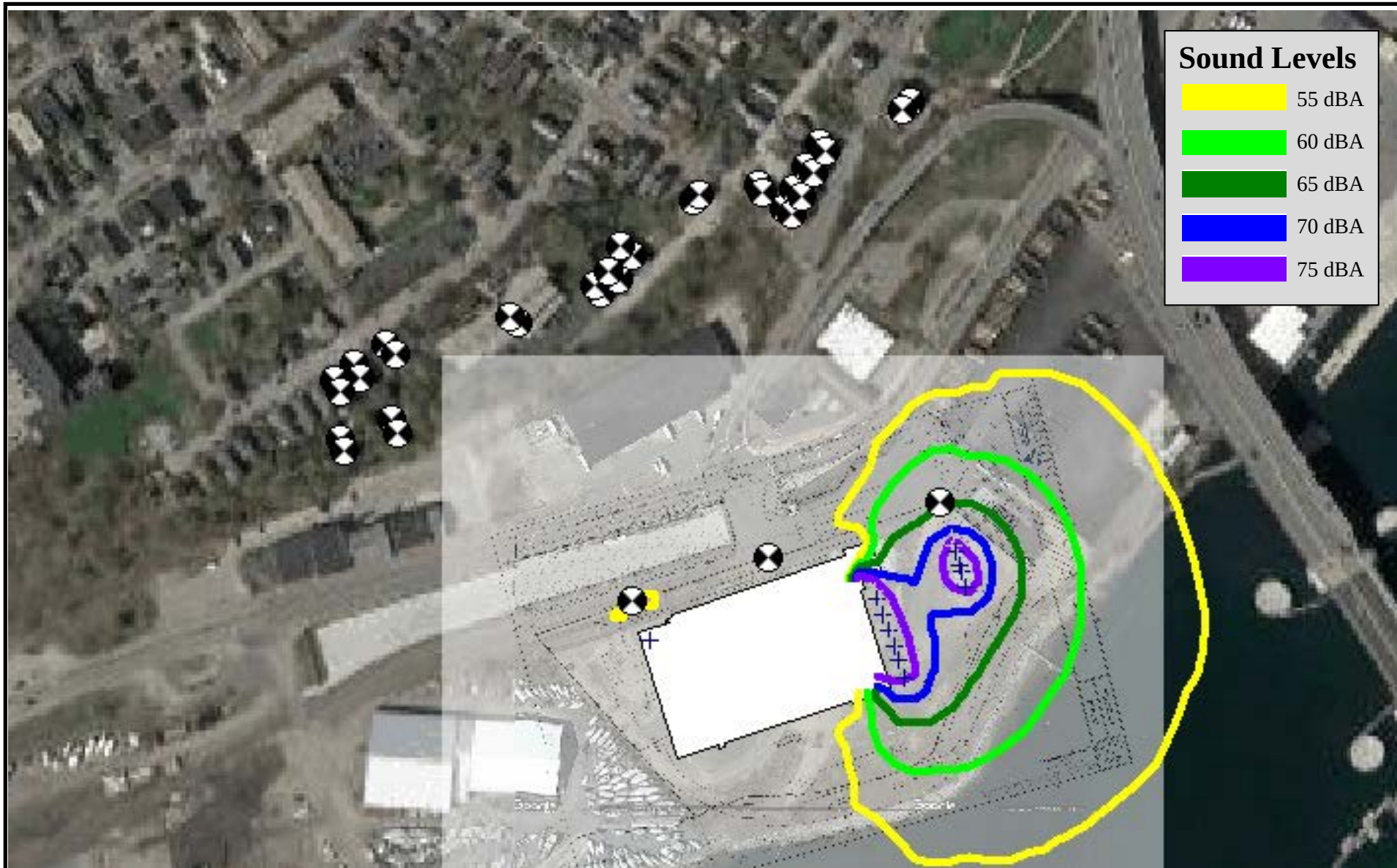


FIGURE 3.
Nighttime Predicted Sound Levels
40 West Commercial Street, Portland, ME

Main Port Authority Cold Storage Facility
Portland, Maine

March 2, 2020

PROPOSED SITE LIGHTING

Basis of Site Lighting Design

The *Illuminating Engineering Society of North America (IESNA)* published recommended lighting standards for marine port facilities in RP-40-19 Recommended Practice: Lighting Port Terminals. RP-40-19 recommends the following horizontal illuminance levels:

Average Illuminance at Grade:	3.5 footcandles
Minimum Illuminance at Grade:	1.0 footcandle
Maximum-to-Minimum Uniformity Ratio:	6.0-to-1 or less

Section 12 of the City of Portland Technical Manual stipulates the following illuminance design criteria:

Average Illuminance at Grade:	1.25 footcandles
Minimum Illuminance at Grade:	0.2 footcandle
Maximum Illuminance at Grade:	5.0 footcandles
Maximum-to-Minimum Uniformity Ratio:	20.0-to-1 or less

Additionally, The Technical Manual stipulates that the maximum lighting pole height for large industrial facilities (> 50,000 SF) be not greater than 30-feet.

The proposed site lighting design has been prepared to provide user safety while respecting reasonable design criteria. The requirement to keep the marine port loading/unloading and dock vehicle areas clear of lighting poles makes the lighting layout a challenge given the width of the paved area. Lighting for this area is proposed to consist of lighting poles along the perimeter of the paved area, as well as building mounted lighting. The following design criteria serve as the basis for the site lighting design:

- Illuminance Levels:
 - Parking Lot and Access Drives

Average Illuminance at Grade:	1.25 footcandles
Minimum Illuminance at Grade:	0.2 footcandle
Maximum Illuminance at Grade:	5.0 footcandles
Maximum-to-Minimum Uniformity Ratio:	20.0-to-1 or less
 - Marine Cold Storage Loading/Unloading Area

Average Illuminance at Grade:	2.5 footcandles
Minimum Illuminance at Grade:	0.75 footcandle
Maximum Illuminance at Grade:	5.0 footcandles
Maximum-to-Minimum Uniformity Ratio:	6.0-to-1 or less
- Mounting Heights
 - Parking Lot and Access Drives
 - Lighting Poles: 20-feet (maximum)
 - Building Mounted Lights: 20-feet (maximum)
 - Marine Cold Storage Loading/Unloading Area
 - Lighting Poles: 30-feet (maximum)
 - Building Mounted Lights: 30-feet (maximum)

Requirements for site lighting are addressed by the City of Portland in two documents: The City of Portland, Maine - Code of Ordinances, and the City of Portland - Technical Manual. Listed below are the issues pertaining to the proposed site lighting as relates to the two city documents.

The City of Portland - Maine Code of Ordinances

Chapter 14 – Land Use

Article V Site Plan

14-526.6 Exterior Lighting

a. Site Lighting

- (i) *All exterior site lighting, including lighting of building entrances, shall be full cut-off with no light emitted above the horizontal plane or spilled onto adjacent properties and streets. Illumination levels shall be adequate but not excessive for safety, comfort and convenience of occupants and users of the site and shall conform to applicable standards of Section 12 of the Technical Manual.*

RESPONSE: The *Illuminating Engineering Society of North America (IESNA)* classifies exterior luminaires in the publication *IESNA TM-15-11* according to their potential for producing uplight. The rating system is a numeric index that ranges from zero (no uplight) to five (greater than 1000 lumens uplight). All of the proposed site lighting luminaires are classified as having an uplight rating of (U0) Zero Uplight Component.

14-526.6 Exterior Lighting

a. Site Lighting

- (ii) *For major or minor site plans within or abutting a residential use or zone where light from the proposed development may adversely impact adjacent residential properties, exterior lighting shall employ house-side shielding.*

RESPONSE: Not applicable (project does not abut a residential zone)

The City of Portland Technical Manual

Section 12 Site Lighting Standards

12.3 General Standards

Outdoor lighting standards listed below apply to all new developments. 12.3.

1. **Uniformity:** *As measured in foot candles at grade, maximum-to-minimum illumination levels shall not exceed a ratio of twenty (20) to one (1.).*

RESPONSE: The maximum-to-minimum illumination ratio for the proposed site lighting is:

- Access Drives 11.0-to-1
- Parking Lot 3.0-to-1
- Marine Loading/Unloading Area 6.0-to-1

-
2. **Illumination Levels:** *Minimum, Maximum, and Average illumination levels for areas intended to be lighted, as measured at grade, shall be:*

<u>Minimum</u>	<i>0.2 footcandles (fc)</i>
<u>Maximum</u>	<i>5.0 footcandles (fc)</i>
<u>Average</u>	<i>1.25 footcandles (fc)</i>

RESPONSE: The illumination levels for the proposed site lighting are as follows:

- Front Access Drive:
 - Average Illuminance at Grade: 1.2 footcandles
 - Minimum Illuminance at Grade: 0.6 footcandle
 - Maximum Illuminance at Grade: 2.2 footcandles

- Rear Access Drive:
 - Average Illuminance at Grade: 1.2 footcandles
 - Minimum Illuminance at Grade: 0.3 footcandle
 - Maximum Illuminance at Grade: 5.0 footcandles
- West Parking Lot:
 - Average Illuminance at Grade: 1.2 footcandles
 - Minimum Illuminance at Grade: 0.7 footcandle
 - Maximum Illuminance at Grade: 1.9 footcandles
- Overall Marine Port Loading/Unloading Area:
 - Average Illuminance at Grade: 2.6 footcandles
 - Minimum Illuminance at Grade: 1.0 footcandle
 - Maximum Illuminance at Grade: 4.9 footcandles
- Loading/Unloading Docks Area:
 - Average Illuminance at Grade: 3.0 footcandles
 - Minimum Illuminance at Grade: 1.4 footcandle
 - Maximum Illuminance at Grade: 4.9 footcandles

The proposed minimum and maximum illuminance levels conform to the 12.3.2 standard. The average illuminance at the marine port loading/unloading area exceeds the 1.25 footcandle criteria as stipulated in the City Technical Manual. The average illuminance in this area is proposed as being necessary to promote the safety of loading/unloading activities.

3. Lumens: No fixture shall exceed 20,000 lumens (+/- 3%)

Types of Lighting	Maximum Lumens Allowed
Building Entrance	3,500 lumens

RESPONSE: The lumen ratings of the proposed site lighting luminaires at building entrances are all less than 3,500 lumens. The lumen rating of the proposed site lighting luminaires along the access drives, and at the parking lot are less than 20,000 lumens.

- | | | | |
|--------------------|--------------|------------------|--------------|
| • Fixture Type S1A | 2,846 lumens | Fixture Type S4A | 5,492 lumens |
| • Fixture Type S2A | 1,424 lumens | Fixture Type S4B | 5,492 lumens |
| • Fixture Type S2B | 9,300 lumens | Fixture Type S4C | 5,492 lumens |

The lumen rating of the pole lights (Types S4D and S4E) that illuminate the marine port loading/unloading area exceed 20,000 lumens. Although this exceeds the 12.3.3 standard it is suggested that this is appropriate considering the potential for user safety at these areas.

- | | | | |
|--------------------|---------------|------------------|---------------|
| • Fixture Type S4D | 25,913 lumens | Fixture Type S4E | 24,280 lumens |
|--------------------|---------------|------------------|---------------|

4. Light Trespass: The maximum illumination level at a property line shall not exceed 0.1-foot candle, as measured at grade, except where abutting industrial, or other non-sensitive uses. When a commercial or industrial use abuts a public right-of-way, or another commercial or industrial use, lighting must be designed so that the illumination at the property boundary line does not exceed 1.0 foot-candles.

RESPONSE: No illuminance level across the property line exceeds 0.1 footcandle.

5. Luminaire Types: All fixtures must be LED and shall not exceed 3000K Correlated Color Temperature (CCT). Screw in light fixtures must have LED lamp specified to be maximum of 3000K CCT.

RESPONSE: All proposed light fixtures utilize LED lamps with 3000K CCT.

6. Full Cut-off Fixtures and Shielding Required: All outdoor lighting fixtures, including pole mounted and wall mounted luminaires, shall be constructed Full “cut-off” or with full shielding, type where lenses, refractors or lamp sources do not extend below the surface of the fixture housing and no direct light shall be directed at or above the horizontal plane.

Where the light source from an outdoor light fixture is visible beyond the property line, shielding shall be required to reduce glare so that the light source is not visible from within any residential dwelling unit.

Light fixtures mounted under a canopy shall be recessed to that the lens cover is recessed into, or flush with, the underside (ceiling) of the canopy.

RESPONSE: All proposed site lighting luminaires are classified as “full cut-off”. The construction of the proposed canopies does not allow for recessed light fixtures. The proposed canopy-mounted light fixtures (Type S1A) are surface mounted on the underside of entrance canopies, and they include flush lenses that do not project below the fixture housing.

8. Fixture Height: Fixtures shall be mounted at the lowest height necessary to meet city standards and the height is measured from grade to the bottom of the light fixture.

Type of Lighting	Maximum Fixture Height
Residential (Pedestrian) Uses	20 feet
Commercial/ Office Uses	20 feet
Large Industrial Uses (50,000 sf or more- gross floor area)	30 feet
Building Mounted/ Entrances	below the roof eave and not to exceed 20 feet, whichever is lower
Bollard Fixtures	42 inches (3.5 feet)

RESPONSE: The maximum height of proposed site lighting fixtures at access drives, the parking lot, and at entrance/exit doors is less than 20 feet. The maximum height of proposed site lights at the marine port loading/unloading area is 30 feet.

9. Lighting Curfew: For surface and structured parking, lighting in vehicle parking areas containing twenty (20) or more parking spaces shall be reduced to 50% of permitted levels from one hour after business closing to one hour before business opening. If lighting levels are already below 50% of permitted levels, no curfew adjustment is required. Motion sensor activated lighting shall be permitted during closing hours to activate additional lighting above the 50% permitted, for the purposes of public safety.

RESPONSE: The facility operation extends 24 hours per day. Accordingly, it is proposed that the site lighting be operational for all hours from dusk until dawn.

10. Continued Maintenance: Lighting installations must be maintained in good repair to meet the provisions of this ordinance on an on-going basis.

RESPONSE: All proposed lighting will be maintained in full working order.

11. General Exceptions: proposed uses that demonstrate a need to exceed the specific site lighting limits shown below for safe and reasonable exercise of the proposed use must provide a professionally produced lighting plan which adheres to the current Illuminating Engineering Society of North America (IESNA) recommendations for the proposed use. The planning Authority may grant exceptions to the lighting standards with the finding that the light impacts do not create a public nuisance for abutting residential property. Unless otherwise specified below, exterior lighting shall conform to the recommendations put forth in Lighting for Exterior Environments RP-33-14, or its successor, published by the Illuminating Engineering Society of North America (IESNA). Lighting fixtures other than full cut-off fixtures

may be allowed only if acceptable luminaires shall include internal and/or external glare control louvers and installed so as to minimize uplight and offsite light trespass.

RESPONSE: The proposed lighting conforms to the recommendations published in Lighting for Exterior Environments RP-33-14

The following exceptions to the City of Portland Technical Manual are requested:

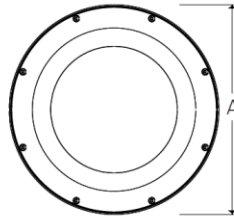
- Paragraph 12.3.2
Proposed average illuminance at the marine port loading/unloading area:
3.0 footcandles
- Paragraph 12.3.3
Proposed lumen rating for Type S4D pole lights at the marine port loading/unloading area:
25,913 lumens
- Paragraph 12.3.3
Proposed lumen rating for Type S4E pole lights at the marine port loading/unloading area:
24,280 lumens

Maine Port Authority Cold Storage Facility
Portland, Maine
March 2, 2020

PROPOSED SITE LIGHTING LUMINAIRES AND LIGHTING POLES

- TYPE S1A:** UNDER-CANOPY LIGHTS WITH AN IES TYPE 5QW DISTRIBUTION PATTERN.
- TYPE S1B:** UNDER-CANOPY LIGHTS WITH AN IES TYPE 5C DISTRIBUTION PATTERN.
- TYPE S2A:** WALL LIGHTS ABOVE ENTRANCE/EXIT DOORS.
- TYPE S2B:** WALL LIGHTS ILLUMINATING THE MARINE PORT LOADING/UNLOADING AREA.
- TYPE S4A:** POLE LIGHT WITH 18-FOOT TALL POLE INSTALLED ON A CONCRETE FOUNDATION BASE WITH 6-INCHES OF THE BASE EXPOSED ABOVE GRADE. THE LIGHTING POLE TO INCLUDE A 24" BRACKET ARM. THE LUMINAIRE WILL HAVE AN IES TYPE 3 DISTRIBUTION PATTERN AND WILL BE DIMMED TO 70% RATED OUTPUT.
- TYPE S4B:** POLE LIGHT WITH 18-FOOT TALL POLE INSTALLED ON A CONCRETE FOUNDATION BASE WITH 6-INCHES OF THE BASE EXPOSED ABOVE GRADE. THE LIGHTING POLE TO INCLUDE A 24" BRACKET ARM. THE LUMINAIRE WILL HAVE AN IES TYPE 4 DISTRIBUTION AND WILL BE DIMMED TO 70% RATED OUTPUT.
- TYPE S4C:** POLE LIGHT WITH 16-FOOT TALL POLE INSTALLED ON A CONCRETE FOUNDATION BASE WITH 30-INCHES OF THE BASE EXPOSED ABOVE GRADE. THE LIGHTING POLE TO INCLUDE A 24" BRACKET ARM. THE LUMINAIRE WILL HAVE AN IES TYPE 4W DISTRIBUTION PATTERN AND WILL BE DIMMED TO 70% RATED OUTPUT.
- TYPE S4D:** POLE LIGHT WITH 25-FOOT TALL POLE INSTALLED ON A CONCRETE FOUNDATION BASE WITH 48-INCHES OF THE BASE EXPOSED ABOVE GRADE. THE LIGHTING POLE TO INCLUDE A 96" BRACKET ARM. THE LUMINAIRE WILL HAVE AN IES TYPE 4W DISTRIBUTION.
- TYPE S4E:** POLE LIGHT WITH 25-FOOT TALL POLE INSTALLED ON A CONCRETE FOUNDATION BASE WITH 48-INCHES OF THE BASE EXPOSED ABOVE GRADE. THE LIGHTING POLE TO INCLUDE A 96" BRACKET ARM. THE LUMINAIRE WILL HAVE AN IES TYPE 4W DISTRIBUTION.

SRT1 EDGE-LIT



A	B	Weight
12" (304mm)	3.1" (78mm)	8lbs (3.6kg)

- For ceiling mount and parking garage applications from an 8–15 foot mounting height
- Edge-lit flat lens for optimal visual comfort and uniformity across the lens
- Two optical distributions specifically design for parking garage and canopy applications are available making the Beacon Edge-Lit luminaire both versatile and functional
- UL/cUL listed for wet locations, IP65 and 3G vibration rated
- Occupancy sensor available for complete on/off and dimming operation

HOUSING

- Die-cast aluminum housing ensures long electrical component life and luminaire performance
- Corrosion resistant powder coat finish both protects and provides architectural appearance
- One piece molded silicone gasket ensures weather proof seal
- Thermally isolated driver mounted to dedicated bracket reduces operating temperatures and increases driver life and reliability

OPTICS

- Edge-lit acrylic light guide provides blended non-pixelated light for unprecedented visual comfort
- Choice of multiple light outputs with lumen range of 2500–6000
- Two distribution types: Type 5 Square Wide, Type 5 Concentrated
- Wide variety of CCT's and CRI's offered: 3000K (70CRI), 3000K (80CRI), 3500K (80CRI), 4000K (70CRI), 4000K (80CRI) or 5000K (70 CRI) CCT

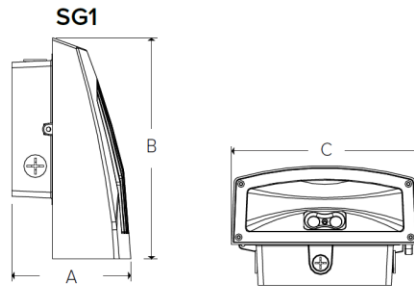
Series	Engine	CCT	Distribution	Voltage	Color/Finish
SRT1 Edge-Lit Parking Garage Size 1	20 20W Nominal 2500 lm 35 35W Nominal 4000 lm 55 55W Nominal 6000 lm	3K7 3000K, 70 CRI 3K8 3000K, 80 CRI 35K7 3500K, 80 CRI 4K7 4000K, 70 CRI 4K8 4000K, 80 CRI 5K7 5000K, 70 CRI	5QW Type 5 Square Wide 5C Type 5 Concentrated	UNV 120V- 277V 120 120V 208 208V 240 240V 277 277V	BL Textured Black DB Textured Dark Bronze GT Graphite Textured GYS Smooth Gray PS Smooth Plat. Silver

Nominal Watts	Nominal Lumens	Distribution	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 70 CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
20	3000	5C	3093	136.86	1	0	1	3078	136.21	1	0	1	2960	130.97	1	0	1
		5QW	2974	131.60	1	0	1	2960	130.97	1	0	1	2846	125.93	1	0	1

Type S1A: 5QW Distribution; **Type S1B:** 5C Distribution



SLING SERIES



A	B	C	Weight
4.19" (107mm)	7.80" (198mm)	6.61" (168mm)	4.4lbs (2kg)

HOUSING

- Rugged die-cast aluminum housing with corrosion resistant powder coat finish
- Heating dissipating fins provide superior thermal performance extending the life of the electronic components
- Impact resistant tempered glass offers zero uplight
- Comfort lens available as an option or accessory to reduce glare (7-10% lumen reduction) and provide better uniformity

OPTICS

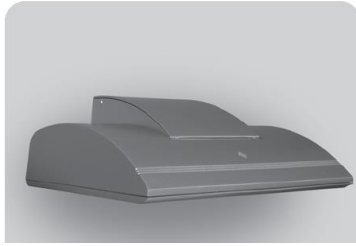
- 3000K, 4000K and 5000K CCT nominal with 70 CRI
- Smaller SG1 housing has 2 LEDs, larger SG2 housing has 3 LEDs

- SG1 Series replaces from 100W-150W HID; SG2 Series replaces from 150W-250W HID
- Comfort lens available as an option or accessory provides glare control and enhanced uniformity
- Knuckle and trunnion accessory mounting kits available for flood applications
- IP65 and certified to UL 1598 for use in wet locations up to 40°C ambient
- DLC (DesignLights Consortium Qualified - see www.designlights.org)

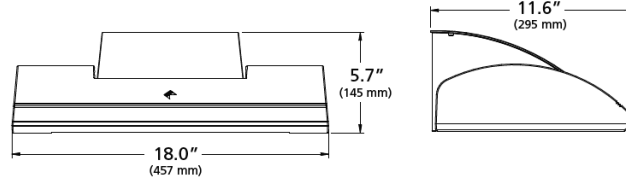
Housing	CCT/CRI	Distribution	Voltage	Color/Finish	Control Options	Options
SG1-10 Size 1, 10W	3K7 3000K, 70 CRI	FT Fwd Throw	UNV 120V-277V	DB Textured Dark Bronze	PCU Universal Button Photocontrol (120-277V)	CS Comfort Lens
SG1-20 Size 1, 20W	4K7 4000K, 70 CRI		120 120V	BL Textured Black	SCP ^{1,2,3} Occupancy Sensor Programmable (Dim)	E ^{1,2} Battery 0°C
SG1-30 Size 1, 30W	5K7 5000K, 70 CRI		277 277V	WH Textured White	SWP ^{1,2} SiteSync Pre-commission	EH ^{1,2} Battery w/ heater -20°
SG1-40 Size 1, 40W			UHV 347V-480V	GYS Smooth Gray	SWPM ^{1,2} SiteSync Pre-commission w/ Sensor	
SG2-50 Size 2, 50W				PS Smooth Plat. Silver	Specify MTG HT for SCO/SCP & SWPM	
SG2-80 Size 2, 80W				CC Custom Color	8F Up to 8'	
					20F Up to 20'	

Description	# of LEDs	Drive Current	System Watts	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
SG1-10	2	140mA	11	1349	122	1	0	0	1424	129	1	0	0	1003	91	1	0	0
SG1-20	2	250mA	21	2449	115	1	0	0	2310	110	1	0	0	2054	95	1	0	0





Wall Director® Medium



Housing

- Optical housing is a one-piece, die-cast low copper (<0.6%) aluminum alloy with integral heat sink. The housing rotates against mounting arm housing to provide -5° to 10° of adjustment with degree markers cast into the housing. At 0° adjustment, lens is totally concealed from view above horizontal with fixture mounted in the downward position.
- Mounting arm housing is one-piece die-cast, low copper (<0.6%) aluminum alloy with provisions for tilt mechanism. Mounting arm fastens to the mounting plate with keyhole slots freeing both hands for securing and wiring. One stainless steel socket-head screw on the tilt mechanism frees the optical housing to rotate for aiming. Tightening the screws locks the housing and lens frame together with sealing provided by a silicone gasket. For visual aiming, adjustment may be accomplished with the fixture on.
- Lens Frame is a one-piece, die-cast low copper (<0.6%) aluminum alloy with integral cooling fins to dissipate driver thermal.
- Luminaire housing shall be free of any visible heat fins, hardware or fasteners.
- Bracketry and hardware shall be stainless steel.

Specifications

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

Fixture	Mounting	Source	Wattage	Light Engine	Distribution	Voltage
WDM Wall Director Medium	D Down U¹ Up	48L 48 LEDs	55 55 Watts 65 65 Watts 85 85 Watts 105 105 Watts 130 130 Watts	3K7 3000K/70CRI 3K8 3000K/80CRI 4K7 4000K/70CRI 4K8 4000K/80CRI 5K7 5000K/70CRI	1 Type I 2 Type II 3 Type III 4W Type IV Wide 4F Type IV Forward WG² Wall Graze SP Spot/Column FTD² Forward Throw Diffuse WTD² Wide Throw Diffuse	UNV 120-277V 347 347V 480 480V

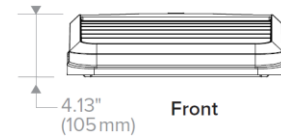
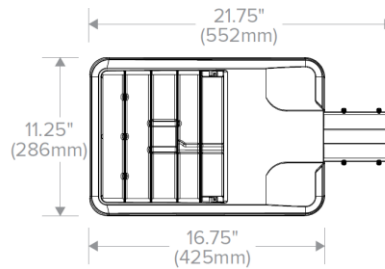
LED #	Nominal Lumen Package	Nominal Wattage	Lens Options	Distribution	3000K					4000K					5000K				
					Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w
						B	U	G			B	U	G			B	U	G	
48L	10,000	88	Clear Lens	1	11194	1	0	1	127	11476	1	0	1	130	11607	1	0	1	132
				2	10601	2	0	2	120	10867	2	0	2	123	10991	2	0	2	125
				3	10779	1	0	2	122	11050	1	0	2	126	11177	1	0	2	127
				4F	10576	1	0	2	120	10842	1	0	2	123	10966	1	0	2	125
				4W	10285	2	0	2	117	10544	2	0	2	120	10665	2	0	2	121
			Diffuse Lens	SP	11870	5	0	1	135	12168	5	0	1	138	12308	5	0	1	140
				WG	10695	3	0	1	122	10964	3	0	1	125	11090	3	0	1	126
				FTD	9300	2	0	2	106	9534	2	0	2	108	9643	2	0	2	110
				WTD	10065	2	0	2	114	10318	2	0	2	117	10436	2	0	2	119

KIM LIGHTING

TYPES S4 & S4B & S4C



VIPER S



CONSTRUCTION

- Manufactured with die cast aluminum
- Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D522 cracking and loss of adhesion test requirements
- IFS polyester powder-coat electrostatically applied and thermocured. IFS finish consists of a five stage pretreatment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish
- The finish meets the AAMA 2604 performance specification which includes passing a 3,000-hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds
- External hardware is corrosion resistant

OPTICS

- Cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one-piece optical system
- One-piece silicone gasket ensures a weatherproof seal around each individual optic
- One-piece optical cartridge system consisting of an LED engine, optics, gasket and stainless steel bezel

VPS	LED Engine	CCT/CRI ⁷	Distribution	Rotation	Voltage
Series					
VPS Viper Small	24L-55 55W, LED array	3K7 3000K, 70 CRI	FR Type 1/Front Row	Blank No rotation	UNV 120-277V
	36L-65 65W, LED array	4K7 4000K, 70 CRI	2 Type 2	L Optic rotation left ⁵	347 347V
	36L-80 80W, LED array	5K7 5000K, 70 CRI	3 Type 3	R Optic rotation right ⁵	480 480V
	48L-110 110W, LED array		4 Type 4		
	60L-136 136W, LED array		4W Type 4 Wide		
			5QM Type 5QM		
Mounting	Color	Control Options			
A Rectangular Arm (formerly RA) for square or round pole	BL Black Textured	7PR 7-Pin Receptacle only (shorting cap, photo control, or wireless control provided by others)			
MAF Mast Arm Fitter (formerly SF2) for 2 3/4" OD horizontal arm	DB Dark Bronze Textured	7PR-SC 7-Pin Receptacle w/Shorting Cap			
K Knuckle (formerly PK2) limit to 30° tilt or 2 3/4" OD horizontal arm or vertical tenon	GYS Light Gray Smooth	7PR-TL 7-Pin Receptacle w/Twist-Lock® photo control			
	PS Platinum Silver Smooth				

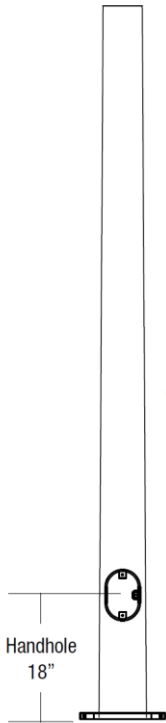
DELIVERED LUMENS

# of LEDs	DRIVE CURRENT (mA)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
				LUMENS	LPW	B	U	G	LUMENS	LPW	B	U	G	LUMENS	LPW	B	U	G
24	700 mA	55W	FR	6357	118	1	0	1	6486	120	1	0	1	5804	107	1	0	1
			2	6132	114	1	0	1	6257	116	1	0	2	5599	104	1	0	1
			3	6015	111	1	0	2	6137	114	1	0	2	5492	102	1	0	2
			4	5921	110	1	0	2	6034	112	1	0	2	5400	100	1	0	2
			4W	5793	108	1	0	2	5909	110	1	0	2	5272	98	1	0	2

Type S4A: 3 Distribution; Type S4B: 4W Distribution; Type S4C: 4W Distribution



TYPES S4 & S4B & S4C



CONSTRUCTION

- **SHAFT:** One-piece tapered aluminum with round cross section, made of 6061-T6 shaft and 356-T6 cast aluminum base

GROUP 2

- **ANCHOR BOLTS:** Supplied with (4) galvanized anchor bolts with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling
- **BOLT COVER:** Four individual bolt covers provided
- **POLE CAP:** Pole shaft supplied with removable cover when applicable; Tenon and post-top configurations also available
- **HANDHOLE:** 4" X 6" handhole opening with cover and grounding provision handhole 3" x 5" for 20' pole. The handhole is located 18" from the base of the pole.

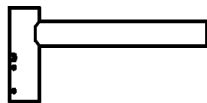
FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Decorative finish coat available in six standard colors; Custom colors available, RAL number preferred

MOUNTING	DRILL PATTERN	FINISH	OPTIONS
1 Single arm mount	B1 Cruzer, "AM" arm	DB Dark Bronze Textured	GFI' 20 Amp GFCI Receptacle and Cover
2 Two fixtures at 180°	B3 2 bolt (2-1/2" spacing Viper "A" arm)	BBT Basic Black Textured	EHH' Extra Handhole
2L Two fixtures at 90°		BL Black Textured	C05' .5" Coupling
3T Three fixtures at 90°	S2 2 bolt (3-1/2" spacing Viper "AD" arm)	BZT Bronze Textured	C07' .75" Coupling
3Y Three fixtures at 120°		WH White Textured	C20' 2" Coupling
4 Four fixtures at 90°		PS Platinum Silver Smooth	VM2 2nd mode vibration damper
TA Tenon (2.375" OD)		GT Graphite Textured	LAB Less Anchor Bolts
TB Tenon (2.875" OD)		GYS Gray Smooth	
TC Tenon (3.5" OD)		CC Custom Color	
OT Open Top (includes pole cap)			

Catalog Number	Height		Nominal Shaft Dimensions	Wall Thickness	Bolt Circle	Bolt Circle Range	Base Plate Size	Base Plate Shape	Anchor bolt size	Bolt Projection	Pole weight
	Feet	Meters									
Group 1											
RTA-B-10-40-A	10	3.0	4" x 3"	.125"	7"	-	7.25	Triangular	3/4x17x3"	3.25"	24
RTA-B-12-40-A	12	3.7	4" x 3"	.125"	7"	-	7.25	Triangular	3/4x17x3"	3.25"	27
RTA-B-14-40-A	14	4.3	4" x 3"	.125"	7"	-	7.25	Triangular	3/4x17x3"	3.25"	32
RTA-B-16-50-A	16	4.9	5" x 3"	.125"	8"	-	8.31	Triangular	3/4x17x3"	3.25"	35
RTA-B-18-50-A	18	5.5	5" x 3"	.125"	8"	-	8.31	Triangular	3/4x17x3"	3.25"	42

SPOKE TYPE BRACKETS



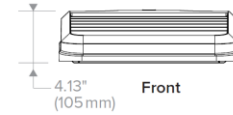
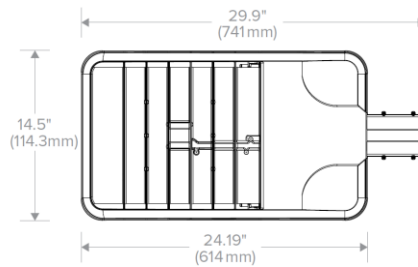
CONFIGURATION	LENGTH	POLE TENON SIZE	COLOR
1	8"	PT20 2" pipe tenon (2.38" O.D.)	DB Dark bronze textured
2-180	12"	PT25 2.5" pipe tenon (2.88" O.D.)	BL Black textured
2-90	18"	PT35 3.5" pipe tenon (4.0" O.D.)	WH White textured
3-120	24"		GR Gray textured
3-90	30"		PS Platinum silver smooth
4-90			GYS Light gray smooth

Type S4A & Type S4B: 18-Foot Pole with 6-Inches Exposed of Concrete Foundation Base
Type S4C: 16-Foot Pole with 30-Inches Exposed of Concrete Foundation Base





VIPER S



CONSTRUCTION

- Manufactured with die cast aluminum
- Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D522 cracking and loss of adhesion test requirements
- IFS polyester powder-coat electrostatically applied and thermocured. IFS finish consists of a five stage pretreatment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish
- The finish meets the AAMA 2604 performance specification which includes passing a 3,000-hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds
- External hardware is corrosion resistant

OPTICS

- Cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one-piece optical system
- One-piece silicone gasket ensures a weatherproof seal around each individual optic
- One-piece optical cartridge system consisting of an LED engine, optics, gasket and stainless steel bezel

Series	LED Engine	CCT/CRI ⁷	Distribution	Rotation	Voltage
VPL Viper Large	64L-135 135W LED array 80L-180 180W LED array 80L-235 235W LED array 96L-220 220W LED array 96L-280 280W LED array 96L-315 315W LED array	3K7 3000K, 70 CRI 4K7 4000K, 70 CRI 5K7 5000K, 70 CRI	FR Type 1/Front Row 2 Type 2 3 Type 3 4 Type 4 4W Type 4 Wide 5QM Type 5QM	Blank No rotation L Optic rotation left ⁵ R Optic rotation right ⁵	UNV 120–277V 347 347V 480 480V

Mounting	Color	Control Options
A Rectangular Arm (formerly RA) for square or round pole MAF Mast Arm Fitter (formerly SF2) for 2 3/8" OD horizontal arm K Knuckle (formerly PK2) limit to 30° tilt or 2 3/8" OD horizontal arm or vertical tenon	BL Black Textured DB Dark Bronze Textured GY Light Gray Smooth PS Platinum Silver Smooth	7PR 7-Pin Receptacle only (shorting cap, photo control, or wireless control provided by others) 7PR-SC 7-Pin Receptacle w/Shorting Cap 7PR-TL 7-Pin Receptacle w/Twist-Lock® photo control

Type S4D: 96L 315

Type S4E: 96L 280

DELIVERED LUMENS

# of LEDs	DRIVE CURRENT (mA)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
				LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G
96	875 mA	280W	1A	33419	121	3	0	2	34453	125	3	0	2	29974	108	2	0	2
			2	31600	114	3	0	4	32577	118	3	0	4	28342	102	3	0	4
			3	31654	114	3	0	5	32633	118	3	0	5	28390	103	3	0	4
			4	30933	112	2	0	5	31889	115	2	0	5	27744	100	2	0	5
			4W	27708	99	3	0	5	28564	102	3	0	5	24280	87	2	0	5
			5QM	31657	114	5	0	3	32636	118	5	0	3	28393	103	4	0	2
			5QN	33058	119	5	0	1	34080	123	5	0	1	29650	101	5	0	1
96	1000mA	315W ²	1A	35666	113	3	0	2	36769	117	3	0	2	31989	101	2	0	2
			2	33725	107	3	0	4	34768	110	3	0	4	30248	96	3	0	4
			3	33782	107	3	0	5	34827	110	3	0	5	30299	96	3	0	4
			4	33012	105	2	0	5	34033	108	2	0	5	29609	94	2	0	5
			4W	29571	94	3	0	5	30485	97	3	0	5	25913	82	2	0	5
			5QM	33785	107	5	0	3	34830	110	5	0	3	30302	96	5	0	2



TYPES S4D & S4E



ROUND TAPERED ALUMINUM POLE

UPSWEEP STYLE

Catalog Number	Mounting Height		Arm Length		Shaft Size ⁴	Luminaire Characteristics			Bolt Circle ⁵ (inches)
	ft	m	ft	m		Wt. (lbs)	Wt (kg)	EPA ³	
UPSWEEP STYLE, SINGLE ARM									
RTA01	20	6.10	4	1.22	6 x 4.5 x 18'	75	34.0	1.6	9-10
RTA02	20	6.10	6	1.83	6 x 4.5 x 18'	71	32.2	1.6	9-10
RTA03	25	7.62	4	1.22	7 x 4.5 x 23'	75	34.0	1.6	10-11
RTA04	25	7.62	6	1.83	7 x 4.5 x 23'	71	32.2	1.6	10-11
RTA05	25	7.62	8	2.44	7 x 4.5 x 23'	52	23.6	1.6	10-11

Note: All brackets have 2" NPS slipfitters unless otherwise specified. Wall Thickness: .188 inch in every shaft, except where otherwise stated. Hand hole included in above catalog numbers. Center of hand hole 18" from ground. **All Anchor bolt sizes 1" x 36" x 4"**. All poles have natural aluminum satin finish.

1 Wall thickness: .219 inch

2 Wall thickness: .250 inch

3 Luminaire's effective projected area based on 80 m.p.h. wind velocity; For 90 and 100 m.p.h. wind velocity, consult factory; EPA is total sq. ft. for all luminaires

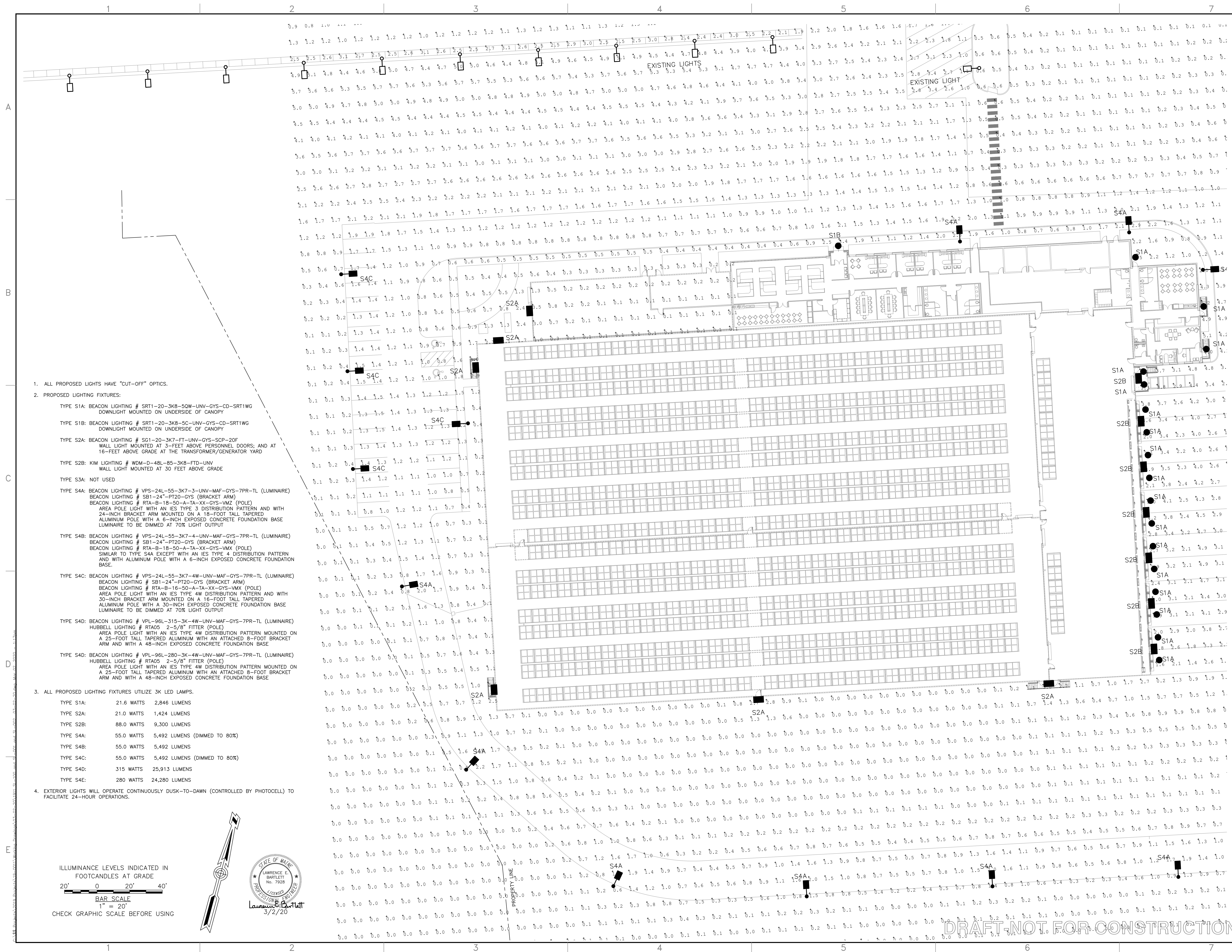
4 In. x In. x Ft. (bottom OD x Top OD x length)

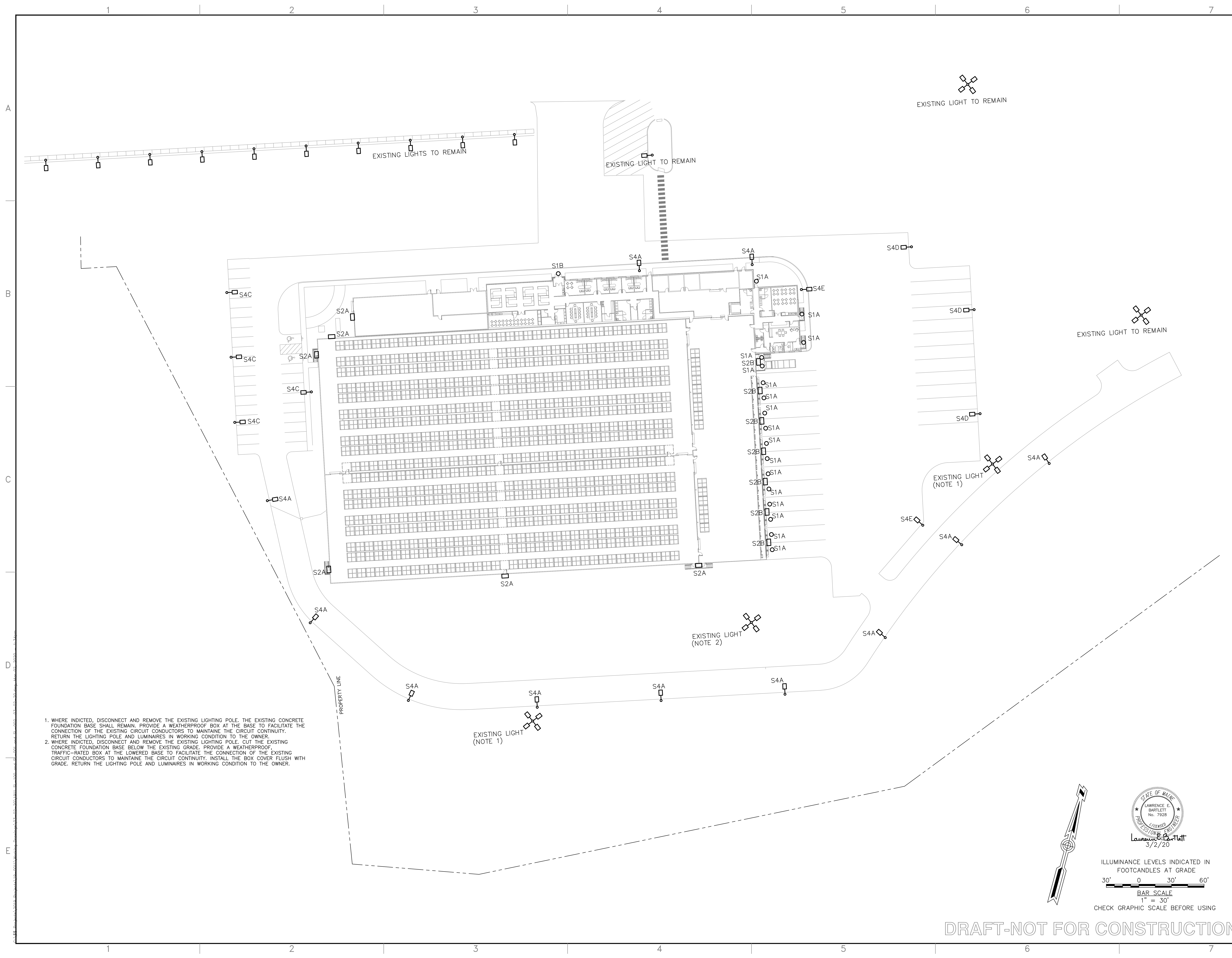
5 Center-to-center diameter of bolt circle; Slotted for 1" adjustment

Type S4D & Type S4E: 25-Foot Pole with 48-Inches Exposed of Concrete Foundation Base

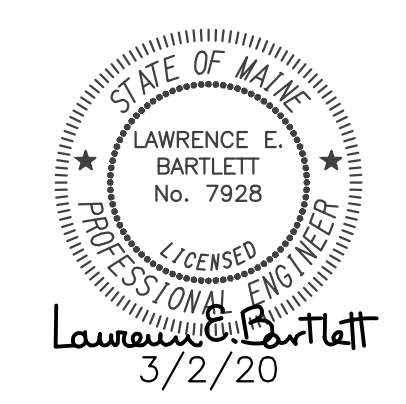


Outdoor Lighting





1. WHERE INDICATED, DISCONNECT AND REMOVE THE EXISTING LIGHTING POLE. THE EXISTING CONCRETE FOUNDATION BASE SHALL REMAIN. PROVIDE A WEATHERPROOF BOX AT THE BASE TO FACILITATE THE CONNECTION OF THE EXISTING CIRCUIT CONDUCTORS TO MAINTAIN THE CIRCUIT CONTINUITY. RETURN THE LIGHTING POLE AND LUMINAIRES IN WORKING CONDITION TO THE OWNER.
2. WHERE INDICATED, DISCONNECT AND REMOVE THE EXISTING LIGHTING POLE. CUT THE EXISTING CONCRETE FOUNDATION BASE BELOW THE EXISTING GRADE. PROVIDE A WEATHERPROOF, TRAFFIC-RATED BOX AT THE LOWERED BASE TO FACILITATE THE CONNECTION OF THE EXISTING CIRCUIT CONDUCTORS TO MAINTAIN THE CIRCUIT CONTINUITY. INSTALL THE BOX COVER FLUSH WITH GRADE. RETURN THE LIGHTING POLE AND LUMINAIRES IN WORKING CONDITION TO THE OWNER.



ILLUMINANCE LEVELS INDICATED IN
FOOTCANDLES AT GRADE

30' 0 30' 60'

BAR SCALE
1" = 30'

CHECK GRAPHIC SCALE BEFORE USING

DRAFT-NOT FOR CONSTRUCTION

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

**WOODARD
CURRAN**

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COMMITMENT & INTEGRITY DRIVE RESULTS

REV	DESCRIPTION	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	DATE

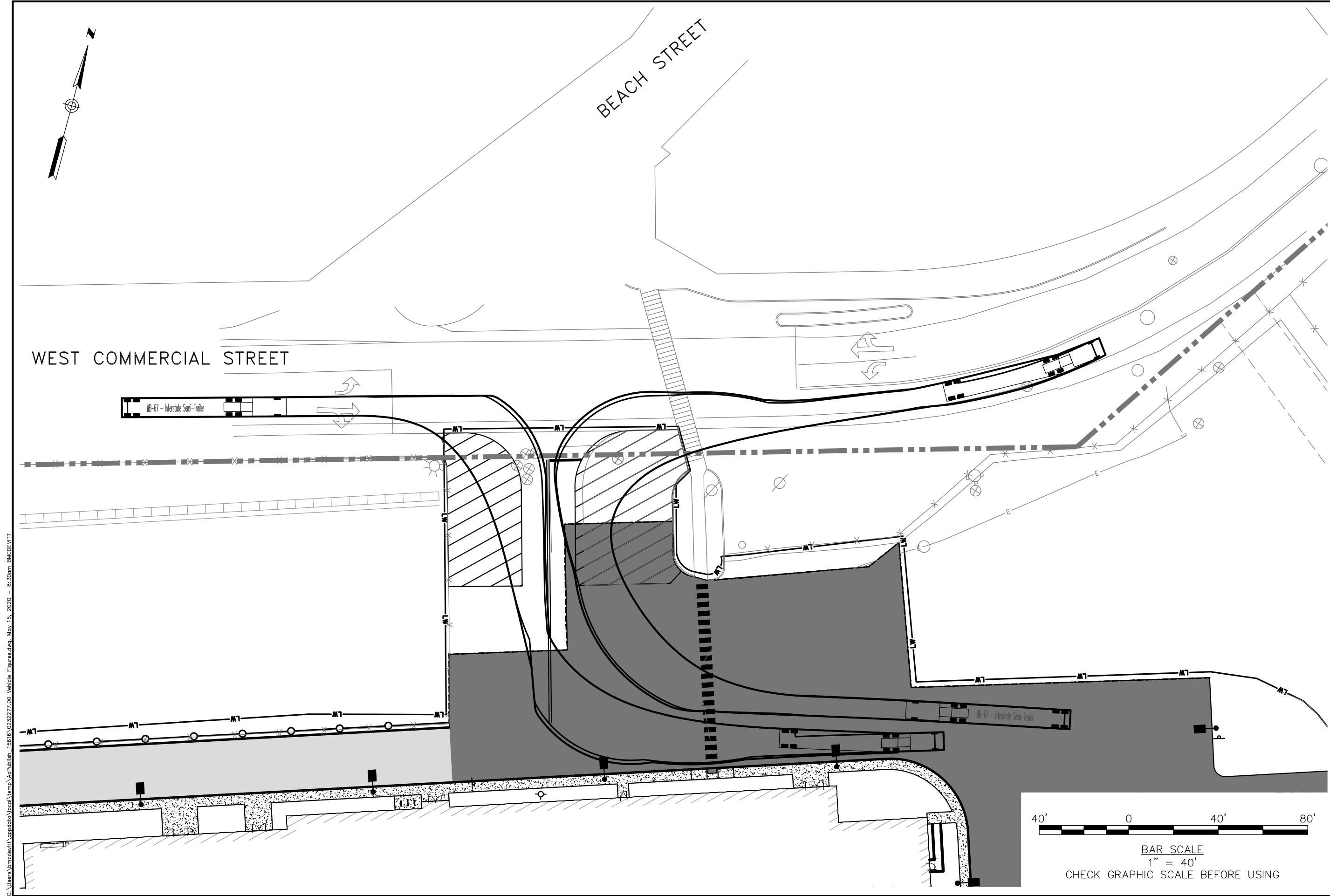
SITE LIGHTING PLAN

MAINE PORT AUTHORITY
PORTLAND, MAINE

MAINE PORT AUTHORITY
COLD STORAGE FACILITY

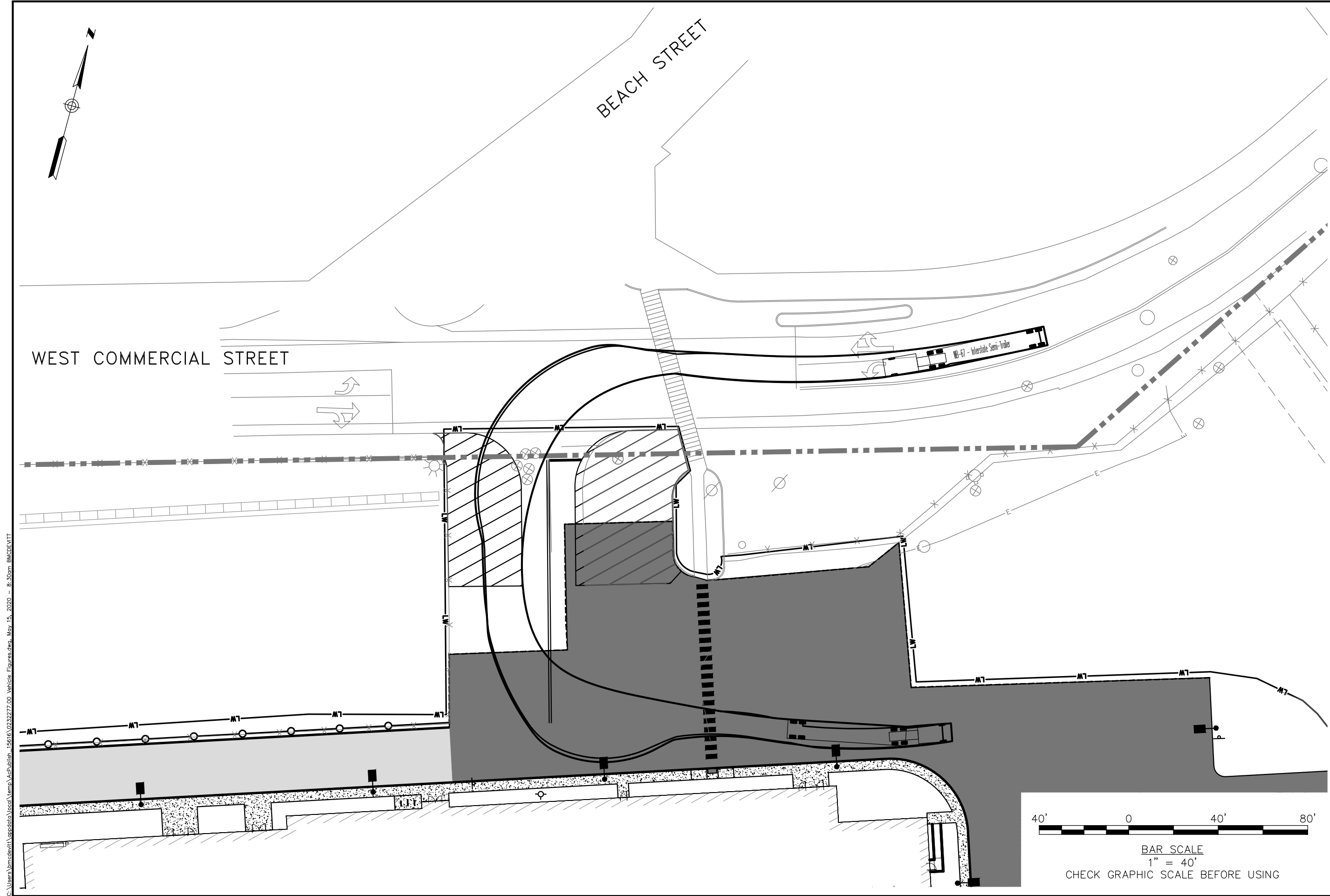
JOB NO.: 0232277.00
DATE: FEBRUARY 2020
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SHEET: # OF XX

SL-100



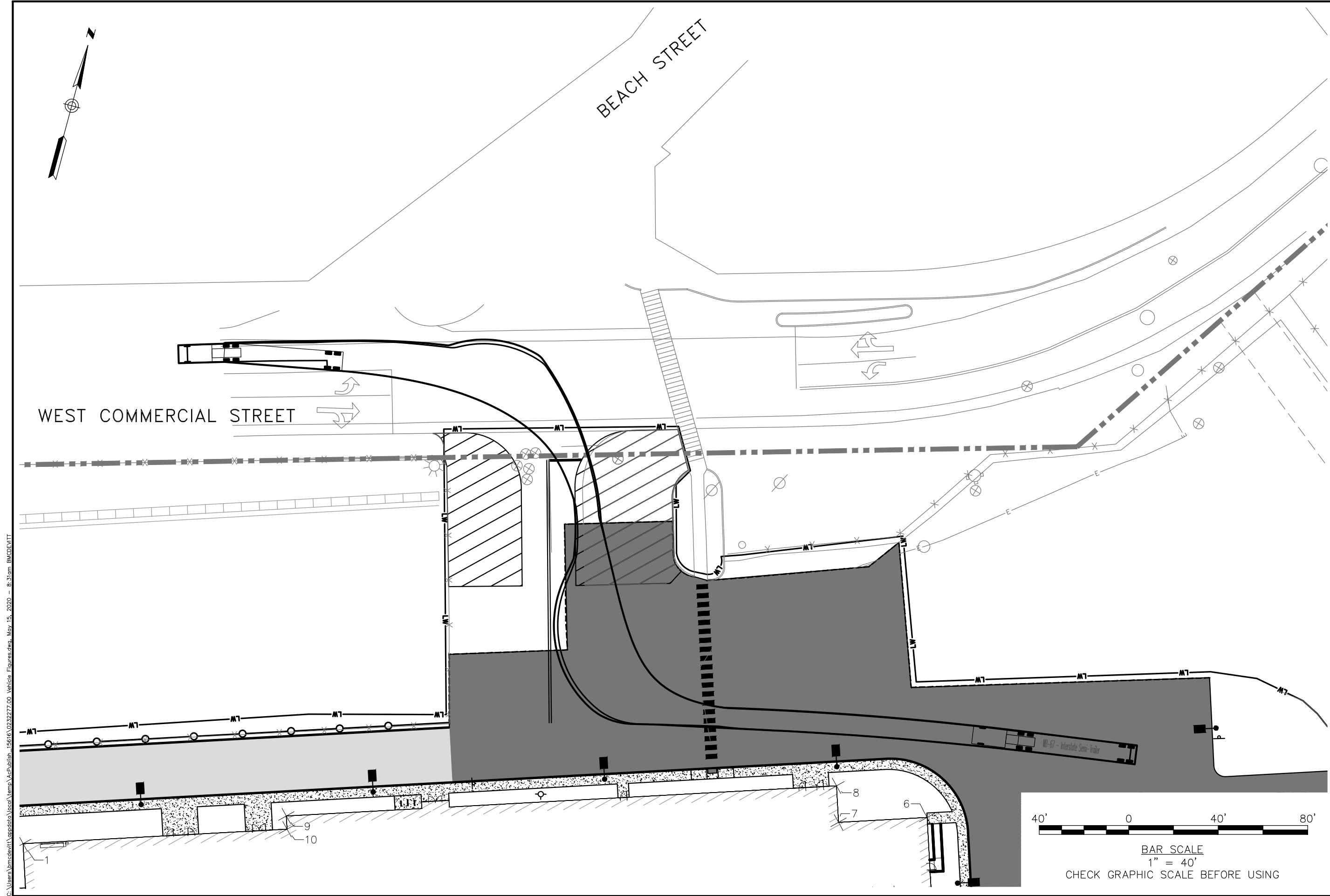
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 41 Hutchins Drive Portland, Maine 04102 800.426.4262 www.woodardcurran.com COMMITMENT & INTEGRITY DRIVE RESULTS	
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DESIGNED BY: AL	CHECKED BY: DBS
DRAWN BY: BCM	0232277.00 VEHICLE FIGU*.dwg
MAINE PORT AUTHORITY PORTLAND, MAINE	
MAINE PORT AUTHORITY COLD STORAGE FACILITY	
JOB NO: 0232277	
DATE: MAY 2020	
SCALE: 1"=40'	
VT - 1	



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 41 Hutchins Drive Portland, Maine 04102 800.426.4262 www.woodardcurran.com COMMITMENT & INTEGRITY DRIVE RESULTS	
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MAINE PORT AUTHORITY COLD STORAGE FACILITY	
JOB NO: 0232277 DATE: MAY 2020 SCALE: 1"=40'	
VT - 2	

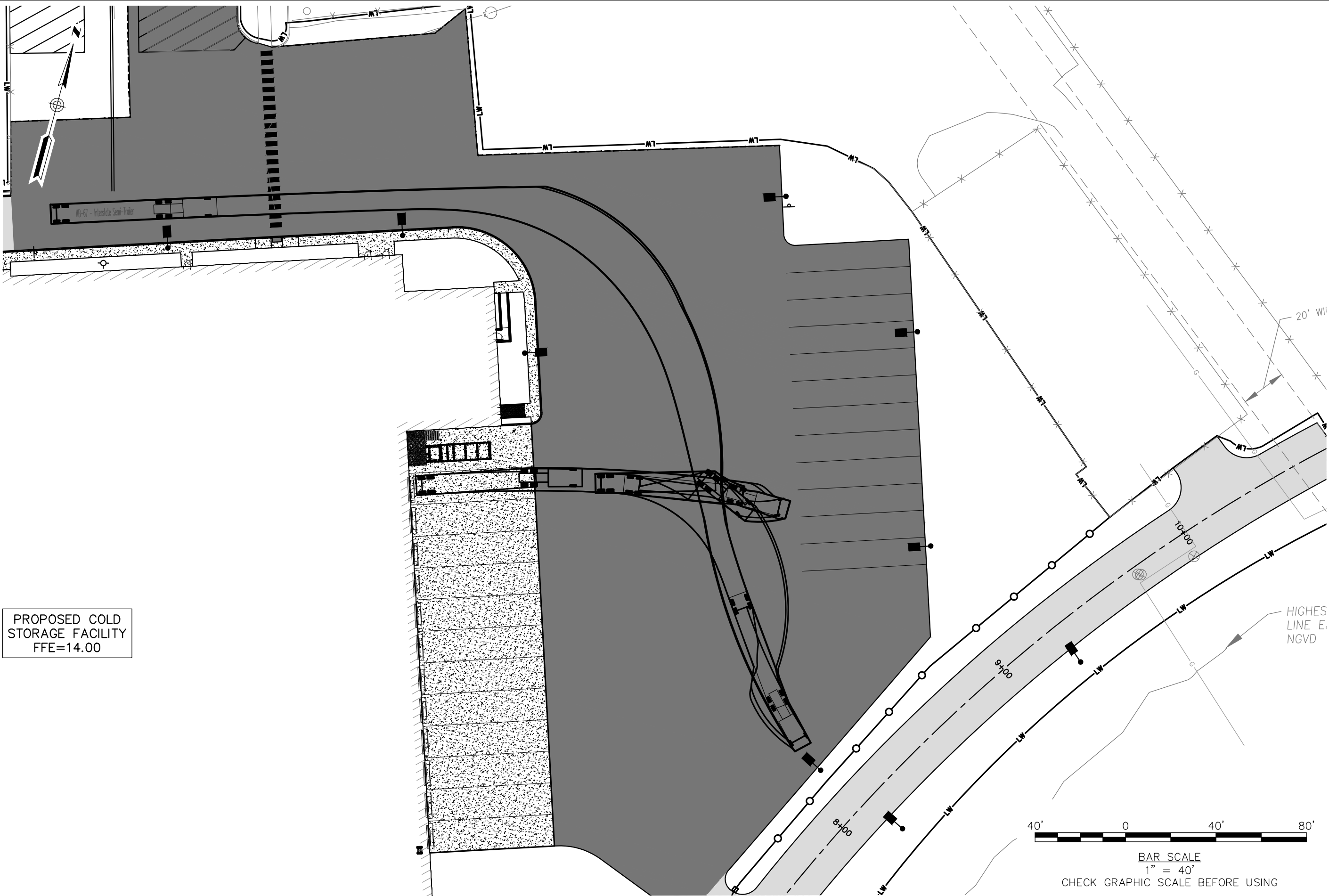


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MAINE PORT AUTHORITY COLD STORAGE FACILITY	
JOB NO: 0232277	
DATE: MAY 2020	
SCALE: 1"=40'	
VT - 3	

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PROPOSED COLD
STORAGE FACILITY
FFE=14.00



MAINE PORT AUTHORITY
PORTLAND, MAINE

MAINE PORT AUTHORITY
COLD STORAGE FACILITY

VEHICLE TURNING -- 4

DESIGNED BY: AL BCM
CHECKED BY: DBS
DRAWN BY: BCM
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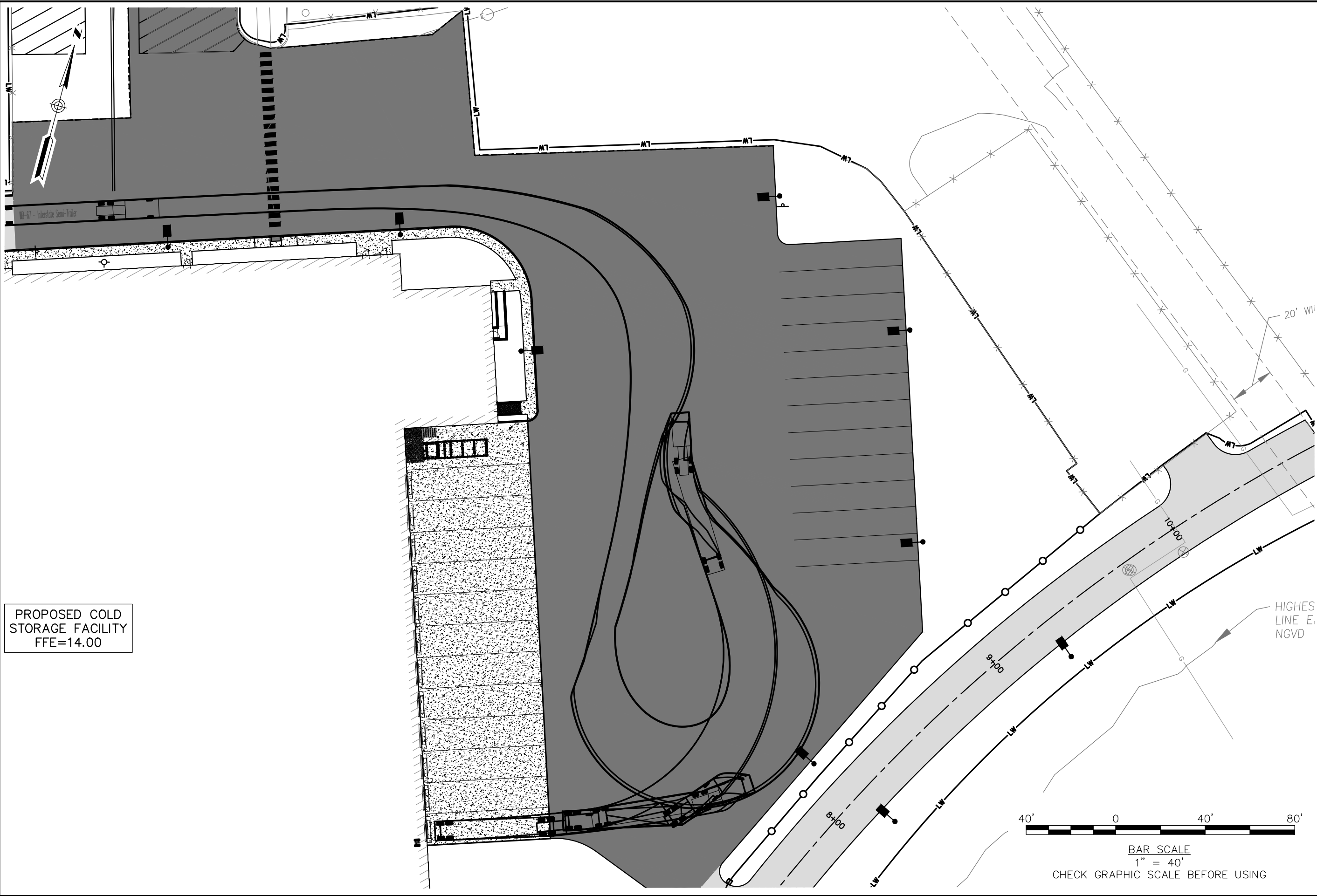


COMMITMENT & INTEGRITY DRIVE RESULTS

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DATE: MAY 2020
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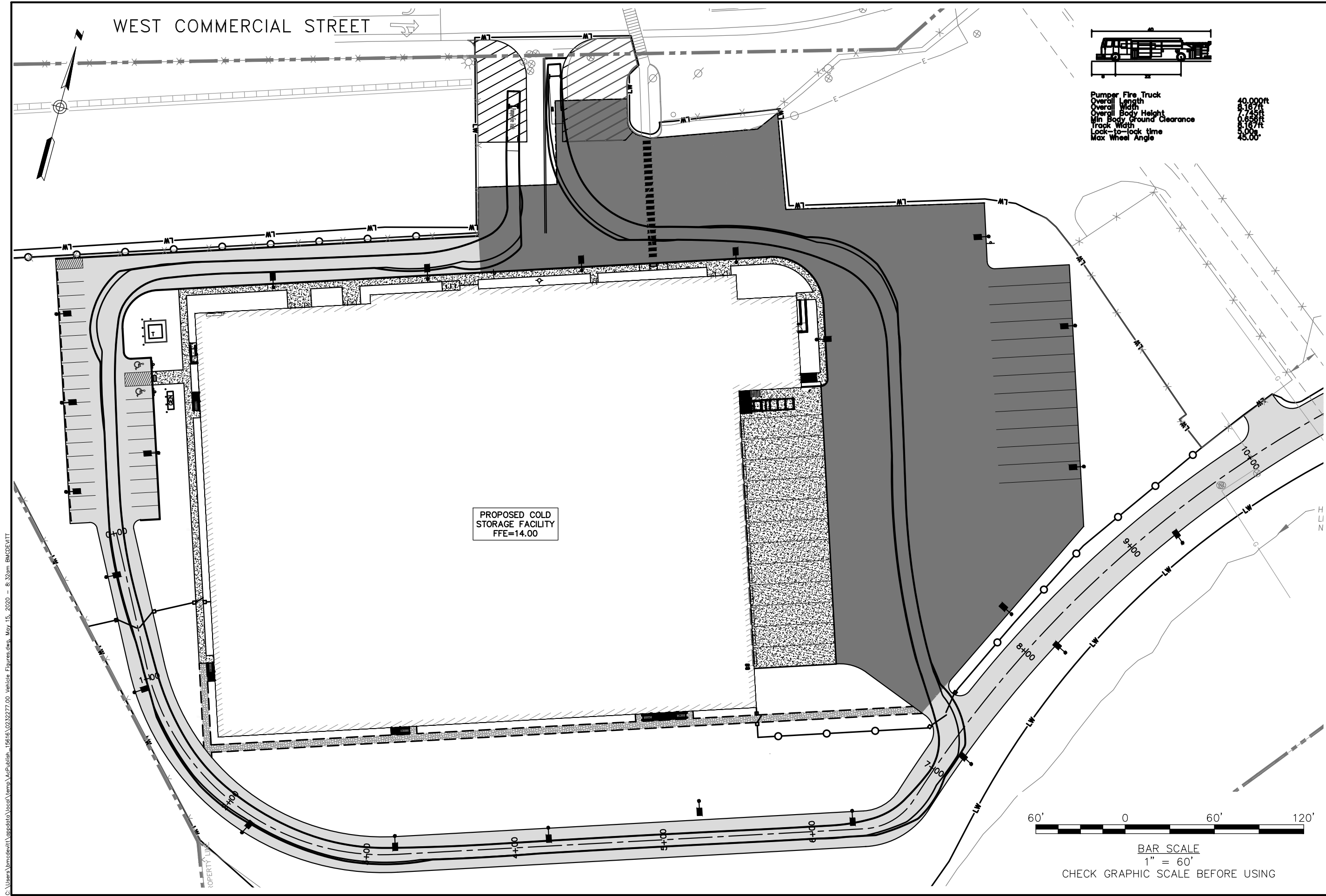
VT - 4

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PROPOSED COLD
STORAGE FACILITY
FFE=14.00

VEHICLE TURNING - 5		 41 Hutchins Drive Portland, Maine 04102 800.426.4262 www.woodardcurran.com COMMITMENT & INTEGRITY DRIVE RESULTS	
MAINE PORT AUTHORITY PORTLAND, MAINE		DESIGNED BY: AL	CHECKED BY: DBS
MAINE PORT AUTHORITY COLD STORAGE FACILITY		DRAWN BY: BCM	0232277.00 VEHICLE FIGU*.dwg
JOB NO: 0232277		DATE: MAY 2020	
SCALE: 1"=40'		VT - 5	



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 41 Hutchins Drive Portland, Maine 04102 800.426.4262 www.woodardcurran.com COMMITMENT & INTEGRITY DRIVE RESULTS		VEHICLE TURNING -- 6	
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MAINE PORT AUTHORITY PORTLAND, MAINE		MAINE PORT AUTHORITY COLD STORAGE FACILITY	
JOB NO: 0232277 DATE: MAY 2020 SCALE: 1"=40'		VT - 6	

10. CONSISTENCY WITH CITY COMPREHENSIVE PLAN

The proposed project is in alignment with the design guidelines specified in the City of Portland Comprehensive Plan, *Portland's Plan 2030*, developed in 2017. The proposed project will support local businesses and benefit marine economy by providing a refrigeration facility along the City's working waterfront. The proposed project satisfies two of the future strategies listed in the Waterfront Policy Guide. Excerpts from the Waterfront Policy Guide are provided below:

"Support private, federal, and State investment in the Western Waterfront" (Future Strategy 2).

"Promote development of cold storage warehousing to support a competitive Port of Portland by improving capacity to serve the cargo needs of the seafood, agriculture, food manufacturing, and beverage industries of northern New England" (Future Strategy 10).

The proposed development will benefit the City's working waterfront and local economy, and is consistent with the City's Comprehensive Plan.

R E P O R T

16-1314 S

April 20, 2020

Explorations and Geotechnical Engineering Services

Proposed Cold Storage Facility
Maine Port Authority
West Commercial Street
Portland, Maine

Prepared For:

Woodard & Curran
Attention: Jedd Steinglass, LSP
41 Hutchins Drive
Portland, Maine 04102

Prepared By:

S. W. Cole Engineering, Inc.
286 Portland Road
Gray, Maine 04039
T: 207-657-2866



- *Geotechnical Engineering*
- *Construction Materials Testing and Special Inspections*
- *GeoEnvironmental Services*
- *Test Boring Explorations*

www.swcole.com

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Appendix D	Cone Penetrometer Test Data Report
Appendix E	Geophysical Testing Report
Appendix F	Laboratory Test Results

16-1314 S

April 20, 2020

Woodard & Curran
Attention: Jedd Steinglass, LSP
41 Hutchins Drive
Portland, Maine 04102

Subject: Explorations and Geotechnical Engineering Services
Proposed Cold Storage Facility
Maine Port Authority
West Commercial Street
Portland, Maine

Dear Jedd:

In accordance with our Contract Addendum, dated April 22, 2020, we have reviewed prior geotechnical subsurface explorations for the subject project. This report summarizes our findings and geotechnical recommendations and its contents are subject to the limitations set forth in Appendix A.

1.0 INTRODUCTION

1.1 Scope and Purpose

The purpose of our services was to review prior geotechnical subsurface information at the site in order to develop geotechnical recommendations relative to foundations, earthwork and pavement associated with the proposed construction. Our scope of services included a review of prior explorations, a geotechnical analysis of the subsurface findings and preparation of this report.

1.2 Site and Proposed Construction

The site is the former Portland Gas Works located between West Commercial Street and the Fore River, west of the Casco Bay Bridge in Portland, Maine. We understand development plans call for construction of a new 120,000 SF cold storage facility with associated paved areas. We understand the building will be a dock-high, steel-framed

warehouse type structure with on-grade floor slabs and a sub-slab insulation and heating coil system to control freezing temperatures from penetrating the ground below the slab. We understand column loads may approach 175 kips with wall loads approaching 5 kips/foot. We understand floor slab loads approaching 700 psf are anticipated.

We understand a finished floor elevation (FFE) of 14.0 feet (project datum) is proposed. Based on proposed and existing grades, we understand a tapered raise in grade approaching 4 feet is required for the building and tapered lowering of grade approaching 1 foot is needed in proposed paved areas.

Proposed and existing site features are shown on the “Exploration Location Plan” attached in Appendix B.

2.0 EXPLORATION AND TESTING

2.1 Explorations

Geotechnical explorations were generally completed in two phases; a 2017 preliminary phase, and a 2018 design phase, as summarized below:

2.1.1 Preliminary Phase Explorations

Six test borings (B-1001 through B-1005, including B-1001A) were made at the site in December 2017 by S. W. Cole Explorations, LLC as part of a preliminary phase study. These exploration locations were selected and established in the field by S.W.COLE. The approximate locations of these explorations are shown on the “Exploration Location Plan” attached in Appendix B. Logs of these explorations and a key to the notes and symbols used on the logs are attached in Appendix C. The elevations shown on these logs were estimated based on topographic information shown on the “Exploration Location Plan”.

2.1.2 Design Phase Explorations

Two test borings (B-2001 and B-2003) were made at the site from September 19 to September 21, 2018 by S. W. Cole Explorations, LLC. These exploration locations were selected and established in the field by S. W. Cole Engineering, Inc. (S.W.COLE). The approximate locations of these explorations are shown on the “Exploration Location Plan” attached in Appendix B. Logs of these explorations and a key to the notes and symbols used on these logs are attached in Appendix C. The elevations shown on

these logs were estimated based on topographic information shown on the “Exploration Location Plan”.

Twenty five Cone Penetrometer Tests (CPT18-2, CPT18-4 through CPT18-12 and CPT18-14) were made at the site from September 19 to September 21, 2018 by ConeTec, Inc. working under subcontract to S.W.COLE. The CPT exploration locations were selected and established in the field by S.W.COLE. The approximate CPT exploration locations are shown on the “Exploration Location Plan” attached in Appendix B. ConeTec’s CPT Data Report is attached in Appendix D.

2.2 Testing

2.2.1 Field Testing

The test borings were drilled using cased wash-boring techniques. The soils were sampled at 2 to 10 foot intervals using a split spoon sampler and Standard Penetration Testing (SPT) methods. Shelby tube sampling and Vane Shear Testing (VST) was performed in certain explorations where softer cohesive soils were encountered. SPT blow counts and VST results are shown on the logs.

2.2.2 Geophysical Testing

Hager-Richter Geoscience, Inc. (Hager-Richter) of Salem, New Hampshire, working under subcontract to S.W.COLE, performed geophysical testing at the site in December 2017 as part of a preliminary phase study. The purpose of the geophysical testing was to assess shear wave velocities of the subsurface profile beneath the site for use in determining seismic soil Site Class per IBC. Hager-Richter’s report is attached in Appendix E.

2.2.3 Laboratory Testing

Soil samples obtained from the explorations were returned to our laboratory for further classification and testing. Atterberg Limits, moisture and organic content test results are noted on the logs. The results of one-dimensional laboratory consolidation tests are attached in Appendix F.

3.0 SUBSURFACE CONDITIONS

3.1 Soil and Bedrock

The explorations were made in the area of the proposed building and encountered a soils profile generally consisting of 9 to 22 feet of uncontrolled granular fills with relic foundations and debris, overlying 0 to 17 feet of sandy silt with shells (bay mud), overlying 0 to 36 feet of glaciomarine clay, overlying medium dense marine sands at depths ranging from about 45 to 80 feet below the ground surface (bgs), overlying dense to very dense glacial till at depths ranging from about 75 to 140 feet bgs. Bedrock was not encountered within the depths explored.

The uncontrolled fills across the site contained coal tar and petroleum contamination extending down to the native Bay Mud stratum. At numerous exploration locations, below grade debris and relic foundations were encountered that resulted in terminating the exploration and making one or more additional attempts in the same or offset location.

Not all the strata were encountered at each exploration; refer to the attached logs for more detailed subsurface information.

3.2 Groundwater

The soils encountered at the test borings were wet to saturated from 5 to 10 feet bgs. Groundwater is likely tidally influenced from the level of the Fore River. Long term groundwater information is not available. It should be anticipated that groundwater levels will fluctuate, particularly in response to tides, periods of snowmelt and precipitation, as well as changes in site use.

4.0 EVALUATION AND RECOMMENDATIONS

4.1 General Findings

Based on the subsurface findings, the proposed construction appears feasible from a geotechnical standpoint. The principle geotechnical considerations include:

- Conventional spread footing foundations and on-grade floor slabs do not appear feasible without significant ground improvement to mitigate post-construction settlement.
- The presence of below grade debris, relic foundations and contamination create challenges for ground improvement; consequently, we recommend the proposed building and floor slab be supported on steel H-piles driven into bearing strata of marine sands overlying dense to very dense glacial till.
- Settlement of the uncontrolled fills and glaciomarine clay will impose downdrag loading on piles. Below grade debris and relic foundations will cause pile locations to drift during pile installation. As necessary to overcome below grade obstructions, we recommend that pile locations be pre-drilled to a depth of about 25 feet and backfilled with bentonite clay.
- We understand the site soils and groundwater will be characterized by the project environmental consultant for environmental handling and disposal. .
- We understand a sub-slab venting system is planned; we understand the structural slab, sub-slab venting, insulation and heating systems will be designed by others.

4.2 Settlement Evaluation

The glaciomarine clay beneath the site is compressible under loading from the proposed site fills and building loads. We have estimated post-construction settlement due to consolidation of the glaciomarine clay considering:

- The findings at the test borings;
- The results of the one-dimensional consolidation testing;

- The existing and proposed site grading; and,
- The proposed structural loading

We estimate that post-construction settlement may approach 19-inches total with over 12 inches of differential settlement across the building pad. These settlement magnitudes greatly exceed tolerable limits for building construction; consequently, the foundation and floor slab will require piles or ground improvement that transfer loads through the compressive layer and into the stable bearing strata of marine sands and glacial till underlying the site.

4.3 Site and Subgrade Preparation

We recommend that site preparation begin with the construction of an erosion control system to protect adjacent drainage ways and areas outside the construction limits. Surficial organics, roots and topsoil should be completely removed from areas of proposed fill and construction. As much vegetation as possible should remain outside the construction areas to lessen the potential for erosion and site disturbance.

Building Pad and Foundations: We recommend pile caps and grade beams be underlain with at least 3 inches of Crushed Stone to provide a working mat and casting bed for foundation construction. Prior to installing the Crushed Stone venting layer below the structural floor system; as discussed herein, we recommend densifying soils with a vibratory roller compactor weighing at least 10 tons. Areas that become soft or continue to yield after densification should be removed and replaced with compacted Granular Borrow.

Paved Areas and Site Utilities: Uncontrolled fills encountered beneath proposed paved areas should be densified with a smooth-drum roller compactor weighing at least 10 tons. Areas that become soft or continue to yield after densification should be removed and replaced with compacted Granular Borrow. A woven geotextile fabric should be placed over pavement subgrades prior to installing Subbase Aggregate. We anticipate pipes and utility structures will be founded within existing uncontrolled fills that contain rubble and debris. We recommend the depth of customary bedding materials be at least 6 inches beneath pipes and 18 inches beneath structures.

4.4 Excavation and Dewatering

Excavation work will generally encounter uncontrolled fills with rubble debris and potentially coal tar and petroleum; sitework and utility subcontractors should be appropriately qualified for the expected environmental conditions as directed by the project environmental consultant. Earthwork and grading activities should ideally occur during drier, non-freezing weather of Spring, Summer and Fall.

Sumping and pumping dewatering techniques should be adequate to control groundwater in excavations above the groundwater table. Excavations below the groundwater table will require sheetpiling for soil support and groundwater cutoff. Controlling the water levels to at least one foot below planned excavation depths will help stabilize subgrades during construction.

Excavations must be properly shored or sloped in accordance with OSHA Regulations to prevent sloughing and caving of the sidewalls during construction. Care must be taken to preclude undermining adjacent structures, utilities and roadways. Design and planning of excavations, excavation support, and dewatering is the contractor's responsibility.

4.5 Foundations

Considering the subsurface findings and proposed construction, we recommend the proposed building and floor slabs be supported on steel H-piles fitted with cast driving tips, driven into bearing strata of marine sands overlying dense glacial till or refusal on bedrock. We offer the following H-pile sizes and allowable axial compressive capacities for design consideration:

RECOMMENDED H-PILE CAPACITIES		
50 ksi Steel H-pile Section	Allowable Geotechnical Compressive Pile Capacity (kips)	
	FS = 2.25	FS = 1.9
HP 12 x 74	150 kips	190 kips
HP 14 x 89	230 kips	280 kips
HP 14 x 102	280 kips	340 kips
HP 14 x 117	330 kips	400 kips
Notes: 1) Allowable Geotechnical Capacity reduced for downdrag and corrosion 2) FS of 2.25 requires PDA load testing; FS of 1.9 requires Static Load Test 3) HP 12 x 74 limited to Administration/Maintenance Wing		

Based on the subsurface findings, we anticipate pile lengths may range from 90 to 150 feet across the building pad. We recommend pile caps for columns be supported by at least two piles if laterally tied together by tie beams or a reinforced structural concrete slab and three piles if laterally isolated. Piles should be spaced a minimum center-to-center distance of at least 3 pile diameters, but no less than 30 inches.

Pile caps and grade beams exposed to freezing temperatures should be covered with at least 4.5 feet of soil for frost protection. Based on shear wave velocity testing by Hager-Richter, we recommend design consider a seismic soil Site Class D (IBC 2015).

To help reduce downdrag loading on piles and drift of pile location from debris, we recommend pre-drilling pile locations through the uncontrolled fill and relic foundations zone and backfilling with bentonite clay. The bentonite clay will also help to seal pile penetrations through glaciomarine clays.

Pile Submittal & Load Test: We recommend the contractor coordinate a test pile program including monitoring of several piles with a Pile Driving Analyzer (PDA) to determine pile and driving equipment compatibility as well as to define the “set” criteria and pile capacity. The test pile program should include PDA monitoring of the test piles during re-strikes in order to assess pile capacity. The pile driving contractor should submit a WEAP analysis and information relative to pile driving equipment prior to beginning driving. In order to use the higher pile capacities associated with a factor of safety of 1.9, the contractor will be required to perform a static load test to verify pile capacity.

S.W.COLE should be engaged to review the pile submittal and to observe pile driving, as well as pile load testing activities.

4.6 Floor Slabs

We recommend a pile supported structural floor slab system for the building and entrance slabs. The structural engineer or concrete consultant must design steel reinforcing and joint spacing appropriate to slab thickness and function. Sub-slab utilities should be suspended from the structural slab such that post-construction settlement of sub-slab fill will not affect the utilities.

Considering the coal tar and petroleum contaminants encountered beneath the proposed building, we recommend the floor slab system include a vapor retarder to mitigate moisture vapors and an HDPE liner overlying at least 8-inches of compacted Crushed Stone to provide a venting layer to collect soil gas and petroleum vapors from the coal tar and petroleum contaminants. Perforated pipes should be installed within the Crushed Stone venting layer to collect and discharge potential soil gas and petroleum vapors from beneath the building. General details of the structural floor slab system are illustrated on the “Foundation Detail Sketch” attached in Appendix B. The HDPE liner and subslab venting system should be design by a qualified Indoor Air Quality (IAQ) professional.

The vapor retarder must have a permeance that is less than the floor cover or surface treatment that is applied to the slab. The vapor retarder must have sufficient durability to withstand direct contact with sub-slab materials and construction activity. The vapor retarder material should be placed according to the manufacturer’s recommended method, including the taping and lapping of all joints and wall connections. The architect and/or flooring consultant should select the vapor retarder products compatible with flooring and adhesive materials.

The floor slab should be appropriately cured using moisture retention methods after casting. Typical floor slab curing methods should be used for at least 7 days. The architect or flooring consultant should assign curing methods consistent with current applicable American Concrete Institute (ACI) procedures with consideration of curing method compatibility to proposed surface treatments, flooring and adhesive materials.

We understand the structural slab, sub-slab insulation, heating and insulation system will be designed by others.

4.7 Entrance Slabs and Sidewalks

Entrance slabs should be pile-supported. Sidewalks adjacent to the building must be designed to reduce the effects of differential frost action between adjacent pavement, doorways, and entrances. We recommend that non-frost susceptible Structural Fill be provided to a depth of at least 4.5 feet below the top of entrance sidewalks. This thickness of Structural Fill should extend the full width of the entrance sidewalk and outward at least 4.5 feet, thereafter transitioning up to the bottom of the adjacent

sidewalk or pavement gravels at a 3H:1V or flatter slope. General details of this frost transition zone are shown on the “Foundation Detail Sketch” attached in Appendix B.

4.8 Fill, Backfill and Compaction

We recommend the following fill and backfill materials: recycled products must also be tested in accordance with applicable environmental regulations and approved by a qualified environmental consultant.

Common Borrow: Fill to raise grades in pile-supported building and structural slab areas should be non-organic compactable earth meeting the requirements of 2014 MaineDOT Standard Specification 703.18 Common Borrow.

Granular Borrow: Fill to raise grades in paved areas, as well as to repair soft areas, should be sand or silty sand meeting the requirements of 2014 MaineDOT Standard Specification 703.19 Granular Borrow.

Structural Fill: Backfill for foundations, material below exterior entrance slabs and truck dock slabs, as well as through the frost transition zone below entrance sidewalks, should be clean, non-frost susceptible sand and gravel meeting the gradation requirements for Structural Fill as given below:

Structural Fill	
Sieve Size	Percent Finer by Weight
4 inch	100
3 inch	90 to 100
¾ inch	25 to 90
No. 40	0 to 30
No. 200	0 to 6

Underdrain Sand: Sand used for underdrains should be clean, free-draining sand meeting the requirements of 2014 MaineDOT Standard Specification 703.22 Underdrain Backfill Material Type B.

Crushed Stone: Crushed Stone, used beneath foundations should be washed ¾-inch crushed stone meeting the requirements of 2014 MaineDOT Standard Specification 703.22 Underdrain Backfill Material Type C.

Reuse of Site Soils: The existing site fills may be reused as Common Borrow to raise grades in pile-supported building areas, provided they are at a compactable moisture content at the time of reuse and free of deleterious materials.

Placement and Compaction: Fill should be placed in horizontal lifts and compacted such that the desired density is achieved throughout the lift thickness with 3 to 5 passes of the compaction equipment. Loose lift thicknesses for grading, fill and backfill activities should not exceed 12 inches. We recommend that fill and backfill in building and paved areas be compacted to at least 95 percent of its maximum dry density as determined by ASTM D-1557. Crushed Stone should be compacted with 3 to 5 passes of a vibratory plate compactor having a static weight of at least 500 pounds.

4.9 Paved Areas

We anticipate paved areas will be subjected primarily to heavy truck traffic. Considering the site soils, and proposed usage, we offer the following pavement section for consideration. Materials are referenced to 2014 Maine DOT Standard Specifications.

FLEXIBLE (HMA) PAVEMENT SECTION		
Layer	Thickness	
	Standard Duty (Cars)	Heavy Duty (Trucks)
MaineDOT 9.5 mm Hot Mix Asphalt	1.25"	1.25"
MaineDOT 12.5 mm Hot Mix Asphalt	2.75"	1.75"
MaineDOT 19.0 mm Hot Mix Asphalt	--	3"
MaineDOT 703.06 Aggregate Base Type A	3"	6"
MaineDOT 703.06 Aggregate Subbase Type D	12"	18"
Woven Geotextile Subgrade Fabric	Mirafi 600X	Mirafi HP270

RIGID (CONCRETE) PAVEMENT SECTION FOR TRUCK YARD	
Layer	Thickness
Concrete – 4,500 psi compressive, 500 psi flexural, 1½ inch aggregate, 6 ±1% air entrainment with doweled and caulked joints	8"
MaineDOT 703.06 Aggregate Subbase Base Type D	12"
Woven Geotextile Subgrade Fabric	Mirafi 600X
Modulus of Subgrade Reaction	100 psi/in (pci)

The base and subbase materials should be compacted to at least 95 percent of their maximum dry density as determined by ASTM D-1557. Hot mix asphalt pavement should be compacted to 92 to 97 percent of its theoretical maximum density as determined by ASTM D-2041. A tack coat should be used between successive lifts of bituminous pavement.

It should be understood that frost penetration can be on the order of 4.5 feet in this area. In the absence of full depth excavation of frost susceptible soils below paved areas and subsequent replacement with non-frost susceptible compacted fill, frost penetration into the subgrade will occur and some heaving and distress of pavement must be anticipated.

4.10 Weather Considerations

Construction activity should be limited during wet and freezing weather and the site soils may require drying or thawing before construction activities may continue. The contractor should anticipate the need for water to temper fills in order to facilitate compaction during dry weather. If construction takes place during cold weather, subgrades, foundations and floor slabs must be protected during freezing conditions. Concrete and fill must not be placed on frozen soil; and once placed, the concrete and soil beneath the structure must be protected from freezing.

4.11 Design Review and Construction Testing

S.W.COLE should be retained to review the construction documents prior to bidding to determine that our earthwork, foundation and pavement recommendations have been properly interpreted and implemented.

A quality assurance testing and inspections program should be implemented during construction to observe compliance with the design concepts, plans, and specifications. S.W.COLE is available to observe earthwork activities, the installation of piles, the preparation of foundation casting surfaces and pavement subgrades, as well as to provide testing and IBC Special Inspection services for soils, concrete, steel, spray-applied fireproofing, structural masonry and asphalt construction materials.

5.0 CLOSURE

It has been a pleasure to be of assistance to you with this phase of your project. We look forward to working with you during the construction phase of the project.

Sincerely,

S. W. Cole Engineering, Inc.

Timothy J. Boyce, P.E.
Senior Geotechnical Engineer

JAD/TJB:tjb/pfk

DRAFT

APPENDIX A - Limitations

This report has been prepared for the exclusive use of Woodard & Curran for specific application to the proposed Cold Storage Warehouse at the Maine Port Authority on West Commercial Street in Portland, Maine. S. W. Cole Engineering, Inc. (S.W.COLE) has endeavored to conduct our services in accordance with generally accepted soil and foundation engineering practices. No warranty, expressed or implied, is made.

The soil profiles described in the report are intended to convey general trends in subsurface conditions. The boundaries between strata are approximate and are based upon interpretation of exploration data and samples.

The analyses performed during this investigation and recommendations presented in this report are based in part upon the data obtained from subsurface explorations made at the site. Variations in subsurface conditions may occur between explorations and may not become evident until construction. If variations in subsurface conditions become evident after submission of this report, it will be necessary to evaluate their nature and to review the recommendations of this report.

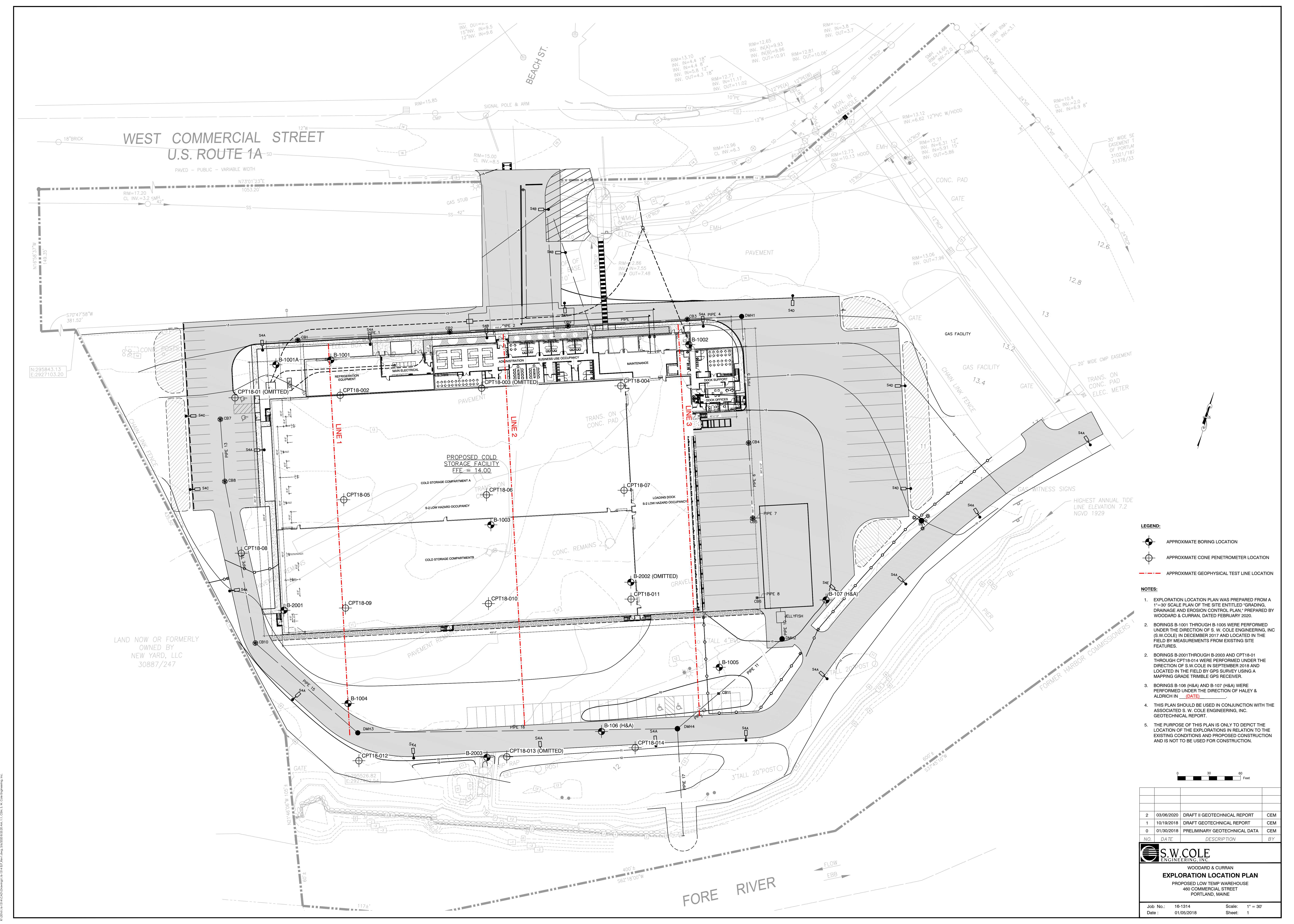
Observations have been made during exploration work to assess site groundwater levels. Fluctuations in water levels will occur due to variations in rainfall, temperature, and other factors.

S.W.COLE's scope of services has not included the investigation, detection, or prevention of any Biological Pollutants at the project site or in any existing or proposed structure at the site. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and the byproducts of any such biological organisms.

Recommendations contained in this report are based substantially upon information provided by others regarding the proposed project. In the event that any changes are made in the design, nature, or location of the proposed project, S.W.COLE should review such changes as they relate to analyses associated with this report. Recommendations contained in this report shall not be considered valid unless the changes are reviewed by S.W.COLE.

APPENDIX B

Figures



- LEGEND:**
- APPROXIMATE BORING LOCATION
 - APPROXIMATE CONE PENETROMETER LOCATION
 - APPROXIMATE GEOPHYSICAL TEST LINE LOCATION

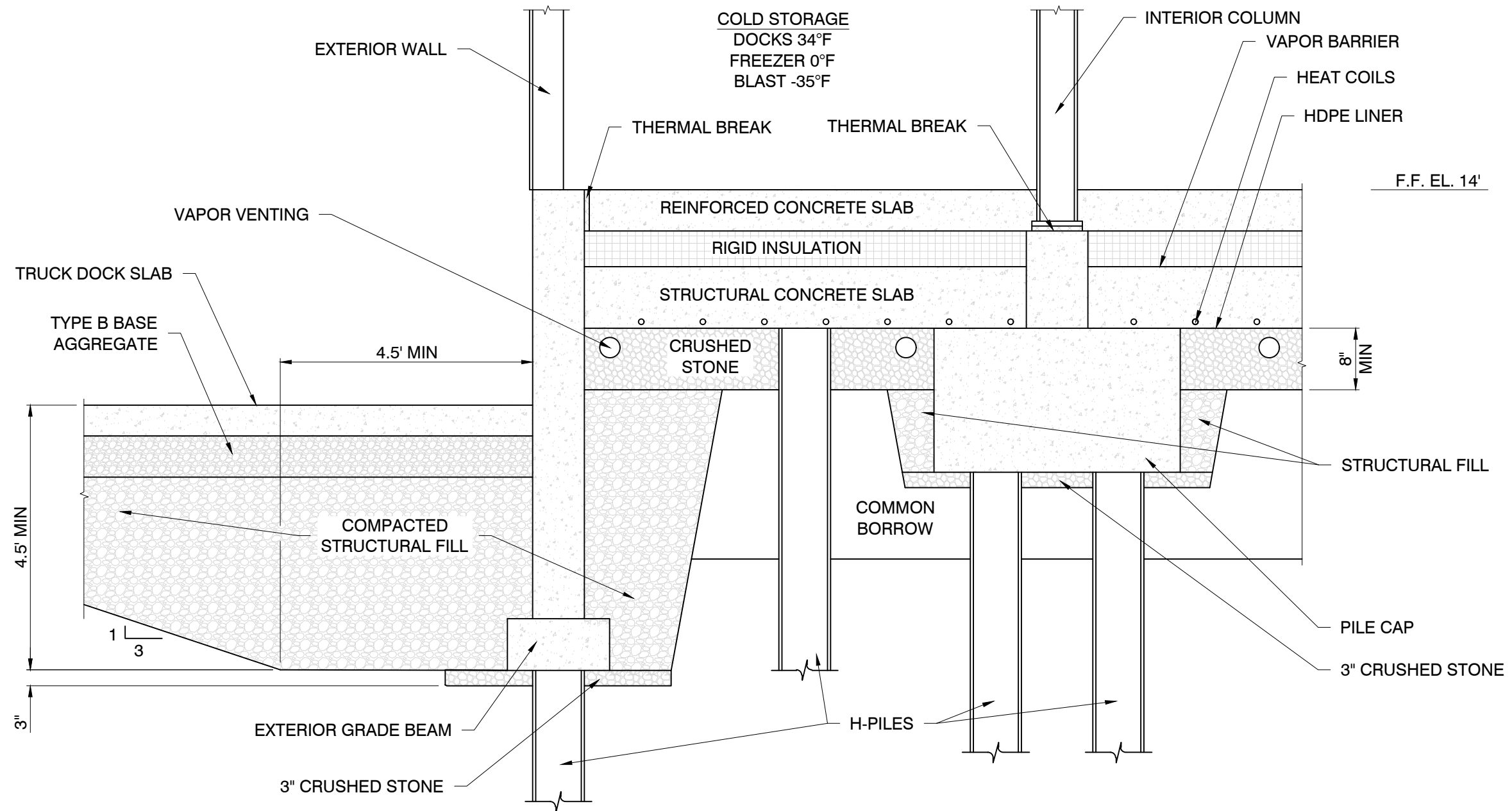
- NOTES:**
- EXPLORATION LOCATION PLAN WAS PREPARED FROM A 1"=30' SCALE PLAN OF THE SITE ENTITLED "GRADING, DRAINAGE AND EROSION CONTROL PLAN," PREPARED BY WOODARD & CURRAN, DATED FEBRUARY 2020.
 - BORINGS B-1001 THROUGH B-1005 WERE PERFORMED UNDER THE DIRECTION OF S. W. COLE ENGINEERING, INC. (S.W. COLE) IN DECEMBER 2017 AND LOCATED IN THE FIELD BY MEASUREMENTS FROM EXISTING SITE FEATURES.
 - BORINGS B-2001 THROUGH B-2003 AND CPT18-01 THROUGH CPT18-014 WERE PERFORMED UNDER THE DIRECTION OF S.W. COLE IN SEPTEMBER 2018 AND LOCATED IN THE FIELD BY GPS SURVEY USING A MAPPING GRADE TRIMBLE GPS RECEIVER.
 - BORINGS B-106 (H&A) AND B-107 (H&A) WERE PERFORMED UNDER THE DIRECTION OF HALEY & ALDRICH IN (DATE).
 - THIS PLAN SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT.
 - THE PURPOSE OF THIS PLAN IS ONLY TO DEPICT THE LOCATION OF THE EXPLORATIONS IN RELATION TO THE EXISTING CONDITIONS AND PROPOSED CONSTRUCTION AND IS NOT TO BE USED FOR CONSTRUCTION.

0 30 60 Feet

NO.	DATE	DESCRIPTION	BY
2	03/06/2020	DRAFT II GEOTECHNICAL REPORT	CEM
1	10/19/2018	DRAFT GEOTECHNICAL REPORT	CEM
0	01/30/2018	PRELIMINARY GEOTECHNICAL DATA	CEM

S.W. COLE ENGINEERING, INC.
WOODARD & CURRAN
EXPLORATION LOCATION PLAN
PROPOSED LOW TEMP WAREHOUSE
460 COMMERCIAL STREET
PORTLAND, MAINE

Job No.: 16-1314
Date: 01/05/2018
Scale: 1" = 30'
Sheet: 1



WOODARD & CURRAN
FOUNDATION DETAIL SKETCH
 PROPOSED COLD STORAGE WAREHOUSE
 460 COMMERCIAL STREET
 PORTLAND, MAINE

Job No.:	16-1314	Scale:	Not to Scale
Date :	04/20/2020	Sheet:	2

APPENDIX C

Exploration Logs and Key



BORING LOG

CLIENT: Colby Co. Engineering
PROJECT: Proposed IMT Cold Storage
LOCATION: West Commercial Street, Portland, Maine

BORING NO.: B2001
SHEET: 1 of 3
PROJECT NO. 16-1314.1
DATE START: 9/19/2018
DATE FINISH: 9/21/2018

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 11' +/- TOTAL DEPTH (FT): 131.0 LOGGED BY: Justin DuBois
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 140 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.75 HAMMER DROP (inch): 30 / 30
WATER LEVEL DEPTHS (ft): 7 ft 9/19/2018

GENERAL NOTES: 20 feet of casing broke off during removal, abandoned in place.

KEY TO NOTES AND SYMBOLS: Water Level
At time of Drilling
At Completion of Drilling
After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
10									Loose, brown to black SAND with gravel and silt (Fill), strong naphthalene odor and sheen.		Backfilled with cuttings (medium to coarse sand) from 15' to surface
5											
5											
10			1D		10-12	24/8	2-1-3-4				
0											
15											
-5											
20			2D		20-22	24/12	1-1:12"-3		20.0 Very loose, dark gray, sandy SILT with shells and organics (Bay Mud), slight naphthalene odor.		Back filled with Bentonite from 40' to 15'
-10											
25											
-15											
30			3D		30-32	24/24	WOH:21"-1		30.0 Very soft, gray, silty CLAY some fine sand, few shell fragments.		
-20											
35											
-25											

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: B2001



BORING LOG

CLIENT: Colby Co. Engineering
 PROJECT: Proposed IMT Cold Storage
 LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B2001**
 SHEET: 2 of 3
 PROJECT NO. 16-1314.1
 DATE START: 9/19/2018
 DATE FINISH: 9/21/2018

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
-30			4D	X	40-42	24/24	WOR:6" WOH:12" 1				Boring caved overnight to 40'
45											
-35											
50			5D	X	50-52	24/24	WOH:18" 2				
-40											
55											Very soft, gray, sandy silty CLAY.
-45											
60			6D	X	60-62	24/24	WOR:6" WOH:12" 1				
-50											
65											
-55											Medium dense to dense, gray, medium SAND some silt, coarse sand layers.
70			7D	X	70-72	24/13	4-6-10- 16				
-60											
75											
-65											
80			8D	X	80-82	24/24	12-18- 19-25				
-70											
85											
-75											
90			9D	X	90-92	24/24	12-14- 13-16				
-80											

(Continued Next Page)

BORING NO.: **B2001**



BORING LOG

CLIENT: Colby Co. Engineering
 PROJECT: Proposed IMT Cold Storage
 LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B2001**
 SHEET: 3 of 3
 PROJECT NO. 16-1314.1
 DATE START: 9/19/2018
 DATE FINISH: 9/21/2018

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
95											
-85											
100			10D	X	100-102	24/24	9-10-13-20				
-90											
105											
-95											
110											
-100											
115											
-105											
120											
-110									120.0		
125											
-115									Advanced with 3" Roller cone bit.		
130											
-120											

Auger Refusal at 131.0 feet
 Hard drilling and drill bit chatter, presumed
 Glacial Till.

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B2001**



BORING LOG

BORING NO.: **B2003**
SHEET: 1 of 3
PROJECT NO. 16-1314.1
DATE START: 9/18/2018
DATE FINISH: 9/19/2018

CLIENT: Colby Co. Engineering
PROJECT: Proposed IMT Cold Storage
LOCATION: West Commercial Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 10' +/- TOTAL DEPTH (FT): 122.0 LOGGED BY: Justin DuBois
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 140 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.75 HAMMER DROP (inch): 30 / 30
WATER LEVEL DEPTHS (ft):
GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods
▽ At Completion of Drilling U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer
▽ After Drilling R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation S_v = Field Vane Shear Strength, kips/sq.ft.
V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
5	5								Augered through loose, SAND with gravel and cobbles (Fill), naphthalene odor and sheen.		Backfilled with cuttings (medium sand) from 15' to surface.
0	10		1D		10-12	24/0	1-1-1-3				
-5	15										Backfilled with Bentonite from 41' to 15'
-10	20		2D		20-22	24/3	2-1:12"-1		20.0 Very loose, dark gray, sandy SILT with shells and organics (Bay Mud), slight naphthalene odor.		
-15	25										
-20	30		3D		30-32	24/24	WOH:24"		30.0 Very soft, gray, silty CLAY some fine sand.		
-25	35										

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: **B2003**



BORING LOG

CLIENT: Colby Co. Engineering
 PROJECT: Proposed IMT Cold Storage
 LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B2003**
 SHEET: 2 of 3
 PROJECT NO. 16-1314.1
 DATE START: 9/18/2018
 DATE FINISH: 9/19/2018

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			4D	X	40-42	24/24	WOH:24"				Backfilled with gravel to 41'
-35	45										
-40	50		5D	X	50-52	24/24	WOH:12" 2-3		Increased shell fragments and wood.		
-45	55								55.0 Soft, gray, sandy silty CLAY.		
-50	60		6D	X	60-62	24/24	3-2-2-3				
-55	65										Boring caved overnight to 67'
-60	70		7D	X	70-72	24/12	5-4-4-8				
-65	75										
-70	80		8D	X	80-82	24/8	16-26- 24-29		80.0 Dense to very dense, gray, medium SAND some silt, coarse sand layers.		
-75	85										
-80	90		9D	X	90-92	24/12	20-30- 29-28				

(Continued Next Page)

BORING NO.: **B2003**

BORING / WELL 16-1314.1.GPJ SWCE TEMPLATE.GDT 9/24/18

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.



BORING LOG

CLIENT: Colby Co. Engineering
 PROJECT: Proposed IMT Cold Storage
 LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B2003**
 SHEET: 3 of 3
 PROJECT NO. 16-1314.1
 DATE START: 9/18/2018
 DATE FINISH: 9/19/2018

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
-85	95										
-90	100		10D	X	100-102	24/12	21-28-41-54		Drill bit chatter; coarse sand or gravel layer.		
-95	105										
-100	110		11D	X	110-112	24/10	11-13-22-25				
-105	115										
-110	120		12D	X	120-122	24/12	18-19-17-22				

Bottom of Exploration at 122.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B2003**



BORING LOG

BORING NO.: **B-1001**

SHEET: 1 of 1

PROJECT NO. 16-1314

DATE START: 12/20/2017

DATE FINISH: 12/20/2017

CLIENT: Woodard & Curran

PROJECT: Proposed IMT West Cold Storage Facility

LOCATION: West Commercial Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 14' +/- TOTAL DEPTH (FT): 25.0 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 300 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.81 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): 4 ft 12/20/2017 Free water at 4'

GENERAL NOTES: Backfilled borehole with bentonite and drill cuttings.

KEY TO NOTES AND SYMBOLS: Water Level
At time of Drilling
At Completion of Drilling
After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
10	5		1D		0.5-2.5	24/18	13-9-7-8		Medium dense, brown silty gravelly SAND (FILL)		
								2.0	Medium dense to loose, black gravel, some silt, some sand with wood (FILL) -petroleum odor	▽	
5			2D		5-7	24/12	5-4-6-4				
10			3D		10-12	24/12	4-3-4-3		-petroleum odor and sheen below 10'		
0	15		4D		15-17	24/10	3-3-4-3		FILL and coal tar		
-5	20		5D		20-21.8	21/5	8-7-6-50/3"				
-10	25							21.5	Concrete		
								22.0	Coal tar in casing prevented further drilling		
								25.0	Bottom of Exploration at 25.0 feet Abandoned hole at 25', excessive coal tar		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1001**



BORING LOG

BORING NO.: **B-1001A**

SHEET: 1 of 2

PROJECT NO. 16-1314

DATE START: 12/20/2017

DATE FINISH: 12/20/2017

CLIENT: Woodard & Curran

PROJECT: Proposed IMT West Cold Storage Facility

LOCATION: West Commercial Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 14' +/- TOTAL DEPTH (FT): 52.0 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 300 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.81 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): ∇ 5 ft 12/20/2017 Soils saturated below 5'
GENERAL NOTES: Moved boring 25' +/- west of B-1001. Backfilled borehole with bentonite and drill cuttings.

KEY TO NOTES AND SYMBOLS: ∇ Water Level ∇ At time of Drilling ∇ At Completion of Drilling ∇ After Drilling
D = Split Spoon Sample U = Thin Walled Tube Sample R = Rock Core Sample V = Field Vane Shear
Pen. = Penetration Length Rec. = Recovery Length bpf = Blows per Foot mpf = Minute per Foot
WOR = Weight of Rods WOH = Weight of Hammer RQD = Rock Quality Designation PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft. q_u = Unconfined Compressive Strength, kips/sq.ft. N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
10	5								Brown-black gravelly silty SAND with brick (FILL)	∇	
5	10										
0	15		1D	X	15-17	24/12	9-6-4-7		-petroleum odor and sheen		
-5	20		2D	X	20-22	24/22	WOH FOR 12"-2-3 w =31.2 % O =2.0%		19.0 Very loose to loose, gray SAND and silt, some clay with shells (Bay Mud)		
-10	25		3D	X	25-27	24/20	2-4-3-3		24.0 Loose to medium dense, gray SAND and silt with frequent silty clay layers		
-15	30		4D	X	30-32	24/18	3-5-5-6 w =24.5 %				
-20	35		5D	X	35-37	24/2	4-3-10-9				
-25											

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: **B-1001A**



BORING LOG

CLIENT: Woodard & Curran

PROJECT: Proposed IMT West Cold Storage Facility

LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B-1001A**

SHEET: 2 of 2

PROJECT NO. 16-1314

DATE START: 12/20/2017

DATE FINISH: 12/20/2017

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			6D	X	40-42	24/24	4-3-4-6		Loose to medium dense, gray silty SAND with clay layers		
-30	45		7D	X	45-47	24/24	WOH FOR 12"-5-5				
-35	50		8D	X	50-52	24/18	7-11- 11-12		49.0 Medium dense, brown silty SAND with clay layers		
									52.0 Bottom of Exploration at 52.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1001A**



BORING LOG

BORING NO.: **B-1002**
SHEET: 1 of 2
PROJECT NO. 16-1314
DATE START: 12/27/2017
DATE FINISH: 12/27/2017

CLIENT: Woodard & Curran
PROJECT: Proposed IMT West Cold Storage Facility
LOCATION: West Commercial Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 12' +/- TOTAL DEPTH (FT): 52.0 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 300 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.79 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): 7 ft 12/27/2017 Soils saturated below 7'

GENERAL NOTES: Backfilled borehole with bentonite to 16' below ground surface.

KEY TO NOTES AND SYMBOLS:
Water Level
At time of Drilling
At Completion of Drilling
After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
10			1D	X	3-5	24/126	4-4-3-2		Concrete		
5			2D	X	5-7	24/15	4-4-4-4		1.1 Loose, brown silty SAND (FILL)		
5									6.5 Loose, black silty SAND (FILL) -petroleum odor	7	
10			3D	X	10-12	24/14	4-7-9-6		9.0 Medium dense, gray gravelly SAND, some silt -petroleum odor		
0									14.0 Very loose, gray silty SAND with organics -petroleum odor and sheen		
15			4D	X	15-17	24/11	4-1-1-1	w =28.8 % O =1.9%	19.0 Medium dense, gray silty gravelly SAND		
-5									24.0 Medium dense to loose, light brown silty SAND with silty clay layers		
20			5D	X	20-22	24/14	2-5-7- 13				
-10											
25			6D	X	25-27	24/14	3-3-9-7	w =25 %			
-15											
30			7D	X	30-32	24/12	4-8-8-7				
-20											
35			8D	X	35-37	24/20	5-4-6-6	w =22.4 %			
-25											

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: **B-1002**



BORING LOG

CLIENT: Woodard & Curran
 PROJECT: Proposed IMT West Cold Storage Facility
 LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B-1002**
 SHEET: 2 of 2
 PROJECT NO. 16-1314
 DATE START: 12/27/2017
 DATE FINISH: 12/27/2017

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
-30	45		9D	X	40-42	24/18	6-4-2-5		40.0 Loose, gray silty SAND, some gravel with silty clay layers		
-35									45.0 Medium dense, gray SAND and silt		
-50			10D	X	50-52	24/14	4-8-18-19	w =23.1 %			
-40									52.0 Bottom of Exploration at 52.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1002**



BORING LOG

BORING NO.: **B-1003**
SHEET: 1 of 2
PROJECT NO. 16-1314
DATE START: 12/21/2017
DATE FINISH: 12/21/2017

CLIENT: Woodard & Curran
PROJECT: Proposed IMT West Cold Storage Facility
LOCATION: West Commercial Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 12' +/- TOTAL DEPTH (FT): 82.0 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 300 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.81 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): 4.5 ft 12/21/2017 Free water at 4.5'

GENERAL NOTES: Moved borehole 8-10' west after drilling through concrete at 4-5' and void from 5-10'. Backfilled borehole with bentonite to 16' below ground surface.

KEY TO NOTES AND SYMBOLS: Water Level
At time of Drilling
At Completion of Drilling
After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
10									Medium dense, black-brown silty gravelly SAND with brick (FILL) -Petroleum odor at 5-7'		
5			1D		5-7	24/19	5-12-8-3				
5											
10			2D		10-11.5	18/7	1-1-1-25/0"		Very loose		
0									11.5 Concrete		
15			3D		15-17	24/13	6-12-12-16		13.0 Medium dense, black sandy SILT with ash (FILL) -Petroleum odor and sheen		
-5											
20			4D		20-22	24/9	6-6-4-3		19.0 Medium dense to loose, gray-brown silty SAND with wood		
-10								w = 22.6 % O = 1.7%			
25			5D		25-27	24/15	WOH-1-1-1		Very loose, gray sandy SILT with shells and organics (Bay Mud)		
-15								w = 39.7 % O = 2.8%			
30			6D		30-32	24/24	WOH FOR 24"		29.0 Medium to stiff, gray silty CLAY with shells and organics to 32'		
-20											
35			1U		35-37	24/24					
-25			1V 1V'		37-37.5 37.5-38	6 6		W _L =55 W _P =30 S _v =1.55/0.31ksf S _v =1.61/0.31ksf			

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: **B-1003**



BORING LOG

CLIENT: Woodard & Curran
 PROJECT: Proposed IMT West Cold Storage Facility
 LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B-1003**
 SHEET: 2 of 2
 PROJECT NO. 16-1314
 DATE START: 12/21/2017
 DATE FINISH: 12/21/2017

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
-30									Medium to stiff, gray silty CLAY		
45			2U		45-47	24/24					
-35			2V		47-47.5	6			W _L =55 W _P =27 S _v =1.92/0.43ksf S _v =2.11/0.62ksf		
			2V'		47.5-48	6					
50											
-40											
55			3U		55-57	24/24					
-45			3V		57-57.5	6			W _L =48 W _P =25 S _v =1.61/0.43ksf S _v =1.92/0.43ksf		
			3V'		57.5-58	6					
60			7D		60-62	24/24	WOH- WOH FOR 12"-2		59.0 Very loose, gray SAND and silt with shells and wood		
-50											
65			8D		65-67	24/24	1-1-2-2	w =23.6 %			
-55											
70			9D		70-72	24/19	7-16- 21-22	w =16.5 %	69.0 Dense, gray fine to medium SAND, some gravel, some silt		
-60											
75											
-65											
80			10D		80-82	24/21	8-18- 20-29	w =20.6 %	79.0 Dense, gray silty fine to medium SAND		
-70									82.0 Bottom of Exploration at 82.0 feet		

BORING / WELL 16-1314.GPJ SWCE TEMPLATE.GDT 1/29/18

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1003**



BORING LOG

CLIENT: Woodard & Curran
PROJECT: Proposed IMT West Cold Storage Facility
LOCATION: West Commercial Street, Portland, Maine

BORING NO.: B-1004
SHEET: 1 of 2
PROJECT NO. 16-1314
DATE START: 12/18/2017
DATE FINISH: 12/18/2017

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 10' +/- TOTAL DEPTH (FT): 82.0 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 140 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.81 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): 8 ft 12/18/2017 Soils wet 5-7' and saturated below 8'.
GENERAL NOTES: Backfilled borehole with bentonite to 22' below ground surface.

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling
▽ At Completion of Drilling
▽ After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			1D	X	0-2	24/16	5-5-6-6		Medium dense, brown-gray-black silty gravelly SAND (FILL)		
5	5		2D	X	5-7	24/8	4-1-1-1		5.5 Very loose, gray SAND and silt, some clay with shells (FILL) -naphthalene odor	▽	
0	10		3D	X	10-12	24/10	5-3-6-6		8.0 Loose, brown-black silty SAND and gravel (FILL) -petroleum sheen and naphthalene odor		
-5	15		4D	X	15-17	24/12	2-3-2-2				
-10	20		5D	X	20-22	24/13	1-2-1-1	w=31 % O=1.8%	19.0 Very loose, gray SILT and sand, trace gravel with shells, organics (Bay Mud)		
-15	25		6D	X	25-27	24/24	WOH FOR 24"	w=48.3 % O=2.9%	24.0 Medium to stiff, gray silty CLAY with sand layers/seams		
-20	30		1U	■	30-32	24/12		W _L =47 W _P =28 w=53.4 % S _v =1.05/0.27ksf S _v =1.09+ksf			
			1V	■	32-32.7	8					
			1V	■	32.7- 33.4	8					
-25	35										

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: B-1004



BORING LOG

CLIENT: Woodard & Curran
 PROJECT: Proposed IMT West Cold Storage Facility
 LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B-1004**
 SHEET: 2 of 2
 PROJECT NO. 16-1314
 DATE START: 12/18/2017
 DATE FINISH: 12/18/2017

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			2U		40-42	24/24					
			2V		42-						
-35	45								could not advance vane		
									Medium to stiff, gray silty CLAY with occasional sand layers		
-40	50		3U		50-52	24/24					
			3V		52-				could not advance vane		
-45	55										
-50	60		7D		60-62	24/24	3-4-2-8				
								w =25.7 %	60.5	Loose, gray silty SAND with shells and wood	
-55	65		8D		65-67	24/14	3-6-4-3				
									64.5	Medium dense to loose, gray silty medium to coarse SAND with wood and occasional silty clay seams/layers	
-60	70		9D		70-72	24/18	WOR-5-8-15				
								w =21.7 %	69.0	Medium dense, gray SAND and silt with silty clay layers	
-65	75										
-70	80		10D		80-82	24/16	5-10-9-19				
								w =21 %			
									82.0	Bottom of Exploration at 82.0 feet	

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1004**



BORING LOG

CLIENT: Woodard & Curran
PROJECT: Proposed IMT West Cold Storage Facility
LOCATION: West Commercial Street, Portland, Maine

BORING NO.: B-1005
SHEET: 1 of 2
PROJECT NO. 16-1314
DATE START: 12/19/2017
DATE FINISH: 12/19/2017

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 11' +/- TOTAL DEPTH (FT): 82.0 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 140 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.81 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): 8 ft 12/19/2017 Soils saturated below 8'

GENERAL NOTES: Backfilled borehole with bentonite to 19' below ground surface.

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling
▽ At Completion of Drilling
▽ After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
10			1D		0-2	24/16	3-6-11-18		Medium dense to very loose, brown-black silty gravelly SAND with brick (FILL) -petroleum odor and sheen below-		
5			2D		5-7	24/18	13-15-6-8				
0			3D		10-12	24/18	1-2-1-2				
-5			4D		15-17	24/7	2-1-1-3				
-10			5D		20-22	24/16	4-6-5-6	w =25.5 % O =1.2%			
-15			6D		25-27	24/1	6-4-2-2		Cobble at 24'		
-20			7D		30-32	24/5	1-1-2-3	w =38.9 % O =2.0%			
-25			1U		35-37	24/24		W _L =49 W _p =26 w =46.5 % S _v =2.05/0.31ksf S _v =1.86/0.31ksf			
			1V		37-37.5	6					
			1V		37.5-38	6					

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: B-1005



BORING LOG

CLIENT: Woodard & Curran
 PROJECT: Proposed IMT West Cold Storage Facility
 LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B-1005**
 SHEET: 2 of 2
 PROJECT NO. 16-1314
 DATE START: 12/19/2017
 DATE FINISH: 12/19/2017

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
-30									Medium to stiff, gray silty CLAY with sand layers/seams		
-35	45		2U		45-47	24/22					
			2V		47-47.5	6			W _L =54 W _P =29 w=51.1 % S _v =2.17/0.43ksf S _v =2.17/0.62ksf		
			2V'		47.5-48	6					
-40	50										
-45	55		3U		55-57	24/21					
			3V		57-57.5	6			W _L =43 W _P =24 w=41.2 % S _v =2.05/0.56ksf S _v =2.17/0.50ksf		
			3V'		57.5-58	6					
-50	60		8D		60-62	24/18	4-3-4-5		w=23 %	59.0	Loose to medium dense, gray silty fine to coarse SAND with wood and pinecones
-55	65		9D		65-67	24/16	6-7-11-15				
-60	70		10D		70-72	24/10	5-5-5-2		w=21.1 %	69.0	Loose to medium dense, gray SAND, some silt, some gravel
-65	75									75.0	Medium dense, gray silty SAND
-70	80		11D		80-82	24/18	2-5-11-13		w=21 %		
										82.0	Bottom of Exploration at 82.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1005**

KEY TO NOTES & SYMBOLS

Test Boring and Test Pit Explorations

All stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

w	-	water content, percent (dry weight basis)
q _u	-	unconfined compressive strength, kips/sq. ft. - laboratory test
S _v	-	field vane shear strength, kips/sq. ft.
L _v	-	lab vane shear strength, kips/sq. ft.
q _p	-	unconfined compressive strength, kips/sq. ft. – pocket penetrometer test
O	-	organic content, percent (dry weight basis)
W _L	-	liquid limit - Atterberg test
W _P	-	plastic limit - Atterberg test
WOH	-	advance by weight of hammer
WOM	-	advance by weight of man
WOR	-	advance by weight of rods
HYD	-	advance by force of hydraulic piston on drill
RQD	-	Rock Quality Designator - an index of the quality of a rock mass.
γ _T	-	total soil weight
γ _B	-	buoyant soil weight

Description of Proportions:

Trace:	0 to 5%
Some:	5 to 12%
"Y"	12 to 35%
And	35+%
With	Undifferentiated

Description of Stratified Soils

Parting:	0 to 1/16" thickness
Seam:	1/16" to 1/2" thickness
Layer:	1/2" to 12" thickness
Varved:	Alternating seams or layers
Occasional:	one or less per foot of thickness
Frequent:	more than one per foot of thickness

REFUSAL: Test Boring Explorations - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

REFUSAL: Test Pit Explorations - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.



APPENDIX D

Cone Penetrometer Test Data Report

PRESENTATION OF SITE INVESTIGATION RESULTS

Proposed Cold Storage Warehouse Portland, Maine

Prepared for:

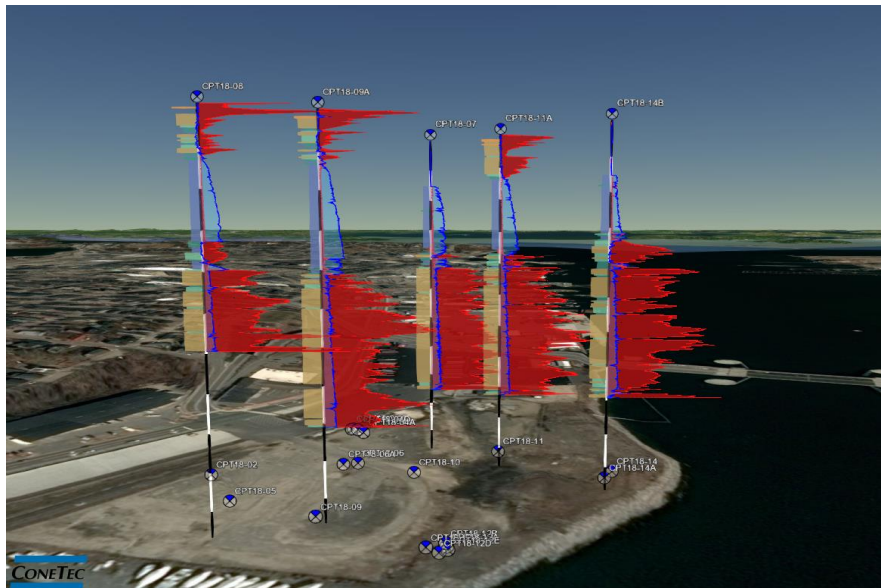
S.W. Cole Engineering

ConeTec Job No: 18-53107

Project Start Date: 18-Sep-2018

Project End Date: 21-Sep-2018

Report Date: 25-Sep-2018



Prepared by:

ConeTec Inc.
436 Commerce Lane, Unit C
West Berlin, NJ 08091

Tel: (856) 767-8600
Fax: (856) 767-4008
Toll Free: (800) 504-1116

Email: conetecNJ@conetec.com
www.conetec.com
www.conetecdataservices.com



Introduction

The enclosed report presents the results of a cone penetration testing (CPTu or CPT) program carried out at the proposed Cold Storage Warehouse site located in Portland, Maine. The site investigation program was conducted by ConeTec Inc. (ConeTec), under contract to S.W. Cole Engineering (S.W. Cole) of Gray, Maine.

A total of 25 cone penetration tests were completed at 11 locations (there were numerous shallow refusals that were offset or drilled out and then reattempted to be pushed to depth). The CPT program was performed to evaluate the subsurface soil conditions. CPT sounding locations were selected and numbered under supervision of S.W. Cole personnel (Mr. Justin Dubois).

Project Information

Project	
Client	S.W. Cole Engineering
Project	Cold Storage Warehouse, Portland, ME
ConeTec project number	18-53107

A map from CESIUM including the CPT test locations is presented below.



Rig Description	Deployment System	Test Type
CPT Truck Rig	25 ton truck mounted (twin cylinders)	CPT

Coordinates		
Test Type	Collection Method	EPSG Number
CPT	GPS (GlobalSat MR-350)	32619 (WGS 84 / UTM North)

Cone Penetration Test (CPT)	
Depth reference	Ground surface at the time of the investigation.
Tip and sleeve data offset	0.1 meter. This has been accounted for in the CPT data files.
Pore pressure dissipation (PPD) tests	Twelve pore pressure dissipation tests were completed primarily to determine the phreatic surface.
Additional Comments	None.

Cone Description	Cone Number	Cross Sectional Area (cm ²)	Sleeve Area (cm ²)	Tip Capacity (bar)	Sleeve Capacity (bar)	Pore Pressure Capacity (psi)
550:T1500F15U500	550	15	225	1500	15	500

Limitations

This report has been prepared for the exclusive use of S.W. Cole Engineering (Client) for the project titled "Cold Storage Warehouse, Portland, ME". The report's contents may not be relied upon by any other party without the express written permission of ConeTec. ConeTec has provided site investigation services, prepared the factual data reporting, and provided geotechnical parameter calculations consistent with current best practices. No other warranty, expressed or implied, is made.

The information presented in the report document and the accompanying data set pertain to the specific project, site conditions and objectives described to ConeTec by the Client. In order to properly understand the factual data, assumptions and calculations, reference must be made to the documents provided and their accompanying data sets, in their entirety.

The cone penetration tests (CPTu) are conducted using an integrated electronic piezocone penetrometer and data acquisition system manufactured by Adara Systems Ltd. of Richmond, British Columbia, Canada.

ConeTec's piezocone penetrometers are compression type designs in which the tip and friction sleeve load cells are independent and have separate load capacities. The piezocones use strain gauged load cells for tip and sleeve friction and a strain gauged diaphragm type transducer for recording pore pressure. The piezocones also have a platinum resistive temperature device (RTD) for monitoring the temperature of the sensors, an accelerometer type dual axis inclinometer and a geophone sensor for recording seismic signals. All signals are amplified down hole within the cone body and the analog signals are sent to the surface through a shielded cable.

ConeTec penetrometers are manufactured with various tip, friction and pore pressure capacities in both 10 cm² and 15 cm² tip base area configurations in order to maximize signal resolution for various soil conditions. The 15 cm² penetrometers do not require friction reducers as they have a diameter larger than the deployment rods. The 10 cm² piezocones use a friction reducer consisting of a rod adapter extension behind the main cone body with an enlarged cross sectional area (typically 44 mm diameter over a length of 32 mm with tapered leading and trailing edges) located at a distance of 585 mm above the cone tip.

The penetrometers are designed with equal end area friction sleeves, a net end area ratio of 0.8 and cone tips with a 60 degree apex angle.

All ConeTec piezocones can record pore pressure at various locations. Unless otherwise noted, the pore pressure filter is located directly behind the cone tip in the "u₂" position (ASTM Type 2). The filter is 6 mm thick, made of porous plastic (polyethylene) having an average pore size of 125 microns (90-160 microns). The function of the filter is to allow rapid movements of extremely small volumes of water needed to activate the pressure transducer while preventing soil ingress or blockage.

The piezocone penetrometers are manufactured with dimensions, tolerances and sensor characteristics that are in general accordance with the current ASTM D5778 standard. ConeTec's calibration criteria also meet or exceed those of the current ASTM D5778 standard. An illustration of the piezocone penetrometer is presented in Figure CPTu.

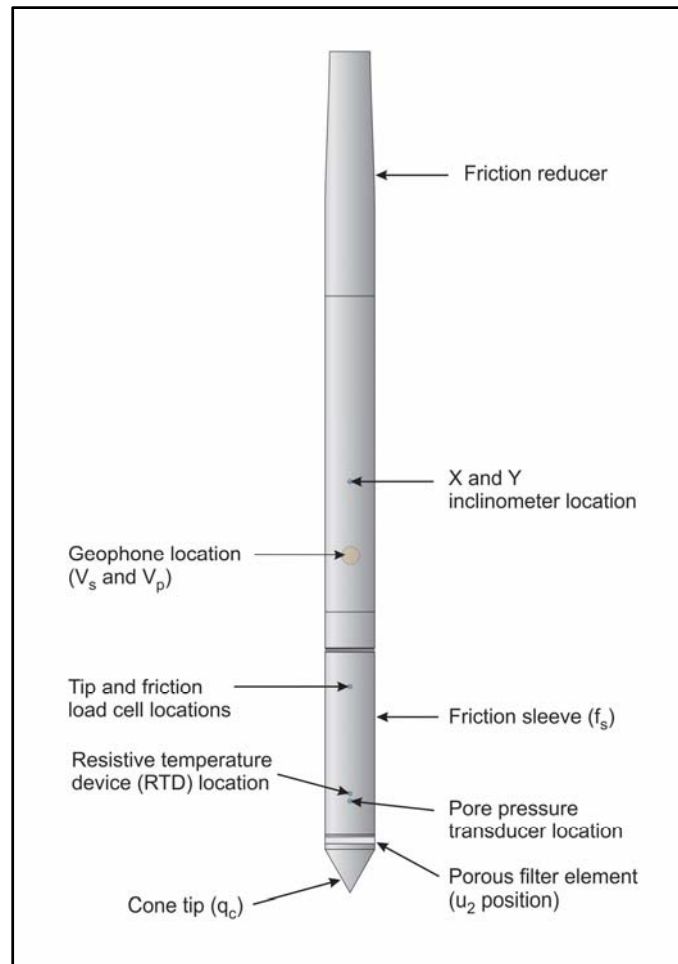


Figure CPTu. Piezocone Penetrometer (15 cm²)

The ConeTec data acquisition systems consist of a Windows based computer and a signal conditioner and power supply interface box with a 16 bit (or greater) analog to digital (A/D) converter. The data is recorded at fixed depth increments using a depth wheel attached to the push cylinders or by using a spring loaded rubber depth wheel that is held against the cone rods. The typical recording intervals are either 2.5 cm or 5.0 cm depending on project requirements; custom recording intervals are possible. The system displays the CPTu data in real time and records the following parameters to a storage media during penetration:

- Depth
- Uncorrected tip resistance (q_c)
- Sleeve friction (f_s)
- Dynamic pore pressure (u)
- Additional sensors such as resistivity, passive gamma, ultra violet induced fluorescence, if applicable

All testing is performed in accordance to ConeTec's CPT operating procedures which are in general accordance with the current ASTM D5778 standard.

Prior to the start of a CPTu sounding a suitable cone is selected, the cone and data acquisition system are powered on, the pore pressure system is saturated with either glycerin or silicone oil and the baseline readings are recorded with the cone hanging freely in a vertical position.

The CPTu is conducted at a steady rate of 2 cm/s, within acceptable tolerances. Typically one meter length rods with an outer diameter of 1.5 inches are added to advance the cone to the sounding termination depth. After cone retraction final baselines are recorded.

Additional information pertaining to ConeTec's cone penetration testing procedures:

- Each filter is saturated in silicone oil or glycerin under vacuum pressure prior to use
- Recorded baselines are checked with an independent multi-meter
- Baseline readings are compared to previous readings
- Soundings are terminated at the client's target depth or at a depth where an obstruction is encountered, excessive rod flex occurs, excessive inclination occurs, equipment damage is likely to take place, or a dangerous working environment arises
- Differences between initial and final baselines are calculated to ensure zero load offsets have not occurred and to ensure compliance with ASTM standards

The interpretation of piezocone data for this report is based on the corrected tip resistance (q_t), sleeve friction (f_s) and pore water pressure (u). The interpretation of soil type is based on the correlations developed by Robertson (1990) and Robertson (2009). It should be noted that it is not always possible to accurately identify a soil type based on these parameters. In these situations, experience, judgment and an assessment of other parameters may be used to infer soil behavior type.

The recorded tip resistance (q_c) is the total force acting on the piezocone tip divided by its base area. The tip resistance is corrected for pore pressure effects and termed corrected tip resistance (q_t) according to the following expression presented in Robertson et al, 1986:

$$q_t = q_c + (1-a) \cdot u_2$$

where: q_t is the corrected tip resistance

q_c is the recorded tip resistance

u_2 is the recorded dynamic pore pressure behind the tip (u_2 position)

a is the Net Area Ratio for the piezocone (0.8 for ConeTec probes)

The sleeve friction (f_s) is the frictional force on the sleeve divided by its surface area. As all ConeTec piezocones have equal end area friction sleeves, pore pressure corrections to the sleeve data are not required.

The dynamic pore pressure (u) is a measure of the pore pressures generated during cone penetration. To record equilibrium pore pressure, the penetration must be stopped to allow the dynamic pore pressures to stabilize. The rate at which this occurs is predominantly a function of the permeability of the soil and the diameter of the cone.

The friction ratio (R_f) is a calculated parameter. It is defined as the ratio of sleeve friction to the tip resistance expressed as a percentage. Generally, saturated cohesive soils have low tip resistance, high

friction ratios and generate large excess pore water pressures. Cohesionless soils have higher tip resistances, lower friction ratios and do not generate significant excess pore water pressure.

A summary of the CPTu soundings along with test details and individual plots are provided in the appendices. A set of interpretation files were generated for each sounding based on published correlations and are provided in Excel format in the data release folder. Information regarding the interpretation methods used is included in an appendix.

For additional information on CPTu interpretations, refer to Robertson et al. (1986), Lunne et al. (1997), Robertson (2009), Mayne (2013, 2014) and Mayne and Peuchen (2012).

References

ASTM D5778-12, 2012, "Standard Test Method for Performing Electronic Friction Cone and Piezocone Penetration Testing of Soils", ASTM, West Conshohocken, US.

Lunne, T., Robertson, P.K. and Powell, J. J. M., 1997, "Cone Penetration Testing in Geotechnical Practice", Blackie Academic and Professional.

Mayne, P.W., 2013, "Evaluating yield stress of soils from laboratory consolidation and in-situ cone penetration tests", Sound Geotechnical Research to Practice (Holtz Volume) GSP 230, ASCE, Reston/VA: 406-420.

Mayne, P.W. and Peuchen, J., 2012, "Unit weight trends with cone resistance in soft to firm clays", Geotechnical and Geophysical Site Characterization 4, Vol. 1 (Proc. ISC-4, Pernambuco), CRC Press, London: 903-910.

Mayne, P.W., 2014, "Interpretation of geotechnical parameters from seismic piezocone tests", CPT'14 Keynote Address, Las Vegas, NV, May 2014.

Robertson, P.K., Campanella, R.G., Gillespie, D. and Greig, J., 1986, "Use of Piezometer Cone Data", Proceedings of InSitu 86, ASCE Specialty Conference, Blacksburg, Virginia.

Robertson, P.K., 1990, "Soil Classification Using the Cone Penetration Test", Canadian Geotechnical Journal, Volume 27: 151-158.

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The cone penetration test is halted at specific depths to carry out pore pressure dissipation (PPD) tests, shown in Figure PPD-1. For each dissipation test the cone and rods are decoupled from the rig and the data acquisition system measures and records the variation of the pore pressure (u) with time (t).

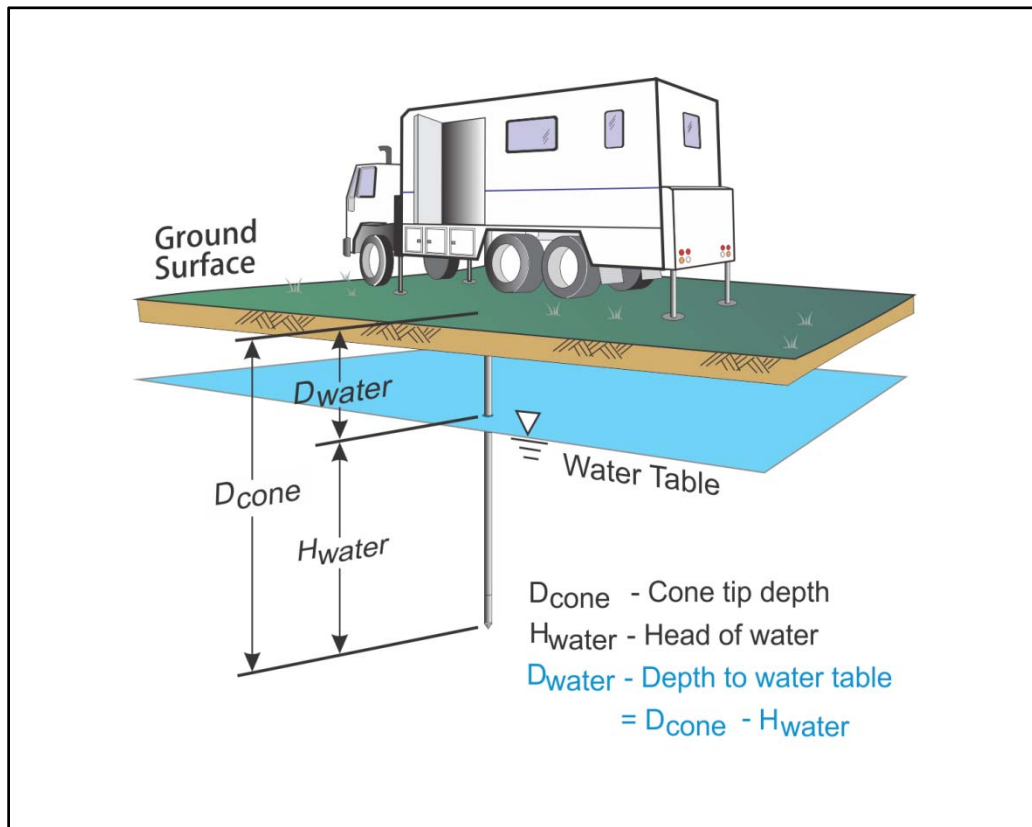


Figure PPD-1. Pore pressure dissipation test setup

Pore pressure dissipation data can be interpreted to provide estimates of ground water conditions, permeability, consolidation characteristics and soil behavior.

The typical shapes of dissipation curves shown in Figure PPD-2 are very useful in assessing soil type, drainage, in situ pore pressure and soil properties. A flat curve that stabilizes quickly is typical of a freely draining sand. Undrained soils such as clays will typically show positive excess pore pressure and have long dissipation times. Dilative soils will often exhibit dynamic pore pressures below equilibrium that then rise over time. Overconsolidated fine-grained soils will often exhibit an initial dilatory response where there is an initial rise in pore pressure before reaching a peak and dissipating.

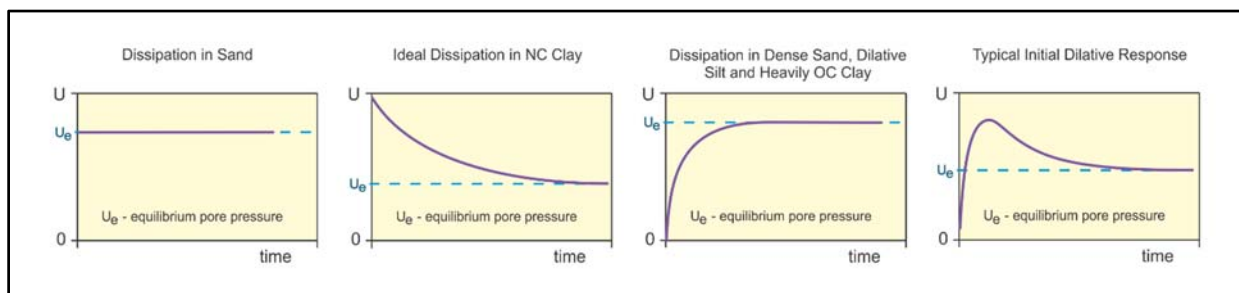


Figure PPD-2. Pore pressure dissipation curve examples

In order to interpret the equilibrium pore pressure (u_{eq}) and the apparent phreatic surface, the pore pressure should be monitored until such time as there is no variation in pore pressure with time as shown for each curve of Figure PPD-2.

In fine grained deposits the point at which 100% of the excess pore pressure has dissipated is known as t_{100} . In some cases this can take an excessive amount of time and it may be impractical to take the dissipation to t_{100} . A theoretical analysis of pore pressure dissipations by Teh and Houlsby (1991) showed that a single curve relating degree of dissipation versus theoretical time factor (T^*) may be used to calculate the coefficient of consolidation (c_h) at various degrees of dissipation resulting in the expression for c_h shown below.

$$c_h = \frac{T^* \cdot a^2 \cdot \sqrt{I_r}}{t}$$

Where:

- T^* is the dimensionless time factor (Table Time Factor)
 a is the radius of the cone
 I_r is the rigidity index
 t is the time at the degree of consolidation

Table Time Factor. T^* versus degree of dissipation (Teh and Houlsby, 1991)

Degree of Dissipation (%)	20	30	40	50	60	70	80
$T^* (u_2)$	0.038	0.078	0.142	0.245	0.439	0.804	1.60

The coefficient of consolidation is typically analyzed using the time (t_{50}) corresponding to a degree of dissipation of 50% (u_{50}). In order to determine t_{50} , dissipation tests must be taken to a pressure less than u_{50} . The u_{50} value is half way between the initial maximum pore pressure and the equilibrium pore pressure value, known as u_{100} . To estimate u_{50} , both the initial maximum pore pressure and u_{100} must be known or estimated. Other degrees of dissipations may be considered, particularly for extremely long dissipations.

At any specific degree of dissipation the equilibrium pore pressure (u at t_{100}) must be estimated at the depth of interest. The equilibrium value may be determined from one or more sources such as measuring the value directly (u_{100}), estimating it from other dissipations in the same profile, estimating the phreatic surface and assuming hydrostatic conditions, from nearby soundings, from client provided information, from site observations and/or past experience, or from other site instrumentation.

For calculations of c_h (Teh and Houlsby, 1991), t_{50} values are estimated from the corresponding pore pressure dissipation curve and a rigidity index (I_r) is assumed. For curves having an initial dilatory response in which an initial rise in pore pressure occurs before reaching a peak, the relative time from the peak value is used in determining t_{50} . In cases where the time to peak is excessive, t_{50} values are not calculated.

Due to possible inherent uncertainties in estimating I_r , the equilibrium pore pressure and the effect of an initial dilatory response on calculating t_{50} , other methods should be applied to confirm the results for c_h .

Additional published methods for estimating the coefficient of consolidation from a piezocone test are described in Burns and Mayne (1998, 2002), Jones and Van Zyl (1981), Robertson et al. (1992) and Sully et al. (1999).

A summary of the pore pressure dissipation tests and dissipation plots are presented in the relevant appendix.

References

Burns, S.E. and Mayne, P.W., 1998, "Monotonic and dilatatory pore pressure decay during piezocone tests", Canadian Geotechnical Journal 26 (4): 1063-1073.

Burns, S.E. and Mayne, P.W., 2002, "Analytical cavity expansion-critical state model cone dissipation in fine-grained soils", Soils & Foundations, Vol. 42(2): 131-137.

Jones, G.A. and Van Zyl, D.J.A., 1981, "The piezometer probe: a useful investigation tool", Proceedings, 10th International Conference on Soil Mechanics and Foundation Engineering, Vol. 3, Stockholm: 489-495.

Robertson, P.K., Sully, J.P., Woeller, D.J., Lunne, T., Powell, J.J.M. and Gillespie, D.G., 1992, "Estimating coefficient of consolidation from piezocone tests", Canadian Geotechnical Journal, 29(4): 551-557.

Sully, J.P., Robertson, P.K., Campanella, R.G. and Woeller, D.J., 1999, "An approach to evaluation of field CPTU dissipation data in overconsolidated fine-grained soils", Canadian Geotechnical Journal, 36(2): 369-381.

Teh, C.I., and Houlsby, G.T., 1991, "An analytical study of the cone penetration test in clay", Geotechnique, 41(1): 17-34.

The appendices listed below are included in the report:

- Cone Penetration Test Summary and Standard Cone Penetration Test Plots
- Advanced Cone Penetration Test Plots
- Pore Pressure Dissipation Summary and Pore Pressure Dissipation Plots

Cone Penetration Test Summary and Standard Cone Penetration Test Plots



Job No: 18-53107
Client: S.W. Cole Engineering
Project: Cold Storage Warehouse, Portland, ME
Start Date: 18-Sep-2018
End Date: 21-Sep-2018

CONE PENETRATION TEST SUMMARY

Sounding ID	File Name	Date	Cone	Assumed Phreatic Surface ¹ (ft)	Final Depth (ft)	Northing ² (m)	Easting (m)	Refer to Notation Number
CPT18-02	18-53107_CP02	9/19/2018	550:T1500F15U500	9.9	74.97	4833219	398173	
CPT18-04	18-53107_CP04	9/19/2018	550:T1500F15U500		3.94	4833244	398243	5
CPT18-04A	18-53107_CP04A	9/19/2018	550:T1500F15U500	5.4	19.44	4833237	398244	3
CPT18-04B	18-53107_CP04B	9/20/2018	550:T1500F15U500	5.4	19.36	4833244	398242	4
CPT18-04C	18-53107_CP04C	9/21/2018	550:T1500F15U500	5.4	20.10	4833242	398244	4
CPT18-04D	18-53107_CP04D	9/21/2018	550:T1500F15U500	5.4	21.00	4833242	398244	4
CPT18-05	18-53107_CP05	9/21/2018	550:T1500F15U500	8.3	78.82	4833191	398170	
CPT18-06	18-53107_CP06	9/19/2018	550:T1500F15U500	8.5	81.45	4833201	398222	4
CPT18-06A	18-53107_CP06A	9/21/2018	550:T1500F15U500	8.5	73.41	4833203	398217	
CPT18-07	18-53107_CP07	9/20/2018	550:T1500F15U500	6.1	139.84	4833210	398261	
CPT18-08	18-53107_CP08	9/21/2018	550:T1500F15U500	7.5	97.28	4833171	398158	
CPT18-09	18-53107_CP09	9/18/2018	550:T1500F15U500	7.3	8.12	4833163	398187	3
CPT18-09A	18-53107_CP09A	9/18/2018	550:T1500F15U500	7.3	132.54	4833162	398190	3
CPT18-10	18-53107_CP10	9/20/2018	550:T1500F15U500	9.4	89.16	4833181	398234	
CPT18-11	18-53107_CP11	9/18/2018	550:T1500F15U500	5.1	17.80	4833184	398275	4
CPT18-11A	18-53107_CP11A	9/18/2018	550:T1500F15U500	5.1	135.01	4833176	398269	
CPT18-12	18-53107_CP12	9/18/2018	550:T1500F15U500		4.59	4833126	398203	5
CPT18-12A	18-53107_CP12A	9/18/2018	550:T1500F15U500	5.2	14.93	4833123	398208	4
CPT18-12B	18-53107_CP12B	9/20/2018	550:T1500F15U500	5.2	8.86	4833125	398209	4
CPT18-12C	18-53107_CP12C	9/20/2018	550:T1500F15U500	5.2	89.89	4833125	398209	
CPT18-12D	18-53107_CP12D	9/20/2018	550:T1500F15U500	5.2	9.84	4833121	398204	4
CPT18-12E	18-53107_CP12E	9/21/2018	550:T1500F15U500	5.2	25.10	4833121	398207	4
CPT18-14	18-53107_CP14	9/18/2018	550:T1500F15U500		2.30	4833140	398292	5

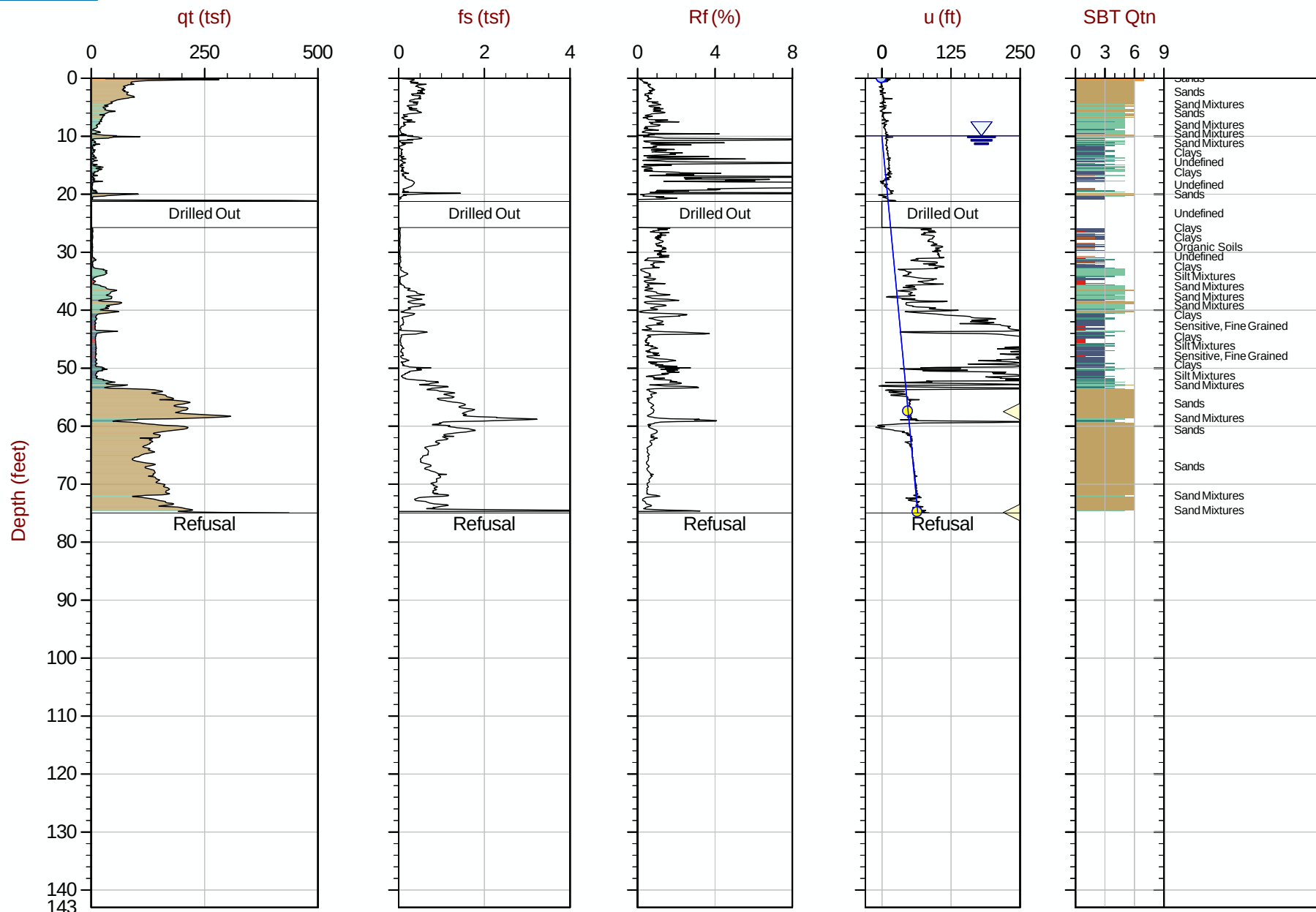


Job No: 18-53107
Client: S.W. Cole Engineering
Project: Cold Storage Warehouse, Portland, ME
Start Date: 18-Sep-2018
End Date: 21-Sep-2018

CONE PENETRATION TEST SUMMARY

Sounding ID	File Name	Date	Cone	Assumed Phreatic Surface ¹ (ft)	Final Depth (ft)	Northing ² (m)	Easting (m)	Refer to Notation Number
CPT18-14A	18-53107_CP14A	9/18/2018	550:T1500F15U500		2.13	4833137	398285	5
CPT18-14B	18-53107_CP14B	9/20/2018	550:T1500F15U500	7.4	129.76	4833133	398281	
Totals	25 soundings				1299.61			

1. Assumed phreatic surface depths were determined from the pore pressure data unless otherwise noted. Hydrostatic data were used for calculated parameters.
2. Coordinates are WGS 84 / UTM Zone 19 and were collected using a MR-350 GlobalSat GPS Receiver.
3. Assumed phreatic surface estimated from the dynamic pore pressure response.
4. Assumed phreatic surface estimated from an adjacent CPT dynamic pore pressure response or a PPD test.
5. No phreatic surface detected.



Max Depth: 22.850 m / 74.97 ft

Depth Inc: 0.025 m / 0.082 ft

Avg Int: Every Point

File: 18-53107_CP02.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833219m E: 398173m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

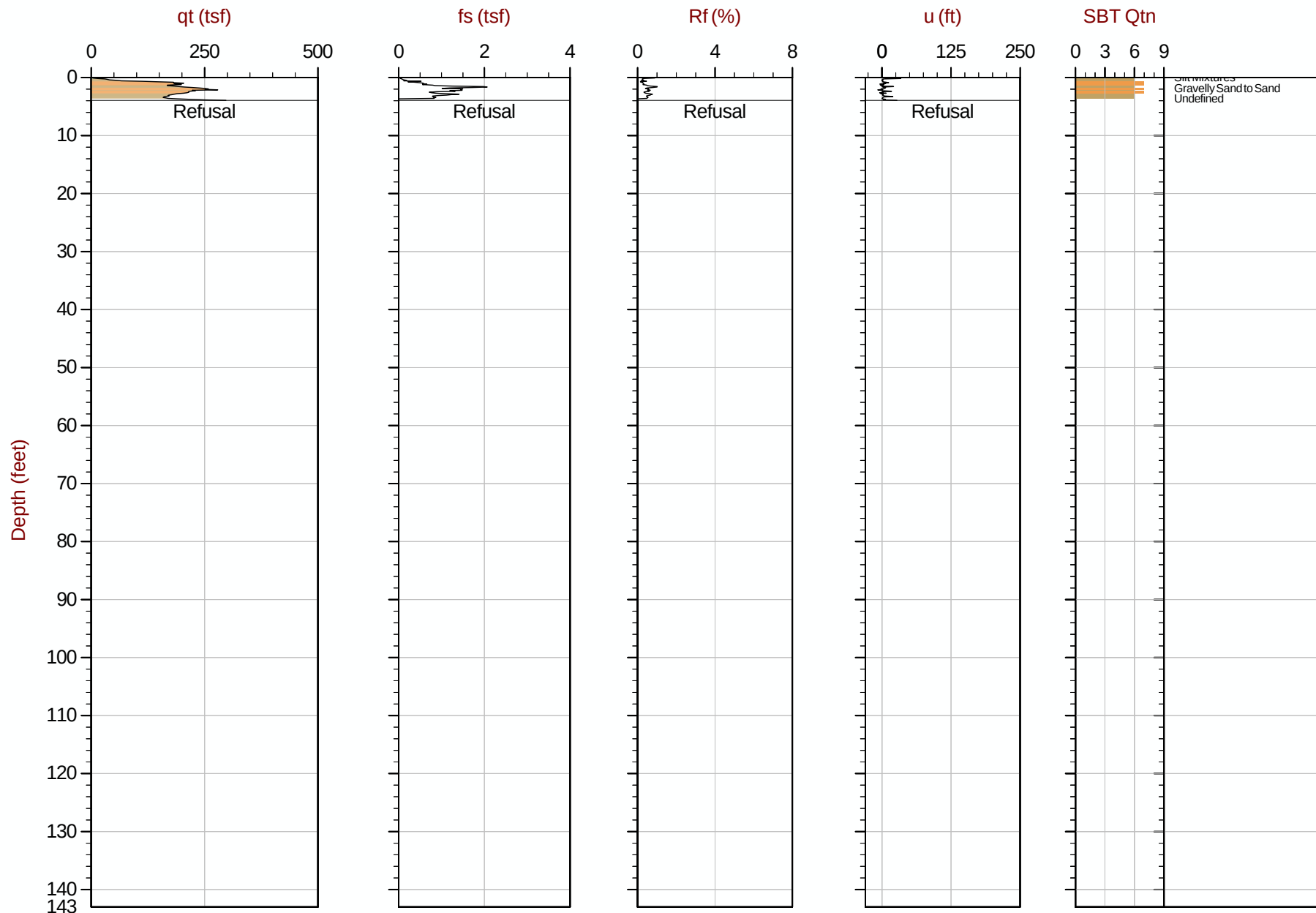
Job No: 18-53107

Date: 2018-09-19 19:58

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-04

Cone: 550:T1500F15U500



Max Depth: 1.200 m / 3.94 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP04.COR

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833244m E: 398243m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

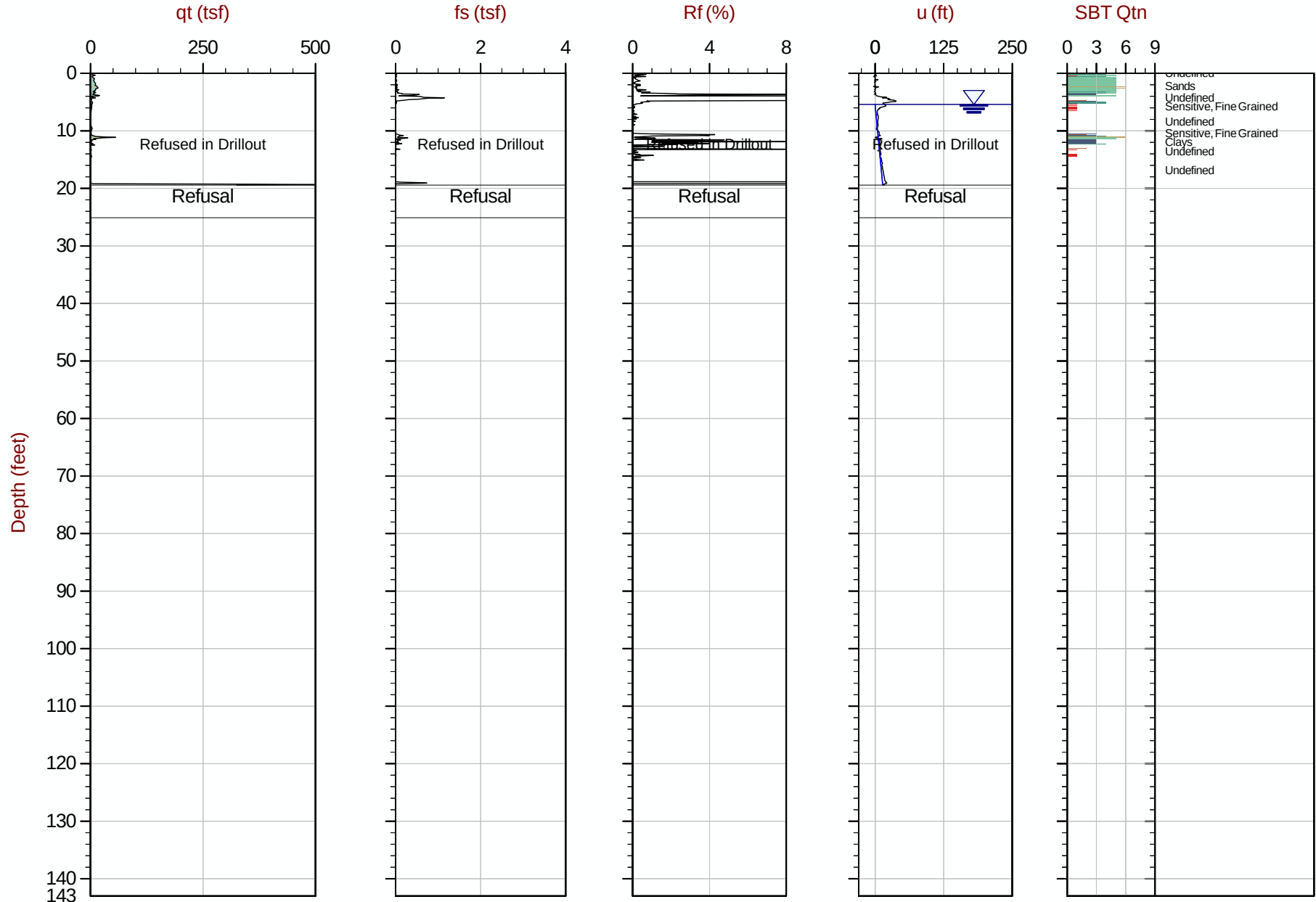
Job No: 18-53107

Date: 2018-09-19 22:47

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-04A

Cone: 550:T1500F15U500



Max Depth: 5.925 m / 19.44 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP04A.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833237m E: 398244m

Hydrostatic Line ● Ueq ● Assumed Ueq ▲ PPD, Ueq achieved ▲ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

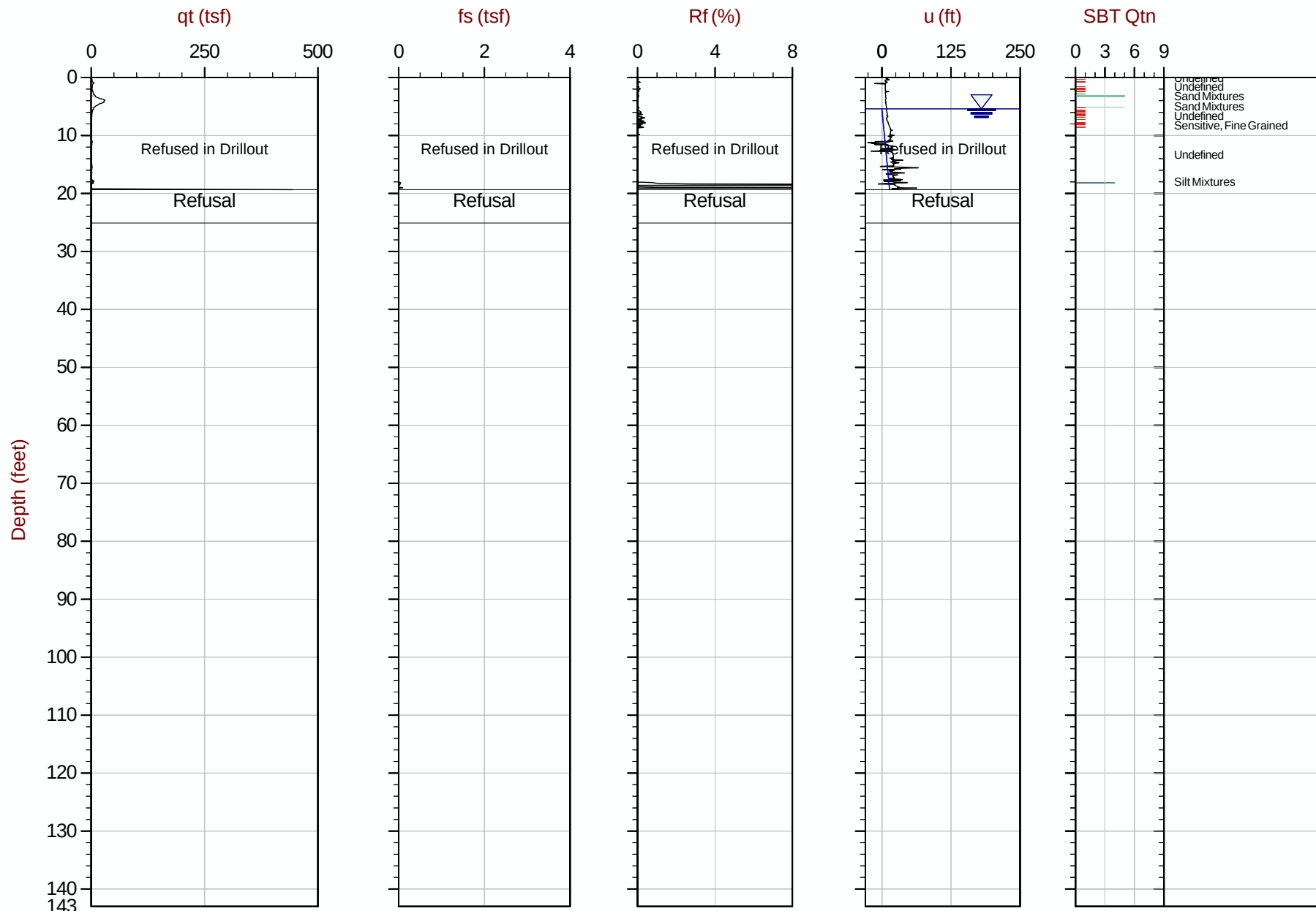
Job No: 18-53107

Date: 2018-09-20 13:35

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-04B

Cone: 550:T1500F15U500



Max Depth: 5.900 m / 19.36 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP04B.COR

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833244m E: 398242m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

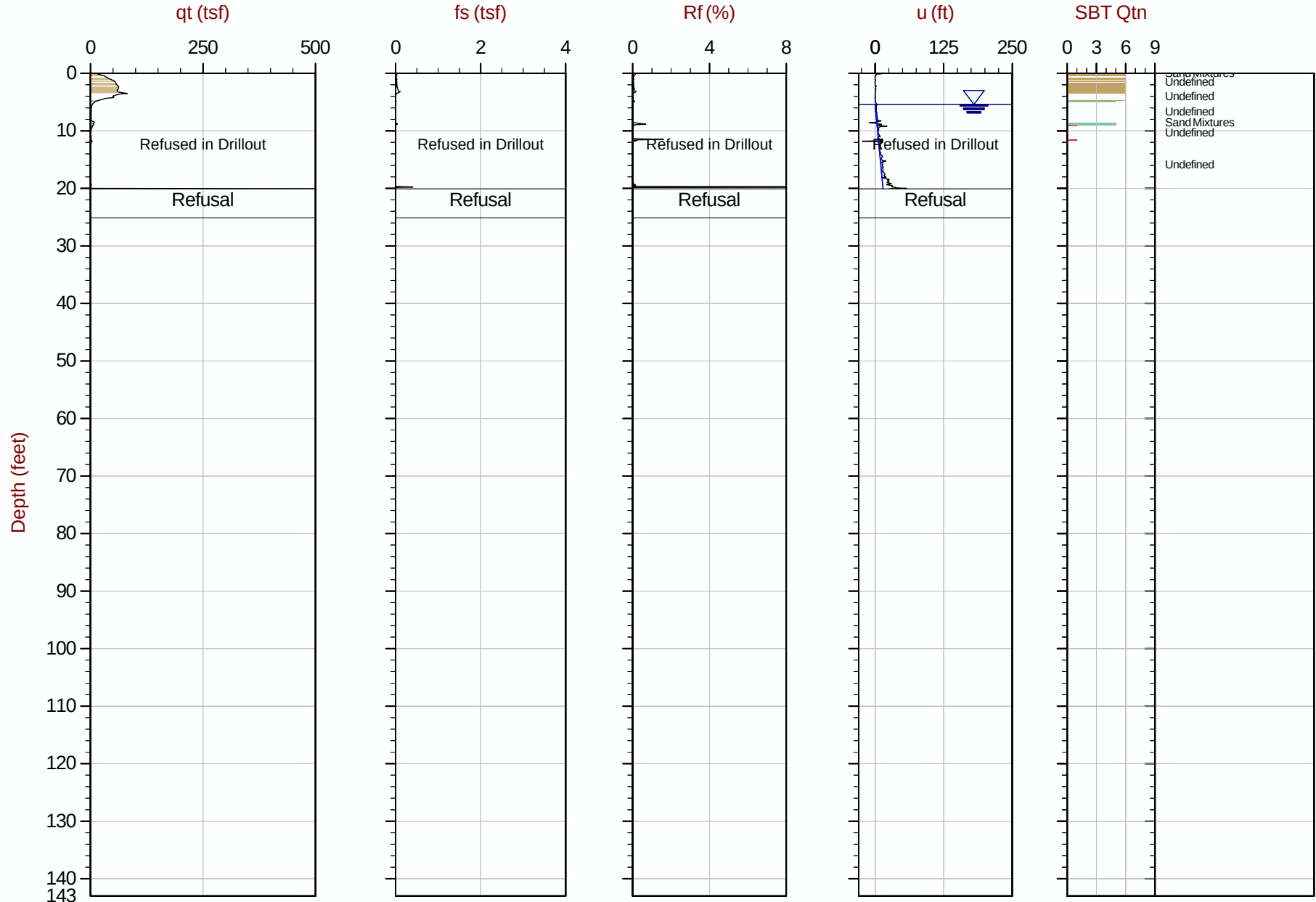
Job No: 18-53107

Date: 2018-09-21 10:24

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-04C

Cone: 550:T1500F15U500



Max Depth: 6.125 m / 20.09 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP04C.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833242m E: 398244m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

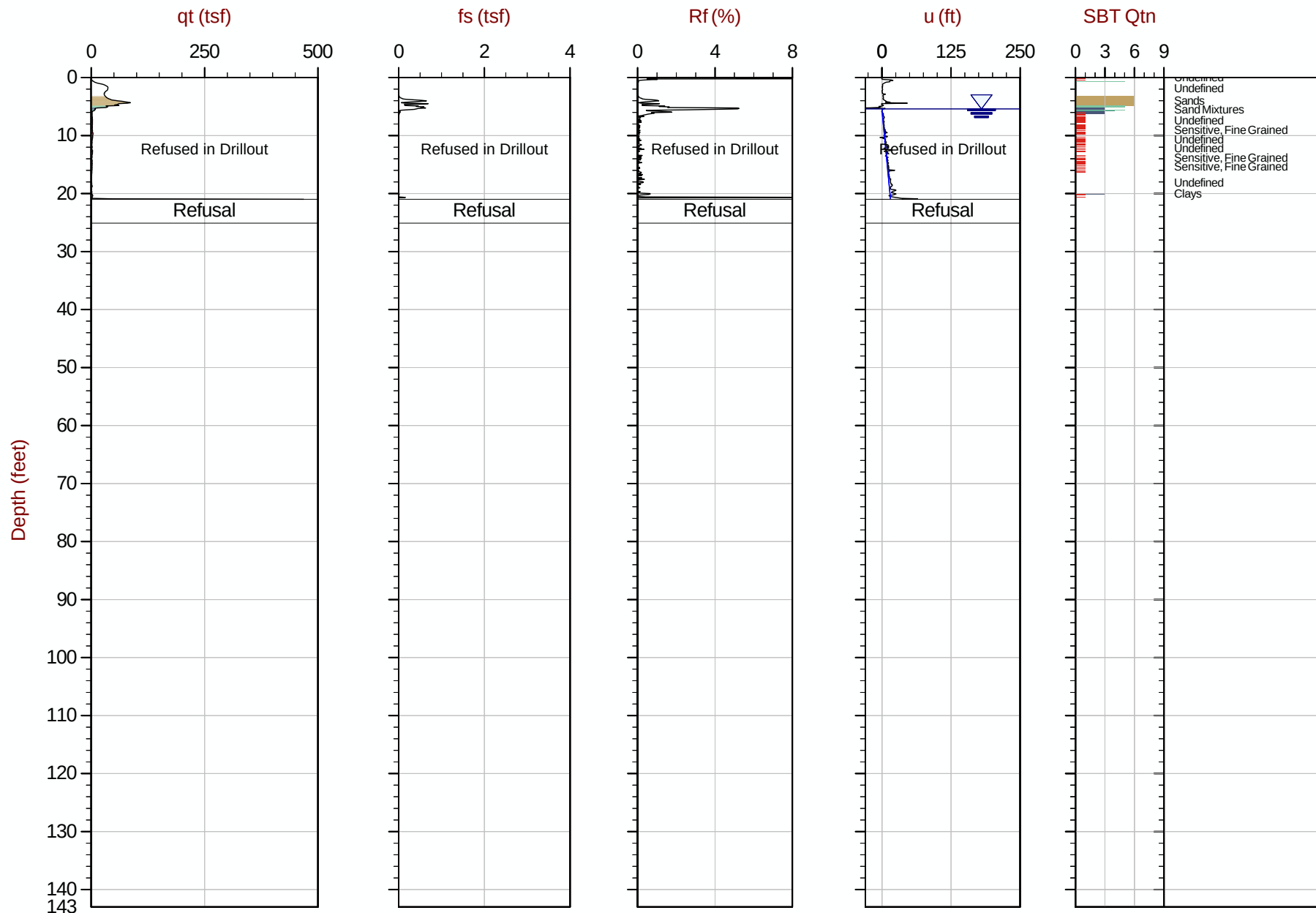
Job No: 18-53107

Date: 2018-09-21 11:13

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-04D

Cone: 550:T1500F15U500



Max Depth: 6.400 m / 21.00 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP04D.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833242m E: 398244m

Hydrostatic Line ● Ueq ● Assumed Ueq ▲ PPD, Ueq achieved ▲ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

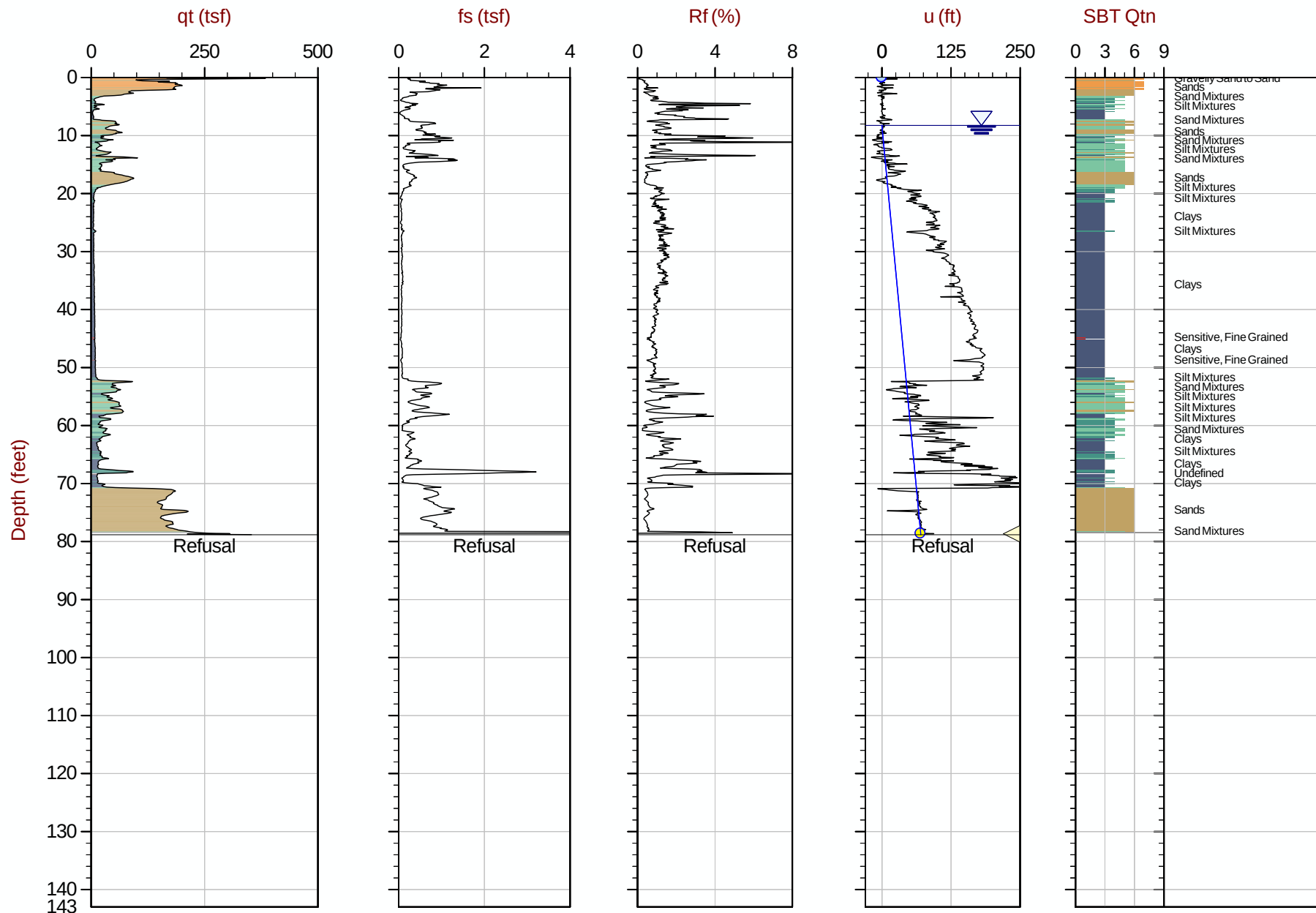
Job No: 18-53107

Date: 2018-09-21 13:14

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-05

Cone: 550:T1500F15U500



Max Depth: 24.025 m / 78.82 ft

Depth Inc: 0.025 m / 0.082 ft

Avg Int: EveryPoint

File: 18-53107_CP05.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833191m E: 398170m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

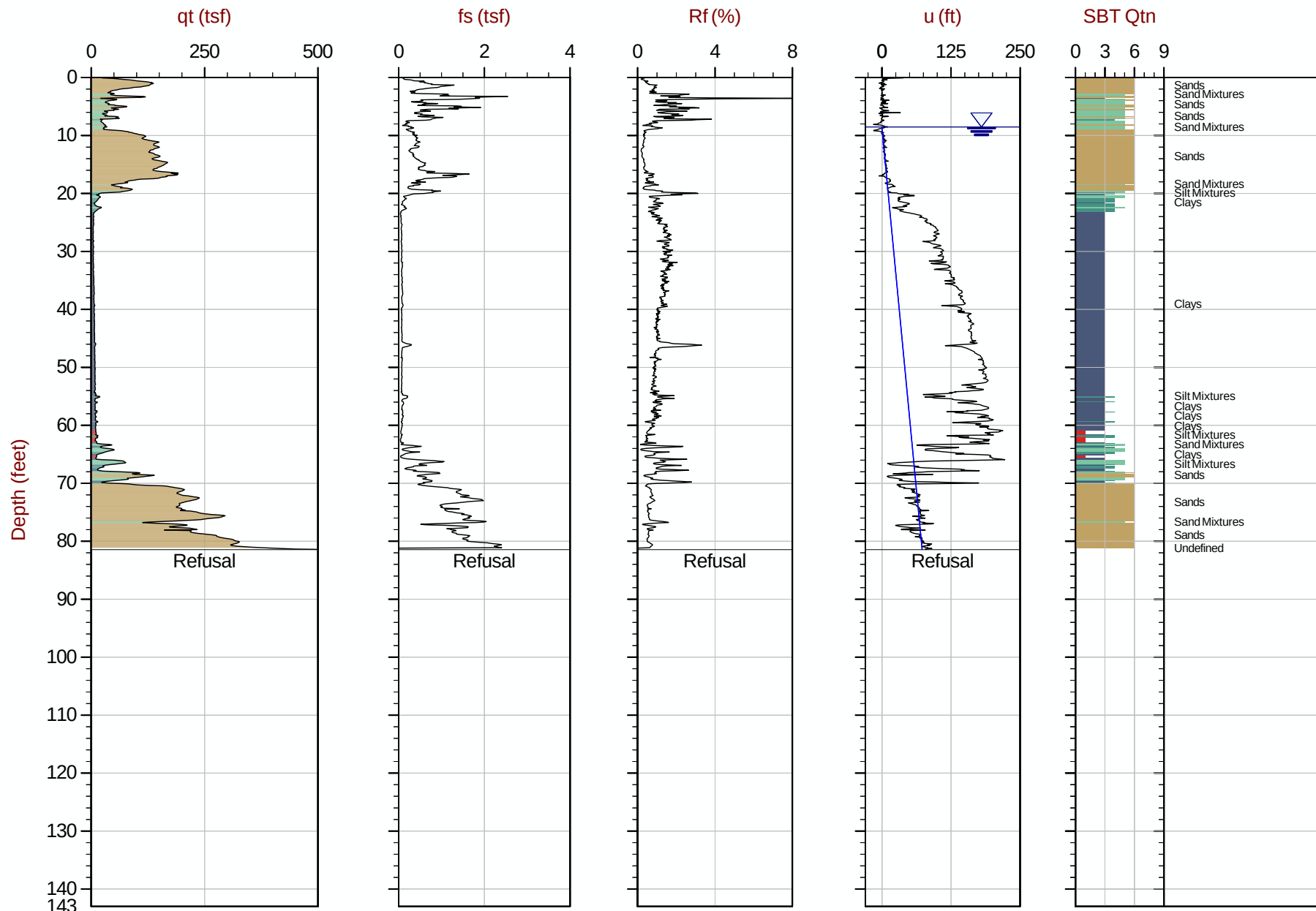
Job No: 18-53107

Date: 2018-09-19 20:48

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-06

Cone: 550:T1500F15U500



Max Depth: 24.825 m / 81.45 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP06.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833201m E: 398222m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

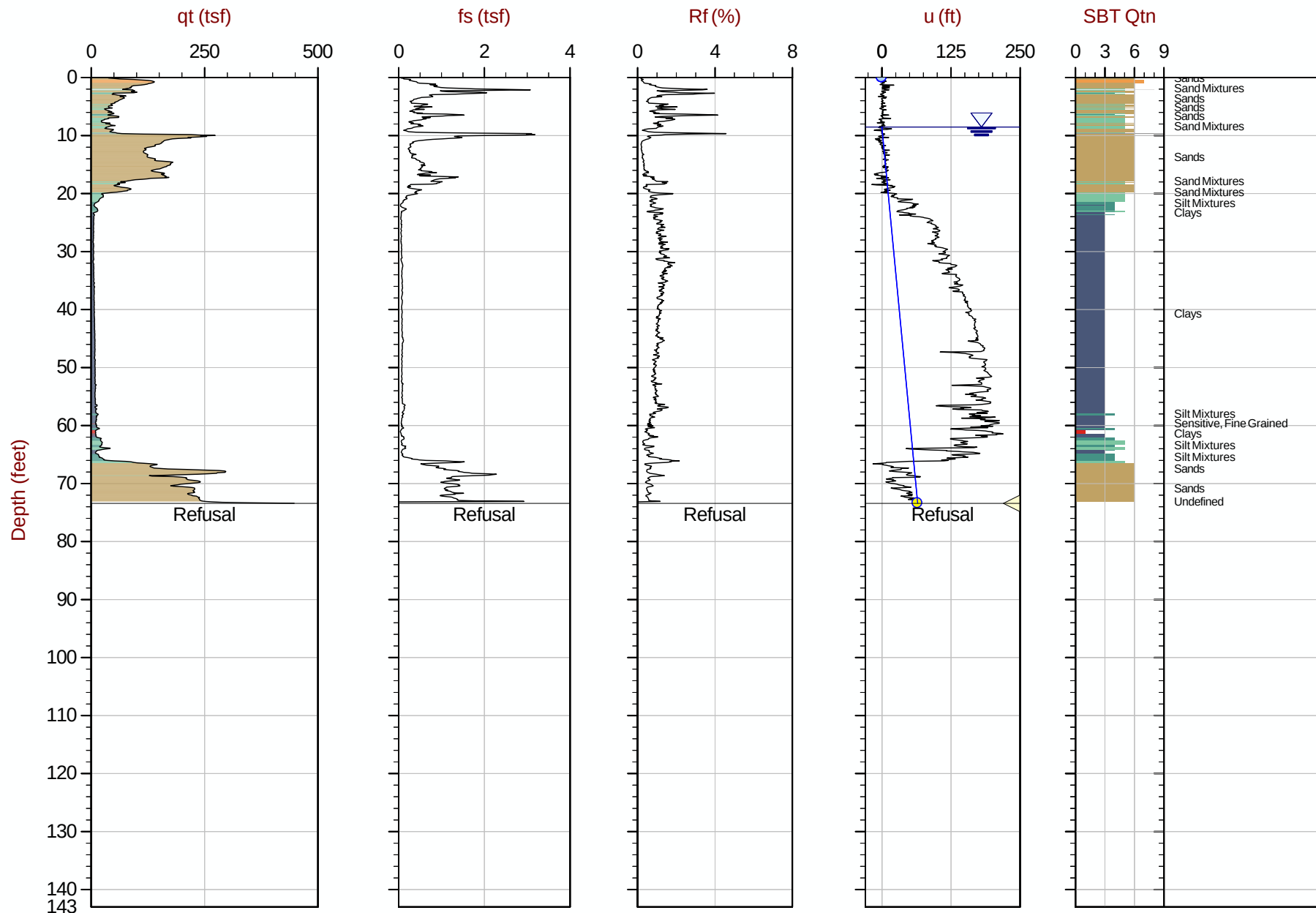
Job No: 18-53107

Date: 2018-09-21 08:17

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-06A

Cone: 550:T1500F15U500



Max Depth: 22.375 m / 73.41 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP06A.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833203m E: 398217m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ▶ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

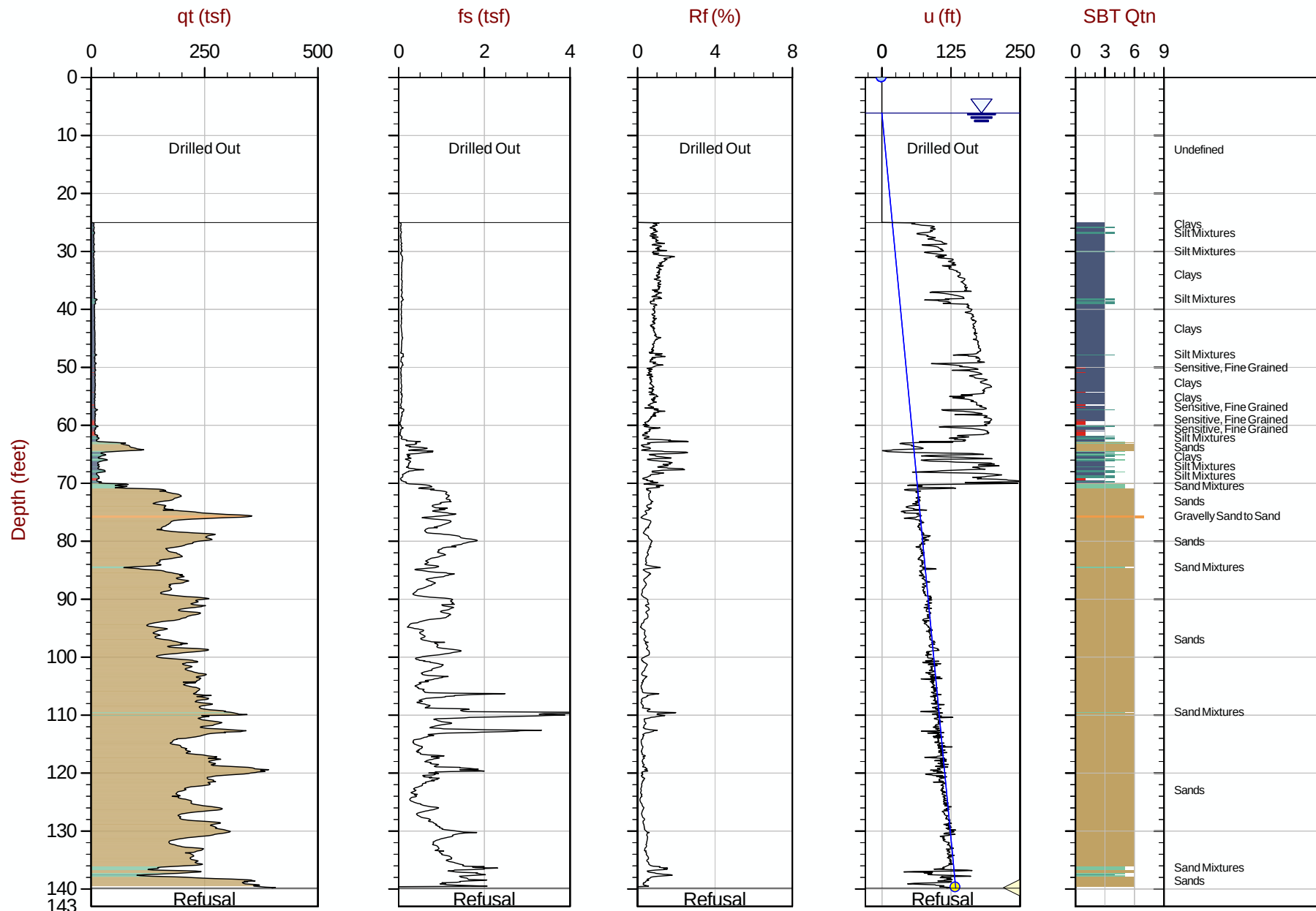
Job No: 18-53107

Date: 2018-09-20 14:41

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-07

Cone: 550:T1500F15U500



Max Depth: 42.625 m / 139.84 ft

Depth Inc: 0.025 m / 0.082 ft

Avg Int: EveryPoint

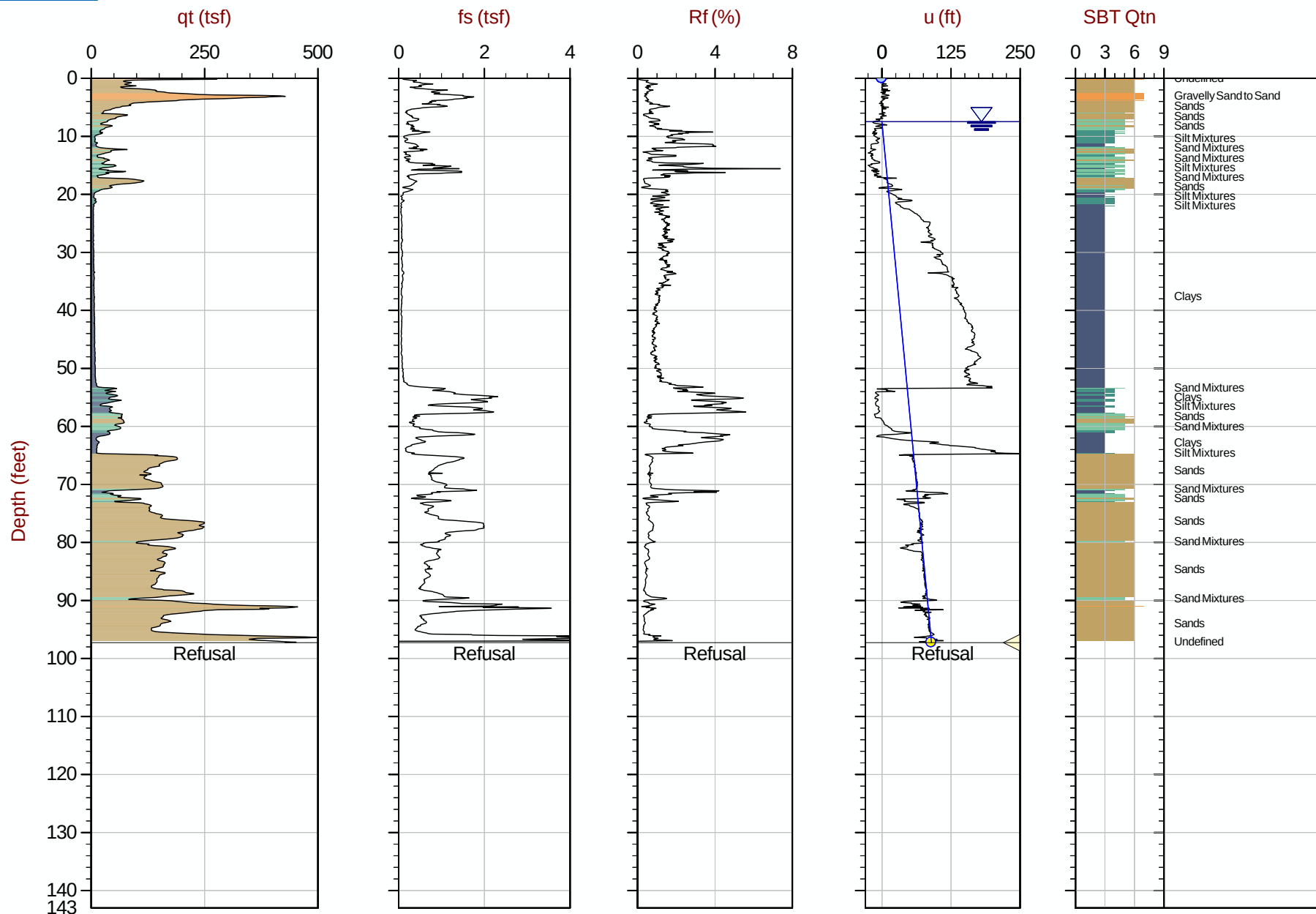
File: 18-53107_CP07.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833210m E: 398261m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Max Depth: 29.650 m / 97.28 ft

Depth Inc: 0.025 m / 0.082 ft

Avg Int: Every Point

File: 18-53107_CP08.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833171m E: 398158m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

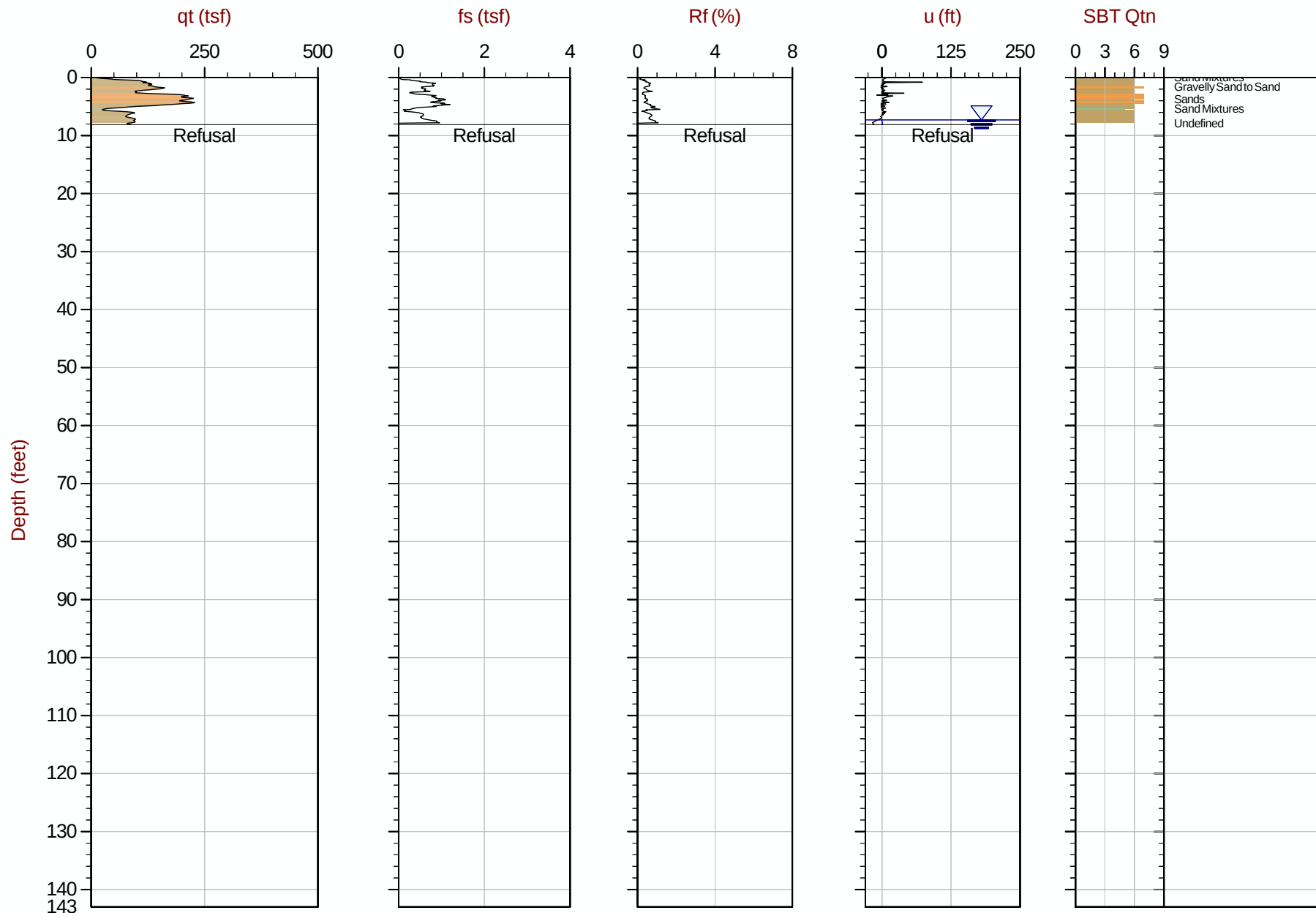
Job No: 18-53107

Date: 2018-09-18 13:58

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-09

Cone: 550:T1500F15U500



Max Depth: 2.475 m / 8.12 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP09.COR

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833163m E: 398187m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

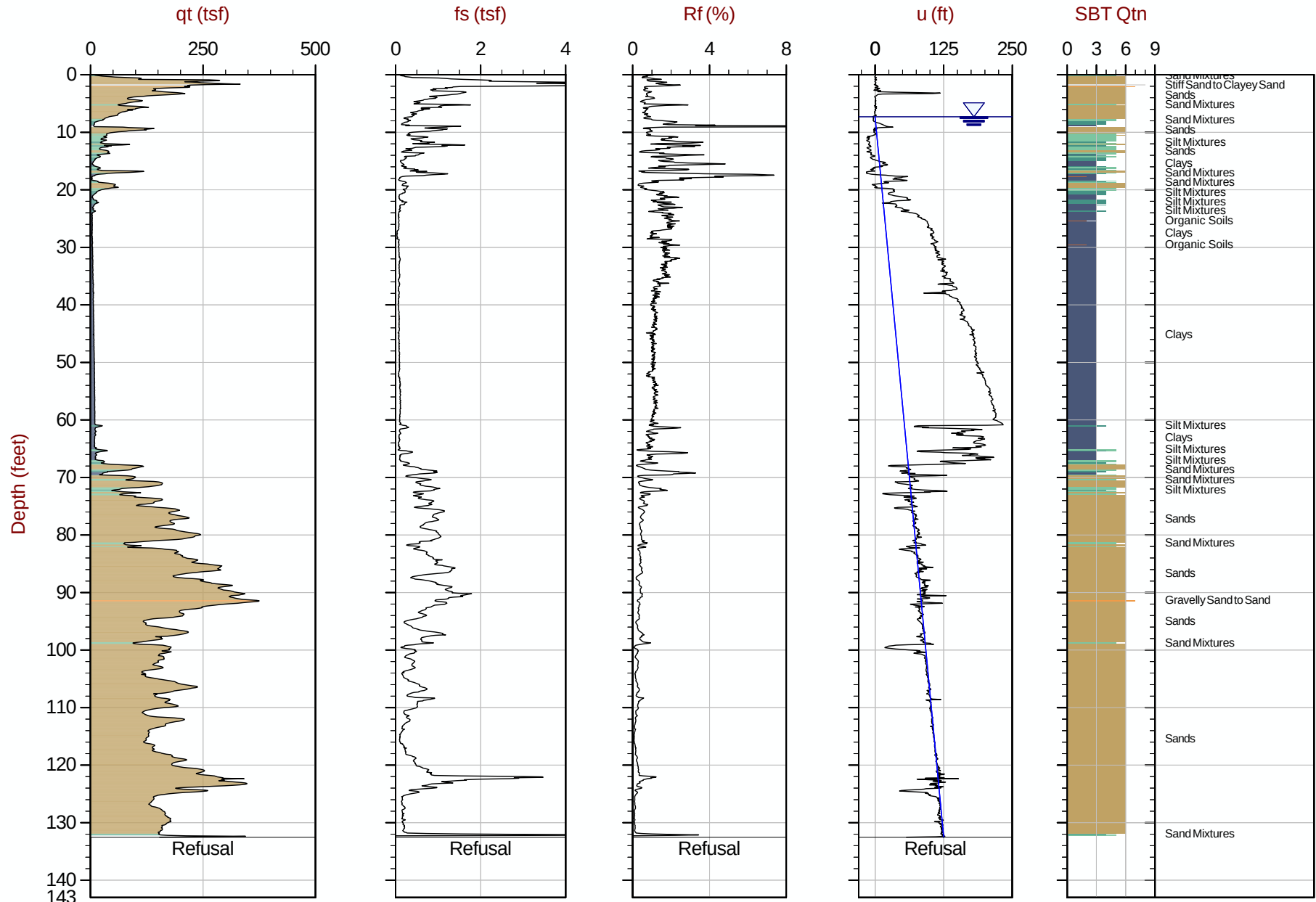
Job No: 18-53107

Date: 2018-09-18 14:11

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-09A

Cone: 550:T1500F15U500



Max Depth: 40.400 m / 132.54 ft

Depth Inc: 0.025 m / 0.082 ft

Avg Int: EveryPoint

File: 18-53107_CP09A.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833162m E: 398190m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

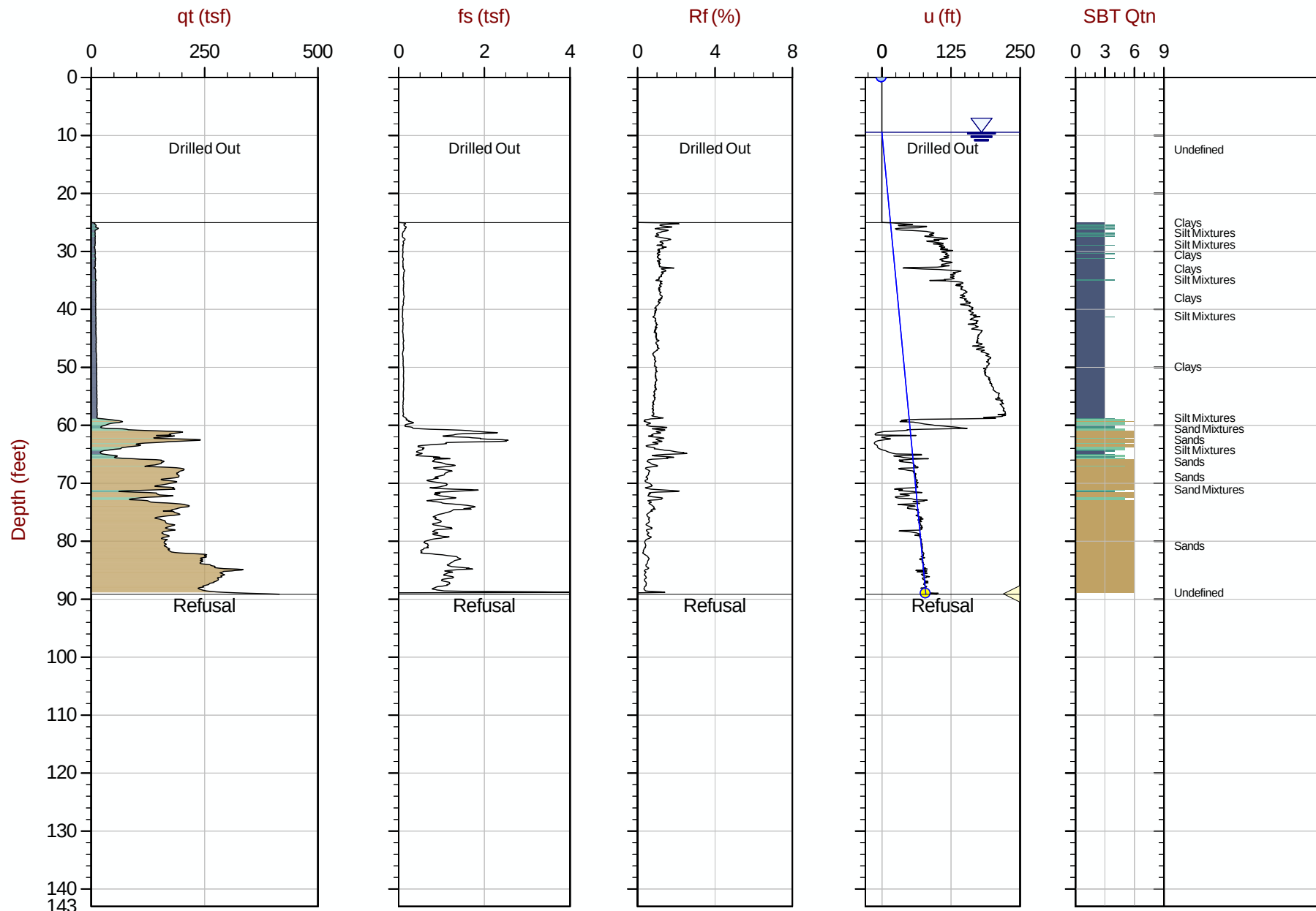
Job No: 18-53107

Date: 2018-09-20 11:42

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-10

Cone: 550:T1500F15U500



Max Depth: 27.175 m / 89.16 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP10.COR

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833181m E: 398234m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

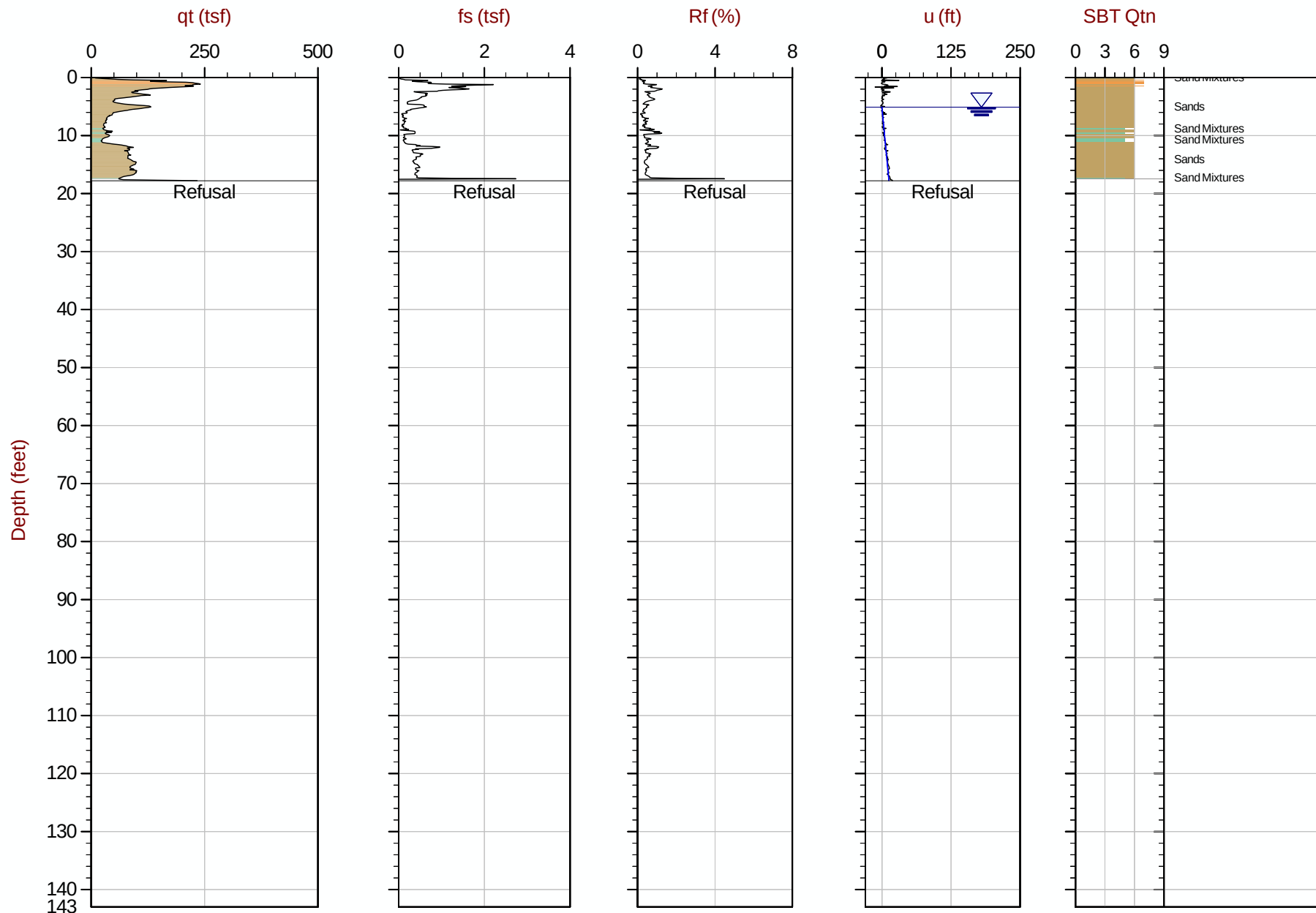
Job No: 18-53107

Date: 2018-09-18 09:37

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-11

Cone: 550:T1500F15U500



Max Depth: 5.425 m / 17.80 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

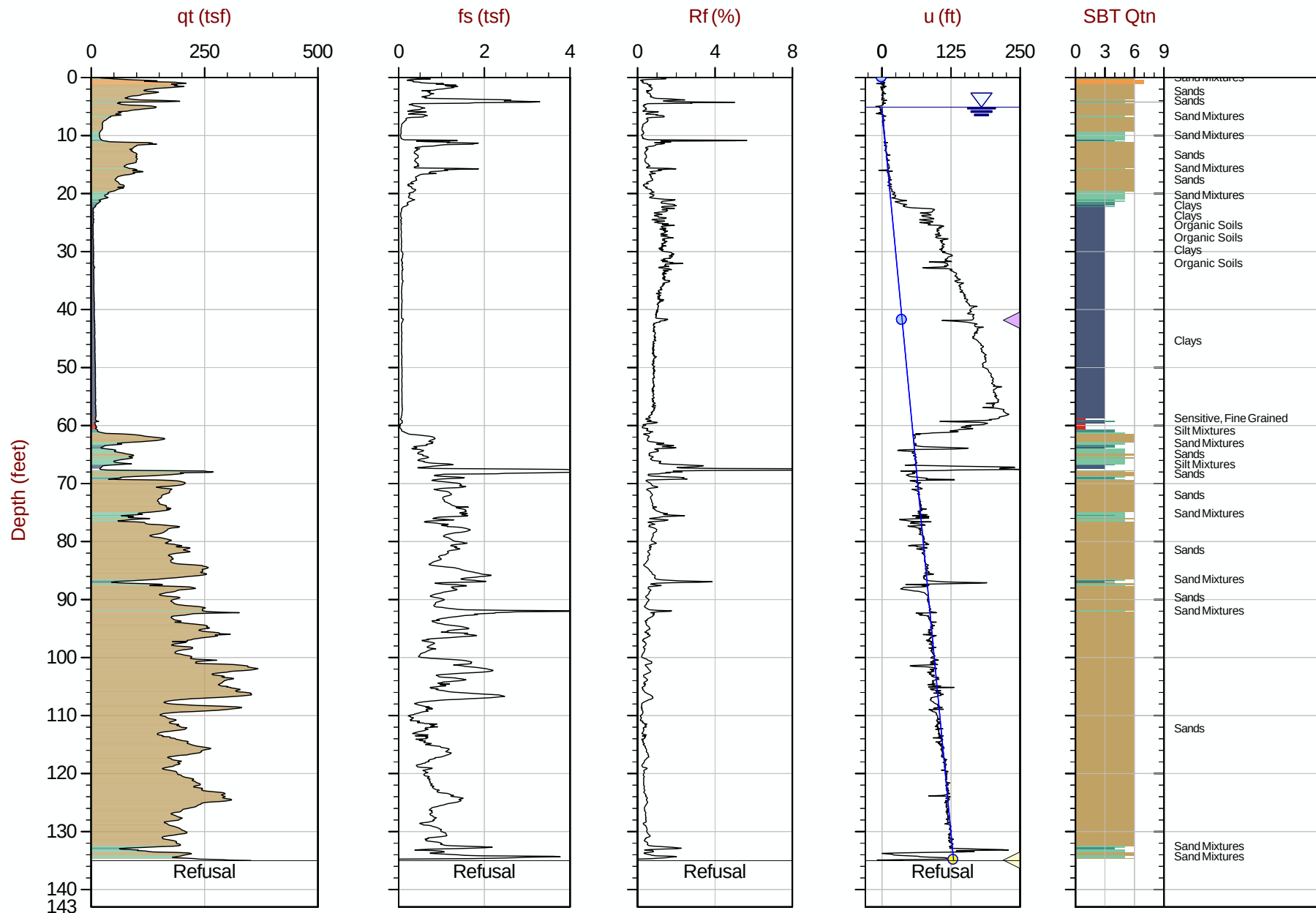
File: 18-53107_CP11.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833184m E: 398275m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Max Depth: 41.150 m / 135.00 ft

Depth Inc: 0.025 m / 0.082 ft

Avg Int: Every Point

File: 18-53107_CP11A.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833176m E: 398269m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

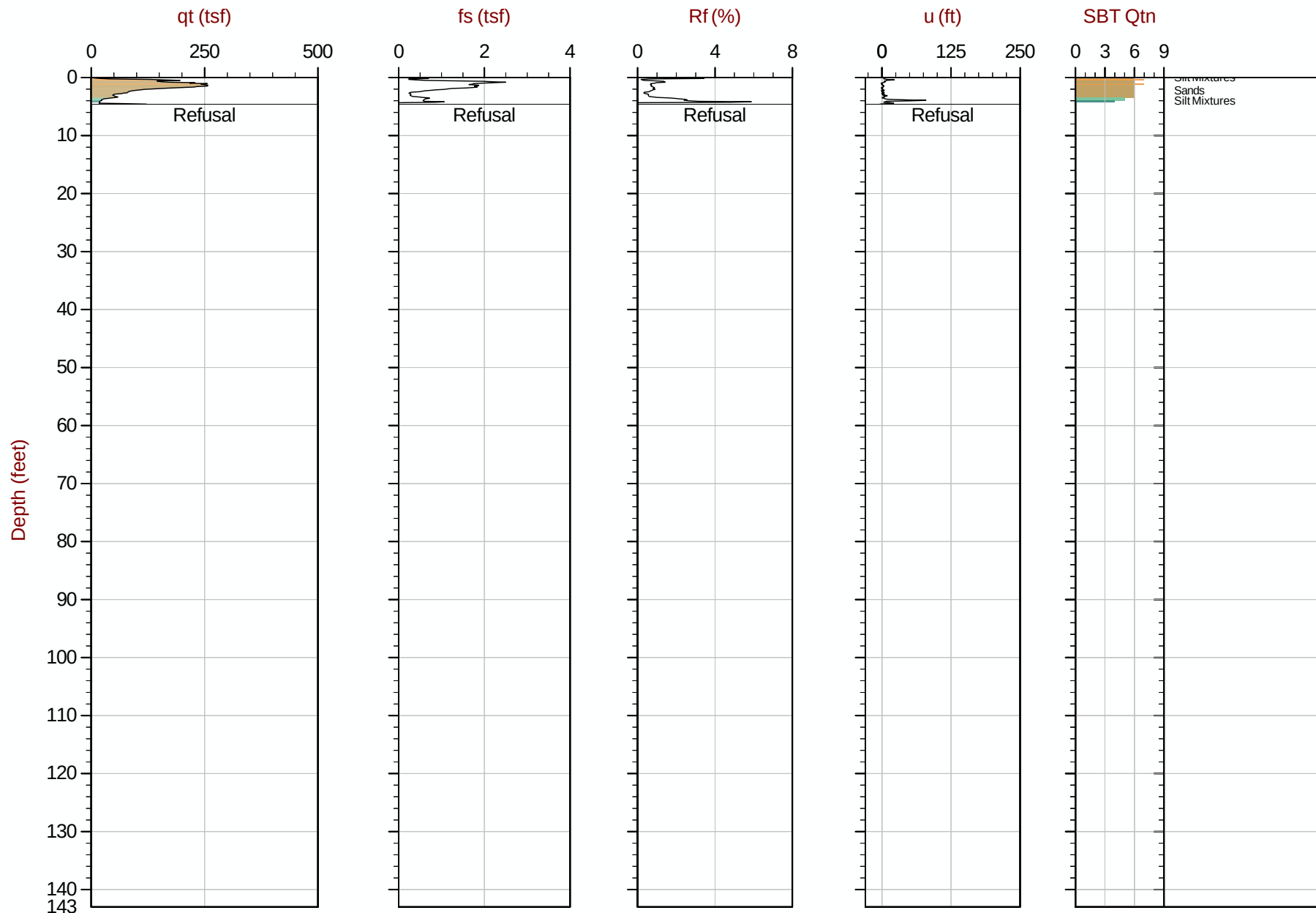
Job No: 18-53107

Date: 2018-09-18 08:04

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-12

Cone: 550:T1500F15U500



Max Depth: 1.400 m / 4.59 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP12.COR

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833126m E: 398203m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

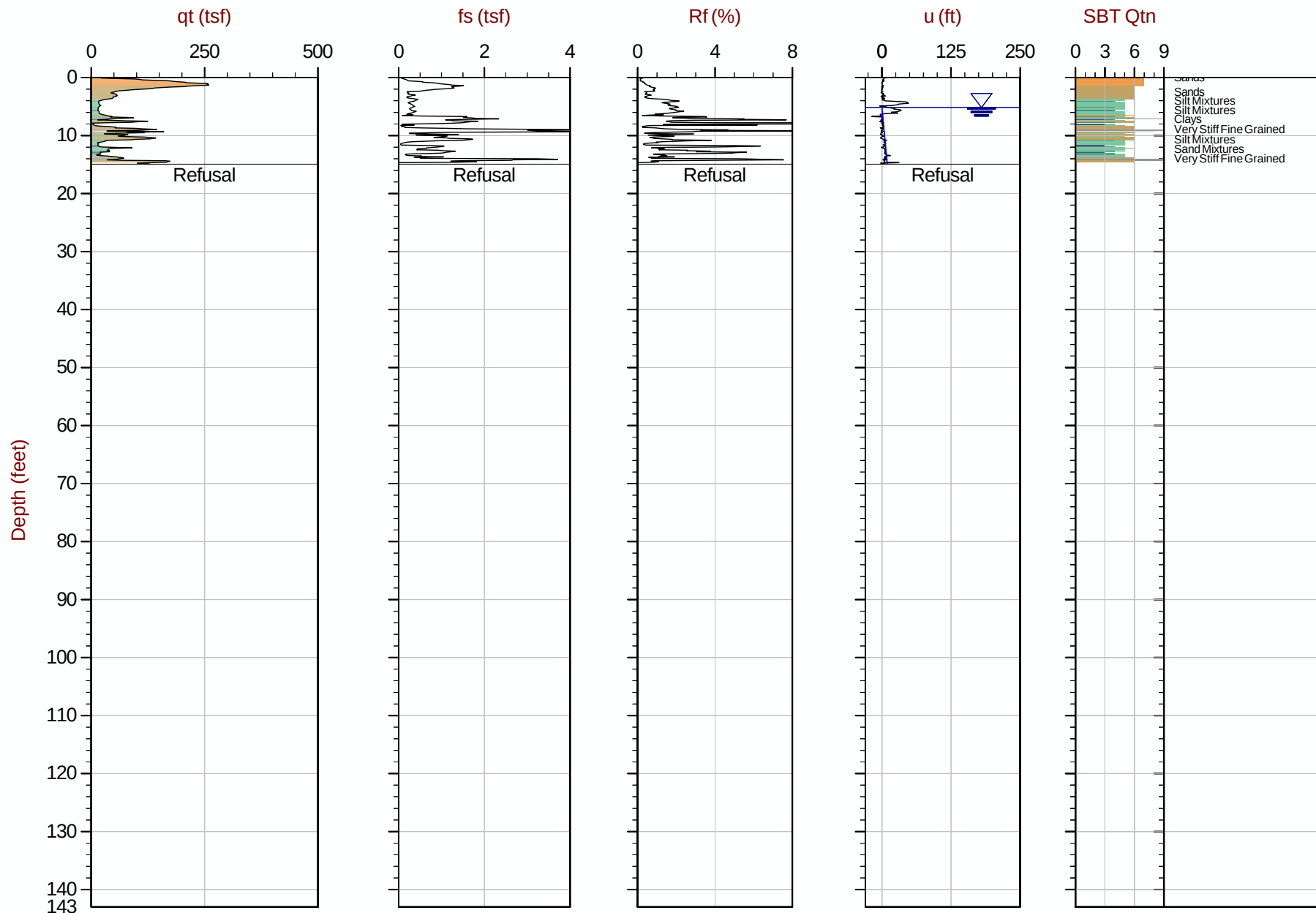
Job No: 18-53107

Date: 2018-09-18 08:23

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-12A

Cone: 550:T1500F15U500



Max Depth: 4.550 m / 14.93 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP12A.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833123m E: 398208m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

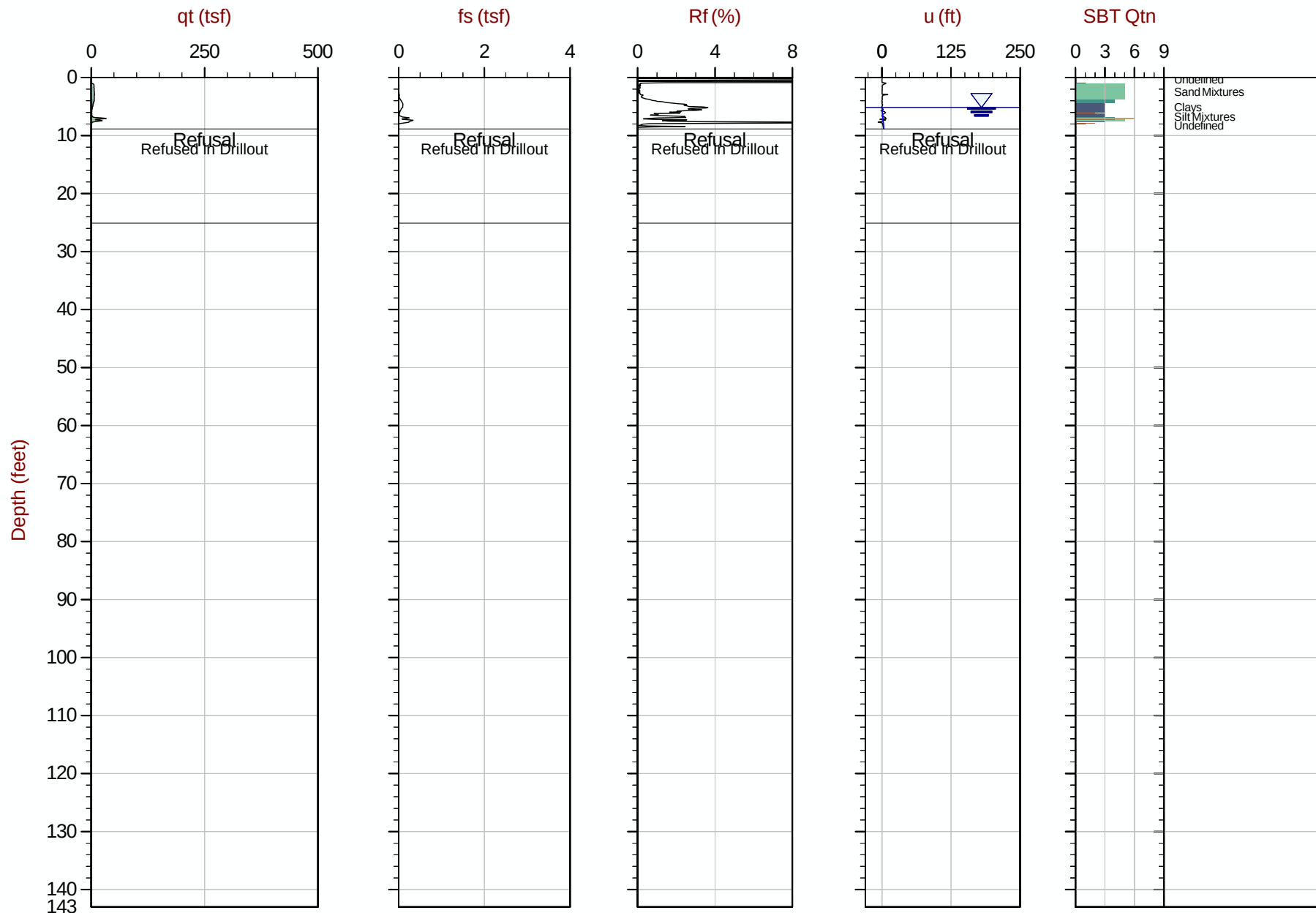
Job No: 18-53107

Date: 2018-09-20 08:17

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-12B

Cone: 550:T1500F15U500



Max Depth: 2.700 m / 8.86 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP12B.COR

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833125m E: 398209m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

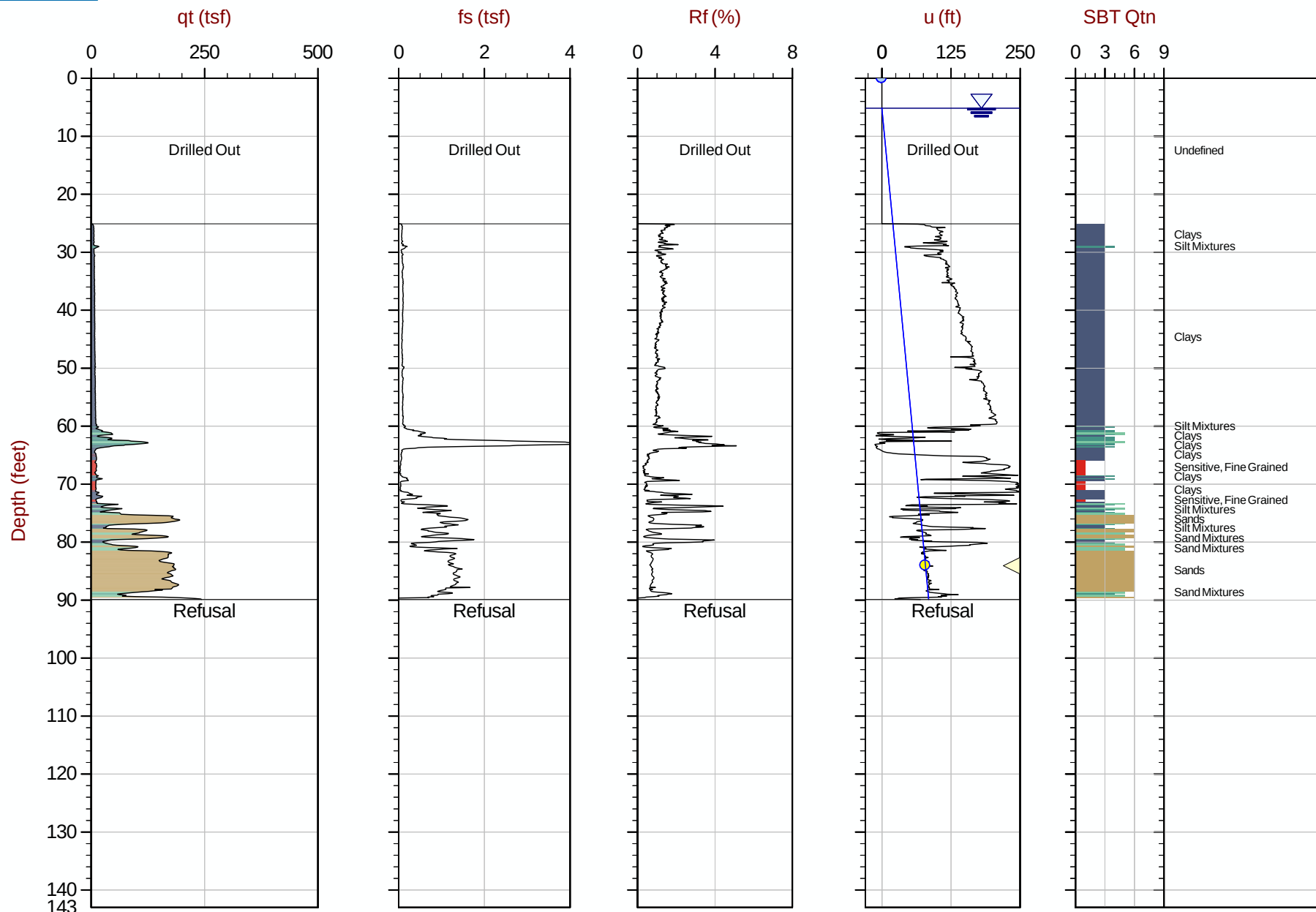
Job No: 18-53107

Date: 2018-09-20 08:30

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-12C

Cone: 550:T1500F15U500



Max Depth: 27.400 m / 89.89 ft

Depth Inc: 0.025 m / 0.082 ft

Avg Int: Every Point

File: 18-53107_CP12C.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833125m E: 398209m

Hydrostatic Line ● Ueq ● Assumed Ueq ▲ PPD, Ueq achieved ▲ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

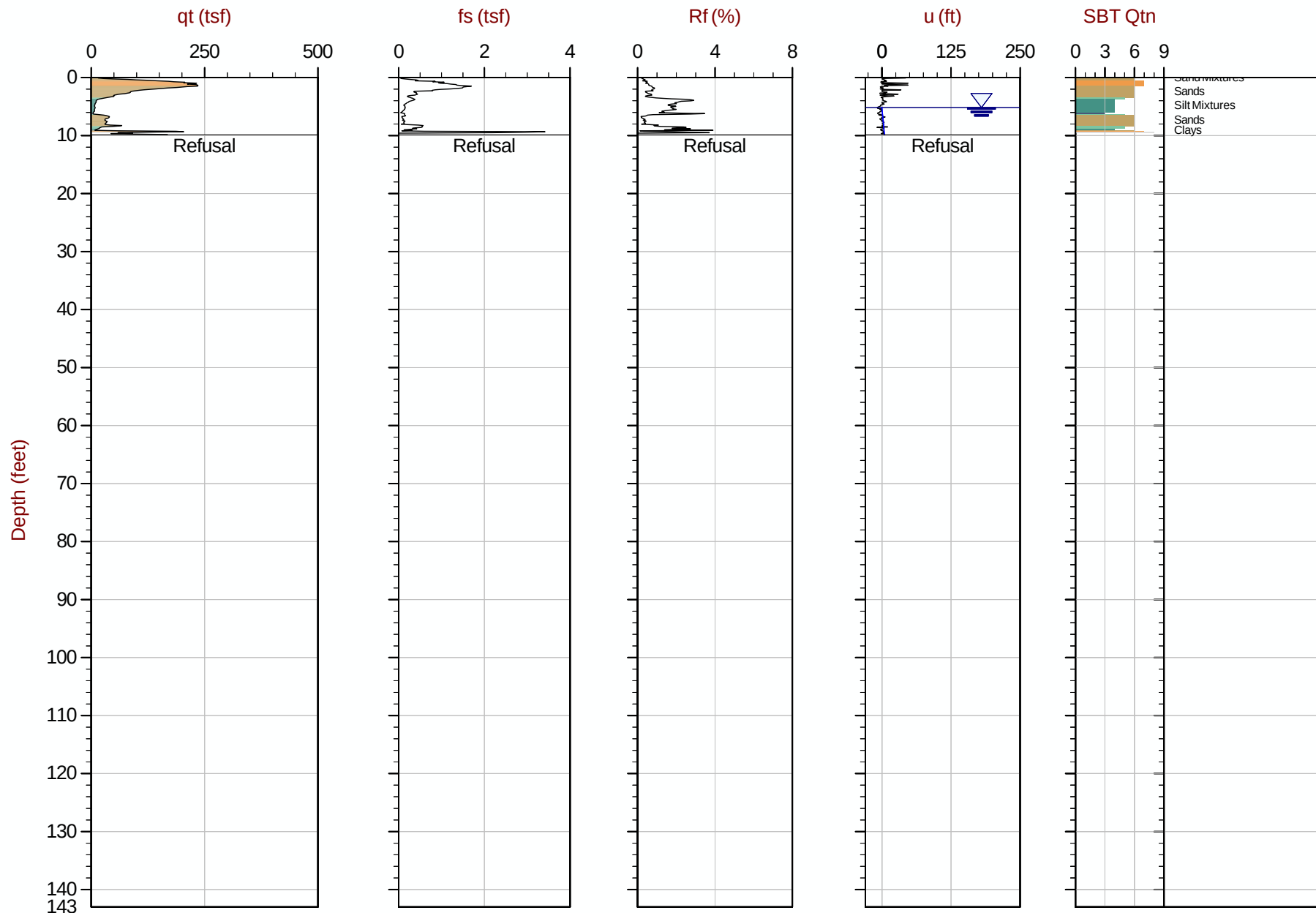
Job No: 18-53107

Date: 2018-09-20 10:56

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-12D

Cone: 550:T1500F15U500



Max Depth: 3.000 m / 9.84 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP12D.COR

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833121m E: 398204m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

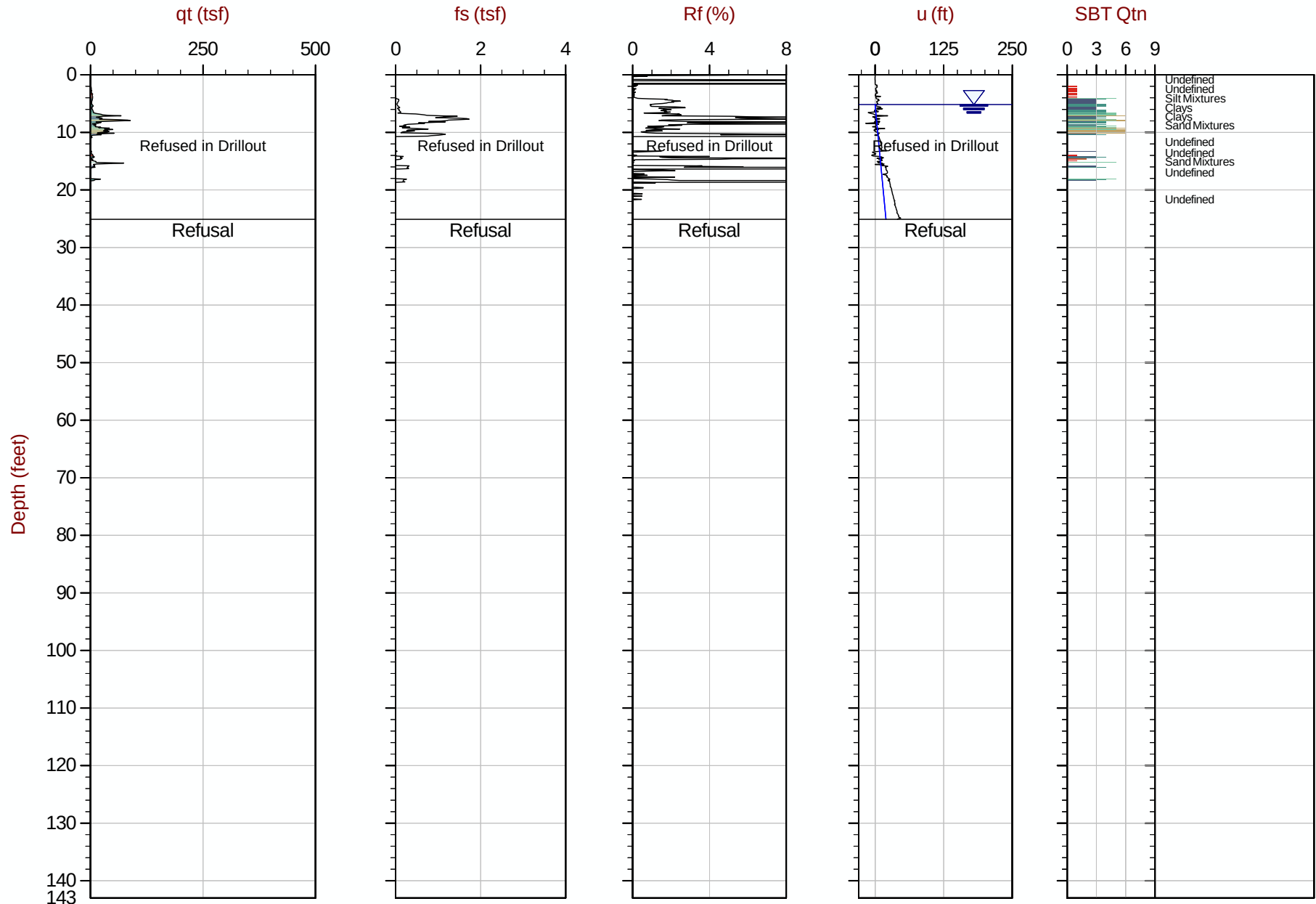
Job No: 18-53107

Date: 2018-09-21 12:14

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-12E

Cone: 550:T1500F15U500



Max Depth: 7.650 m / 25.10 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP12E.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833121m E: 398207m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

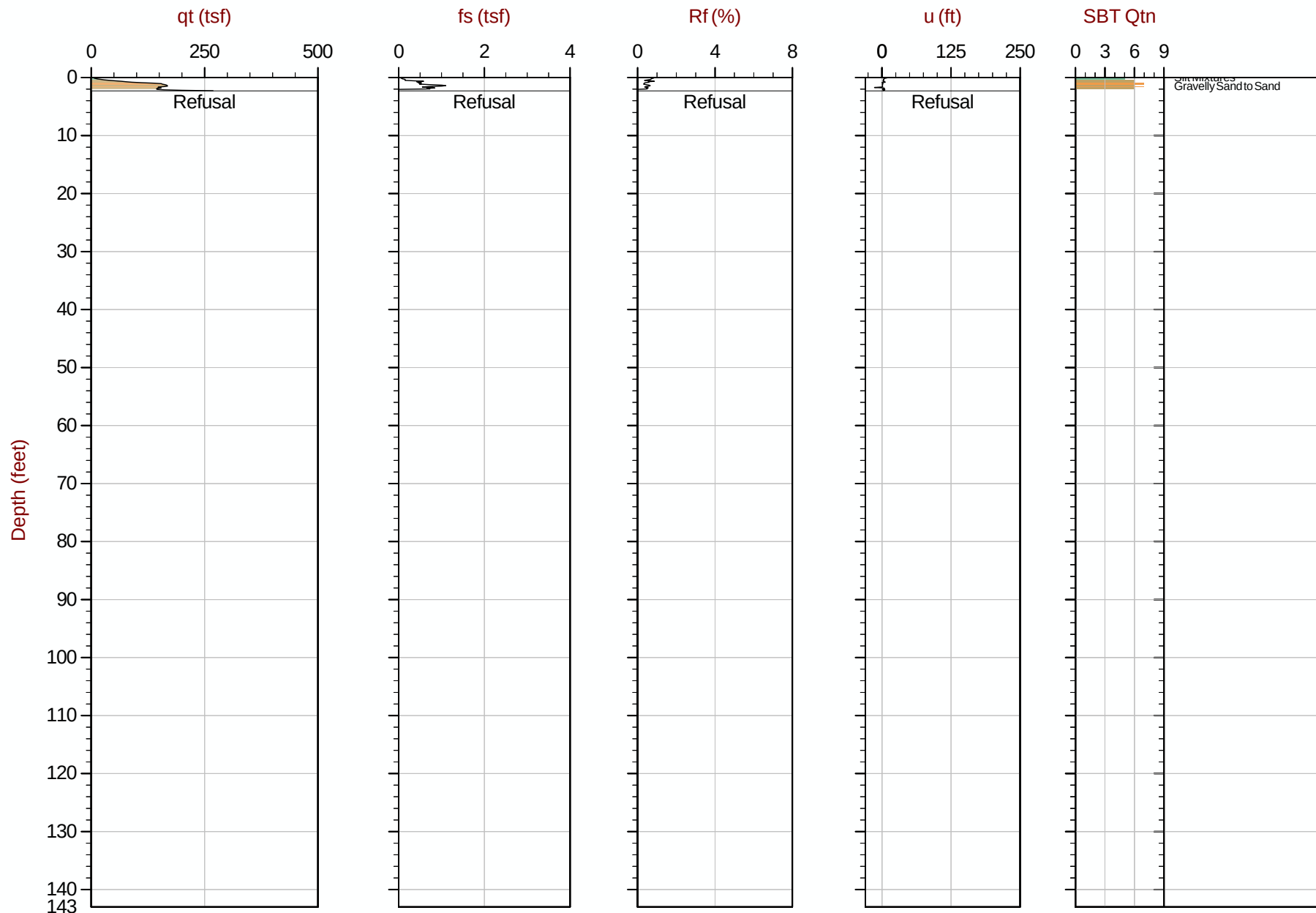
Job No: 18-53107

Date: 2018-09-18 08:57

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-14

Cone: 550:T1500F15U500



Max Depth: 0.700 m / 2.30 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP14.COR

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833140m E: 398292m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

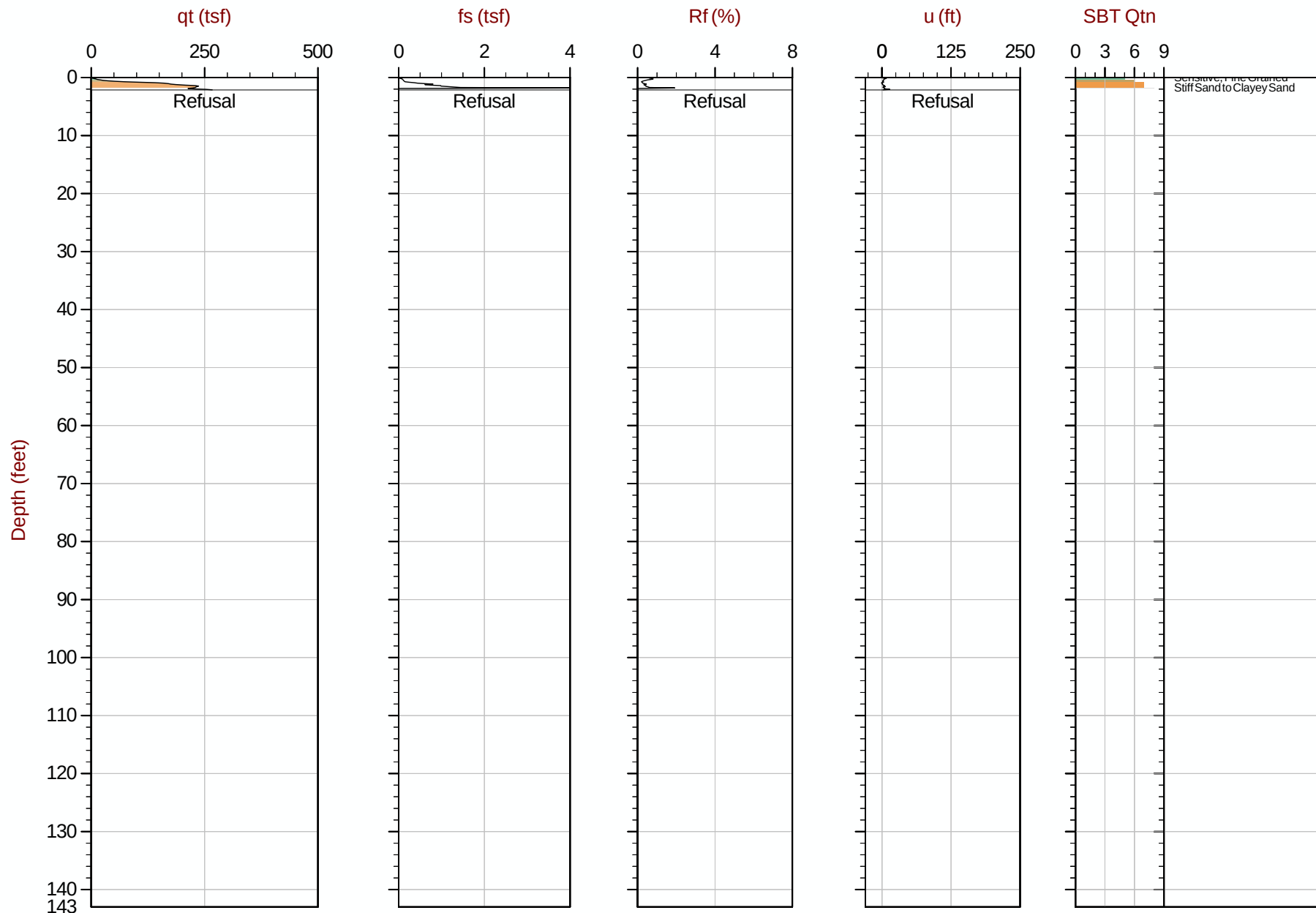
Job No: 18-53107

Date: 2018-09-18 09:11

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-14A

Cone: 550:T1500F15U500



Max Depth: 0.650 m / 2.13 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP14A.COR

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833137m E: 398285m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

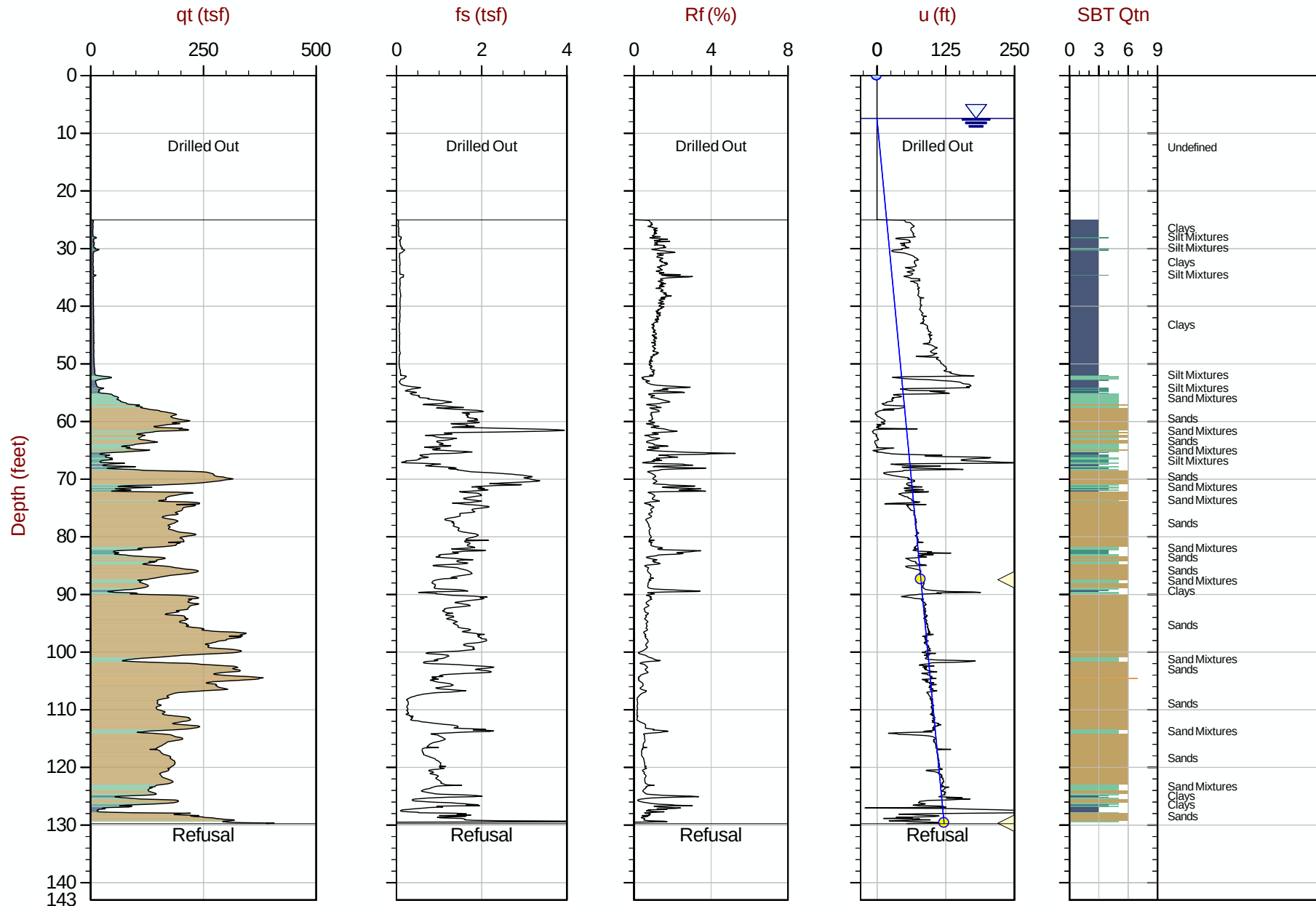
Job No: 18-53107

Date: 2018-09-20 04:17

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-14B

Cone: 550:T1500F15U500



Max Depth: 39.550 m / 129.76 ft

Depth Inc: 0.025 m / 0.082 ft

Avg Int: Every Point

File: 18-53107_CP14B.COR

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833133m E: 398281m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Advanced Cone Penetration Test Plots



SW Cole Engineering

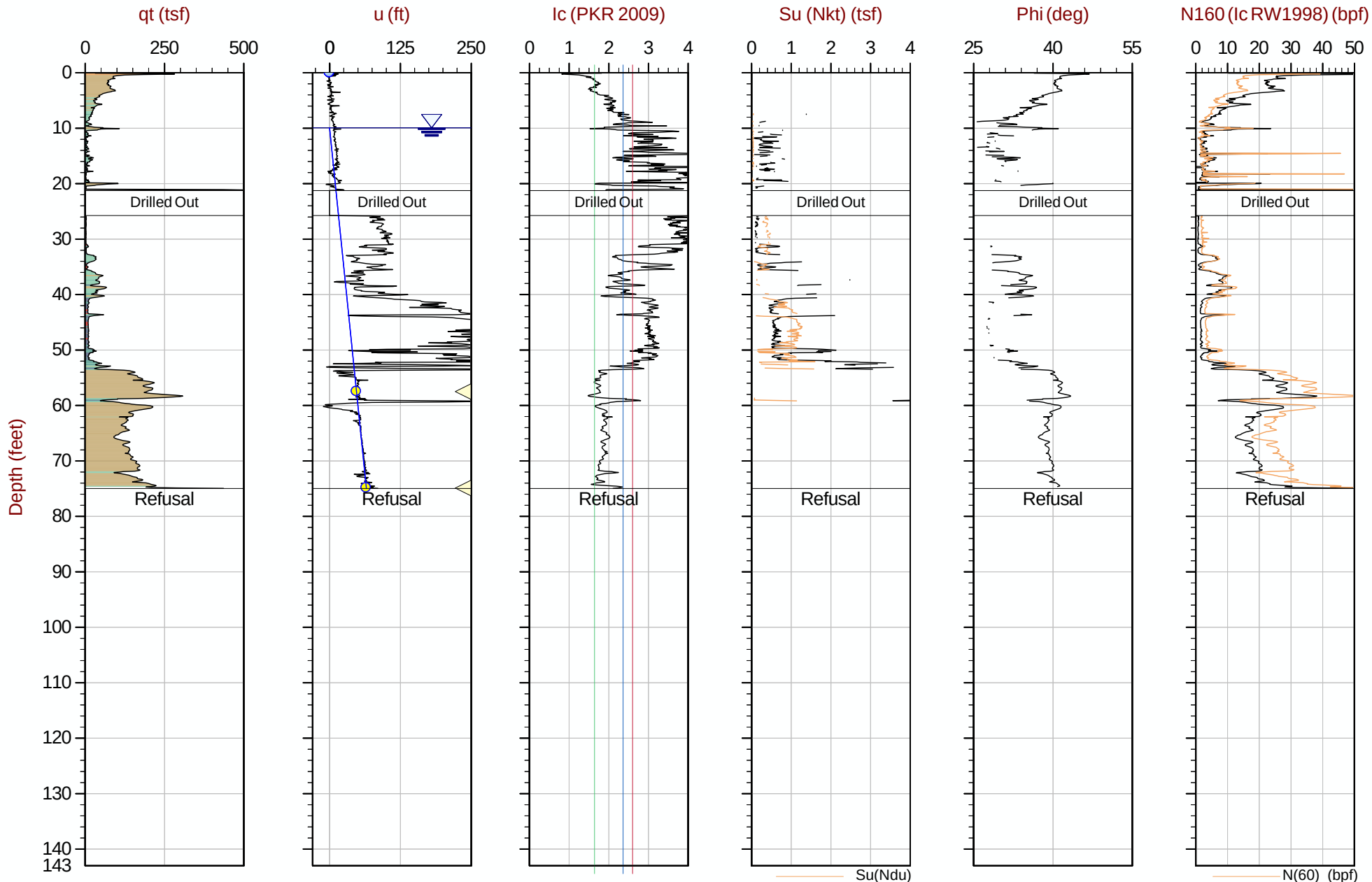
Job No: 18-53107

Date: 2018-09-19 23:26

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-02

Cone: 550:T1500F15U500



Max Depth: 22.850 m / 74.97 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP02.COR
Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833219m E: 398173m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

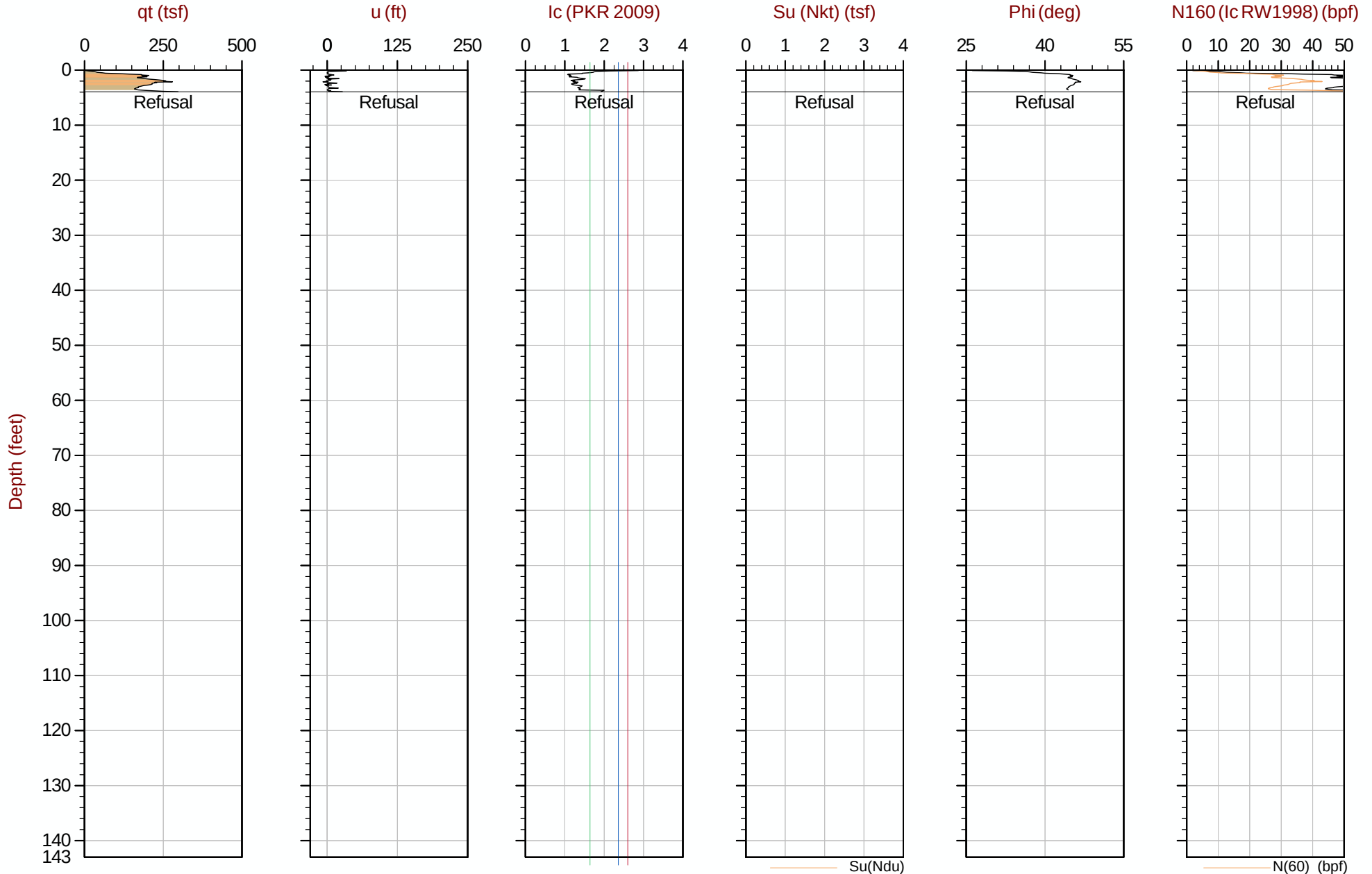
Job No: 18-53107

Date: 2018-09-19 19:58

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-04

Cone: 550:T1500F15U500



Max Depth: 1.200 m / 3.94 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP04.COR
Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833244m E: 398243m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

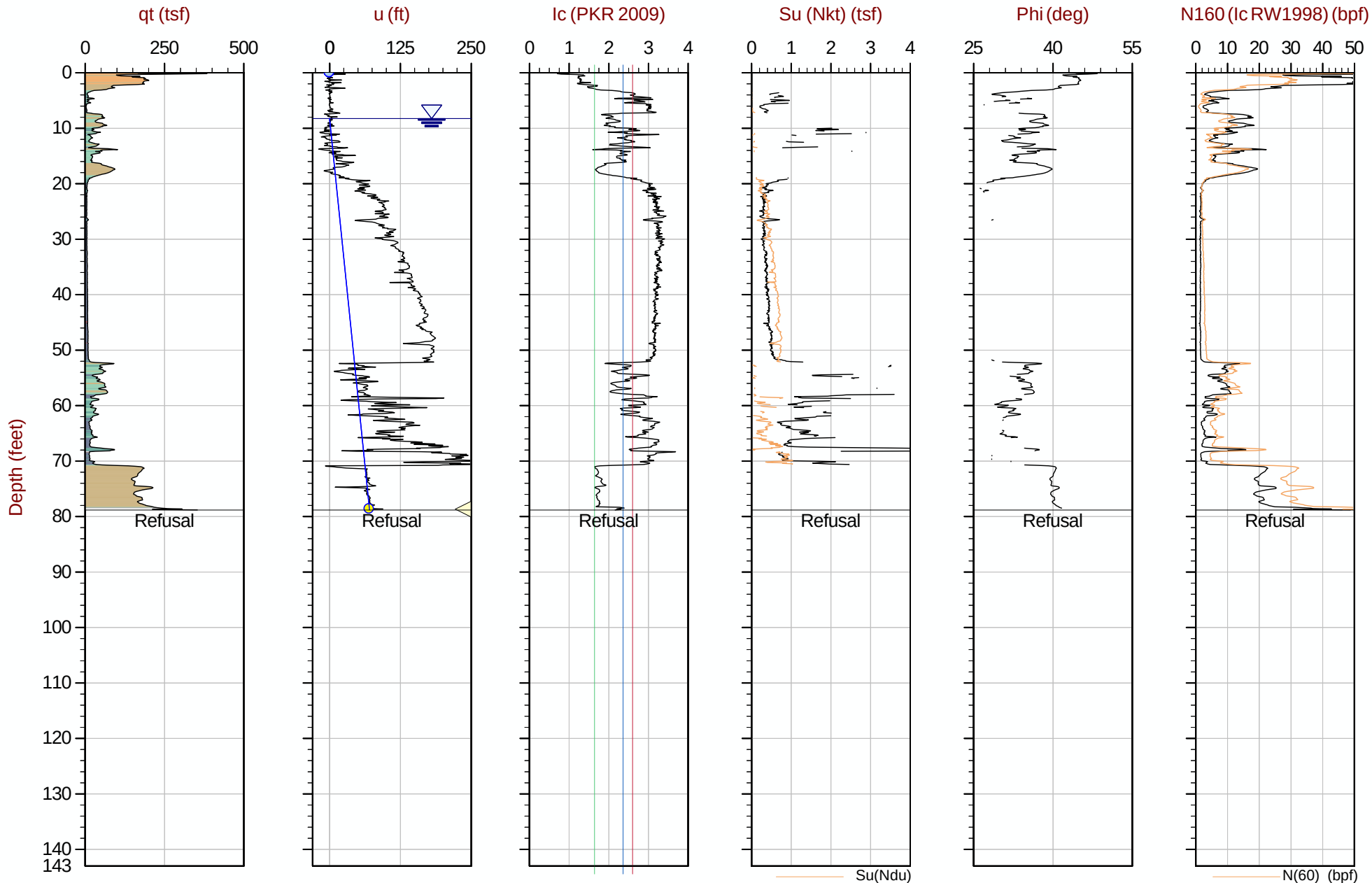
Job No: 18-53107

Date: 2018-09-21 13:14

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-05

Cone: 550:T1500F15U500



Max Depth: 24.025 m / 78.82 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP05.COR
Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833191m E: 398170m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

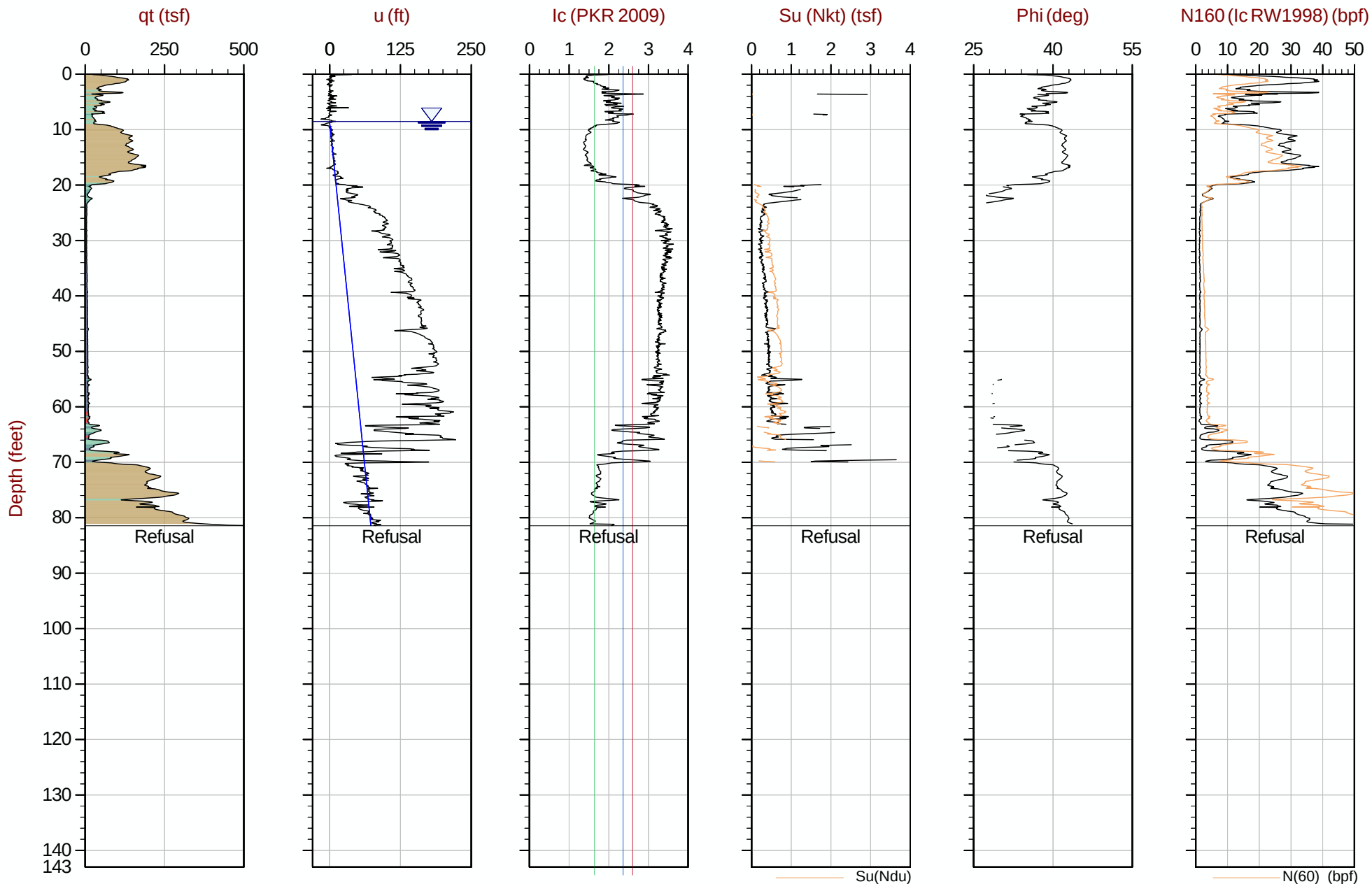
Job No: 18-53107

Date: 2018-09-19 20:48

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-06

Cone: 550:T1500F15U500



Max Depth: 24.825 m / 81.45 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: EveryPoint

File: 18-53107_CP06.COR
Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833201m E: 398222m

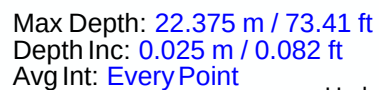
Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



Site: Cold Storage Warehouse, Portland, ME

Cone: 550:T1500F15U500



File: 18-53107_CP06A.COR
Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833203m E: 398217m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

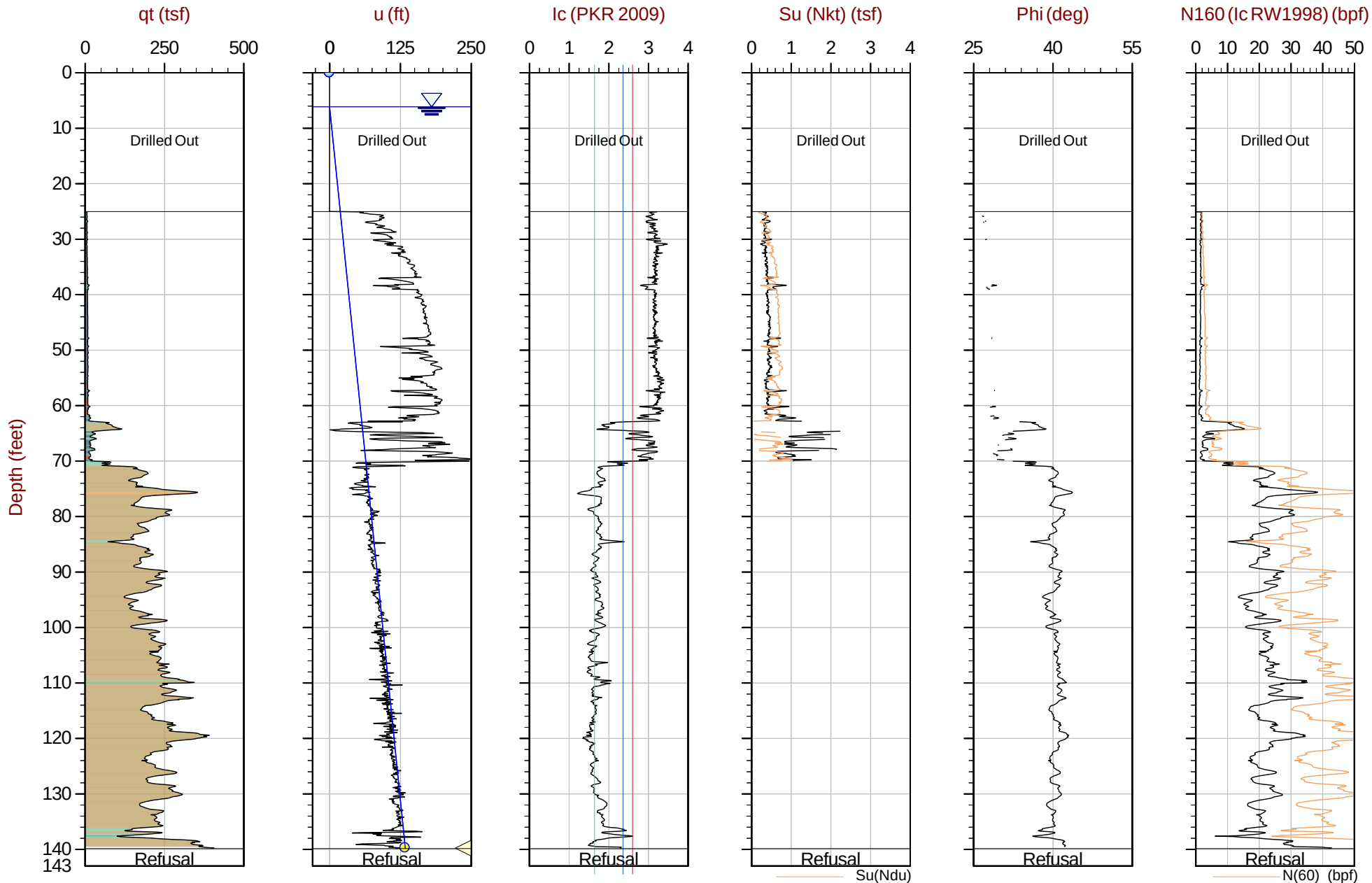
Job No: 18-53107

Date: 2018-09-20 14:41

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-07

Cone: 550:T1500F15U500



Max Depth: 42.625 m / 139.84 ft

Depth Inc: 0.025 m / 0.082 ft

Avg Int: EveryPoint

File: 18-53107_CP07.COR

Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833210m E: 398261m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

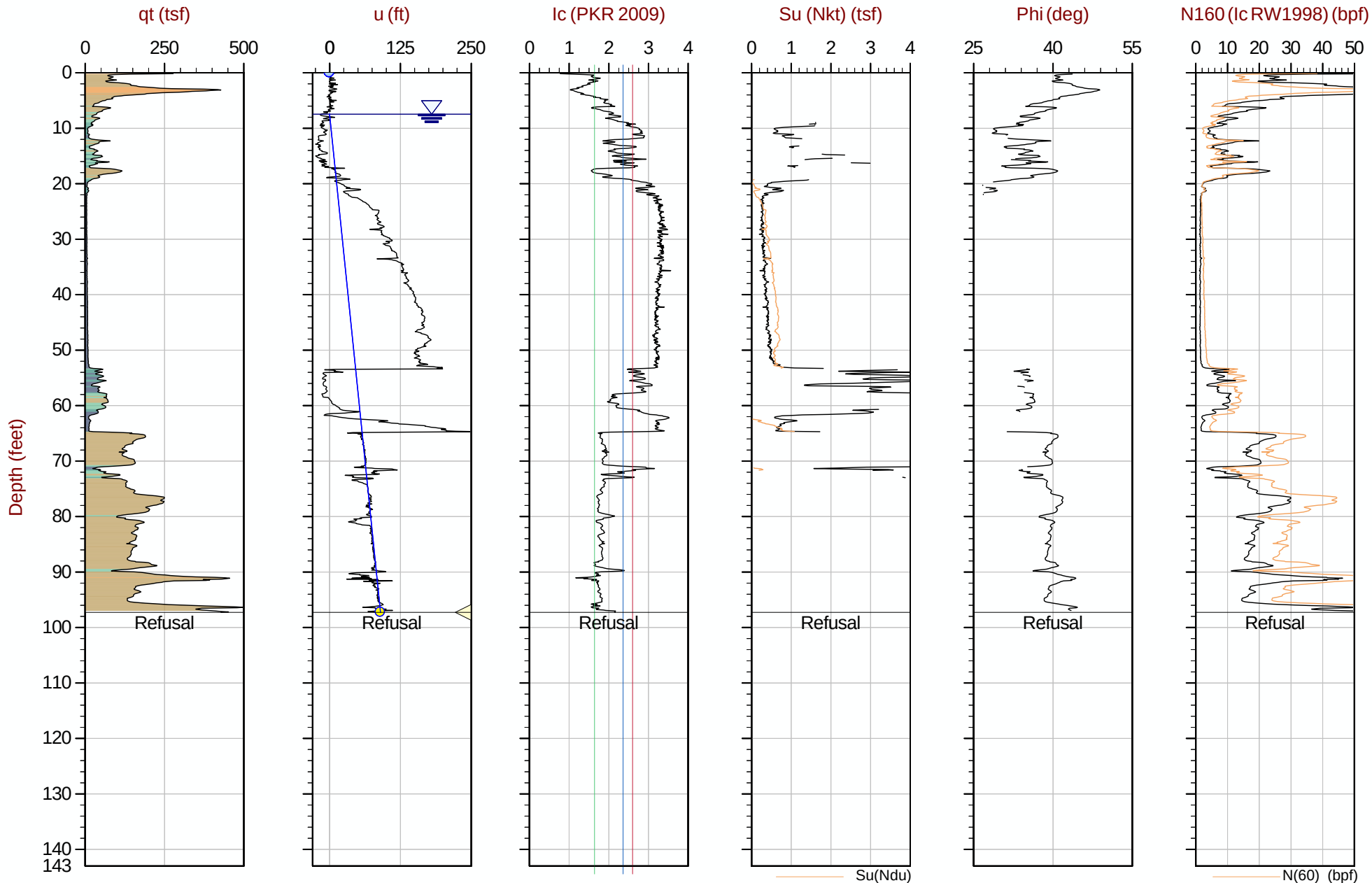
Job No: 18-53107

Date: 2018-09-21 14:51

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-08

Cone: 550:T1500F15U500



Max Depth: 29.650 m / 97.28 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: EveryPoint

File: 18-53107_CP08.COR
Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833171m E: 398158m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

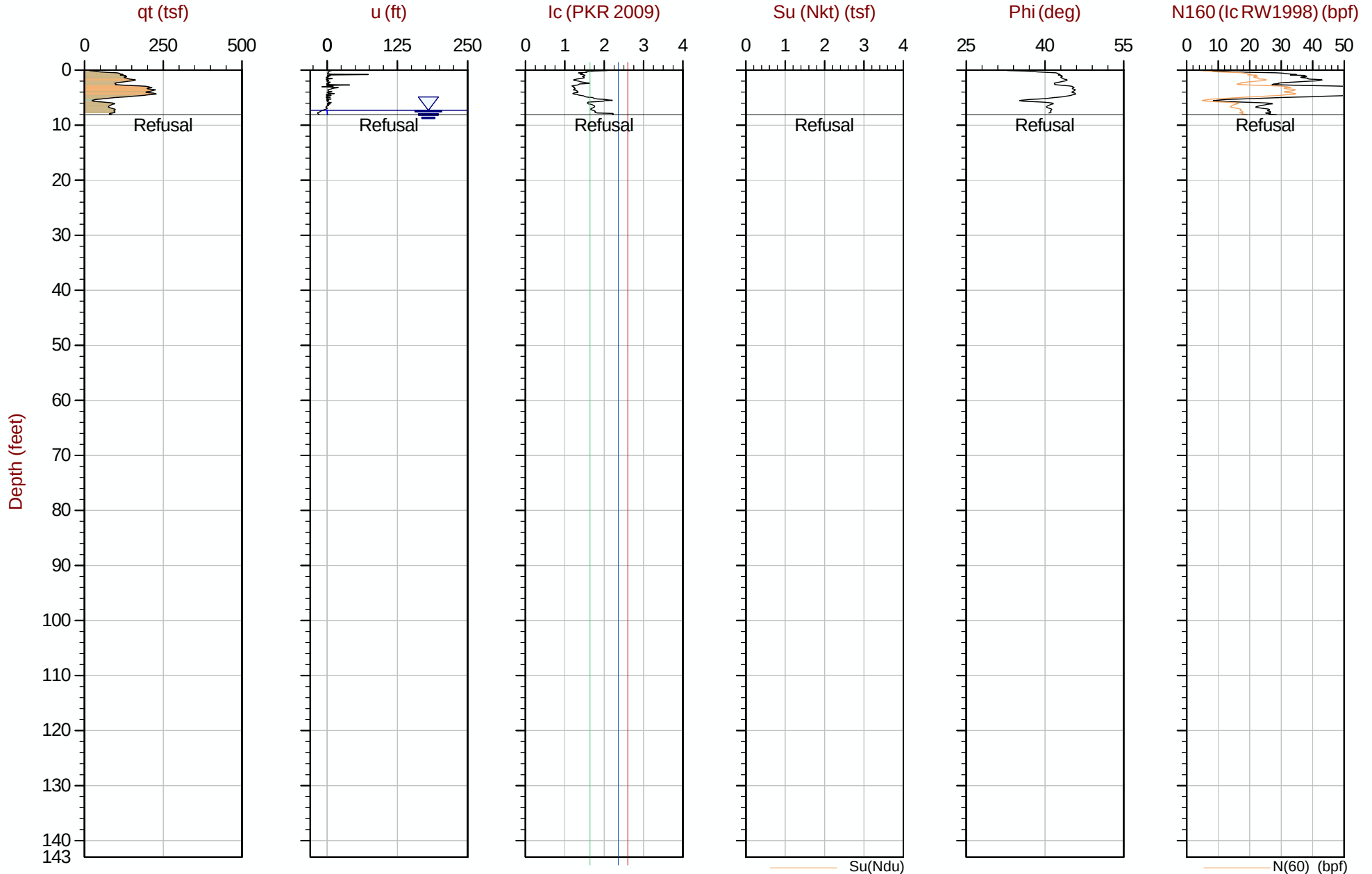
Job No: 18-53107

Date: 2018-09-18 13:58

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-09

Cone: 550:T1500F15U500



Max Depth: 2.475 m / 8.12 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP09.COR
Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833163m E: 398187m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

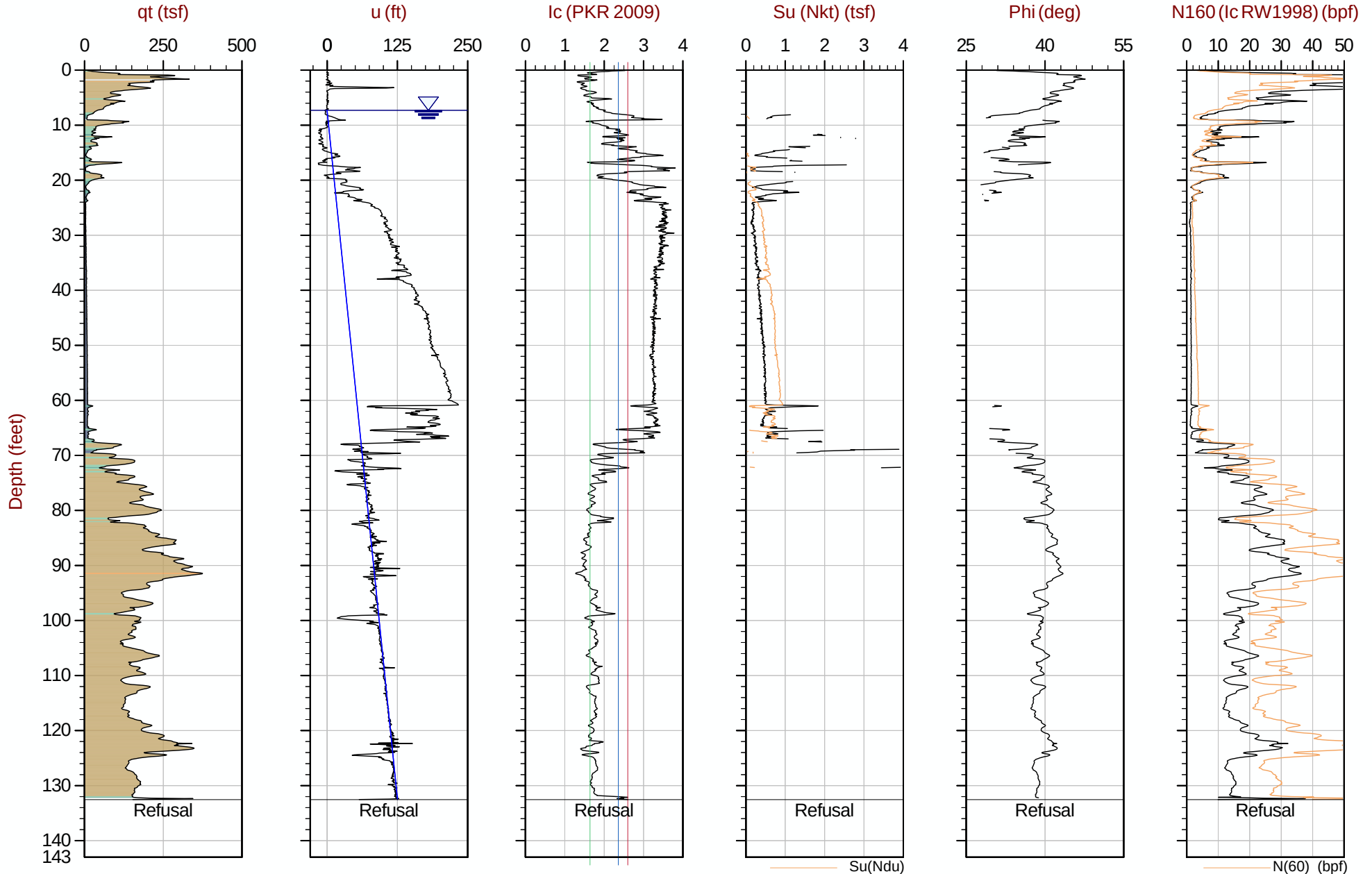
Job No: 18-53107

Date: 2018-09-18 14:11

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-09A

Cone: 550:T1500F15U500



Max Depth: 40.400 m / 132.54 ft

Depth Inc: 0.025 m / 0.082 ft

Avg Int: Every Point

File: 18-53107_CP09A.COR

Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833162m E: 398190m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

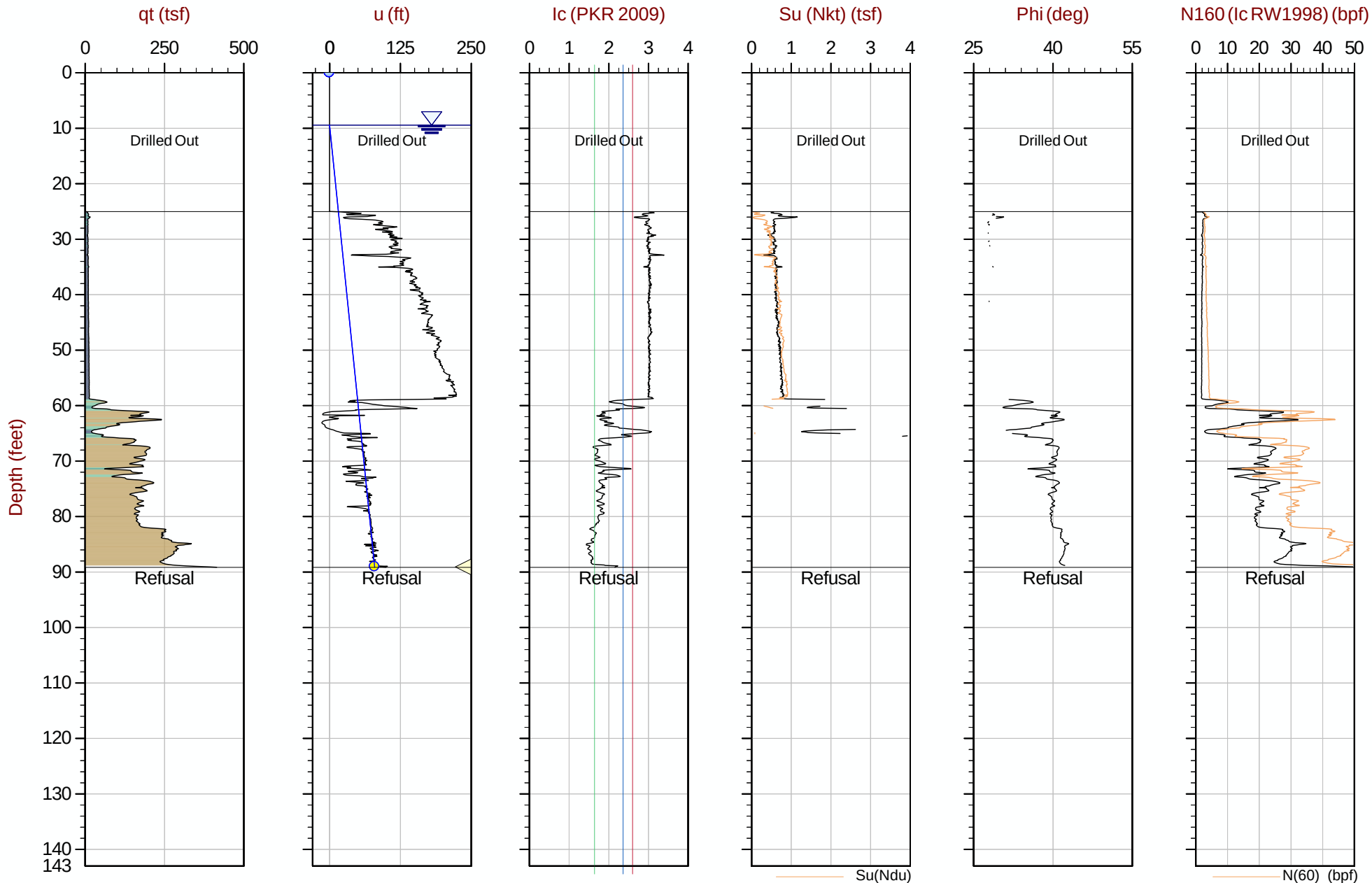
Job No: 18-53107

Date: 2018-09-20 11:42

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-10

Cone: 550:T1500F15U500



Max Depth: 27.175 m / 89.16 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP10.COR
Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833181m E: 398234m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

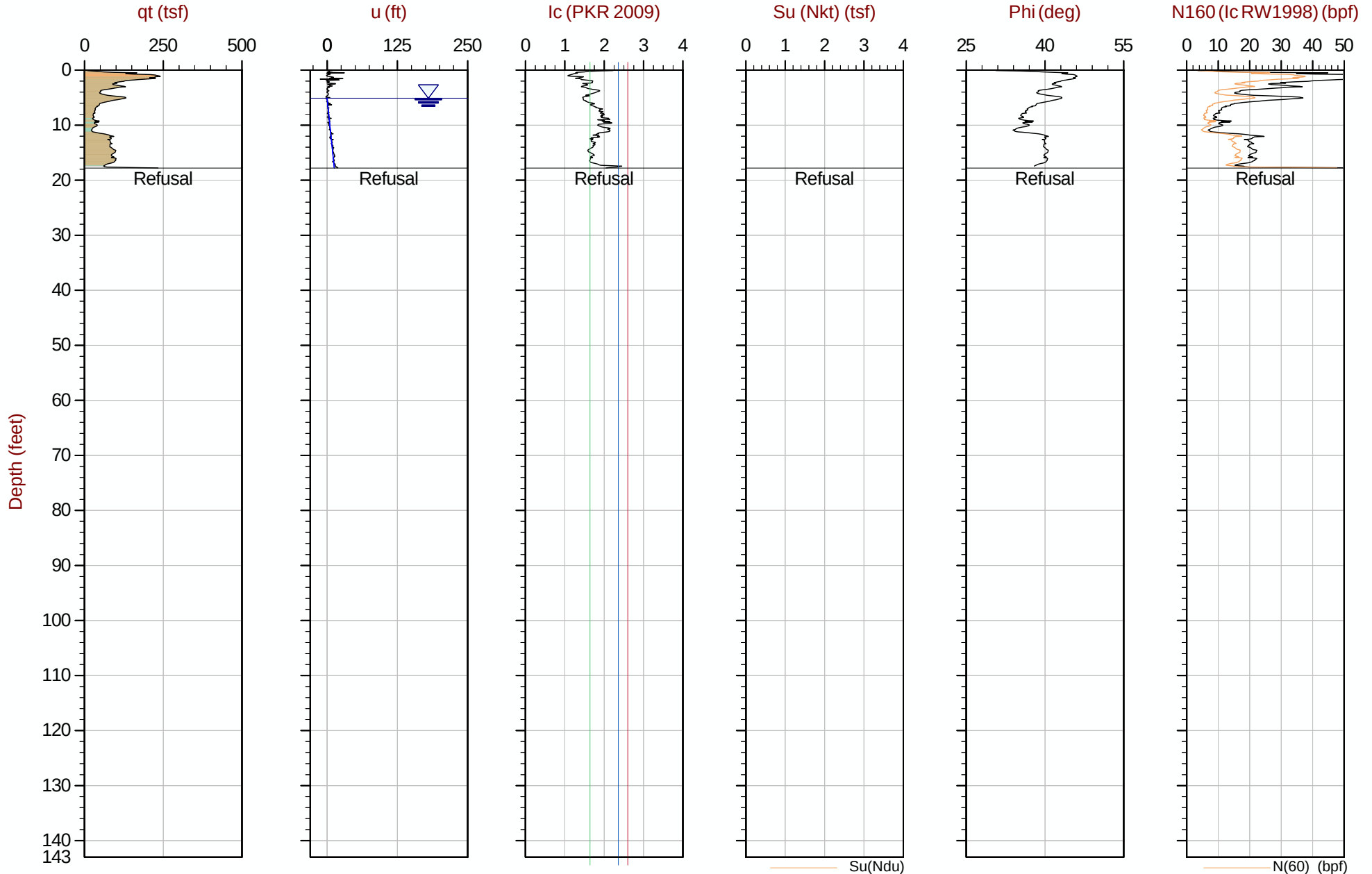
Job No: 18-53107

Date: 2018-09-18 09:37

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-11

Cone: 550:T1500F15U500



Max Depth: 5.425 m / 17.80 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP11.COR
Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833184m E: 398275m

Hydrostatic Line ● Ueq ● Assumed Ueq ◀ PPD, Ueq achieved ◀ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

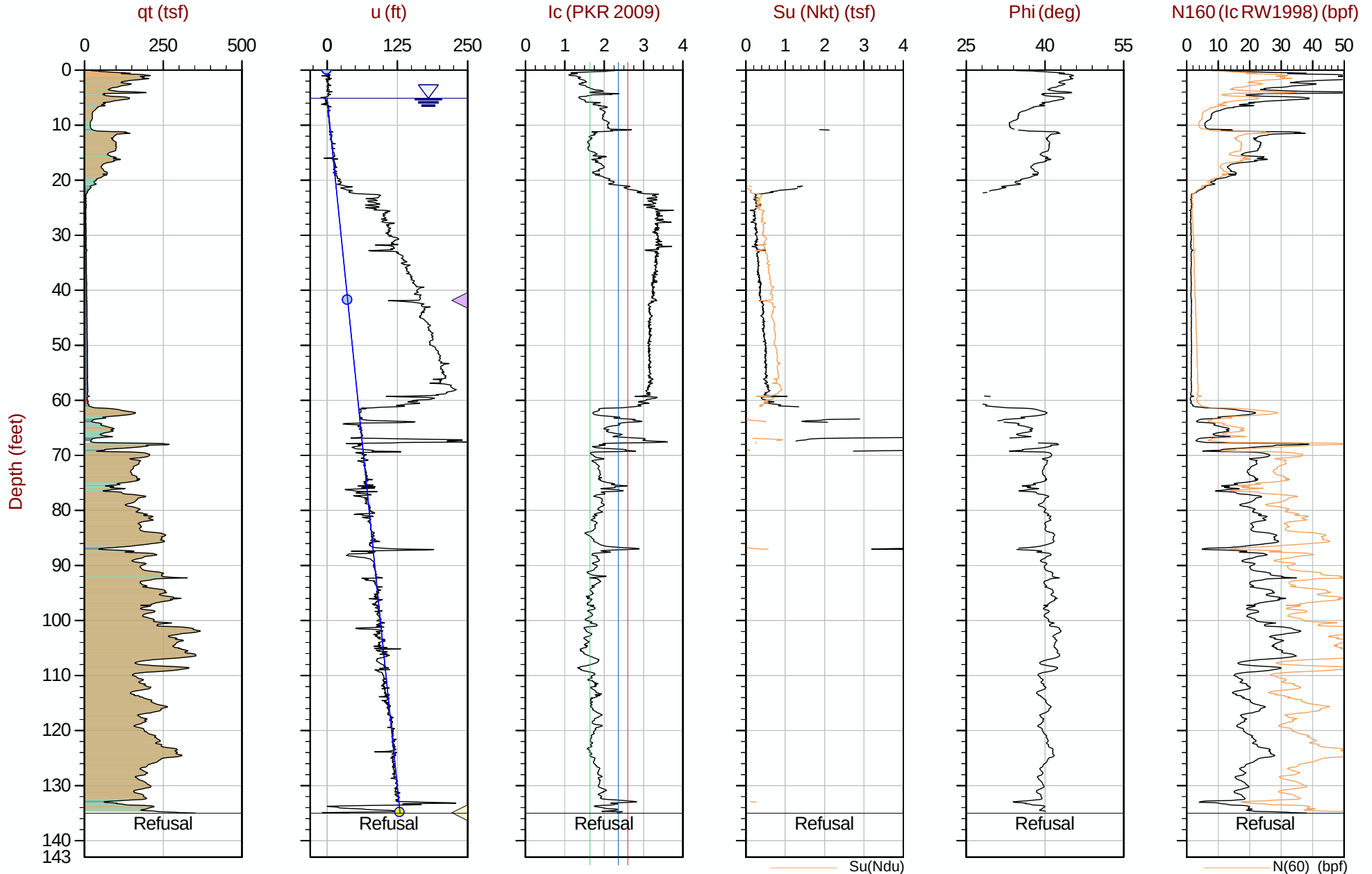
Job No: 18-53107

Date: 2018-09-18 10:12

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-11A

Cone: 550:T1500F15U500



Max Depth: 41.150 m / 135.00 ft

Depth Inc: 0.025 m / 0.082 ft

Avg Int: Every Point

File: 18-53107_CP11A.COR

Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010

Coords: UTM Zone 19 N: 4833176m E: 398269m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

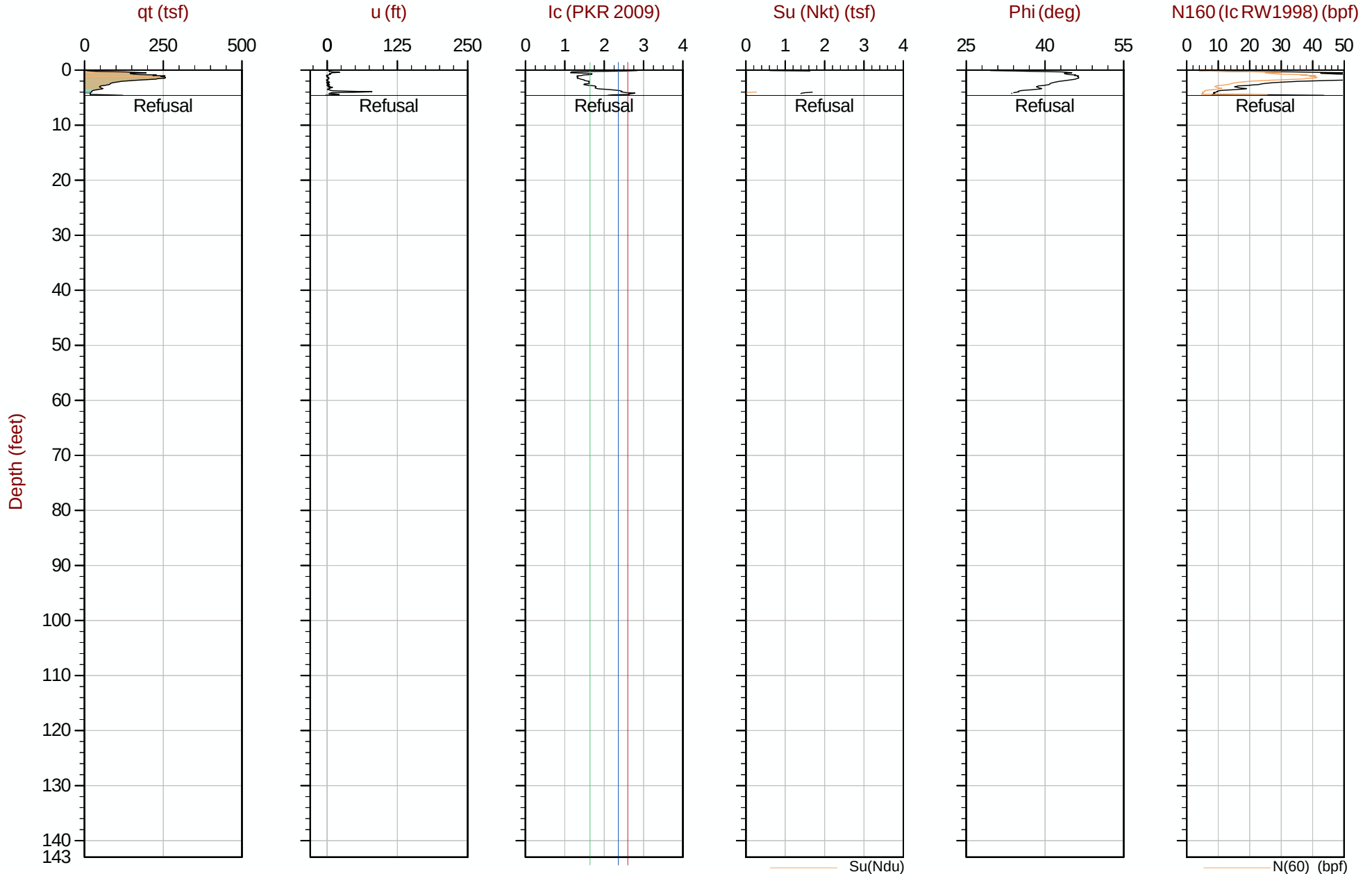
Job No: 18-53107

Date: 2018-09-18 08:04

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-12

Cone: 550:T1500F15U500



Max Depth: 1.400 m / 4.59 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP12.COR
Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833126m E: 398203m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

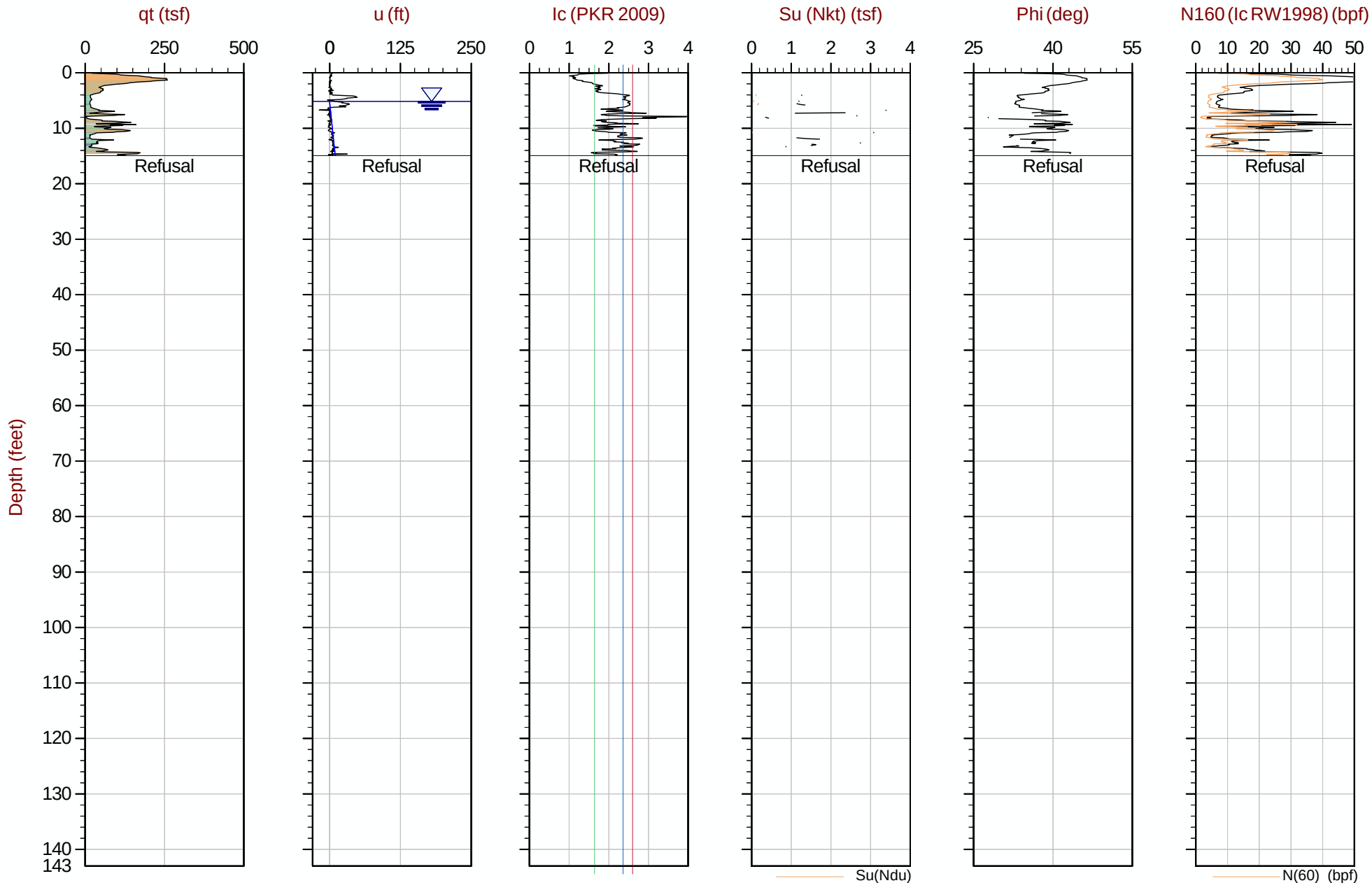
Job No: 18-53107

Date: 2018-09-18 08:23

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-12A

Cone: 550:T1500F15U500



Max Depth: 4.550 m / 14.93 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP12A.COR
Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833123m E: 398208m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

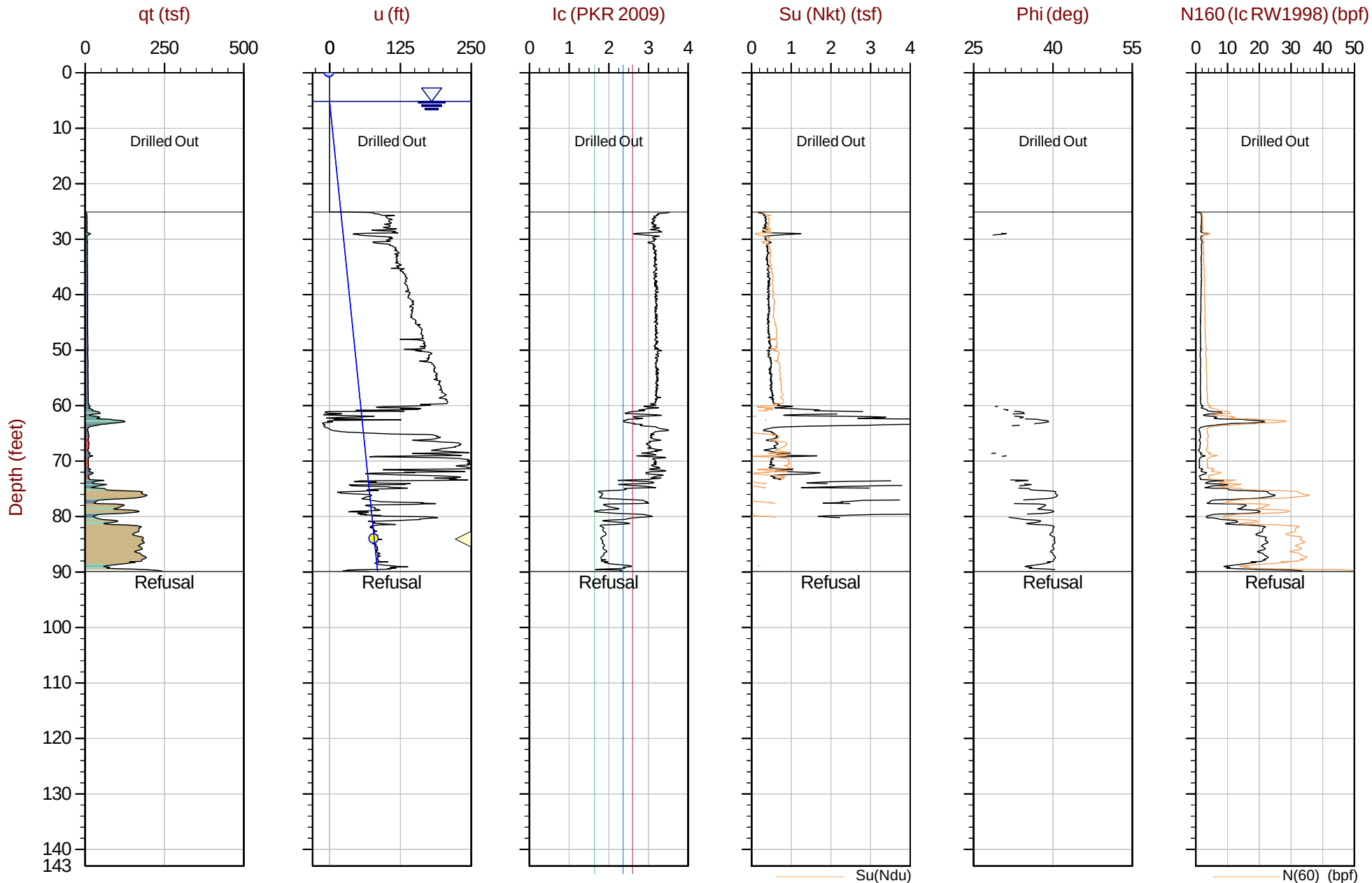
Job No: 18-53107

Date: 2018-09-20 08:30

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-12C

Cone: 550:T1500F15U500



Max Depth: 27.400 m / 89.89 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP12C.COR
Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833125m E: 398209m

Hydrostatic Line ● Ueq ● Assumed Ueq ▲ PPD, Ueq achieved ▲ PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

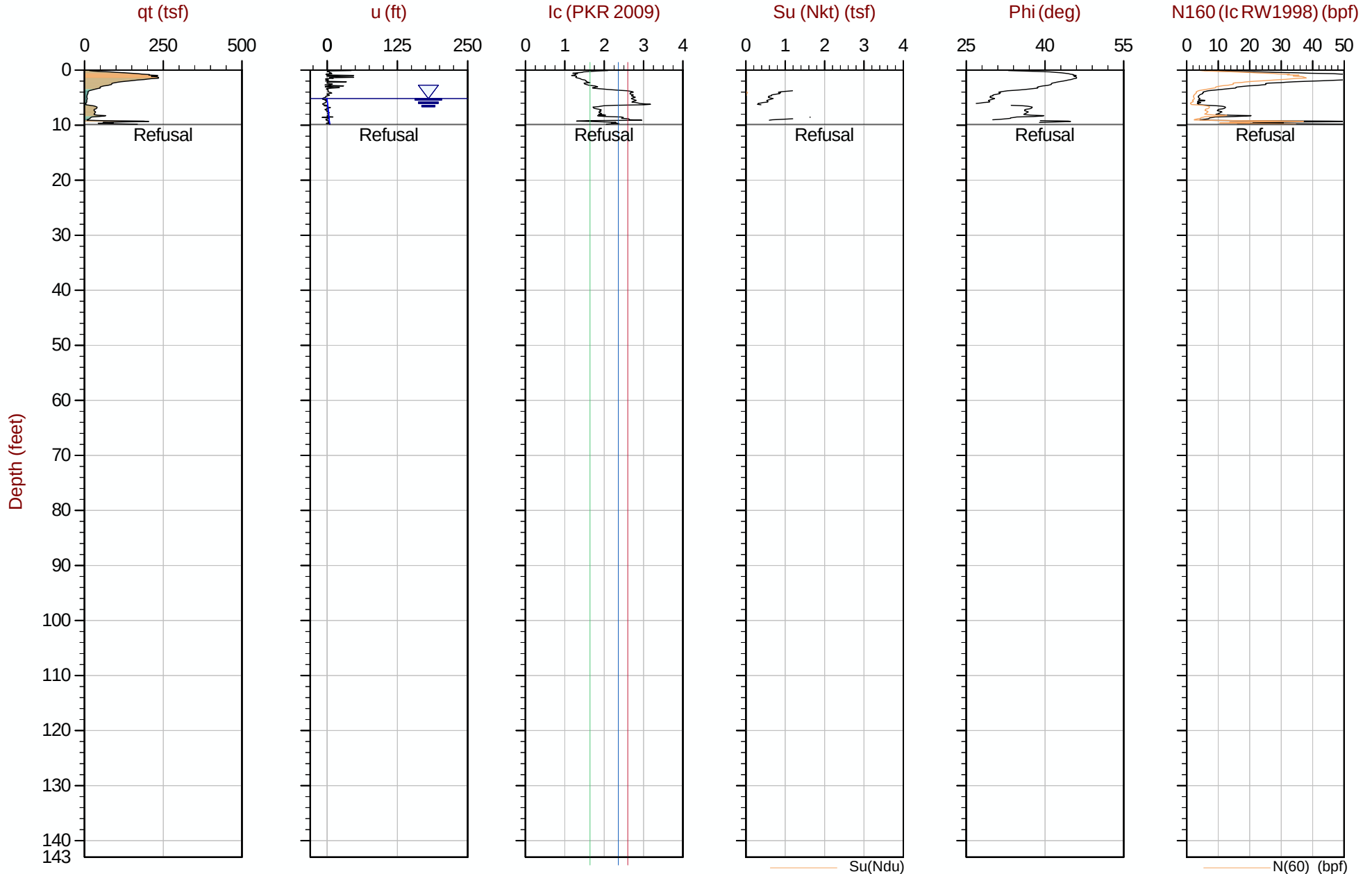
Job No: 18-53107

Date: 2018-09-20 10:56

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-12D

Cone: 550:T1500F15U500



Max Depth: 3.000 m / 9.84 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP12D.COR
Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833121m E: 398204m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

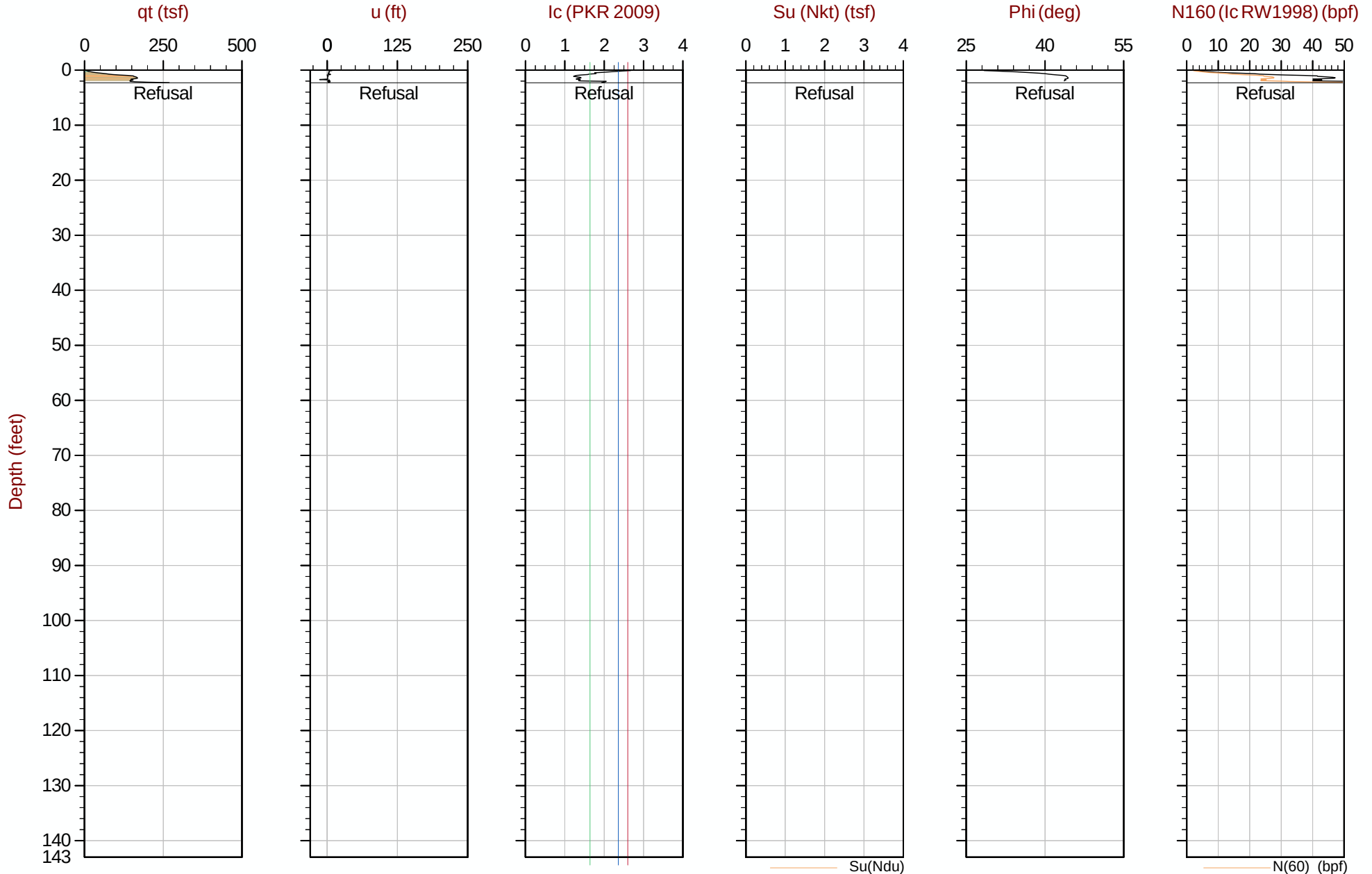
Job No: 18-53107

Date: 2018-09-18 08:57

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-14

Cone: 550:T1500F15U500



Max Depth: 0.700 m / 2.30 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP14.COR
Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833140m E: 398292m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

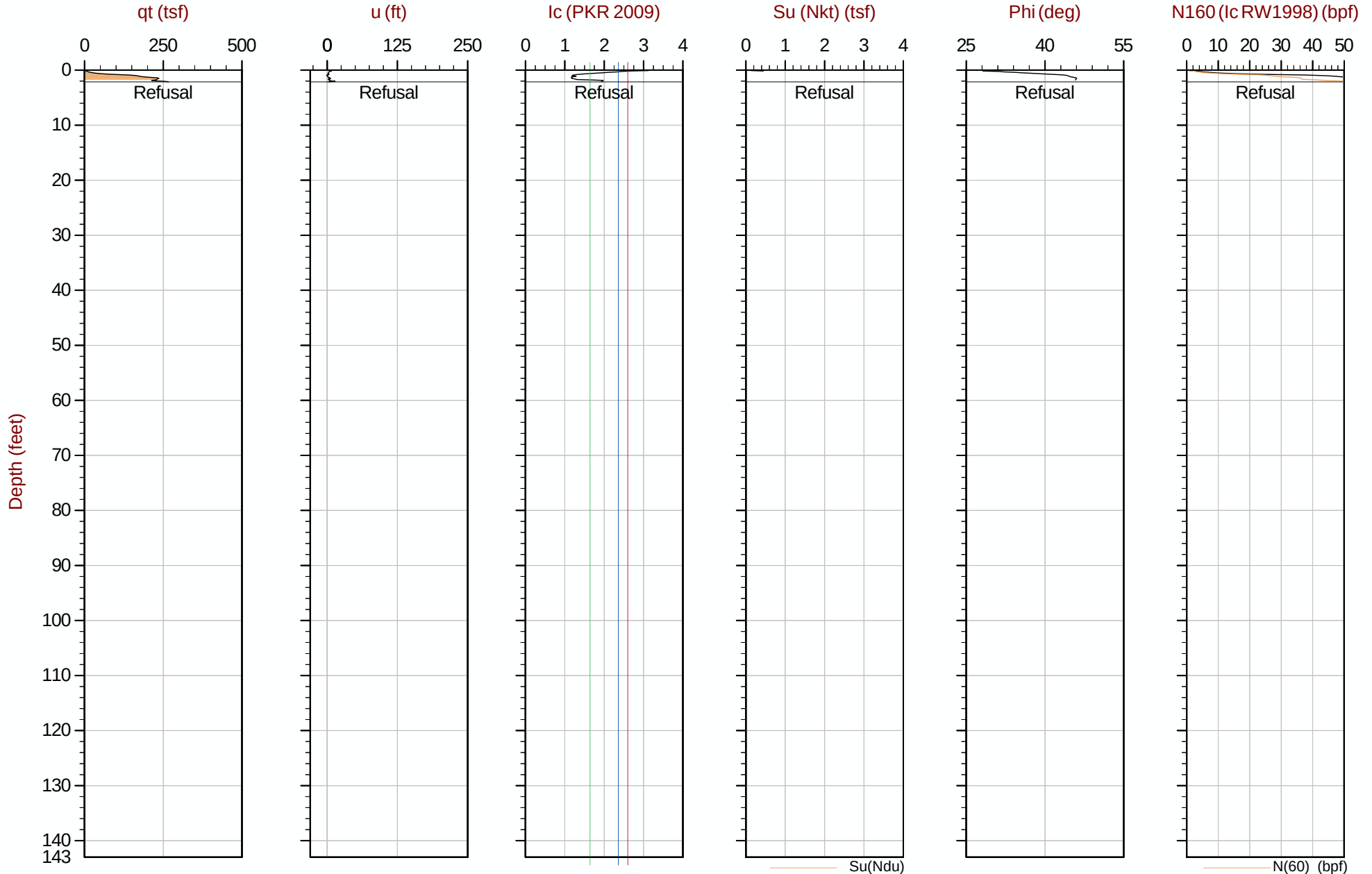
Job No: 18-53107

Date: 2018-09-18 09:11

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-14A

Cone: 550:T1500F15U500



Max Depth: 0.650 m / 2.13 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 18-53107_CP14A.COR
Su Nkt/Ndu: 12.5 / 6.0

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 19 N: 4833137m E: 398285m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.



SW Cole Engineering

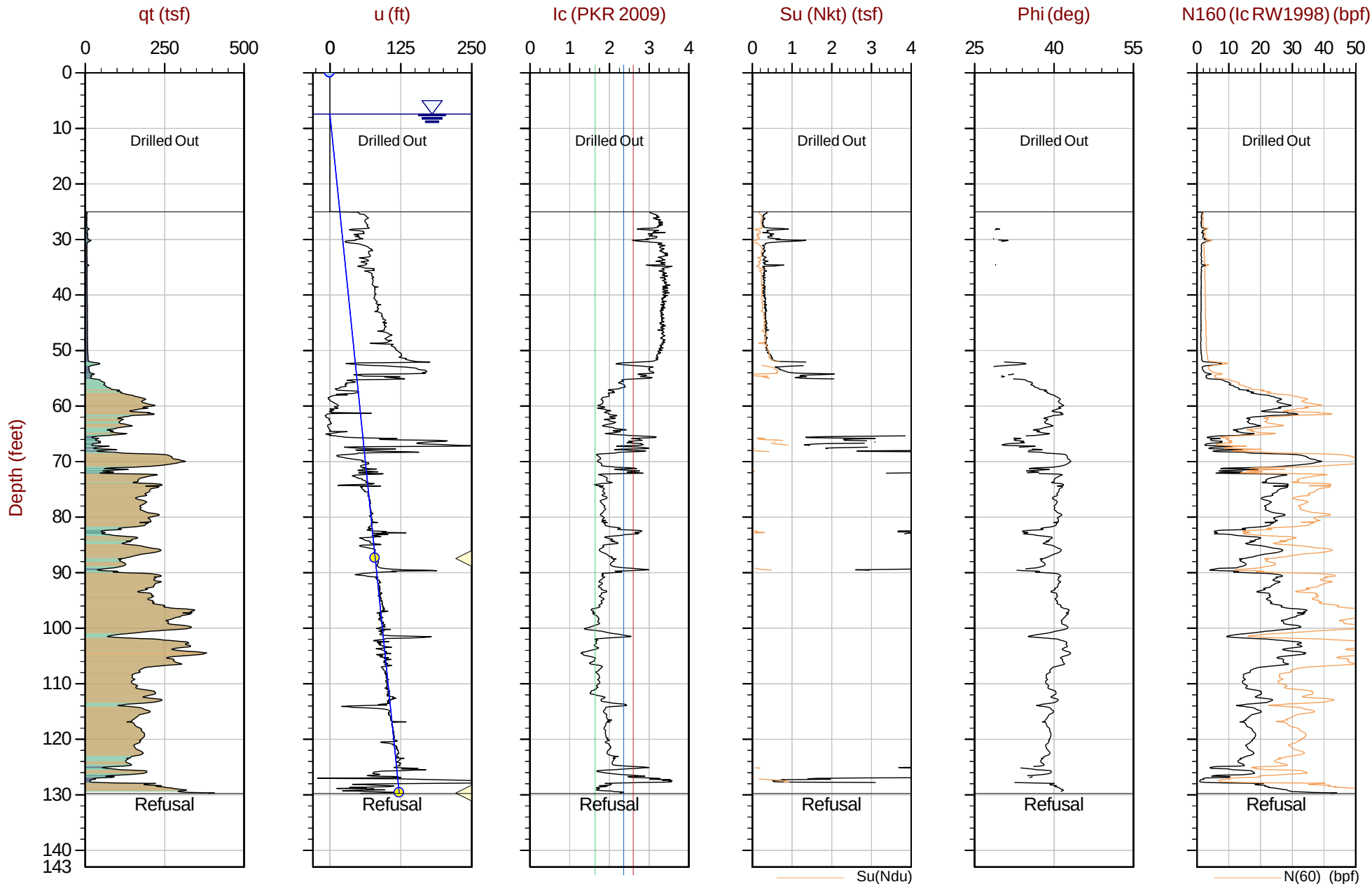
Job No: 18-53107

Date: 2018-09-20 04:17

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-14B

Cone: 550:T1500F15U500



The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Pore Pressure Dissipation Summary and
Pore Pressure Dissipation Plots



Job No: 18-53107
Client: S.W. Cole Engineering
Project: Cold Storage Warehouse, Portland, ME
Start Date: 18-Sep-2018
End Date: 21-Sep-2018

CPT_u PORE PRESSURE DISSIPATION SUMMARY

Sounding ID	File Name	Cone Area (cm ²)	Duration (s)	Test Depth (ft)	Estimated Equilibrium Pore Pressure U _{eq} (ft)	Calculated Phreatic Surface (ft)	Estimated Phreatic Surface (ft)
CPT18-02	18-53107_CP02.PPD	15	420	57.50	47.56	9.93	
CPT18-02	18-53107_CP02.PPD	15	125	74.88	64.87	10.01	
CPT18-05	18-53107_CP05.PPD	15	240	78.66	70.40	8.26	
CPT18-06A	18-53107_CP06A.PPD	15	300	73.41	64.87	8.54	
CPT18-07	18-53107_CP07.PPD	15	1105	139.76	133.63	6.13	
CPT18-08	18-53107_CP08.PPD	15	560	97.28	89.82	7.46	
CPT18-10	18-53107_CP10.PPD	15	50	89.07	79.64	9.44	
CPT18-11A	18-53107_CP11A.PPD	15	650	41.83	36.72		5.11
CPT18-11A	18-53107_CP11A.PPD	15	360	134.92	129.82	5.11	
CPT18-12C	18-53107_CP12C.PPD	15	495	84.07	78.91	5.16	
CPT18-14B	18-53107_CP14B.PPD	15	180	87.43	80.00	7.43	
CPT18-14B	18-53107_CP14B.PPD	15	210	129.67	122.73	6.95	
Totals	12 dissipations		78.3 min				



SW Cole Engineering

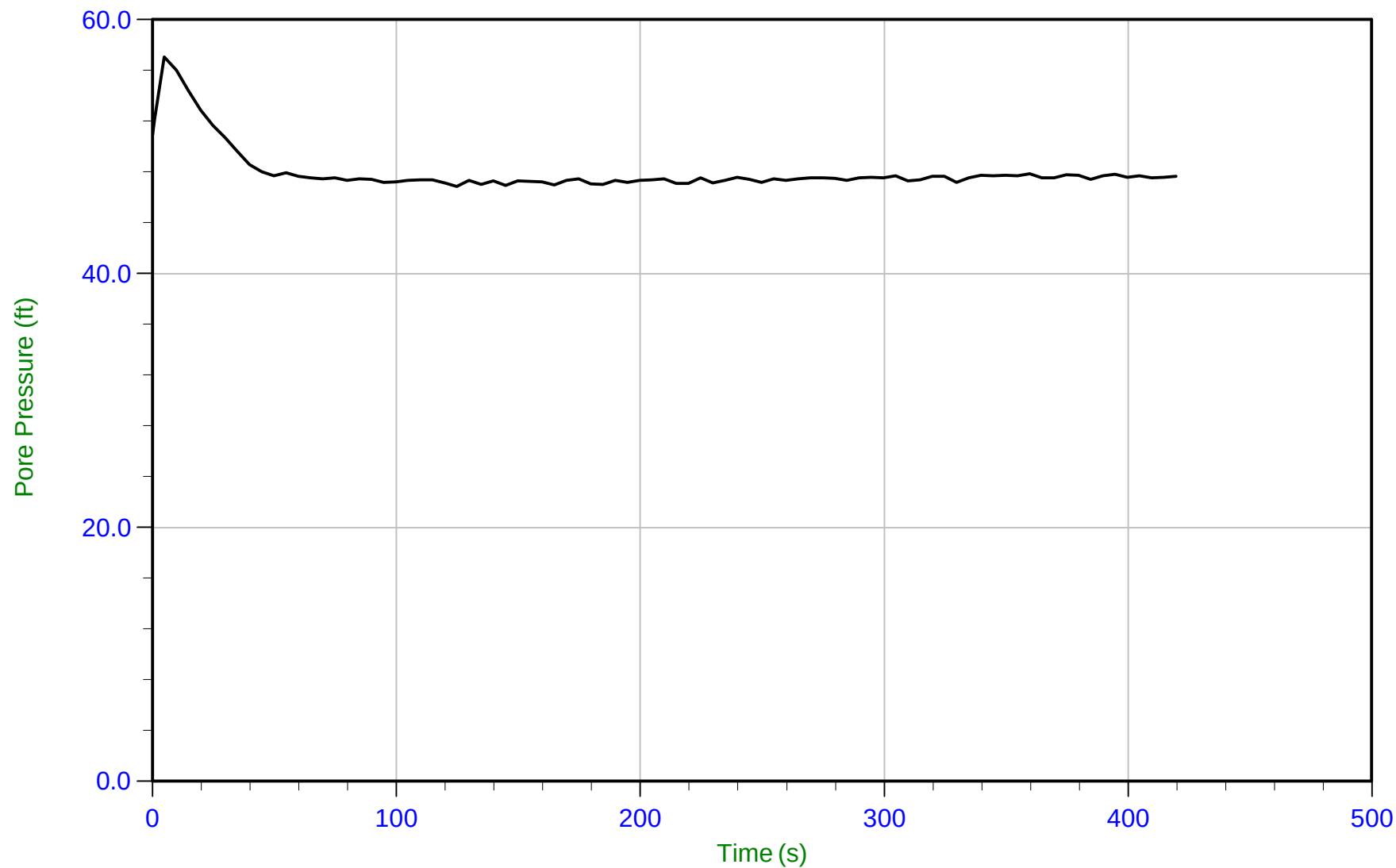
Job No: 18-53107

Date: 09/19/2018 23:26

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-02

Cone: 550:T1500F15U500 Area=15 cm²



Trace Summary: Filename: 18-53107_CP02.PPD
Depth: 17.525 m / 57.496 ft
Duration: 420.0 s

U Min: 46.9 ft
U Max: 57.1 ft

WT: 3.028 m / 9.933 ft
Ueq: 47.6 ft



SW Cole Engineering

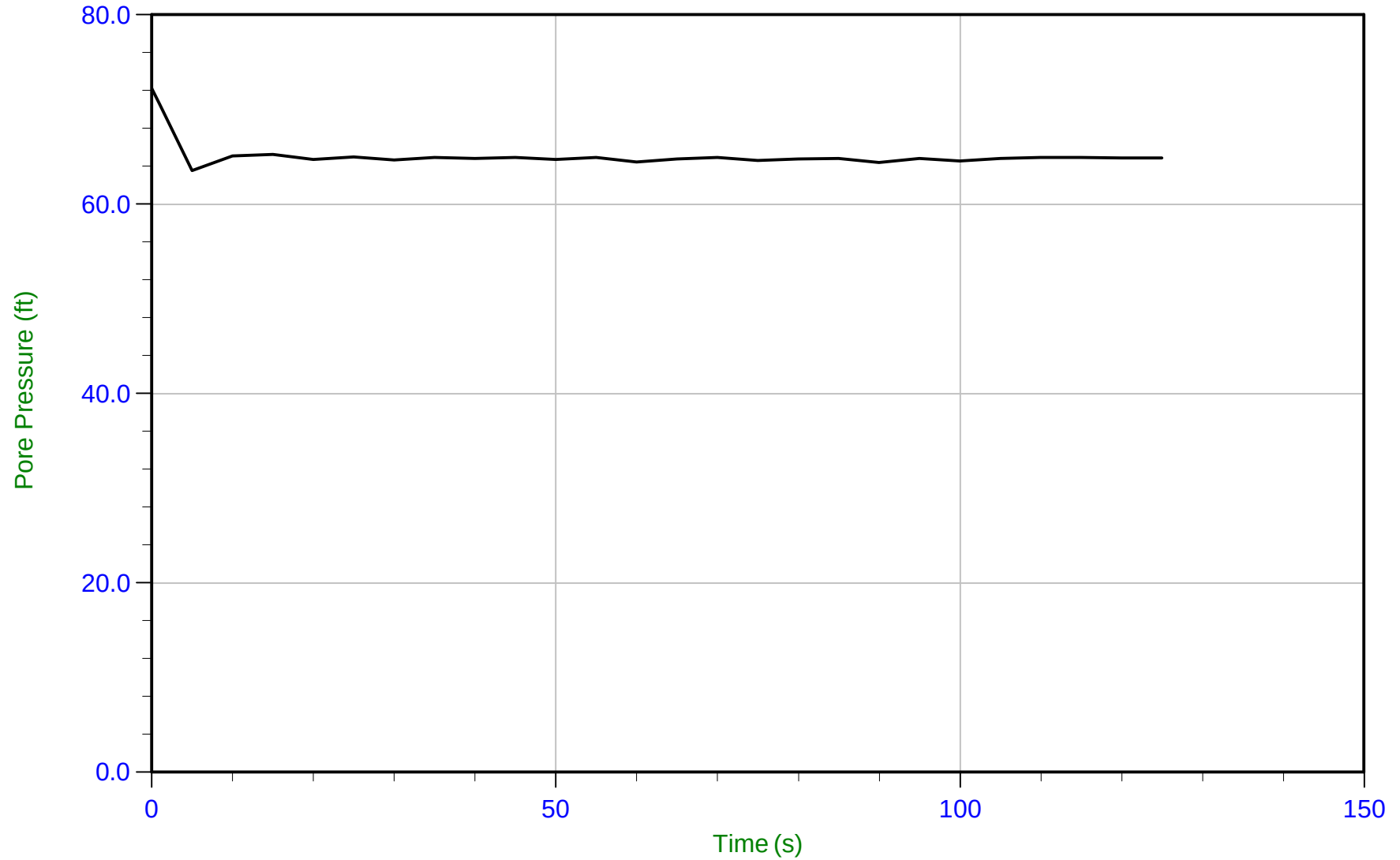
Job No: 18-53107

Date: 09/19/2018 23:26

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-02

Cone: 550:T1500F15U500 Area=15 cm²



Trace Summary: Filename: 18-53107_CP02.PPD
Depth: 22.825 m / 74.884 ft
Duration: 125.0 s

U Min: 63.6 ft
U Max: 72.3 ft

WT: 3.052 m / 10.012 ft
Ueq: 64.9 ft



SW Cole Engineering

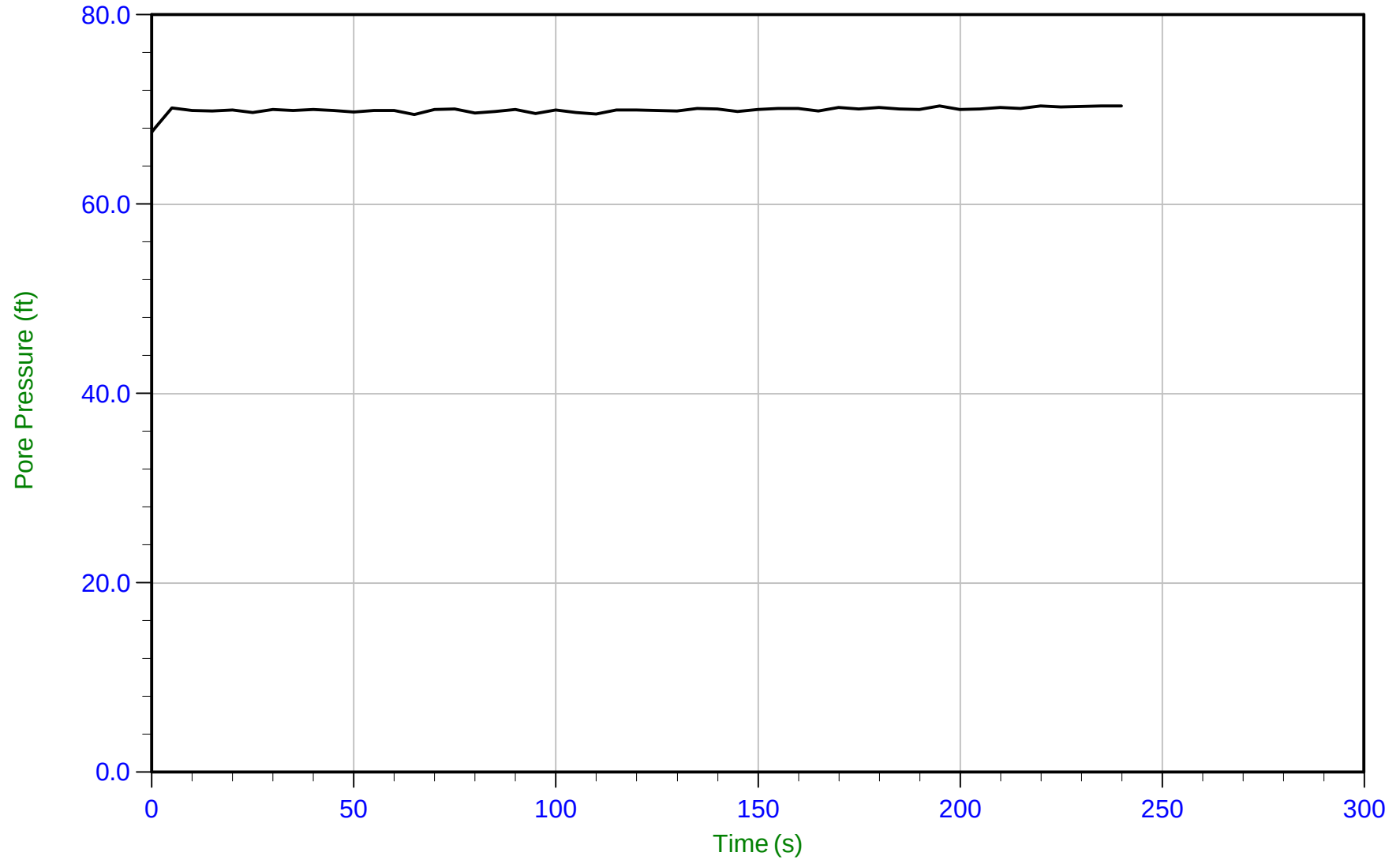
Job No: 18-53107

Date: 09/21/2018 13:14

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-05

Cone: 550:T1500F15U500 Area=15 cm²



Trace Summary: Filename: 18-53107_CP05.PPD
Depth: 23.975 m / 78.657 ft
Duration: 240.0 s

U Min: 67.6 ft
U Max: 70.4 ft

WT: 2.517 m / 8.258 ft
Ueq: 70.4 ft



SW Cole Engineering

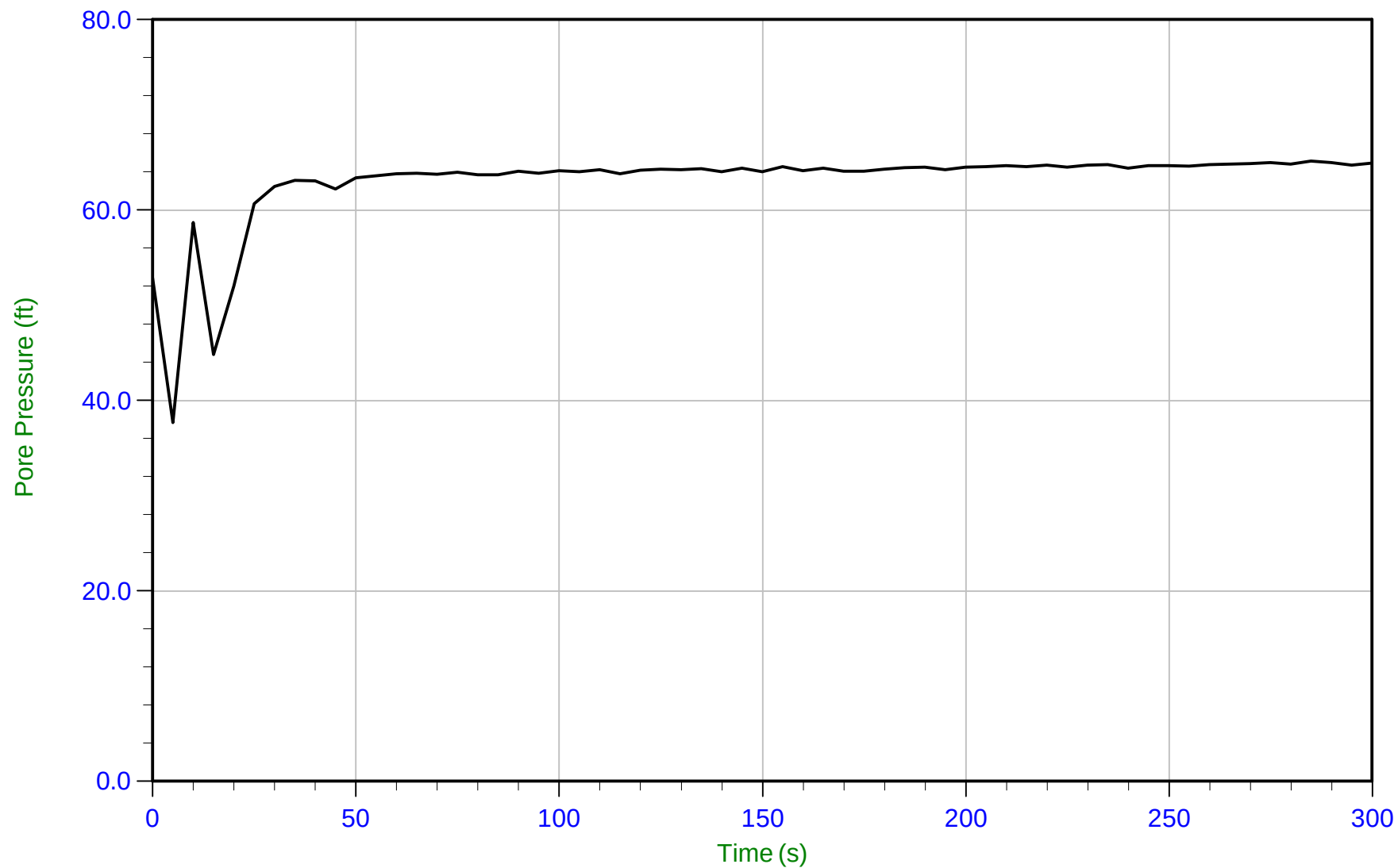
Job No: 18-53107

Date: 09/21/2018 08:17

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-06A

Cone: 550:T1500F15U500 Area=15 cm²



Trace Summary: Filename: 18-53107_CP06A.PPD
Depth: 22.375 m / 73.408 ft
Duration: 300.0 s

U Min: 37.7 ft
U Max: 65.1 ft

WT: 2.602 m / 8.536 ft
Ueq: 64.9 ft



SW Cole Engineering

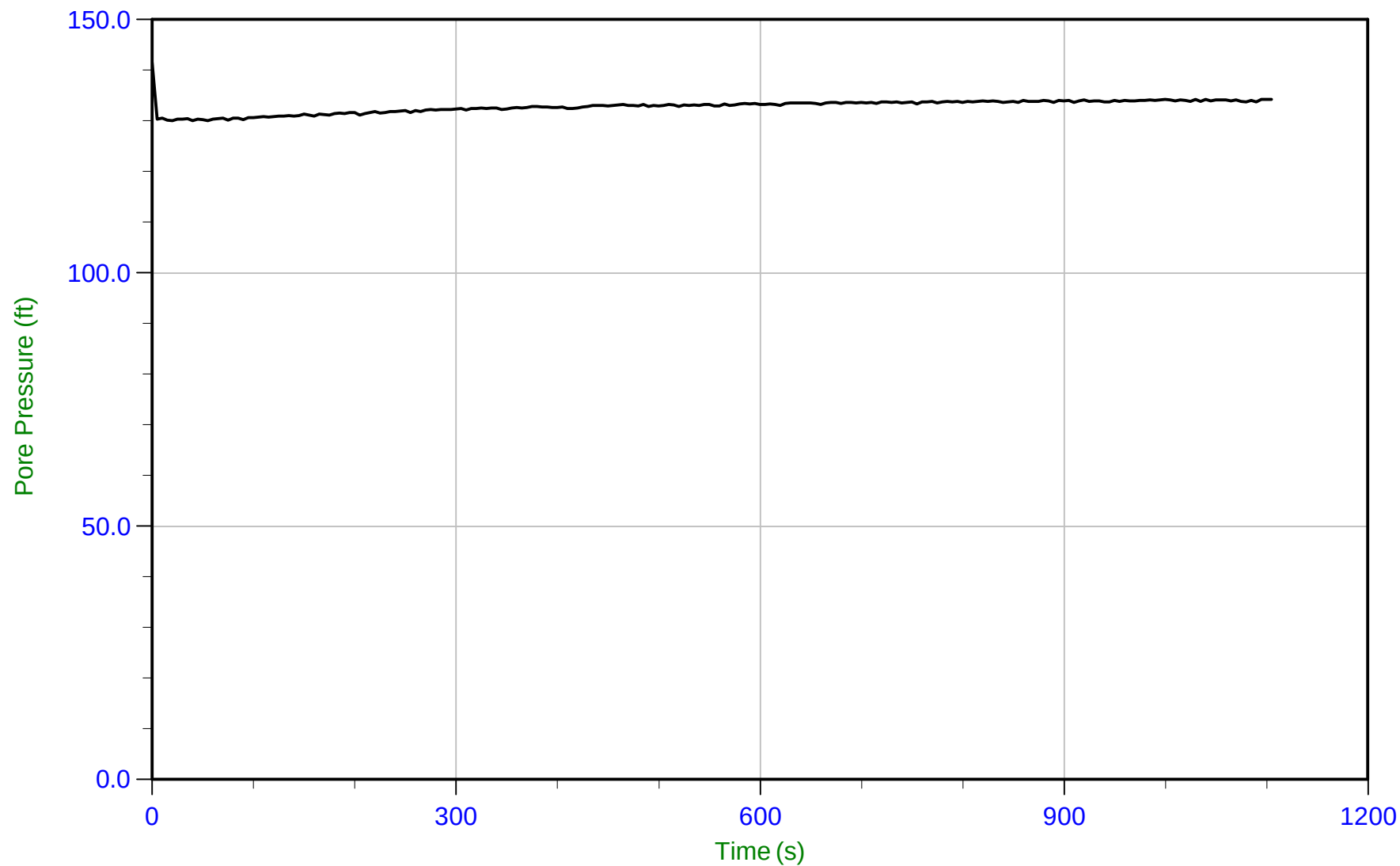
Job No: 18-53107

Date: 09/20/2018 14:41

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-07

Cone: 550:T1500F15U500 Area=15 cm²



Trace Summary: Filename: 18-53107_CP07.PPD
Depth: 42.600 m / 139.762 ft
Duration: 1105.0 s

U Min: 130.0 ft
U Max: 141.5 ft

WT: 1.868 m / 6.127 ft
Ueq: 133.6 ft



SW Cole Engineering

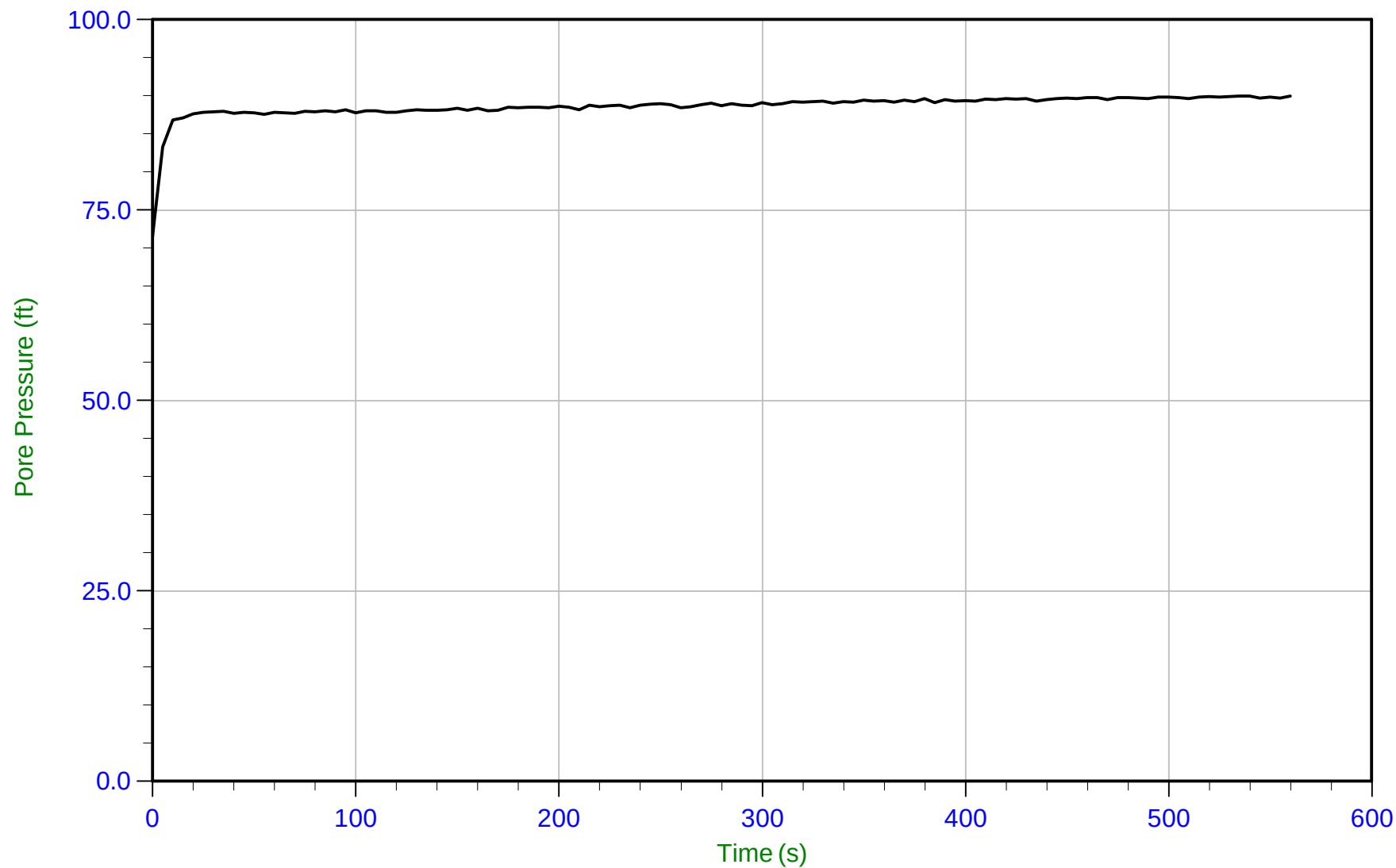
Job No: 18-53107

Date: 09/21/2018 14:51

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-08

Cone: 550:T1500F15U500 Area=15 cm²



Trace Summary: Filename: 18-53107_CP08.PPD
Depth: 29.650 m / 97.276 ft
Duration: 560.0 s

U Min: 71.5 ft
U Max: 90.0 ft

WT: 2.273 m / 7.459 ft
Ueq: 89.8 ft



SW Cole Engineering

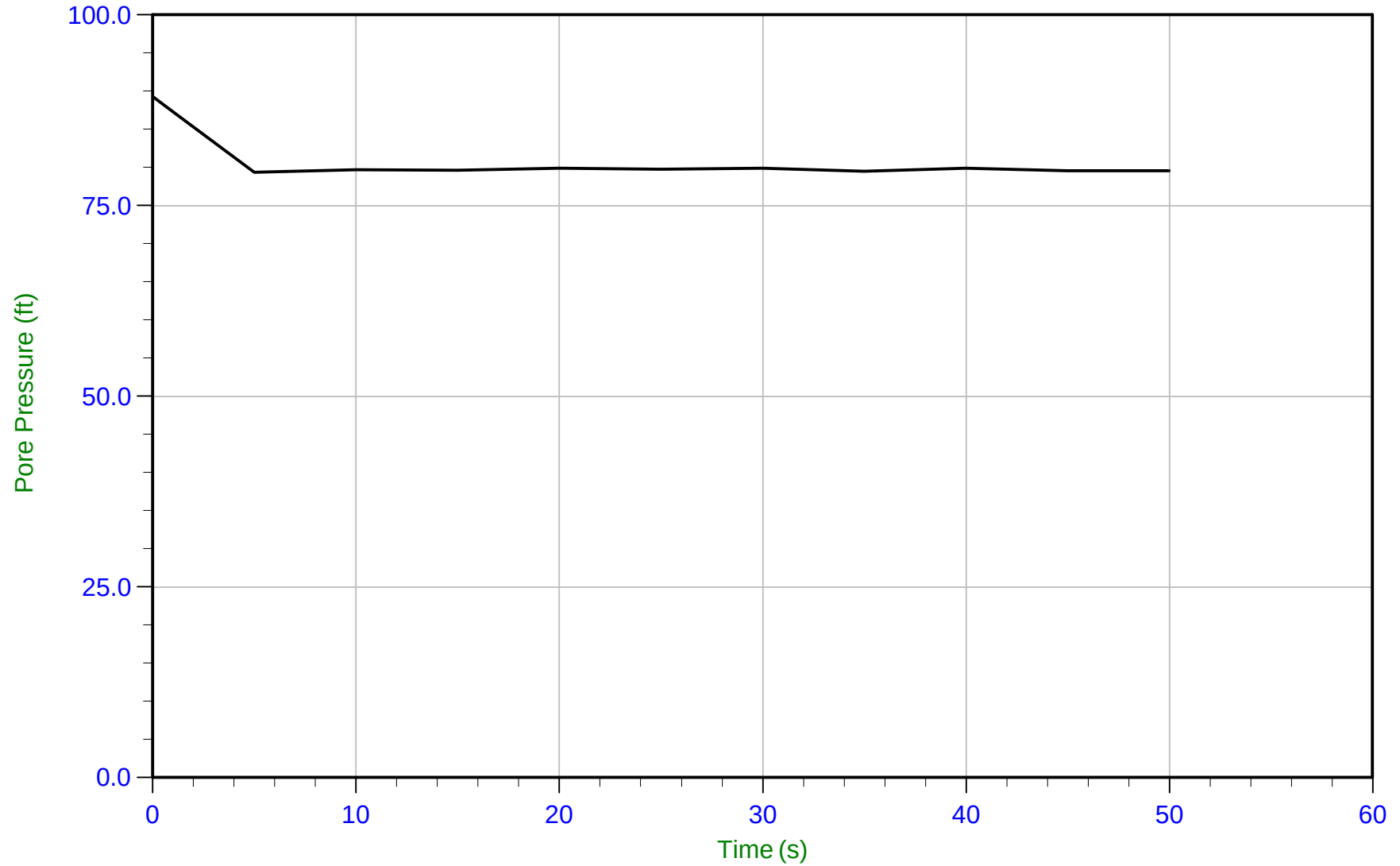
Job No: 18-53107

Date: 09/20/2018 11:42

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-10

Cone: 550:T1500F15U500 Area=15 cm²



Trace Summary: Filename: 18-53107_CP10.PPD
Depth: 27.150 m / 89.074 ft
Duration: 50.0 s

U Min: 79.4 ft
U Max: 89.3 ft

WT: 2.877 m / 9.438 ft
Ueq: 79.6 ft



SW Cole Engineering

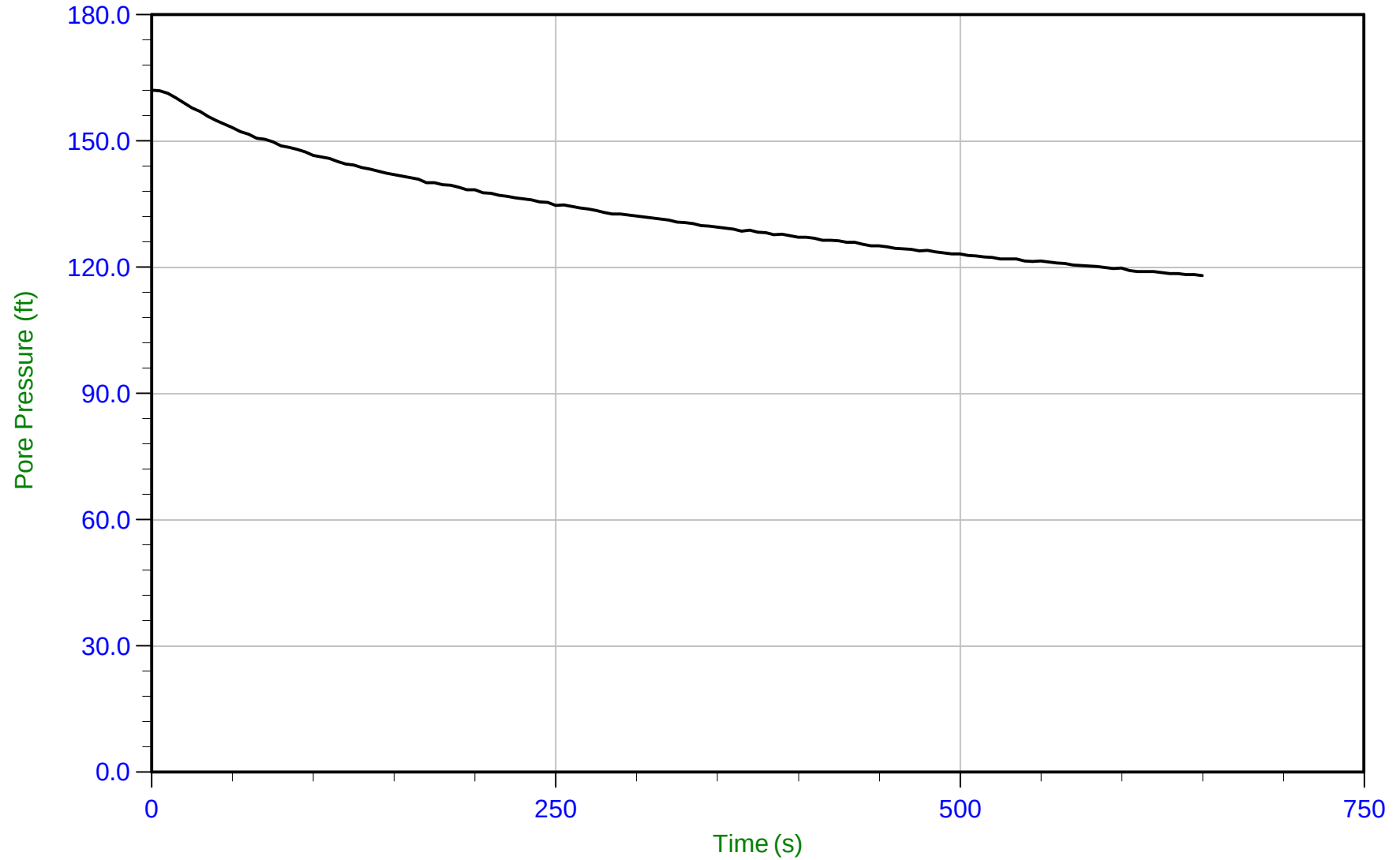
Job No: 18-53107

Date: 09/18/2018 10:12

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-11A

Cone: 550:T1500F15U500 Area=15 cm²



Trace Summary: Filename: 18-53107_CP11A.PPD U Min: 118.1 ft WT: 1.556 m / 5.106 ft
Depth: 12.750 m / 41.830 ft U Max: 162.1 ft Ueq: 36.7 ft
Duration: 650.0 s



SW Cole Engineering

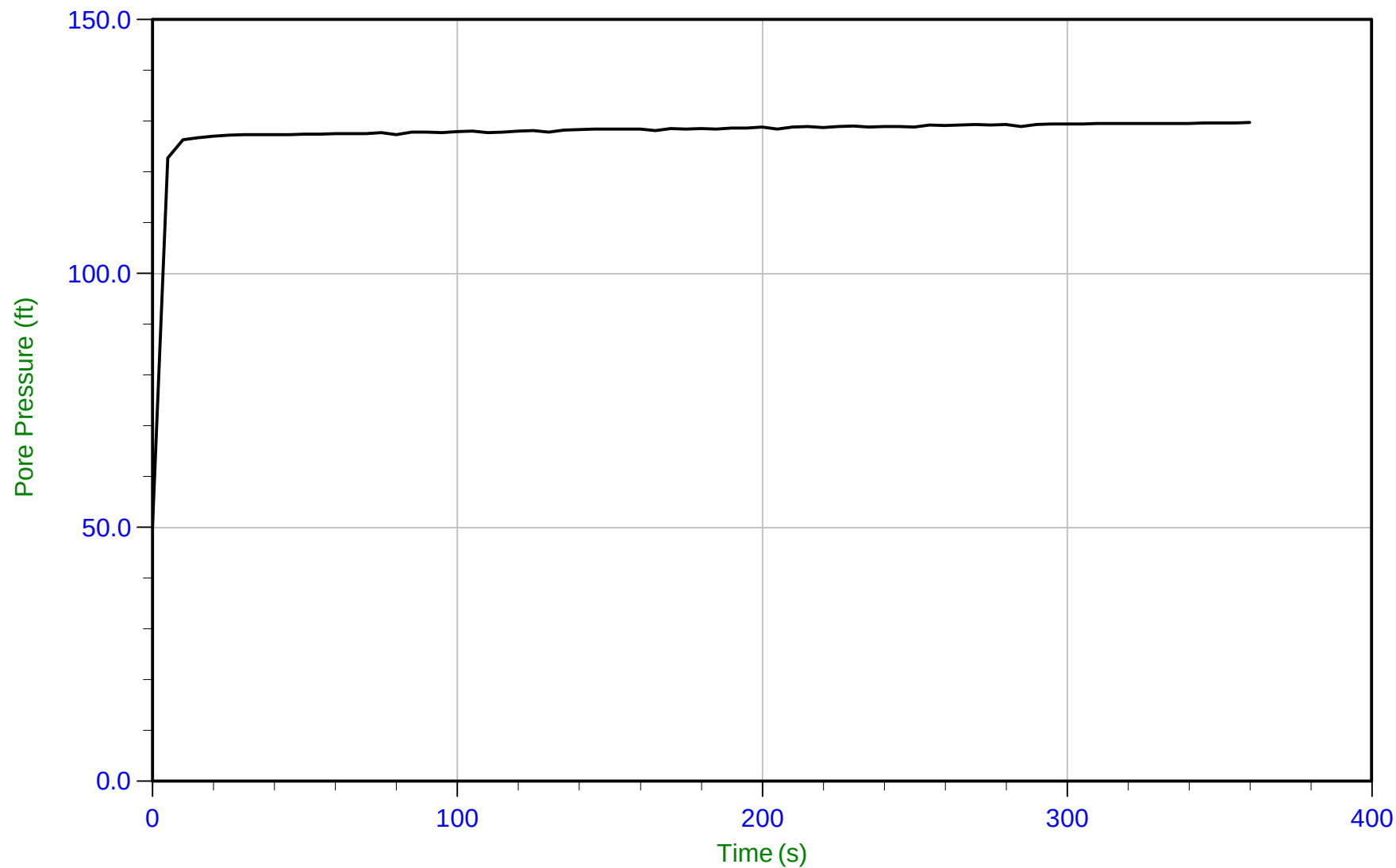
Job No: 18-53107

Date: 09/18/2018 10:12

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-11A

Cone: 550:T1500F15U500 Area=15 cm²



Trace Summary:

Filename: 18-53107_CP11A.PPD

Depth: 41.125 m / 134.923 ft

Duration: 360.0 s

U Min: 50.3 ft

U Max: 129.8 ft

WT: 1.556 m / 5.106 ft

Ueq: 129.8 ft



SW Cole Engineering

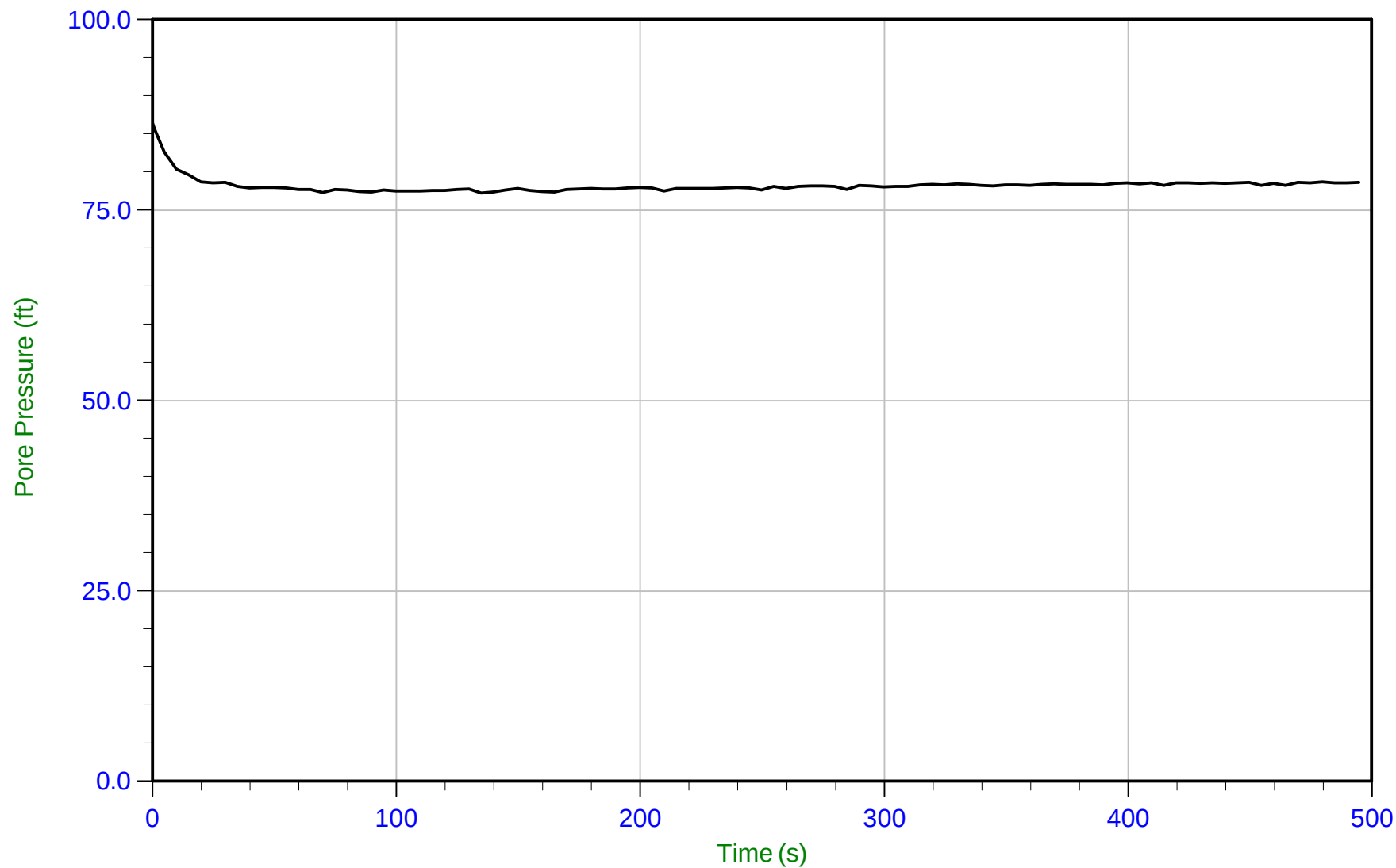
Job No: 18-53107

Date: 09/20/2018 08:30

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-12C

Cone: 550:T1500F15U500 Area=15 cm²



Trace Summary:

Filename: 18-53107_CP12C.PPD

Depth: 25.625 m / 84.071 ft

Duration: 495.0 s

U Min: 77.3 ft

U Max: 86.4 ft

WT: 1.574 m / 5.162 ft

Ueq: 78.9 ft



SW Cole Engineering

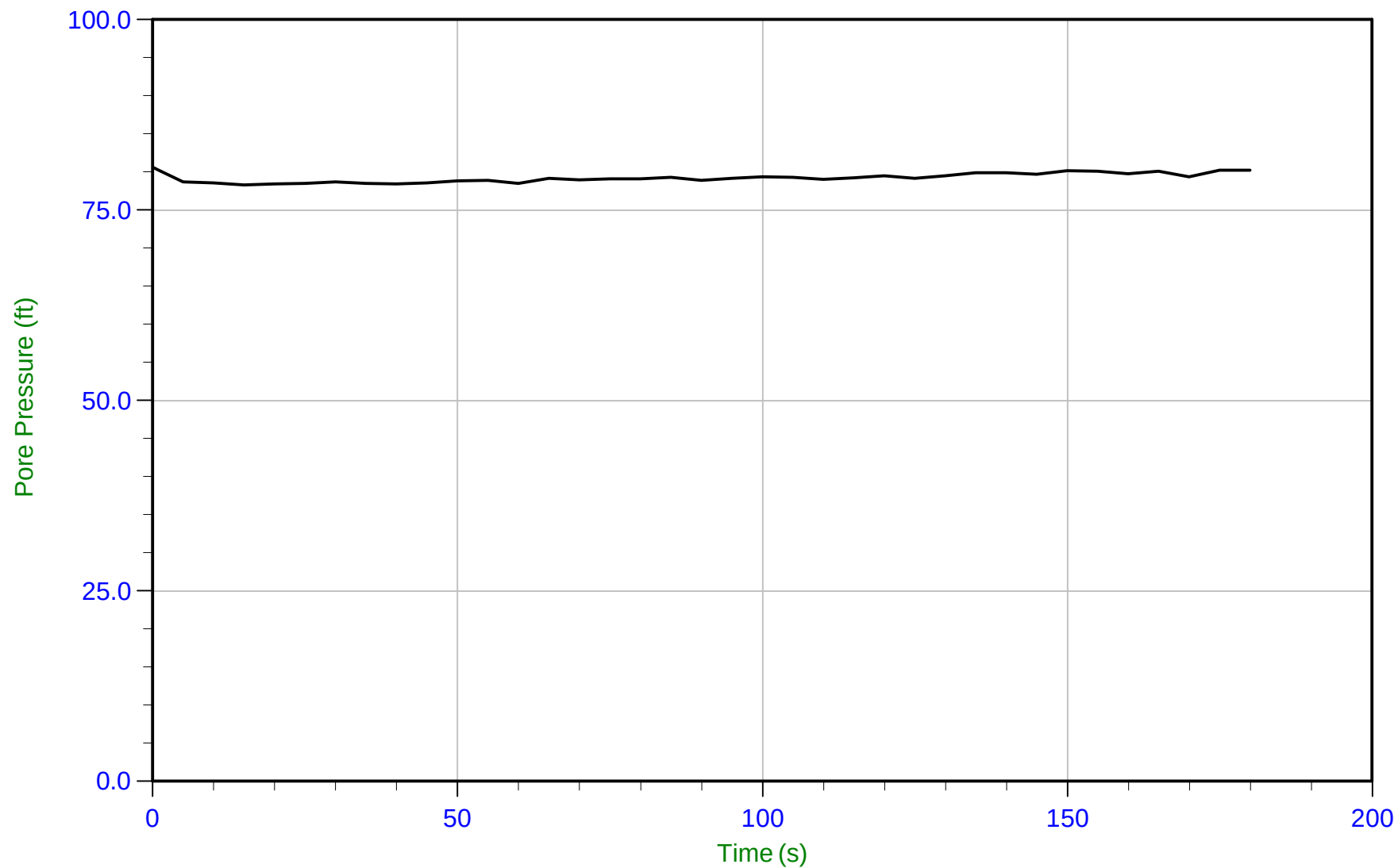
Job No: 18-53107

Date: 09/20/2018 04:17

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-14B

Cone: 550:T1500F15U500 Area=15 cm²



Trace Summary:

Filename: 18-53107_CP14B.PPD

Depth: 26.650 m / 87.433 ft

Duration: 180.0 s

U Min: 78.3 ft

U Max: 80.6 ft

WT: 2.266 m / 7.434 ft

Ueq: 80.0 ft



SW Cole Engineering

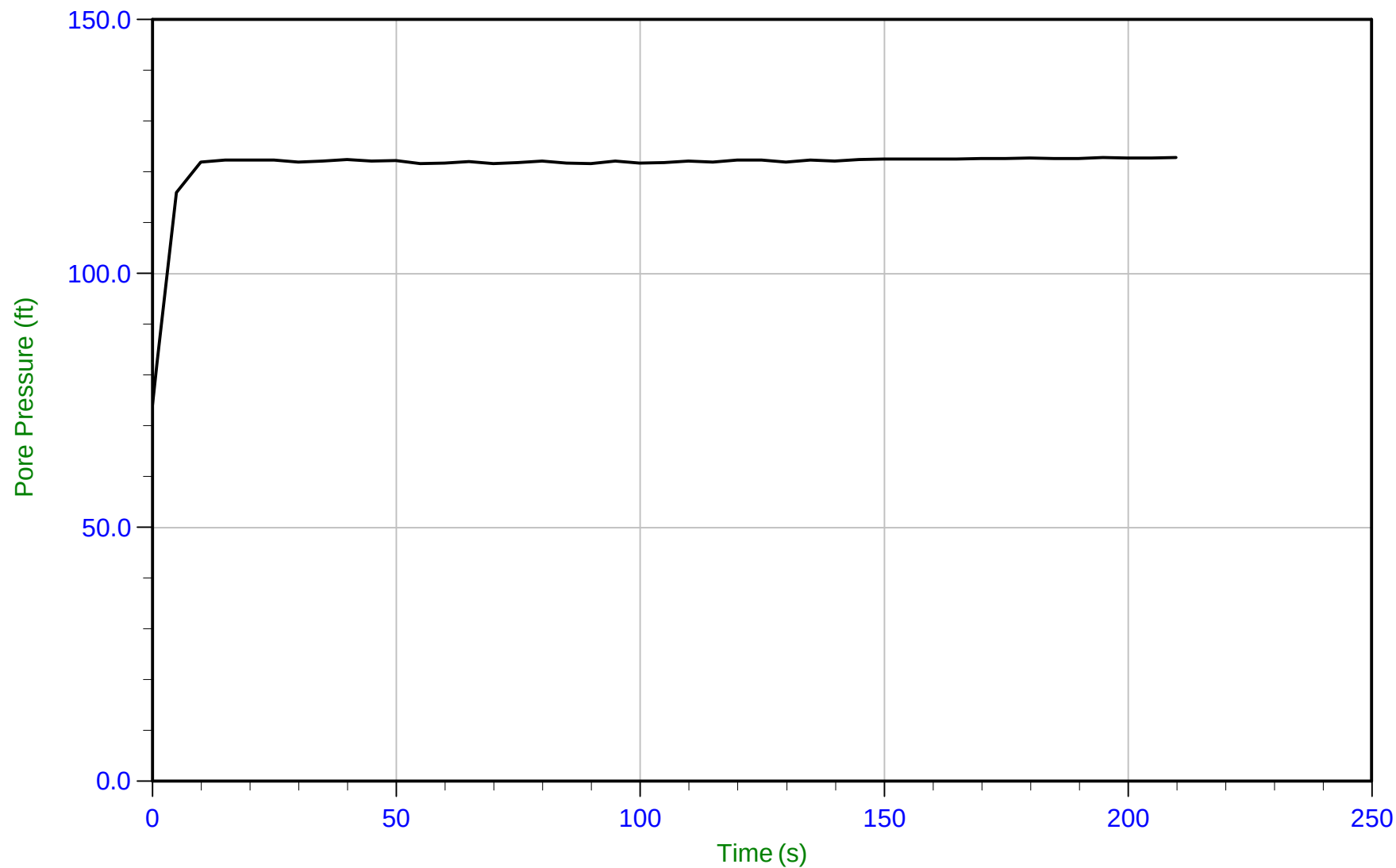
Job No: 18-53107

Date: 09/20/2018 04:17

Site: Cold Storage Warehouse, Portland, ME

Sounding: CPT18-14B

Cone: 550:T1500F15U500 Area=15 cm²



Trace Summary: Filename: 18-53107_CP14B.PPD
Depth: 39.525 m / 129.674 ft
Duration: 210.0 s

U Min: 74.2 ft
U Max: 122.9 ft

WT: 2.118 m / 6.948 ft
Ueq: 122.7 ft

APPENDIX E

Geophysical Testing Report

**SHEAR WAVE VELOCITY TESTING
FORMER PORTLAND GAS WORKS SITE
400 COMMERCIAL STREET
PORTLAND, MAINE**

Prepared for:

S. W. Cole Engineering, Inc.
286 Portland Road
Gray, Maine 04039

Prepared by:

Hager-Richter Geoscience, Inc.
8 Industrial Way, Suite D10
Salem, New Hampshire 03079

File 17J109
January, 2018

TABLE OF CONTENTS

1.	Introduction	1
2.	Equipment and Procedures	3
3.	Results and Discussion	5
4.	Limitations	7

FIGURES

1. General Site Location
2. pVs Survey Line Locations

APPENDIX

1. Boring Locations and Logs Provided by S.W. Cole

1. INTRODUCTION

Hager-Richter Geoscience, Inc. (Hager-Richter) conducted passive surface shear wave velocity testing at the Former Portland Gasworks Site located at 400 Commercial Street in Portland, Maine in December, 2017 for S. W. Cole Engineering Inc., (S.W. Cole) of Gray, Maine. The geophysical testing was performed as part of a geotechnical investigation of the project site by S.W. Cole.

The site is the location of the former Portland Gasworks located at 400 Commercial Street in Portland. The property is located on the south side of Commercial Street at the intersection with York Street. Figure 1 shows the general location of the site. According to information provide by S.W. Cole, a low temperature warehouse is planned for the vacant Site. Stratigraphy at the Site reportedly consists of fill overlying soft clay and silt to depths of over 100 feet. Bedrock was not encountered in borings installed at the Site. S.W.Cole requested site specific shear wave velocity information as a function of depth for the soil and bedrock to a depth of 100 feet for the determination of seismic site class at the site.

The surface shear wave velocity testing was conducted using the passive shear wave seismic (pVs) method. Figure 2 is a Google Earth image of the site showing the location of the three seismic testing lines specified by S.W. Cole.

Jeffrey Reid, P.G., and Sean Reid of Hager-Richter conducted the seismic testing on December 19, 2017. The project was coordinated with Mr. Tim Boyce, P.E., of S.W. Cole. Mr. Patrick Otto, also of S.W. Cole, was present on site for the fieldwork and specified the pVs line location. Data analysis and interpretation were completed at the Hager-Richter offices. Original data and field notes will be retained in the Hager-Richter files for a minimum of three years.

2. EQUIPMENT AND PROCEDURES

2.1 *Method*

The passive shear wave seismic (pVs) method is a geophysical method to determine a shear-wave velocity profile at a single location by analyzing a particular type of seismic wave recorded on a multichannel record. The name pVs is derived from p for passive and Vs for velocity of shear waves. The pVs method, also called the Refraction Microtremor method, or ReMi™, uses Rayleigh waves, a particular kind of wave first described by Lord Rayleigh in 1885. Such waves are dispersive (meaning that the velocity is a function of the wavelength), and the amplitude of such waves decreases with depth. The velocity depends primarily on the shear wave velocities and layering of the subsurface material.

Rayleigh waves are a significant part of the ambient subsurface noise at most, if not all, sites. There are many sources of such noise, including, but not limited to, wind, pedestrian and vehicular traffic, surface and subway trains, and construction activities. Although such noise can be troublesome for most seismic methods, it is the source of signals for the pVs method, and the higher the noise level, the better the results for this method.

Low frequency (4.5 Hz) geophones are installed five feet apart along a straight line and connected to a seismograph. The ambient noise is recorded for 30 seconds two or three times, and examined to be sure that noise of sufficiently low frequency is present. If the noise is sufficient, then 10 to 15 such records are acquired. If the noise spectra do not reach sufficiently low frequencies, then one walks or runs along the testing line during data acquisition to add low frequency noise to the ambient noise. The surface waves used in the pVs method, considered noise in seismic refraction and seismic reflection surveys, are enhanced during data acquisition and processing for the pVs method. The seismic data are analyzed using SeisOpt® ReMi™, a commercially licensed software package developed by Optim, Inc. located at the University of Nevada at Reno. Results are normally presented as 1-D plots or in tabular form showing shear wave velocity as a function of depth for the center point of the seismic line.

2.2 *Determination of Average Shear Wave Velocity for Building Code Purposes*

The pVs method determines (a) the shear wave velocity at the mid point along a survey line for several layers, averaged over the length of the survey line, and (b) the average shear wave velocity V_{avg} for site classification for seismic design in accordance with building codes. Similar calculations can be performed with the results of the shear wave velocity survey. The average value V_{avg} is determined using the equation 16-44 of the IBC as follows:

$$V_{avg} = \left(\sum_{i=1}^N d_i \right) / \sum_{i=1}^N d_i / V_i$$

where d_i is thickness of layer i
 V_i is shear wave velocity of layer i
 N denotes the total number of layers

The Seismic Site Class, *based solely on average shear wave velocity*, is defined by the IBC as follows:

Site Class	Soil Profile Name	Soil Shear Wave Velocity (ft/s)
A	Hard rock	$V_s > 5000$
B	Rock	$2500 < V_s \leq 5000$
C	Very dense soil and soft rock	$1200 < V_s \leq 2500$
D	Stiff soil profile	$600 \leq V_s \leq 1200$
E	Soft soil profile	$V_s < 600$

Although the IBC provides other methods to determine the Site Class, such as standard penetration resistance (blow counts) and soil undrained shear strength, this report provides shear wave velocity data only. There is no consideration of other factors that may affect a site class such as liquefaction. The final determination of seismic site class should be made by the project engineer.

2.3 *Equipment*

We used a 48-channel digital seismograph (Geometrics Geode) coupled to 48 geophones to acquire the pVs data for the subject testing. We used 4.5-Hz frequency vertical geophones for the subject shear wave velocity testing.

2.4 *Limitations of the Method*

As with all physical measurements, there is experimental error in the velocities that are determined using the passive shear wave velocity method. For the pVs method, the accuracy of V_{avg} is stated by Optim, Inc. to be 5-15%.

The depth of investigation is a function of the noise spectrum, and long wave lengths (low frequencies) are required to determine velocity at large depths. Noise levels can be improved by a person running along the seismic spread during data acquisition.

2.5 *Site Specific*

The locations of the pVs test lines at the subject site are shown in Figure 2. The position of the pVs testing lines were located using a Trimble Geo 7X CM GPS receiver coupled with a Zephyr-2 external antenna. The pVs data were acquired using 48 4.5Hz geophones and a geophone spacing of 6 feet for Line 1 and 5 feet for Lines 2 and 3. The pVs method yields a simple vertical shear wave velocity profile for the mid-point of the test line. The seismic source for the pVs testing was ambient noise from nearby traffic and activity as well as thumping along the lines with a sledge hammer. Photo 1 shows the general surface conditions encountered.

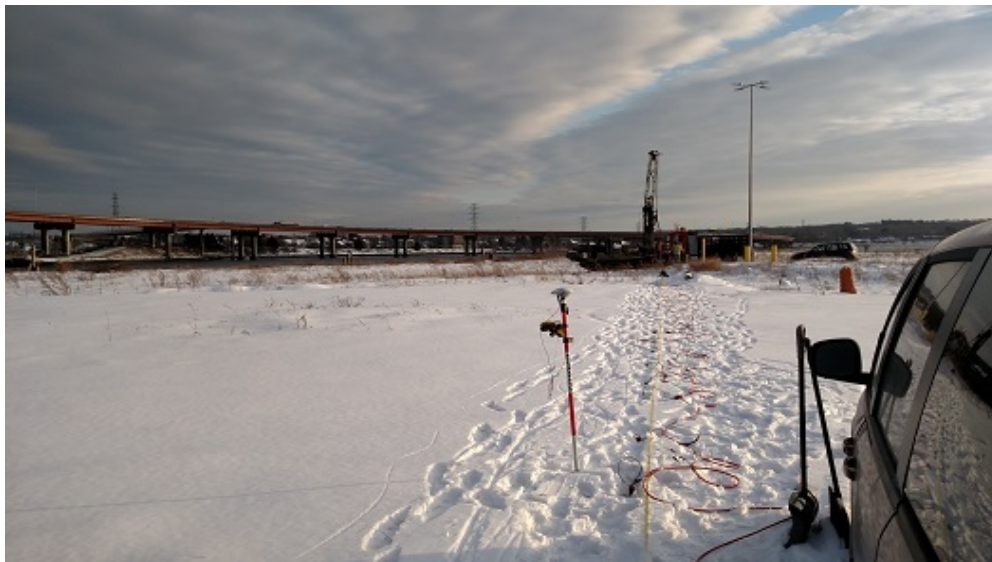


Photo 1. View looking south along pVs Test Line 3. Geophones were installed into the sand and gravel below the snow. Note the S.W. Cole drill rig in the background.

3. RESULTS AND DISCUSSION

The surface shear wave velocity testing was conducted using the passive shear wave seismic (pVs) method at three test locations specified by S.W. Cole and designated as Lines 1-3. The test locations and center points for the velocity profiles are shown in Figure 2.

According to information provided by S.W.Cole, stratigraphy consists of fill overlying soft clay and silt to depths of over 100 feet. Bedrock was not encountered in borings installed at the Site.

The quality for the pVs data at the subject site is judged to be very good. The results of the pVs testing are reported in Table 1. The pVs results are derived over test lines that span about 200-250 feet, providing an average velocity structure over the length of the test line. However, the borings provide very localized point information. Because of the localized nature of the boring data, no attempt was made to “force” a specific velocity model based on the boring data provided by SW Cole to remove any possible local bias from a point source. For modeling purposes, the subsurface stratigraphy was divided into four or five discrete units. The layer thicknesses that provide the best statistical fit to the dispersion curve are used for the models.

The root mean square error for the fit of the dispersion curves versus the measured data using the model velocities is 1.6% , 1.9%, and 2.9%, respectively, for pVs Lines 1-3. These very low error values indicate that the models fit the data extremely well. While the resulting velocity units do not necessarily correlate with specific lithologic units identified in any individual boring, there is very good general correlation between the generated velocity models the general site-wide stratigraphy.

The shear wave velocities for the individual stratigraphic modeled units are provided in Table 1. The average value of the velocity of shear waves for the depth interval of 0-100 ft based on Equation 1 of the IBC , V_{s100} , are provided in Table 1 as 650 fps, 667 fps, and 611 fps, respectively, for Lines 1-3.

TABLE 1: pVs TEST RESULTS

Geologic Unit *	Line 1	
	Depth Interval (ft)	V _s ** (ft/s)
Loose Fill	0 - 10	422
More Dense Fill	10 - 16.5	1,582
Soft Clay and Silt	16.5 - 65	503
More Dense Sand and Silt (Till ?)	65 - 100	1,178
V _{s100} (ft/s)	650	
RMS	1.6%	
Geologic Unit *	Line 2	
	Depth Interval (ft)	V _s ** (ft/s)
Loose Fill	0 - 11	481
More Dense Fill	11 - 17	1,846
Soft Clay and Silt	17 - 69	537
More Dense Sand and Silt (Till ?)	69 - 100	1,156
V _{s100} (ft/s)	667	
RMS	1.9%	
Geologic Unit *	Line 3	
	Depth Interval (ft)	V _s ** (ft/s)
Loose Fill	0 - 5	456
Dense Fill	5 - 13	756
Soft Clay and Silt	13 - 52	503
Soft Clay and Silt (cont.)	52 - 80	532
More Dense Sand and Silt (Till ?)	80 - 100	1,657
V _{s100} (ft/s)	611	
RMS	2.9%	

* Part of the description of stratigraphy is based on boring logs provided by S.W. Cole

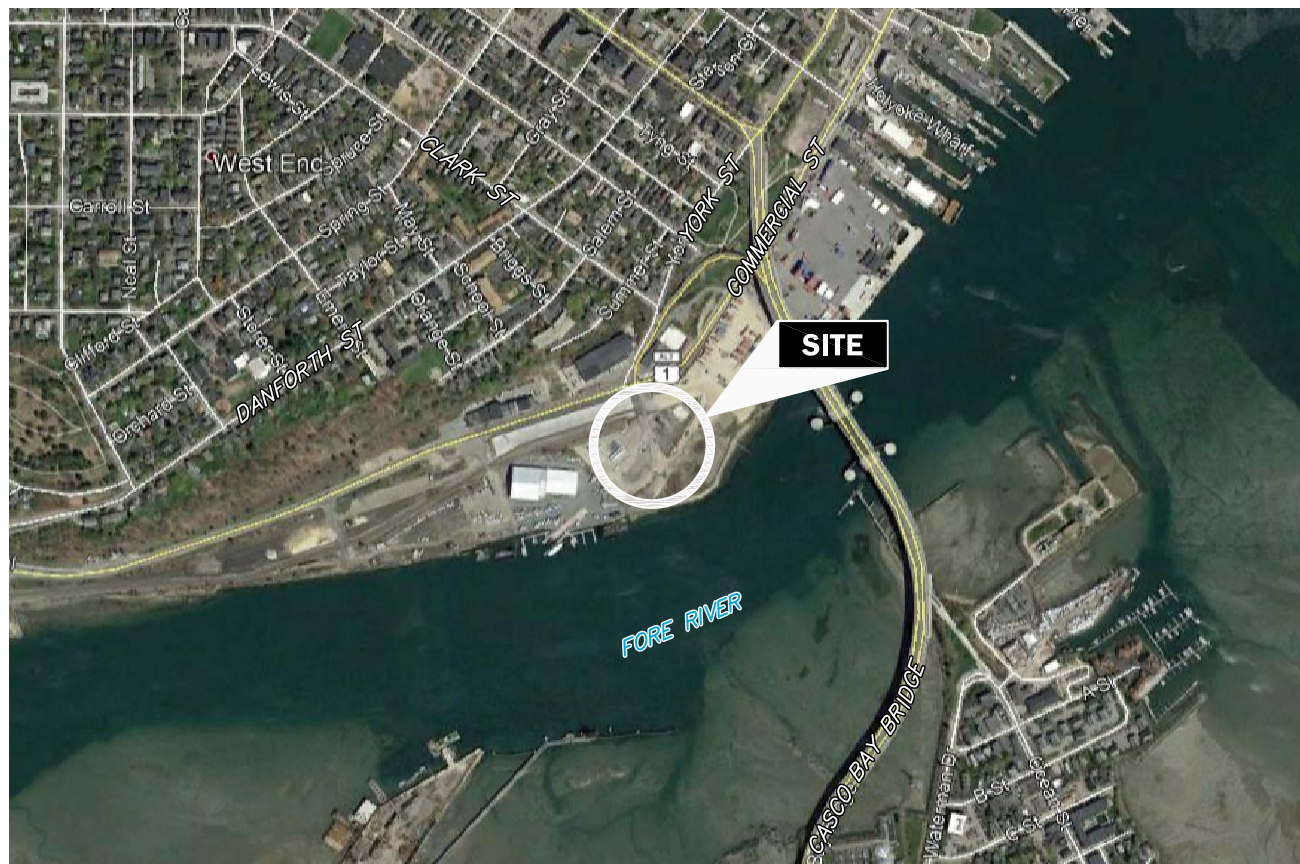
** Shear wave velocity profile is determined for the mid-point of the testing line

4. LIMITATIONS

This report was prepared for the exclusive use of S. W. Cole Engineering, Inc. (Client). No other party shall be entitled to rely on this Report or any information, documents, records, data, interpretations, advice or opinions given to Client by Hager-Richter Geoscience, Inc. (H-R) in the performance of its work. The Report relates solely to the specific project for which H-R has been retained and shall not be used or relied upon by Client or any third party for any variation or extension of this project, any other project or any other purpose without the express written permission of H-R. Any unpermitted use by Client or any third party shall be at Client's or such third party's own risk and without any liability to H-R.

H-R has used reasonable care, skill, competence and judgment in the preparation of this Report consistent with professional standards for those providing similar services at the same time, in the same locale, and under like circumstances. Unless otherwise stated, the work performed by H-R should be understood to be exploratory and interpretational in character and any results, findings or recommendations contained in this Report or resulting from the work proposed may include decisions which are judgmental in nature and not necessarily based solely on pure science or engineering. It should be noted that our conclusions might be modified if subsurface conditions were better delineated with additional subsurface exploration including, but not limited to, test pits, soil borings with collection of soil and water samples, and laboratory testing.

Except as expressly provided in this limitations section, H-R makes no other representation or warranty of any kind whatsoever, oral or written, expressed or implied; and all implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed.



NOTE:

Modified from Google Earth Pro aerial photograph.



LOCATION

Figure 1
General Site Location
Former Portland Gasworks Site
Commercial Street
Portland, Maine

File 17J109

January, 2018

HAGER-RICHTER
Salem, NH | Fords, NJ



N

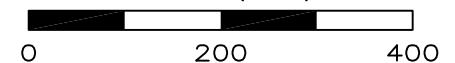


LEGEND



pVs TEST LINE
WITH MIDPOINT

SCALE (feet)



NOTE:

Modified from Google Earth Pro aerial photograph.

Figure 2
pVs Test Line Locations
Former Portland Gasworks Site
Commercial Street
Portland, Maine

File 17J109

January, 2018

HAGER-RICHTER
Salem, NH | Fords, NJ

APPENDIX F

Laboratory Test Results

Report of Gradation

ASTM C-117 & C-136

Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Project Number 16-1314

Lab ID 23279G

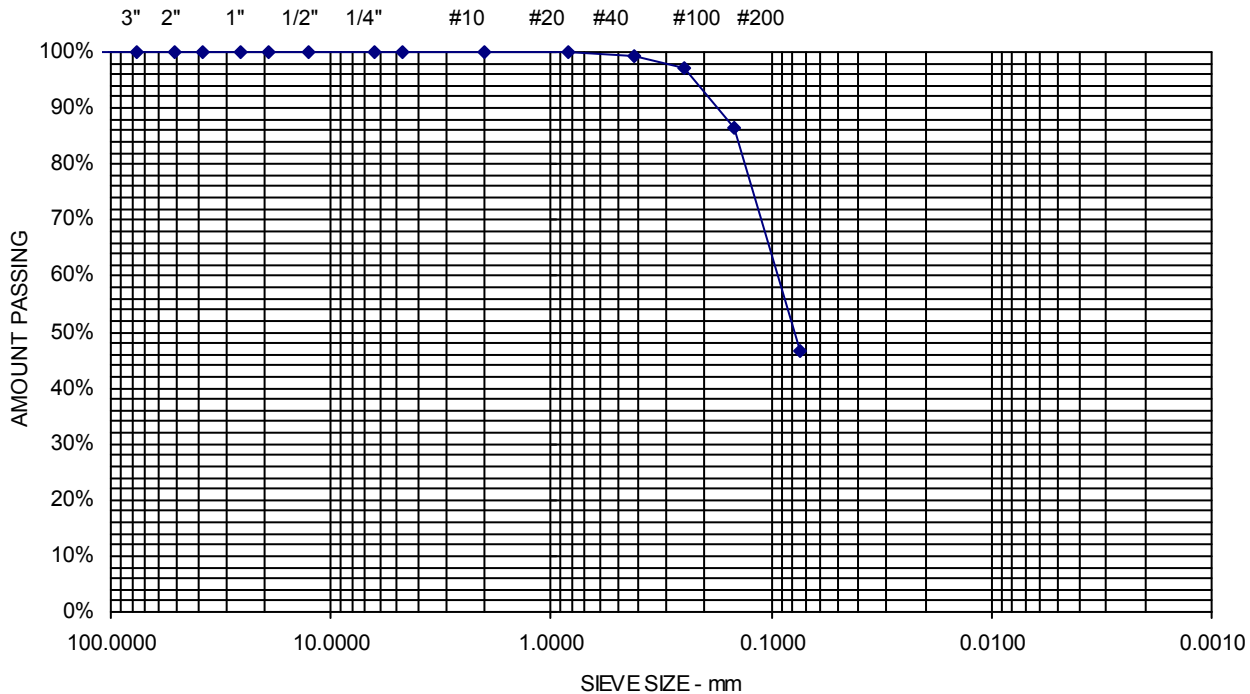
Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

Material Source **B-1001A 4D 30-32**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	100	
425 μm	No. 40	99	53.3% Sand
250 μm	No. 60	97	
150 μm	No. 100	86	
75 μm	No. 200	46.7	46.7% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
 GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

 Material Source **B-1001A 6D 40-42**

Project Number 16-1314

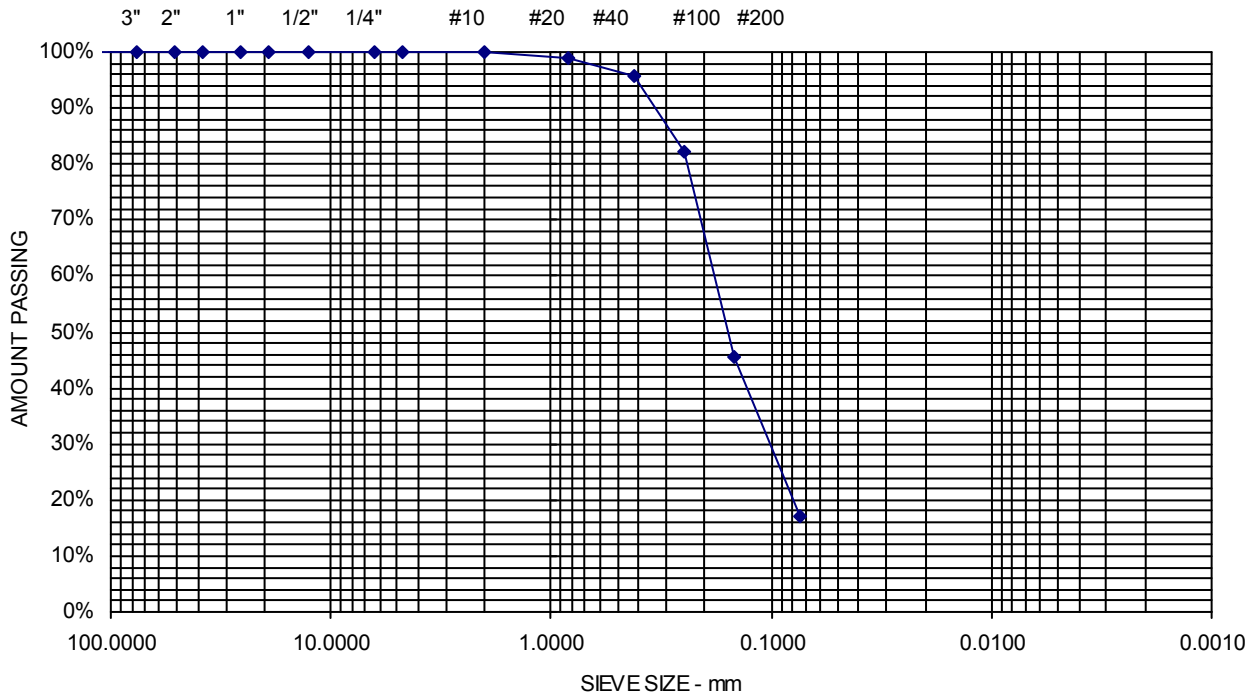
Lab ID 23280G

Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	99	
425 μm	No. 40	96	82.8% Sand
250 μm	No. 60	82	
150 μm	No. 100	46	
75 μm	No. 200	17.2	17.2% Fines



Project Name **PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
 GEOTECHNICAL ENGINEERING SERVICES**

 Client **WOODARD & CURRAN, INC.**

 Project Number **16-1314**

 Lab ID **23281G**

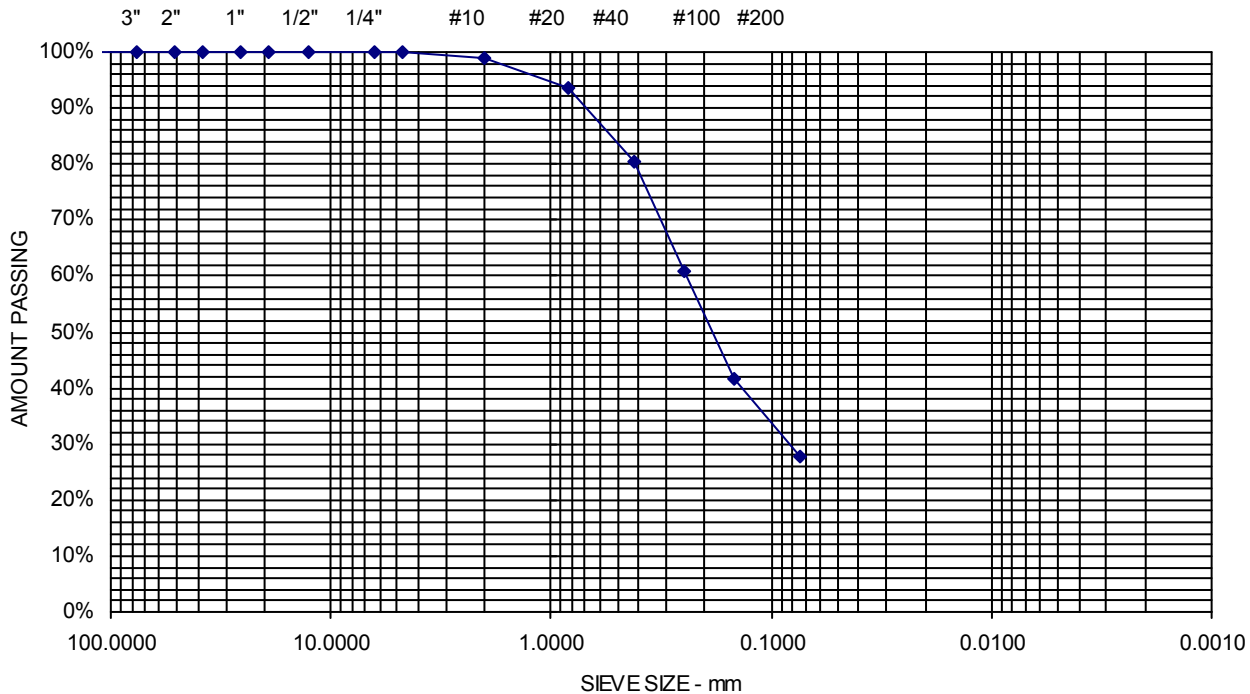
 Date Received **12/29/2017**

 Date Completed **1/3/2018**

 Tested By **PAUL SHAFFER**

 Material Source **B-1001A 8D 50-52**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	99	
850 μm	No. 20	93	
425 μm	No. 40	80	72.4% Sand
250 μm	No. 60	61	
150 μm	No. 100	42	
75 μm	No. 200	27.6	27.6% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Project Number 16-1314

Lab ID 23283G

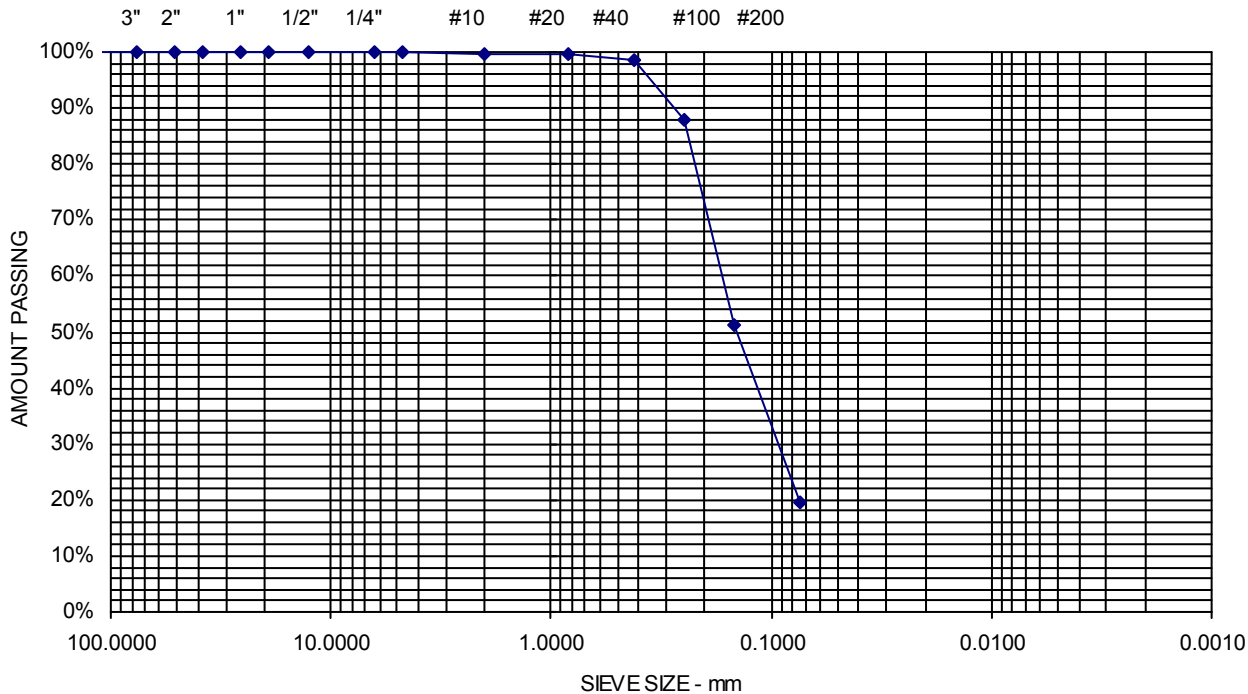
Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

Material Source B-1002 6D 25-27

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	100	
425 μm	No. 40	98	80.3% Sand
250 μm	No. 60	88	
150 μm	No. 100	51	
75 μm	No. 200	19.7	19.7% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
 GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Project Number 16-1314

Lab ID 23284G

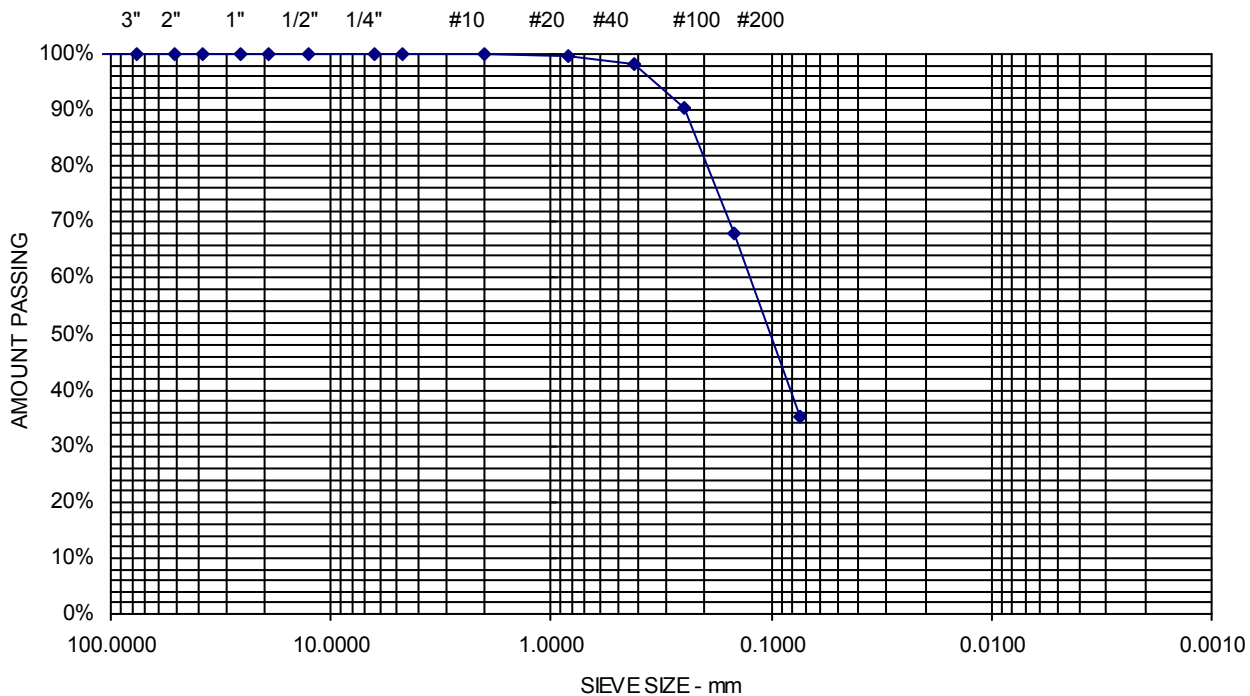
Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

 Material Source **B-1002 8D 35-37**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	100	
425 μm	No. 40	98	64.6% Sand
250 μm	No. 60	90	
150 μm	No. 100	68	
75 μm	No. 200	35.4	35.4% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Project Number 16-1314

Lab ID 23285G

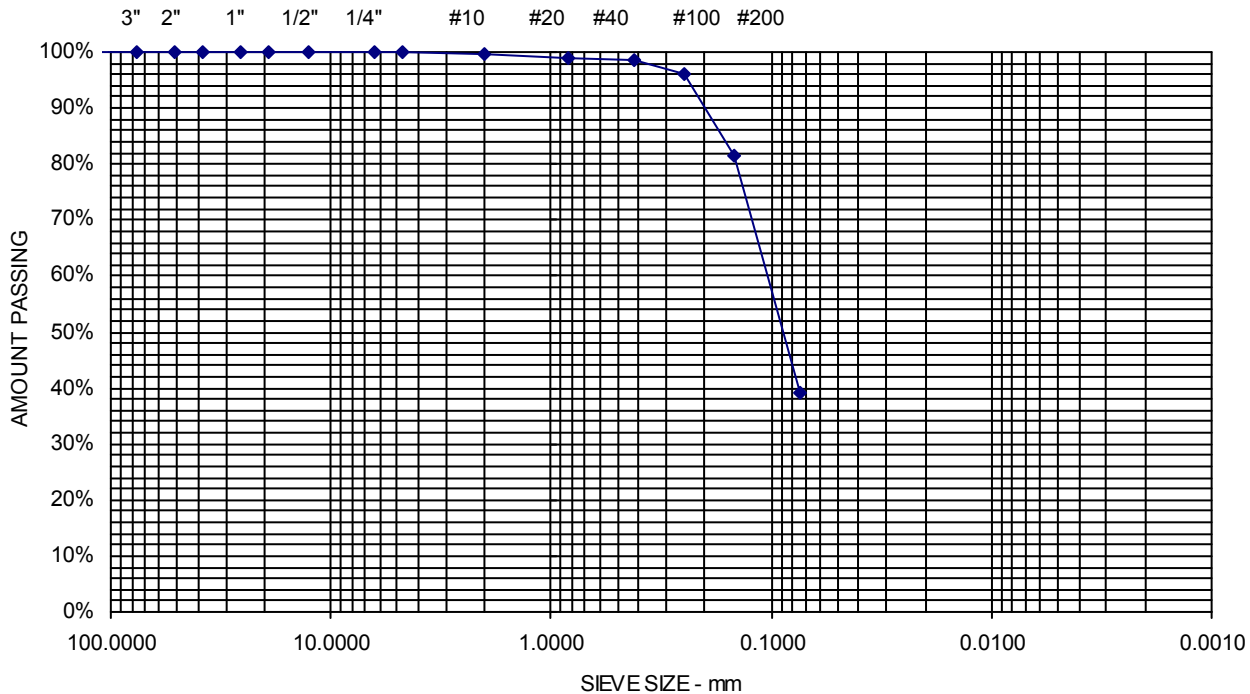
Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

Material Source **B-1002 10D 50-52**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	99	
425 μm	No. 40	98	60.9% Sand
250 μm	No. 60	96	
150 μm	No. 100	82	
75 μm	No. 200	39.1	39.1% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Material Source **B-1003 8D 65-67**

Project Number 16-1314

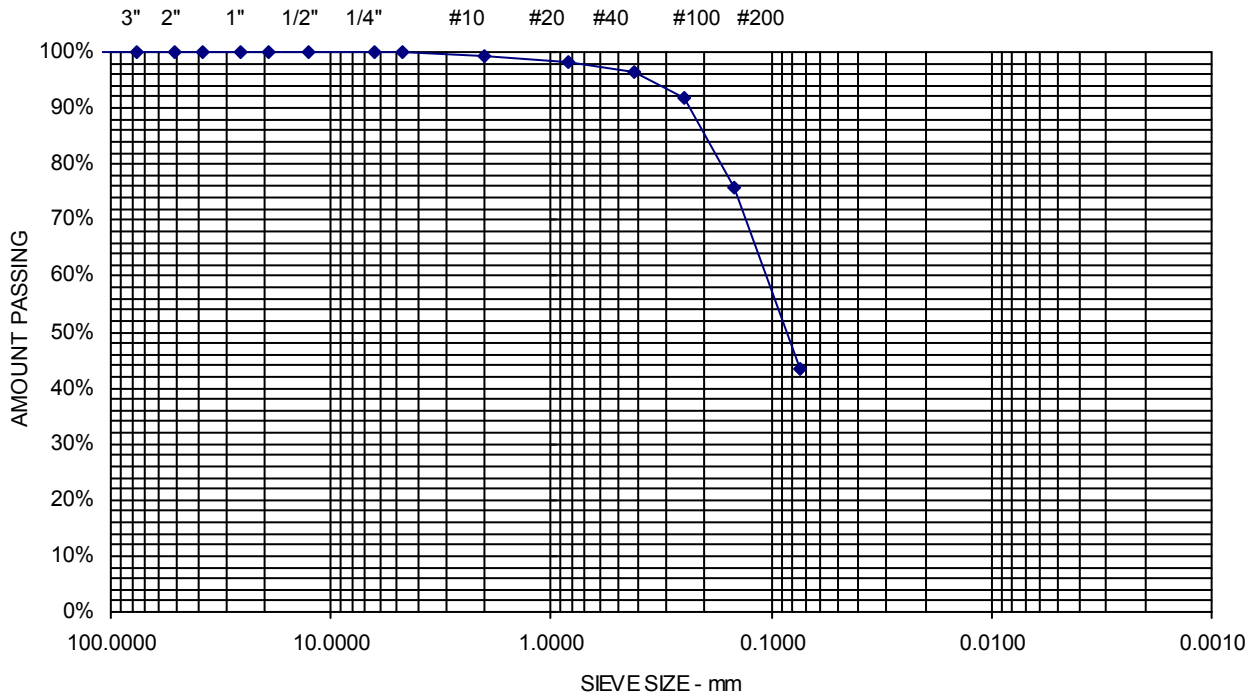
Lab ID 23288G

Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	99	
850 μm	No. 20	98	
425 μm	No. 40	96	56.5% Sand
250 μm	No. 60	92	
150 μm	No. 100	76	
75 μm	No. 200	43.5	43.5% Fines

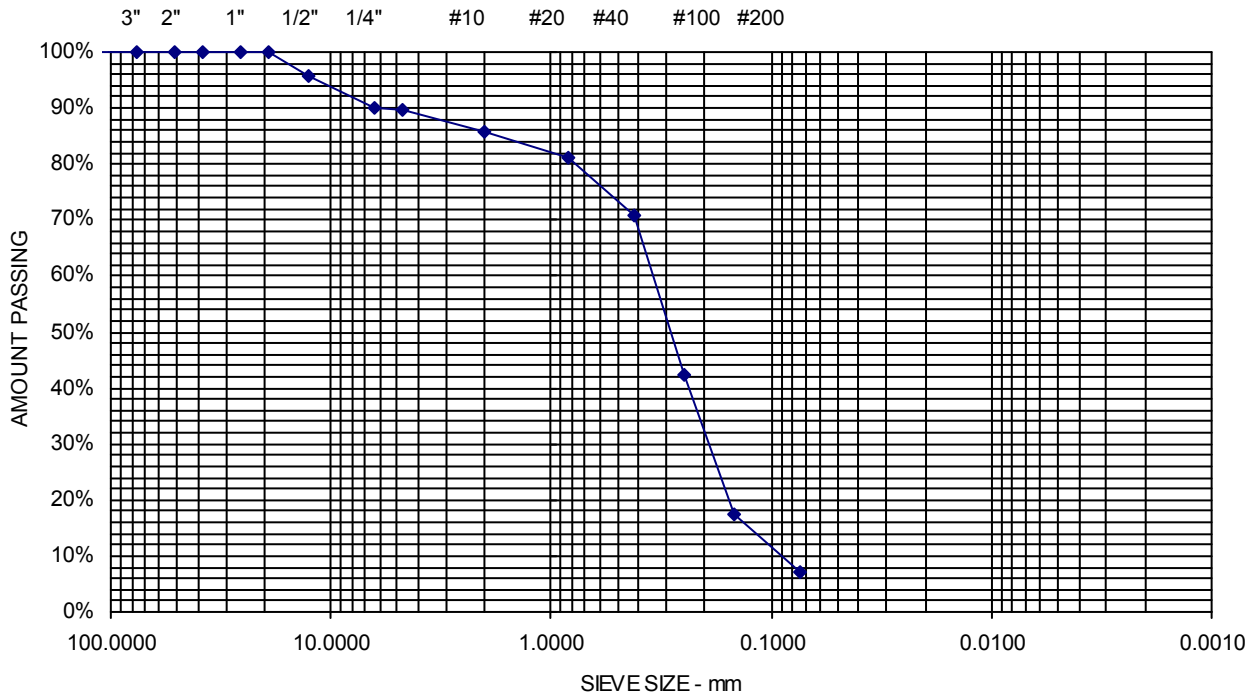


Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
 GEOTECHNICAL ENGINEERING SERVICES
 Client WOODARD & CURRAN, INC.

Project Number 16-1314
 Lab ID 23289G
 Date Received 12/29/2017
 Date Completed 1/3/2018
 Tested By PAUL SHAFFER

Material Source **B-1003 9D 70-72**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	96	
6.3 mm	1/4"	90	
4.75 mm	No. 4	90	10.3% Gravel
2.00 mm	No. 10	86	
850 μm	No. 20	81	
425 μm	No. 40	71	82.7% Sand
250 μm	No. 60	42	
150 μm	No. 100	17	
75 μm	No. 200	7.0	7% Fines

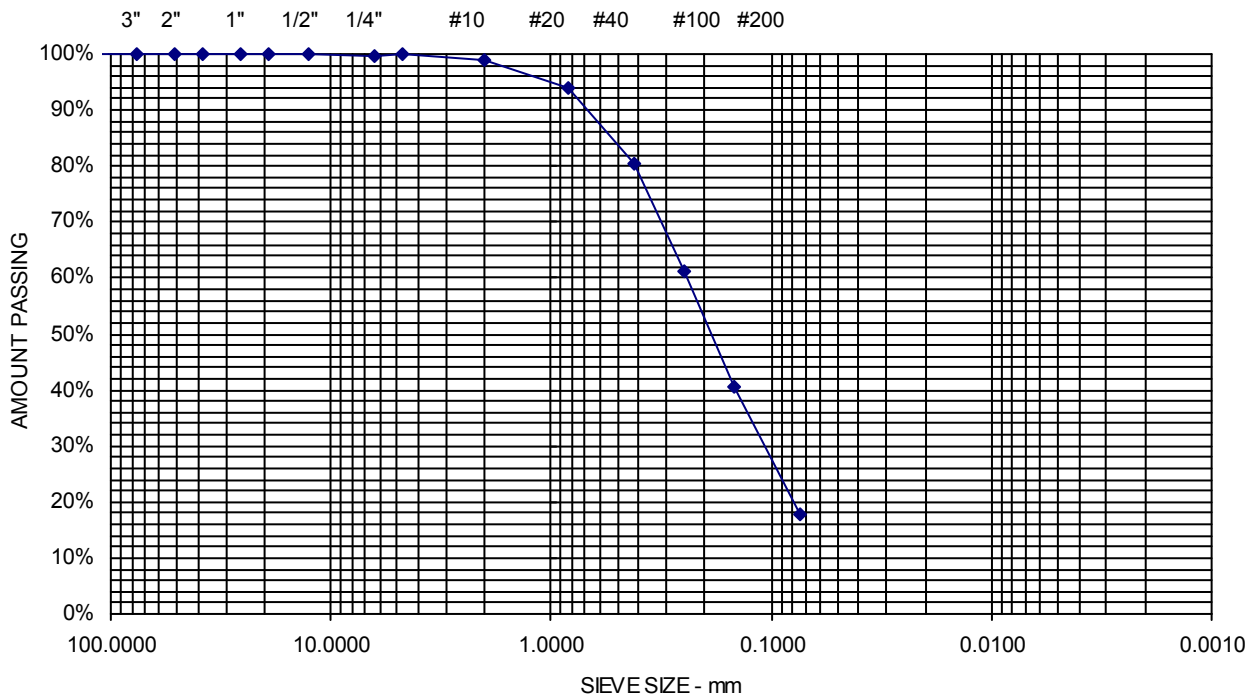


Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
GEOTECHNICAL ENGINEERING SERVICES
Client WOODARD & CURRAN, INC.

Project Number 16-1314
Lab ID 23290G
Date Received 12/29/2017
Date Completed 1/3/2018
Tested By PAUL SHAFFER

Material Source **B-1003 10D 80-82**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	99	
850 μm	No. 20	94	
425 μm	No. 40	81	82.2% Sand
250 μm	No. 60	61	
150 μm	No. 100	40	
75 μm	No. 200	17.8	17.8% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
 GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Project Number 16-1314

Lab ID 23293G

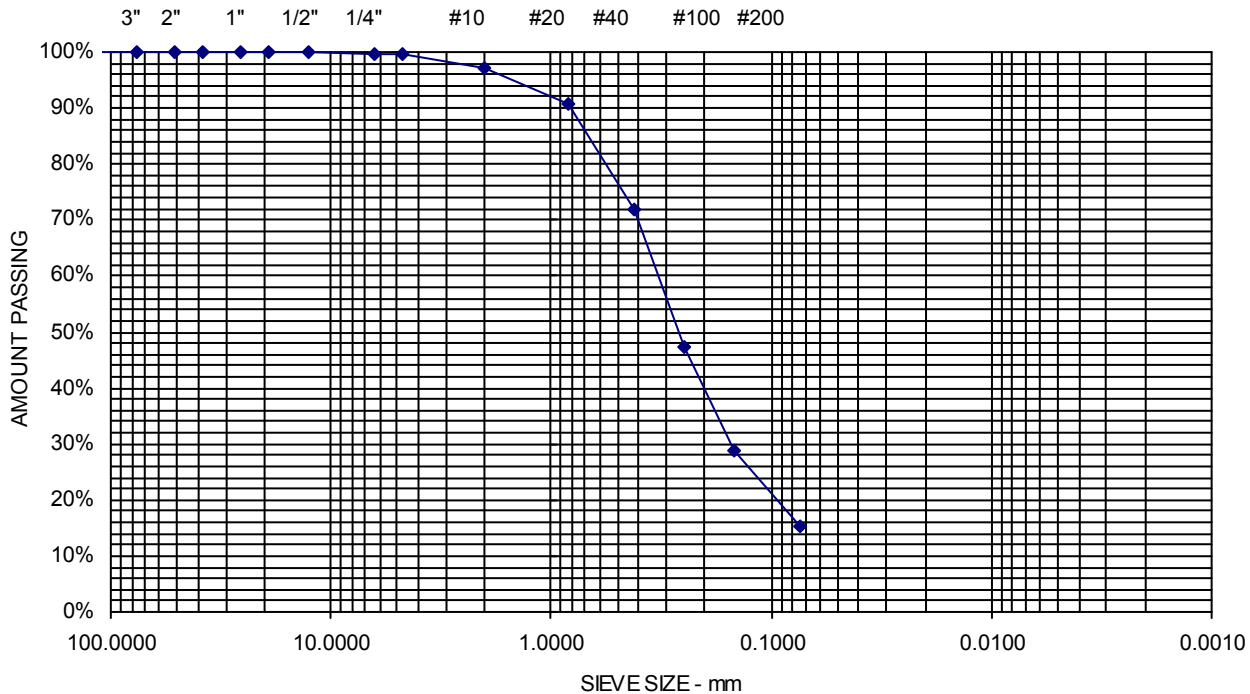
Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

 Material Source **B-1004 7D 60-62**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0.5% Gravel
2.00 mm	No. 10	97	
850 μm	No. 20	91	
425 μm	No. 40	72	84.2% Sand
250 μm	No. 60	47	
150 μm	No. 100	29	
75 μm	No. 200	15.4	15.4% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
 GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Project Number 16-1314

Lab ID 23294G

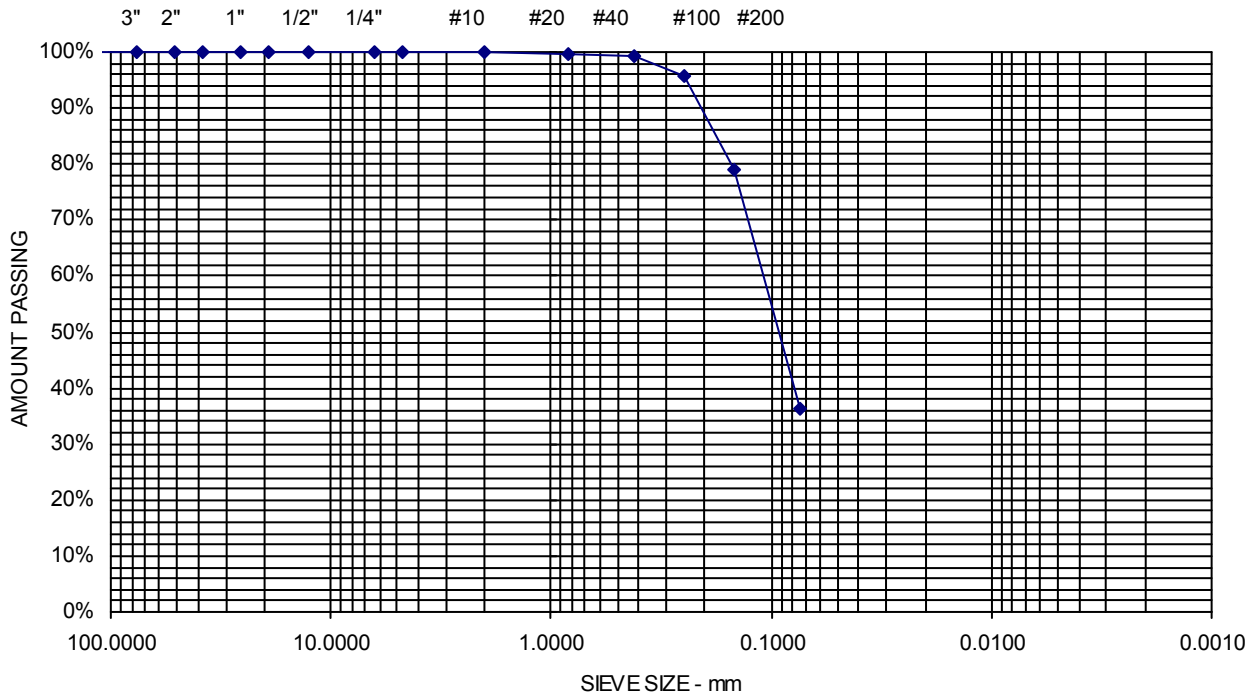
Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

 Material Source **B-1004 9D 70-72**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	100	
425 μm	No. 40	99	63.8% Sand
250 μm	No. 60	96	
150 μm	No. 100	79	
75 μm	No. 200	36.2	36.2% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
 GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Project Number 16-1314

Lab ID 23295G

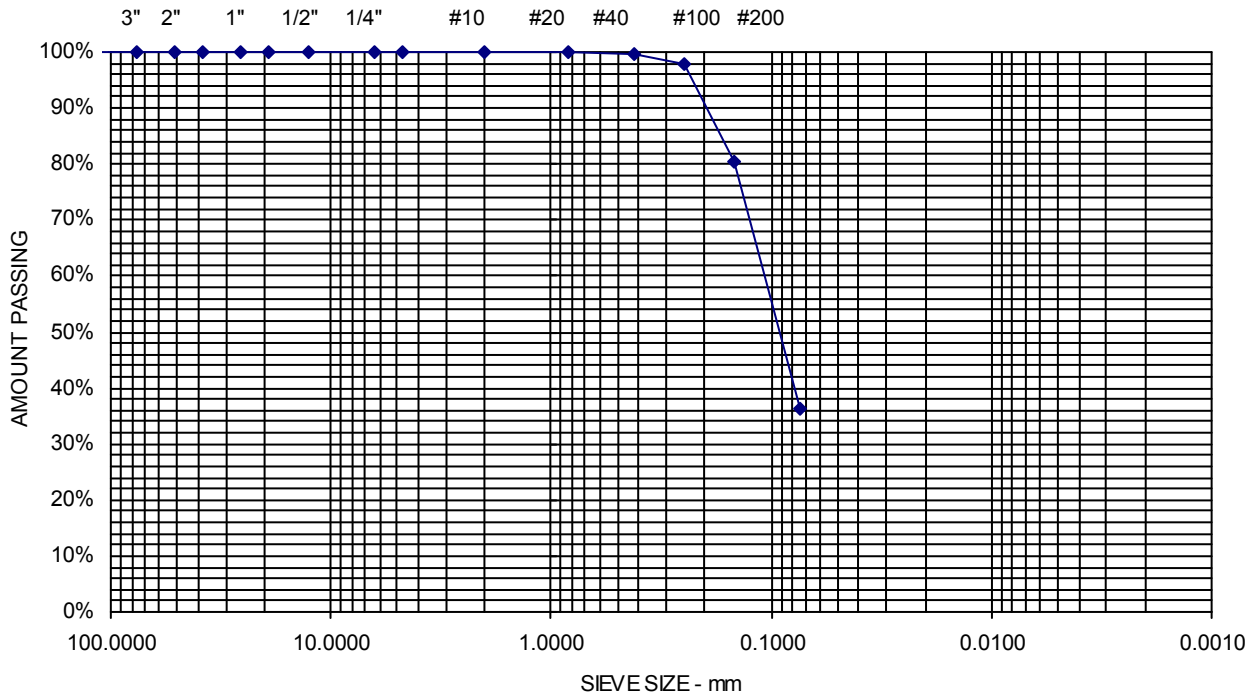
Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

 Material Source **B-1004 10D 80-82**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	100	
425 μm	No. 40	100	63.6% Sand
250 μm	No. 60	98	
150 μm	No. 100	80	
75 μm	No. 200	36.4	36.4% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
 GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Project Number 16-1314

Lab ID 23298G

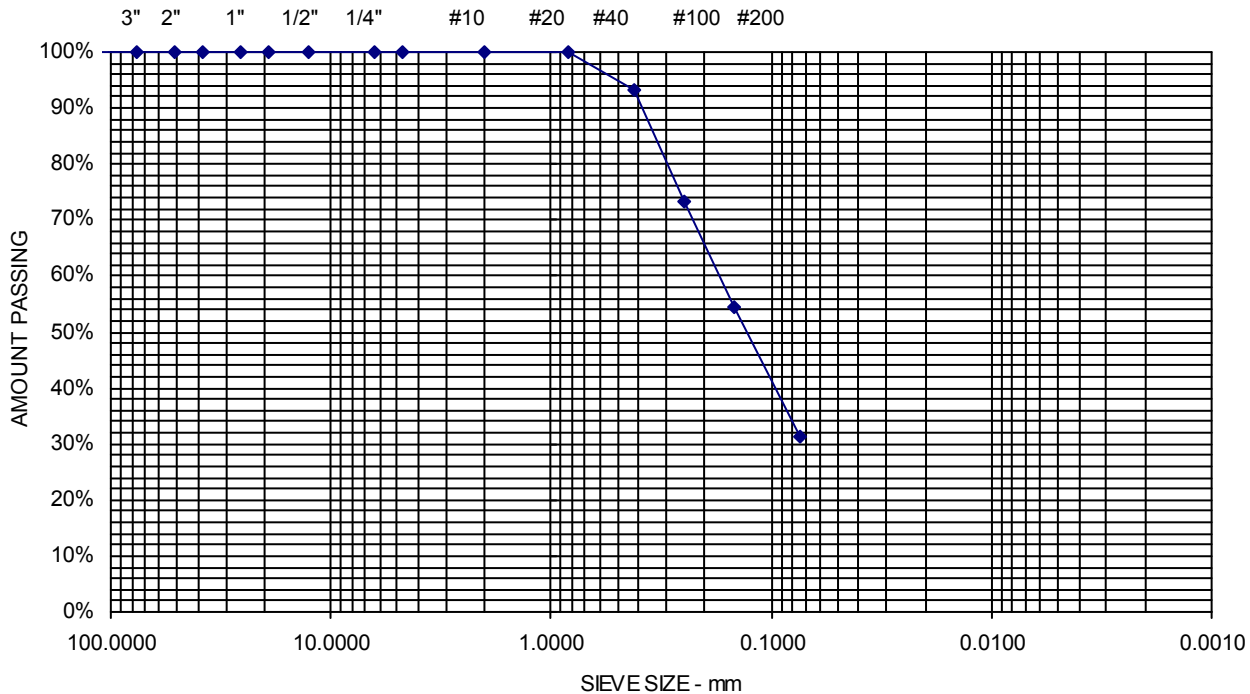
Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

 Material Source **B-1005 8D 60-62**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	100	
425 μm	No. 40	93	68.6% Sand
250 μm	No. 60	73	
150 μm	No. 100	55	
75 μm	No. 200	31.4	31.4% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Material Source **B-1005 10D 70-72**

Project Number 16-1314

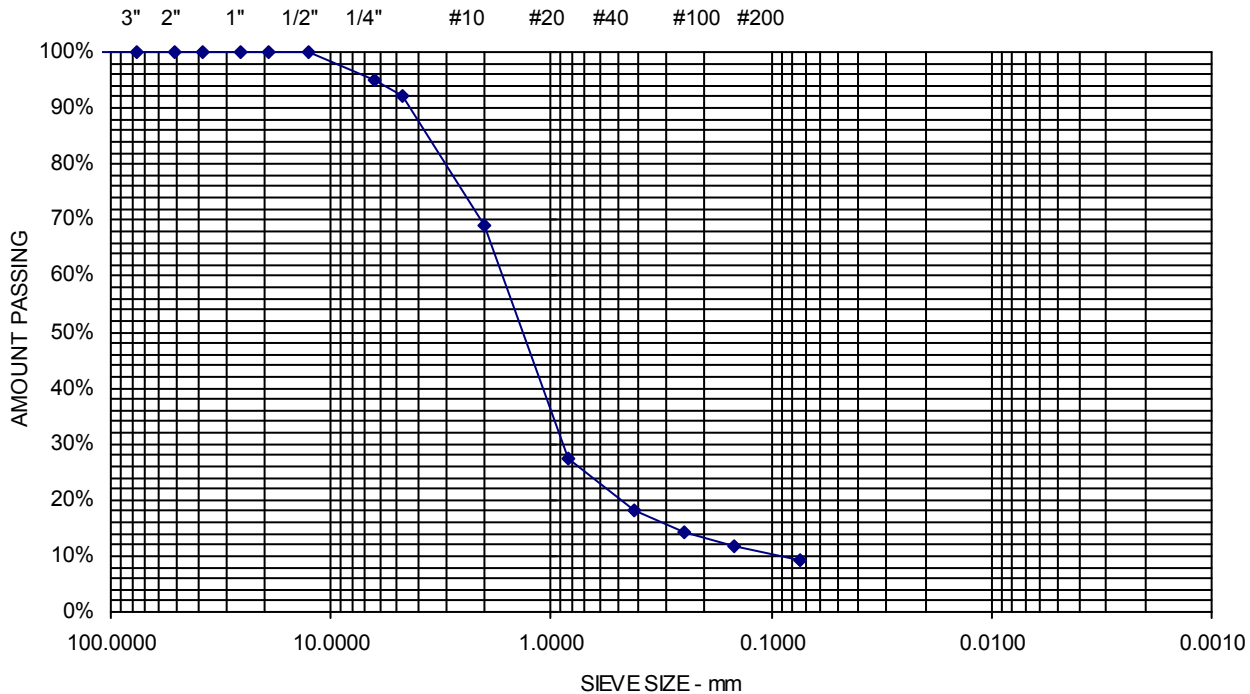
Lab ID 23299G

Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	95	
4.75 mm	No. 4	92	8% Gravel
2.00 mm	No. 10	69	
850 μm	No. 20	27	
425 μm	No. 40	18	82.8% Sand
250 μm	No. 60	14	
150 μm	No. 100	12	
75 μm	No. 200	9.2	9.2% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Project Number 16-1314

Lab ID 23300G

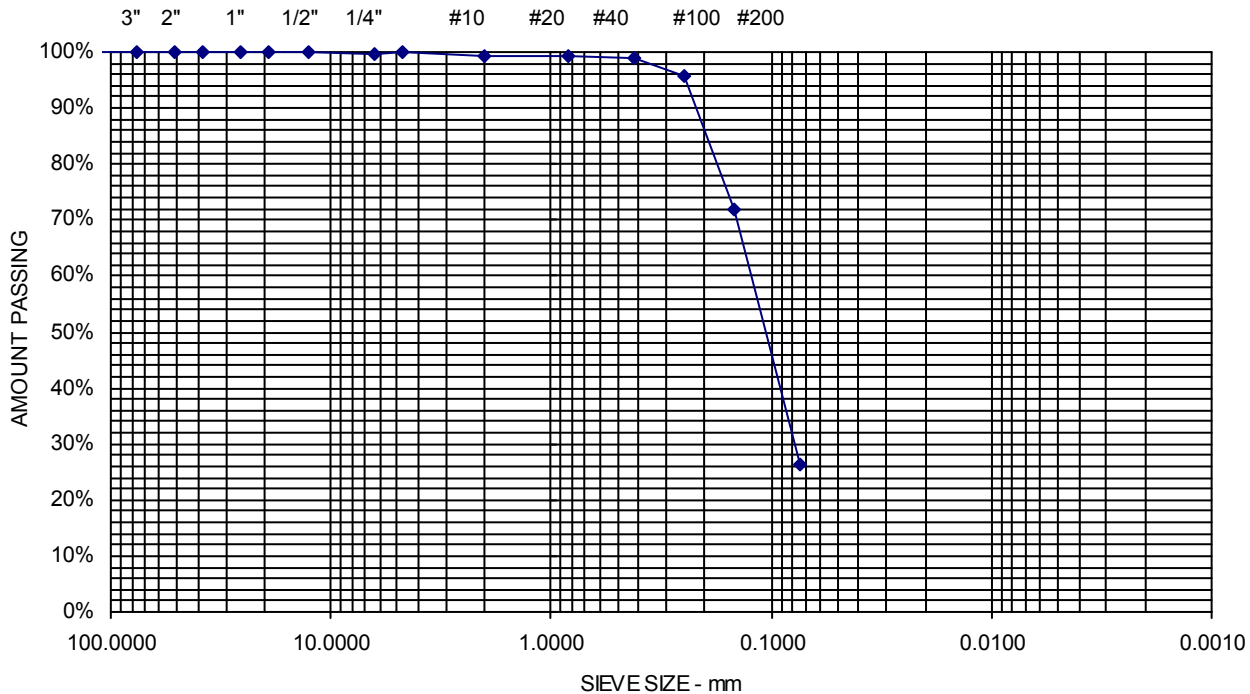
Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

Material Source **B-1005 11D 80-82**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	99	
850 μm	No. 20	99	
425 μm	No. 40	99	73.6% Sand
250 μm	No. 60	96	
150 μm	No. 100	72	
75 μm	No. 200	26.4	26.4% Fines



Consolidation Test

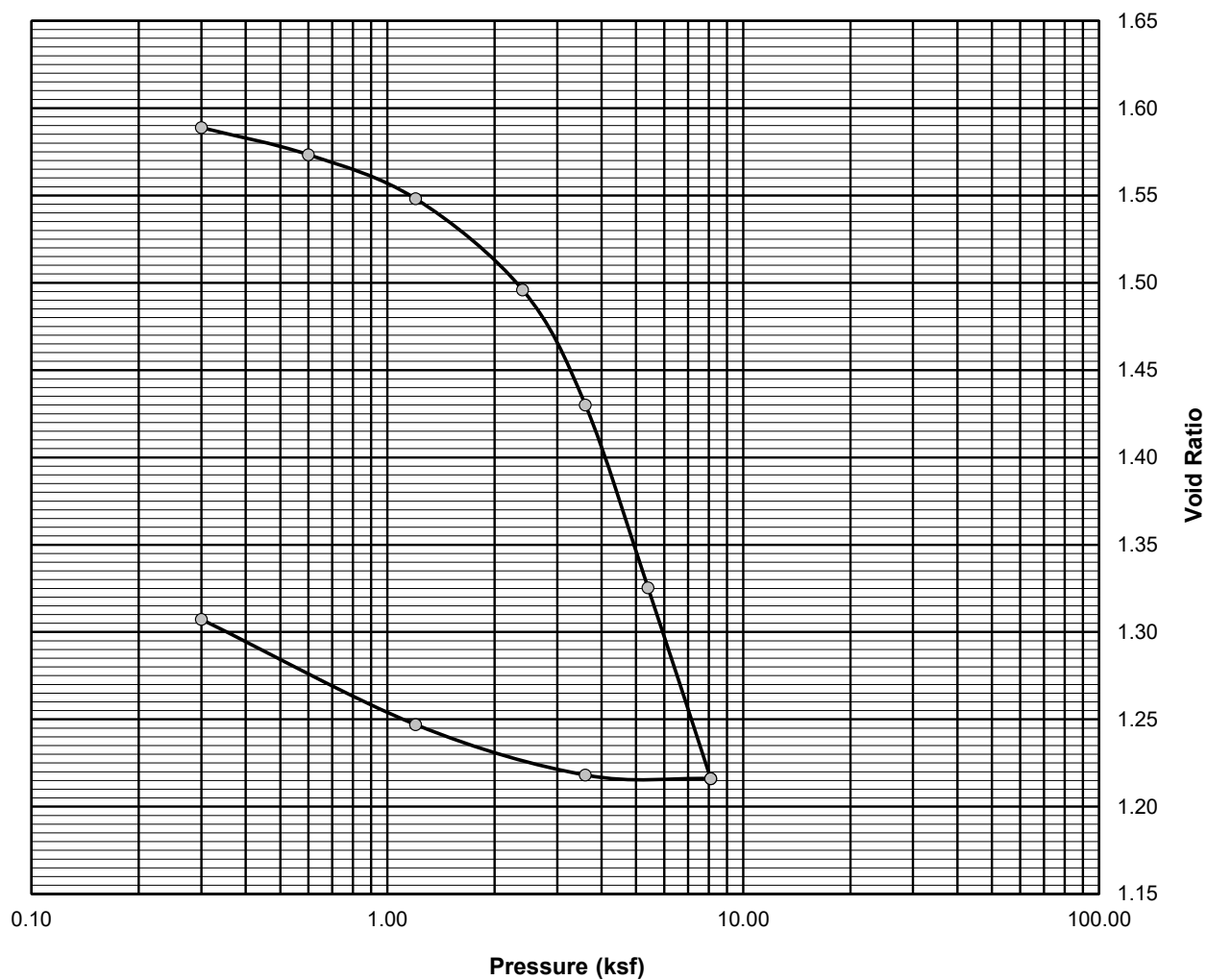
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21264B
Date: 1/30/2018

Boring: B1003
Sample: 1U
Depth: 35-37'

$P_C =$	2.7	ksf
$C_C =$	0.61	
$C_R =$	0.05	
$w =$	55.2%	
$W_L =$	55	
$W_P =$	30	



Comments:

Reviewed By



Consolidation Test

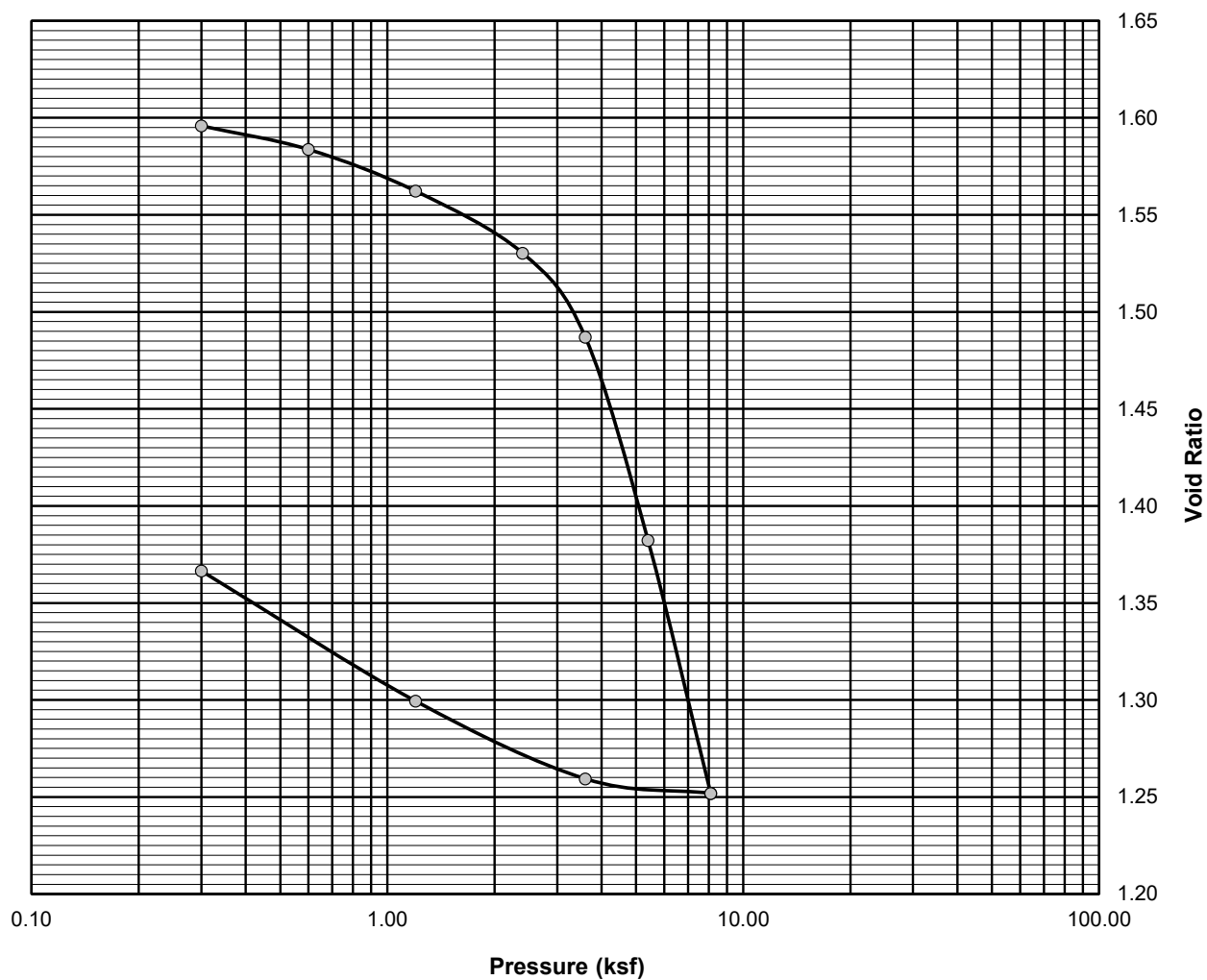
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21265B
Date: 1/30/2018

Boring: B1003
Sample: 2U
Depth: 45-47'

$P_C =$	3.1	ksf
$C_C =$	0.67	
$C_R =$	0.04	
$w =$	54.7%	
$W_L =$	48	
$W_P =$	25	



Comments:

Reviewed By



Consolidation Test

ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21266B
Date: 1/30/2018

Boring: B1003
Sample: 3U
Depth: 55-57'

$P_C =$	4	ksf
$C_C =$	0.44	
$C_R =$	0.04	
$w =$	49.0%	
$W_L =$	55	
$W_P =$	27	



Comments:

Reviewed By



Consolidation Test

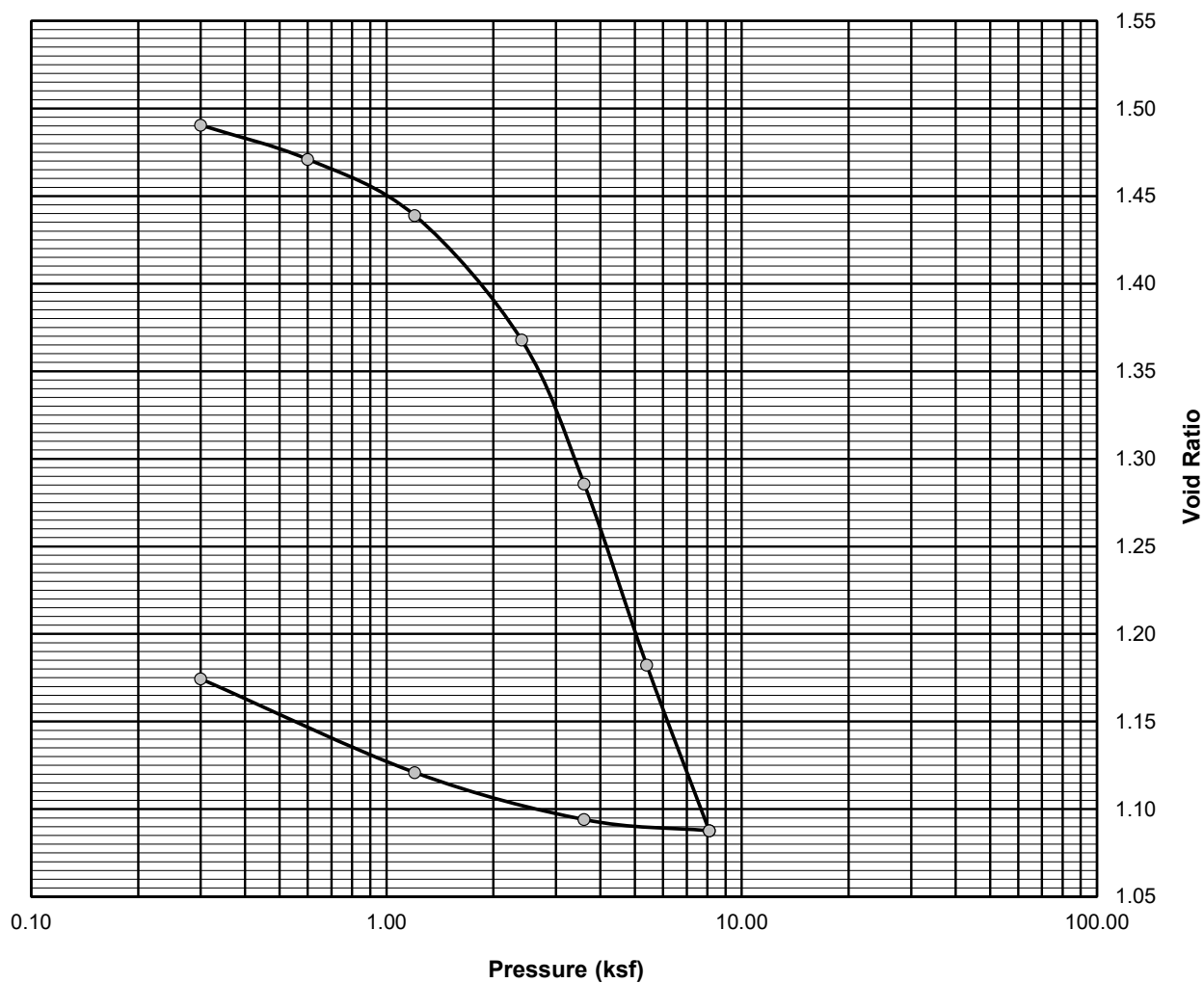
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21267B
Date: 12/29/2017

Boring: B1004
Sample: 1U
Depth: 30-32'

$P_C =$	2.1	ksf
$C_C =$	0.56	
$C_R =$	0.06	
$w =$	53.4%	
$W_L =$	47	
$W_P =$	48	



Comments:

Reviewed By



Consolidation Test

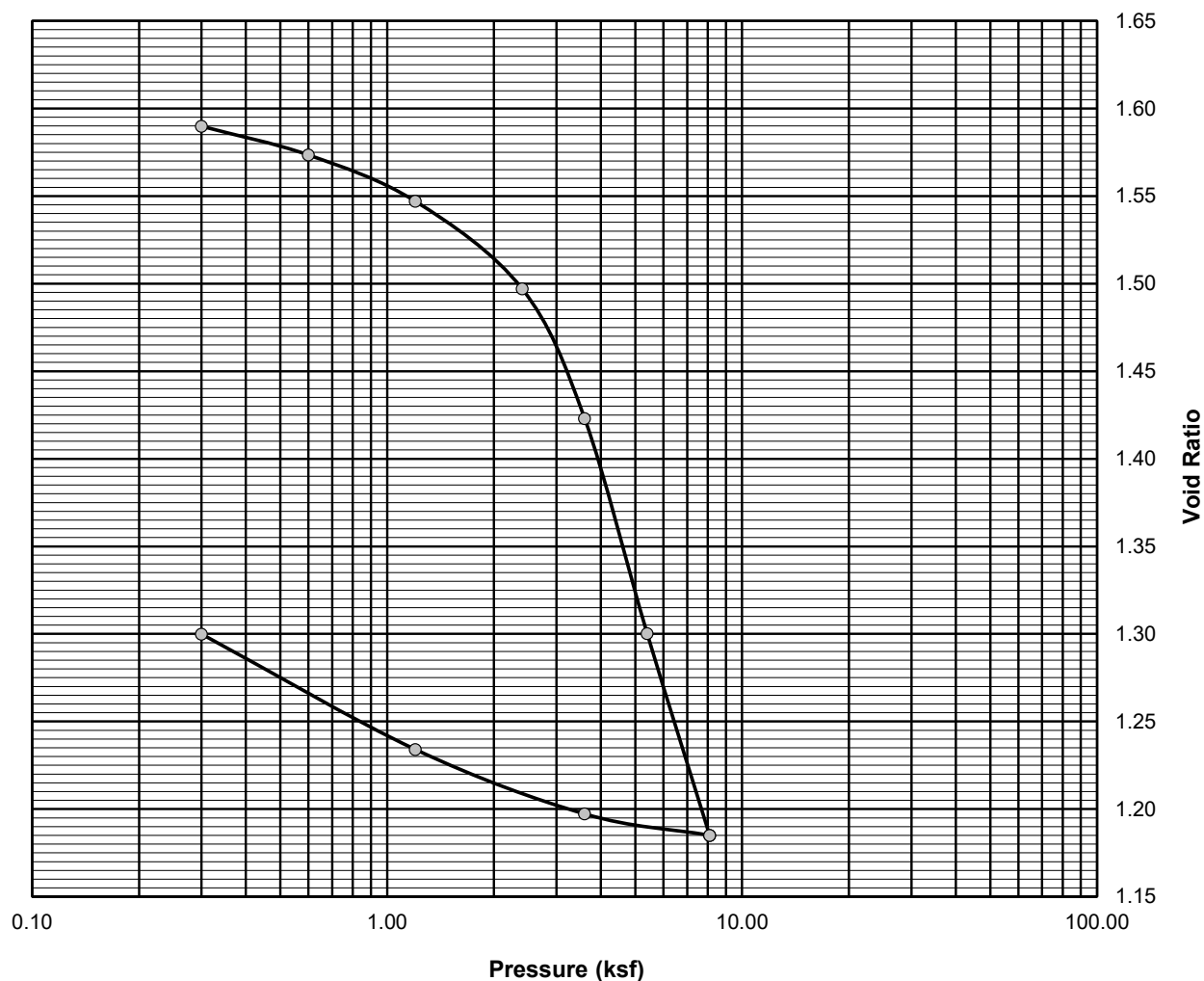
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21268B
Date: 12/29/2017

Boring: B1004
Sample: 2U
Depth: 40-42'

$P_C =$	2.9	ksf
$C_C =$	0.68	
$C_R =$	0.05	
$w =$	54.6%	
$W_L =$	53	
$W_P =$	29	



Comments:

Reviewed By



Consolidation Test

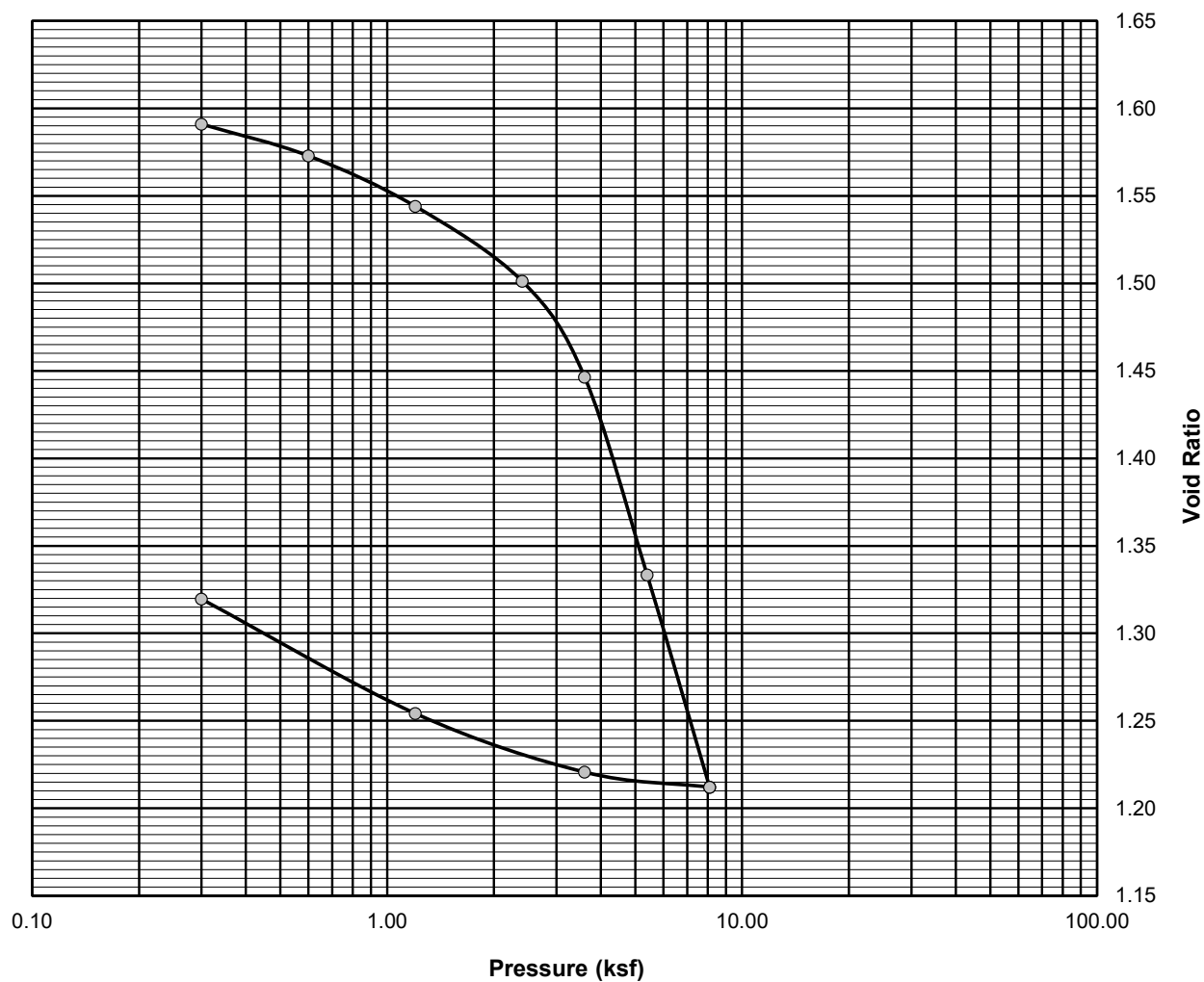
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21269B
Date: 12/29/2017

Boring: B1004
Sample: 3U
Depth: 50-52'

$P_C =$	3.1	ksf
$C_C =$	0.67	
$C_R =$	0.08	
$w =$	55.4%	
$W_L =$	55	
$W_P =$	30	



Comments:

Reviewed By



Consolidation Test

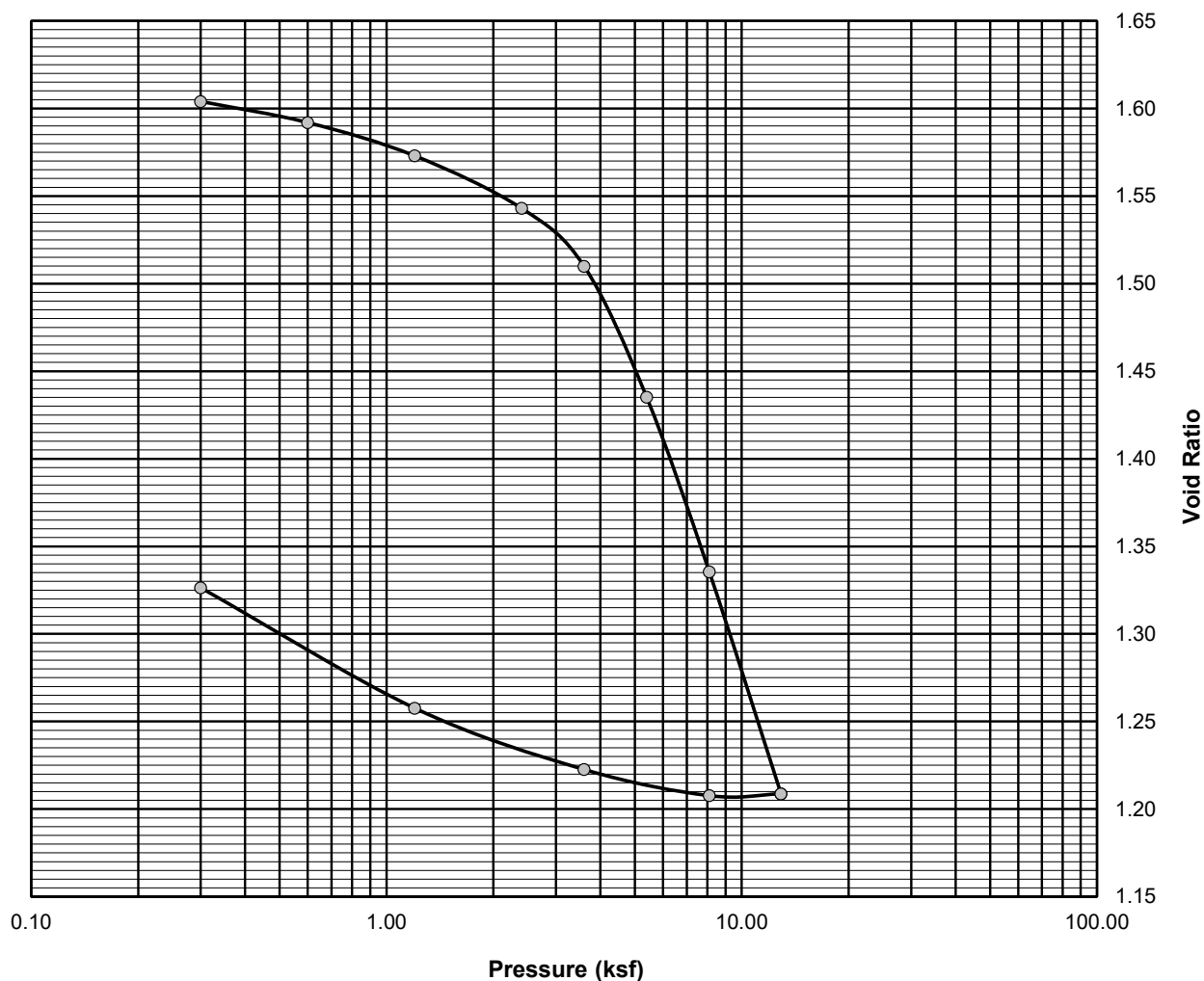
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21270B
Date: 12/29/2017

Boring: B1005
Sample: 1U
Depth: 35-37'

$P_C =$	3.8	ksf
$C_C =$	0.60	
$C_R =$	0.06	
$w =$	46.5%	
$W_L =$	49	
$W_P =$	26	



Comments:

Reviewed By



Consolidation Test

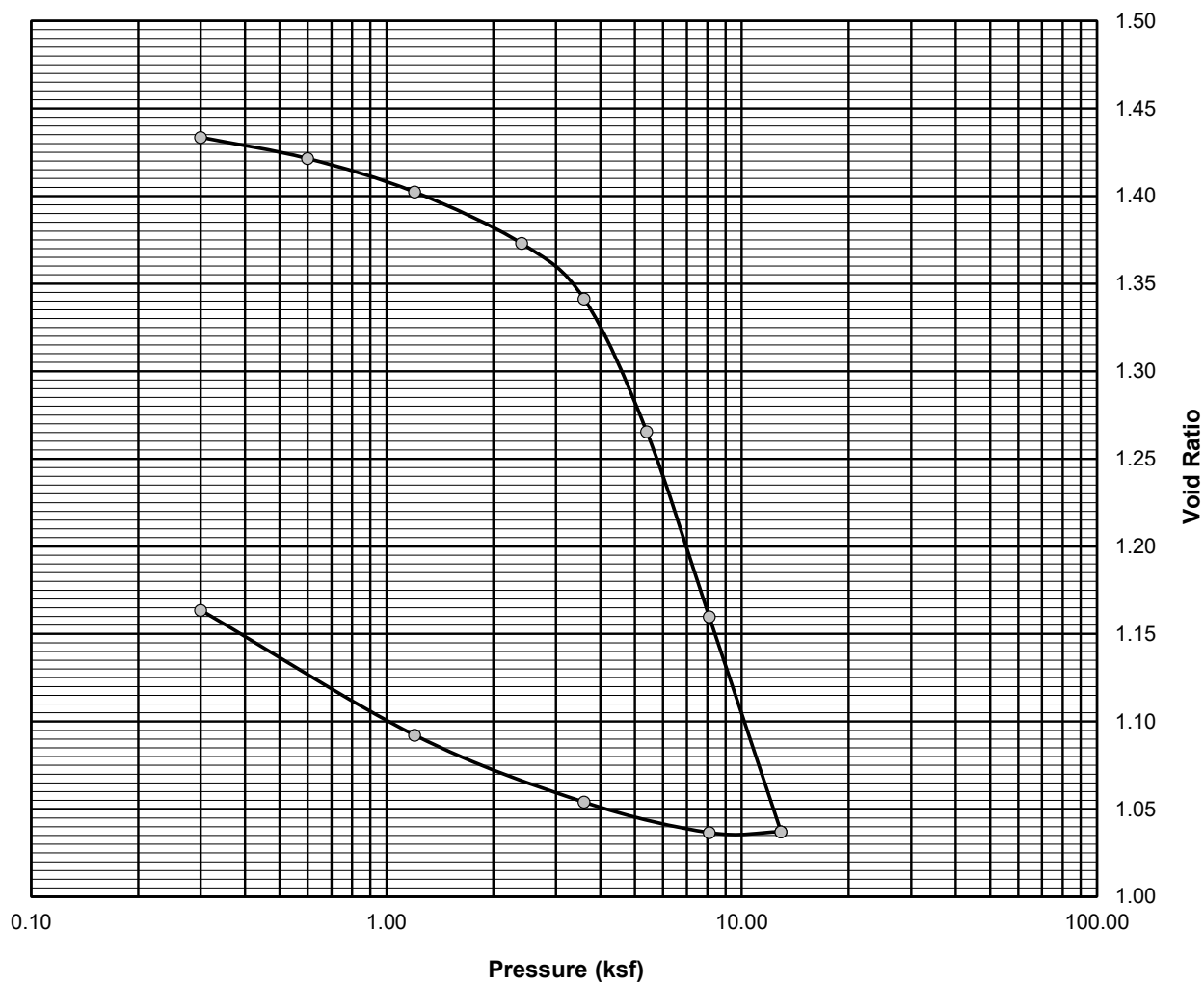
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21271B
Date: 12/29/2017

Boring: B1005
Sample: 2U
Depth: 45-47'

$P_C =$	4	ksf
$C_C =$	0.60	
$C_R =$	0.06	
$w =$	51.1%	
$W_L =$	54	
$W_P =$	29	



Comments:

Reviewed By



Consolidation Test

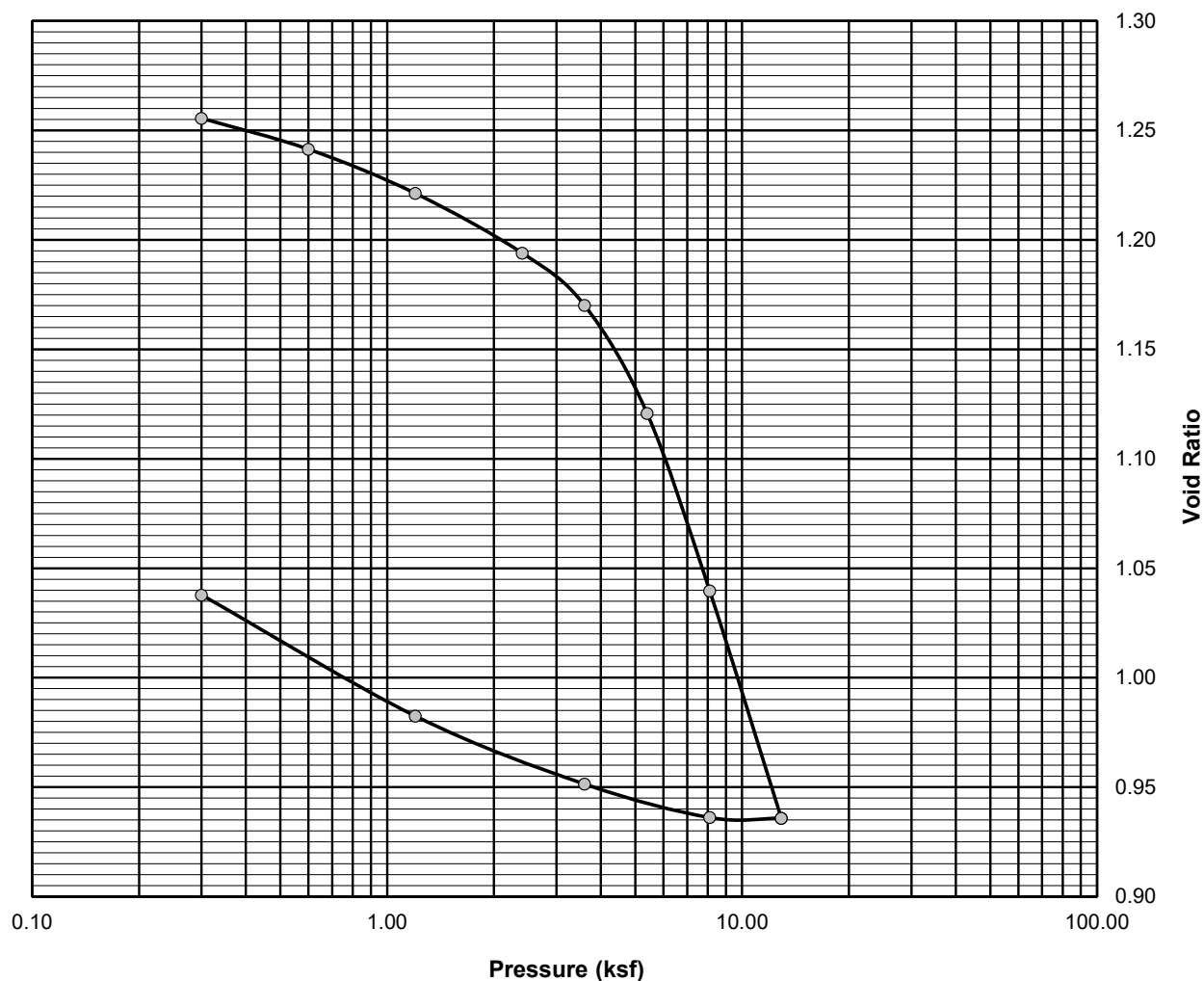
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21272B
Date: 12/29/2017

Boring: B1005
Sample: 3U
Depth: 55-57'

$P_C =$	4.3	ksf
$C_C =$	0.51	
$C_R =$	0.07	
$w =$	41.2%	
$W_L =$	43	
$W_P =$	24	



Comments:

Reviewed By



13. AVAILABILITY & ADEQUACY OF PUBLIC UTILITIES

The proposed development will be serviced by public water, sewer, gas, and electric utilities. Utility connections are described in greater detail in the following sections. The proposed locations of the utility services are shown on the Utility Plan included in the Design Drawings attached to Section 2. The proposed development will also generate waste as a result of construction and post-construction operations.

13.1 WATER

The proposed development will be provided with both fire protection water service and domestic water service as shown on the drawings via an existing water service on the property from the public water main in West Commercial Street. Woodard & Curran is working directly with the Portland Water District (PWD) to determine the appropriate design for this work. An ability to serve request letter was sent to Portland Water District; a copy of this letter is attached to this Section. An ability to serve determination will be provided upon receipt.

13.2 SEWER

The proposed development will be provided with sanitary sewer service from an existing sewer manhole on the property as shown on the drawings. The attached letter was provided to the Portland Department of Public Works to request confirmation of ability to serve the proposed development; the Wastewater Capacity Application was submitted with this letter. A copy of the City's determination will be provided upon receipt.

13.3 GAS

The proposed development will utilize natural gas service provided by Unitil. Proposed infrastructure is shown on the Utility Plan. The location and size of the gas service is being coordinated with Unitil. An ability to serve determination will be provided upon receipt.

13.4 ELECTRIC

Overhead electrical will be provided from a utility pole on West Commercial Street to the project site. Underground electrical services are provided on the project site. Proposed infrastructure is shown on the Utility Plan. The design of the electric service is being coordinated with Central Maine Power (CMP). Final electric layouts will be provided to CMP for their review and an ability to serve determination will be provided upon receipt.

13.5 SOLID WASTE

All solid waste materials and recyclables from the proposed building will be transported and disposed of or recycled in accordance with applicable laws and regulations. Solid waste removal will occur via the loading dock area accessed from the eastern parking lot adjacent to the truck bays.

13.6 CONSTRUCTION & DEMOLITION DEBRIS

The proposed development will generate construction waste and demolition debris (CDD). The Contractor will be responsible for properly disposing of the CDD. The Contractor will be responsible for handling, managing, and disposing of all waste generated by construction in accordance with the Maine Solid Waste Management Regulations and all other applicable local, state, and federal regulations.

13.1 SPECIAL & HAZARDOUS WASTE

Numerous investigations have been completed to evaluate soil, groundwater, and soil vapor conditions at the Site since 1999. In addition, several active remedial efforts have been completed to address known environmental conditions. These activities have been completed in coordination with the Maine DEP VRAP and related Spills & Site

Cleanup programs. Consistent with a Maine DEP VRAP No Action Assurance Letter (NAAL) dated June 1, 2012, the necessary steps that must be taken in order to receive closure and liability protection under the VRAP are summarized below:

1. The existing soil management plan will be revised and submitted to the Maine DEP for review and approval;
2. Any potential soil vapor issues in future on-site structures will either be addressed and characterized with investigation prior to construction or presumptively addressed through installation of vapor collection systems;
3. No potable wells will be installed on the property in the future, and;
4. The property use will remain non-residential use unless other uses are approved by the Maine DEP.

It is anticipated that the Maine DEP VRAP requirements outlined above will be fulfilled as part of the proposed project. Special and hazardous waste encountered during the construction process will be handled, managed and disposed of in accordance with the Maine DEP approved revised soil management plan and all applicable local, state and federal regulations.

13.2 ATTACHMENTS

- Portland Water District Ability to Serve Request Letter
- Portland Department of Public Works Request for Ability to Serve Letter
- City of Portland Wastewater Capacity Application



March 2, 2020

MEANS Group
Portland Water District
225 Douglass Street
Portland, ME 04104

Re: Maine International Cold Storage Facility – Request for Evidence of Ability to Serve

To Whom It May Concern:

On behalf of Maine International Cold Storage Facility LLC, Woodard & Curran is submitting this ability to serve request letter for proposed cold storage facility to be located at 40 West Commercial Street in Portland, Maine. The proposed work includes construction of a single story, 108,024 square-foot building, truck loading area, truck and employee parking areas, fire access drive, and associated site and utility improvements. The building will be comprised of roughly 91,000 square feet space for offloading and cold storage, 13,000 square feet of administrative space, and 4,000 square feet of mechanical and utility space. A fixture count spreadsheet is enclosed to assist in determining peak flow for the site. Please note two eyewash stations are proposed, but not included in the fixture count spreadsheet.

The proposed cold storage facility will require one domestic water service and one fire protection service. The proposed design includes utilization of a 130 LF segment of existing water piping for the fire protection service. This existing water pipe currently services a hydrant that will be demolished as part of the proposed project. The domestic water service is proposed to tee off from the existing water service at the site entrance on West Commercial Street. Please refer to the enclosed Utility Plan for location and size of proposed water services.

Upon completion of development, the proposed project is anticipated to require 660 gallons of water per day. This estimate is based on the preliminary design of the interior layout. We do not anticipate changes that would result in significant water usage increases, but will notify the Water District if design development results in any major changes. We intend to submit to the City of Portland Planning Department for approval of the Level III Site Plan application and will appreciate documentation regarding the Portland Water District's ability to serve the proposed development with potable water.

Please let us know if any additional information is required to evaluate the service capacity for the site or if you have any questions on our proposed layout. We appreciate your assistance and look forward to working with you further. Please do not hesitate to contact me at (207)558-3662 or dstairs@woodardcurran.com.

Sincerely,

WOODARD & CURRAN

Darrin Stairs, P.E.
Project Manager

Enclosure(s) Utility Plan
 Fixture Count Spreadsheet

PN: 0232277.00



March 2, 2020

ATTN: Bradley Roland, P.E.
Department of Public Works
212 Canco Road
Portland, ME 04103

Re: Maine International Cold Storage Facility – Request for Evidence of Ability to Serve

Dear Mr. Roland:

On behalf of Maine International Cold Storage Facility LLC, Woodard & Curran is submitting this ability to serve request letter for proposed cold storage facility to be located at 40 West Commercial Street in Portland, Maine. The proposed work includes construction of a single story, 108,024 square-foot building, truck loading area, truck and employee parking areas, fire access drive, and associated site and utility improvements. The building will be comprised of roughly 91,000 square feet space for offloading and cold storage, 13,000 square feet of administrative space, and 4,000 square feet of mechanical and utility space. Please refer to the enclosed Utility Plan for location and size of the proposed sewer service.

Upon completion, the proposed project is anticipated to discharge 600 gallons of wastewater per day to an existing sewer manhole on the property for the 42" sewer main along West Commercial Street. This estimate is based on anticipated employees (25 employees at warehouse/office with no showers), as well as truck driver use (100 drivers per day using public restroom). We do not anticipate changes that would result in significant increases but will notify the City if design development results in any major changes. We intend to submit to the City of Portland Planning Department for approval of the Level III Site Plan application and will appreciate documentation regarding the City's ability to collect wastewater from the proposed development.

Please let us know if any additional information is required to evaluate the service capacity for the site. We appreciate your assistance. If you have any questions or require any additional information, please do not hesitate to contact me at (207)558-3662 or dstairs@woodardcurran.com.

Sincerely,

WOODARD & CURRAN

Darrin Stairs, P.E.
Project Manager

Enclosure(s) Utility Plan
 Wastewater Application

PN: 0231886.00

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: March 2, 2020

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

Site Address: 40 West Commercial Street

Chart Block Lot Number: 059 B00A 1, 2, 5-11

Proposed Use: Cold Storage Facility
Previous Use: Manufactured/Natural Gas Facility
Existing Sanitary Flows: 0 GPD
Existing Process Flows: 0 GPD
Description and location of City sewer that is to
receive the proposed building sewer lateral.
Fore Street and Spring 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: _____
Owner/Developer Name: Maine International Cold Storage Facility, LLC c/o Matthew Dieterich
Owner/Developer Address: 40 Forest Falls Drive, Suite 2, Yarmouth, Maine 04096
Phone: (207) 817-5410 Fax: N/A E-mail: matthew.dieterich@sewall.com
Engineering Consultant Name: Woodard & Curran, c/o Darrin Stairs, PE
Engineering Consultant Address: 41 Hutchins Drive, Portland, ME 04101
Phone: (207) 558-3662 Fax: N/A E-mail: dstairs@woodardcurran.com

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

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: 600 GPD
Peaking Factor/ Peak Times: _____
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.

N/A

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: _____

N/A GPD

Do you currently hold Federal or State discharge permits? _____

Yes ☐ No ☒

Is the process wastewater termed categorical under CFR 40? _____

Yes ☐ No ☒

OSHA Standard Industrial Code (SIC): _____

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

Peaking Factor/Peak Process Times: _____

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

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



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

Date: April 10, 2020

Re: Wastewater Capacity Authorization

Address: 40 West Commercial Street

Applicant: Maine International Cold Storage Facility, LLC

Planner: Christian Roadman

Anticipated Wastewater Flow:

Estimate of Anticipated Design Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing flow to be removed				
Vacant				0
Proposed flow				
Warehouse – Office- Employees at place of employment with no showers	# Employees	25	12 GPD/Employee	300
Public Restroom – Truck Driver Use	# Per User	100	3 GPD/User	300
Net Change				+ 600
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				

Comments:

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

Please note that you will be connecting into sewer interceptors owned and managed by the Portland Water District (PWD). This request has been shared with them and special provisions for those connections will be required. Please speak with PWD directly about those connections.

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

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

Sincerely,

A handwritten signature in dark ink, reading "Bradley A. Roland". The signature is written in a cursive, flowing style. The first name "Bradley" is written in a larger, more prominent script, followed by "A." and "Roland". The signature is set against a light gray rectangular background.

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

14. SUMMARY OF FIRE CODES

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

- Name, address, telephone number of applicant
 - Maine International Cold Storage Facility, LLC, c/o Matthew Dieterich
 - 40 Forest Falls Drive, Suite 2, Yarmouth, Maine 04096
 - (207) 817-5410
- Name, address, telephone number of architect
 - CWS Architects c/o Guy Labrecque
 - 264 US Route One, Suite 100-2A, Scarborough, ME 04074
 - (207) 774-4441
- Proposed uses of any structures [NFPA and IBC classification]
 - The main cooler and dock areas will be considered S-2 Low Hazard Storage while the remaining areas will be considered Business Use spaces (2015 IBC).
- Square footage of all structures [total and per story].
 - The 108,024 square-foot building will be a single-story structure with varying roof heights. The building will be comprised of roughly 91,000 square feet space for offloading and cold storage, 13,000 square feet of administrative space, and 4,000 square feet of mechanical and utility space as shown on the architectural design drawings attached to Section 1.
- Elevations of all structures
 - This information is provided on the attached plan set.
- Proposed fire protection of all structures
 - A one-hour fire barrier separation is expected between uses based upon providing a full sprinkler system within the building.
- Hydrant locations
 - Two existing hydrants exist on the 17.9-acre site. One of the hydrants is located within the proposed building footprint and will be demolished. The other hydrant is located approximately 140 feet north of the northeast of the proposed building by West Commercial Street.
- Water main size and location
 - Existing and proposed watermain locations are shown on the civil design plans attached to Section 1 of this Report.
- Access to all structures [min. 2 sides]
 - As shown on the plan set, a 24-foot wide fire access road is proposed around the building to the west and south along the Fore River, with “knox box” gated accesses located near the passenger car parking areas and the truck parking areas. Emergency vehicles will have access to all four sides of the building.

- A code summary shall be included referencing NFPA 1 and all fire department technical standards.
 - The building will be designed and built to conform with all applicable codes including but not limited to the following:
 1. Federal, State and Local MUBEC codes and regulations.
 2. The International Building Code 2015 (IBC)
 3. The International Energy Conservation Code 2009 (IECC)
 4. ASHREA standards 61.1, 62.2 and 90.1 (2013)
 5. NFPA 1, 2018
 6. NFPA 101 - 2012
 7. NFPA 101 - 2018
 8. NFPA 70 - national electrical code - 2017
 9. NFPA 72 - national fire alarm code - 2019
 10. Maine State Plumbing Code
 11. The National Electrical Code 2014
 - Compliance approach:
 - The building will be designed based upon a “separated use” methodology.
 - The main cooler and dock areas will be considered S-2 Low Hazard Storage while the remaining areas will be considered Business Use spaces. A 1-hour fire barrier separation is expected between these uses based upon providing a full sprinkler system within the building.
 - A fire alarm system will be incorporated into the design
 - The space configurations and egress will be designed to fall within the following limitations.
 - Business Use/Occupancy: Both IBC and NFPA 101 align with the following
 - Exit Access Travel Distance: 300’
 - Common Path of Travel: 100’
 - Dead End Corridor Length: 50’
 - Low Hazard Storage Use/Occupancy: Both IBC and NFPA 101 align with the following U.N.O.
 - Exit Access Travel Distance: 400’
 - Common Path of Travel: 100’
 - Dead End Corridor Length: 50’ (IBC) and 100’(NFPA 101)
 - Height and Area:
 - Proposed Construction Type: Type IIB
 - Maximum Building Height: 75’-0” w/ Sprinkler System (The Zoning Ordinance is 75’-0”)
 - Maximum Allowable Building Area (Table 506.2):

S-2, Type IIB: 104,000 s.f.

B, Type IIB: 92,000 s.f.

- Frontage Increase:

$$W = 30'-0"$$

$$If = [F/P - 0.25] W/30$$

$$If = [1424/1424 - 0.25] 30/30 = .75$$

- Allowable Area Calculation: $Aa = At + (NS \times If)$

$$S-2: Aa = 104,000 + (26,000 \times .75) = 123,500$$

$$B: Aa = 92,000 + (23,000 \times .75) = 109,250$$

$$\text{Actual S-2: } 90,585 + \text{Actual B: } 16,016 = .88 \text{ (less than 1)}$$

$$\text{Allowable S-2: } 123,500 \quad \text{Allowable B: } 109,250$$

The proposed building area conforms to the IBC 2015 allowable area.



July 31, 2020

Christian Roadman, Planner
City of Portland Planning Division
389 Congress Street
Portland, ME 04101

Re: Maine International Cold Storage Facility Level III Site Plan Submittal
Stormwater Management Report Revisions.

Dear Christian:

Thank you for coordinating the review of the proposed Maine International Cold Storage Facility located at 40 West Commercial Street in Portland, Maine. As site design has advanced since our previous submission on May 18, 2020, several changes have been made to the site that impact the stormwater management design, including modifications to the limit of work and redevelopment area, changes to impervious area from removal of the fire access drive; regrading associated with removal of the fire access drive; reconfiguration of the subsurface R-Tank storage system and treatment device; and modifications to the storm drainage pipe network. Revised design drawings reflecting these changes have been uploaded to Eplan.

Based on the attached revised water quality calculations, the proposed project continues to be required to provide treatment for 60% of the redevelopment area. Approximately 86% of the redevelopment area will be captured and the proposed stormwater management system will treat a volume of stormwater greater than the required water quality volume. Higher pollutant ranking areas will be captured and treated in their entirety (medium use road, medium use parking and flat roof), with exception to the existing driveway at the site entrance and a short segment of paved sidewalk (approx. 420 SF).

Adequate provisions have been made to collect stormwater runoff from the project area via a series of drainage swales, catch basins and area drains, which discharge to an underground R-Tank Storage system designed to store the Water Quality Volume prior to treatment. The R-Tank Storage system was shifted to the east and reconfigured to avoid exceeding maximum cover over the R-Tank modules. Revised water quality calculations, HydroCAD Report, and Drainage Area and Redevelopment Area Figures are attached to this letter.

The proposed StormFilter has been sized to accommodate the water quality flow from 1-inch of runoff over 60% of the drainage area. Larger storm events will bypass the filter cartridges via a separate outlet control structure with an internal weir. Due to reconfiguration of the upgradient R-Tank detention system, we have reached back out to the StormFilter manufacturer for review and approval of the revised design. We will submit their updated design review letter upon receipt.

If you have any questions or require additional information, please do not hesitate to contact me at (207) 558-3662 or by email at dstairs@woodardcurran.com.

Sincerely,

WOODARD & CURRAN INC.

Darrin Stairs, PE
Project Manager



Enclosures: Revised Design Drawings (uploaded to Eplan)
Revised Water Quality Calculations
Revised HydroCAD Model
Revised Drainage Area and Redevelopment Area Figures

Redevelopment Treatment Calculations - Per Section 4.C.2.d of the MaineDEP Chapter 500 Rules

Area of Redevelopment (acres) = 7.41

a. Existing Pollutant Impact

Land Use	Pollutant Ranking	Land Area (Ac.)	Impact
High Use Roads/Parking Lot	5	0.00	0.00
Other Roads/Medium Use Parking Lot	4	0.00	0.00
Other Parking Lots/Flat Asphalt Roofs/Industrial Roofs	3	1.84	5.52
Other Roofs/Landscaped Area/Paved Walkway	2	5.57	11.14
Non-grass Landscaping/Stormwater	1	0.00	0.00
Forest/Meadow	0	0.00	0.00
			16.67

b. Proposed Pollutant Impact

Land Use	Pollutant Ranking	Land Area (Ac.)	Impact
High Use Roads/Parking Lot	5	0.00	0.00
Other Roads/Medium Use Parking Lot	4	1.94	7.78
Other Parking Lots/Flat Asphalt Roofs/Industrial Roofs	3	2.47	7.40
Other Roofs/Landscaped Area/Paved Walkway	2	2.42	4.85
Non-grass Landscaping/Stormwater	1	0.58	0.58
Forest/Meadow	0	0.00	0.00
			20.60

c. Existing Impact/Total Redevelopment Acres

2.248

d. Proposed Impact/Total Redevelopment Acres

2.779

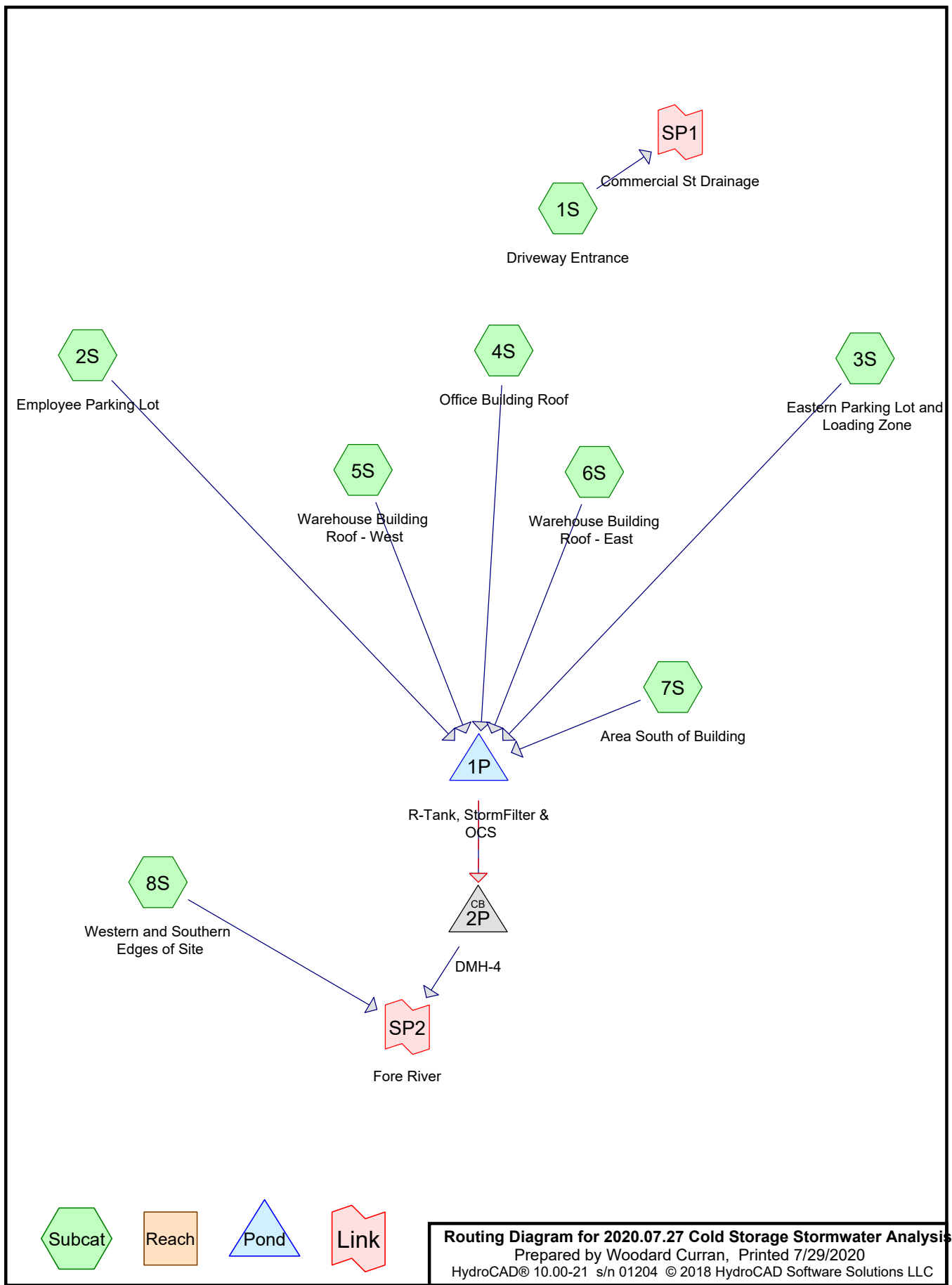
e. Item D Minus Item C

0.53

Ranked Impact Change Due to Redevelopment	Percentage of Developed Area that Must be Treated
0.0 or less	0% (Stormwater projects)
	50% (Site projects)
≥ 0.0 to ≤ 1.0	60%
> 1.0 to ≤ 2.0	70%
> 2.0 to ≤ 3.0	80%
> 3.0	Same treatment level as for new development

Stormwater Treatment Summary	Treatment Percentage	Treated Area (SF)	WQV (CF)
Required	60%	193,736	16,145
Provided	60.5%	278,895	16,286

Treated Area Summary	System 1
Impervious Area Treated (SF)	206,940
Landscaped Area Treated (SF)	71,955



Routing Diagram for 2020.07.27 Cold Storage Stormwater Analysis
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Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
156,370	80	>75% Grass cover, Good, HSG D (1S, 2S, 3S, 7S, 8S)
217,585	98	Impervious (1S, 2S, 3S, 4S, 5S, 6S, 7S, 8S)
373,955	90	TOTAL AREA

2020.07.27 Cold Storage Stormwater Analysis

NRCC 24-hr D 2-Year Rainfall=3.10"

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

Subcatchment1S: Driveway Entrance Runoff Area=10,610 sf 96.56% Impervious Runoff Depth=2.76"
Tc=6.0 min CN=97 Runoff=0.646 cfs 2,438 cf

Subcatchment2S: Employee Parking Lot Runoff Area=29,100 sf 41.51% Impervious Runoff Depth=1.83"
Tc=6.0 min CN=87 Runoff=1.306 cfs 4,430 cf

Subcatchment3S: Eastern Parking Lot Runoff Area=115,360 sf 73.77% Impervious Runoff Depth=2.35"
Tc=6.0 min CN=93 Runoff=6.386 cfs 22,589 cf

Subcatchment4S: Office Building Roof Runoff Area=17,085 sf 100.00% Impervious Runoff Depth=2.87"
Tc=6.0 min CN=98 Runoff=1.056 cfs 4,083 cf

Subcatchment5S: Warehouse Building Runoff Area=32,430 sf 100.00% Impervious Runoff Depth=2.87"
Tc=6.0 min CN=98 Runoff=2.004 cfs 7,750 cf

Subcatchment6S: Warehouse Building Runoff Area=57,870 sf 100.00% Impervious Runoff Depth=2.87"
Tc=6.0 min CN=98 Runoff=3.575 cfs 13,830 cf

Subcatchment7S: Area South of Building Runoff Area=27,050 sf 8.71% Impervious Runoff Depth=1.46"
Tc=6.0 min CN=82 Runoff=0.976 cfs 3,287 cf

Subcatchment8S: Western and Southern Runoff Area=84,450 sf 0.50% Impervious Runoff Depth=1.33"
Tc=0.0 min CN=80 Runoff=3.185 cfs 9,328 cf

Pond 1P: R-Tank, StormFilter & OCS Peak Elev=4.59' Storage=22,958 cf Inflow=15.300 cfs 55,970 cf
Primary=0.353 cfs 33,085 cf Secondary=8.951 cfs 21,920 cf Outflow=9.273 cfs 55,005 cf

Pond 2P: DMH-4 Peak Elev=1.73' Inflow=9.273 cfs 55,005 cf
36.0" Round Culvert n=0.013 L=61.0' S=0.0051 ' /' Outflow=9.273 cfs 55,005 cf

Link SP1: Commercial St Drainage Inflow=0.646 cfs 2,438 cf
Primary=0.646 cfs 2,438 cf

Link SP2: Fore River Inflow=10.196 cfs 64,333 cf
Primary=10.196 cfs 64,333 cf

Total Runoff Area = 373,955 sf Runoff Volume = 67,736 cf Average Runoff Depth = 2.17"
41.82% Pervious = 156,370 sf 58.18% Impervious = 217,585 sf

2020.07.27 Cold Storage Stormwater Analysis

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NRCC 24-hr D 2-Year Rainfall=3.10"

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Summary for Subcatchment 1S: Driveway Entrance

Runoff = 0.646 cfs @ 12.13 hrs, Volume= 2,438 cf, Depth= 2.76"

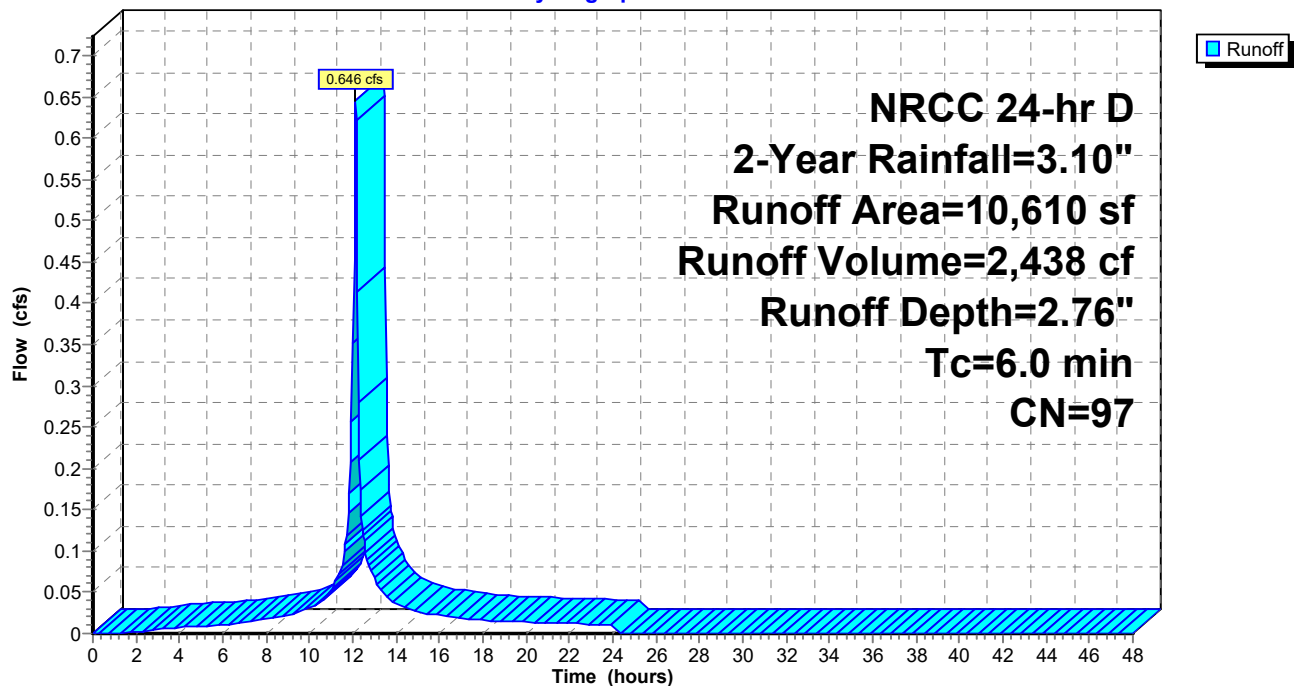
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 2-Year Rainfall=3.10"

	Area (sf)	CN	Description
*	10,245	98	Impervious
	365	80	>75% Grass cover, Good, HSG D
	10,610	97	Weighted Average
	365		3.44% Pervious Area
	10,245		96.56% Impervious Area

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

Subcatchment 1S: Driveway Entrance

Hydrograph



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NRCC 24-hr D 2-Year Rainfall=3.10"

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Summary for Subcatchment 2S: Employee Parking Lot

Runoff = 1.306 cfs @ 12.13 hrs, Volume= 4,430 cf, Depth= 1.83"

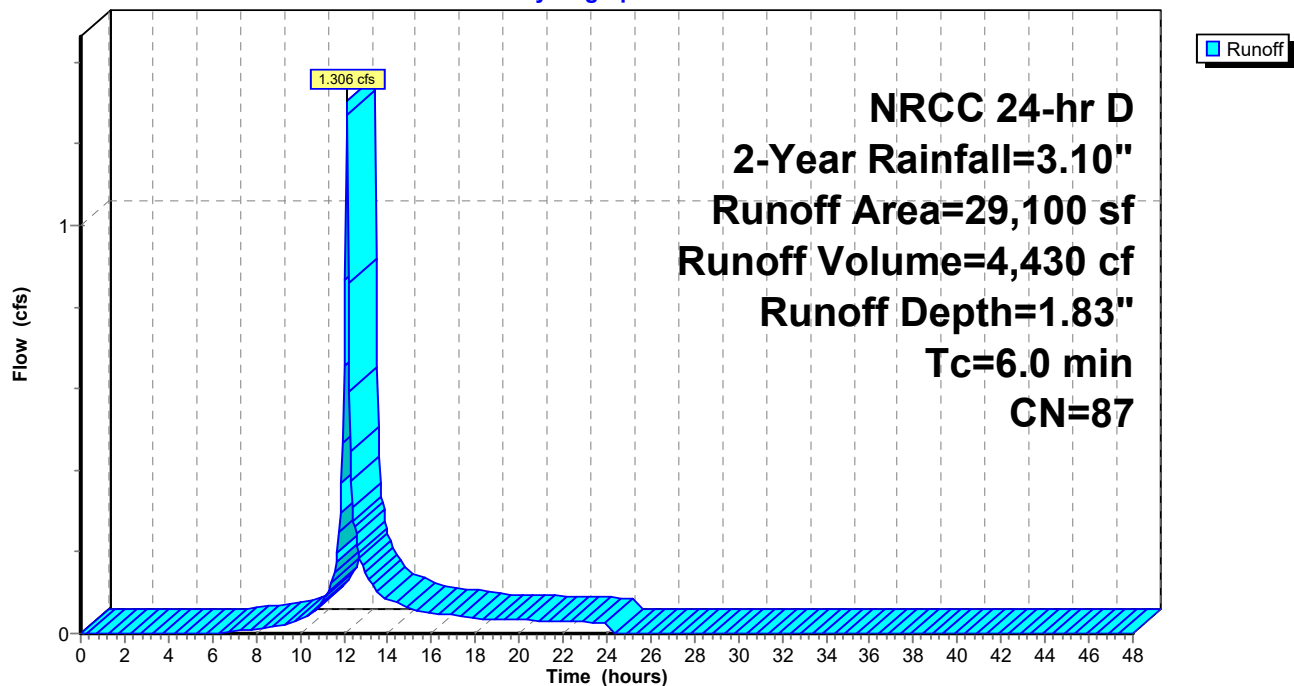
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 2-Year Rainfall=3.10"

	Area (sf)	CN	Description
*	12,080	98	Impervious
	17,020	80	>75% Grass cover, Good, HSG D
	29,100	87	Weighted Average
	17,020		58.49% Pervious Area
	12,080		41.51% Impervious Area

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

Subcatchment 2S: Employee Parking Lot

Hydrograph



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NRCC 24-hr D 2-Year Rainfall=3.10"

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Summary for Subcatchment 3S: Eastern Parking Lot and Loading Zone

Runoff = 6.386 cfs @ 12.13 hrs, Volume= 22,589 cf, Depth= 2.35"

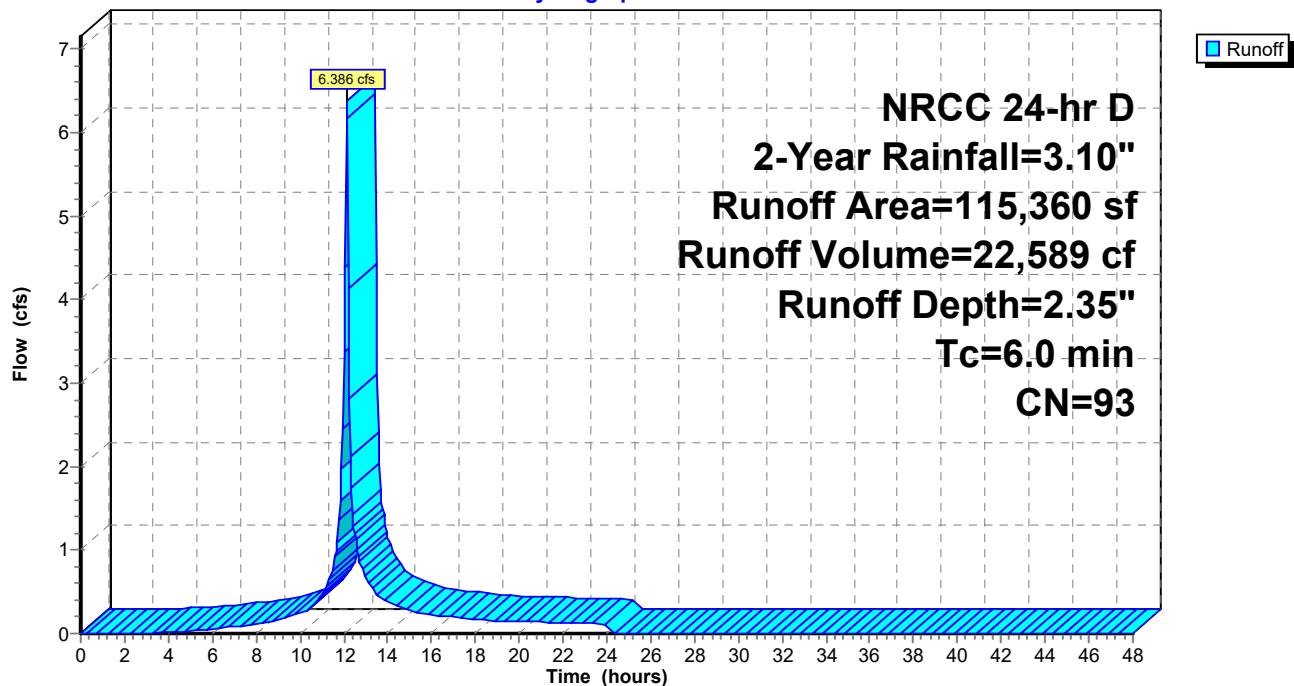
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 2-Year Rainfall=3.10"

	Area (sf)	CN	Description
*	85,100	98	Impervious
	30,260	80	>75% Grass cover, Good, HSG D
	115,360	93	Weighted Average
	30,260		26.23% Pervious Area
	85,100		73.77% Impervious Area

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

Subcatchment 3S: Eastern Parking Lot and Loading Zone

Hydrograph



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NRCC 24-hr D 2-Year Rainfall=3.10"

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Summary for Subcatchment 4S: Office Building Roof

Runoff = 1.056 cfs @ 12.13 hrs, Volume= 4,083 cf, Depth= 2.87"

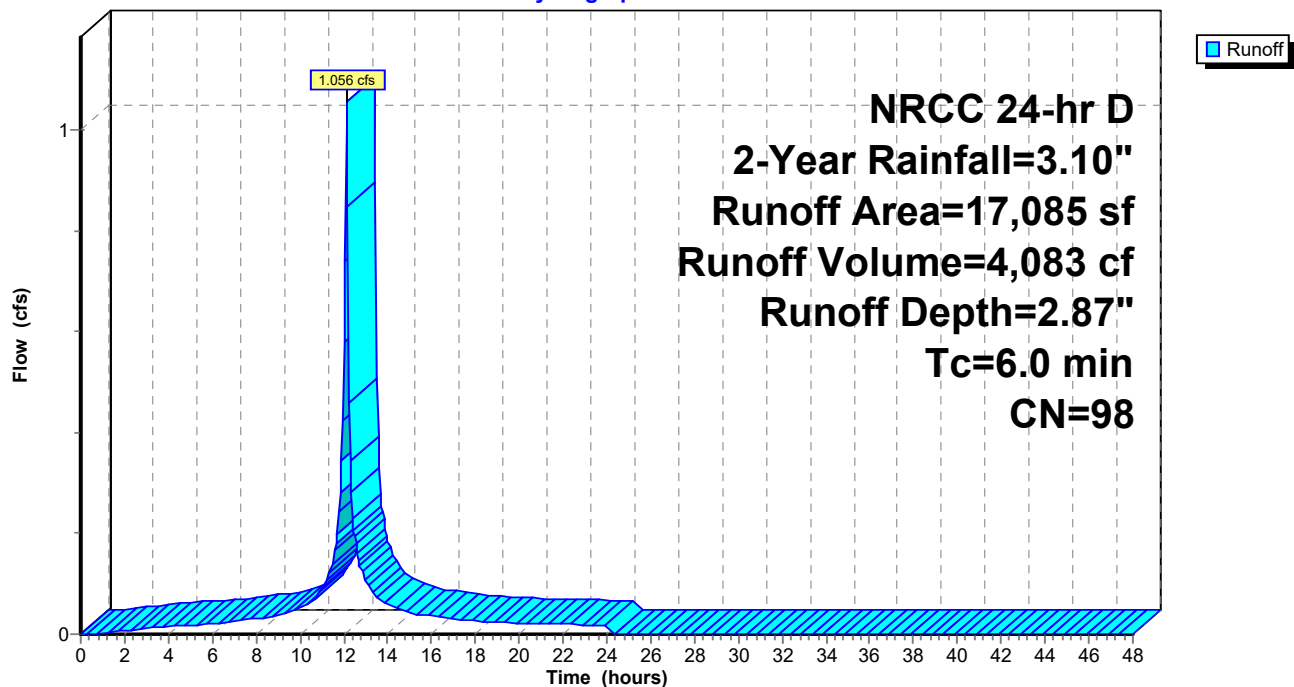
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 2-Year Rainfall=3.10"

	Area (sf)	CN	Description
*	17,085	98	Impervious
	17,085		100.00% Impervious Area

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

Subcatchment 4S: Office Building Roof

Hydrograph



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NRCC 24-hr D 2-Year Rainfall=3.10"

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Summary for Subcatchment 5S: Warehouse Building Roof - West

Runoff = 2.004 cfs @ 12.13 hrs, Volume= 7,750 cf, Depth= 2.87"

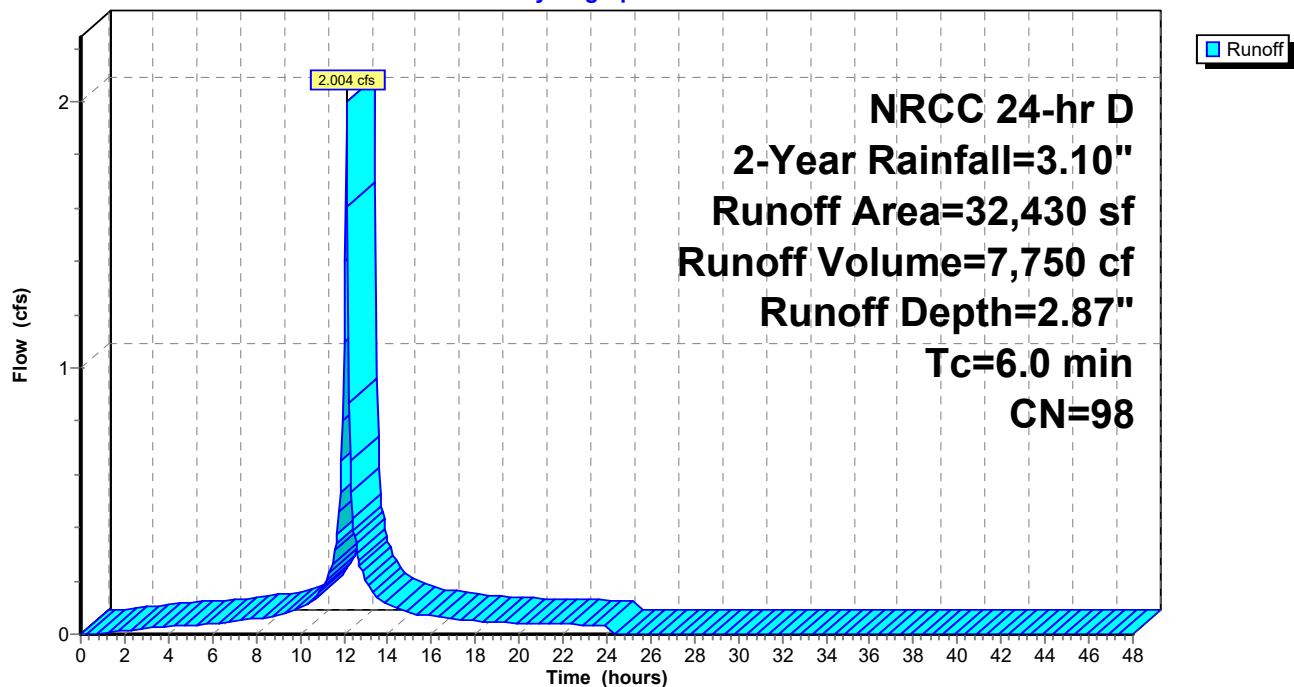
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 2-Year Rainfall=3.10"

	Area (sf)	CN	Description
*	32,430	98	Impervious
	32,430		100.00% Impervious Area

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

Subcatchment 5S: Warehouse Building Roof - West

Hydrograph



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NRCC 24-hr D 2-Year Rainfall=3.10"

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Summary for Subcatchment 6S: Warehouse Building Roof - East

Runoff = 3.575 cfs @ 12.13 hrs, Volume= 13,830 cf, Depth= 2.87"

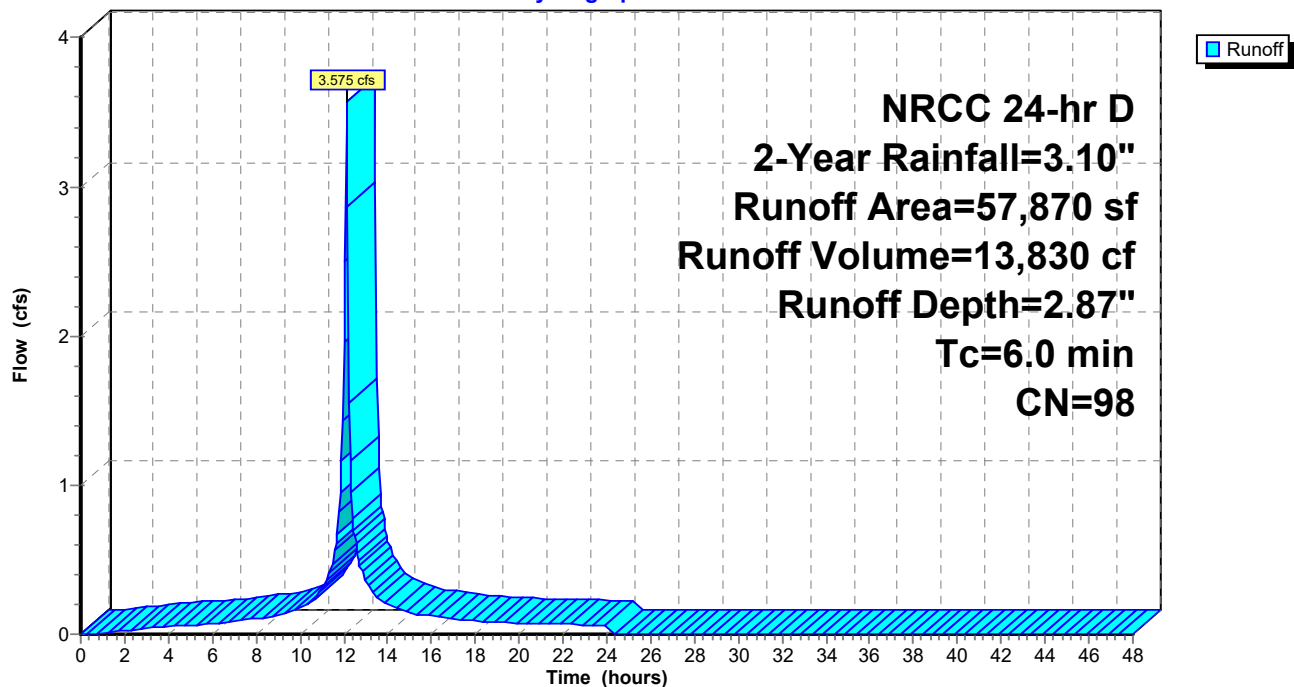
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 2-Year Rainfall=3.10"

	Area (sf)	CN	Description
*	57,870	98	Impervious
	57,870		100.00% Impervious Area

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

Subcatchment 6S: Warehouse Building Roof - East

Hydrograph



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NRCC 24-hr D 2-Year Rainfall=3.10"

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Summary for Subcatchment 7S: Area South of Building

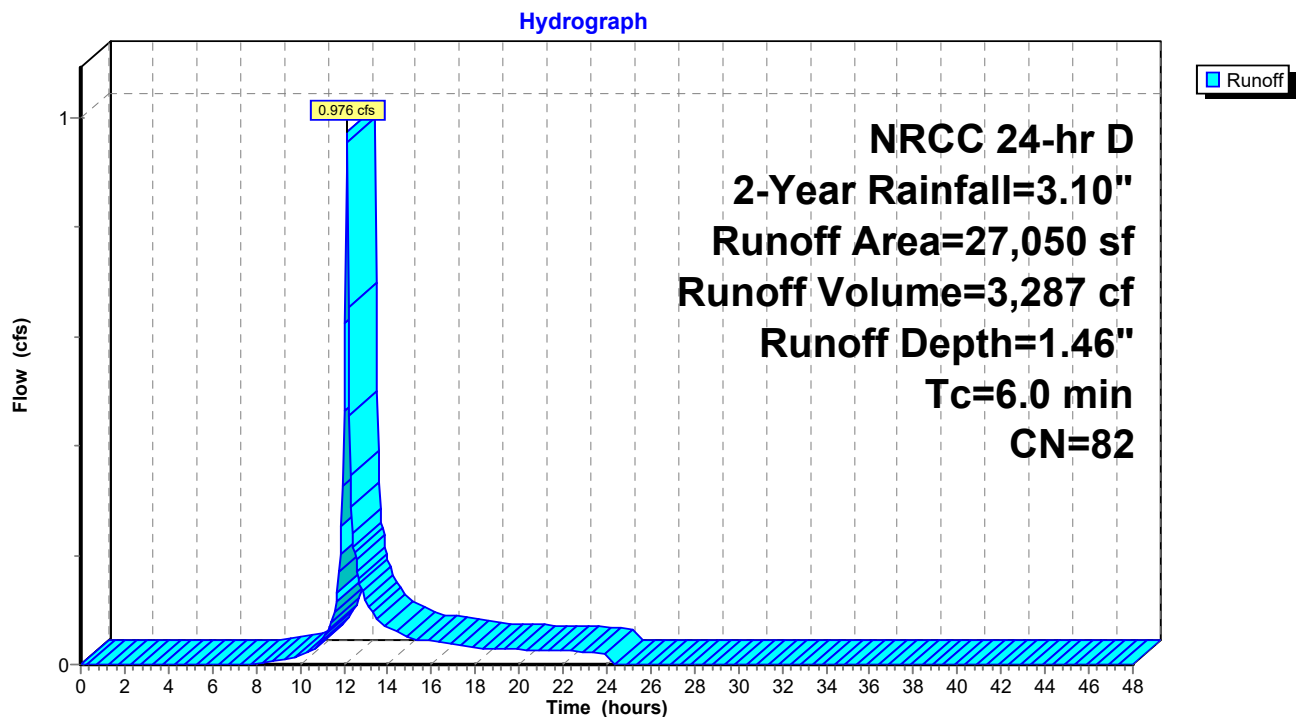
Runoff = 0.976 cfs @ 12.13 hrs, Volume= 3,287 cf, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 2-Year Rainfall=3.10"

	Area (sf)	CN	Description
*	2,355	98	Impervious
	24,695	80	>75% Grass cover, Good, HSG D
	27,050	82	Weighted Average
	24,695		91.29% Pervious Area
	2,355		8.71% Impervious Area

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

Subcatchment 7S: Area South of Building



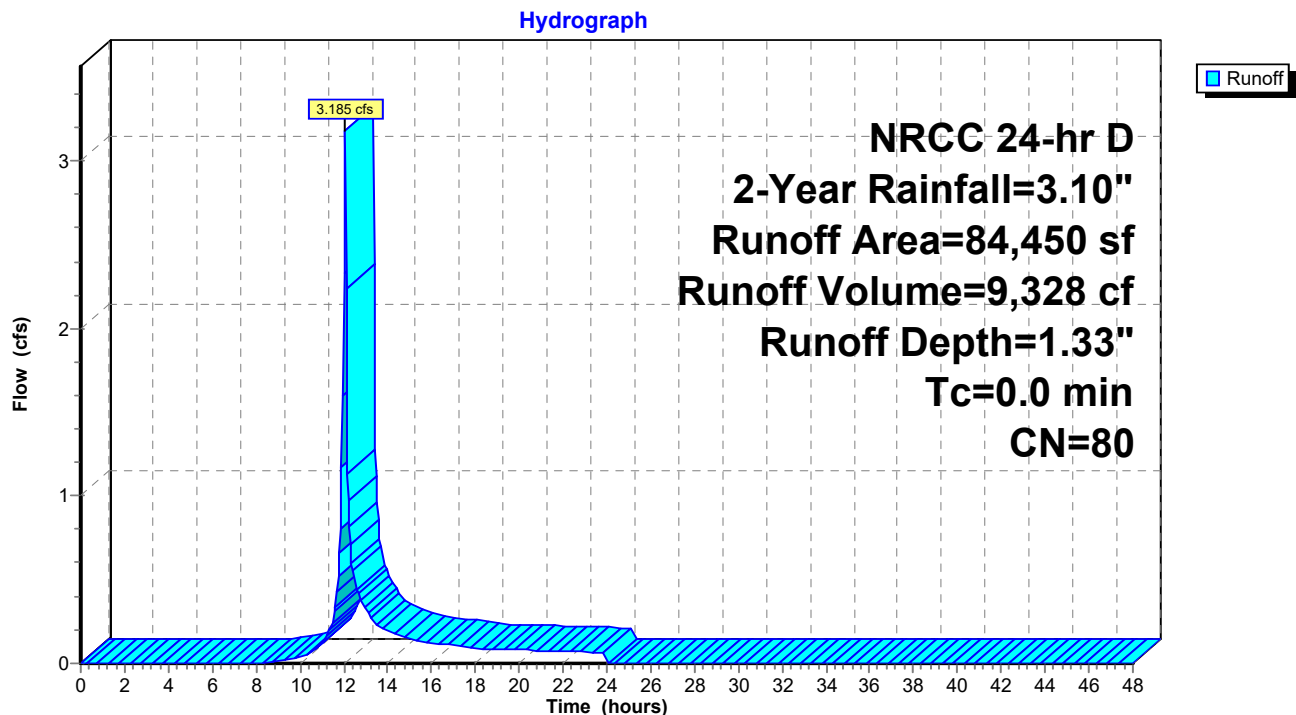
Summary for Subcatchment 8S: Western and Southern Edges of Site

Runoff = 3.185 cfs @ 12.05 hrs, Volume= 9,328 cf, Depth= 1.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 2-Year Rainfall=3.10"

Area (sf)	CN	Description
* 420	98	Impervious
84,030	80	>75% Grass cover, Good, HSG D
84,450	80	Weighted Average
84,030		99.50% Pervious Area
420		0.50% Impervious Area

Subcatchment 8S: Western and Southern Edges of Site



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NRCC 24-hr D 2-Year Rainfall=3.10"

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Summary for Pond 1P: R-Tank, StormFilter & OCS

Inflow Area = 278,895 sf, 74.19% Impervious, Inflow Depth = 2.41" for 2-Year event
 Inflow = 15.300 cfs @ 12.13 hrs, Volume= 55,970 cf
 Outflow = 9.273 cfs @ 12.22 hrs, Volume= 55,005 cf, Atten= 39%, Lag= 5.4 min
 Primary = 0.353 cfs @ 12.11 hrs, Volume= 33,085 cf
 Secondary = 8.951 cfs @ 12.22 hrs, Volume= 21,920 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Peak Elev= 4.59' @ 12.22 hrs Surf.Area= 7,194 sf Storage= 22,958 cf

Flood Elev= 9.52' Surf.Area= 7,194 sf Storage= 30,079 cf

Plug-Flow detention time= 434.8 min calculated for 55,005 cf (98% of inflow)

Center-of-Mass det. time= 423.9 min (1,216.1 - 792.2)

Volume	Invert	Avail.Storage	Storage Description
#1	0.81'	5,213 cf	Stone Envelope (Prismatic) Listed below (Recalc) 39,207 cf Overall - 26,174 cf Embedded = 13,033 cf x 40.0% Voids
#2	1.06'	24,866 cf	R-Tank Triple Modules (Prismatic) Listed below (Recalc) Inside #1 26,174 cf Overall x 95.0% Voids
30,079 cf			Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.81	7,194	0	0
6.26	7,194	39,207	39,207

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1.06	6,232	0	0
5.26	6,232	26,174	26,174

Device	Routing	Invert	Outlet Devices
#1	Primary	0.56'	12.0" Round Culvert to DMH4 L= 4.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.56' / 0.54' S= 0.0050 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	0.56'	SF - Tube/Siphon/Float Valve X 28.00 Starts@3.31' Breaks@1.23' 0.504" Diameter, C= 0.600, 0.263" Trickle Diameter
#3	Secondary	1.06'	30.0" Round Bypass Culvert L= 6.6' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1.06' / 0.85' S= 0.0318 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf
#4	Device 3	3.81'	4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

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NRCC 24-hr D 2-Year Rainfall=3.10"

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Primary OutFlow Max=0.329 cfs @ 12.11 hrs HW=4.20' TW=1.10' (Dynamic Tailwater)

1=Culvert to DMH4 (Passes 0.329 cfs of 5.256 cfs potential flow)

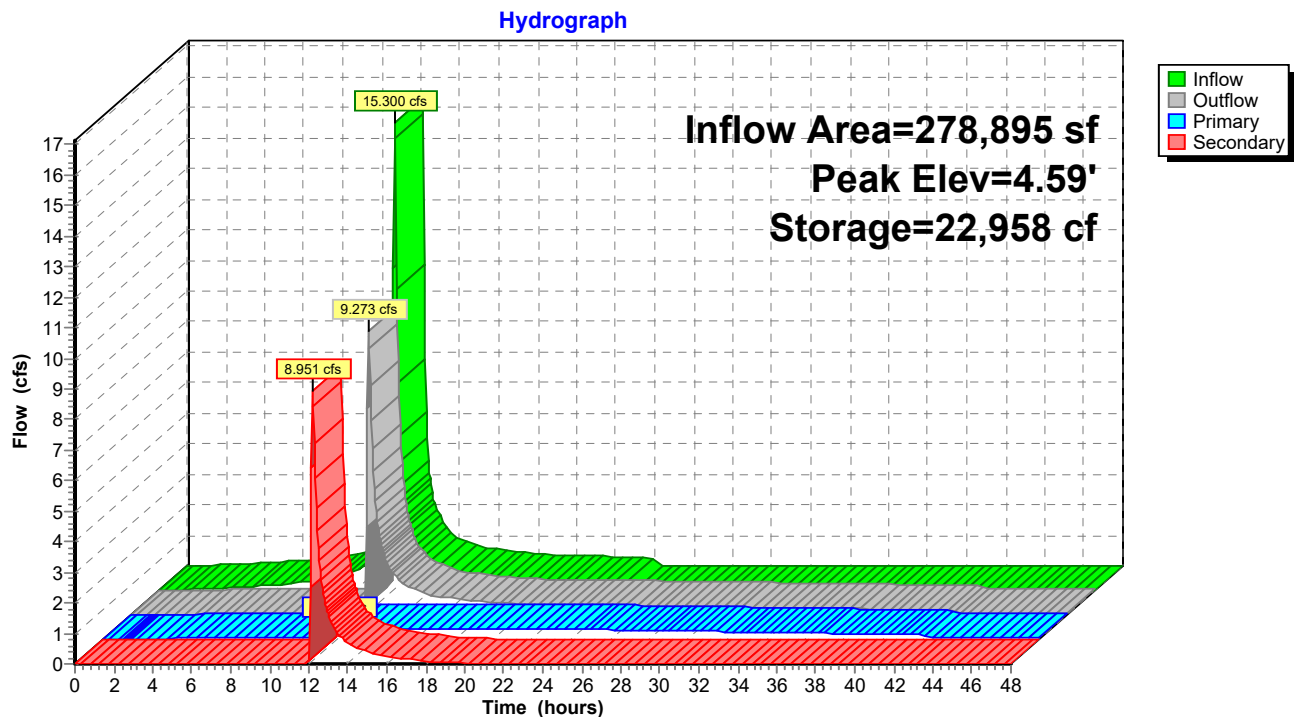
2=SF - Tube/Siphon/Float Valve (Orifice Controls 0.329 cfs @ 8.48 fps)

Secondary OutFlow Max=8.635 cfs @ 12.22 hrs HW=4.57' TW=1.70' (Dynamic Tailwater)

3=Bypass Culvert (Passes 8.635 cfs of 28.053 cfs potential flow)

4=Broad-Crested Rectangular Weir (Weir Controls 8.635 cfs @ 2.84 fps)

Pond 1P: R-Tank, StormFilter & OCS



Summary for Pond 2P: DMH-4

Inflow Area = 278,895 sf, 74.19% Impervious, Inflow Depth > 2.37" for 2-Year event
 Inflow = 9.273 cfs @ 12.22 hrs, Volume= 55,005 cf
 Outflow = 9.273 cfs @ 12.22 hrs, Volume= 55,005 cf, Atten= 0%, Lag= 0.0 min
 Primary = 9.273 cfs @ 12.22 hrs, Volume= 55,005 cf

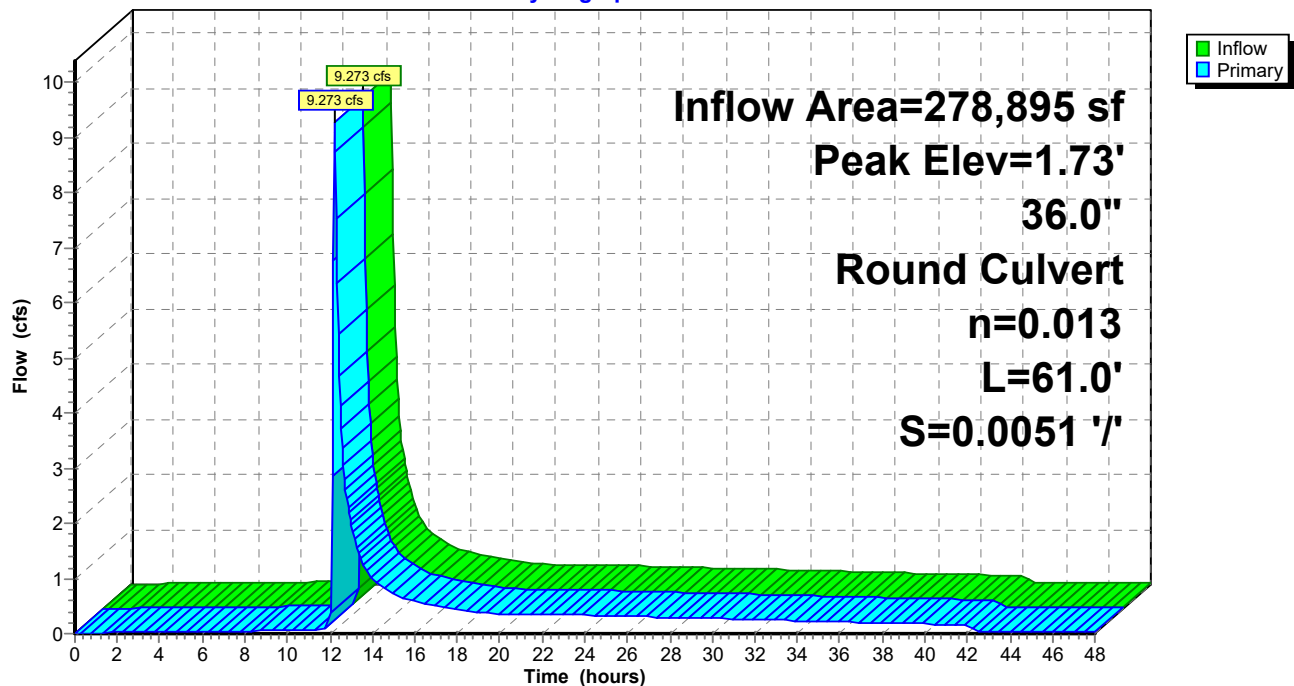
Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Peak Elev= 1.73' @ 12.22 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.31'	36.0" Round Culvert L= 61.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.31' / 0.00' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=8.960 cfs @ 12.22 hrs HW=1.70' TW=0.00' (Dynamic Tailwater)
 1=Culvert (Barrel Controls 8.960 cfs @ 4.10 fps)

Pond 2P: DMH-4

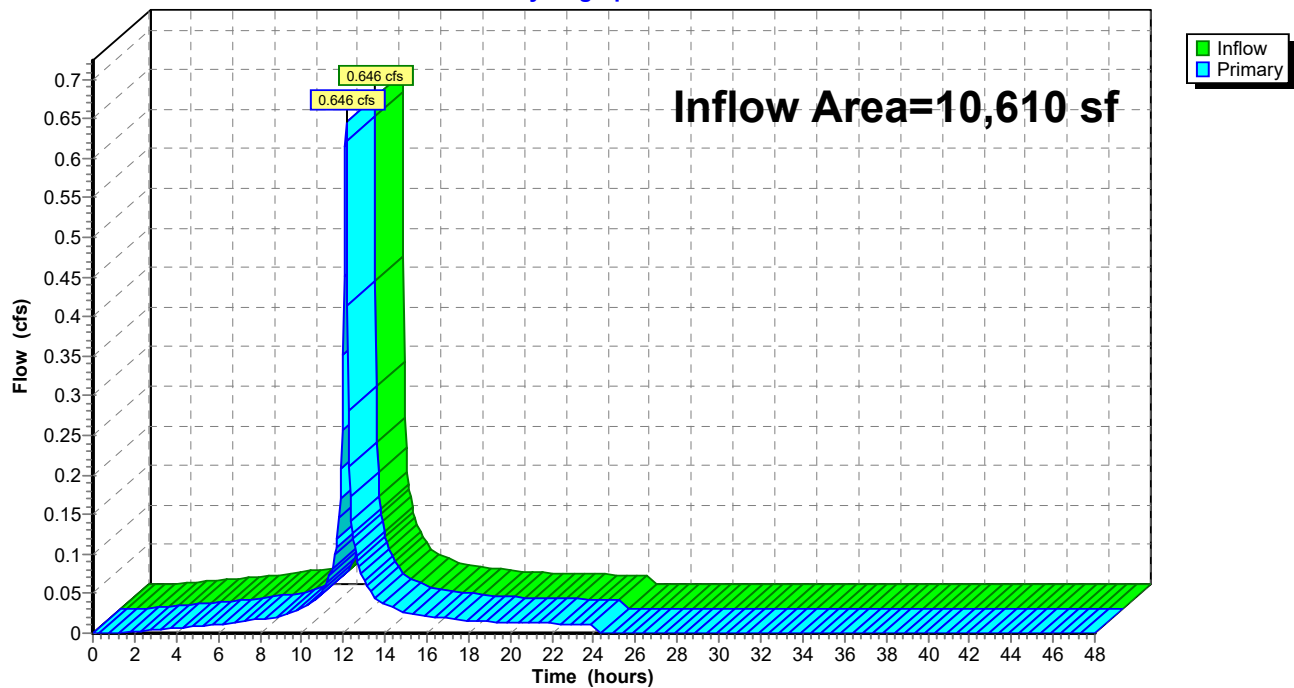
Hydrograph



Summary for Link SP1: Commercial St Drainage

Inflow Area = 10,610 sf, 96.56% Impervious, Inflow Depth = 2.76" for 2-Year event
Inflow = 0.646 cfs @ 12.13 hrs, Volume= 2,438 cf
Primary = 0.646 cfs @ 12.13 hrs, Volume= 2,438 cf, Atten= 0%, Lag= 0.0 min

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

Link SP1: Commercial St Drainage**Hydrograph**

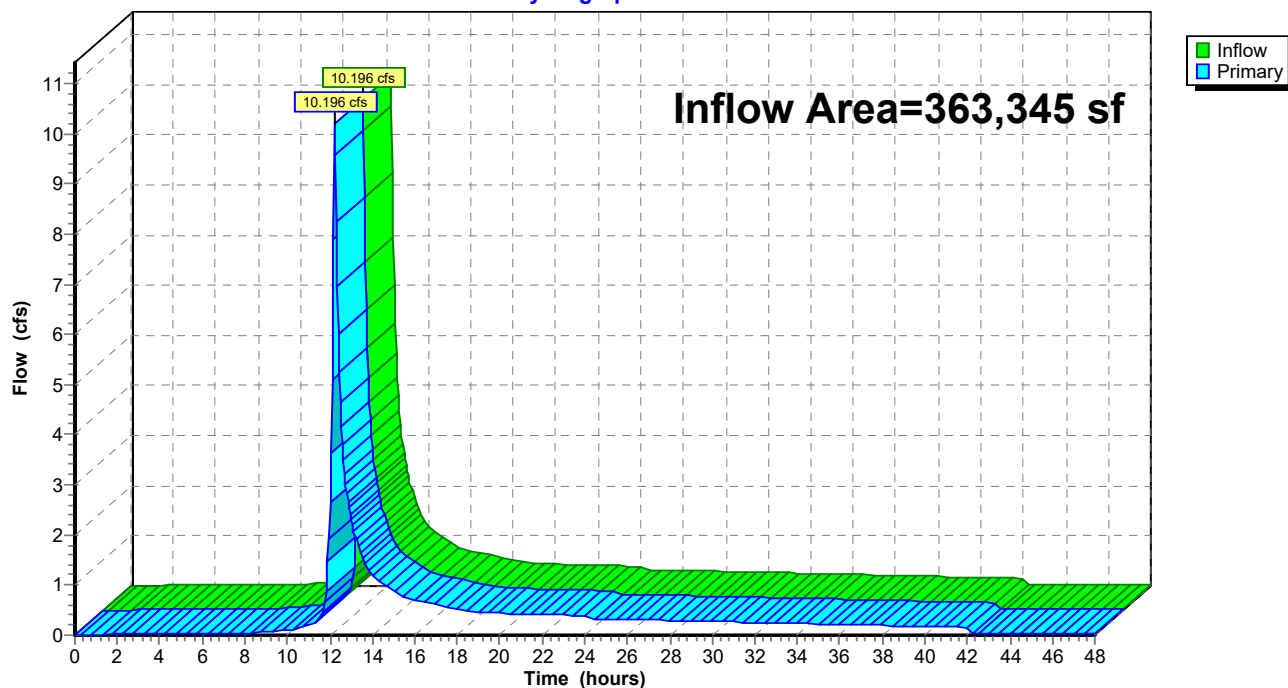
Summary for Link SP2: Fore River

Inflow Area = 363,345 sf, 57.06% Impervious, Inflow Depth > 2.12" for 2-Year event
 Inflow = 10.196 cfs @ 12.22 hrs, Volume= 64,333 cf
 Primary = 10.196 cfs @ 12.22 hrs, Volume= 64,333 cf, Atten= 0%, Lag= 0.0 min

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

Link SP2: Fore River

Hydrograph



2020.07.27 Cold Storage Stormwater Analysis

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

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

Subcatchment1S: Driveway Entrance Runoff Area=10,610 sf 96.56% Impervious Runoff Depth=4.25"
Tc=6.0 min CN=97 Runoff=1.061 cfs 3,756 cf

Subcatchment2S: Employee Parking Lot Runoff Area=29,100 sf 41.51% Impervious Runoff Depth=3.19"
Tc=6.0 min CN=87 Runoff=2.412 cfs 7,741 cf

Subcatchment3S: Eastern Parking Lot Runoff Area=115,360 sf 73.77% Impervious Runoff Depth=3.81"
Tc=6.0 min CN=93 Runoff=10.913 cfs 36,585 cf

Subcatchment4S: Office Building Roof Runoff Area=17,085 sf 100.00% Impervious Runoff Depth=4.36"
Tc=6.0 min CN=98 Runoff=1.722 cfs 6,213 cf

Subcatchment5S: Warehouse Building Runoff Area=32,430 sf 100.00% Impervious Runoff Depth=4.36"
Tc=6.0 min CN=98 Runoff=3.268 cfs 11,793 cf

Subcatchment6S: Warehouse Building Runoff Area=57,870 sf 100.00% Impervious Runoff Depth=4.36"
Tc=6.0 min CN=98 Runoff=5.832 cfs 21,045 cf

Subcatchment7S: Area South of Building Runoff Area=27,050 sf 8.71% Impervious Runoff Depth=2.72"
Tc=6.0 min CN=82 Runoff=1.941 cfs 6,140 cf

Subcatchment8S: Western and Southern Runoff Area=84,450 sf 0.50% Impervious Runoff Depth=2.55"
Tc=0.0 min CN=80 Runoff=6.656 cfs 17,924 cf

Pond 1P: R-Tank, StormFilter & OCS Peak Elev=5.17' Storage=26,652 cf Inflow=26.085 cfs 89,517 cf
Primary=0.344 cfs 33,719 cf Secondary=21.128 cfs 54,831 cf Outflow=21.432 cfs 88,550 cf

Pond 2P: DMH-4 Peak Elev=2.64' Inflow=21.432 cfs 88,550 cf
36.0" Round Culvert n=0.013 L=61.0' S=0.0051 ' / ' Outflow=21.432 cfs 88,550 cf

Link SP1: Commercial St Drainage Inflow=1.061 cfs 3,756 cf
Primary=1.061 cfs 3,756 cf

Link SP2: Fore River Inflow=24.254 cfs 106,475 cf
Primary=24.254 cfs 106,475 cf

Total Runoff Area = 373,955 sf Runoff Volume = 111,198 cf Average Runoff Depth = 3.57"
41.82% Pervious = 156,370 sf 58.18% Impervious = 217,585 sf

2020.07.27 Cold Storage Stormwater Analysis

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

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Summary for Subcatchment 1S: Driveway Entrance

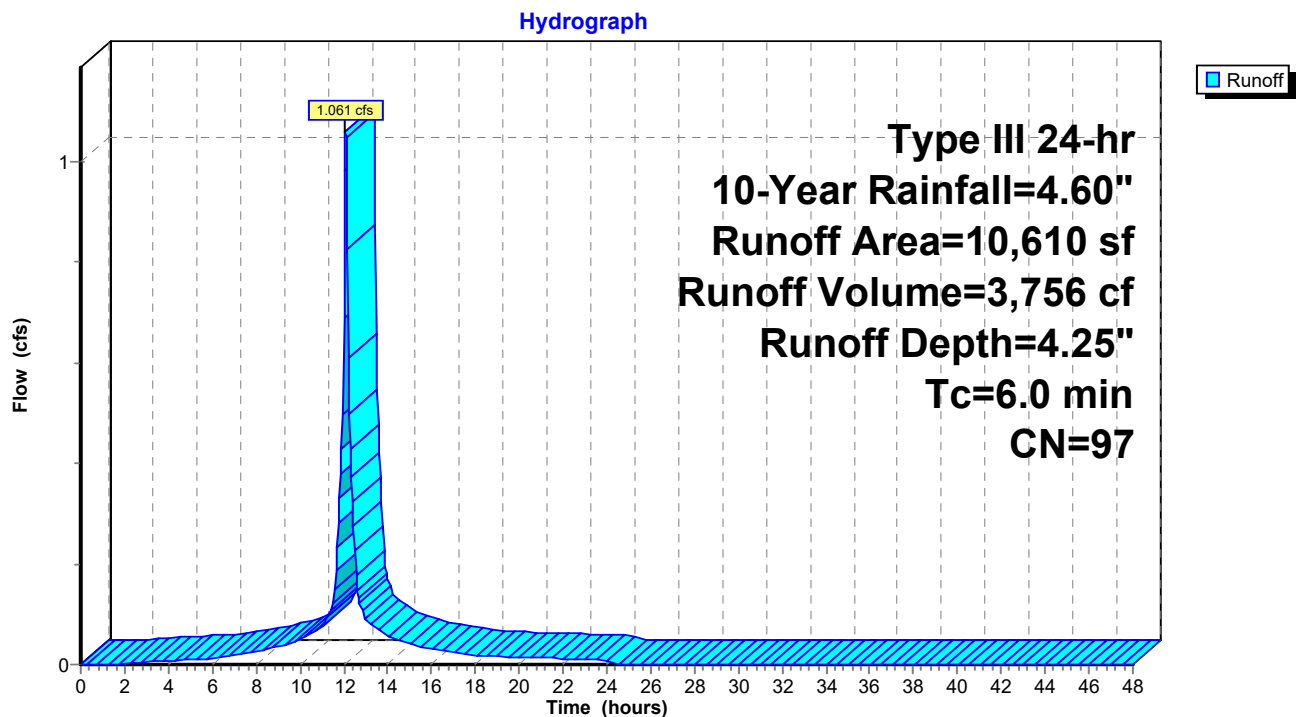
Runoff = 1.061 cfs @ 12.09 hrs, Volume= 3,756 cf, Depth= 4.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.60"

	Area (sf)	CN	Description
*	10,245	98	Impervious
	365	80	>75% Grass cover, Good, HSG D
	10,610	97	Weighted Average
	365		3.44% Pervious Area
	10,245		96.56% Impervious Area

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

Subcatchment 1S: Driveway Entrance



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

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Summary for Subcatchment 2S: Employee Parking Lot

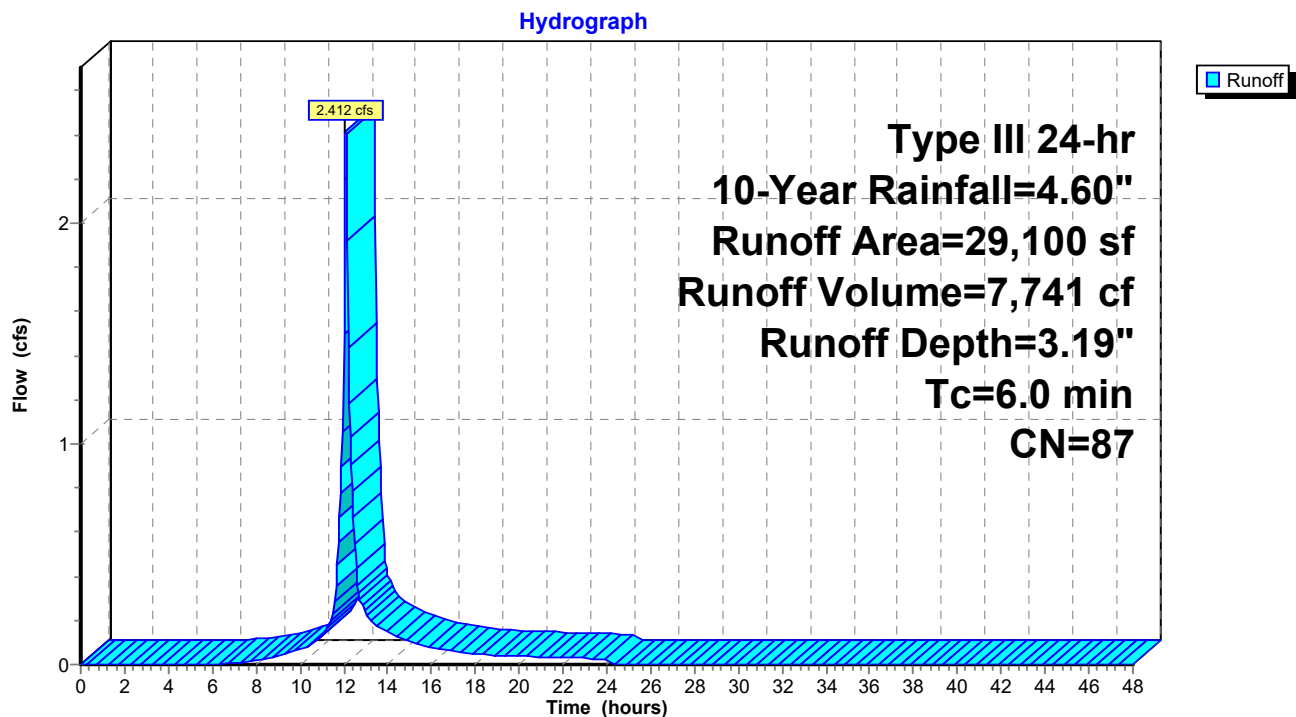
Runoff = 2.412 cfs @ 12.09 hrs, Volume= 7,741 cf, Depth= 3.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.60"

	Area (sf)	CN	Description
*	12,080	98	Impervious
	17,020	80	>75% Grass cover, Good, HSG D
	29,100	87	Weighted Average
	17,020		58.49% Pervious Area
	12,080		41.51% Impervious Area

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

Subcatchment 2S: Employee Parking Lot



2020.07.27 Cold Storage Stormwater Analysis

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

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Summary for Subcatchment 3S: Eastern Parking Lot and Loading Zone

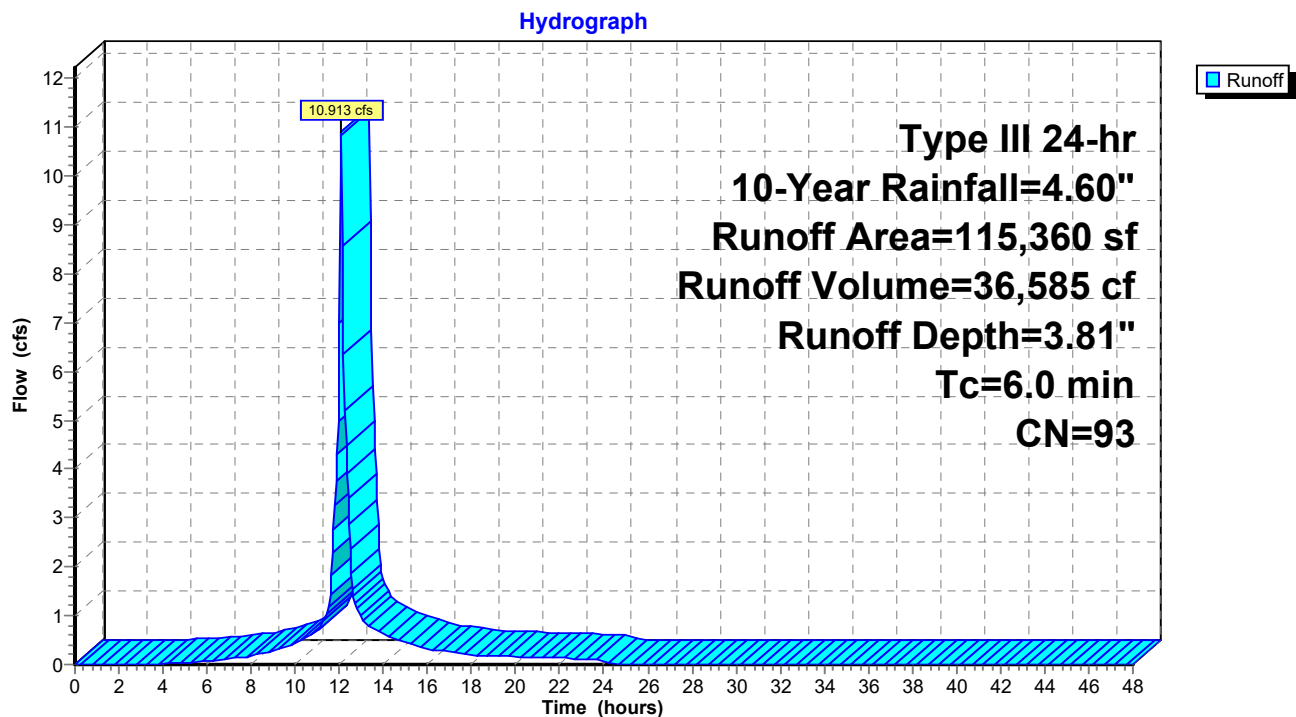
Runoff = 10.913 cfs @ 12.09 hrs, Volume= 36,585 cf, Depth= 3.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.60"

	Area (sf)	CN	Description
*	85,100	98	Impervious
	30,260	80	>75% Grass cover, Good, HSG D
	115,360	93	Weighted Average
	30,260		26.23% Pervious Area
	85,100		73.77% Impervious Area

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

Subcatchment 3S: Eastern Parking Lot and Loading Zone



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

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Summary for Subcatchment 4S: Office Building Roof

Runoff = 1.722 cfs @ 12.09 hrs, Volume= 6,213 cf, Depth= 4.36"

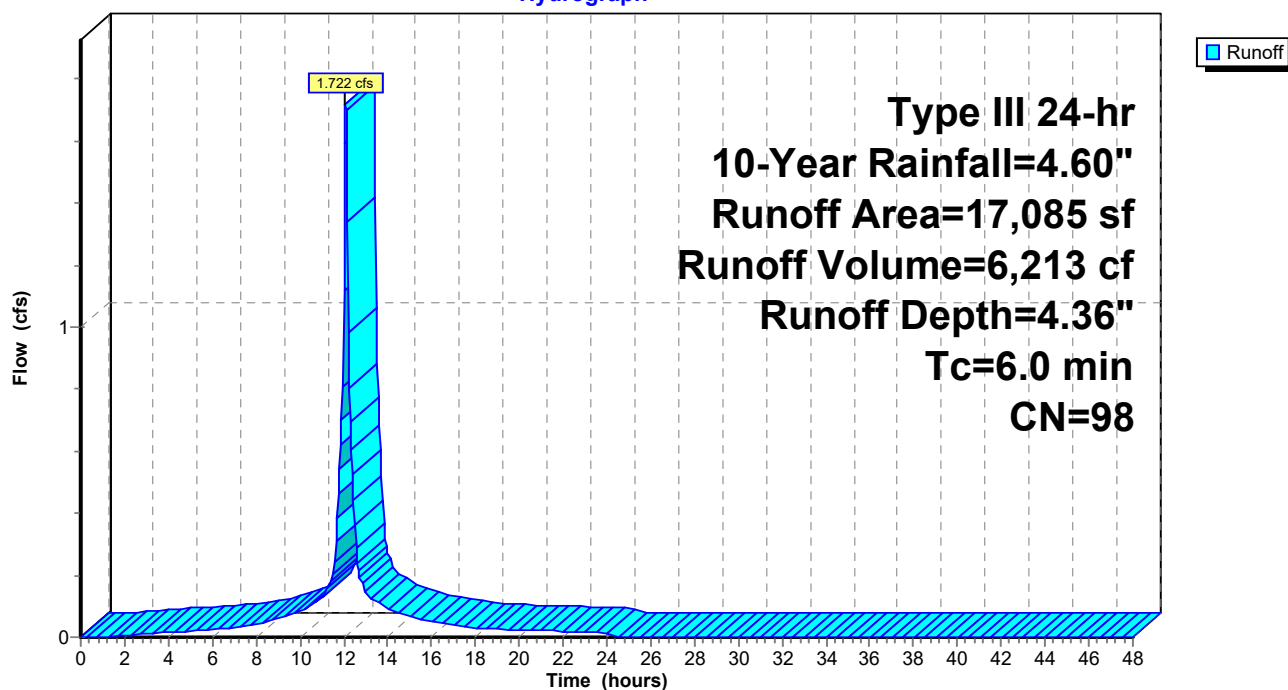
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.60"

	Area (sf)	CN	Description
*	17,085	98	Impervious
	17,085		100.00% Impervious Area

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

Subcatchment 4S: Office Building Roof

Hydrograph



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

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Summary for Subcatchment 5S: Warehouse Building Roof - West

Runoff = 3.268 cfs @ 12.09 hrs, Volume= 11,793 cf, Depth= 4.36"

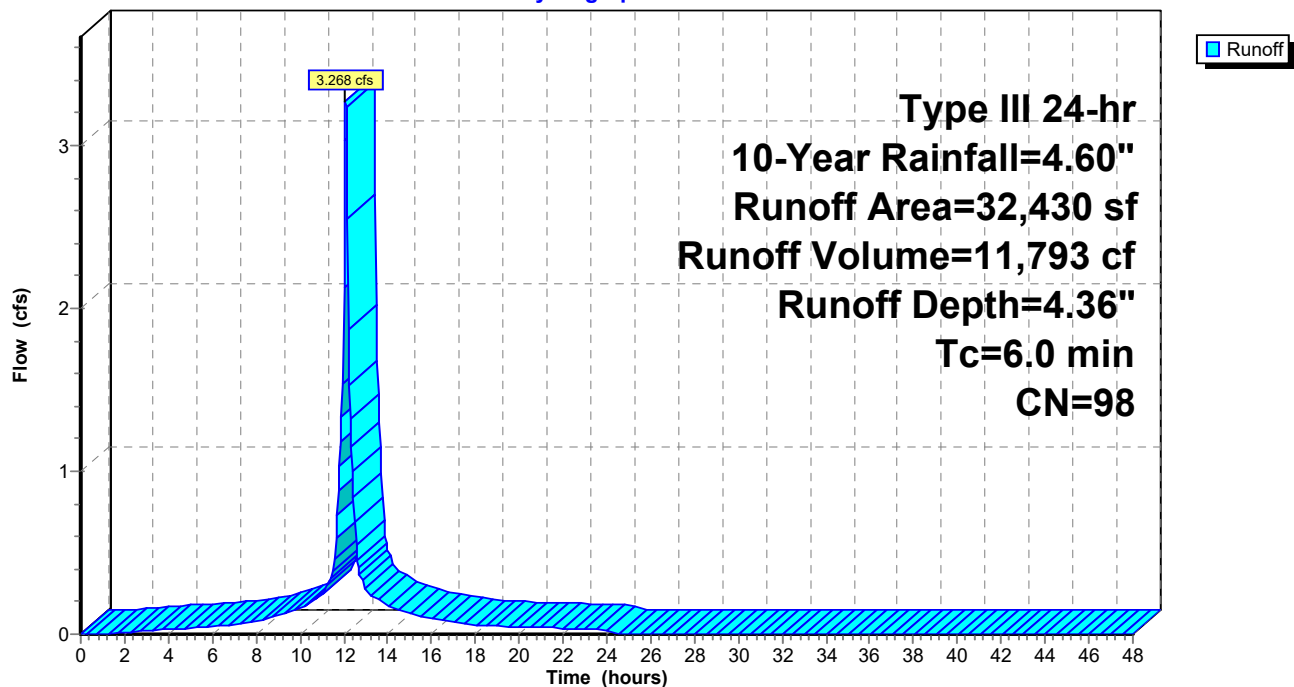
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.60"

	Area (sf)	CN	Description
*	32,430	98	Impervious
	32,430		100.00% Impervious Area

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

Subcatchment 5S: Warehouse Building Roof - West

Hydrograph



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

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Summary for Subcatchment 6S: Warehouse Building Roof - East

Runoff = 5.832 cfs @ 12.09 hrs, Volume= 21,045 cf, Depth= 4.36"

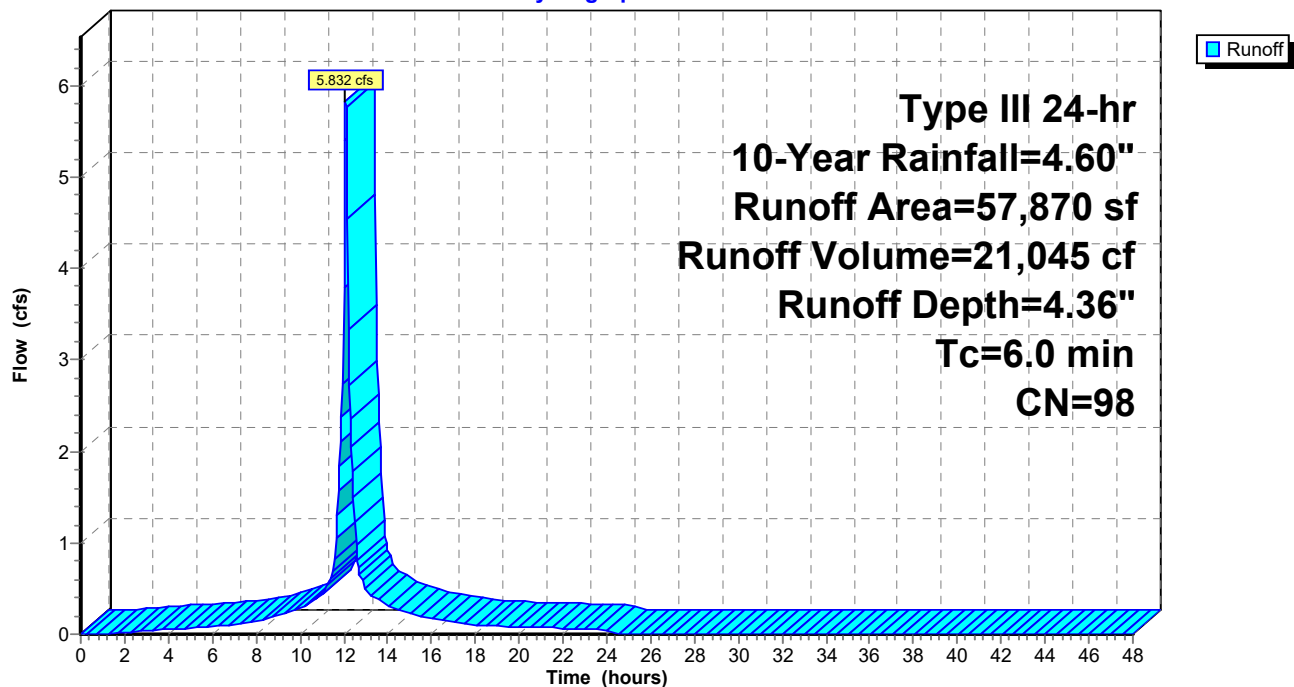
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.60"

	Area (sf)	CN	Description
*	57,870	98	Impervious
	57,870		100.00% Impervious Area

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

Subcatchment 6S: Warehouse Building Roof - East

Hydrograph



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

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Summary for Subcatchment 7S: Area South of Building

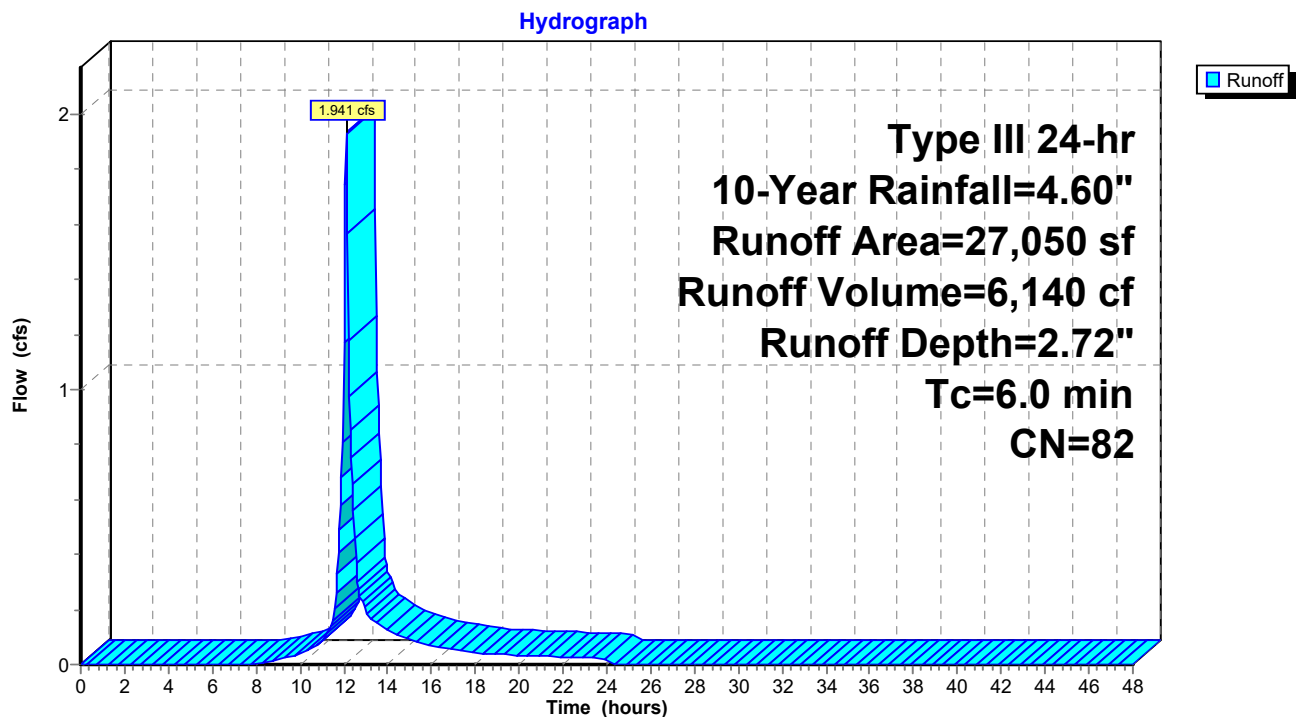
Runoff = 1.941 cfs @ 12.09 hrs, Volume= 6,140 cf, Depth= 2.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.60"

	Area (sf)	CN	Description
*	2,355	98	Impervious
	24,695	80	>75% Grass cover, Good, HSG D
	27,050	82	Weighted Average
	24,695		91.29% Pervious Area
	2,355		8.71% Impervious Area

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

Subcatchment 7S: Area South of Building



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

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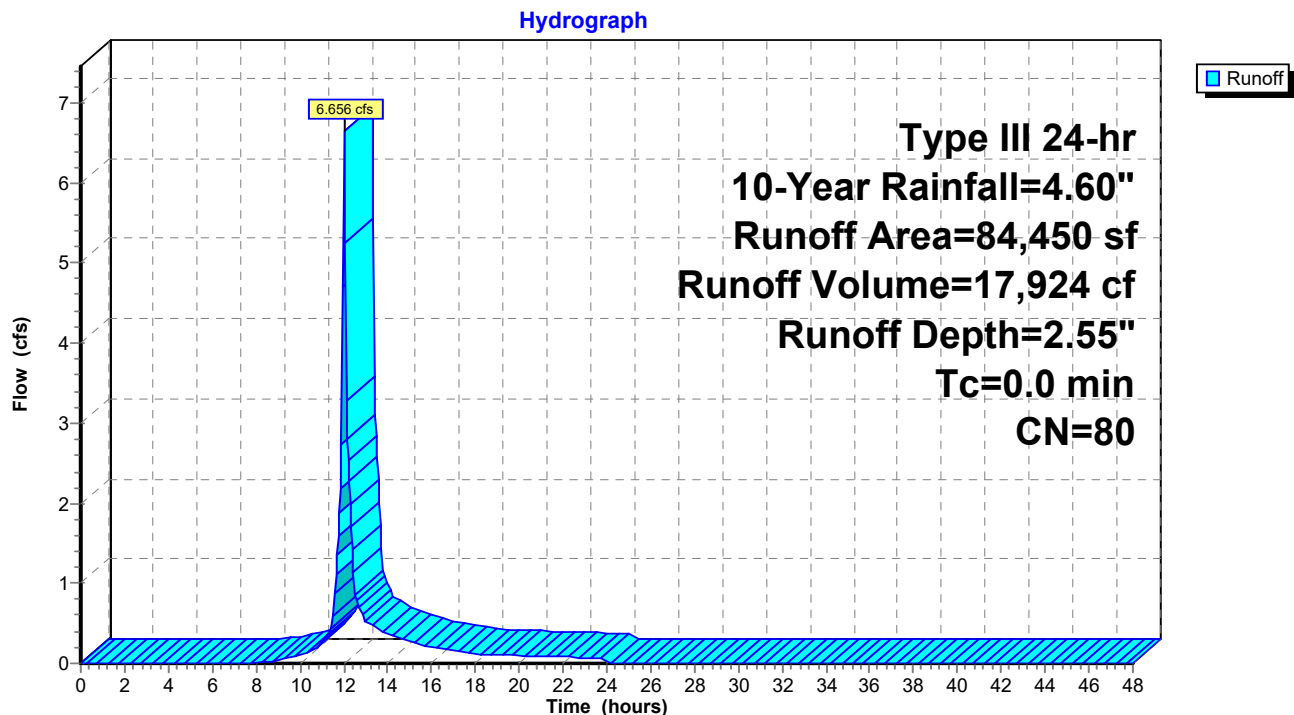
Summary for Subcatchment 8S: Western and Southern Edges of Site

Runoff = 6.656 cfs @ 12.00 hrs, Volume= 17,924 cf, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.60"

	Area (sf)	CN	Description
*	420	98	Impervious
	84,030	80	>75% Grass cover, Good, HSG D
	84,450	80	Weighted Average
	84,030		99.50% Pervious Area
	420		0.50% Impervious Area

Subcatchment 8S: Western and Southern Edges of Site



2020.07.27 Cold Storage Stormwater Analysis

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

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Summary for Pond 1P: R-Tank, StormFilter & OCS

Inflow Area = 278,895 sf, 74.19% Impervious, Inflow Depth = 3.85" for 10-Year event
 Inflow = 26.085 cfs @ 12.09 hrs, Volume= 89,517 cf
 Outflow = 21.432 cfs @ 12.15 hrs, Volume= 88,550 cf, Atten= 18%, Lag= 3.7 min
 Primary = 0.344 cfs @ 11.72 hrs, Volume= 33,719 cf
 Secondary = 21.128 cfs @ 12.15 hrs, Volume= 54,831 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Peak Elev= 5.17' @ 12.15 hrs Surf.Area= 7,194 sf Storage= 26,652 cf

Flood Elev= 9.52' Surf.Area= 7,194 sf Storage= 30,079 cf

Plug-Flow detention time= 282.2 min calculated for 88,550 cf (99% of inflow)

Center-of-Mass det. time= 275.2 min (1,047.0 - 771.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.81'	5,213 cf	Stone Envelope (Prismatic) Listed below (Recalc) 39,207 cf Overall - 26,174 cf Embedded = 13,033 cf x 40.0% Voids
#2	1.06'	24,866 cf	R-Tank Triple Modules (Prismatic) Listed below (Recalc) Inside #1 26,174 cf Overall x 95.0% Voids
30,079 cf			Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.81	7,194	0	0
6.26	7,194	39,207	39,207

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1.06	6,232	0	0
5.26	6,232	26,174	26,174

Device	Routing	Invert	Outlet Devices
#1	Primary	0.56'	12.0" Round Culvert to DMH4 L= 4.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.56' / 0.54' S= 0.0050 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	0.56'	SF - Tube/Siphon/Float Valve X 28.00 Starts@3.31' Breaks@1.23' 0.504" Diameter, C= 0.600, 0.263" Trickle Diameter
#3	Secondary	1.06'	30.0" Round Bypass Culvert L= 6.6' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1.06' / 0.85' S= 0.0318 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf
#4	Device 3	3.81'	4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

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

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Primary OutFlow Max=0.334 cfs @ 11.72 hrs HW=3.99' TW=0.79' (Dynamic Tailwater)

1=Culvert to DMH4 (Passes 0.334 cfs of 5.114 cfs potential flow)

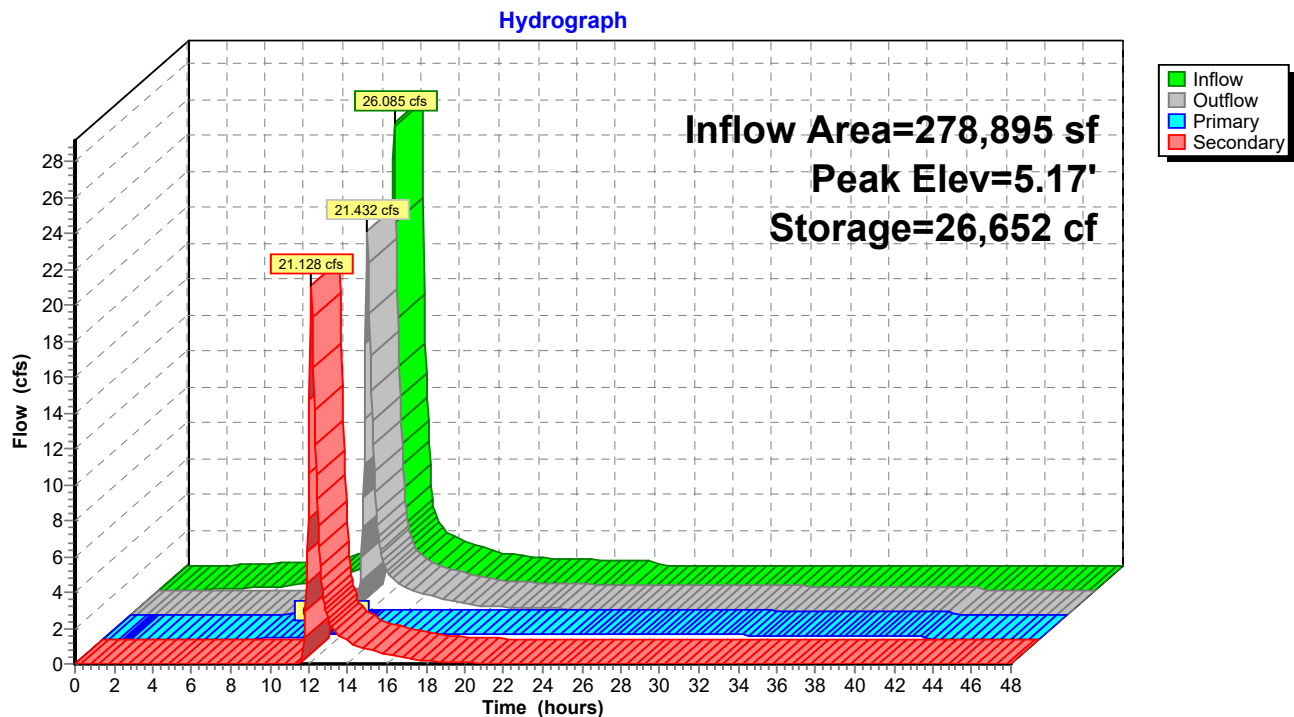
2=SF - Tube/Siphon/Float Valve (Orifice Controls 0.334 cfs @ 8.62 fps)

Secondary OutFlow Max=21.106 cfs @ 12.15 hrs HW=5.17' TW=2.64' (Dynamic Tailwater)

3=Bypass Culvert (Passes 21.106 cfs of 29.685 cfs potential flow)

4=Broad-Crested Rectangular Weir (Weir Controls 21.106 cfs @ 3.87 fps)

Pond 1P: R-Tank, StormFilter & OCS



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

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Summary for Pond 2P: DMH-4

Inflow Area = 278,895 sf, 74.19% Impervious, Inflow Depth > 3.81" for 10-Year event
Inflow = 21.432 cfs @ 12.15 hrs, Volume= 88,550 cf
Outflow = 21.432 cfs @ 12.15 hrs, Volume= 88,550 cf, Atten= 0%, Lag= 0.0 min
Primary = 21.432 cfs @ 12.15 hrs, Volume= 88,550 cf

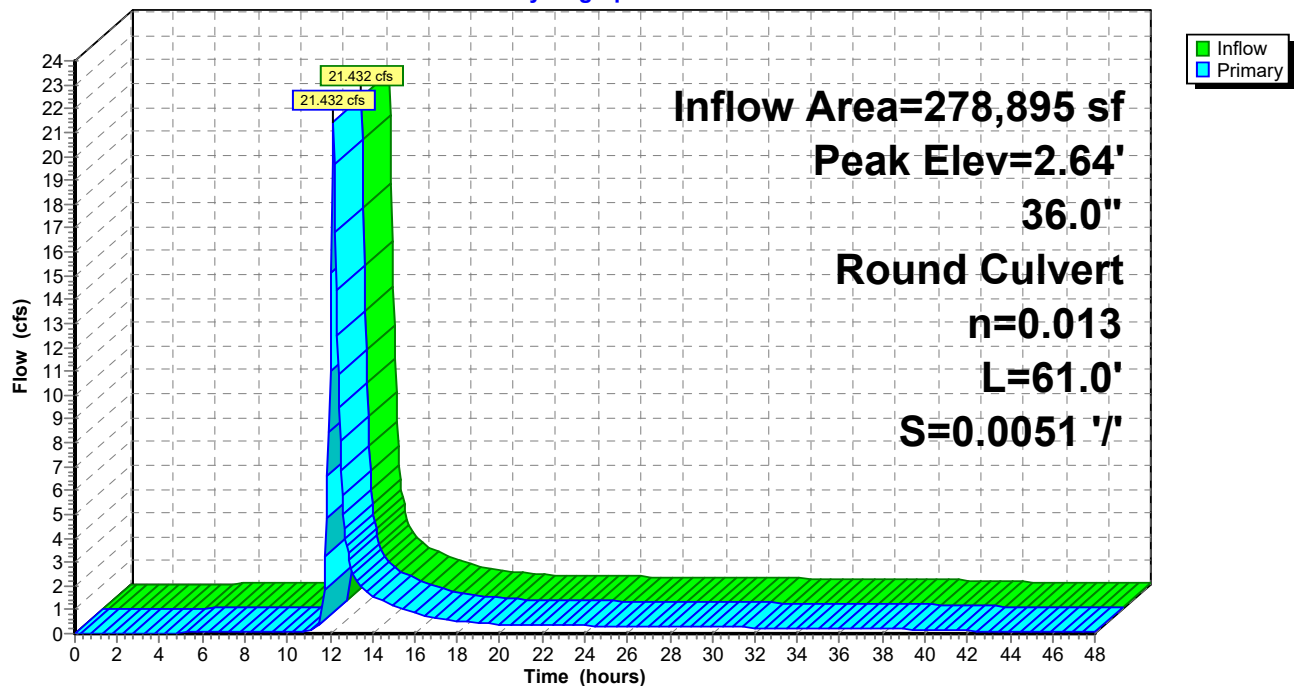
Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 2.64' @ 12.15 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.31'	36.0" Round Culvert L= 61.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.31' / 0.00' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=21.404 cfs @ 12.15 hrs HW=2.64' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Barrel Controls 21.404 cfs @ 5.01 fps)

Pond 2P: DMH-4

Hydrograph

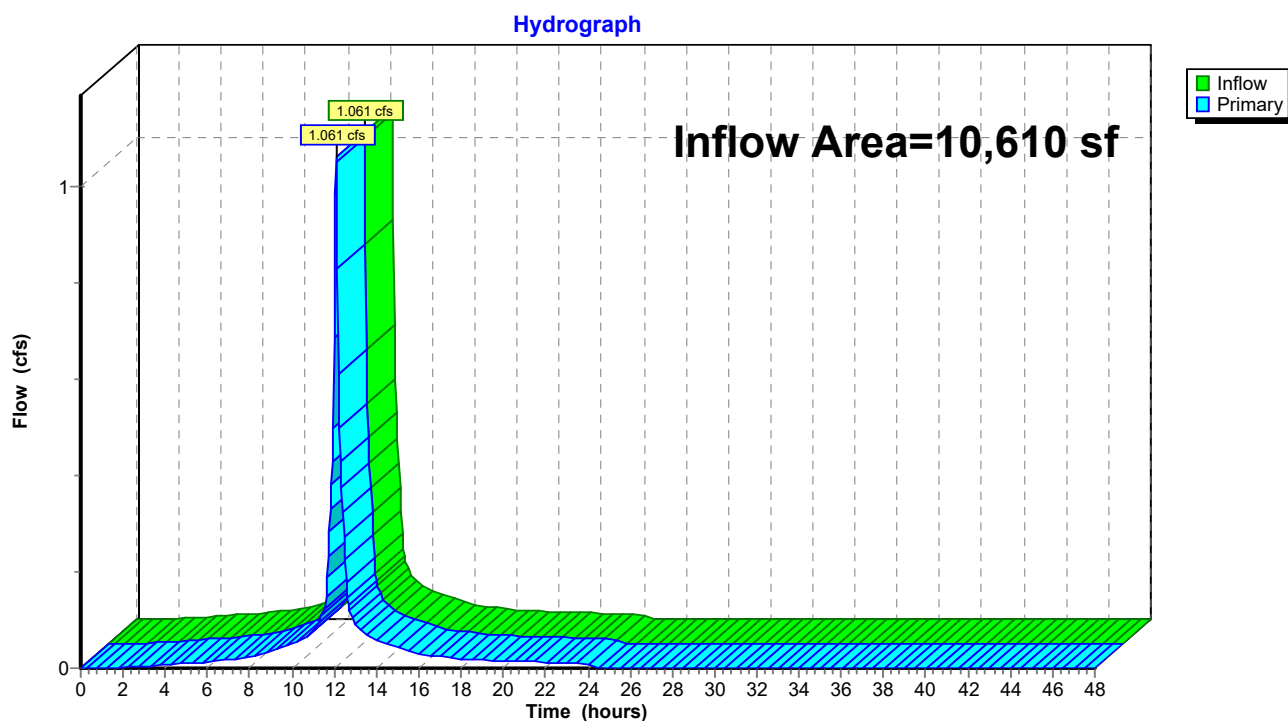


Summary for Link SP1: Commercial St Drainage

Inflow Area = 10,610 sf, 96.56% Impervious, Inflow Depth = 4.25" for 10-Year event
 Inflow = 1.061 cfs @ 12.09 hrs, Volume= 3,756 cf
 Primary = 1.061 cfs @ 12.09 hrs, Volume= 3,756 cf, Atten= 0%, Lag= 0.0 min

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

Link SP1: Commercial St Drainage



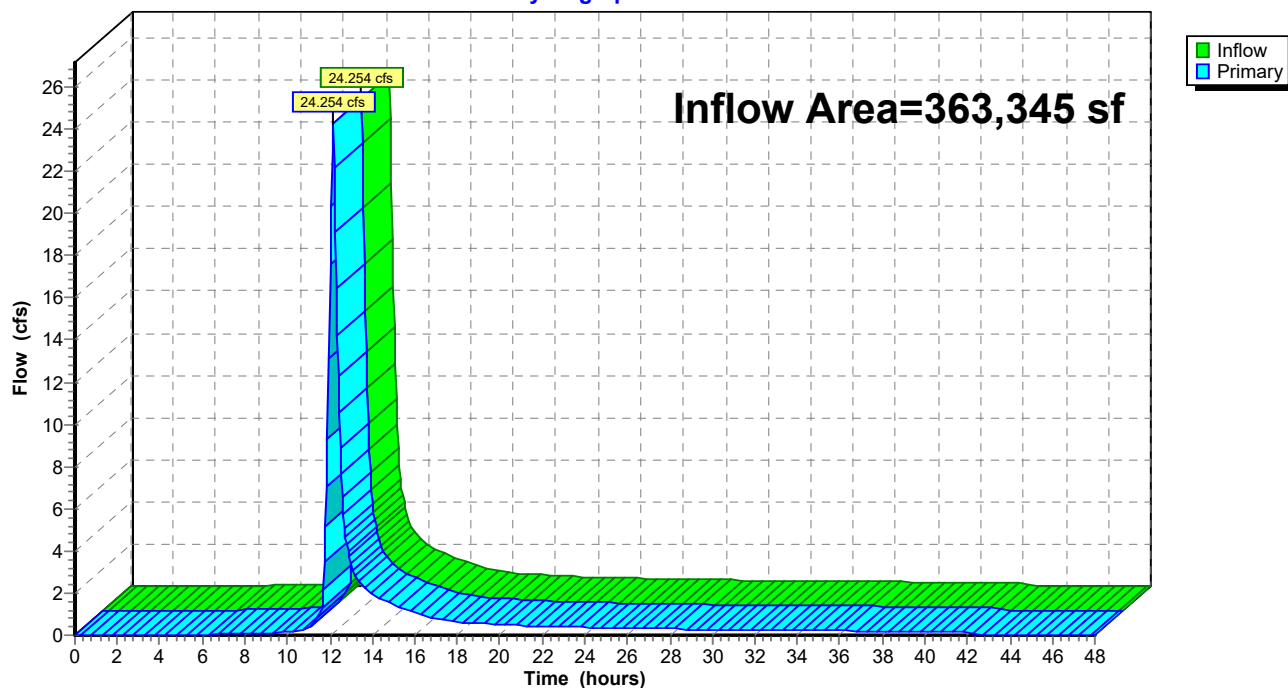
Summary for Link SP2: Fore River

Inflow Area = 363,345 sf, 57.06% Impervious, Inflow Depth > 3.52" for 10-Year event
 Inflow = 24.254 cfs @ 12.14 hrs, Volume= 106,475 cf
 Primary = 24.254 cfs @ 12.14 hrs, Volume= 106,475 cf, Atten= 0%, Lag= 0.0 min

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

Link SP2: Fore River

Hydrograph



2020.07.27 Cold Storage Stormwater Analysis

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

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

Subcatchment1S: Driveway Entrance Runoff Area=10,610 sf 96.56% Impervious Runoff Depth=5.44"
Tc=6.0 min CN=97 Runoff=1.344 cfs 4,814 cf

Subcatchment2S: Employee Parking Lot Runoff Area=29,100 sf 41.51% Impervious Runoff Depth=4.33"
Tc=6.0 min CN=87 Runoff=3.226 cfs 10,491 cf

Subcatchment3S: Eastern Parking Lot Runoff Area=115,360 sf 73.77% Impervious Runoff Depth=4.99"
Tc=6.0 min CN=93 Runoff=14.073 cfs 47,925 cf

Subcatchment4S: Office Building Roof Runoff Area=17,085 sf 100.00% Impervious Runoff Depth=5.56"
Tc=6.0 min CN=98 Runoff=2.176 cfs 7,919 cf

Subcatchment5S: Warehouse Building Runoff Area=32,430 sf 100.00% Impervious Runoff Depth=5.56"
Tc=6.0 min CN=98 Runoff=4.131 cfs 15,032 cf

Subcatchment6S: Warehouse Building Runoff Area=57,870 sf 100.00% Impervious Runoff Depth=5.56"
Tc=6.0 min CN=98 Runoff=7.372 cfs 26,823 cf

Subcatchment7S: Area South of Building Runoff Area=27,050 sf 8.71% Impervious Runoff Depth=3.80"
Tc=6.0 min CN=82 Runoff=2.691 cfs 8,574 cf

Subcatchment8S: Western and Southern Runoff Area=84,450 sf 0.50% Impervious Runoff Depth=3.60"
Tc=0.0 min CN=80 Runoff=9.371 cfs 25,344 cf

Pond 1P: R-Tank, StormFilter & OCS Peak Elev=5.53' Storage=27,992 cf Inflow=33.665 cfs 116,763 cf
Primary=0.340 cfs 35,005 cf Secondary=29.353 cfs 80,746 cf Outflow=29.652 cfs 115,751 cf

Pond 2P: DMH-4 Peak Elev=3.19' Inflow=29.652 cfs 115,751 cf
36.0" Round Culvert n=0.013 L=61.0' S=0.0051 '/' Outflow=29.652 cfs 115,751 cf

Link SP1: Commercial St Drainage Inflow=1.344 cfs 4,814 cf
Primary=1.344 cfs 4,814 cf

Link SP2: Fore River Inflow=33.748 cfs 141,095 cf
Primary=33.748 cfs 141,095 cf

Total Runoff Area = 373,955 sf Runoff Volume = 146,921 cf Average Runoff Depth = 4.71"
41.82% Pervious = 156,370 sf 58.18% Impervious = 217,585 sf

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

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Summary for Subcatchment 1S: Driveway Entrance

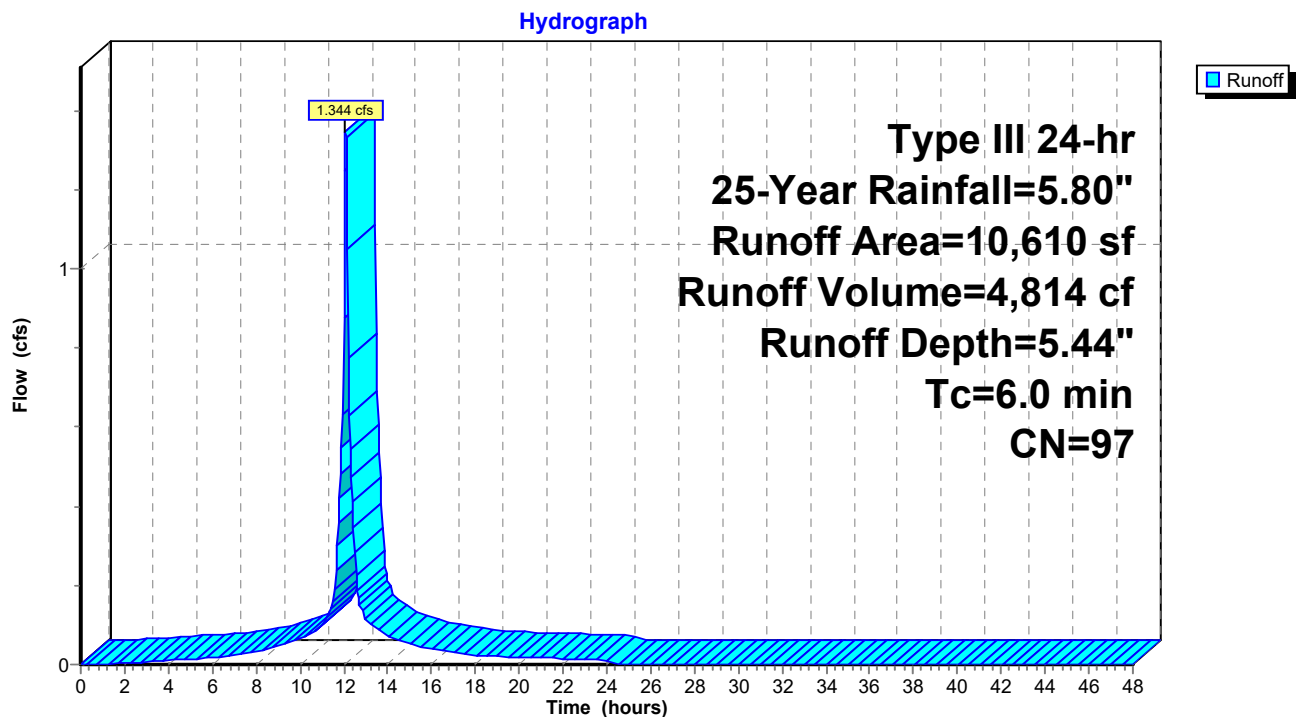
Runoff = 1.344 cfs @ 12.09 hrs, Volume= 4,814 cf, Depth= 5.44"

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

	Area (sf)	CN	Description
*	10,245	98	Impervious
	365	80	>75% Grass cover, Good, HSG D
	10,610	97	Weighted Average
	365		3.44% Pervious Area
	10,245		96.56% Impervious Area

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

Subcatchment 1S: Driveway Entrance



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

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Summary for Subcatchment 2S: Employee Parking Lot

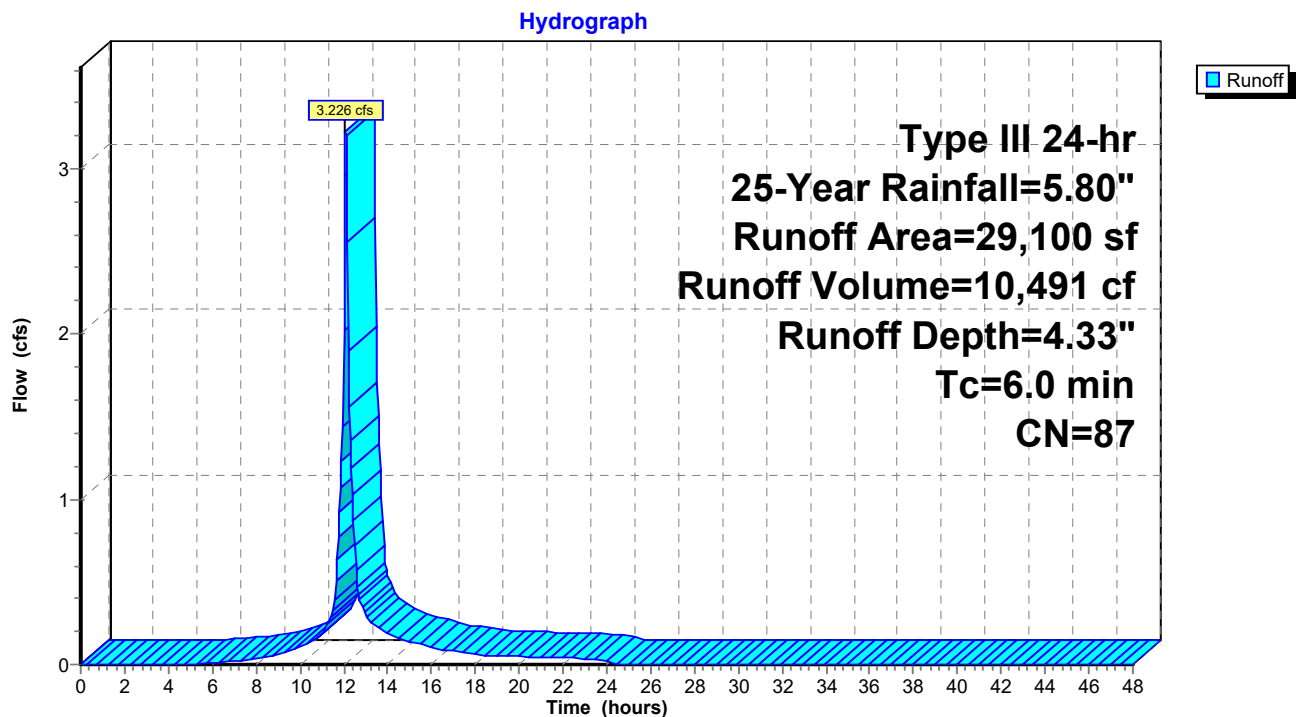
Runoff = 3.226 cfs @ 12.09 hrs, Volume= 10,491 cf, Depth= 4.33"

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

	Area (sf)	CN	Description
*	12,080	98	Impervious
	17,020	80	>75% Grass cover, Good, HSG D
	29,100	87	Weighted Average
	17,020		58.49% Pervious Area
	12,080		41.51% Impervious Area

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

Subcatchment 2S: Employee Parking Lot



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

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Summary for Subcatchment 3S: Eastern Parking Lot and Loading Zone

Runoff = 14.073 cfs @ 12.09 hrs, Volume= 47,925 cf, Depth= 4.99"

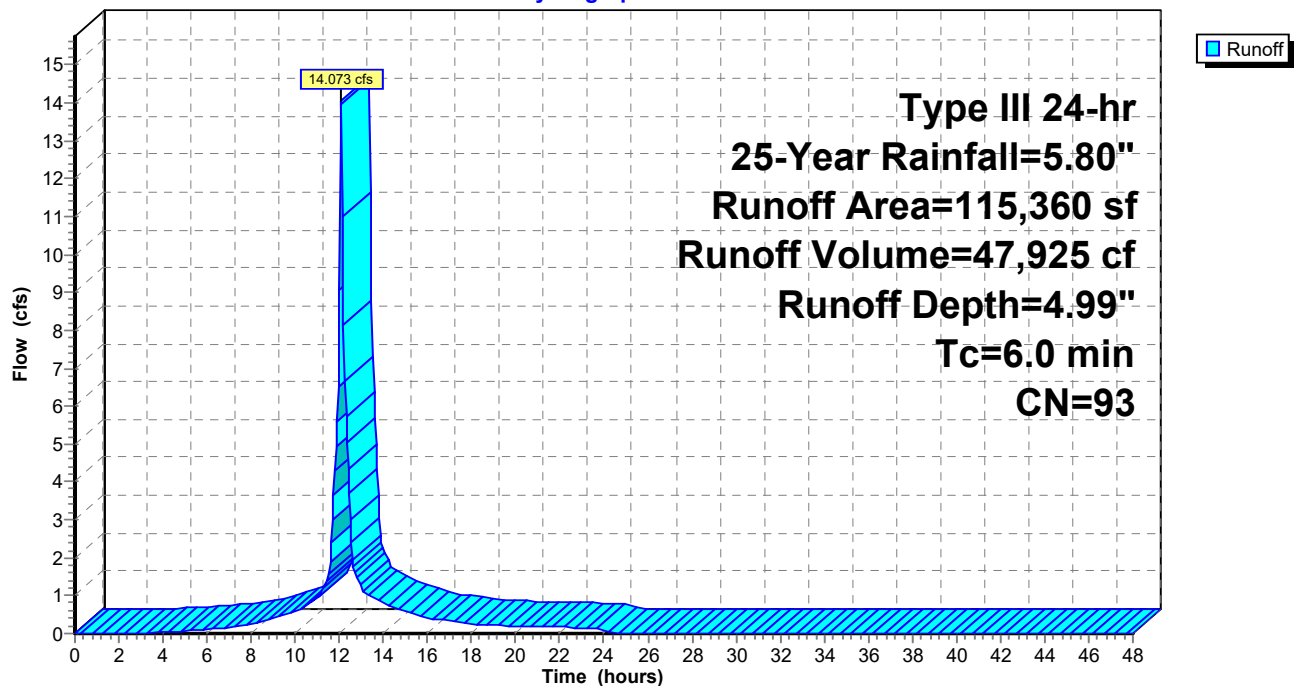
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	85,100	98	Impervious
	30,260	80	>75% Grass cover, Good, HSG D
	115,360	93	Weighted Average
	30,260		26.23% Pervious Area
	85,100		73.77% Impervious Area

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

Subcatchment 3S: Eastern Parking Lot and Loading Zone

Hydrograph



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

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Summary for Subcatchment 4S: Office Building Roof

Runoff = 2.176 cfs @ 12.09 hrs, Volume= 7,919 cf, Depth= 5.56"

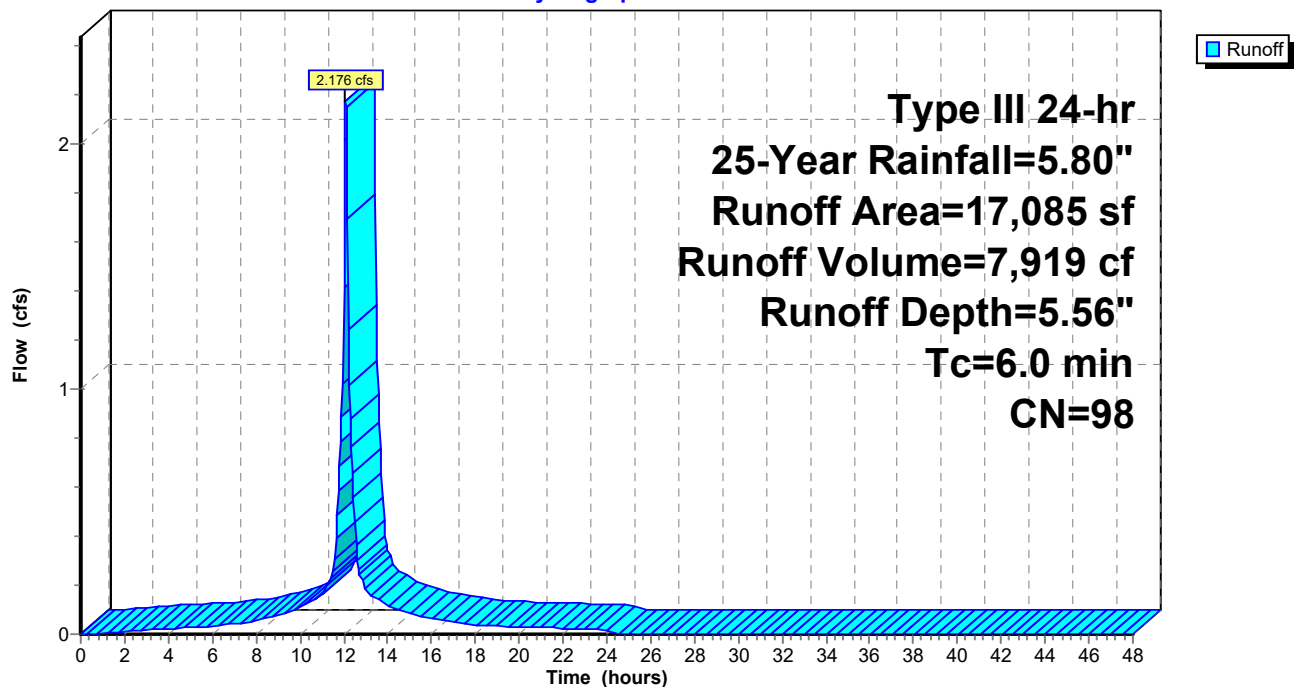
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	17,085	98	Impervious
	17,085		100.00% Impervious Area

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

Subcatchment 4S: Office Building Roof

Hydrograph



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

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Summary for Subcatchment 5S: Warehouse Building Roof - West

Runoff = 4.131 cfs @ 12.09 hrs, Volume= 15,032 cf, Depth= 5.56"

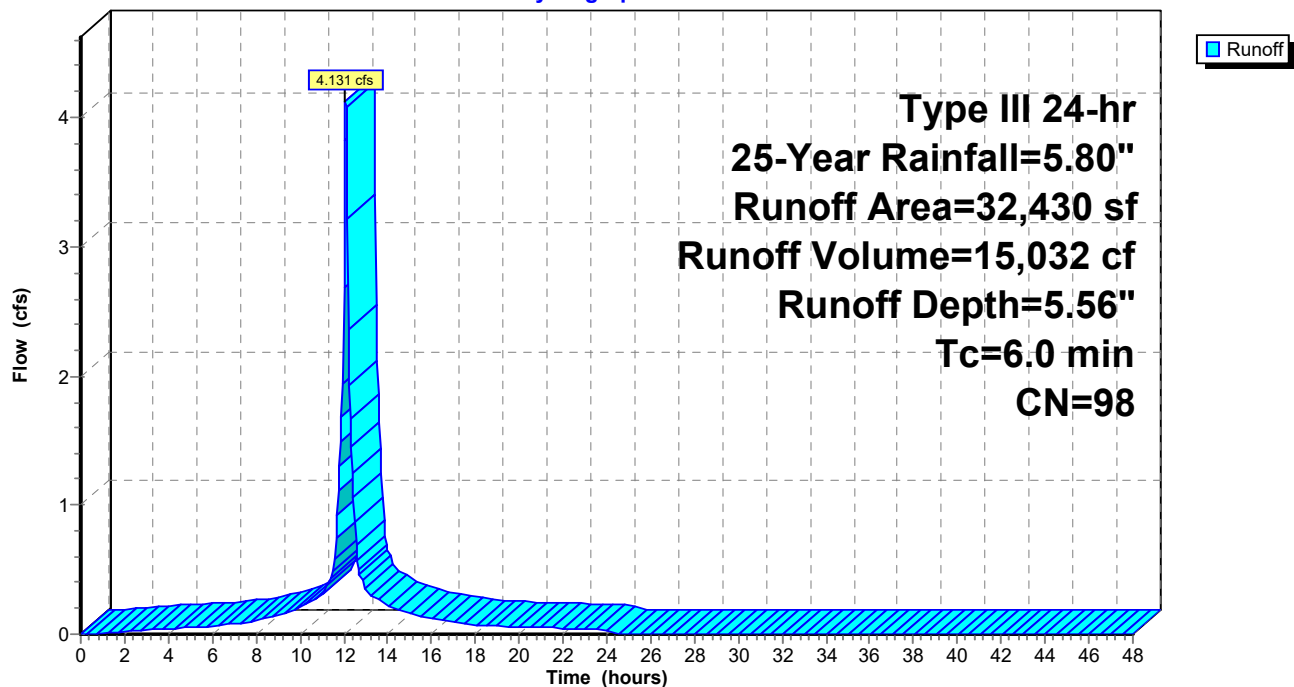
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	32,430	98	Impervious
	32,430		100.00% Impervious Area

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

Subcatchment 5S: Warehouse Building Roof - West

Hydrograph



2020.07.27 Cold Storage Stormwater Analysis

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

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Summary for Subcatchment 6S: Warehouse Building Roof - East

Runoff = 7.372 cfs @ 12.09 hrs, Volume= 26,823 cf, Depth= 5.56"

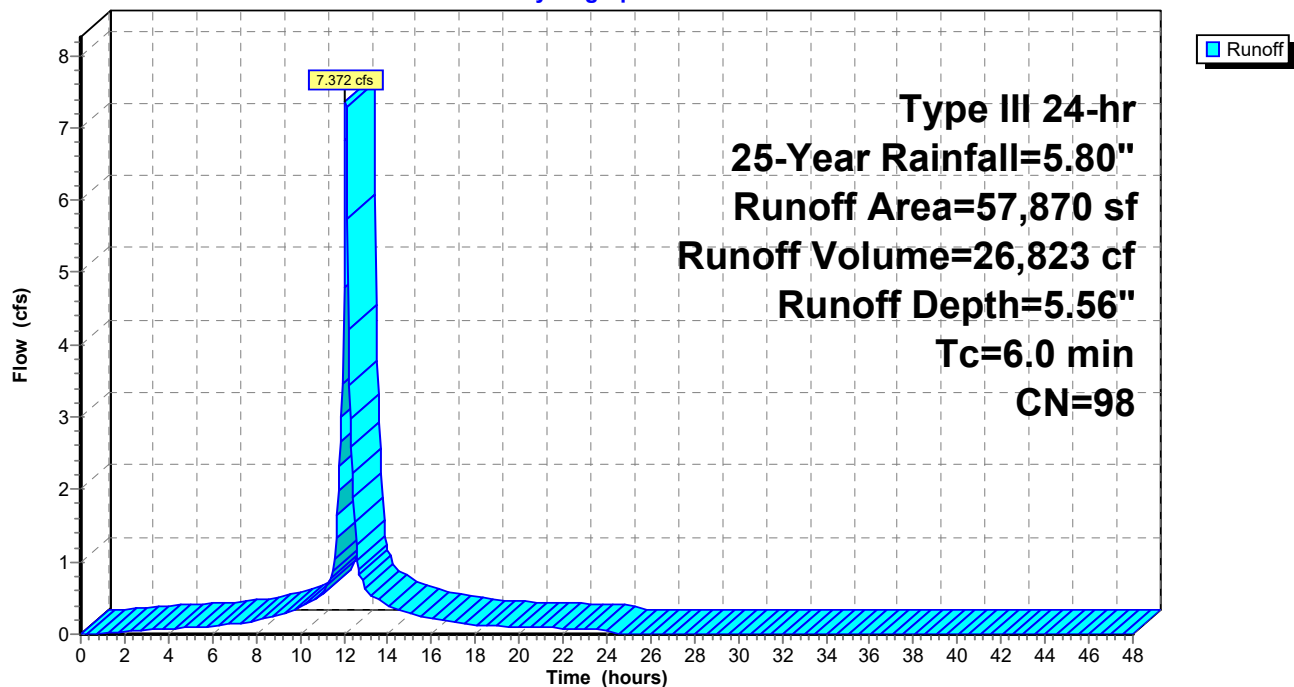
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	57,870	98	Impervious
	57,870		100.00% Impervious Area

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

Subcatchment 6S: Warehouse Building Roof - East

Hydrograph



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

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Summary for Subcatchment 7S: Area South of Building

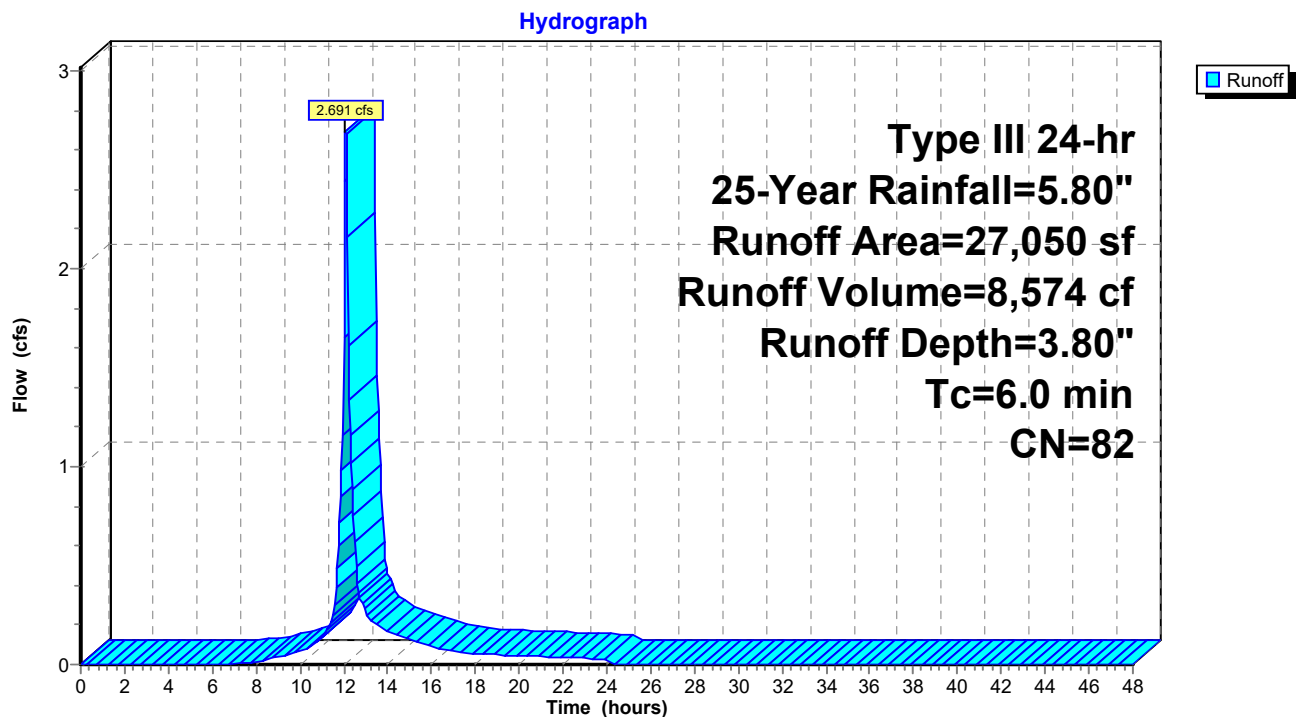
Runoff = 2.691 cfs @ 12.09 hrs, Volume= 8,574 cf, Depth= 3.80"

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

	Area (sf)	CN	Description
*	2,355	98	Impervious
	24,695	80	>75% Grass cover, Good, HSG D
	27,050	82	Weighted Average
	24,695		91.29% Pervious Area
	2,355		8.71% Impervious Area

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

Subcatchment 7S: Area South of Building



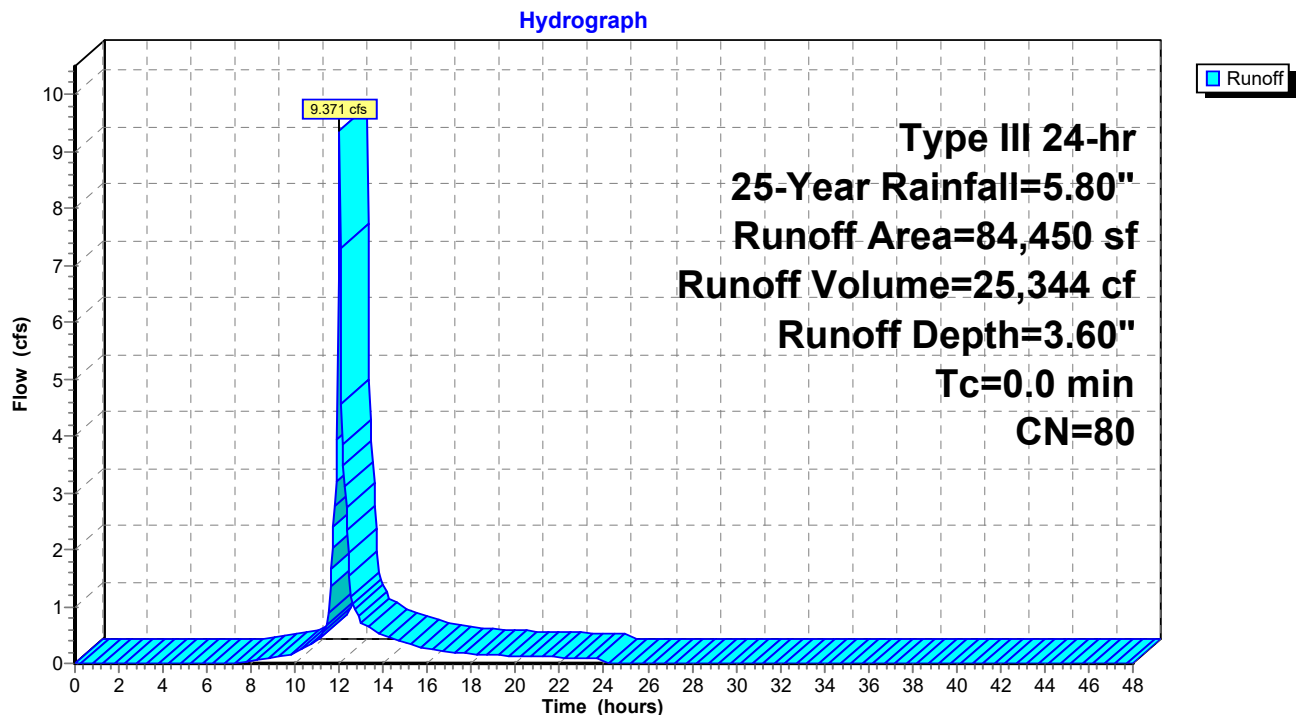
Summary for Subcatchment 8S: Western and Southern Edges of Site

Runoff = 9.371 cfs @ 12.00 hrs, Volume= 25,344 cf, Depth= 3.60"

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

	Area (sf)	CN	Description
*	420	98	Impervious
	84,030	80	>75% Grass cover, Good, HSG D
	84,450	80	Weighted Average
	84,030		99.50% Pervious Area
	420		0.50% Impervious Area

Subcatchment 8S: Western and Southern Edges of Site



2020.07.27 Cold Storage Stormwater Analysis

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

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Summary for Pond 1P: R-Tank, StormFilter & OCS

Inflow Area = 278,895 sf, 74.19% Impervious, Inflow Depth = 5.02" for 25-Year event
 Inflow = 33.665 cfs @ 12.09 hrs, Volume= 116,763 cf
 Outflow = 29.652 cfs @ 12.13 hrs, Volume= 115,751 cf, Atten= 12%, Lag= 2.7 min
 Primary = 0.340 cfs @ 11.11 hrs, Volume= 35,005 cf
 Secondary = 29.353 cfs @ 12.13 hrs, Volume= 80,746 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Peak Elev= 5.53' @ 12.14 hrs Surf.Area= 7,194 sf Storage= 27,992 cf

Flood Elev= 9.52' Surf.Area= 7,194 sf Storage= 30,079 cf

Plug-Flow detention time= 229.4 min calculated for 115,751 cf (99% of inflow)

Center-of-Mass det. time= 223.7 min (990.2 - 766.5)

Volume	Invert	Avail.Storage	Storage Description
#1	0.81'	5,213 cf	Stone Envelope (Prismatic) Listed below (Recalc) 39,207 cf Overall - 26,174 cf Embedded = 13,033 cf x 40.0% Voids
#2	1.06'	24,866 cf	R-Tank Triple Modules (Prismatic) Listed below (Recalc) Inside #1 26,174 cf Overall x 95.0% Voids
30,079 cf			Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.81	7,194	0	0
6.26	7,194	39,207	39,207

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1.06	6,232	0	0
5.26	6,232	26,174	26,174

Device	Routing	Invert	Outlet Devices
#1	Primary	0.56'	12.0" Round Culvert to DMH4 L= 4.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.56' / 0.54' S= 0.0050 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	0.56'	SF - Tube/Siphon/Float Valve X 28.00 Starts@3.31' Breaks@1.23' 0.504" Diameter, C= 0.600, 0.263" Trickle Diameter
#3	Secondary	1.06'	30.0" Round Bypass Culvert L= 6.6' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1.06' / 0.85' S= 0.0318 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf
#4	Device 3	3.81'	4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

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

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Primary OutFlow Max=0.337 cfs @ 11.11 hrs HW=3.90' TW=0.66' (Dynamic Tailwater)

1=Culvert to DMH4 (Passes 0.337 cfs of 5.034 cfs potential flow)

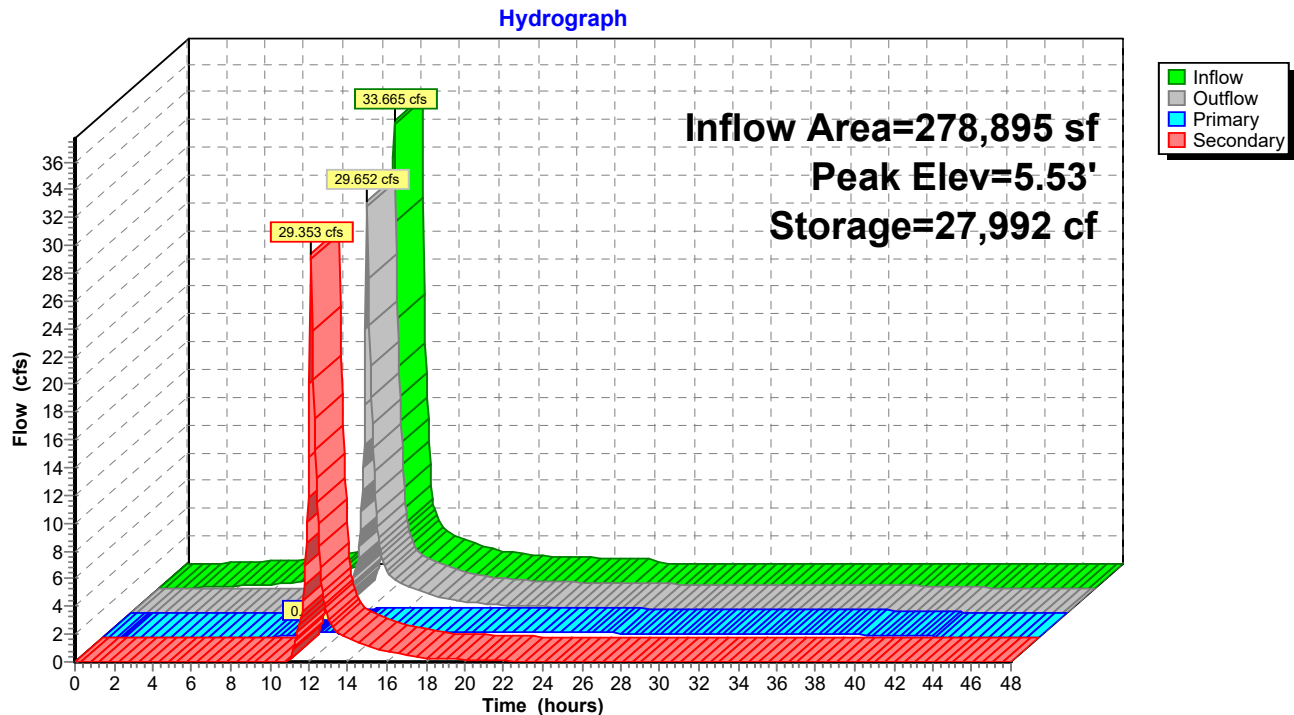
2=SF - Tube/Siphon/Float Valve (Orifice Controls 0.337 cfs @ 8.68 fps)

Secondary OutFlow Max=28.615 cfs @ 12.13 hrs HW=5.50' TW=3.15' (Dynamic Tailwater)

3=Bypass Culvert (Inlet Controls 28.615 cfs @ 5.83 fps)

4=Broad-Crested Rectangular Weir (Passes 28.615 cfs of 29.173 cfs potential flow)

Pond 1P: R-Tank, StormFilter & OCS



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

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Summary for Pond 2P: DMH-4

Inflow Area = 278,895 sf, 74.19% Impervious, Inflow Depth > 4.98" for 25-Year event
Inflow = 29.652 cfs @ 12.13 hrs, Volume= 115,751 cf
Outflow = 29.652 cfs @ 12.13 hrs, Volume= 115,751 cf, Atten= 0%, Lag= 0.0 min
Primary = 29.652 cfs @ 12.13 hrs, Volume= 115,751 cf

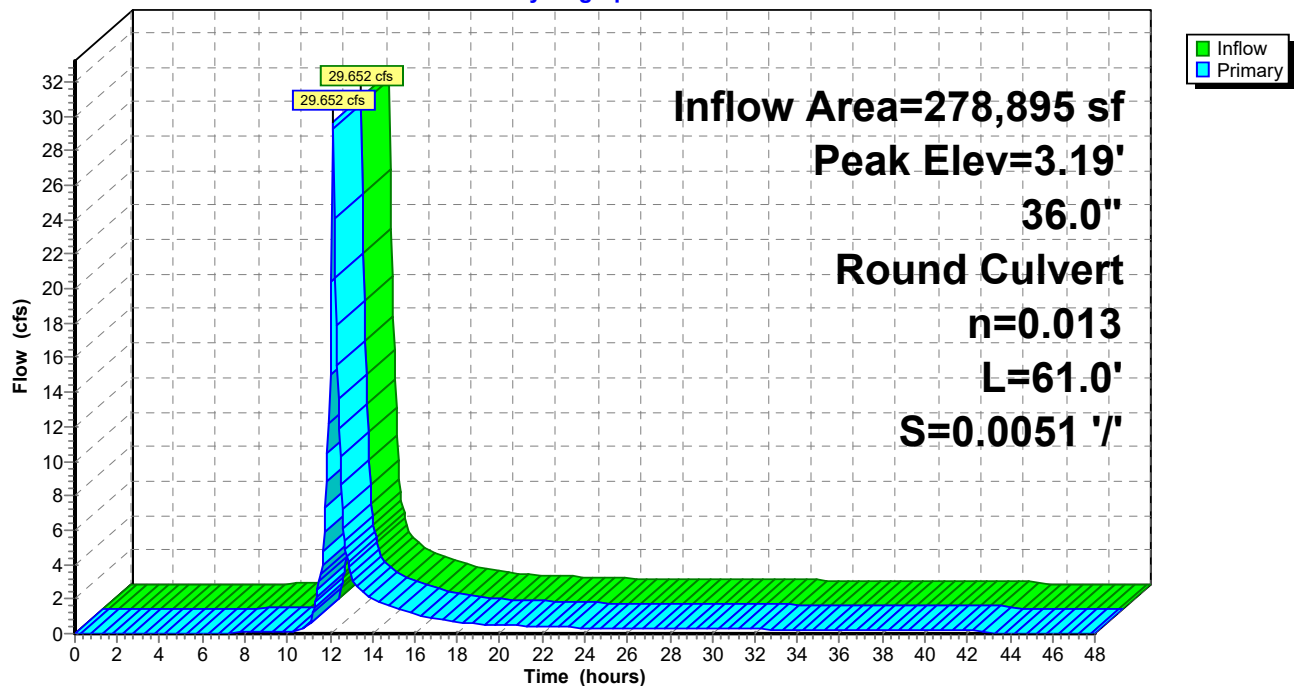
Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 3.19' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.31'	36.0" Round Culvert L= 61.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.31' / 0.00' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=28.962 cfs @ 12.13 hrs HW=3.15' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Barrel Controls 28.962 cfs @ 5.40 fps)

Pond 2P: DMH-4

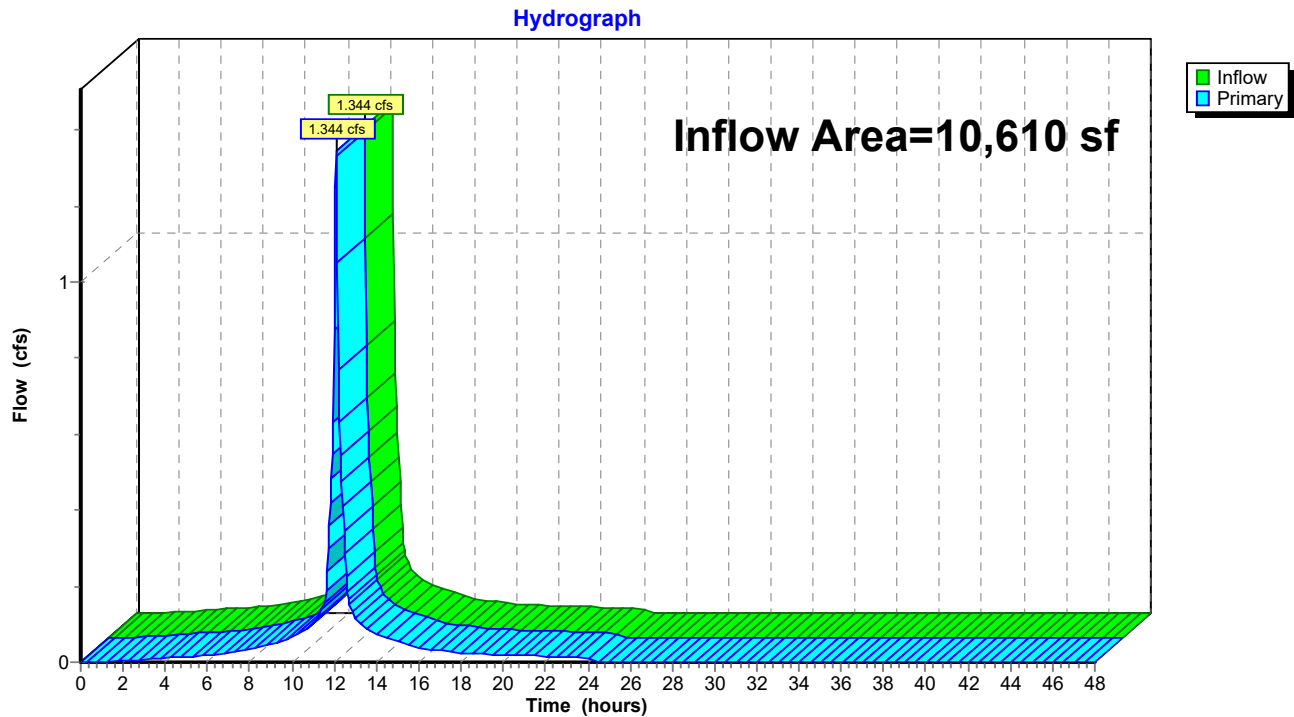
Hydrograph



Summary for Link SP1: Commercial St Drainage

Inflow Area = 10,610 sf, 96.56% Impervious, Inflow Depth = 5.44" for 25-Year event
Inflow = 1.344 cfs @ 12.09 hrs, Volume= 4,814 cf
Primary = 1.344 cfs @ 12.09 hrs, Volume= 4,814 cf, Atten= 0%, Lag= 0.0 min

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

Link SP1: Commercial St Drainage

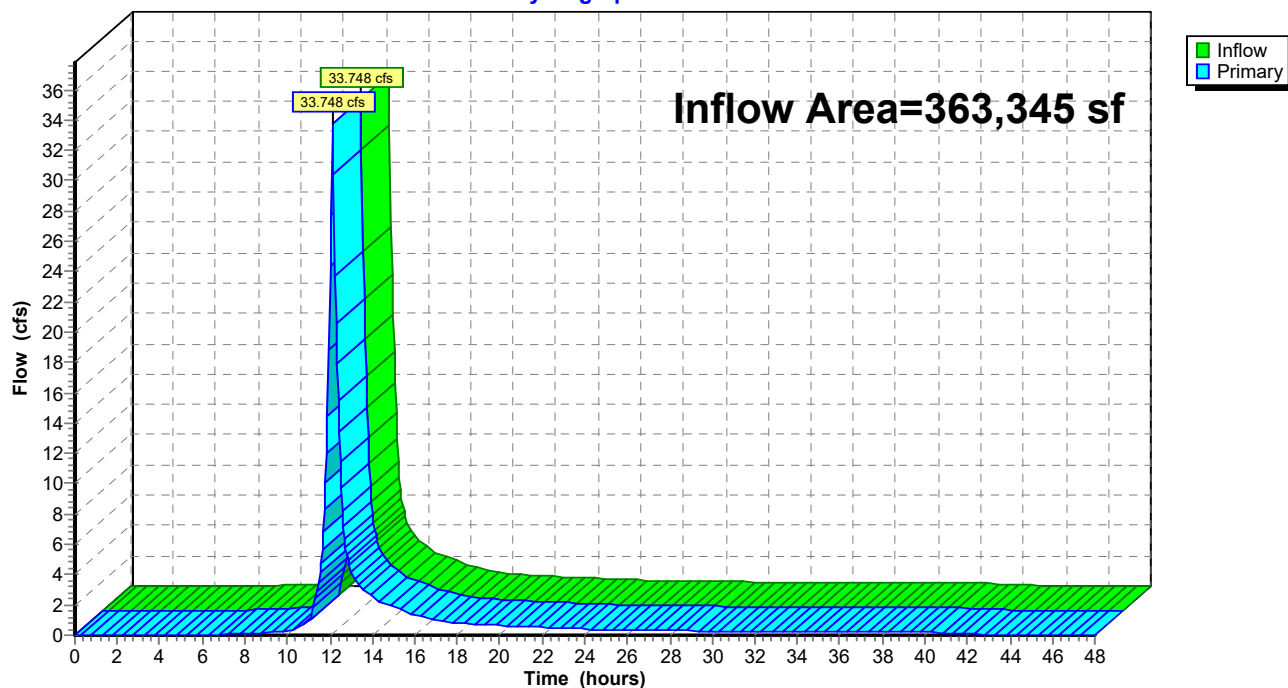
Summary for Link SP2: Fore River

Inflow Area = 363,345 sf, 57.06% Impervious, Inflow Depth > 4.66" for 25-Year event
 Inflow = 33.748 cfs @ 12.13 hrs, Volume= 141,095 cf
 Primary = 33.748 cfs @ 12.13 hrs, Volume= 141,095 cf, Atten= 0%, Lag= 0.0 min

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

Link SP2: Fore River

Hydrograph



2020.07.27 Cold Storage Stormwater Analysis

Type III 24-hr Custom Rainfall=1.44"

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

Subcatchment1S: Driveway Entrance Runoff Area=10,610 sf 96.56% Impervious Runoff Depth=1.13"
Tc=6.0 min CN=97 Runoff=0.302 cfs 995 cf

Subcatchment2S: Employee Parking Lot Runoff Area=29,100 sf 41.51% Impervious Runoff Depth=0.49"
Tc=6.0 min CN=87 Runoff=0.365 cfs 1,198 cf

Subcatchment3S: Eastern Parking Lot Runoff Area=115,360 sf 73.77% Impervious Runoff Depth=0.81"
Tc=6.0 min CN=93 Runoff=2.478 cfs 7,827 cf

Subcatchment4S: Office Building Roof Runoff Area=17,085 sf 100.00% Impervious Runoff Depth=1.22"
Tc=6.0 min CN=98 Runoff=0.514 cfs 1,739 cf

Subcatchment5S: Warehouse Building Runoff Area=32,430 sf 100.00% Impervious Runoff Depth=1.22"
Tc=6.0 min CN=98 Runoff=0.975 cfs 3,300 cf

Subcatchment6S: Warehouse Building Runoff Area=57,870 sf 100.00% Impervious Runoff Depth=1.22"
Tc=6.0 min CN=98 Runoff=1.739 cfs 5,889 cf

Subcatchment7S: Area South of Building Runoff Area=27,050 sf 8.71% Impervious Runoff Depth=0.31"
Tc=6.0 min CN=82 Runoff=0.189 cfs 707 cf

Subcatchment8S: Western and Southern Runoff Area=84,450 sf 0.50% Impervious Runoff Depth=0.26"
Tc=0.0 min CN=80 Runoff=0.509 cfs 1,808 cf

Pond 1P: R-Tank, StormFilter & OCS Peak Elev=3.25' Storage=14,538 cf Inflow=6.252 cfs 20,659 cf
Primary=0.306 cfs 20,607 cf Secondary=0.000 cfs 0 cf Outflow=0.306 cfs 20,607 cf

Pond 2P: DMH-4 Peak Elev=0.55' Inflow=0.306 cfs 20,607 cf
36.0" Round Culvert n=0.013 L=61.0' S=0.0051 ' / ' Outflow=0.306 cfs 20,607 cf

Link SP1: Commercial St Drainage Inflow=0.302 cfs 995 cf
Primary=0.302 cfs 995 cf

Link SP2: Fore River Inflow=0.565 cfs 22,415 cf
Primary=0.565 cfs 22,415 cf

Total Runoff Area = 373,955 sf Runoff Volume = 23,462 cf Average Runoff Depth = 0.75"
41.82% Pervious = 156,370 sf 58.18% Impervious = 217,585 sf

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Type III 24-hr Custom Rainfall=1.44"

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Summary for Subcatchment 1S: Driveway Entrance

Runoff = 0.302 cfs @ 12.09 hrs, Volume= 995 cf, Depth= 1.13"

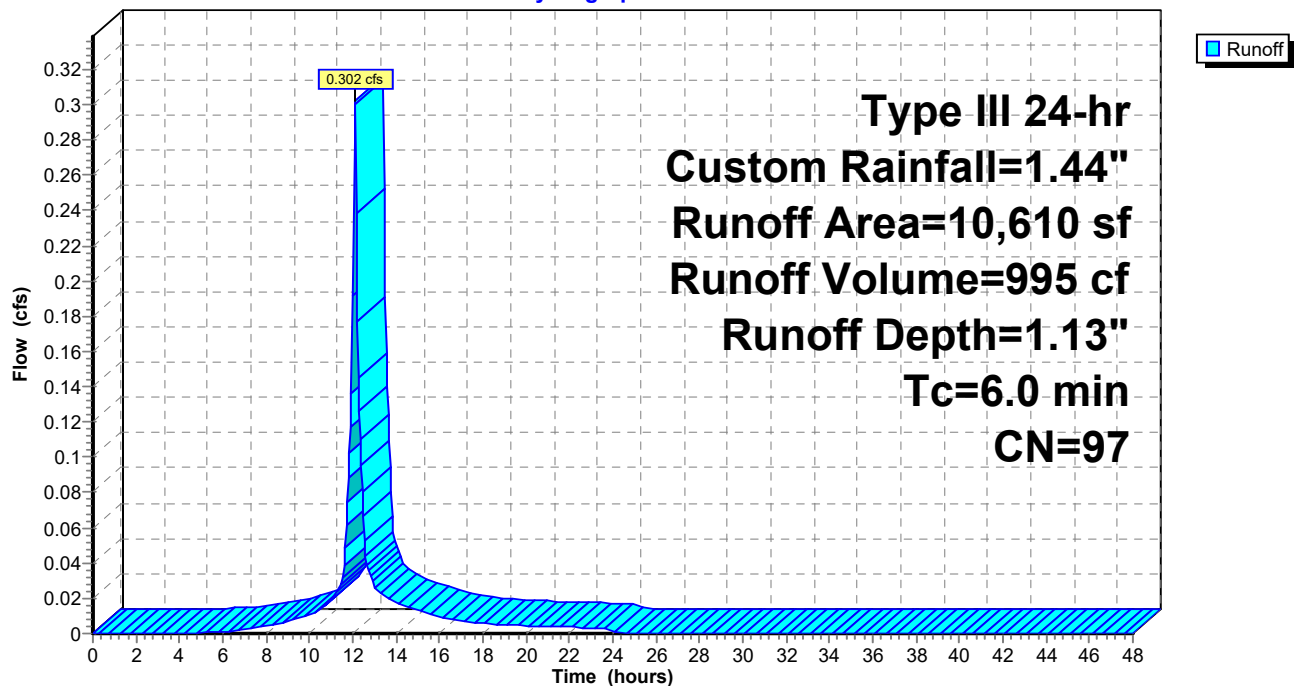
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr Custom Rainfall=1.44"

	Area (sf)	CN	Description
*	10,245	98	Impervious
	365	80	>75% Grass cover, Good, HSG D
	10,610	97	Weighted Average
	365		3.44% Pervious Area
	10,245		96.56% Impervious Area

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

Subcatchment 1S: Driveway Entrance

Hydrograph



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Summary for Subcatchment 2S: Employee Parking Lot

Runoff = 0.365 cfs @ 12.10 hrs, Volume= 1,198 cf, Depth= 0.49"

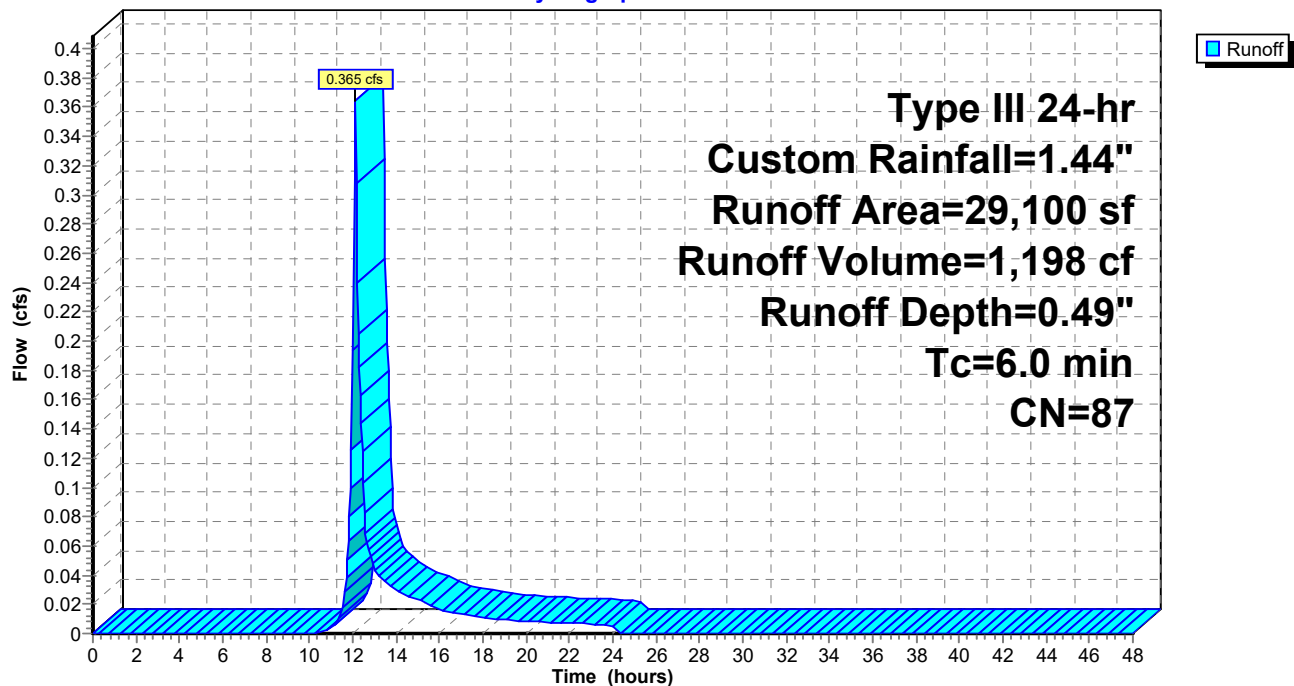
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr Custom Rainfall=1.44"

	Area (sf)	CN	Description
*	12,080	98	Impervious
	17,020	80	>75% Grass cover, Good, HSG D
	29,100	87	Weighted Average
	17,020		58.49% Pervious Area
	12,080		41.51% Impervious Area

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

Subcatchment 2S: Employee Parking Lot

Hydrograph



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Summary for Subcatchment 3S: Eastern Parking Lot and Loading Zone

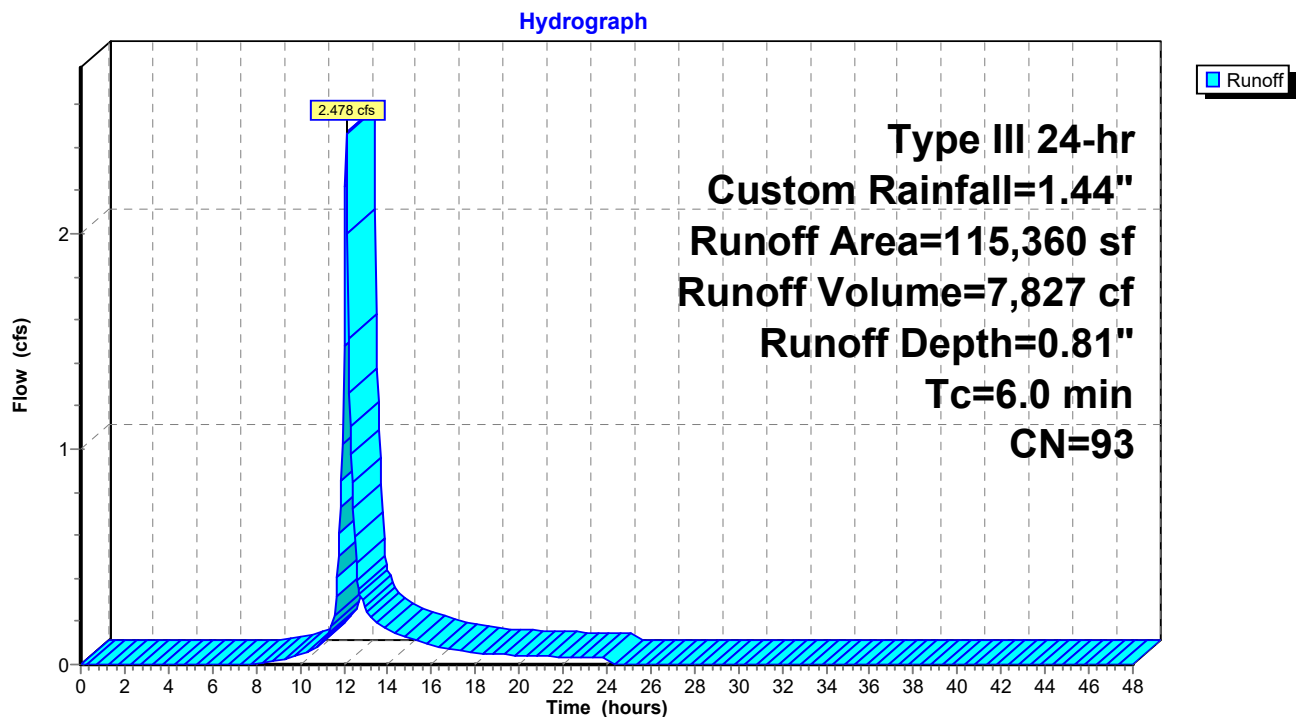
Runoff = 2.478 cfs @ 12.09 hrs, Volume= 7,827 cf, Depth= 0.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr Custom Rainfall=1.44"

	Area (sf)	CN	Description
*	85,100	98	Impervious
	30,260	80	>75% Grass cover, Good, HSG D
	115,360	93	Weighted Average
	30,260		26.23% Pervious Area
	85,100		73.77% Impervious Area

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

Subcatchment 3S: Eastern Parking Lot and Loading Zone



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Type III 24-hr Custom Rainfall=1.44"

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Summary for Subcatchment 4S: Office Building Roof

Runoff = 0.514 cfs @ 12.09 hrs, Volume= 1,739 cf, Depth= 1.22"

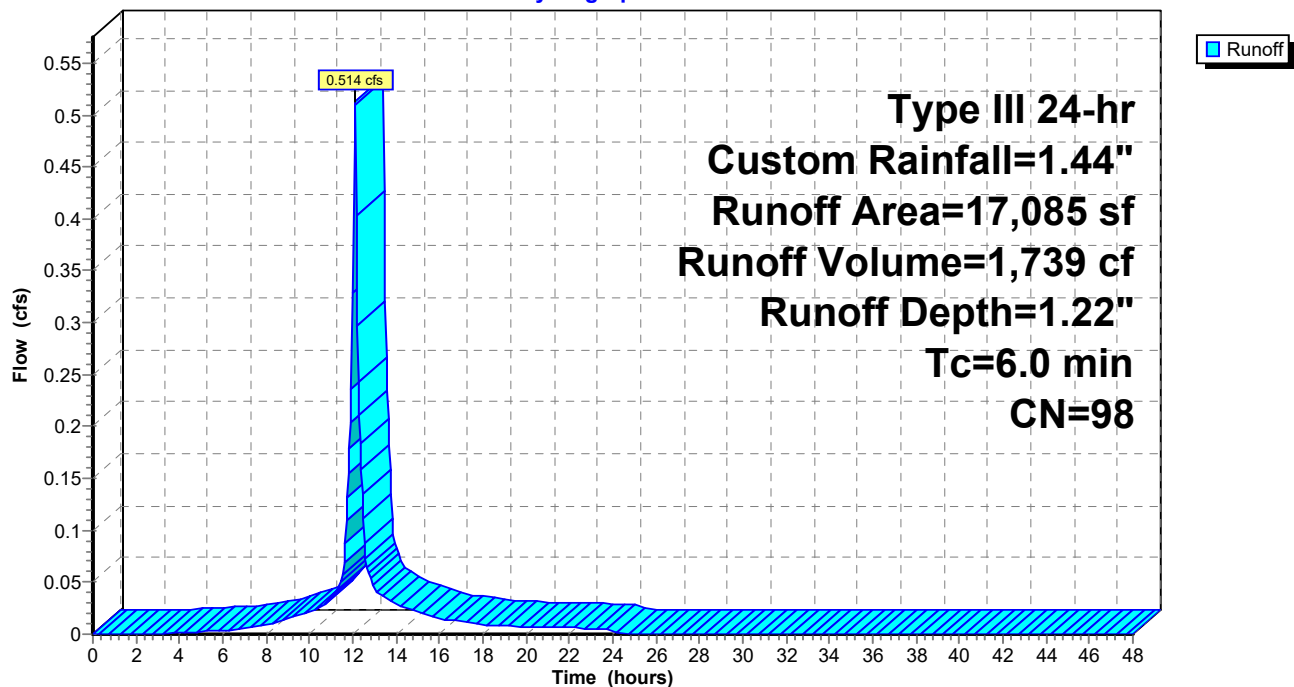
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr Custom Rainfall=1.44"

	Area (sf)	CN	Description
*	17,085	98	Impervious
	17,085		100.00% Impervious Area

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

Subcatchment 4S: Office Building Roof

Hydrograph



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Type III 24-hr Custom Rainfall=1.44"

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Summary for Subcatchment 5S: Warehouse Building Roof - West

Runoff = 0.975 cfs @ 12.09 hrs, Volume= 3,300 cf, Depth= 1.22"

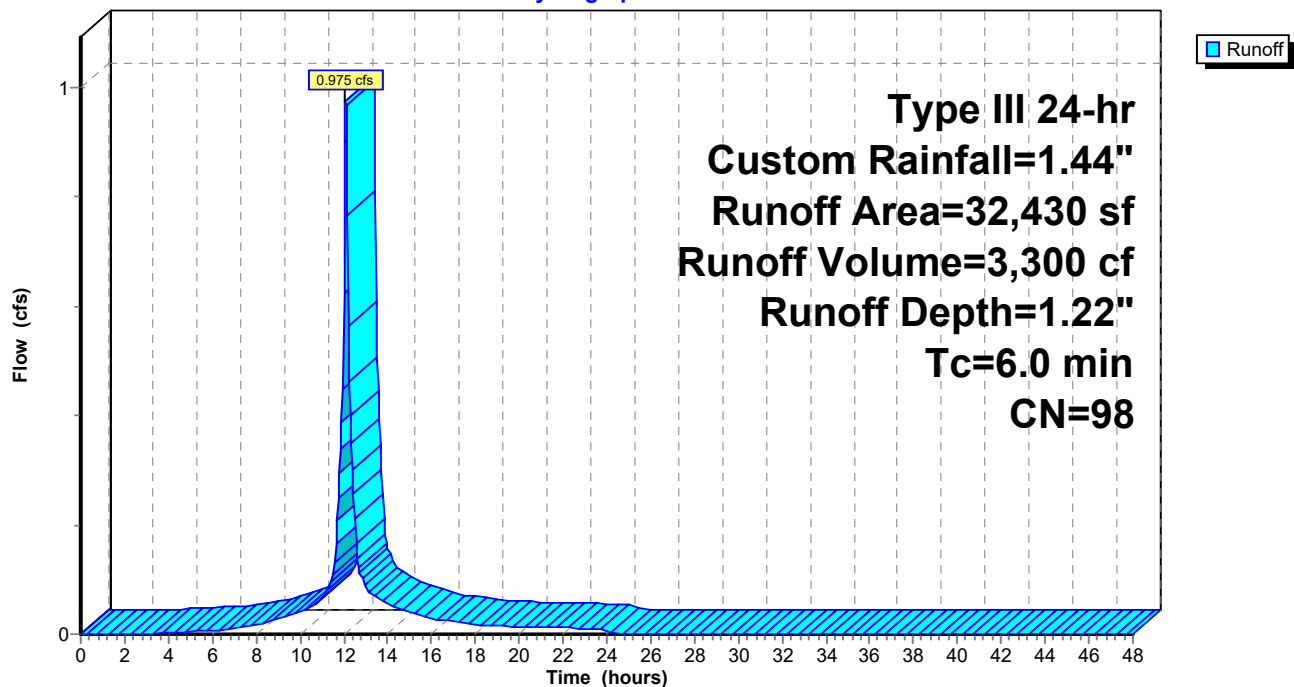
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr Custom Rainfall=1.44"

	Area (sf)	CN	Description
*	32,430	98	Impervious
	32,430		100.00% Impervious Area

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

Subcatchment 5S: Warehouse Building Roof - West

Hydrograph



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Type III 24-hr Custom Rainfall=1.44"

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Summary for Subcatchment 6S: Warehouse Building Roof - East

Runoff = 1.739 cfs @ 12.09 hrs, Volume= 5,889 cf, Depth= 1.22"

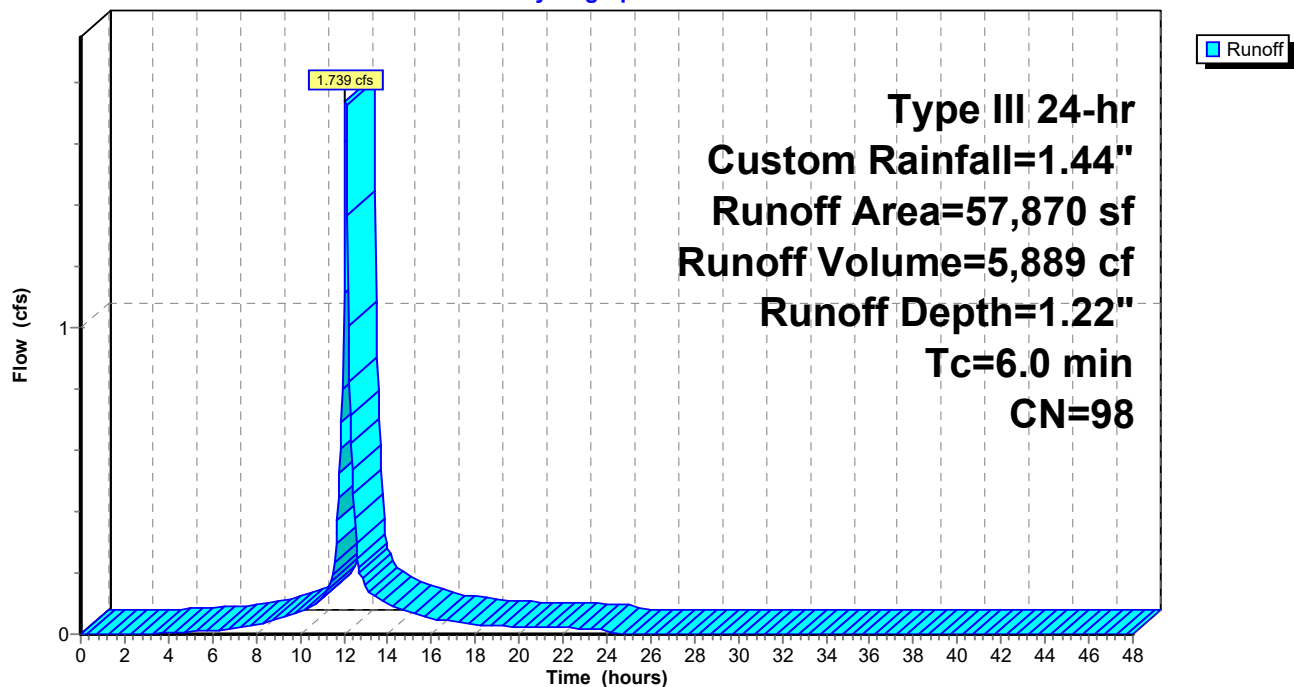
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr Custom Rainfall=1.44"

	Area (sf)	CN	Description
*	57,870	98	Impervious
	57,870		100.00% Impervious Area

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

Subcatchment 6S: Warehouse Building Roof - East

Hydrograph



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Type III 24-hr Custom Rainfall=1.44"

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Summary for Subcatchment 7S: Area South of Building

Runoff = 0.189 cfs @ 12.11 hrs, Volume= 707 cf, Depth= 0.31"

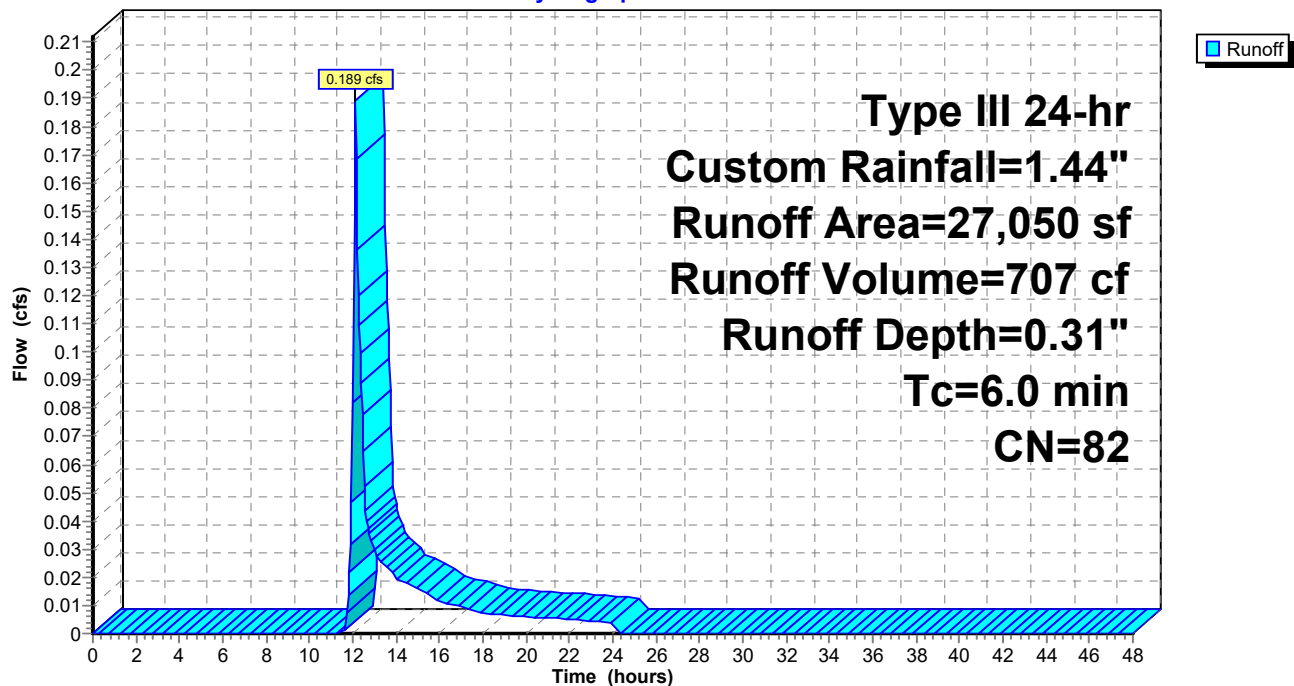
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr Custom Rainfall=1.44"

	Area (sf)	CN	Description
*	2,355	98	Impervious
	24,695	80	>75% Grass cover, Good, HSG D
	27,050	82	Weighted Average
	24,695		91.29% Pervious Area
	2,355		8.71% Impervious Area

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

Subcatchment 7S: Area South of Building

Hydrograph



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Type III 24-hr Custom Rainfall=1.44"

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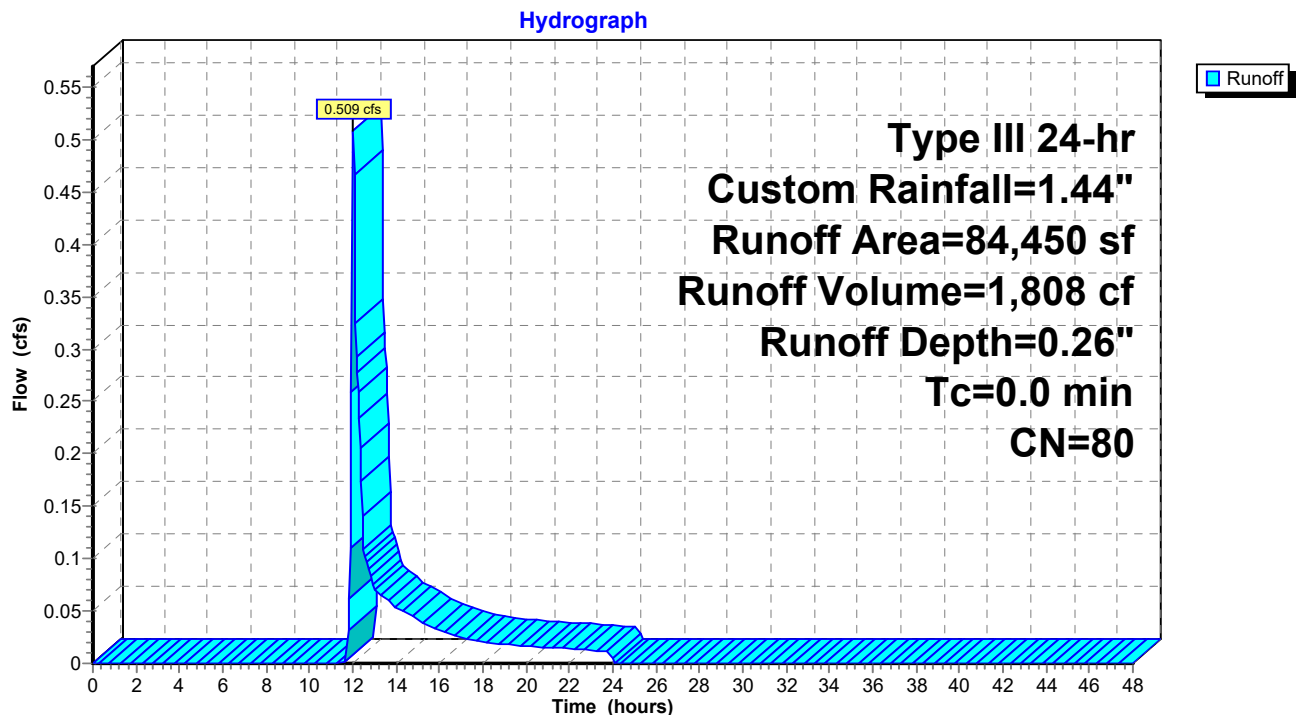
Summary for Subcatchment 8S: Western and Southern Edges of Site

Runoff = 0.509 cfs @ 12.02 hrs, Volume= 1,808 cf, Depth= 0.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr Custom Rainfall=1.44"

	Area (sf)	CN	Description
*	420	98	Impervious
	84,030	80	>75% Grass cover, Good, HSG D
	84,450	80	Weighted Average
	84,030		99.50% Pervious Area
	420		0.50% Impervious Area

Subcatchment 8S: Western and Southern Edges of Site



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Type III 24-hr Custom Rainfall=1.44"

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Summary for Pond 1P: R-Tank, StormFilter & OCS

Inflow Area = 278,895 sf, 74.19% Impervious, Inflow Depth = 0.89" for Custom event
 Inflow = 6.252 cfs @ 12.09 hrs, Volume= 20,659 cf
 Outflow = 0.306 cfs @ 14.89 hrs, Volume= 20,607 cf, Atten= 95%, Lag= 168.1 min
 Primary = 0.306 cfs @ 14.89 hrs, Volume= 20,607 cf
 Secondary = 0.000 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Peak Elev= 3.25' @ 14.89 hrs Surf.Area= 7,194 sf Storage= 14,538 cf

Flood Elev= 9.52' Surf.Area= 7,194 sf Storage= 30,079 cf

Plug-Flow detention time= 636.5 min calculated for 20,586 cf (100% of inflow)

Center-of-Mass det. time= 635.7 min (1,438.6 - 802.9)

Volume	Invert	Avail.Storage	Storage Description
#1	0.81'	5,213 cf	Stone Envelope (Prismatic) Listed below (Recalc) 39,207 cf Overall - 26,174 cf Embedded = 13,033 cf x 40.0% Voids
#2	1.06'	24,866 cf	R-Tank Triple Modules (Prismatic) Listed below (Recalc) Inside #1 26,174 cf Overall x 95.0% Voids
30,079 cf			Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.81	7,194	0	0
6.26	7,194	39,207	39,207

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1.06	6,232	0	0
5.26	6,232	26,174	26,174

Device	Routing	Invert	Outlet Devices
#1	Primary	0.56'	12.0" Round Culvert to DMH4 L= 4.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.56' / 0.54' S= 0.0050 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	0.56'	SF - Tube/Siphon/Float Valve X 28.00 Starts@3.31' Breaks@1.23' 0.504" Diameter, C= 0.600, 0.263" Trickle Diameter
#3	Secondary	1.06'	30.0" Round Bypass Culvert L= 6.6' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1.06' / 0.85' S= 0.0318 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf
#4	Device 3	3.81'	4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

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Type III 24-hr Custom Rainfall=1.44"

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Primary OutFlow Max=0.083 cfs @ 14.89 hrs HW=3.25' TW=0.55' (Dynamic Tailwater)

1=Culvert to DMH4 (Passes 0.083 cfs of 4.420 cfs potential flow)

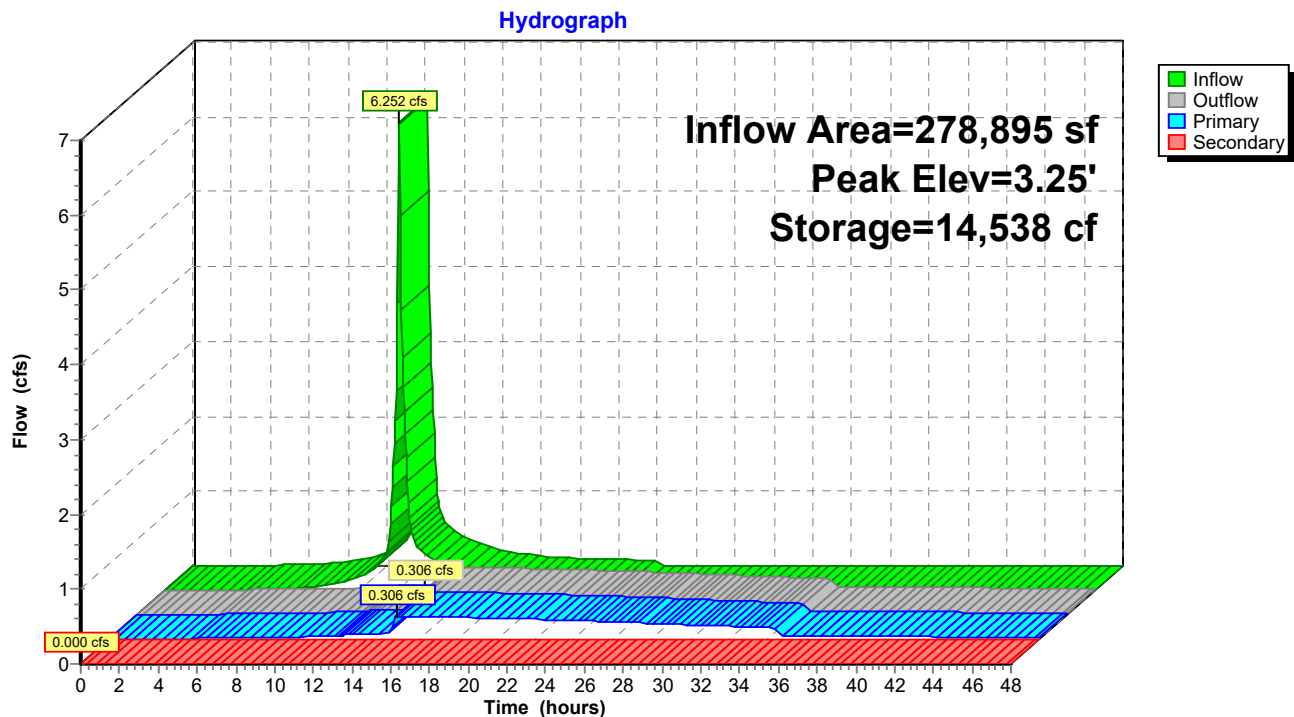
2=SF - Tube/Siphon/Float Valve (Orifice Controls 0.083 cfs @ 7.90 fps)

Secondary OutFlow Max=0.000 cfs @ 0.00 hrs HW=0.81' TW=0.31' (Dynamic Tailwater)

3=Bypass Culvert (Controls 0.000 cfs)

4=Broad-Crested Rectangular Weir (Controls 0.000 cfs)

Pond 1P: R-Tank, StormFilter & OCS



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Type III 24-hr Custom Rainfall=1.44"

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Summary for Pond 2P: DMH-4

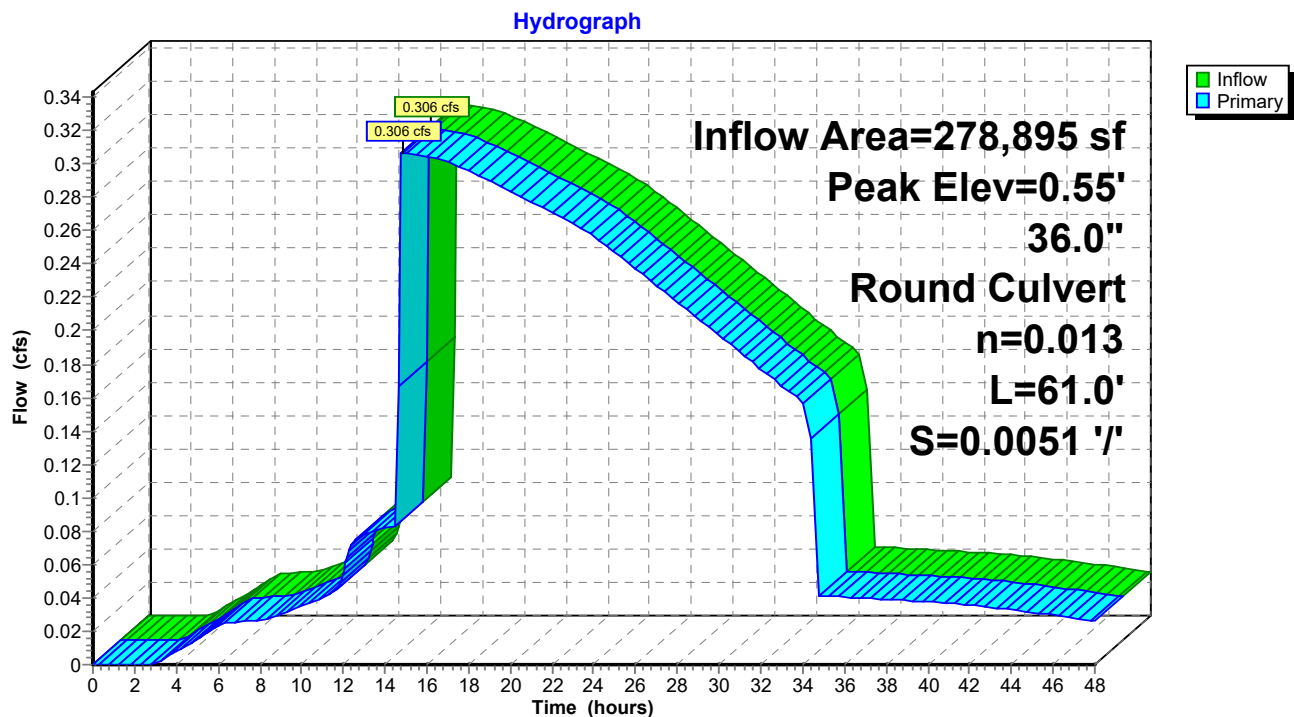
Inflow Area = 278,895 sf, 74.19% Impervious, Inflow Depth > 0.89" for Custom event
Inflow = 0.306 cfs @ 14.89 hrs, Volume= 20,607 cf
Outflow = 0.306 cfs @ 14.89 hrs, Volume= 20,607 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.306 cfs @ 14.89 hrs, Volume= 20,607 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 0.55' @ 14.89 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.31'	36.0" Round Culvert L= 61.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.31' / 0.00' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=0.306 cfs @ 14.89 hrs HW=0.55' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Barrel Controls 0.306 cfs @ 1.81 fps)

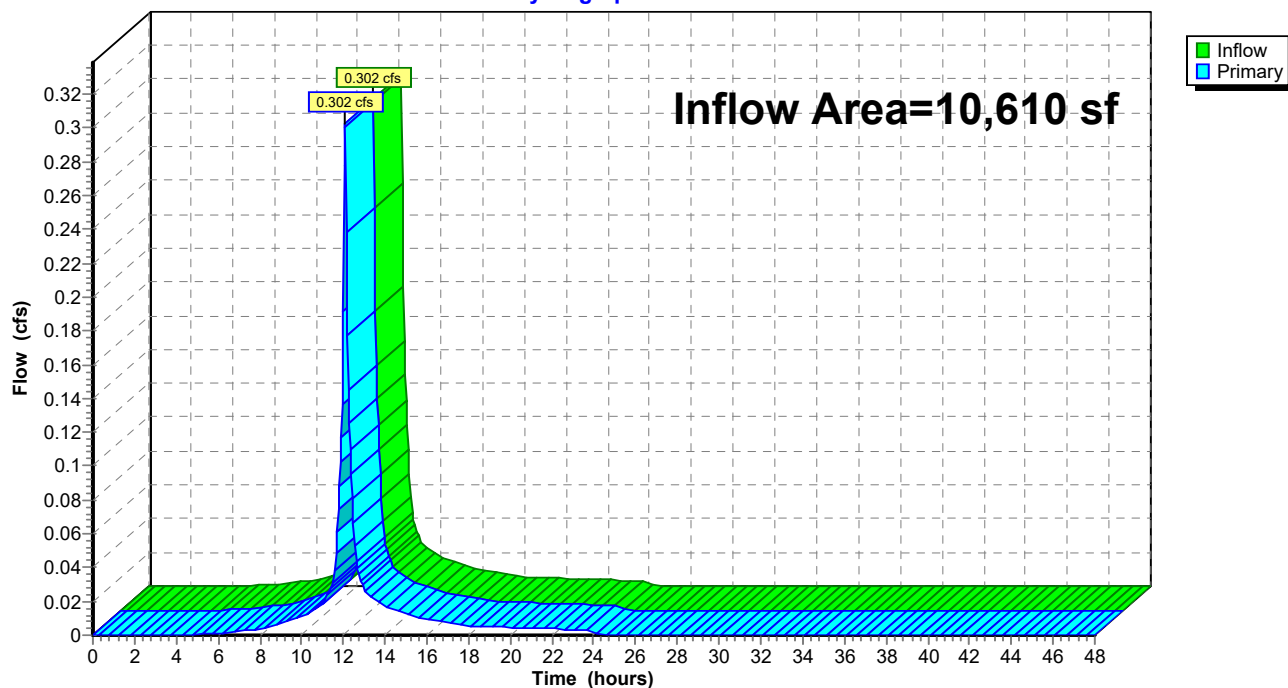
Pond 2P: DMH-4



Summary for Link SP1: Commercial St Drainage

Inflow Area = 10,610 sf, 96.56% Impervious, Inflow Depth = 1.13" for Custom event
Inflow = 0.302 cfs @ 12.09 hrs, Volume= 995 cf
Primary = 0.302 cfs @ 12.09 hrs, Volume= 995 cf, Atten= 0%, Lag= 0.0 min

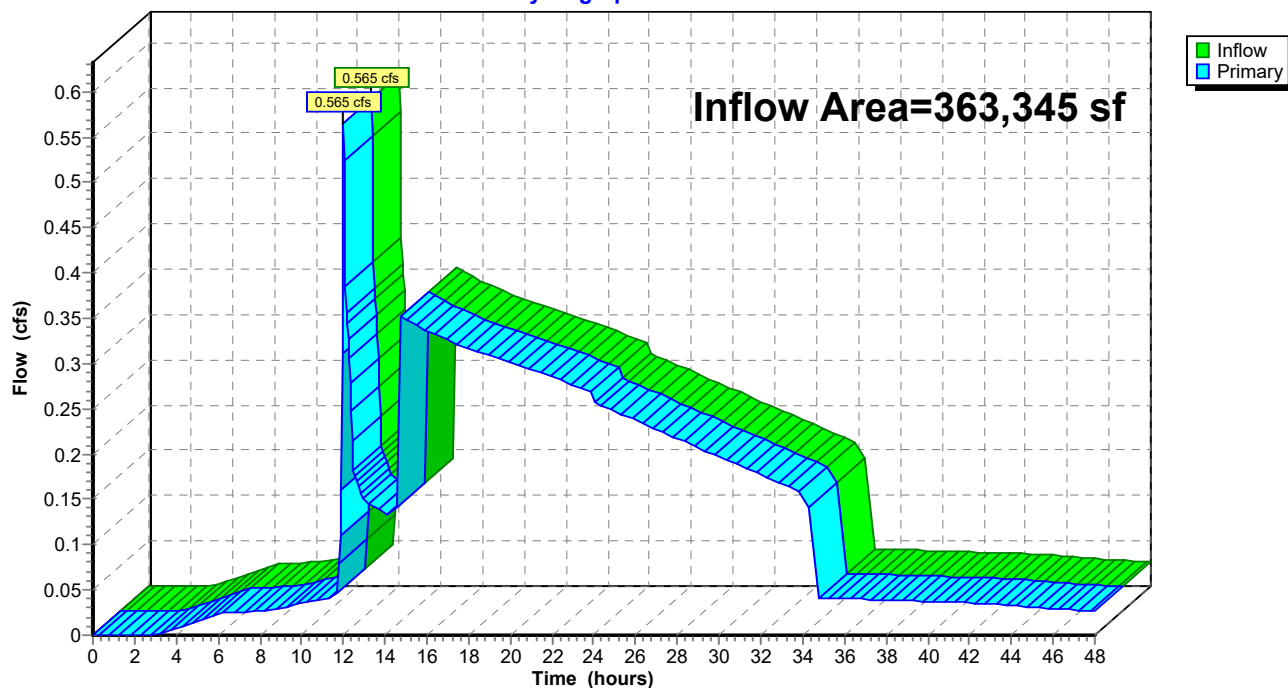
Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP1: Commercial St Drainage**Hydrograph**

Summary for Link SP2: Fore River

Inflow Area = 363,345 sf, 57.06% Impervious, Inflow Depth > 0.74" for Custom event
Inflow = 0.565 cfs @ 12.02 hrs, Volume= 22,415 cf
Primary = 0.565 cfs @ 12.02 hrs, Volume= 22,415 cf, Atten= 0%, Lag= 0.0 min

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

Link SP2: Fore River**Hydrograph**

2020.07.27 Cold Storage Stormwater Analysis

Type III 24-hr WQ Rainfall=1.44"

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

Subcatchment1S: Driveway Entrance Runoff Area=10,610 sf 96.56% Impervious Runoff Depth=1.13"
Tc=6.0 min CN=97 Runoff=0.302 cfs 995 cf

Subcatchment2S: Employee Parking Lot Runoff Area=29,100 sf 41.51% Impervious Runoff Depth=0.49"
Tc=6.0 min CN=87 Runoff=0.365 cfs 1,198 cf

Subcatchment3S: Eastern Parking Lot Runoff Area=115,360 sf 73.77% Impervious Runoff Depth=0.81"
Tc=6.0 min CN=93 Runoff=2.478 cfs 7,827 cf

Subcatchment4S: Office Building Roof Runoff Area=17,085 sf 100.00% Impervious Runoff Depth=1.22"
Tc=6.0 min CN=98 Runoff=0.514 cfs 1,739 cf

Subcatchment5S: Warehouse Building Runoff Area=32,430 sf 100.00% Impervious Runoff Depth=1.22"
Tc=6.0 min CN=98 Runoff=0.975 cfs 3,300 cf

Subcatchment6S: Warehouse Building Runoff Area=57,870 sf 100.00% Impervious Runoff Depth=1.22"
Tc=6.0 min CN=98 Runoff=1.739 cfs 5,889 cf

Subcatchment7S: Area South of Building Runoff Area=27,050 sf 8.71% Impervious Runoff Depth=0.31"
Tc=6.0 min CN=82 Runoff=0.189 cfs 707 cf

Subcatchment8S: Western and Southern Runoff Area=84,450 sf 0.50% Impervious Runoff Depth=0.26"
Tc=0.0 min CN=80 Runoff=0.509 cfs 1,808 cf

Pond 1P: R-Tank, StormFilter & OCS Peak Elev=3.25' Storage=14,538 cf Inflow=6.252 cfs 20,659 cf
Primary=0.306 cfs 20,607 cf Secondary=0.000 cfs 0 cf Outflow=0.306 cfs 20,607 cf

Pond 2P: DMH-4 Peak Elev=0.55' Inflow=0.306 cfs 20,607 cf
36.0" Round Culvert n=0.013 L=61.0' S=0.0051 ' /' Outflow=0.306 cfs 20,607 cf

Link SP1: Commercial St Drainage Inflow=0.302 cfs 995 cf
Primary=0.302 cfs 995 cf

Link SP2: Fore River Inflow=0.565 cfs 22,415 cf
Primary=0.565 cfs 22,415 cf

Total Runoff Area = 373,955 sf Runoff Volume = 23,462 cf Average Runoff Depth = 0.75"
41.82% Pervious = 156,370 sf 58.18% Impervious = 217,585 sf

2020.07.27 Cold Storage Stormwater Analysis

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Type III 24-hr WQ Rainfall=1.44"

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Summary for Subcatchment 1S: Driveway Entrance

Runoff = 0.302 cfs @ 12.09 hrs, Volume= 995 cf, Depth= 1.13"

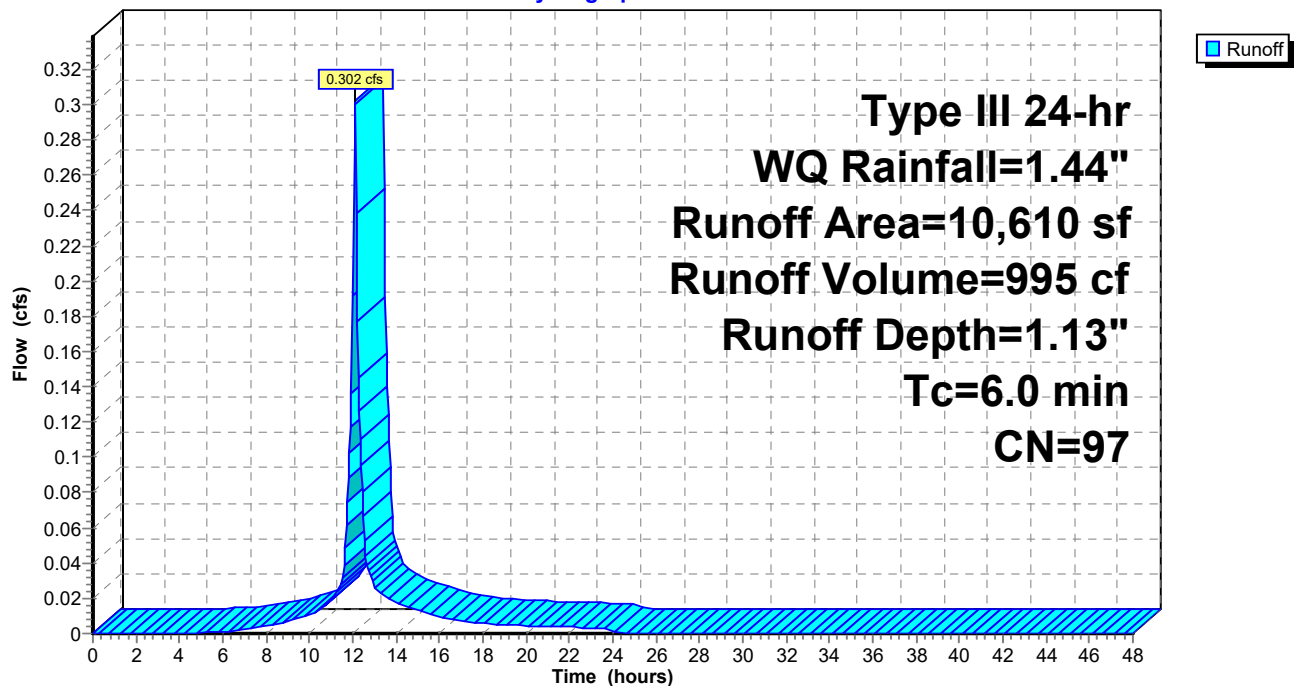
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQ Rainfall=1.44"

	Area (sf)	CN	Description
*	10,245	98	Impervious
	365	80	>75% Grass cover, Good, HSG D
	10,610	97	Weighted Average
	365		3.44% Pervious Area
	10,245		96.56% Impervious Area

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

Subcatchment 1S: Driveway Entrance

Hydrograph



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Type III 24-hr WQ Rainfall=1.44"

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Summary for Subcatchment 2S: Employee Parking Lot

Runoff = 0.365 cfs @ 12.10 hrs, Volume= 1,198 cf, Depth= 0.49"

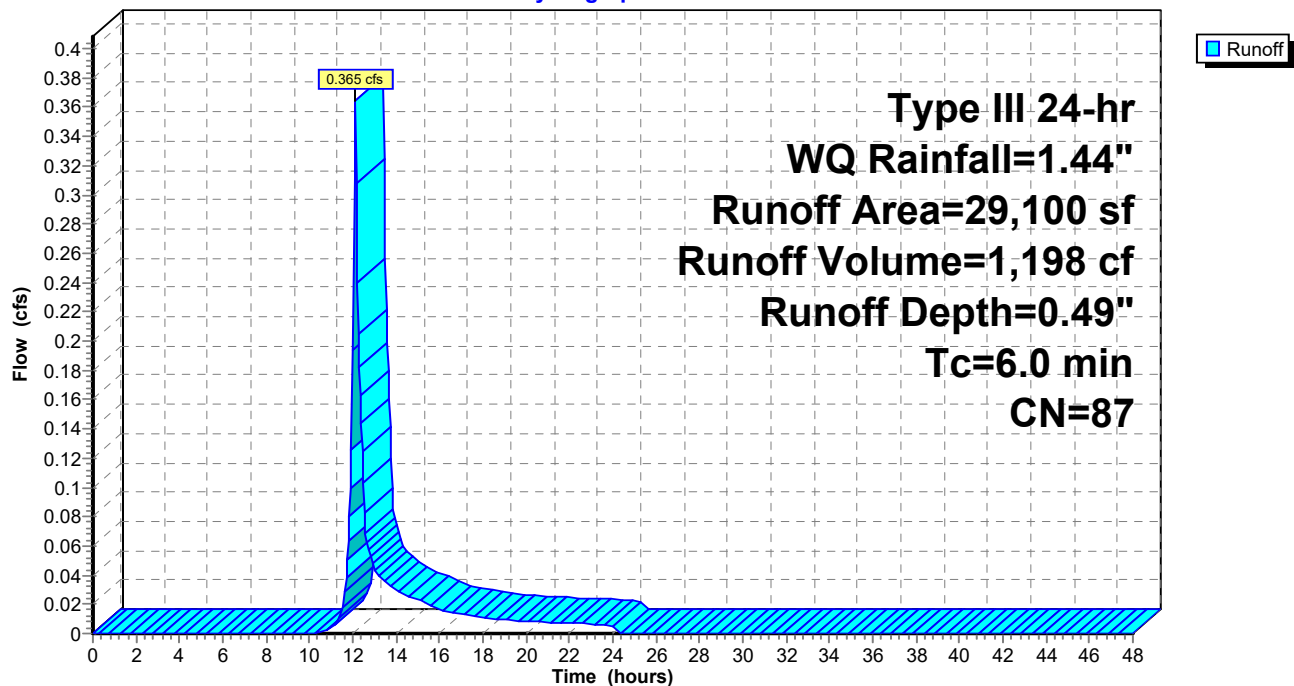
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQ Rainfall=1.44"

	Area (sf)	CN	Description
*	12,080	98	Impervious
	17,020	80	>75% Grass cover, Good, HSG D
	29,100	87	Weighted Average
	17,020		58.49% Pervious Area
	12,080		41.51% Impervious Area

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

Subcatchment 2S: Employee Parking Lot

Hydrograph



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Type III 24-hr WQ Rainfall=1.44"

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Summary for Subcatchment 3S: Eastern Parking Lot and Loading Zone

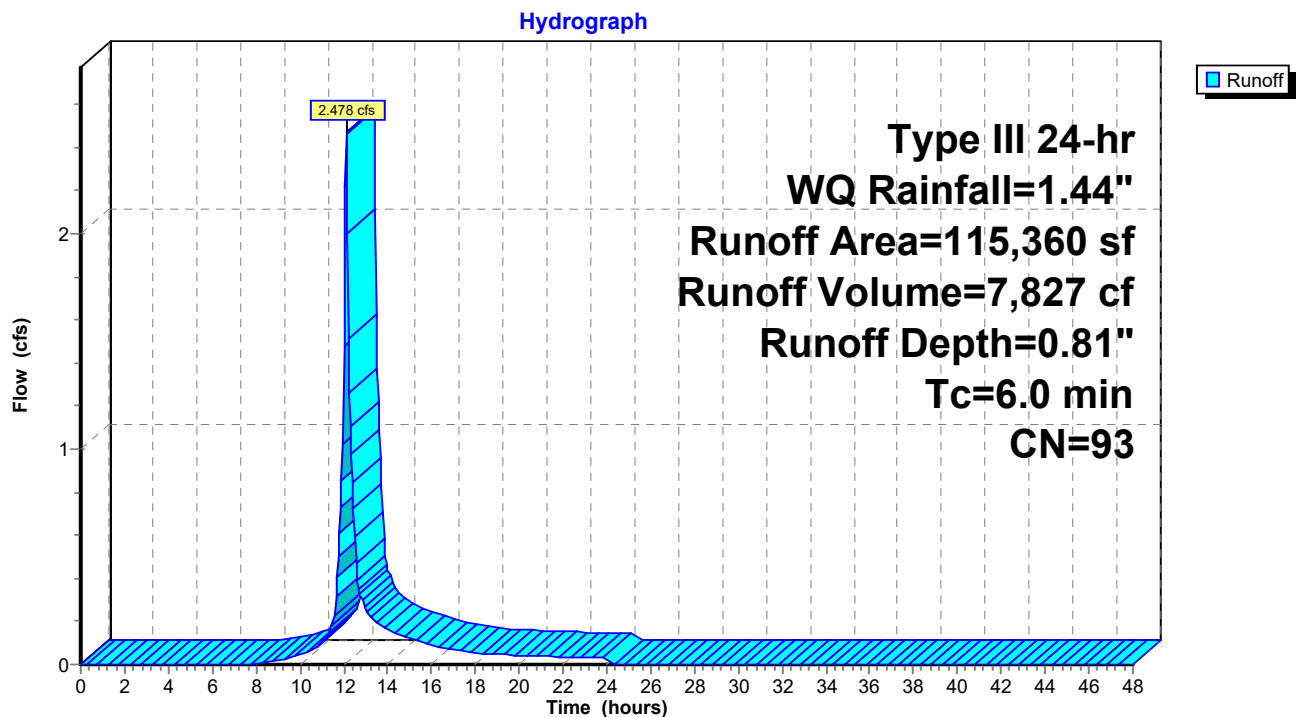
Runoff = 2.478 cfs @ 12.09 hrs, Volume= 7,827 cf, Depth= 0.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQ Rainfall=1.44"

	Area (sf)	CN	Description
*	85,100	98	Impervious
	30,260	80	>75% Grass cover, Good, HSG D
	115,360	93	Weighted Average
	30,260		26.23% Pervious Area
	85,100		73.77% Impervious Area

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

Subcatchment 3S: Eastern Parking Lot and Loading Zone



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Type III 24-hr WQ Rainfall=1.44"

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Summary for Subcatchment 4S: Office Building Roof

Runoff = 0.514 cfs @ 12.09 hrs, Volume= 1,739 cf, Depth= 1.22"

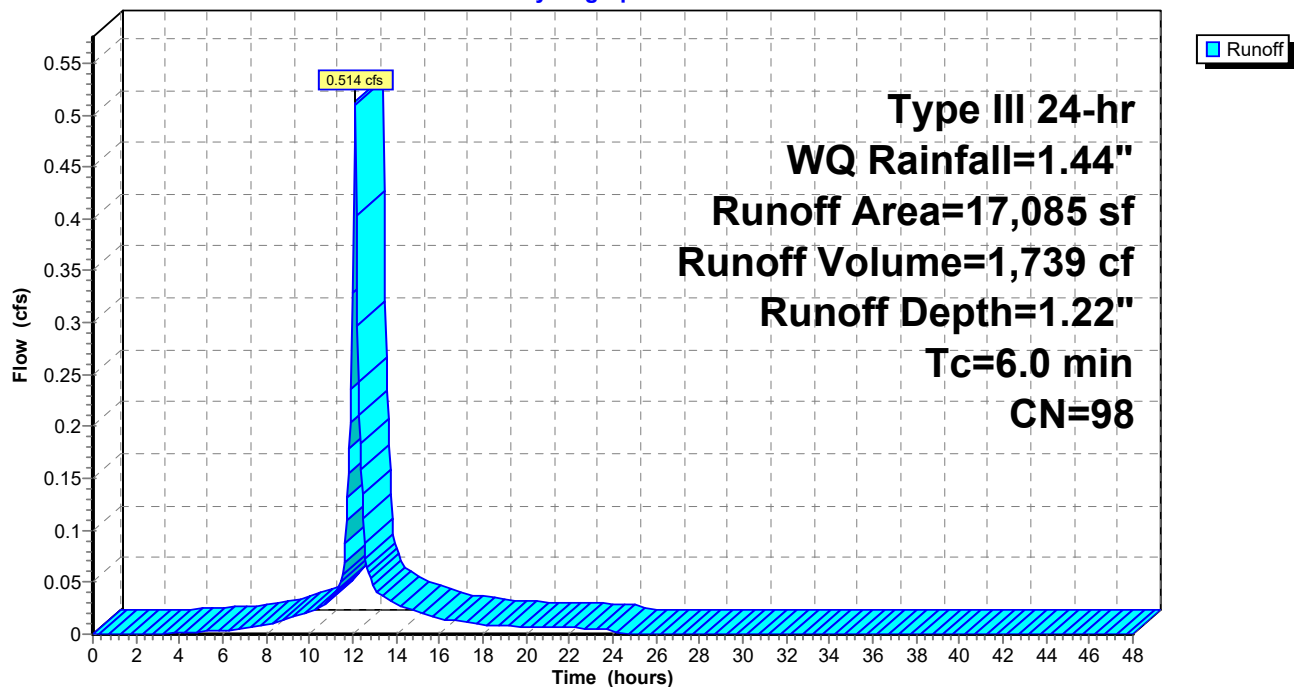
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQ Rainfall=1.44"

	Area (sf)	CN	Description
*	17,085	98	Impervious
	17,085		100.00% Impervious Area

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

Subcatchment 4S: Office Building Roof

Hydrograph



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Type III 24-hr WQ Rainfall=1.44"

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Summary for Subcatchment 5S: Warehouse Building Roof - West

Runoff = 0.975 cfs @ 12.09 hrs, Volume= 3,300 cf, Depth= 1.22"

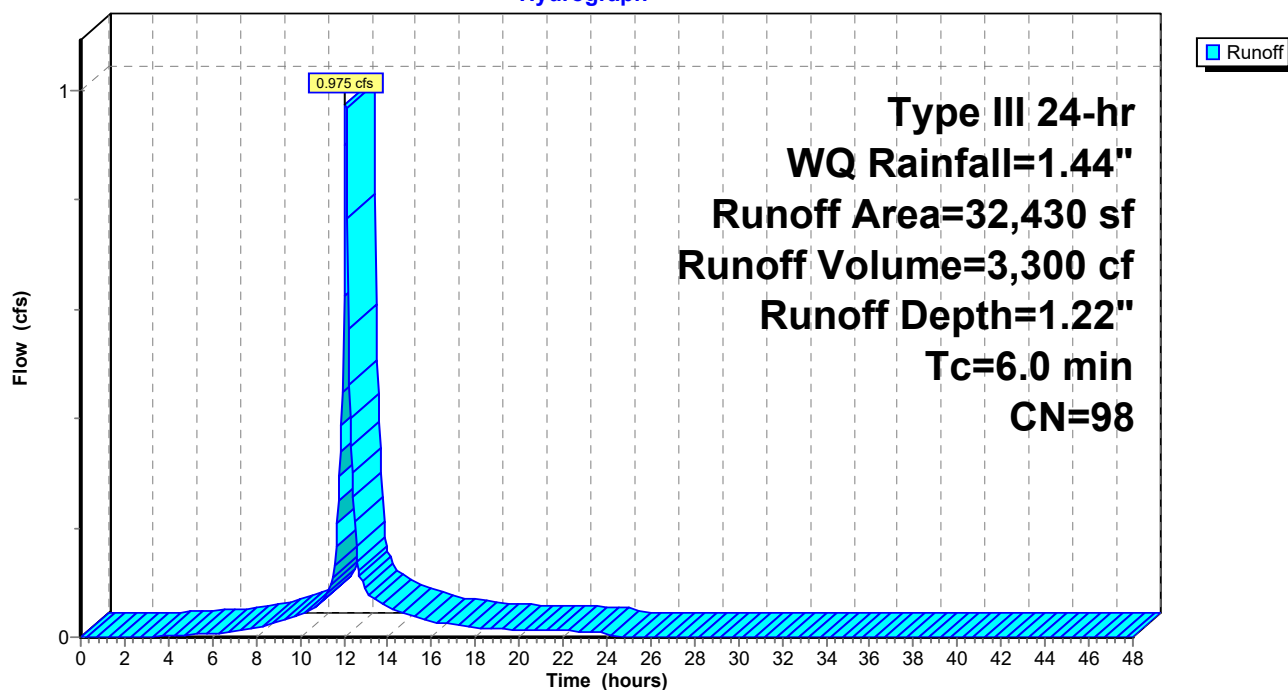
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQ Rainfall=1.44"

	Area (sf)	CN	Description
*	32,430	98	Impervious
	32,430		100.00% Impervious Area

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

Subcatchment 5S: Warehouse Building Roof - West

Hydrograph



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Type III 24-hr WQ Rainfall=1.44"

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Summary for Subcatchment 6S: Warehouse Building Roof - East

Runoff = 1.739 cfs @ 12.09 hrs, Volume= 5,889 cf, Depth= 1.22"

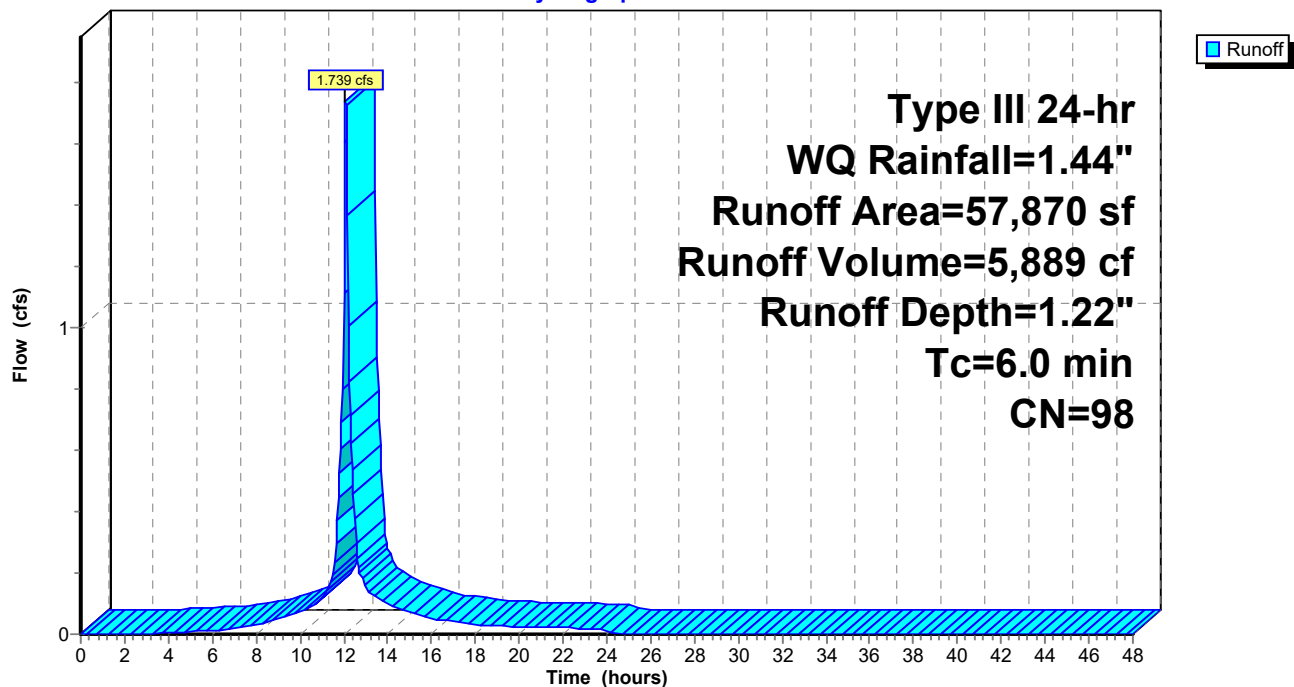
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQ Rainfall=1.44"

	Area (sf)	CN	Description
*	57,870	98	Impervious
	57,870		100.00% Impervious Area

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

Subcatchment 6S: Warehouse Building Roof - East

Hydrograph



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Type III 24-hr WQ Rainfall=1.44"

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Summary for Subcatchment 7S: Area South of Building

Runoff = 0.189 cfs @ 12.11 hrs, Volume= 707 cf, Depth= 0.31"

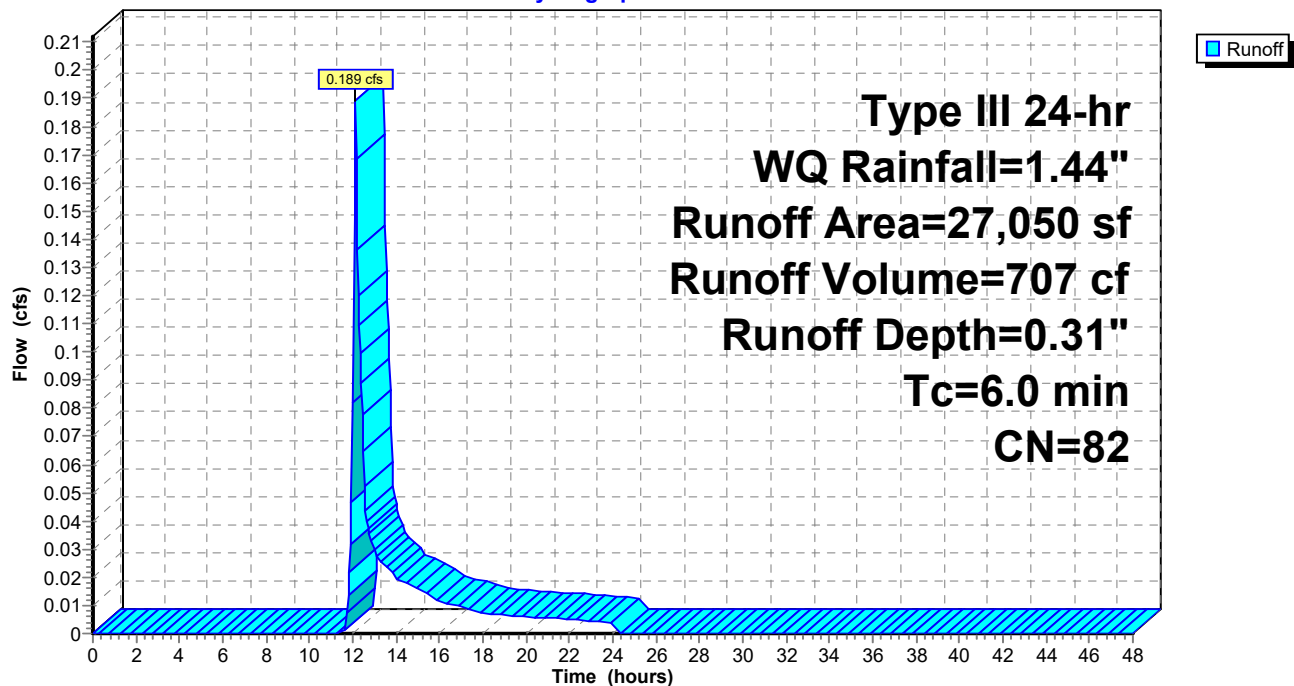
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQ Rainfall=1.44"

	Area (sf)	CN	Description
*	2,355	98	Impervious
	24,695	80	>75% Grass cover, Good, HSG D
	27,050	82	Weighted Average
	24,695		91.29% Pervious Area
	2,355		8.71% Impervious Area

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

Subcatchment 7S: Area South of Building

Hydrograph



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Type III 24-hr WQ Rainfall=1.44"

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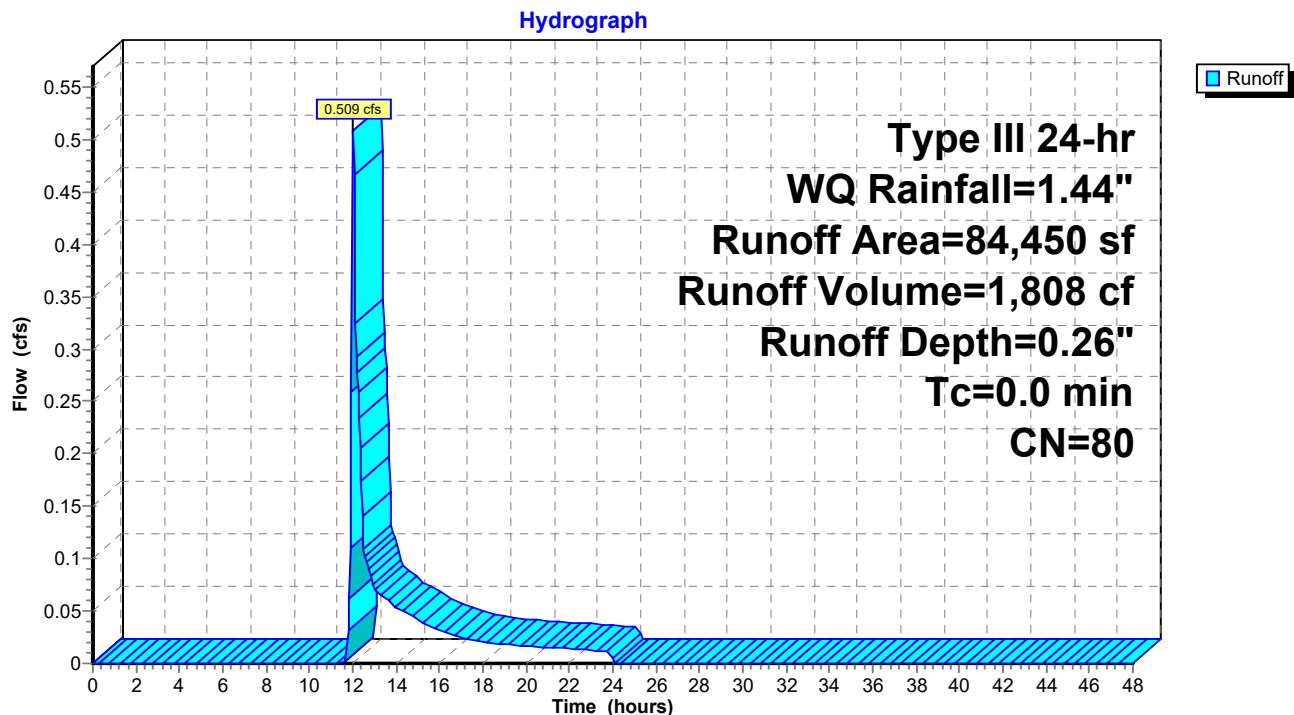
Summary for Subcatchment 8S: Western and Southern Edges of Site

Runoff = 0.509 cfs @ 12.02 hrs, Volume= 1,808 cf, Depth= 0.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr WQ Rainfall=1.44"

	Area (sf)	CN	Description
*	420	98	Impervious
	84,030	80	>75% Grass cover, Good, HSG D
	84,450	80	Weighted Average
	84,030		99.50% Pervious Area
	420		0.50% Impervious Area

Subcatchment 8S: Western and Southern Edges of Site



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Type III 24-hr WQ Rainfall=1.44"

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Summary for Pond 1P: R-Tank, StormFilter & OCS

Inflow Area = 278,895 sf, 74.19% Impervious, Inflow Depth = 0.89" for WQ event
 Inflow = 6.252 cfs @ 12.09 hrs, Volume= 20,659 cf
 Outflow = 0.306 cfs @ 14.89 hrs, Volume= 20,607 cf, Atten= 95%, Lag= 168.1 min
 Primary = 0.306 cfs @ 14.89 hrs, Volume= 20,607 cf
 Secondary = 0.000 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Peak Elev= 3.25' @ 14.89 hrs Surf.Area= 7,194 sf Storage= 14,538 cf

Flood Elev= 9.52' Surf.Area= 7,194 sf Storage= 30,079 cf

Plug-Flow detention time= 636.5 min calculated for 20,586 cf (100% of inflow)

Center-of-Mass det. time= 635.7 min (1,438.6 - 802.9)

Volume	Invert	Avail.Storage	Storage Description
#1	0.81'	5,213 cf	Stone Envelope (Prismatic) Listed below (Recalc) 39,207 cf Overall - 26,174 cf Embedded = 13,033 cf x 40.0% Voids
#2	1.06'	24,866 cf	R-Tank Triple Modules (Prismatic) Listed below (Recalc) Inside #1 26,174 cf Overall x 95.0% Voids
30,079 cf			Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.81	7,194	0	0
6.26	7,194	39,207	39,207

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1.06	6,232	0	0
5.26	6,232	26,174	26,174

Device	Routing	Invert	Outlet Devices
#1	Primary	0.56'	12.0" Round Culvert to DMH4 L= 4.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.56' / 0.54' S= 0.0050 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	0.56'	SF - Tube/Siphon/Float Valve X 28.00 Starts@3.31' Breaks@1.23' 0.504" Diameter, C= 0.600, 0.263" Trickle Diameter
#3	Secondary	1.06'	30.0" Round Bypass Culvert L= 6.6' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1.06' / 0.85' S= 0.0318 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf
#4	Device 3	3.81'	4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

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Type III 24-hr WQ Rainfall=1.44"

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Primary OutFlow Max=0.083 cfs @ 14.89 hrs HW=3.25' TW=0.55' (Dynamic Tailwater)

1=Culvert to DMH4 (Passes 0.083 cfs of 4.420 cfs potential flow)

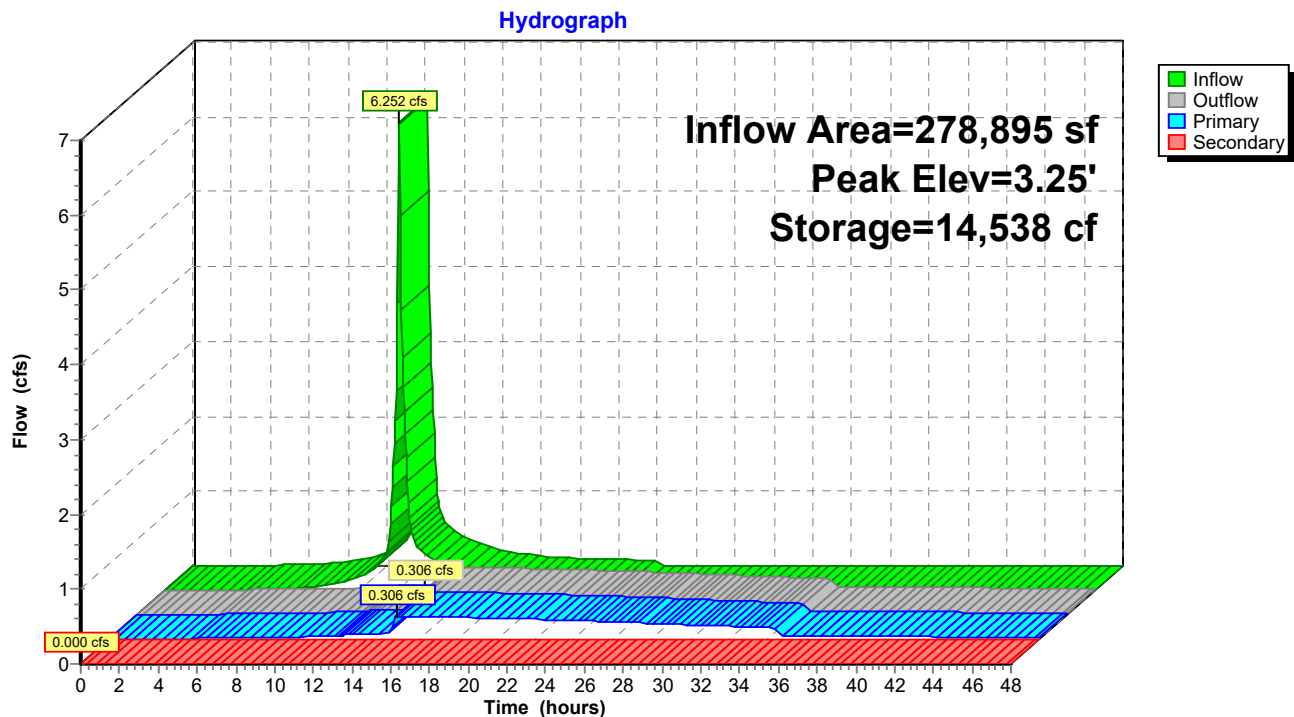
2=SF - Tube/Siphon/Float Valve (Orifice Controls 0.083 cfs @ 7.90 fps)

Secondary OutFlow Max=0.000 cfs @ 0.00 hrs HW=0.81' TW=0.31' (Dynamic Tailwater)

3=Bypass Culvert (Controls 0.000 cfs)

4=Broad-Crested Rectangular Weir (Controls 0.000 cfs)

Pond 1P: R-Tank, StormFilter & OCS



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Type III 24-hr WQ Rainfall=1.44"

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Summary for Pond 2P: DMH-4

Inflow Area = 278,895 sf, 74.19% Impervious, Inflow Depth > 0.89" for WQ event
Inflow = 0.306 cfs @ 14.89 hrs, Volume= 20,607 cf
Outflow = 0.306 cfs @ 14.89 hrs, Volume= 20,607 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.306 cfs @ 14.89 hrs, Volume= 20,607 cf

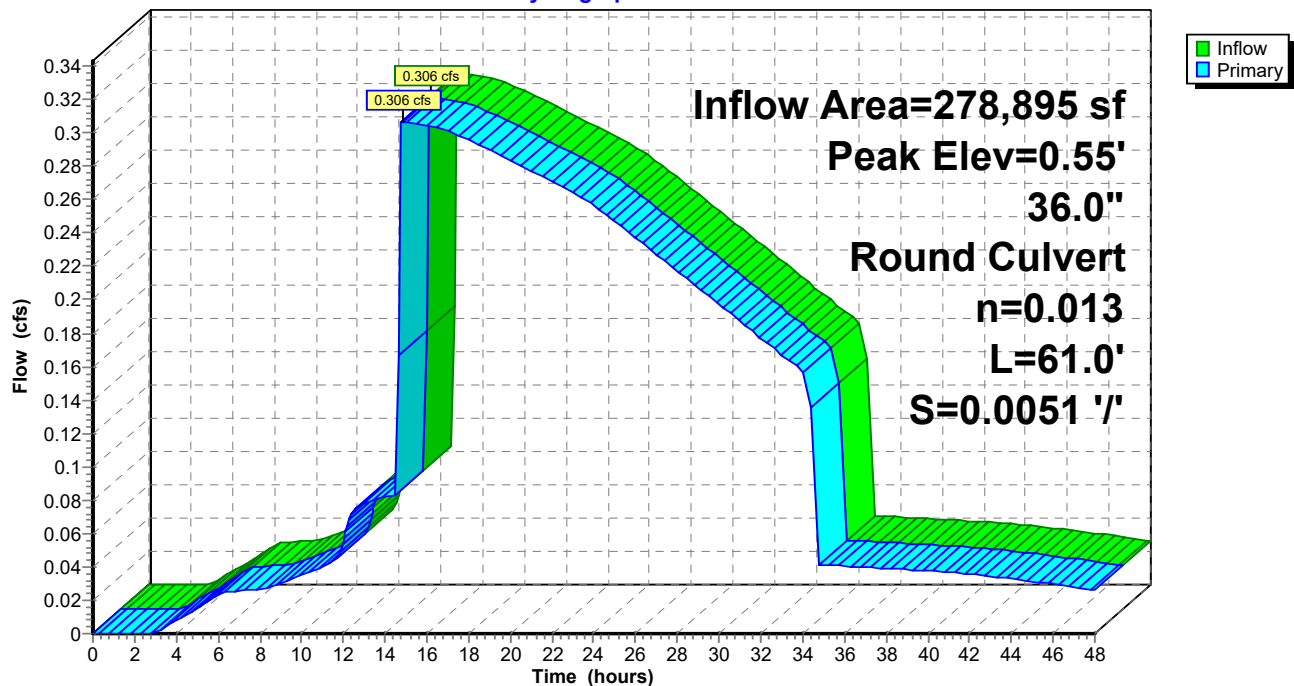
Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 0.55' @ 14.89 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	0.31'	36.0" Round Culvert L= 61.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 0.31' / 0.00' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=0.306 cfs @ 14.89 hrs HW=0.55' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Barrel Controls 0.306 cfs @ 1.81 fps)

Pond 2P: DMH-4

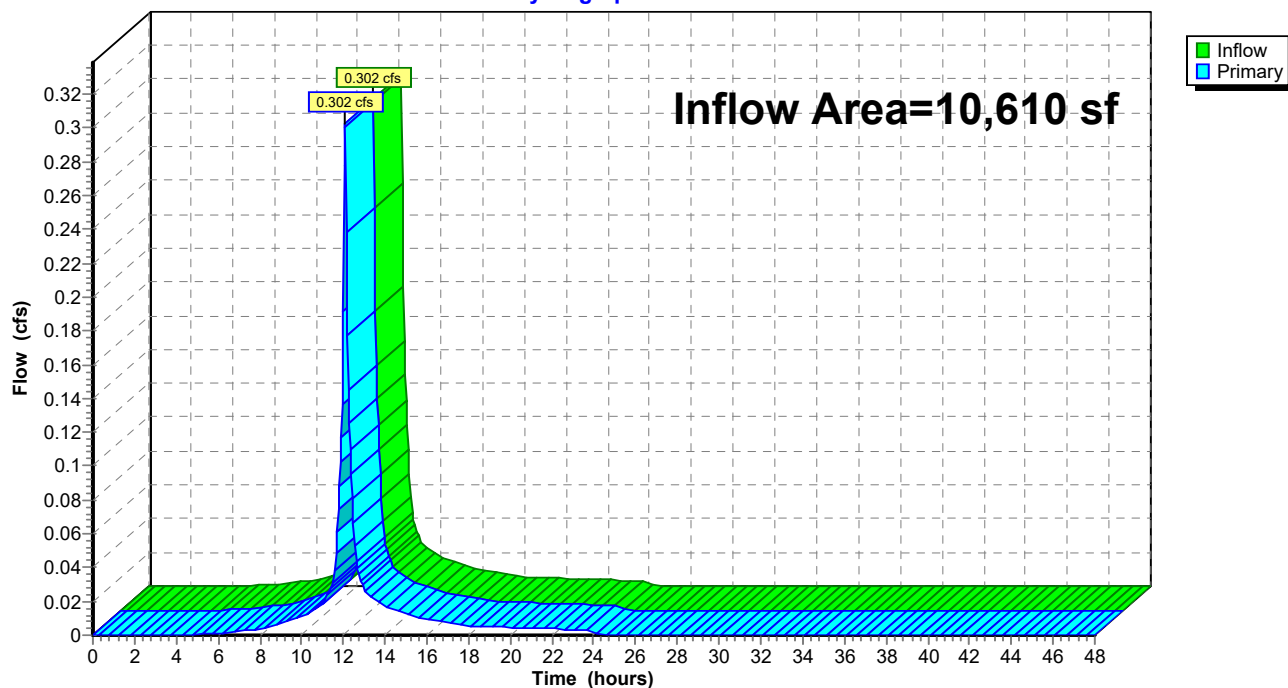
Hydrograph



Summary for Link SP1: Commercial St Drainage

Inflow Area = 10,610 sf, 96.56% Impervious, Inflow Depth = 1.13" for WQ event
Inflow = 0.302 cfs @ 12.09 hrs, Volume= 995 cf
Primary = 0.302 cfs @ 12.09 hrs, Volume= 995 cf, Atten= 0%, Lag= 0.0 min

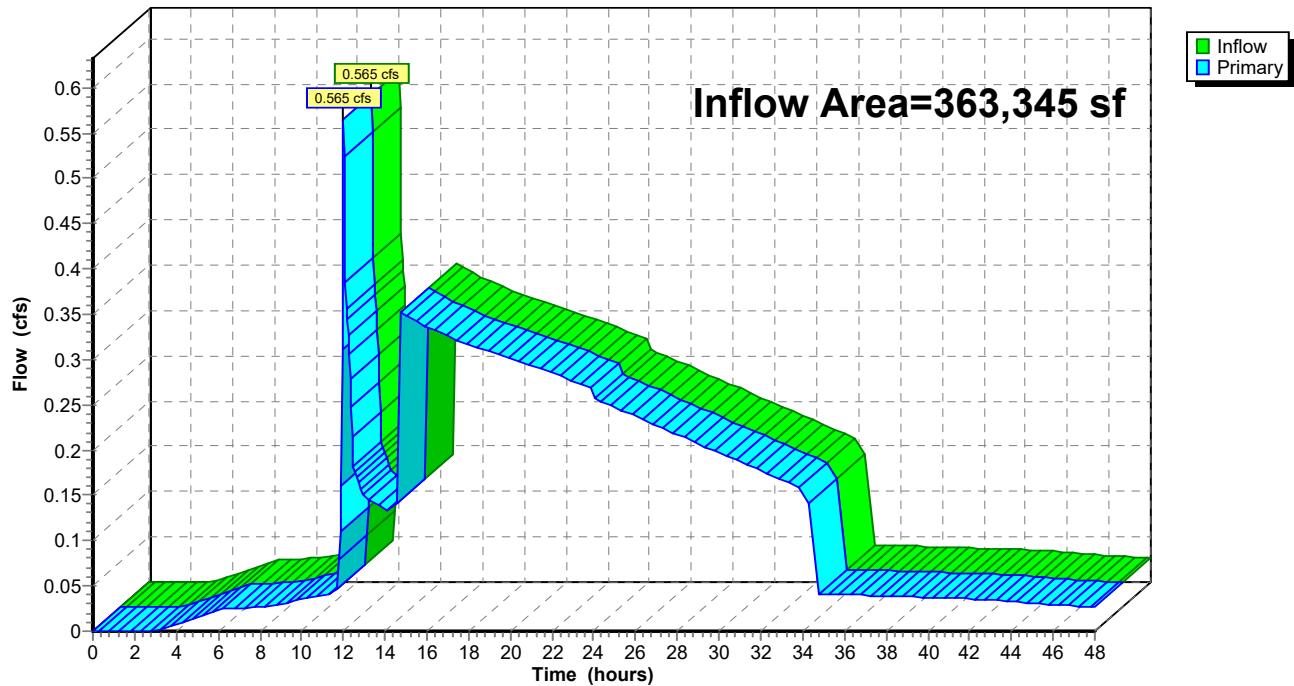
Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link SP1: Commercial St Drainage**Hydrograph**

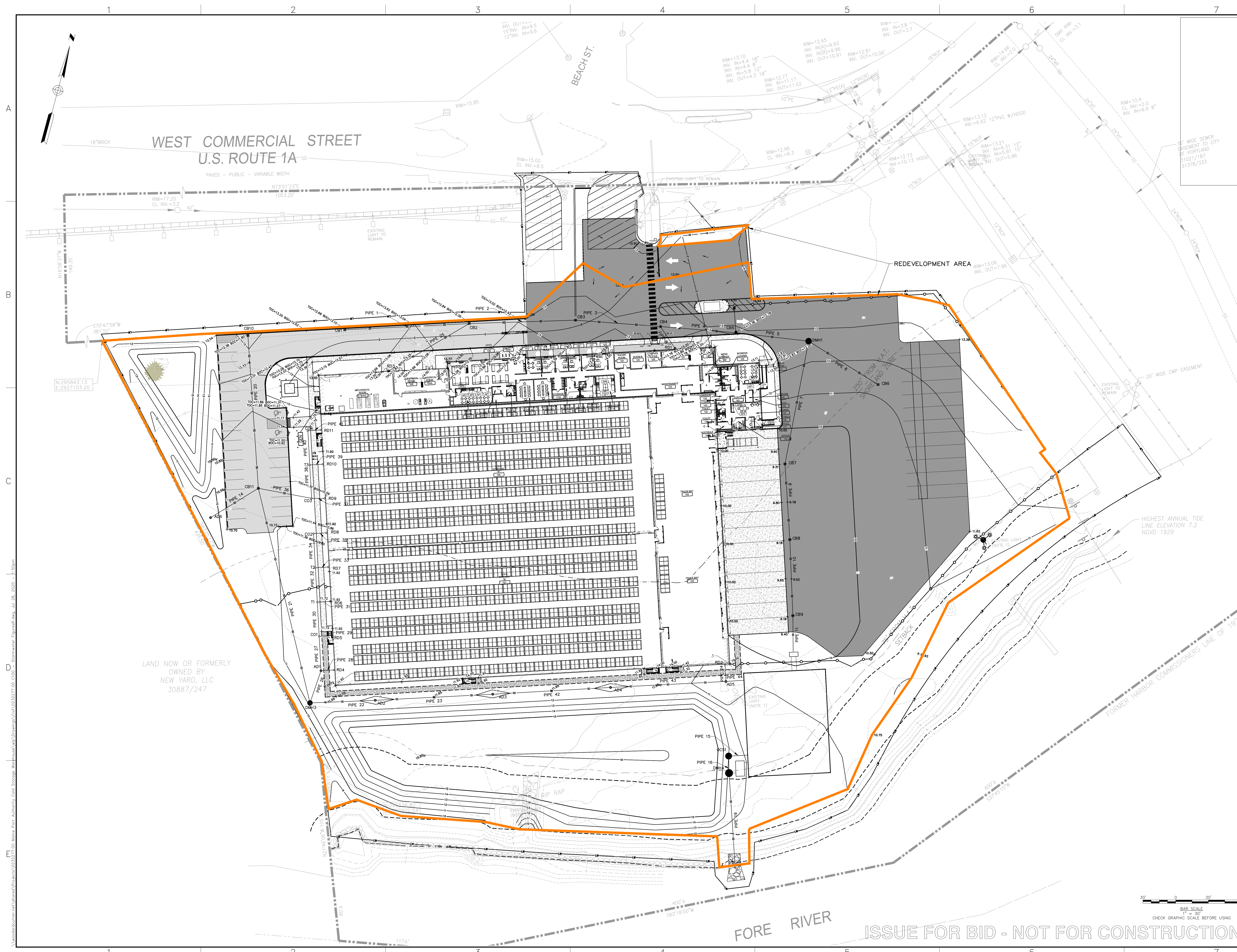
Summary for Link SP2: Fore River

Inflow Area = 363,345 sf, 57.06% Impervious, Inflow Depth > 0.74" for WQ event
Inflow = 0.565 cfs @ 12.02 hrs, Volume= 22,415 cf
Primary = 0.565 cfs @ 12.02 hrs, Volume= 22,415 cf, Atten= 0%, Lag= 0.0 min

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

Link SP2: Fore River**Hydrograph**



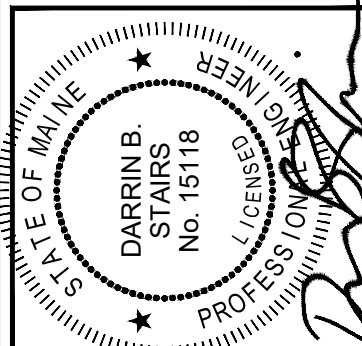


41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

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REDEVELOPMENT FIGURE

MAINE INTERNATIONAL COLD STORAGE FACILITY PORTLAND, MAINE	MAINE INTERNATIONAL COLD STORAGE FACILITY
--	--

JOB NO.:232277.00
DATE: JULY 2020
SCALE: AS NOTED
SHEET: 1 OF 1
Redevelopment

ISSUE FOR BID - NOT FOR CONSTRUCTION



TRIP GENERATION ANALYSIS PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY PORTLAND, MAINE

INTRODUCTION

Trip generation analysis has been performed for the proposed Maine International Cold Storage Facility to be located adjacent to the International Marine Terminal (IMT) in Portland, Maine. The proposed facility will be 108,000 square feet (S.F.) in size. The facility is expected to employ a maximum of 25 employees, which will be spread over at least two shifts. Access to the facility will be provided by a single full movement signalized drive to Commercial Street, directly opposite Beach Street, and by an internal connection to the IMT. The facility is projected to generate a maximum of 70 trucks per day or 140 one-way truck trips. The majority of these truck trips (75 %) are expected to occur between 6:00 AM and 12:00 noon with the remaining 25 % occurring in the afternoon. It is expected that the facility will reduce off-site truck trips from the adjacent IMT since there is no available cold storage at the IMT now.

The City of Portland has requested that the trip generation analysis also look at the adjacent IMT trips to determine if a Traffic Movement Permit (TMP) will be required under Common Scheme of Development rules.

TRIP GENERATION ANALYSIS

The number of trips to be generated by the proposed storage facility was estimated using the most recent Institute of Transportation Engineers (ITE) "Trip Generation, 10th Edition" report. The calculations were performed utilizing Land Use Code 150 - Warehousing on the basis of both employees and square footage. The results on the basis of 108,000 S.F. and 25 employees are summarized in the table below:

<u>Time Period</u>	10th Edition ITE (one-way trip ends)		
	<u>Emp.</u>	<u>S.F.</u>	<u>Average</u>
Weekday	126	188	158
AM Peak Hour – Adjacent Street	15	18	17
AM Peak Hour – Generator	17	24	21
PM Peak Hour – Adjacent Street	17	21	19
PM Peak Hour – Generator	17	26	22

As seen in the preceding table, the employee and square footage bases yielded quite similar results so they were averaged to best estimate expected site trips.

SITE SPECIFIC ESTIMATES

Given the availability of specific truck and employee numbers, trip generation was also estimated specific to this site. The facility expects 53 trucks from 6:00 AM to noon, or 9 per hour. To allow for some peaking within that period, 12 trucks are assumed for this analysis, equal to 24 one-way truck trips. The ITE estimates on an employee basis appear reasonable for the facility even though those numbers would have included some trucks. Assuming 15 employee trips and 24 truck trips gives us an AM peak hour estimate of 39 one-way trips. Only 17 trucks are anticipated in the afternoon period, from noon to 6:00 PM, which equates to approximately 3 trucks per hour. To allow for peaking within this slower period, 6 trucks are assumed during the PM peak hour with 15 employee trips for 21 PM peak hour trips. This PM estimate is virtually identical to the ITE result of 22, which will be utilized for the remainder of this analysis to be conservative.

PERMITTING REQUIREMENTS

The trips must be converted to passenger car equivalents (PCEs) to determine if a Traffic Movement Permit (TMP) is required under state law. For these calculations, each truck trip equals two PCEs. The peak hour calculations are as follows:

AM Peak Hour – 24 trucks x 2.0 PCEs = 48 PCEs + 15 employee PCEs = 63 PCEs

PM Peak Hour – 7 trucks X 2.0 PCEs = 14 PCEs + 15 employee PCEs = 29 PCEs

Based upon these results, expected to be conservative, a TMP would not be required for the Cold Storage facility since peak hour trip generation will not exceed the 100-trip threshold, defined in terms of PCEs. However, the City of Portland has requested that trips generated by the adjacent IMT also be considered.

IMT TRIP GENERATION

Trips to and from the IMT were recorded in turning movement and classification counts performed in 2019 by Gorrill Palmer and Traffic Solutions. These counts were conducted as follows:

<u>Intersection</u>	<u>Date/Count Period</u>	<u>Peak Hour</u>
W. Commercial St, Beach St. & Site Drive	8/13/2019 7 – 9 AM	7:30 – 8:30 AM
W. Commercial St, Beach St. & Site Drive	8/13/2019 3 – 6 PM	4:45 – 5:45 PM
W. Commercial Street & IMT Drive	11/14/2019 7 – 9 AM	7:30 – 8:30 AM
W. Commercial Street & IMT Drive	11/14/2019 4 – 6 PM	4:30 – 5:30 PM

The count records are attached to this memorandum. The counts were summarized in terms of passenger car equivalents for the AM and PM peak hours of both the adjacent street system and the peak hour of the IMT. The AM results are shown in Figure 1 while the PM results are summarized in Figure 2. As seen in these figures, during the AM peak hour of the IMT it generated 33 PCEs. During the PM peak hour of the IMT it generated 28 PCEs. These trips are added to the projected peak hours for the International Cold Storage Facility as follows:

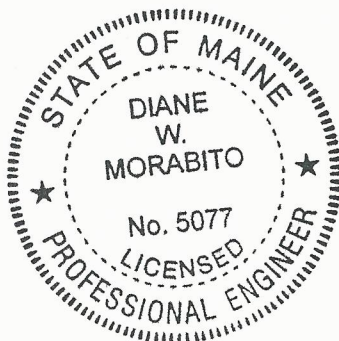
AM Peak Hour – 63 PCEs Cold Storage + 33 PCEs IMT = 96 PCEs

PM Peak Hour – 29 PCEs Cold Storage + 28 PCEs IMT = 57 PCEs

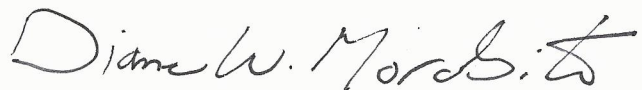
As seen above, the total PCEs for the site after development of the cold storage will be 96 during the AM peak hour and 57 during the PM peak hour. These estimates are expected to be conservative since they are based upon the following assumptions:

- Both the IMT and Cold Storage facilities will peak during the exact same hours of the day
- Both the employee trips and truck trips for the cold storage facility will peak during the same hours
- The cold storage facility is expected to reduce off-site trips from the IMT since there is no cold storage currently available

To summarize, based upon the preceding analysis, assumed to be conservative for the stated reasons, a TMP should not be required for the proposed International Cold Storage Facility, even with consideration of the existing IMT trips.



Sincerely,



Diane W. Morabito, P.E. PTOE
Vice President Traffic Engineering



-- AM Peak Hour Adj. St
(--) AM Peak Hour IMT

AM Peak Hour Adj. St - 7:30-8:30
19 PCEs

AM Peak Hour IMT - 8:00-9:00
33 PCEs

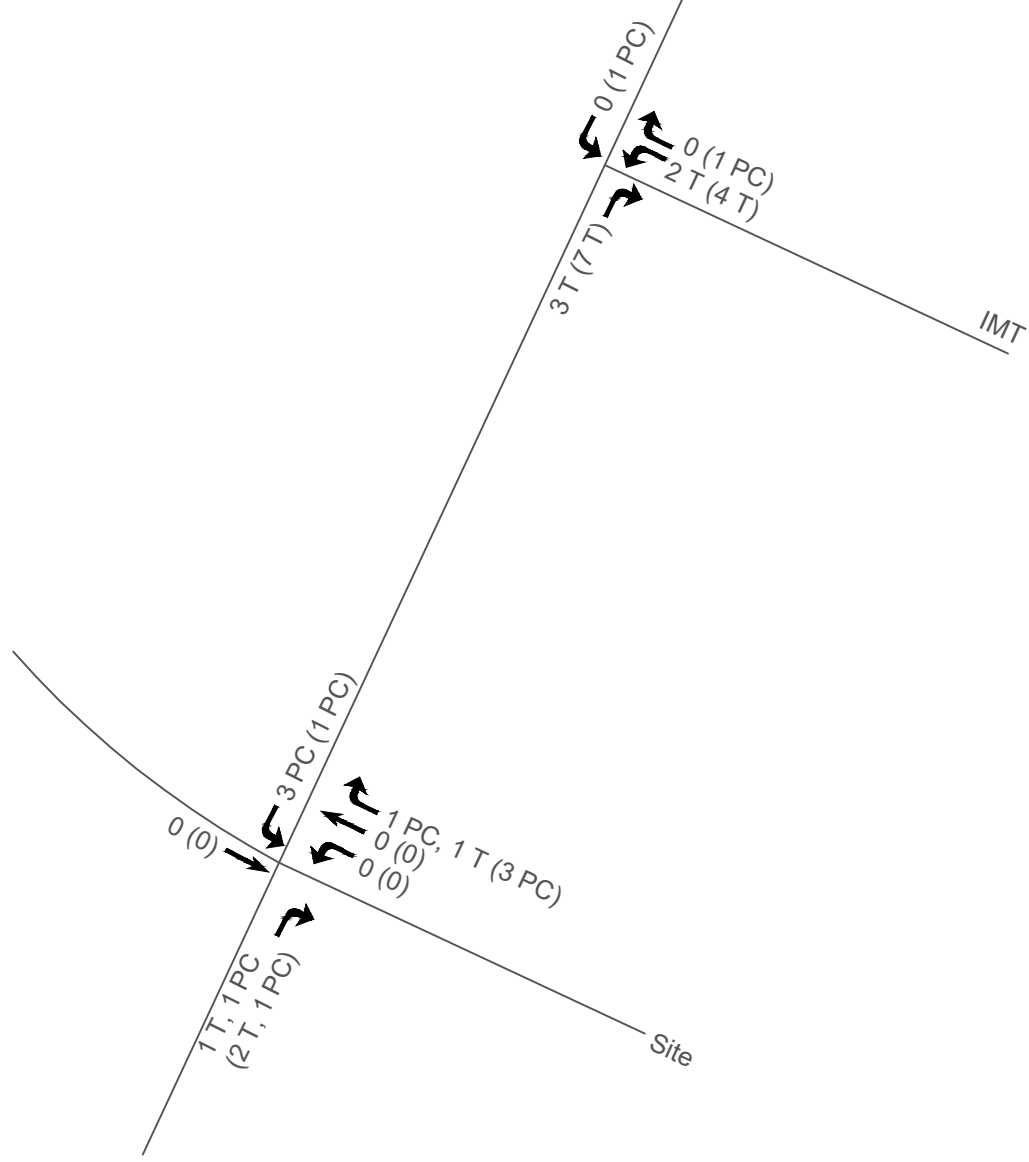


Figure 1

AM IMT Trip Generation
Cold Storage Facility
Portland, Maine



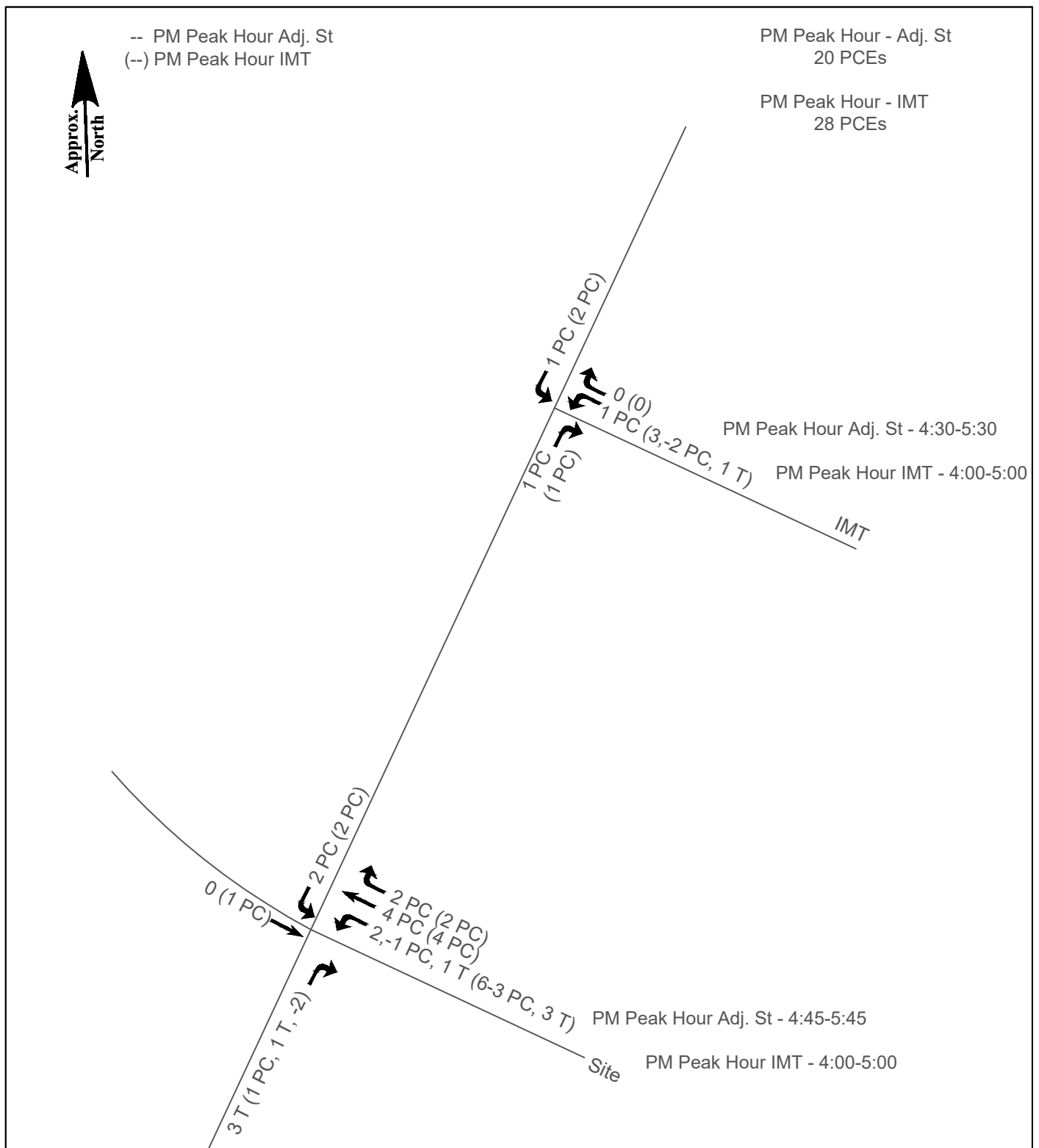


Figure 2

PM IMT Trip Generation
Cold Storage Facility
Portland, Maine

Gorrill Palmer
707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
Engineering Excellence Since 1988

Location: Portland, ME
Counter: TPG
Board: 2
Weather: Clear

File Name : AM IMT
Site Code : 003541
Start Date : 11/14/2019
Page No : 1

Groups Printed- Passenger Cars - Single Unit Trucks - Heavy Trucks

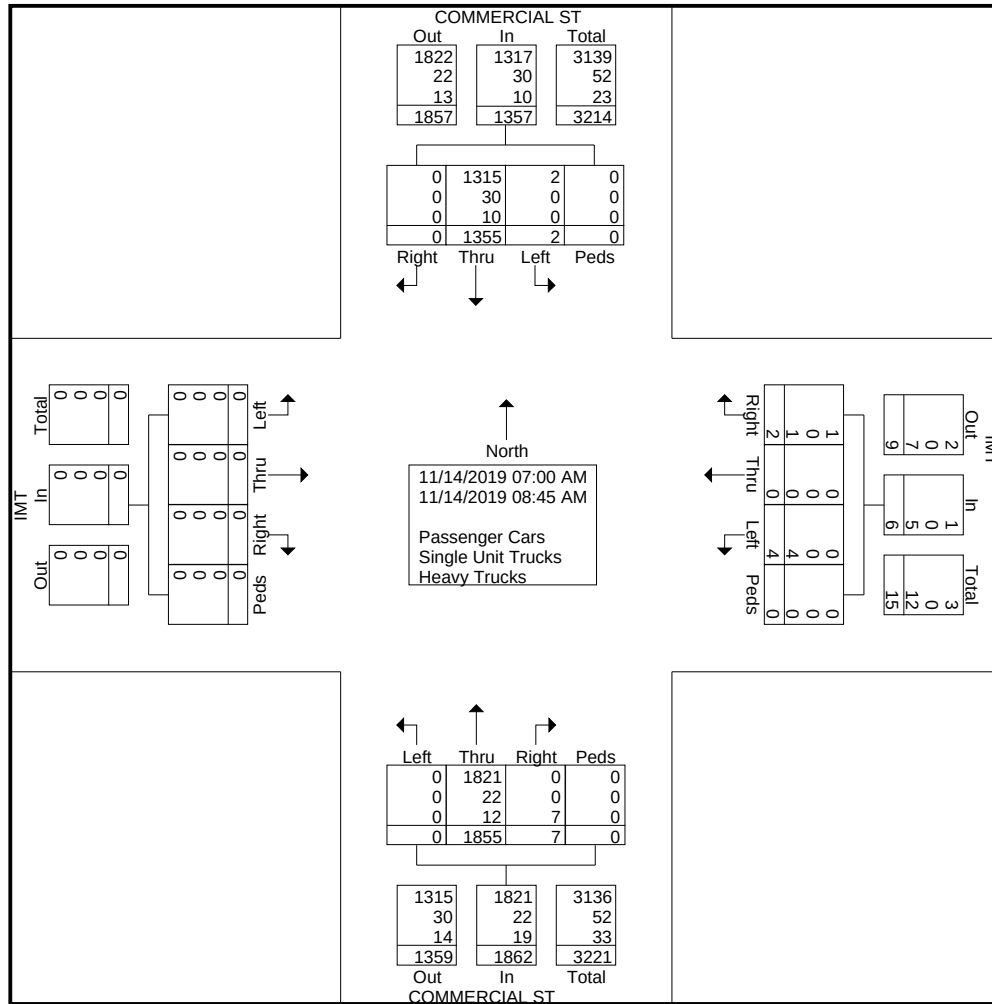
	COMMERCIAL ST From North					IMT From East					COMMERCIAL ST From South					IMT From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	120	0	0	120	0	0	0	0	0	0	160	0	0	160	0	0	0	0	0	280
07:15 AM	0	175	1	0	176	1	0	0	0	1	0	176	0	0	176	0	0	0	0	0	353
07:30 AM	0	193	0	0	193	0	0	0	0	0	0	220	0	0	220	0	0	0	0	0	413
07:45 AM	0	216	0	0	216	0	0	0	0	0	0	252	0	0	252	0	0	0	0	0	468
Total	0	704	1	0	705	1	0	0	0	1	0	808	0	0	808	0	0	0	0	0	1514
08:00 AM	0	155	0	0	155	0	0	1	0	1	1	251	0	0	252	0	0	0	0	0	408
08:15 AM	0	166	0	0	166	0	0	1	0	1	2	310	0	0	312	0	0	0	0	0	479
08:30 AM	0	155	1	0	156	0	0	1	0	1	1	250	0	0	251	0	0	0	0	0	408
08:45 AM	0	175	0	0	175	1	0	1	0	2	3	236	0	0	239	0	0	0	0	0	416
Total	0	651	1	0	652	1	0	4	0	5	7	1047	0	0	1054	0	0	0	0	0	1711
Grand Total	0	1355	2	0	1357	2	0	4	0	6	7	1855	0	0	1862	0	0	0	0	0	3225
Apprch %	0	99.9	0.1	0		33.3	0	66.7	0		0.4	99.6	0	0		0	0	0	0		
Total %	0	42	0.1	0	42.1	0.1	0	0.1	0	0.2	0.2	57.5	0	0	57.7	0	0	0	0	0	
Passenger Cars	0	1315	2	0	1317	1	0	0	0	1	0	1821	0	0	1821	0	0	0	0	0	3139
% Passenger Cars	0	97	100	0	97.1	50	0	0	0	16.7	0	98.2	0	0	97.8	0	0	0	0	0	97.3
Single Unit Trucks	0	30	0	0	30	0	0	0	0	0	0	22	0	0	22	0	0	0	0	0	52
% Single Unit Trucks	0	2.2	0	0	2.2	0	0	0	0	0	0	1.2	0	0	1.2	0	0	0	0	0	1.6
Heavy Trucks	0	10	0	0	10	1	0	4	0	5	7	12	0	0	19	0	0	0	0	0	34
% Heavy Trucks	0	0.7	0	0	0.7	50	0	100	0	83.3	100	0.6	0	0	1	0	0	0	0	0	1.1

Gorrill Palmer

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
Engineering Excellence Since 1988

Location: Portland, ME
 Counter: TPG
 Board: 2
 Weather: Clear

File Name : AM IMT
 Site Code : 003541
 Start Date : 11/14/2019
 Page No : 2



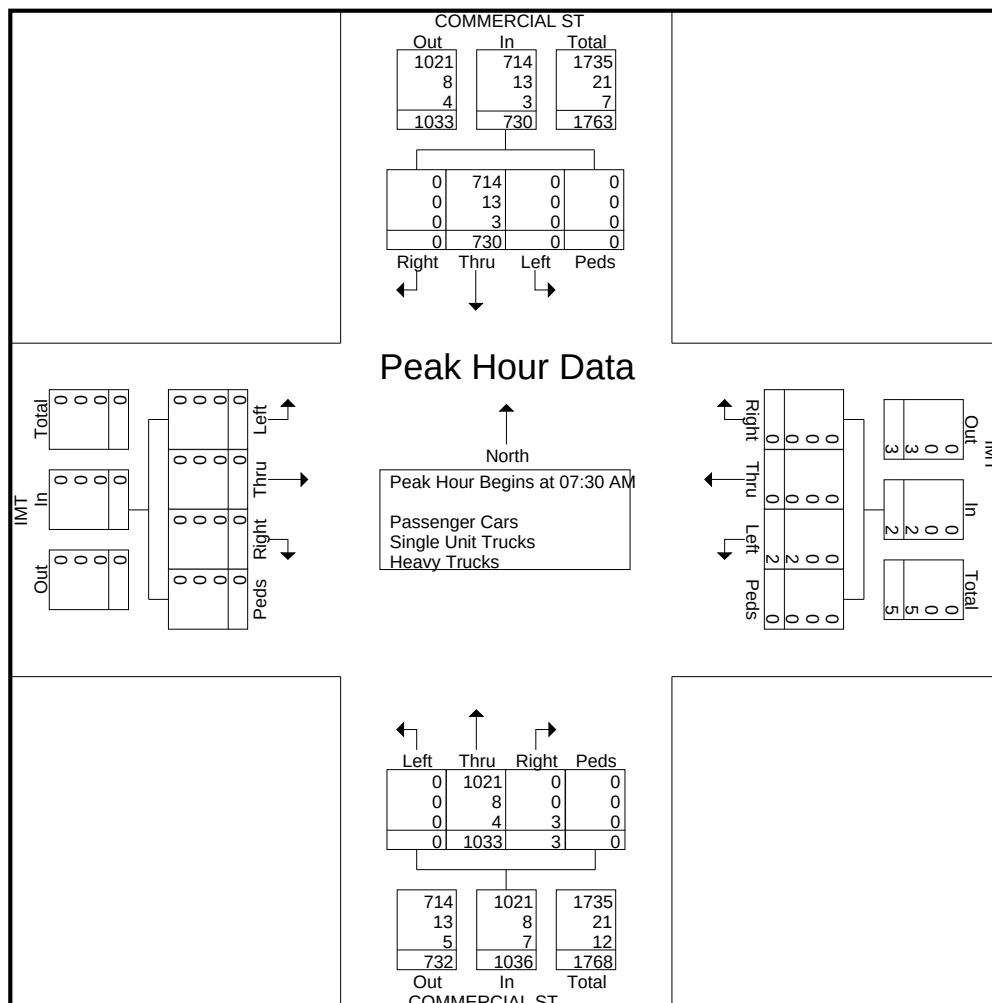
Gorrill Palmer

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
Engineering Excellence Since 1988

Location: Portland, ME
Counter: TPG
Board: 2
Weather: Clear

File Name : AM IMT
Site Code : 003541
Start Date : 11/14/2019
Page No : 3

	COMMERCIAL ST From North					IMT From East					COMMERCIAL ST From South					IMT From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	193	0	0	193	0	0	0	0	0	0	220	0	0	220	0	0	0	0	0	413
07:45 AM	0	216	0	0	216	0	0	0	0	0	0	252	0	0	252	0	0	0	0	0	468
08:00 AM	0	155	0	0	155	0	0	1	0	1	1	251	0	0	252	0	0	0	0	0	408
08:15 AM	0	166	0	0	166	0	0	1	0	1	2	310	0	0	312	0	0	0	0	0	479
Total Volume	0	730	0	0	730	0	0	2	0	2	3	1033	0	0	1036	0	0	0	0	0	1768
% App. Total	0	100	0	0		0	0	100	0		0.3	99.7	0	0		0	0	0	0		
PHF	.000	.845	.000	.000	.845	.000	.000	.500	.000	.500	.375	.833	.000	.000	.830	.000	.000	.000	.000	.000	.923
Passenger Cars	0	714	0	0	714	0	0	0	0	0	0	1021	0	0	1021	0	0	0	0	0	1735
% Passenger Cars	0	97.8	0	0	97.8	0	0	0	0	0	0	98.8	0	0	98.6	0	0	0	0	0	98.1
Single Unit Trucks	0	13	0	0	13	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	21
% Single Unit Trucks	0	1.8	0	0	1.8	0	0	0	0	0	0	0.8	0	0	0.8	0	0	0	0	0	1.2
Heavy Trucks	0	3	0	0	3	0	0	2	0	2	3	4	0	0	7	0	0	0	0	0	12
% Heavy Trucks	0	0.4	0	0	0.4	0	0	100	0	100	100	0.4	0	0	0.7	0	0	0	0	0	0.7



Location: Portland, ME
Counter: TPG
Board: 2
Weather: Clear

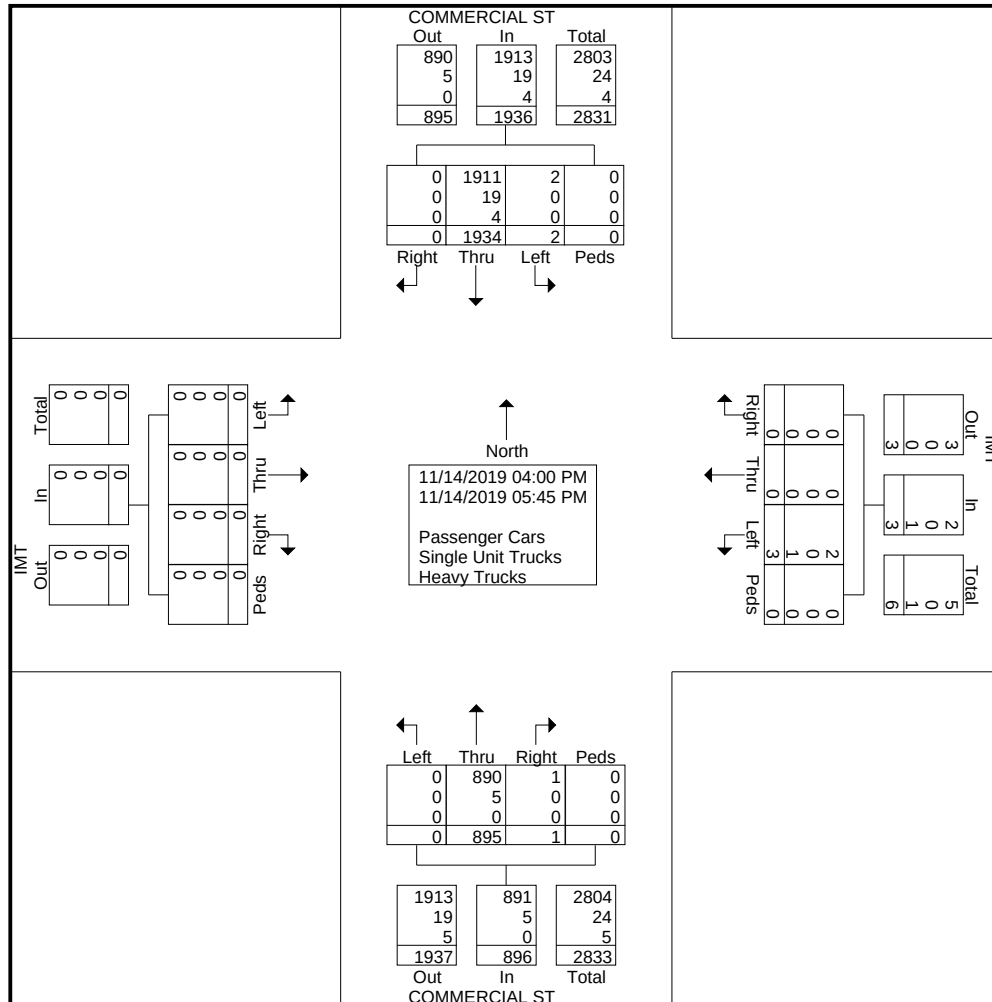
[illegible]

Gorrill Palmer

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
Engineering Excellence Since 1988

Location: Portland, ME
 Counter: TPG
 Board: 2
 Weather: Clear

File Name : PM IMT
 Site Code : 003541
 Start Date : 11/14/2019
 Page No : 2



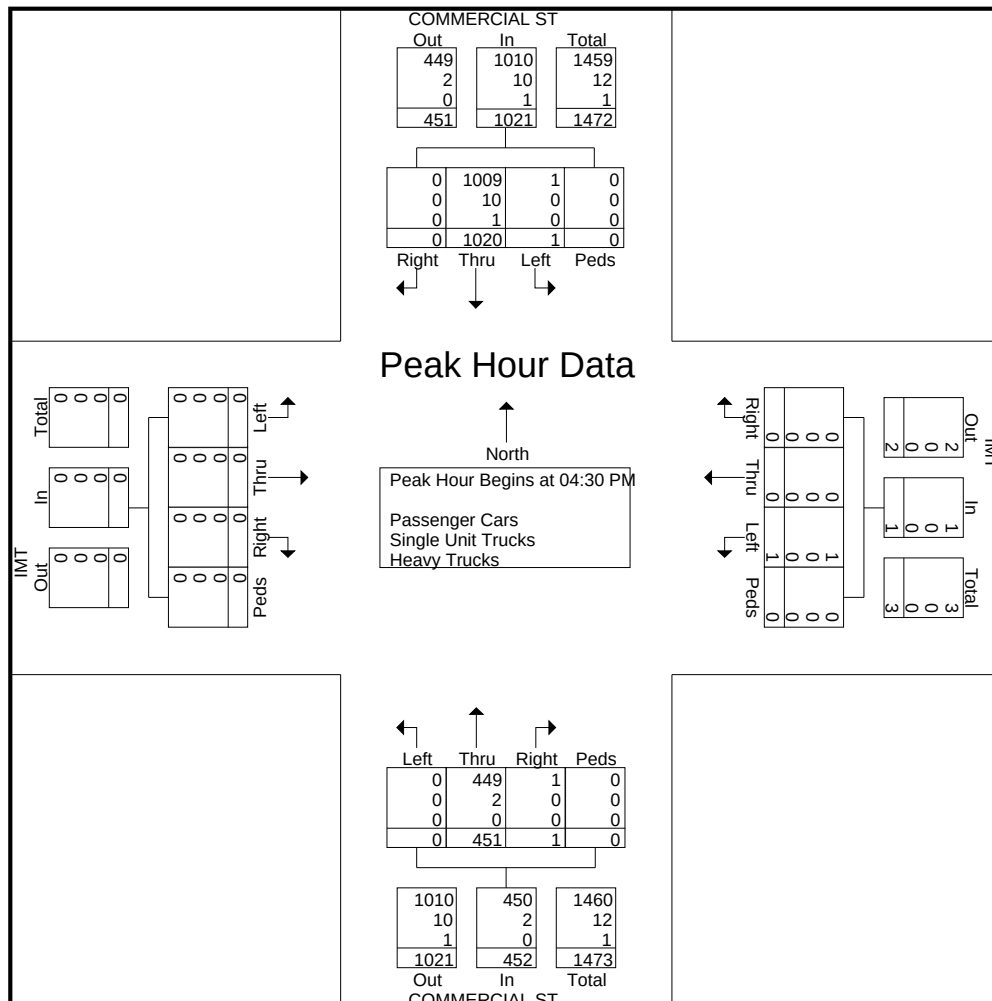
Gorrill Palmer

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
Engineering Excellence Since 1988

Location: Portland, ME
Counter: TPG
Board: 2
Weather: Clear

File Name : PM IMT
Site Code : 003541
Start Date : 11/14/2019
Page No : 3

	COMMERCIAL ST From North					IMT From East					COMMERCIAL ST From South					IMT From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	269	0	0	269	0	0	0	0	0	1	112	0	0	113	0	0	0	0	0	382
04:45 PM	0	269	1	0	270	0	0	1	0	1	0	107	0	0	107	0	0	0	0	0	378
05:00 PM	0	248	0	0	248	0	0	0	0	0	0	98	0	0	98	0	0	0	0	0	346
05:15 PM	0	234	0	0	234	0	0	0	0	0	0	134	0	0	134	0	0	0	0	0	368
Total Volume	0	1020	1	0	1021	0	0	1	0	1	1	451	0	0	452	0	0	0	0	0	1474
% App. Total	0	99.9	0.1	0		0	0	100	0		0.2	99.8	0	0		0	0	0	0		
PHF	.000	.948	.250	.000	.945	.000	.000	.250	.000	.250	.250	.841	.000	.000	.843	.000	.000	.000	.000	.000	.965
Passenger Cars	0	1009	1	0	1010	0	0	1	0	1	1	449	0	0	450	0	0	0	0	0	1461
% Passenger Cars	0	98.9	100	0	98.9	0	0	100	0	100	100	99.6	0	0	99.6	0	0	0	0	0	99.1
Single Unit Trucks	0	10	0	0	10	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	12
% Single Unit Trucks	0	1.0	0	0	1.0	0	0	0	0	0	0	0.4	0	0	0.4	0	0	0	0	0	0.8
Heavy Trucks	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Heavy Trucks	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1



Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 AM
Light Rain
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 AM
Site Code : 00813191
Start Date : 8/13/2019
Page No : 1

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

	W Commerical St From North				Eimskip From East				W Commerical St From South				Beach St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	12	129	0	141	0	0	0	0	0	166	40	206	19	0	0	19	366
07:15 AM	14	142	0	156	1	0	0	1	3	189	66	258	26	0	0	26	441
07:30 AM	17	182	0	199	0	0	0	0	0	230	86	316	21	0	0	21	536
07:45 AM	16	168	2	186	0	0	0	0	1	259	81	341	22	0	0	22	549
Total	59	621	2	682	1	0	0	1	4	844	273	1121	88	0	0	88	1892
08:00 AM	15	154	0	169	2	0	0	2	1	240	85	326	28	0	0	28	525
08:15 AM	14	138	1	153	0	0	0	0	0	268	81	349	18	0	0	18	520
08:30 AM	6	141	0	147	0	0	0	0	0	216	71	287	27	0	0	27	461
08:45 AM	16	114	0	130	1	0	0	1	1	192	86	279	26	0	0	26	436
Total	51	547	1	599	3	0	0	3	2	916	323	1241	99	0	0	99	1942

*** BREAK ***

Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 AM
Light Rain
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 AM
Site Code : 00813191
Start Date : 8/13/2019
Page No : 2

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

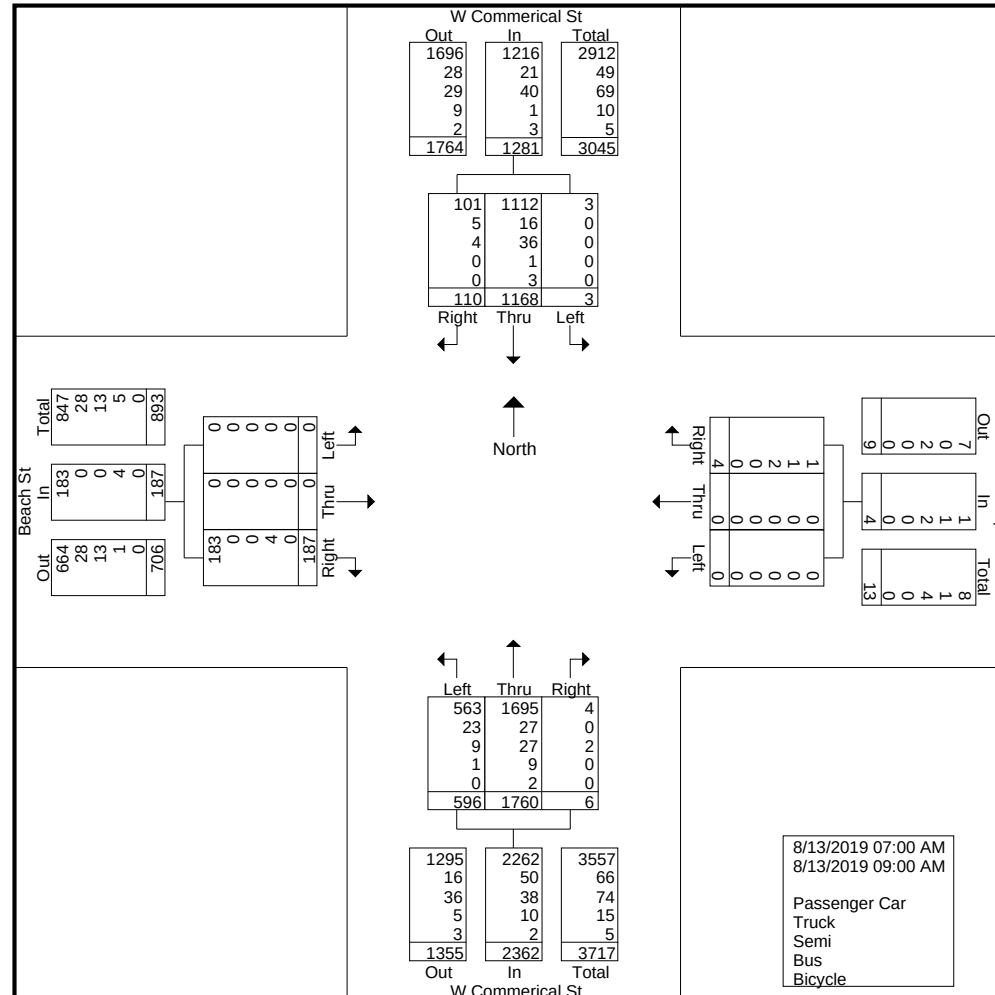
	W Commerical St From North				Eimskip From East				W Commerical St From South				Beach St From West				
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Grand Total	110	1168	3	1281	4	0	0	4	6	1760	596	2362	187	0	0	187	3834
Apprch %	8.6	91.2	0.2		100	0	0		0.3	74.5	25.2		100	0	0		
Total %	2.9	30.5	0.1	33.4	0.1	0	0	0.1	0.2	45.9	15.5	61.6	4.9	0	0	4.9	
Passenger Car	101	1112	3	1216	1	0	0	1	4	1695	563	2262	183	0	0	183	3662
% Passenger Car	91.8	95.2	100	94.9	25	0	0	25	66.7	96.3	94.5	95.8	97.9	0	0	97.9	95.5
Truck	5	16	0	21	1	0	0	1	0	27	23	50	0	0	0	0	72
% Truck	4.5	1.4	0	1.6	25	0	0	25	0	1.5	3.9	2.1	0	0	0	0	1.9
Semi	4	36	0	40	2	0	0	2	2	27	9	38	0	0	0	0	80
% Semi	3.6	3.1	0	3.1	50	0	0	50	33.3	1.5	1.5	1.6	0	0	0	0	2.1
Bus	0	1	0	1	0	0	0	0	0	9	1	10	4	0	0	4	15
% Bus	0	0.1	0	0.1	0	0	0	0	0	0.5	0.2	0.4	2.1	0	0	2.1	0.4
Bicycle	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
% Bicycle	0	0.3	0	0.2	0	0	0	0	0	0.1	0	0.1	0	0	0	0	0.1

Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 AM
Light Rain
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 AM
Site Code : 00813191
Start Date : 8/13/2019
Page No : 3



Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 AM
Light Rain
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 AM
Site Code : 00813191
Start Date : 8/13/2019
Page No : 5

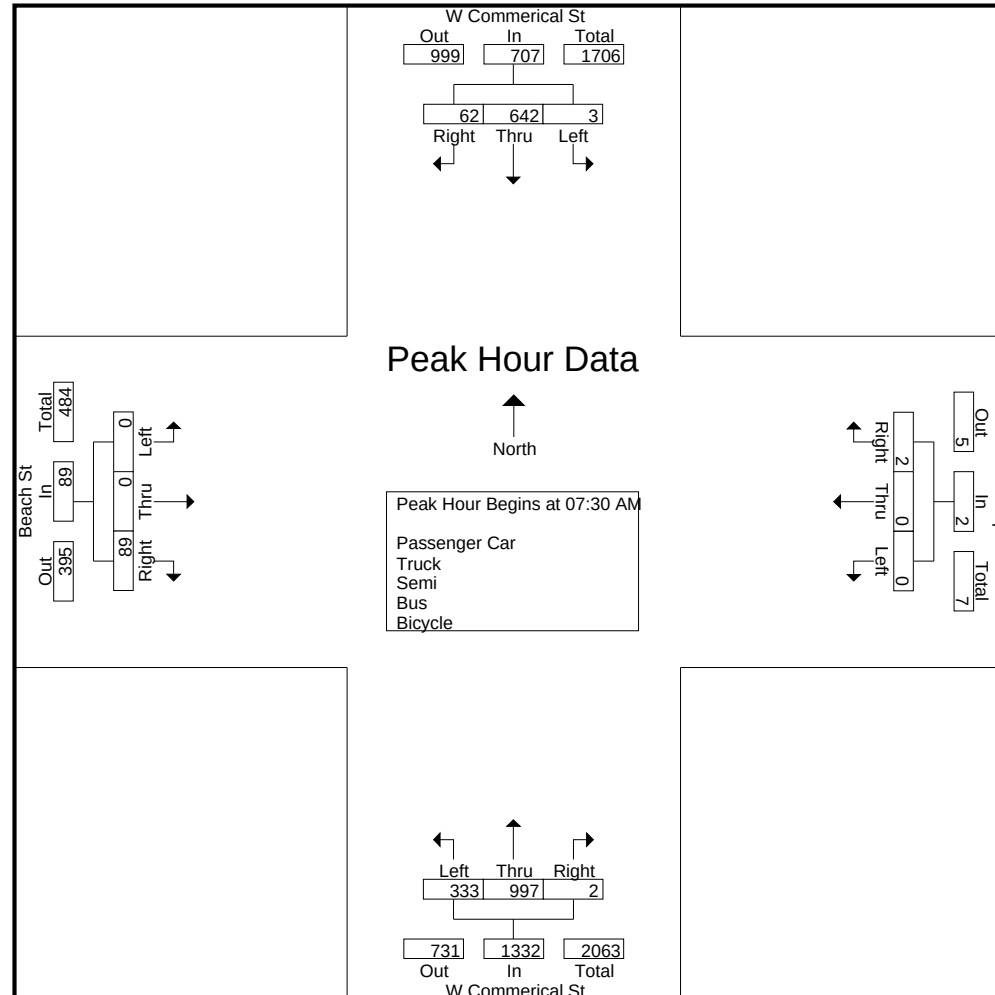
	W Commerical St From North				Eimskip From East				W Commerical St From South				Beach St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	17	182	0	199	0	0	0	0	0	230	86	316	21	0	0	21	536
07:45 AM	16	168	2	186	0	0	0	0	1	259	81	341	22	0	0	22	549
08:00 AM	15	154	0	169	2	0	0	2	1	240	85	326	28	0	0	28	525
08:15 AM	14	138	1	153	0	0	0	0	0	268	81	349	18	0	0	18	520
Total Volume	62	642	3	707	2	0	0	2	2	997	333	1332	89	0	0	89	2130
% App. Total	8.8	90.8	0.4		100	0	0		0.2	74.8	25		100	0	0		
PHF	.912	.882	.375	.888	.250	.000	.000	.250	.500	.930	.968	.954	.795	.000	.000	.795	.970

Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 AM
Light Rain
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 AM
Site Code : 00813191
Start Date : 8/13/2019
Page No : 6



Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 PM
Thunder Showers
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 PM
Site Code : 00813192
Start Date : 8/13/2019
Page No : 1

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

	W Commercial St From North				Eimskip From East				W Commercial St From South				Beach St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
03:00 PM	21	203	0	224	0	1	1	2	0	102	87	189	30	1	0	31	446
03:15 PM	23	208	2	233	2	1	4	7	1	106	92	199	15	0	0	15	454
03:30 PM	20	227	0	247	0	0	2	2	0	120	84	204	25	0	0	25	478
03:45 PM	16	177	1	194	1	1	2	4	3	136	66	205	21	0	1	22	425
Total	80	815	3	898	3	3	9	15	4	464	329	797	91	1	1	93	1803
04:00 PM	24	194	1	219	2	1	5	8	0	102	104	206	36	1	0	37	470
04:15 PM	13	217	0	230	0	0	0	0	0	117	117	234	37	0	0	37	501
04:30 PM	13	226	0	239	0	2	0	2	1	118	110	229	24	0	0	24	494
04:45 PM	19	239	1	259	0	1	1	2	1	156	95	252	28	0	0	28	541
Total	69	876	2	947	2	4	6	12	2	493	426	921	125	1	0	126	2006
05:00 PM	17	222	1	240	1	1	0	2	1	144	140	285	36	0	0	36	563
05:15 PM	19	241	0	260	1	2	0	3	1	175	88	264	39	0	0	39	566
05:30 PM	10	211	0	221	0	0	1	1	0	142	98	240	46	0	0	46	508
05:45 PM	25	232	0	257	0	0	0	0	0	124	85	209	14	0	1	15	481
Total	71	906	1	978	2	3	1	6	2	585	411	998	135	0	1	136	2118

Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 PM
Thunder Showers
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 PM
Site Code : 00813192
Start Date : 8/13/2019
Page No : 2

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

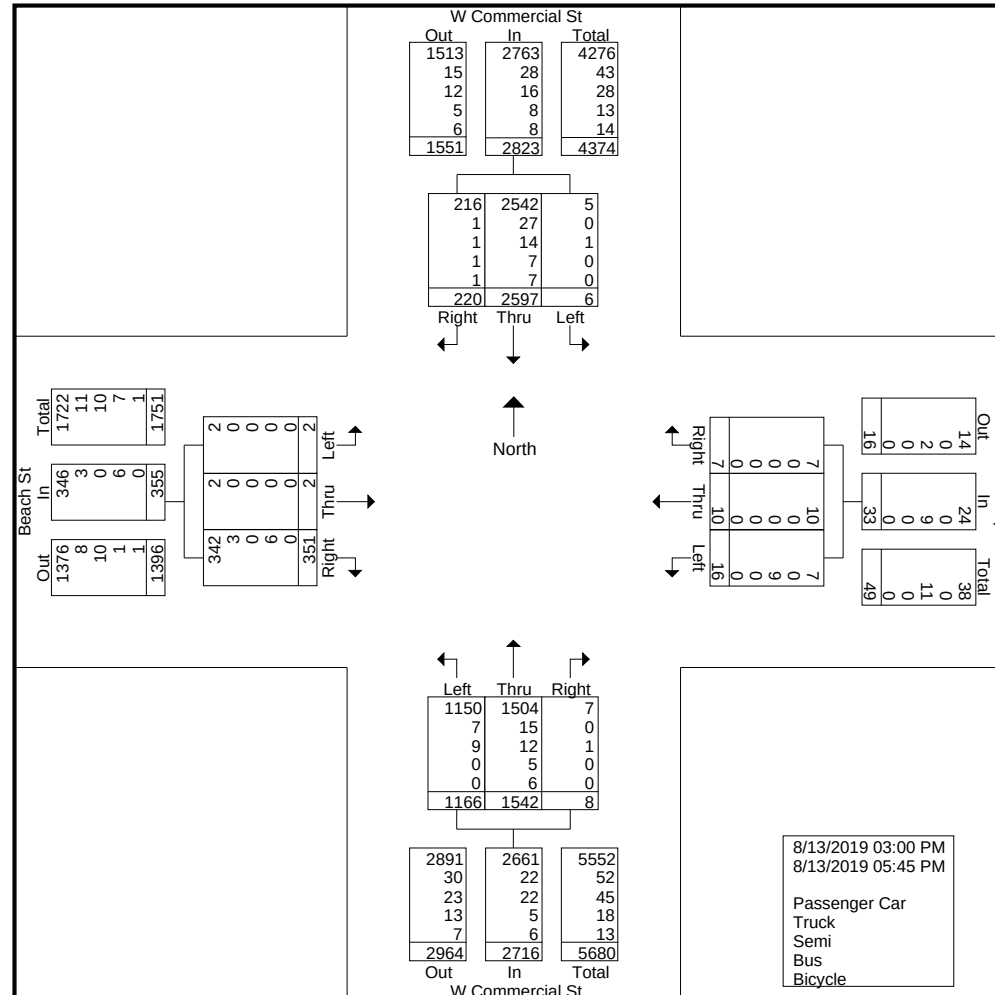
	W Commercial St From North				Eimskip From East				W Commercial St From South				Beach St From West				
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Grand Total	220	2597	6	2823	7	10	16	33	8	1542	1166	2716	351	2	2	355	5927
Apprch %	7.8	92	0.2		21.2	30.3	48.5		0.3	56.8	42.9		98.9	0.6	0.6		
Total %	3.7	43.8	0.1	47.6	0.1	0.2	0.3	0.6	0.1	26	19.7	45.8	5.9	0	0	6	
Passenger Car	216	2542	5	2763	7	10	7	24	7	1504	1150	2661	342	2	2	346	5794
% Passenger Car	98.2	97.9	83.3	97.9	100	100	43.8	72.7	87.5	97.5	98.6	98	97.4	100	100	97.5	97.8
Truck	1	27	0	28	0	0	0	0	0	15	7	22	3	0	0	3	53
% Truck	0.5	1	0	1	0	0	0	0	0	1	0.6	0.8	0.9	0	0	0.8	0.9
Semi	1	14	1	16	0	0	9	9	1	12	9	22	0	0	0	0	47
% Semi	0.5	0.5	16.7	0.6	0	0	56.2	27.3	12.5	0.8	0.8	0.8	0	0	0	0	0.8
Bus	1	7	0	8	0	0	0	0	0	5	0	5	6	0	0	6	19
% Bus	0.5	0.3	0	0.3	0	0	0	0	0	0.3	0	0.2	1.7	0	0	1.7	0.3
Bicycle	1	7	0	8	0	0	0	0	0	6	0	6	0	0	0	0	14
% Bicycle	0.5	0.3	0	0.3	0	0	0	0	0	0.4	0	0.2	0	0	0	0	0.2

Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 PM
Thunder Showers
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 PM
Site Code : 00813192
Start Date : 8/13/2019
Page No : 3



Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 PM
Thunder Showers
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 PM
Site Code : 00813192
Start Date : 8/13/2019
Page No : 5

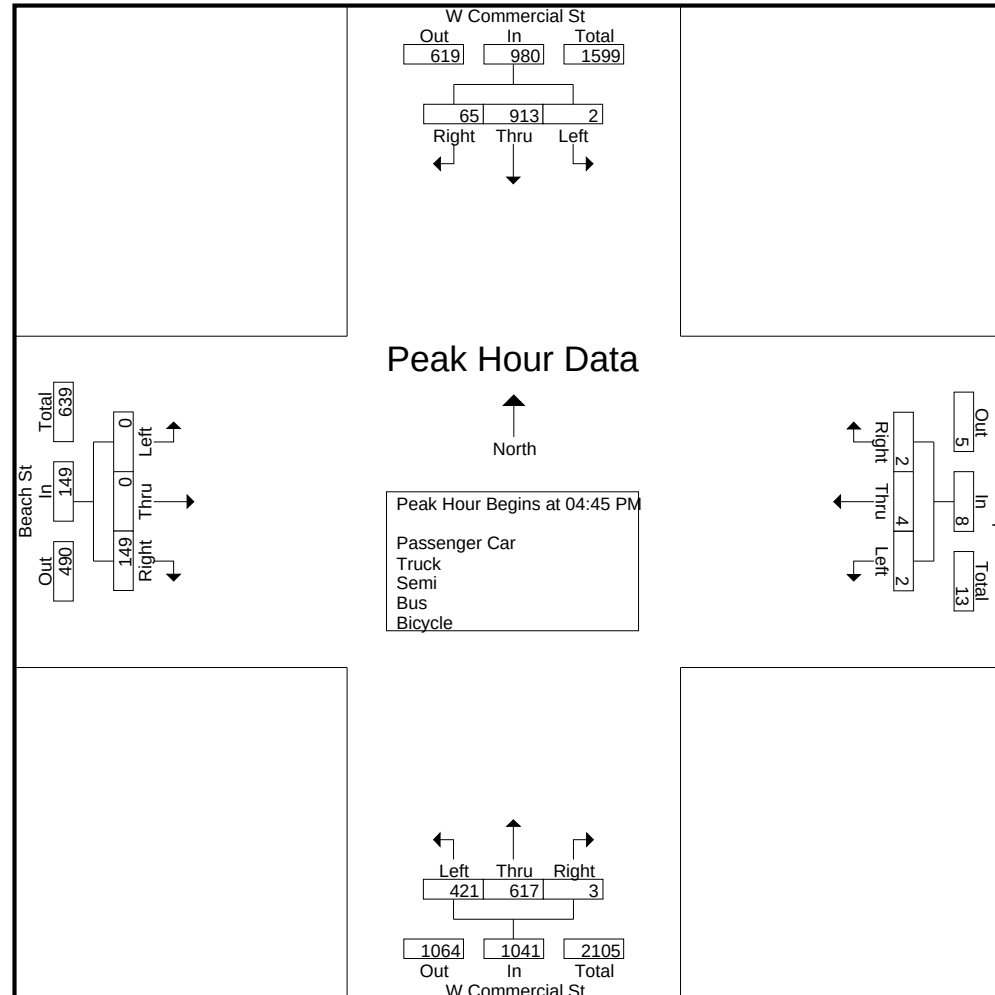
	W Commercial St From North				Eimskip From East				W Commercial St From South				Beach St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	19	239	1	259	0	1	1	2	1	156	95	252	28	0	0	28	541
05:00 PM	17	222	1	240	1	1	0	2	1	144	140	285	36	0	0	36	563
05:15 PM	19	241	0	260	1	2	0	3	1	175	88	264	39	0	0	39	566
05:30 PM	10	211	0	221	0	0	1	1	0	142	98	240	46	0	0	46	508
Total Volume	65	913	2	980	2	4	2	8	3	617	421	1041	149	0	0	149	2178
% App. Total	6.6	93.2	0.2		25	50	25		0.3	59.3	40.4		100	0	0		
PHF	.855	.947	.500	.942	.500	.500	.500	.667	.750	.881	.752	.913	.810	.000	.000	.810	.962

Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 PM
Thunder Showers
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 PM
Site Code : 00813192
Start Date : 8/13/2019
Page No : 6



July 7, 2020

Mr. Christian Roadman
Planner
Planning & Urban Development Department
389 Congress Street
Portland, Maine 04101

RE: TRIP GENERATION ANALYSIS – COLD STORAGE FACILITY

Additional information was requested by the City of Portland in our meeting on June 11th regarding the trip generation analysis performed for the proposed Maine International Cold Storage Facility and the existing International Marine Terminal (IMT). This analysis was summarized in a technical memorandum prepared by Sewall and dated May 28, 2020. In this memorandum conservative trip generation analysis for the combined IMT and Maine International Cold Storage facility was provided, as requested by the City. The AM peak hour was approaching but did not exceed the 100 passenger car equivalent (PCE) threshold where a Traffic Movement Permit (TMP) would be required.

The City, based upon comments at the June 11th meeting, was interested in evaluating whether the traffic counts conducted in August and November of 2019 (which formed the bases of the analysis) would be considered typical of average conditions at the adjacent IMT container terminal. Additionally, the City was interested to know if the IMT container terminal was operating at projected full build out volumes in 2019 and what growth in their container volume and resulting traffic numbers could be anticipated in the near future.

Traffic counts used for previous trip generation analysis were performed on August 13th and November 14th, 2019. The project team requested shipping data from the IMT for 2019 and for these specific months. There were 4 ships in August and 4 ships in November. There were a total of 52 ships in 2019, or an average of 4.3 ships per month. Hence, the number of ships (and associated container volume and traffic) for the months the traffic counts were conducted were representative of average conditions.

In terms of containers, there were 15,406 total containers in 2019. In August there were 1,064 while in November there were 1,108. These monthly shipments would also be considered representative of average conditions. Information regarding dates that ships were in port in August and November

was also requested from the facility. The facility responded that “Our vessel dates don't really have an impact on the traffic data. Our gate for vehicle traffic is open from 8-4 Monday thru Friday and we rarely open the gate if working the vessel outside of that, aside from one or two late containers.” Therefore, traffic at the IMT is not directly related to a ship being present at the terminal and the dates of the traffic counts used in the analysis are considered representative.

Lastly, information was requested by the City regarding current operations in regard to build out of the facility. The facility is fully operational and all infrastructure associated with the previous 2014 port expansion has been completed. The facility, like any successful business, has been experiencing annual business growth. Total containers for recent years are as follows:

2018: 14,008 containers

2019: 15,838 containers

2020 (1/2 year): 7,666 containers

The growth in overall containers was 13 % from 2018 to 2019. Year to date containers are down 14 % from last year. Hence, the counts conducted in August and November of 2019 would be considered average and typical of current 2020 conditions and full operations.

Information was also provided by the Port regarding the potential for growth of traffic volumes due to container volume growth, which is documented in the attached letter. To summarize, the port has averaged 65 round-trip trucks per day (260 PCEs). The port projects that 18 truck trips will be eliminated by the addition of the cold storage facility. Additionally, they project 4 other daily trucks will be eliminated due to the new heavy haul road. This will reduce trucking at the Port from 65 per day to 43. Given this, even with some annual growth in truck trips, anticipated to be 5 % based upon global shipping growth estimates, the Port trucks will decline significantly from current conditions with the addition of the haul road and cold storage facility.

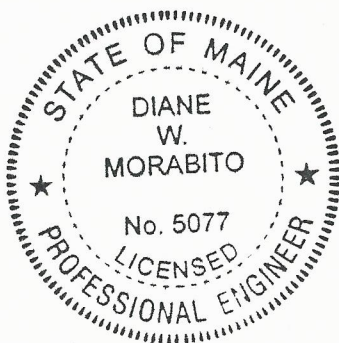
In addition it is also important to again note the May 28th trip generation analysis was expected to be conservative given the following assumptions:

- Both the IMT and Cold Storage facilities will peak during the exact same hours of the day
- Both the employee trips and truck trips for the cold storage facility will peak during the exact same hours
- The analysis allowed for peaking in truck traffic when the cold storage trips will be scheduled and more steady state

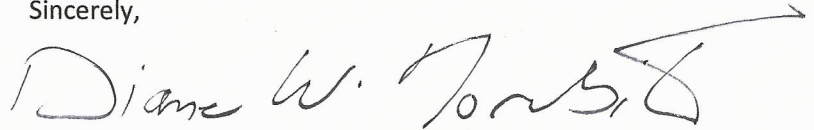
Given all of these considerations and the additional information provided by the port, it is my professional opinion that TMP will not be required for the proposed Cold Storage facility since PCEs will remain under 100 with the decline in IMT trucks.

Lastly, to give the City some assurance that a TMP will not be required it is recommended that a monitoring condition be applied to the cold storage approval. This monitoring could require actual traffic counts at the IMT and cold storage facility after full operations to determine the actual PCEs during peak hours. If the 100-trip threshold was close to being crossed, or was crossed, which is not anticipated based upon all of the preceding and attached information, the cold storage facility could restrict their truck operations in determined high hours to assure PCEs remain under 100 since all of their truck trips are scheduled visits.

As always, please do not hesitate to contact me if you have any questions regarding this additional information.



Sincerely,



A handwritten signature in black ink, appearing to read "Diane W. Morabito", with a long horizontal flourish extending to the right.

Diane W. Morabito, P.E. PTOE
Vice President Traffic Engineering



International Marine Terminal (IMT) Traffic Volumes

SUMMARY

The MPA analyzed the potential for growth of traffic volumes from the IMT in relation to anticipated growth of container volume at the facility.

We find that the current traffic movement onto Commercial Street from the facility is projected to likely decrease in the coming years, not increase. With the facility being fully built out, minimal employment growth is anticipated. However, anticipating some increase to employment to cover the average growth in container volumes discussed in more detail later in the memo, the projected decrease in truck trips at the IMT will allow the overall traffic movement from the IMT to remain stagnant for at least five years or more.

BACKGROUND

Below please find charts illustrating the last 5 years of:

- Actual truck trips per quarter; and
- Actual average of daily truck moves per quarter

Shipping container volume growth at the IMT has increased into the terminal at a greater rate than these truck volumes demonstrate. This is due to previous truck moves increasingly being handled by Eimskip vessels rather than over the road into Maine.

The Maine Port Authority is constantly looking at infrastructure investments to take trucks off the road so as volumes of maritime traffic increase, the terminal can handle growth without the inefficiency of trucking traffic and congestion. This has been demonstrated by the millions of state and federal dollars invested into the facility including the construction of the rail siding, the current development of an on-site maritime cold storage facility, and the future plans to construct a heavy haul road between the IMT and Merrill's Marine Terminal (see below).

The MPA recognizes and prioritizes the reduction of over the road truck traffic not only to reduce congestion, but also to mitigate the environmental impact of truck emissions.

- **ANALYSIS** "Truck Trips" consist of inbound and outbound truck moves, empty or full - that is to say the entirety of truck traffic at the IMT going out over the road. Currently the IMT averages 65 truck trips a



day at the terminal., After completion of the new cold storage facility, we project 18 truck trips a day will be held off the road and diverted directly to the cold storage warehouse. These numbers are actual and current through 2020.

- We project another 4 truck trips per day will be held off the road once the new heavy haul road presently under Phase 1 Site plan application with the City of Portland is completed. These truck trips are of loads going between Merrill's Marine Terminal and the IMT. The heavy haul road, rail siding for future growth and cold storage facility all represent added value logistical assets of the Maine Port Authority and are intended to increase capacity while lowering over the road truck movement and gate waits.
- As the growth continues at the IMT, we project the heavy haul road to Merrill's Marine Terminal will experience an even greater portion of daily truck trips. If the growth at the terminal ever gets to the point of exceeding efficient truck traffic levels and planned and permitted for, then the rail infrastructure at the facility is already invested in and fully functional, allowing for the possibility of unit trains to inland port facilities and other destinations.

FINDINGS

With the heavy haul road and cold storage in place, we project the **new daily truck trip average leaving the IMT will decrease from an average of 65 to 43 truck trips per day.**

Additionally, according to the [World Bank Container Port Traffic, container volumes](#) have increased roughly 5%-6% year over year consistently in the last decade. Exceptions to this include the "Great Recession" and similar anomalies like that which COVID is presently producing. The MPA can safely assume that our IMT growth will align with global trends and increase at this rate as well.

The MPA projects the overall traffic movement at the IMT facility will remain at or below current levels over the next five years due to: 1) the modest growth in container volumes; 2) the decrease in truck traffic due to the development of cold storage and the heavy haul road; and 3) minimal changes to the volume of employee trips to and from the IMT facility (the MPA does not see employee growth beyond 2 full time equivalents in the next 5 years).

460 Commercial Street

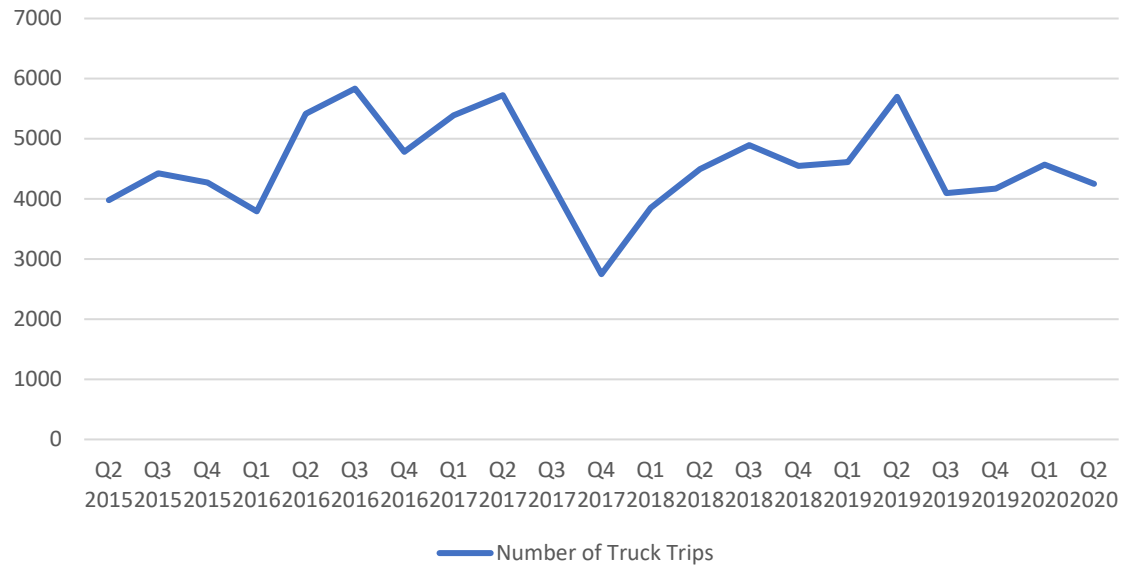
Portland, ME 04101

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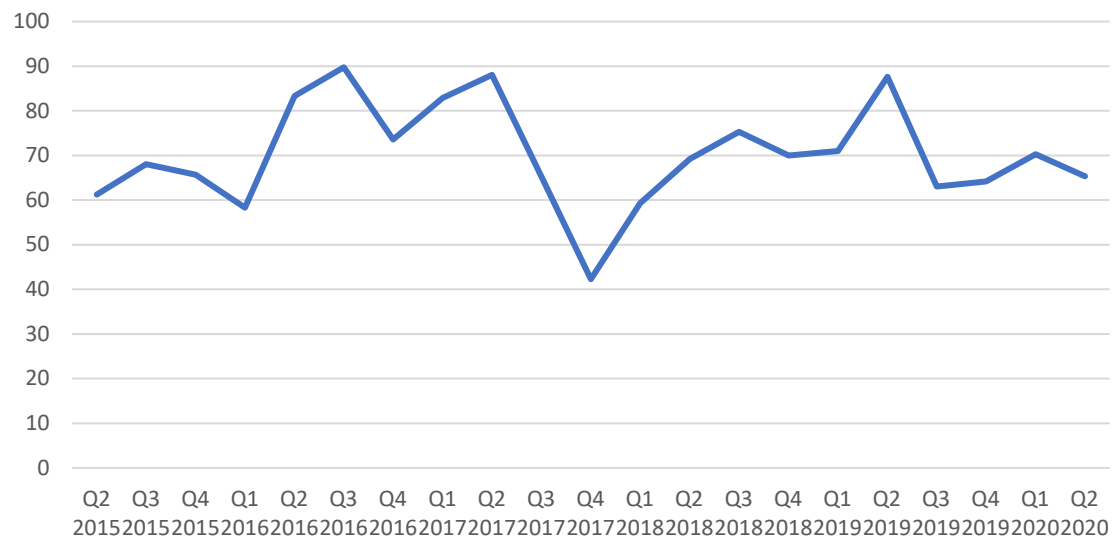
www.maineports.com



Quarterly Number of Truck Trips



Average daily truck trips



FLOOD HAZARD DEVELOPMENT PERMIT

For Minor Development

Portland, **Maine**
(For Development not considered a Substantial Improvement)

This Flood Hazard Development Permit allows minor development as provided in Article V.F.3. of the Floodplain Management Ordinance of Portland, Maine, for development in a Special Flood Hazard Area as defined in said ordinance. Development authorized by this permit must be adequately anchored to prevent flotation, collapse, or lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. be constructed with materials resistant to flood damage and be constructed by methods and practices that minimize flood damage. This permit is issued based on documentation that the information provided in the Flood Hazard Development Permit Application is in compliance with the Floodplain Management Ordinance.

Tax Map: 59 Lot #: Block A, Lots 1,2,5-11

Project Description: Construction of a fire access drive and new stormwater outfall associated with upland development

The permittee understands and agrees that:

- The permit is issued on the representations made herein and on the application for permit;
- The permit may be revoked because of any breach of representation;
- Once a permit is revoked all work shall cease until the permit is reissued or a new permit is issued;
- The permit will not grant any right or privilege to erect any structure or use any premises described for any purposes or in any manner prohibited by the ordinances, codes, or regulations of the municipality;
- The permittee hereby gives consent to the Code Enforcement Officer to enter and inspect activity covered under the provisions of the Floodplain Management Ordinance;
- The permit form will be posted in a conspicuous place on the premises in plain view; and,
- The permit will expire if no work is commenced within 180 days of issuance.

I hereby certify that all the statements in, and in the attachments to this permit are a true description of the existing property and the proposed development project.

Owner: _____ Date: _____

Signature

or

Authorized Agent:  Date: 5/18/2020

Signature

Issued by: _____ Date: _____

Permit #: _____

February 28, 2020

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

Re: Maine International Cold Storage Facility – Authorization for Permitting

To Whom it May Concern:

On behalf of Maine International Cold Storage Facility, LLC, Woodard & Curran is authorized to apply for Planning Board approval for the proposed Maine International Cold Storage Facility to be located at approximately 40 West Commercial Street in Portland. Furthermore, Woodard & Curran is authorized to act on behalf of Maine International Cold Storage Facility, LLC throughout the permitting process.

Should you have any further questions, please do not hesitate to contact me at Tom.Oshaughnessy@amberinfrastructure.com

Regards,



Tom O'Shaughnessy, President Maine International Cold Storage Facility, LLC

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

WOODARD CURRAN

COMMITMENT & INTEGRITY DRIVE RESULTS

MAINE PORT AUTHORITY
STAIRS
No. 15118
Professional Seal

REV	DATE	DESCRIPTION	CHECKED BY	DATE
1	5-15-2020	ISSUANCE TO CITY COMMENTS		
2	5-15-2020	ISSUANCE TO CITY COMMENTS		
3	5-15-2020	ISSUANCE TO CITY COMMENTS		
4	5-15-2020	ISSUANCE TO CITY COMMENTS		
5	5-15-2020	ISSUANCE TO CITY COMMENTS		
6	5-15-2020	ISSUANCE TO CITY COMMENTS		
7	5-15-2020	ISSUANCE TO CITY COMMENTS		
8	5-15-2020	ISSUANCE TO CITY COMMENTS		
9	5-15-2020	ISSUANCE TO CITY COMMENTS		
10	5-15-2020	ISSUANCE TO CITY COMMENTS		

SITE PLAN

MAINE PORT AUTHORITY
PORTLAND, MAINE

MAINE PORT AUTHORITY
COLD STORAGE FACILITY

LOG NO: 0232277.00
DATE: MAY 2020
SCALE: AS NOTED
SHEET: 4 OF XX

C-100



BUILDING LAYOUT TABLE

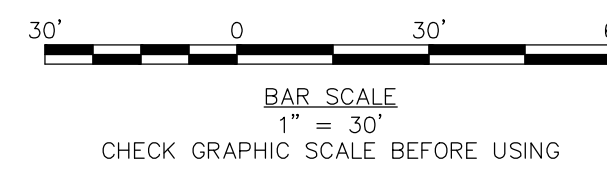
Point #	Northing	Eastings
1	295867.59	2927302.56
2	295598.18	2927396.04
3	295716.89	2927738.20
4	295918.16	2927668.36
5	295931.97	2927708.02
6	295990.23	2927687.81
7	295977.23	2927650.34
8	295992.66	2927644.98
9	295911.91	2927412.25
10	295906.32	2927414.19

CENTERLINE ALIGNMENT LINE DATA

Line #	Length	Direction	Start Point	End Point	Start Sta.	End Sta.
L1	91.76	S28°48'01"E	N:295,711.29 E:2,927,292.48	N:295,630.88 E:2,927,336.69	0+00.00	0+91.76
L2	314.88	N70°51'53"E	N:295,555.41 E:2,927,532.96	N:295,656.63 E:2,927,830.44	3+20.31	6+35.19

CENTERLINE ALIGNMENT CURVE DATA

Curve	Length	Radius	Tangent	Delta	PC Sta.	PT Sta.
C1	228.54	163.00	137.59	80°20'06"	0+91.76	3+20.31
C2	39.88	42.00	21.59	54°24'00"	6+35.19	6+75.07
C3	401.62	770.00	205.49	28°53'04"	6+75.07	10+76.69



RESPONSE TO CITY COMMENTS - NOT FOR CONSTRUCTION



Maine International Cold Storage Facility
Statement of Compliance with City of Portland Flood Plain Management Regulations

The proposed work is located on waterfront associated with the proposed Maine International Cold Storage Facility located at 40 West Commercial Street in Portland, Maine. The building included in the proposed development will be located outside of the shoreland zone. A portion of the building will be located within the Flood Zone AE. The work within the shoreland zone consists of site work, including the construction of a subsurface stormwater management system and a new 36" stormwater outfall, a fire access road and electrical infrastructure for lighting. The project will comply with the standards provided in Section 14-450.8 of the City's Land Use Code; these standards are provided below in italics for your reference, followed by a description of how the proposed project will comply:

(a) All development: All development shall:

- 1. Be designed or modified and adequately anchored to prevent flotation (excluding piers and docks), collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;*

All improvements are designed to prevent flotation, collapse or lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

- 2. Use construction materials that are resistant to flood damage;*

Construction materials that are resistant to flood damage have been specified.

- 3. Use construction methods and practices that will minimize flood damage; and*

Construction methods and practices that will minimize flood damage will be utilized.

- 4. Use electrical, heating, ventilation, plumbing, and air conditioning equipment, and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during flooding conditions.*

Services for electrical, heating, ventilation, plumbing, and air conditioning equipment, and other service facilities associated with the upland development have been located outside of the floodplain to the greatest extent possible. Underground electrical services associated with lighting infrastructure within the shoreland zone will be designed to prevent water from entering or accumulating within the components during flooding conditions.

(b) Water supply: All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems.

Water services are not proposed in the Shoreland Zone; this Standard does not apply.

(c) Sanitary sewage systems: All new and replacement sanitary sewage systems shall be designed and located to minimize or eliminate infiltration of flood waters into the system and discharges from the system into flood waters.

The proposed work does not include new or replacement sanitary sewage systems in the Shoreland Zone; this Standard does not apply.



- (d) *On-site waste disposal systems: On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during floods.*

The proposed work does not include on-site waste disposal systems; this Standard does not apply.

- (e) *Watercourse carrying capacity: All development associated with altered or relocated portions of a watercourse shall be constructed and maintained in such a manner that no reduction occurs in the flood carrying capacity of the watercourse.*

The proposed work does not include any watercourse alterations that will result in a reduction of flood carrying capacity of the watercourse.

- (f) *Residential: New construction or substantial improvement of any residential structure located within:*
1. *Zones A1-30, AE, and AH shall have the lowest floor (including basement) elevated to at least two (2) feet above the base flood elevation.*
 2. *Zones AO and AH shall have adequate drainage paths around structures on slopes, to guide flood water away from the proposed structures.*
 3. *Zone AO shall have the lowest floor (including basement) elevated above the highest adjacent grade:*
 - a. *At least two (2) feet higher than the depth specified in feet on the community's Flood Insurance Rate Map; or*
 - b. *At least three (3) feet if no depth number is specified.*
 4. *Zone A shall have the lowest floor (including basement) elevated to at least two (2) feet above the base flood elevation utilizing information obtained pursuant to section 14-450.6(b)4.a.ii.; section 14-450.7(b)4; or section 14-450.7(c)1.*
 5. *Zones V1-30 and VE shall meet the requirements of section 14-450.8(p).*

The proposed work does not include residential structures; this Standard does not apply.

- (g) *Nonresidential: New construction or substantial improvement of any nonresidential structure located within:*
1. *Zones A1-30, AE, and AH shall have the lowest floor (including basement) elevated to at least two (2) feet above the base flood elevation, or together with attendant utility and sanitary facilities shall:*
 - a. *Be floodproofed to at least two (2) feet above the base flood elevation so that below that elevation the structure is watertight with walls substantially impermeable to the passage of water;*
 - b. *Have structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy; and*
 - c. *Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this section. Such certification shall be provided with the application for a flood hazard development permit, as required by section 14-450.6(b)4d and shall include a record of the elevation above mean sea level to which the structure is floodproofed.*
 2. *Zones AO and AH shall have adequate drainage paths around structures on slopes, to guide flood water away from the proposed structures.*



3. Zone AO shall have the lowest floor (including basement) elevated above the highest adjacent grade:
 - a. At least two (2) feet higher than the depth specified in feet on the community's Flood Insurance Rate Map; or
 - b. At least three (3) feet if no depth number is specified; or
 - c. Together with attendant utility and sanitary facilities be floodproofed to meet the elevation requirements of this section and floodproofing standards of section 14-450.8(g).
4. Zone A shall have the lowest floor (including basement) elevated to at least two (2) feet above the base flood elevation utilizing information obtained pursuant to section 14-450.6(b)4.a.ii.; section 14-450.7(b)4; section 14-450.7(c)1; or
5. Zones V1-30 and VE shall meet the requirements of section 14-450.8(p).

A portion of the proposed development is located within Flood Zone AE and FEMA Special Flood Hazard Zone A2 with a 100-year flood elevation of 10. The project will comply with the applicable requirements. A portion of the building will be located within Zone AE. The lowest floor elevation of the proposed building (14 feet) is located more than two feet above the 100-year flood elevation (10 feet). The ground surface elevation along the southern edge of the building will be raised above elevation 11 for flood protection. Design plans will be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice.

(h) Manufactured homes: New or substantially improved manufactured homes located within:

1. Zones A1-30, AE, and AH shall:
 - a. Be elevated on a permanent foundation such that the lowest floor is at least two (2) feet above the base flood elevation; and
 - b. Be securely anchored to an adequately anchored foundation system to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to:
 - i. Over-the-top ties anchored to the ground at the four (4) corners of the manufactured home, plus two (2) additional ties per side at intermediate points (manufactured homes less than fifty (50) feet long require one (1) additional tie per side); or by
 - ii. Frame ties at each corner of the home, plus five (5) additional ties along each side at intermediate points (manufactured homes less than fifty (50) feet long require four (4) additional ties per side).
 - iii. All components of the anchoring system described in section 14-450.8(h)1.b.i. and ii. Shall be capable of carrying a force of four thousand eight hundred (4,800) pounds.
2. Zones AO and AH shall have adequate drainage paths around structures on slopes, to guide flood water away from the proposed structures.
3. Zone AO shall have the lowest floor (including basement) elevated above the highest adjacent grade:
 - a. At least two (2) feet higher than the depth specified in feet on the community's Flood Insurance Rate Map; or
 - b. At least three (3) feet if no depth number is specified; and
 - c. Meet the requirements of section 14-450.8(h)1.b.
4. Zone A shall:
 - a. Be elevated on a permanent foundation such that the lowest floor is at least two (2) feet above the base flood elevation utilizing information obtained



*pursuant to section 14-450.6(b)4.a.ii; section 14-450.7(b)4; section 14-450.7(c)1; and
b. Meet the requirements of section 14-450.7(2)b. 5. Zones V1-30 and VE shall meet the requirements of article VI.P.*

The proposed work does not include new or improved manufactured homes; this Standard does not apply.

- (i) *Recreational vehicles: Recreational vehicles located within:*
1. *Zones A1-30, AH and AE shall either:*
 - a. *Be on the site for fewer than one hundred eighty (180) consecutive days;*
 - b. *Be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only be quick disconnect type utilities and security devices, and has no permanently attached additions; or*
 - c. *Be permitted in accordance with the elevation and anchoring requirements for "manufactured homes" in section 14-450.8(h)1a and b.*
 2. *Zones V1-30 and VE shall meet the requirements of either section 14-450.8(i)1.a. or b. or section 14-450.8(p).*

The proposed work does not include recreational vehicles; this Standard does not apply.

- (j) *Accessory structures: Accessory structures located within Zones A1-30, AE, AO, AH and A, shall be exempt from the elevation criteria required in section 14-450.8(f) and (g) above, if all other requirements of section 14-450.8 and all the following requirements are met. Accessory structures shall:*
1. *Be five hundred (500) square feet or less and have a value less than three thousand dollars (\$3,000.00);*
 2. *Have unfinished interiors and not be used for human habitation;*
 3. *Have hydraulic openings, as specified in section 14-450.8(l), in at least two (2) different walls of the accessory structure;*
 4. *Be located outside the floodway;*
 5. *When possible be constructed and placed on the building site so as to offer the minimum resistance to the flow of flood waters and be placed further from the source of flooding than is the primary structure; and*
 6. *Have only ground fault interrupt electrical outlets. The electric service disconnect shall be located above the base flood elevation and when possible outside the special flood hazard area.*

The proposed work does not include accessory structures; this Standard does not apply.

- (k) *Floodways:*
1. *In Zones A1-30 and AE, encroachments, including fill, new construction, substantial improvement, and other development shall not be permitted in ravine areas, for which a regulatory floodway is designated on the community's Flood Insurance Rate Map or Flood Boundary and Floodway Map, unless a technical evaluation certified by a registered professional engineer is provided demonstrating that such encroachments will not result in any increase in flood levels within the community during the occurrence of the base flood discharge.*



2. *In Zones A1-30 and AE riverine areas, for which no regulatory floodway is designated, encroachments, including fill, new construction, substantial improvement, and other development shall not be permitted in the floodway as determined in section 14-450.8(11)3. unless a technical evaluation certified by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing development and anticipated development:*
 - a. *Will not increase the water surface elevation of the base flood more than one (1) foot at any point within the community; and*
 - b. *Is consistent with the technical criteria contained in chapter 5 entitled "Hydraulic Analyses," Flood Insurance Study — Guidelines and Specifications for Study Contractors, (FEMA 37/January 1995, as amended).*
3. *In Zones A1-30, AE, and A riverine areas for which no regulatory floodway is designated, the regulatory floodway is determined to be the channel of the river or other watercourse and the adjacent land areas to a distance of one-half (1/2) the width of the flood plain as measured from the normal high water mark to the upland limit of the flood plain. Encroachments, including fill, new construction, substantial improvement, and other development shall not be permitted unless a technical evaluation certified by a registered professional engineer is provided meeting the requirements of section 14-450.8(k)2.a. and b.*

The proposed work will not result in an increase in flood levels within the community during the occurrence of base flood discharge.

- (l) *Enclosed areas below the lowest floor: New construction or substantial improvement of any structure in Zones A1-30, AE, AO, AH and A that meets the development standards of article VI, including the elevation requirements of section 14-450.8, paragraphs (f), (g) or (h) and is elevated on posts, columns, piers, piles, "stilts," or crawl spaces may be enclosed below the base flood elevation requirements provided all the following criteria are met or exceeded:*
 1. *Enclosed areas are not basements;*
 2. *Enclosed areas shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood water. Designs for meeting this requirement must either:*
 - a. *Be engineered and certified by a registered professional engineer or architect; or*
 - b. *Meet or exceed the following minimum criteria:*
 - i. *A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of the enclosed area;*
 - ii. *The bottom of all openings shall be no higher than one (1) foot above the lowest grade; and*
 - iii. *Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the entry and exit of flood waters automatically without any external influence or control such as human intervention, including the use of electrical and other non-automatic mechanical means;*
 3. *The enclosed area shall not be used for human habitation; and*
 4. *The enclosed areas are usable solely for building access, parking vehicles, or storing of articles and equipment used for maintenance of the building.*



The proposed building does not include enclosed areas below the lowest floor; this Standard does not apply.

- (m) *Bridges: New construction or substantial improvement of any bridge in Zones A1-30, AE, AO, AH, A, V1-30 and VE shall be designed such that:*
1. *When possible, the lowest horizontal member (excluding the pilings, or columns) is elevated to at least two (2) feet above the base flood elevation; and*
 2. *A registered professional engineer shall certify that:*
 - a. *The structural design and methods of construction shall meet the elevation requirements of this section and the floodway standards of section 14-450.8(k); and*
 - b. *The foundation and superstructure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all structural components. Water loading values used shall be those associated with the base flood.*

The proposed work does not include new or improved bridges; this Standard does not apply.

- (n) *Containment walls: New construction or substantial improvement of any containment wall located within:*
1. *Zones A1-30, AE, AH, V1-30 and VE shall:*
 - a. *Have the containment wall elevated to at least two (2) feet above the base flood elevation;*
 - b. *Have structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy; and*
 - c. *Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this section. Such certification shall be provided with the application for a flood hazard development permit, as required by section 14-450.6(b)d.4.*
 2. *Zones AO and AH shall have adequate drainage paths around containment walls on slopes, to guide flood water away from the proposed walls.*
 3. *Zone AO shall have the top of the containment wall elevated above the highest adjacent grade:*
 - a. *At least two (2) feet higher than the depth specified in feet on the community's Flood Insurance Rate Map; or*
 - b. *At least three (3) feet if no depth number is specified.*
 4. *Zone A shall have the containment wall elevated to at least two (2) feet above the base flood elevation utilizing information obtained pursuant to section 14-450.6(b)4.a.ii.; section 14-450.7(a)4; or section 14-450.7(c)1.*

The proposed work does not include new construction or substantial improvement of any containment walls.

- (o) *Wharves, piers and docks: New construction or substantial improvement of wharves, piers, and docks are permitted in Zones A, A1-30, AE, AO, AH, V1-30, and VE, in and over water and seaward of the mean high tide if the following requirements are met:*
1. *Wharves, piers, and docks shall comply with all applicable local, state and federal regulations; and*



2. *Commercial wharves, piers, and docks involving fill shall adhere to the design and construction standards contained in the U.S. Army Corps of Engineers' Shore Protection Manual.*

The proposed work does not include any wharves, piers, or docks; this Standard does not apply.

(p) *Coastal flood plains:*

1. *All new construction located within Zones A1-30, AE, A, V1-30 and VE shall comply with all applicable local, state and federal regulations.*

The proposed work will comply with all applicable local, state and federal regulations.

2. *New construction or substantial improvement of any structure located within Zones V1-30 or VE shall:*
 - a. *Be elevated on posts or columns such that:*
 - i. *The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to two (2) feet above the base flood elevation;*
 - ii. *The pile or column foundation and the elevated portion of the structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components; and*
 - iii. *Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable state and local building standards.*
 - b. *Have the space below the lowest floor:*
 - i. *Free of obstructions; or*
 - ii. *Constructed with open wood lattice-work, or insect screening intended to collapse under wind and water without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting piles or columns; or*
 - iii. *Constructed with nonsupporting breakaway walls which have a design safe loading resistance of not less than ten (10) or more than twenty (20) pounds per square foot.*

The proposed work is not located within Zones V1-30 or VE; this Standard does not apply.

3. *A registered professional engineer or architect shall:*
 - a. *Develop or review the structural design, specifications, and plans for the construction, which must meet or exceed the technical criteria contained in the Coastal Construction Manual, (FEMA-55/February, 1986); and*
 - b. *Certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the criteria of section 14-450.8(p)2.*

The proposed work will be designed by a registered professional structural engineer from Thornton Tomasetti. The Contractor has not been selected at this time, but the



design specifications will require that construction methods are in accordance with accepted standards of practice.

4. *The use of fill for structural support in Zones V1-30 and VE is prohibited.*

The proposed work is not located within Zones V1-30 or VE.

5. *Human alteration of sand dunes within Zones V1-30 and VE is prohibited unless it can be demonstrated that such alterations will not increase potential flood damage.*

The proposed work is not located within Zones V1-30 or VE; this Standard does not apply.

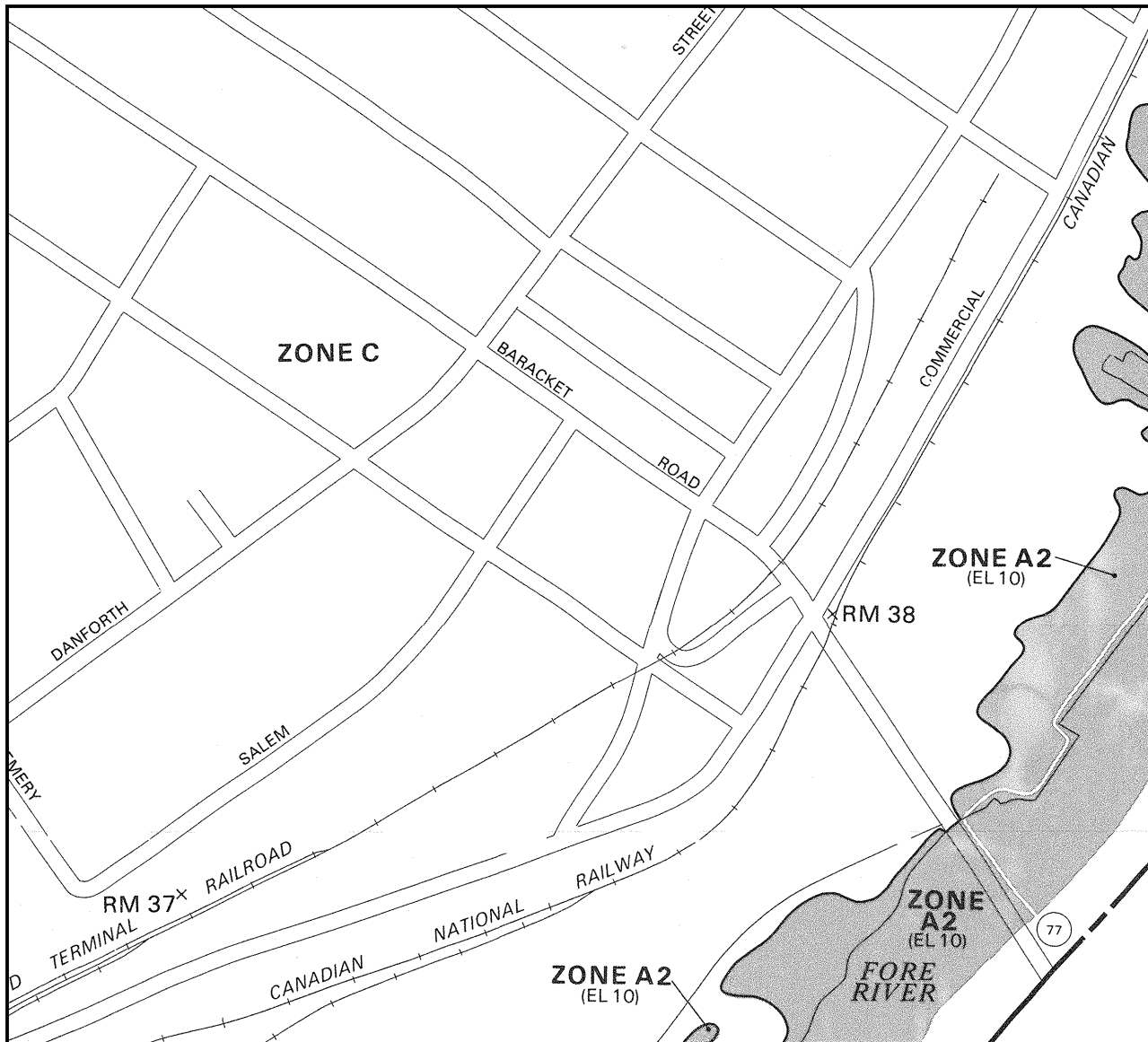
6. *The enclosed areas may be used solely for parking vehicles, building access, and storage.*

The proposed work does not include any enclosed areas within the applicable zones; this Standard does not apply.

7. *Lobster sheds and fishing sheds located seaward of mean high tide shall be exempt from the elevation requirement in section 14-450.8(g) only upon review and approval by the planning authority or Planning Board and if all the following requirements of section 14-450.8(a), (k) and (l) are met:*

- a. The conditional use shall be limited to low value structures such as metal or wood sheds two hundred (200) square feet or less and shall not exceed more than one (1) story.*
- b. The structure shall be securely anchored to the wharf or pier to resist flotation, collapse and lateral movement due to the effect of wind and water loads acting simultaneously on all building components.*
- c. The structure will not adversely increase wave or debris impact forces affecting nearby buildings.*
- d. The structure shall have unfinished interiors and shall not be used for human habitation.*
- e. Any mechanical, utility equipment and fuel storage tanks must be anchored and either elevated or floodproofed to two (2) feet above the base flood elevation. All electrical outlets shall be ground fault interrupt type. The electrical service disconnect shall be located on shore above the base flood elevation and when possible outside the special flood hazard area. All electrical outlets shall be ground fault interrupt type. The electrical service disconnect shall be located on shore above the base flood elevation and when possible outside the special flood hazard area.*

The proposed work does not include any lobster sheds or fishing sheds; this Standard does not apply.



APPROXIMATE SCALE

400 0 400 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND, MAINE
CUMBERLAND COUNTY

PANEL 13 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

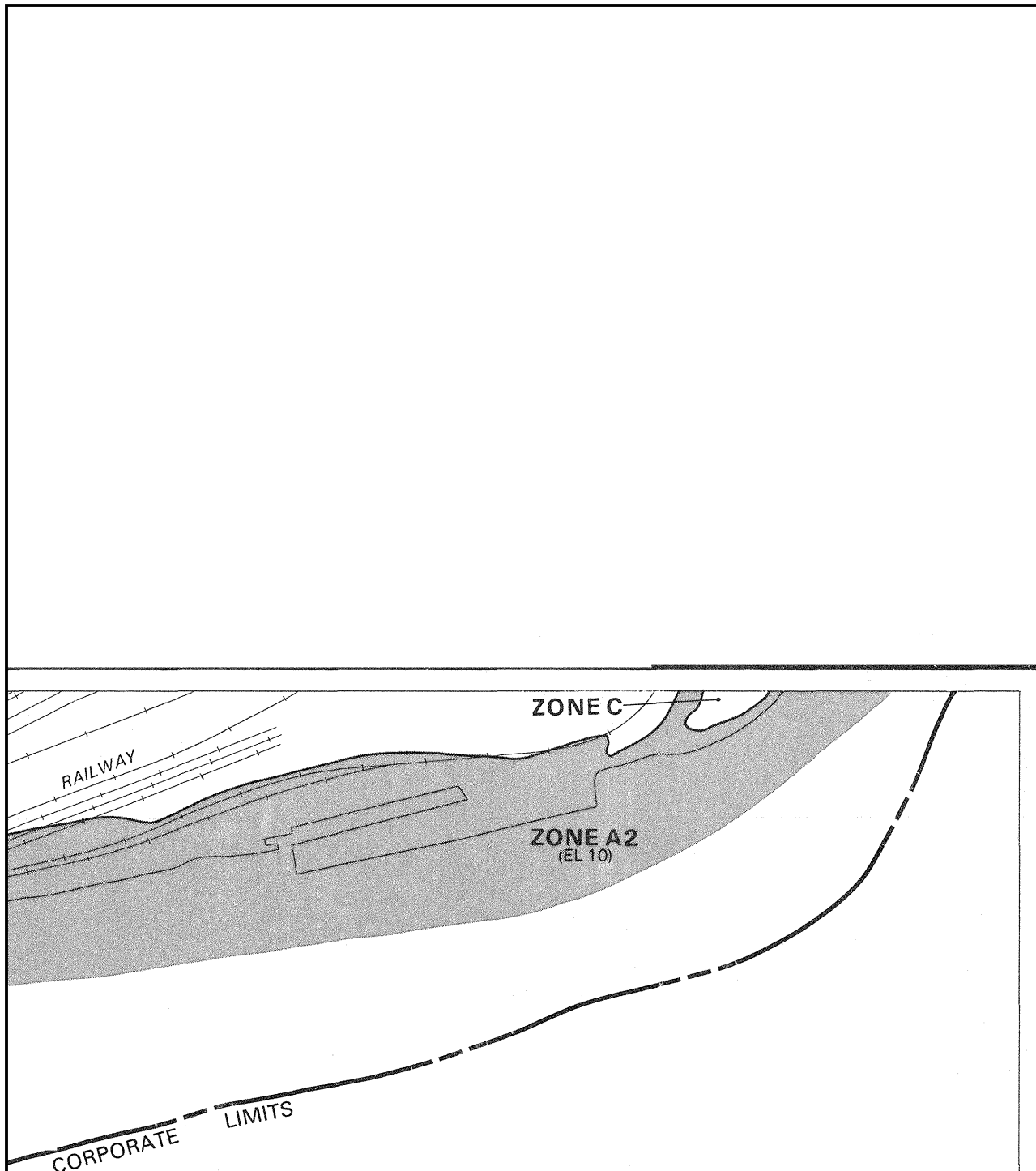
COMMUNITY-PANEL NUMBER
230051 0013 B

EFFECTIVE DATE:
JULY 17, 1986

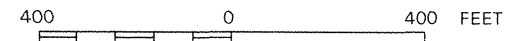


Federal Emergency Management Agency

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



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND, MAINE
CUMBERLAND COUNTY

PANEL 16 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230051 0016 B

EFFECTIVE DATE:
JULY 17, 1986



Federal Emergency Management Agency

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Att. T

Via Electronic Mail

August 4, 2020



Christian Roadman, Planner
City of Portland Planning Division
389 Congress Street
Portland, ME 04101

Re: Cold Storage Level III Site Plan Submittal – Maine International Cold Storage Facility, LLC
Response to Planning Staff Comments

Dear Christian:

Thank you for coordinating the review of the proposed Maine International Cold Storage Facility located at 40 West Commercial Street in Portland, Maine. To support the Level III Site Plan process, we are providing the following, additional responses to comments we have received from the City:

The following letter compiles responses to comments received from the City, including the following:

- Email correspondence from Ann Machado, Zoning Administrator, dated June 10, 2020;
- Email correspondence from Mike Tremblay, Senior Engineer, dated May 28, 2020;
- Memo from Michael Guethle, Lead Project Engineer (Wright-Pierce), dated May 20, 2020;
- Email from Jason Grant, Life Safety CEO/Plan Reviewer, dated June 1, 2020;
- Memo from Caitlin Cameron, Urban Designer, dated May 22, 2020; and
- Email from Christian Roadman, Planner, dated July 29, 2020.

Comments from the City

The additional comments received-to-date are provided below for your reference and our response follows each comment in italics:

Email from Ann Machado, Zoning Administrator, dated June 10, 2020

- *A Cold Storage Facility is listed as a Conditional Use in section 14-319. Do they also have a Conditional Use Application to go before the Planning Board? I'm not seeing a Conditional Use Application in Energov.*
 - Response: A Conditional Use application has been made. It is CU-001146-2020.
- *Have they provided information to show what the average grade is to determine the height? I still don't see any calculation for how they have determined average grade. They need to clearly indicate the average grade on the elevations because it is close.*
 - Response: Additional information was provided in the Response to Comments Letter dated May 15, 2020. That information is repeated below for reference. There is also a figure uploaded to Eplan "8.Cold Storage Height Fig.pdf" that accompanies this information. The building renderings now show an average existing grade line.

Text from May 15, 2020 Response to Comments:



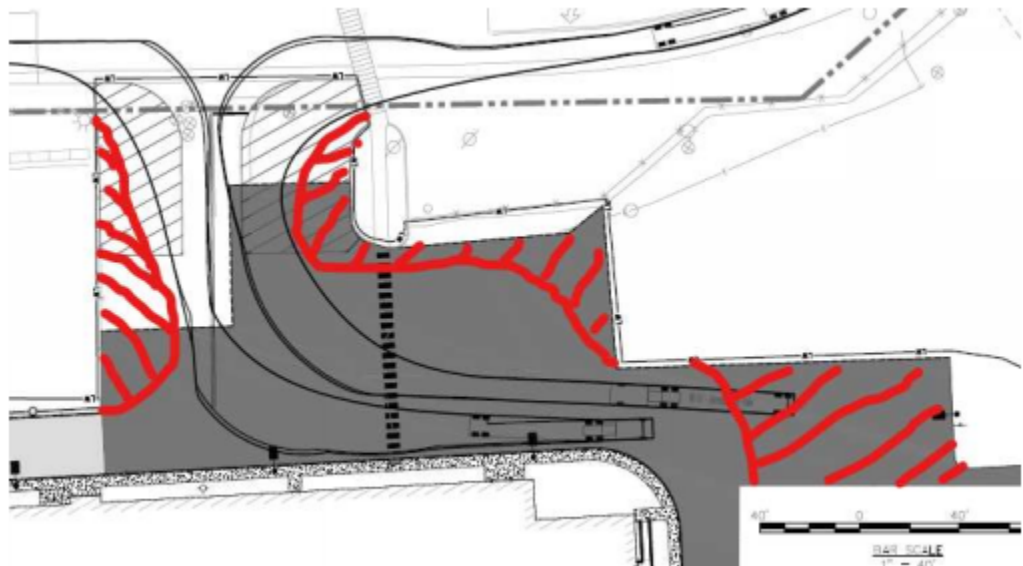
- *Please see the attached graphic illustrating the average grades used for the building height calculation.*
 - *The average existing grade, taken at the proposed building corners, is 12.65 feet. The maximum building parapet height above 12.65 feet is 73'-10".*
 - *The solar panels that will be mounted on the roof will be within 6-8 inches of the roof plain, and below the parapet.*
 - *The solar inverters mounted on the rooftop will be installed such that the highest obstruction will be at or below 75'-0".*
- *Under section 14-320.2(b) (1)(b) they are required to have a determination from the FAA that structures and equipment will not exceed, the applicable height guidelines for the runway approach etc. Also have they provided the view corridor of 90 feet for the lot? Have both of these been verified?*
 - *Response: A "Notice of Proposed Construction or Alteration" (FAA Form 7460-1) will be submitted to the FAA as required by Section 77.9 of the Federal Code of Regulations. The 90-foot view corridor is indicated on the site plans.*
- *Flood Plain. Looking at Plan C-100, part of the building is within the Flood Zone A2 (EL 10) as is the access road. Since the building is in the flood zone, besides the Flood Hazard Development Application, they will need to provide a Flood Hazard Development Permit for New Construction which is a two part application and requires either an elevation certificate or flood proofing certificate. This can be provided when the building permit is applied for. Under section 14-450.8(g) new nonresidential construction in a A2 zone the lowest floor needs to be elevated above the base flood elevation of 10 feet and or be floodproofed to at least two feet above base flood elevation. The flood zone is not shown on version 2 of Plan C-100.*
 - *Response: A Flood Hazard Development Permit has been applied for – a copy has been uploaded to Eplan as document "2020.05.18 Cold Storage Flood Hazard Development Application.pdf". The lowest floor level of the facility will be elevation 14.0, which is more than 2 feet above the BFE of 10.0. An elevation or flood proofing certificate will be provided at the time of building permit application.*

Email from Mike Tremblay, Senior Engineer, dated May 28, 2020

- *The site continues to propose a very wide driveway width of about 104 feet. Wide driveways present a safety hazard, especially for bicycle traffic on West Commercial Street eastbound and any pedestrian traffic on the south side of West Commercial Street, as it allows all vehicles to make turns at higher speeds. The driveway width also adds additional impervious surface to the site, which already has a great deal of impervious surface. The entirety of this width, at the edge of the ROW, is justified if it is required that entering and exiting vehicles must be able to maneuver simultaneously. This driveway width could be reduced significantly if truck volumes are low enough that a conflict would be rare, and traffic would be able to yield to one another. In this case, a truck would be able to cross the centerline in the driveway in order to make a maneuver into/out of a narrower driveway opening without much conflict. The applicant should provide estimates of the number of trucks that will be entering and exiting the site during peak hours and over the course of a given day.*
 - *Response: We have made some additional notations and changes to the site plan that further justify maintaining the existing width of driveway entrance.*



- There is an existing gate into the rail loading platform that needs to be maintained. The gate location has been labelled on the site plan for clarity.
- A guard shack has been added to the site plan to control access into the truck yard. This has increased the usage of the existing impervious area to the NE of the building.
- According to the turning templates, there are areas of proposed pavement that are not needed for any turning movements. The applicant should clarify the purpose of these areas and why they must be hardscaped. Any planned use of these areas should be documented in the site plan. A sketch of the areas of question is included at the bottom of this email.



- Response: See response to previous comment.
- A waiver of Technical Manual Section 1.14 for parking space dimensions and drive aisle width is required for the truck parking area. The Applicant has justified the space dimensions and drive aisle width for this area. This waiver is supported by DPW after review of turning templates.
 - Response: A waiver request for the truck parking space and drive aisle dimensions is attached.
- The Applicant notes that the rear access road is required for fire access. A brief discussion with Life Safety indicated that this access road would be beneficial, but not required, in the case of an emergency. This should be confirmed with Life Safety. If this road is not required, DPW recommends that it be removed to reduce the impervious area on-site.
 - Response: The fire access driveway was removed from the plans to reduce the impervious area.
- The city requires a robust stormwater maintenance agreement with the Applicant. The City will not maintain the development's equipment in any way, and this equipment is essential to ensuring that pollutants from the facility and parking lots do not enter Casco Bay untreated/undertreated.
 - Response: Noted and agreed.



- *The City will require an approved dewatering plan before issuance of a building permit, as the site is a VRAP site and any groundwater encountered may be contaminated and should not enter the City's stormwater system or Casco Bay untreated. DPW understands that the Applicant does not expect to encounter groundwater; however, given the possible presence of contaminants in the groundwater, a more robust dewatering plan is required.*
 - *Response: Based on previous environmental assessments, it is likely that groundwater will be encountered during construction activities. The selected contractor will submit a dewatering plan, prepared, signed, and sealed by a qualified designer registered in Maine. The system will be designed to prevent groundwater that may be contaminated from entering the City's stormwater system or Casco Bay untreated. Construction dewatering is also covered in the Environmental Materials Management Plan (EMMP). The EMMP will be part of the construction documents and will also be reviewed and approved by the DEP.*
- *All construction related deliveries should access the site from 295 via the Veterans Bridge/West Commercial Street or Franklin Street/Commercial Street. This should be noted in the CM plan.*
 - *Response: The CMP Plan has revised to note that all deliveries will access the site from I-295 from the Veterans Bridge/West Commercial Street or Franklin Blvd/West Commercial Street.*
- *An updated CM plan should include an adjusted construction schedule.*
 - *Response: The CM Plan has been updated with an adjusted construction schedule.*

Memo from Michael Guethle, Lead Project Engineer (Wright-Pierce), dated May 20, 2020

As site design has advanced since our previous submission on May 18, 2020, several changes have been made to the site that impact the stormwater management design, including modifications to the limit of work and redevelopment area, changes to impervious area from removal of the fire access drive; regrading associated with removal of the fire access drive; reconfiguration of the subsurface R-Tank storage system and treatment device; and modifications to the storm drainage pipe network. The attached Stormwater Management Report Revisions Letter includes a more detailed summary of these revisions and updated water quality calculations.

Basic Standard

Erosion and Sedimentation Control best practices were observed on the updated Grading, Drainage, and Erosion Control Plan and associated Details. An Inspection, Maintenance, and Housekeeping Plan has been provided with the erosion details and notes. No further action necessary.

- *Response: Noted.*

General Standard

- *The applicant has provided an impact analysis to compare pre-development and post-development land use pollutant rankings under MaineDEP redevelopment guidelines. The written analysis indicated that the site revisions did not change the general standard application; the proposed development has pollutant ranking between 0 and 1 greater than the existing site, and is therefore required to treat 60% of the proposed site's disturbed surface area. An updated summary of pollutant rankings was provided and reviewed, and the proposed pollutant rankings are agreed to. No further action necessary.*



- Response: Noted.

- *High-pollutant surface areas should be prioritized for stormwater treatment under the redevelopment standard. The revised stormwater treatment system provides treatment for 85% of the redeveloped area, including all of the areas with pollutant ranking 4 (excepting some fire access road, which is anticipated to carry less pollution than regular roadways). While redevelopment calculations state 61% of the site redeveloped area is receiving runoff treatment, it is apparent the 85% value mentioned in the cover letter is correct. No further action necessary.*
 - To clarify, the proposed stormwater management system will intercept and direct runoff from 86% of the site to the R-Tank storage system, which has been sized to detain a water quality volume equal to one-inch of rainfall over 61% of the redevelopment area.
- *An executed maintenance contract for the BMP systems is required. Maintenance agreements may be provided as a condition of approval.*

- Response: Noted.

R-Tank and Jellyfish Filter

- *A letter from the manufacturer(s) stating the proposed project was designed in accordance with the MaineDEP standards has been provided.*
 - Response: Due to reconfiguration of the upgradient R-Tank detention system, we have reached back out to Contech for review and approval of the revised design. We will submit their updated design review letter upon receipt.
- *Site grading proposes no access of flood waters to catch basins in the identified 100-year flood elevation, no further action necessary.*
 - Response: Noted.
- *R-Tank is designed with consistent elevations in HydroCAD, Site Plans, and Details. Design has been updated to confirm layout of R-Tank unit, no further action necessary.*
 - The R-Tank detention system was moved and reconfigured east of its previous location to avoid exceeding maximum cover over the R-Tank modules. Revised design details are included in the design drawings uploaded to Eplan, and the revised HydroCAD model is included as an attachment to the Stormwater Management Report Revisions Letter, submitted separately.
- *R-Tank location has been relocated to an emergency entrance. The applicant has indicated the anticipated loading has been coordinated with the manufacturer, and the provided products were selected based on anticipated loading.*
 - Response: Noted.
- *A note indicating a valve at the stormwater outlet has been updated to confirm additional product information, no further action necessary.*
 - Response: Noted.
- *Treatment filter system has been modified to a StormFilter device. The updated design, as well as inspection and maintenance requirements for the StormFilter and R-Tank system, have been provided. We agree the StormFilter provides treatment for 60% of the redeveloped area; provides a water quality volume prioritizing treatment for impervious surfaces; and provides maintenance requirements in accordance with the manufacturer, and MaineDEP. No further action necessary.*



- Response: Noted.

Flooding Standard

- The applicant has requested a waiver to the flooding standard, on the basis that the project conveys flows to a tidally influenced waterbody. The basis of this waiver has been reviewed with the updated site plan modifications, and is justified and supported by the reviewer.
 - Response: Noted.

Grading and Drainage

- Typical details, indicating a maximum 2% cross-slope for crosswalks have been provided. No further action necessary.
 - Response: Noted.

Utility Connections

- Ability to serve letters have not been provided for utilities impacted by the proposed project, but have been requested by the applicant for applicable utilities. The applicant has indicated that ability to serve letters will be submitted to Planning upon receipt.
 - Response: We are working with PWD on ability to serve and will provide their response as soon as it is received.
- Planting impacts to utilities: Several plantings are located over underground utilities near the transformer and generator pad. It is appreciated that these areas require screening. Applicant has confirmed the proposed plantings include shallow root systems and have been programmed to avoid underground utilities in the adjacent area. No further action necessary.
 - Response: Noted.

Email from Jason Grant, Life Safety CEO/Plan Reviewer, dated June 1, 2020

- The hydrant location looks good, For the solar panels I think that it's enough info for it to be approved at this point. It is hard to tell for sure that they are meeting all of the codes with this limited information but it appears they are putting in the required pathway so we can review the rest at the building permit phase. So Fire approves the changes.
 - Response: Noted.

Memo from Caitlin Cameron, Urban Designer, dated May 22, 2020

Sec. 14-320.3 Performance Standards

(k) Lighting - Applicant has provided a photometric plan, cut sheets, analysis. Minimal amount of building lighting is provided that would be visible from the residential neighborhoods. All fixtures appear to be full cut off, and mounted low on the building or under canopies so as not to produce glare for vessels or neighboring residential properties.

- Response: Noted.

(l) Signs - Signs will come under separate permit application according to Sign Ordinance in Division 22.

- Response: Noted.

(o) Design and Visual Character:



1) Long Views/Building Design: Change in roof form provides some visual interest to meet the standard. Rooftop mechanicals are placed on a lower portion of the building to reduce visibility from long views and are screened. PV panels and roof drainage systems have low profiles. Massing variation provides some variation and smaller scale to the overall form.

○ Response: Noted.

2) Massing: Massing emphasizes administrative uses with a smaller-scale, one-story portion of the building at the ROW interface that indicates the active portions of the building and street-facing entrances. A second change in massing occurs at the loading dock.

○ Response: Noted.

3) Facades - equal treatment: All facades include equal treatment of materials and openings. The roof form is somewhat varied. Materials are placed according to function and massing and break up the scale of the building from some perspectives. For functional reasons, two of the facades have no massing or material variation with minimal openings and no articulation other than stoops at the entrances. To address the design requirements, the applicant proposes a color change related to the massing change to visually break up the facades. Staff support this approach in lieu of the ability to provide openings or massing variation.

○ Response: Noted.

4) Facades - variation and articulation: Project provides some visual interest with varied roof line and massing, change in material texture, windows, canopies, roof drains. Two of the facades have no massing or material variation with minimal openings and no articulation other than stoops at the entrances, roof drains - a color change is proposed to address the standard. Staff suggest the proposed colors might be darker to be more recessive or else have greater contrast between the two to emphasize the visual break. A brighter, more dynamic color is another direction if visual interest is a priority.

○ Response: We will continue to look into alternative colors however, the usable standard color selections are somewhat limited. Selecting darker colors will increase heat load on the exterior wall assembly hindering interior environmental performance. The industry standard and manufacturer's recommendation is to use "white" for the best performance. The current design is a minor deviation from this recommendation for the lower portion of wall and white for the upper portion.

5) Scale and Articulation: Project meets articulation requirement with canopy, entrances, and fenestration. The building also includes massing variation/stepbacks at the street-facing facade.

○ Response: Noted.

Email from Christian Roadman, Planner, dated July 29, 2020

- A zoning item regarding your cold storage problem came up, and I've attached two items related to the issue: a set of elevations and a page from the dimensional requirements section of the WPDZ.

The height requirements make a fairly specific point about the maximum height being inclusive of rooftop appurtenances / mechanicals. The length requirements tie length to building height (300ft max for portions over the regularly required height).



Because of the interplay mentioned above, I'm concerned that the North / South building elevations are problematic. There is exposed piping / equipment that is outside the 300 foot-length area. I believe the architect specifically called out this exposure as a design choice, celebrating the use of the building and making sure the form isn't just a box. I actually appreciate that a lot, but I'm afraid it may not meet the letter of the zoning ordinance here.

Also, just a reminder to please add average grade to the building elevations.

- Response: The average existing grade lines have been added to the building elevations.

In addition, we have modified the piping appurtenances on the lower (60-foot limited height) roof so that it enters the freezer-cooler warehouse wall below 60 feet. In summary, we have one 300-foot building portion that falls within the 75-foot conditional use height, and the remainder of the building (and appurtenances) will be below the 60-foot permitted use roof height.

If you have any questions or require additional information, please do not hesitate to contact me at (207) 558-3662 or by email at dstairs@woodardcurran.com.

Sincerely,

Woodard & Curran, Inc.

Darrin B. Stairs, PE
Project Manager

Enclosures: Following Attachments Uploaded Separately:

*Revised Civil, Architectural and Landscaping Design Plans
Revised Architectural Renderings
Revised Site Lighting Report, Photometric Plans and Site Lighting Plan
Revised Construction Management Plan
Stormwater Management Report Revisions Letter and Attachments
Waiver Table*



May 15, 2020

Christian Roadman, Planner
City of Portland Planning Division
389 Congress Street
Portland, ME 04101

Re: Cold Storage Level III Site Plan Submittal – Maine International Cold Storage Facility, LLC
Response to Planning Staff Comments

Dear Christian:

Thank you for coordinating the review of the proposed Maine International Cold Storage Facility located at 40 West Commercial Street in Portland, Maine. To support the Level III Site Plan process, we are providing the following responses to comments we have received from the City:

Preliminary Comments from City dated April 24, 2020

Zoning Comments

- *Cold storage facility is listed as a conditional use in the WPDZ zone. Staff reviewer is not aware of an existing conditional use application. This will be required for Planning Board review.*
 - Response: The Planning Office Manager was contacted and a Conditional Use Application has been added to the workflow in the CSS.
- *Please update zoning table to acknowledge minimum lot size of 5 acres (for conditional uses).*
 - Response: An updated zoning table is attached.
- *Per zoning, maximum building length for a conditional use is 300 feet for buildings or portions of buildings exceeding the maximum applicable height allowed under the permitted use. However, the application and site design assume a non-applicable maximum length of 450 feet.*
 - Response: The portion of the building exceeding the maximum applicable height allowed under the permitted use has been reduced to 300 feet. Please see the revised site plans uploaded to Eplan.
- *Please provide spot grades and/or graphic regarding average grades and your calculations of building height.*
 - Response:
 - Please see the attached graphic illustrating the average grades used for the building height calculation.
 - The average existing grade, taken at the proposed building corners, is 12.65 feet. The maximum building parapet height above 12.65 feet is 73'-10".
 - The solar panels that will be mounted on the roof will be within 6-8 inches of the roof plain, and below the parapet.
 - The solar inverters mounted on the rooftop will be installed such that the highest obstruction will be at or below 75'-0".
- *Please note the required 90-foot view corridor on the site plan or another appropriate plan.*
 - Response: The 90-foot view corridor has been added to the site plan.



- *Part of the building is within the Flood Zone A2 (EL 10), as is the access road. A Flood Hazard Development Permit for New Construction must be provided with the building permit application.*
 - *Response: A Flood Hazard Development Permit for New Construction has been submitted under separate cover.*
- *Please note that under Section 14-450.8 (g), for new nonresidential construction in an A2 zone, the lowest floor must be elevated above the base flood elevation of 10 feet and/or be flood-proofed to at least two feet above the base flood elevation.*
 - *Response: The lowest floor, at 14.0 feet, is set more than two feet above the base flood elevation of 10 feet.*

Overarching Comments

- *As noted below (transportation) impervious and paved surfaces should be minimized. Where reduction is not possible, please explore feasibility of permeable pavements. Staff understand a very large installation of this material exists elsewhere on the IMT lot, adjacent to this site.*
 - *Response: The pavement limits shown on the plans represent what is needed for the facility to operate effectively and safely. The use of permeable pavements was considered, but discounted, due to maintenance requirements and concerns with the long-term durability in this particular application and in the Maine climate.*
- *Expected timelines are requested regarding necessary state, federal, and utility approvals, especially:*
 - *FAA determination that “structures and equipment will not exceed the applicable height guidelines for the runway approach and will not create a hazard to navigable space”.*
 - *PWD capacity to serve letter (please note DPW wastewater capacity letter has been received).*
 - *Response: A Notice of Proposed Construction or Alteration (Form 74601) will be submitted to the FAA, and the response provided to City staff as soon as it is received. We are working with PWD on ability to serve and will provide their response as soon as it is received.*
- *Please be prepared to provide an updated option to ground lease agreement if necessary, per timing of review and Planning Board scheduling.*
 - *Noted.*

Transportation Comments

- *Per the consulting traffic engineering reviewer, the applicant shall conduct a trip generation analysis for the entire IMT site over the last 10 years. The site does not have a Traffic Movement Permit and incremental development considerations may cumulatively trigger the need for a TMP. Based on prior applications, it is likely that a TMP will be required.*
 - *Response: We are reviewing with the State Traffic Engineer to further understand whether this project is subject to incremental development considerations. A response to this comment will be submitted under separate cover.*
- *There is no sidewalk proposed along the project frontage. A sidewalk waiver is required. The waiver requirements are outlined in Section 14-501 of the City Code. If a sidewalk is provided, then an acceptable, ADA-accessible driveway crossing must also be provided. If a sidewalk is not provided, a contribution (separate from required impact fees) will be sought for nearby sidewalk and/or path facilities.*



- Response: Please see the attached updated Waiver Table for the sidewalk waiver request.
- *The driveway opening onto West Commercial Street is much larger than the maximum permitted under the Technical Manual (30 feet). DPW understands that this facility will require right turns both into and out of the site by large vehicles, and has reviewed turning templates from a previous submission that justify the large driveway opening. The Applicant must apply for a driveway width waiver as part of their application.*
 - Response: Please see the attached updated Waiver Table for the driveway width waiver request.
- *Updated turning templates showing the design vehicle entering and exiting the site using the newest site plan should be submitted for DPW review. Please note, a turn template submitted with this application was reviewed. Regarding those runs:*
 - *Runs should show trucks entering and exiting the site to justify the width of the driveway and inform the locations of alternate pavement material (or hatch markings, as previously proposed). A vehicle existing the parking area to the driveway would also be helpful.*
 - *Runs should show that all proposed pavement is necessary.*
 - *Within the site, entering and exiting vehicles will yield to one another. The site design should not assume that two turning vehicles should be able to pass one another in opposite directions. Please provide design controls/assumptions about how vehicles interact within the site.*
 - *Entering the parking spaces, the run shown does clarify that the drive aisle width appears to be useful, but the model entering the space in a crooked manner does not appear to justify a 25-foot space width. An extra forward-backward maneuver can likely correct this angle.*
 - *The provided run does not show how a vehicle would enter and exit a space south of the deadhead area (the wider area where the truck maneuvers into before backing up. Please clarify how the spaces south of that which is backed into work; it appears as though each space becomes progressively more difficult moving southward.*
 - Response: Please see the attached truck turning movement figures.
- *While DPW understands that a wide driveway is required, efforts should be made to guide smaller vehicles entering the site and discourage fast turns, which can be unsafe, especially for pedestrians crossing the driveway or crossing West Commercial Street. The current site plan shows a hatched striping that limits the northbound direction of the driveway to 24 feet. DPW suggests that this treatment be extended, narrowing the drive lanes in each direction to 12 feet. The applicant should also consider using a more durable and tactile material than paint, such as scored concrete, as paint will wear out quickly and does not provide any feedback to motorists.*
 - Response: The proposed drive lanes have been limited to 12 feet with striping. The applicant wishes to continue using striping to delineate this area, to minimize cost and construction impacts to the intersection.
- *The 104-foot width of the end of the driveway, closest to the proposed structure, should be justified or reduced.*
 - Response: The extents of the pavement are required for the safe maneuvering of trucks into and out of this facility and the adjacent IMT yard.



- *The passenger parking area has 20-foot parking stall lengths. These stall lengths should be justified or reduced to 18 feet.*
 - *Response: The parking stall lengths have been reduced to 18 feet.*
- *The area on the northeast side of the site, where the crosswalk is shown to be re-striped, adds additional pavement south of existing pavement to remain. The applicant should specify the use of the existing-to-remain portions of the site with respect to the proposed project, and make efforts to reduce pavement area where possible. In this location, the crosswalk appears to cross a swath of existing and proposed pavement that is about 83 feet wide.*
 - *Response: The extents of the pavement are required for the safe maneuvering of trucks into and out of this facility and the adjacent IMT yard.*
- *The proposed site plan shows about 25 truck parking spaces, each measuring about 25x55, with a 91-foot drive aisle for a total pavement width of 201 feet. DPW does not have standards for truck parking such as this and would support a waiver for parking space and drive aisle size if they can be justified. While parking stall length appears appropriate at 55 feet, the stall width seems excessive, over 2.5x the size of a typical passenger vehicle stall. The drive aisle serves as a maneuvering area and extra width is justifiable, but the Applicant should provide justification (turning movements or otherwise) for the size of the drive aisle and stall width. Large vehicles access narrower loading docks in the urban areas of Portland with significantly less maneuvering space. Any reduction in these dimensions can help reduce the amount of impervious surface at this site, which would in turn reduce effects on stormwater, reduce snow removal burden, reduce heat island effects, and would likely reduce project costs significantly.*
 - *Response: The truck parking space widths at the loading docks are 14 feet, as determined by the loading dock door spacing and as requested by the owner/operators of the facility. The truck parking spaces are 12 feet. These are standard dimensions and facilitate safe maneuvering into and out of the spaces. We will prepare a waiver request if required, but to our knowledge there are no truck parking requirements in the Ordinance. Please clarify to which section of the Ordinance the waiver should be requested.*
- *A 24-foot access aisle provided around the back of the building appears to be a secure area leading to the IMT site east of the project site. This access aisle has entrances from both the passenger vehicle parking lot and the heavy vehicle parking lot; however, it does not appear that the access road is designed to accommodate heavy vehicles turning into or out of the access road. The access road also appears to be redundant behind the proposed cold storage facility; any vehicle entering at the western gate could presumably also do so at the eastern gate. The applicant notes its use for Fire Department vehicles, but eliminating this access road may eliminate 17,000+ SF of impervious surface and several drainage structures. The applicant should justify the need for this drive or examine potential reductions.*
 - *Response: Please see the attached truck turning figures for fire truck access to the rear of the building. The gates will be equipped with a "knox" box to allow emergency access. The drive will also provide a secondary emergency access to the Unifit Facility to the east. We believe this road is required for fire department access to the rear portion of the building.*
- *The project site includes two van-accessible parking spaces on the west side of the site, which adequately meet requirements based on site's passenger vehicle parking supply. Truck parking spaces need not figure into the ratio of required accessible parking spaces, per ADA. The accessible spaces should be designed to ADA standards (8' x 18' minimum, 8-foot buffer (for van spaces), maximum 2% slope in all directions within the buffer).*



- Response: The ADA spaces have been designed to the 8'x18' standard, with 8-foot access aisle and maximum 2% slopes. A detail has also been added to the plans.
- *The design of ADA ramps is not noted on the Grading and Drainage plans, nor is a detail provided. A curb ramp detail is requested for all ramp types on the site.*
 - Response: Standard details for the ADA ramps are included in the attached revised plans.
- *Bike hitches should be placed convenient to entrance(s) – currently they appear to be located based on the parking lot placement.*
 - Response: We have relocated the bike racks to be more proximate to the main entrance.
- *Snow storage areas appears to omit the access road – please clarify intentions if access road is proposed to remain.*
 - Response: Additional snow storage areas for the fire access road have been identified on the revised site plans.
- *Instead of requesting a waiver of the City requirement for a TDM plan, please submit a simple document adequately focused on and scaled to the unique aspects of this project.*
 - Response: We understand that a TDM plan is required for the following types of development:
 - All Level III development in the B7 Zone
 - All commercial or institutional uses of 50,000 SF or more of total floor area
 - All commercial or institutional uses designed to accommodate 100 or more employees

While this project meets the second criteria (>50,000 sf or more of total floor area), most of the space is warehouse use. The total expected employee count is less than 25 employees, and we do not believe a TDM plan is necessary for this project in this location. We respectfully request reconsideration of the waiver request.

Water Quality, Stormwater, Infrastructure & Public Safety Comments

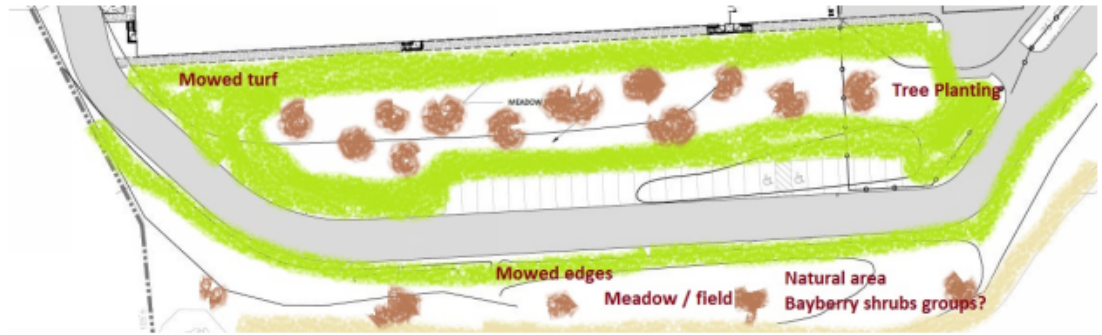
- *A third-party civil engineering review memo is attached. Please review and respond.*
 - Response: Please see responses to the third-party review memo below.
- *The large area of loam and seed south of the proposed structure and north of the access road appears to be unprogrammed space. The applicant should consider using this area for storage of stormwater and pretreatment prior to the R-tank, and/or using this area to plant trees to screen the blank south-facing wall from the waterfront.*
 - Response: This area may be used for future expansions of the building, and as such it is not desirable to encumber with landscaping and stormwater treatment structures. Plantings have been added to the river side of the access road, to help screen the building from the waterfront.
- *Please clarify if the site will be gated and/or relevant security protocols.*
 - Response: Only the access road to the rear of the building will be gated, and a “knox” box included for emergency access. The remainder of the site will not be gated.
- *An additional hydrant must be provided. Please see attached site plan markup indicating location.*



- Response: The additional hydrant has been added as requested. See attached revised utility plan.
- *Any photovoltaic arrays will need to meet the requirements of NFPA 1 Fire Code 2018 edition for roof coverage, and other applicable sections. Please submit a layout plan.*
 - Response: A PV layout has been provided as requested. The roof plan depicts access in two directions through the middle of the array layout as well as around the entire perimeter. This will allow both general PV service as well as allow safe fire fighter access and logical ventilation options should the need arise. Proper identification and electrical warning signage will be provided at all inverter and conduit run locations. Roof access has been provided within the building through a combination of roof access stairs and ladders. Walk pads define safe paths of travel on each roof area. It is the full intent to provide a layout that fully conforms with all applicable codes. It is expected that this layout would be further reviewed for final approval during the construction permitting process.
- *Please acknowledge presence of photovoltaic arrays on site plan and/or utility plan.*
 - Response: The Utility Plan has been updated to include the location of the PV array. Details of the array are shown on the Architectural plans.
- *Please specify procedures for trash storage and removal (staff acknowledge the compactor present on the site plan).*
 - Response: Trash will be staged inside the loading dock area if necessary, before loading into the compactor, or loaded into the compactor directly, depending on the quantity. A private, licensed, municipal waste hauler will be contracted for emptying of the dumpster regularly.

Environmental Quality Comments

- *(See image below). The City Arborist suggests a grove of trees on the water side of the proposed building to screen the facility from the bridge, South Portland and the harbor. If a mowed lawn around building and pavement edges is desired the grove of trees could be placed in the proposed meadow area. Tree types could be White Spruce, Serbian Spruce, River Birch, or Red Oak.*
 - Response: We have added trees on the outside of the perimeter driveway, along with shrub masses as requested in the comment below. This location will allow future expansion of the Cold Storage Building without removing/ replacing the proposed trees.
- *(See image below.) Yearly mowing should be considered to keep the proposed meadow area from growing into brush. Along the water edge, Bayberry shrubs in groups of 3, 5, 7 spaced out along the shoreline are suggested.*
 - Response: We have added planted groupings of bayberry shrubs along the outside of the perimeter driveway, in addition to groves of native trees, which will soften the building from the waterside. We anticipate the meadow will be mowed 1-2 times per year to keep brush and invasive plants from establishing.
- *Parking exceeds fifty spaces, which is a threshold per site plan requirements for 2+ trees (or 1 tree + 3 shrubs) per 5 spaces in landscaped islands.*
 - Response: There are 30 parking spaces for automobiles on the west side and parking for 12 trailers on the east side of the facility. At a rate of 2 trees / 5 spaces there would be a requirement of 12 trees on the plan. The Landscape Plan provides for 52 trees, which exceeds the landscape requirement.



Site Design Comments

- A design review memo is attached. Please review and respond.
 - Response: Please see responses to the third-party review memo below.

Initial Review Comments from Wright-Pierce from memo dated April 14, 2020

As site design has advanced since our previous submission on March 13, 2020, several changes have been made to the site that impact the stormwater management design, including modifications to the limit of work and redevelopment area, changes to impervious area from reconfiguration of sidewalks, concrete equipment pads and adjacent landscaping; relocation of the subsurface R-Tank storage system and treatment device; and modifications to the storm drainage pipe network. The attached Stormwater Management Report Revisions Letter includes a more detailed summary of these revisions and updated water quality calculations.

Basic Standard

- Erosion and Sedimentation Control best practices were observed on the Erosion and Sediment Control Plan and associated Details. An Inspection, Maintenance, and Housekeeping Plan has been provided with the erosion details and notes. Catch basin inlet protection should include catch basin throat protection where applicable.
 - Noted.

General Standard

- The applicant has provided an impact analysis to compare pre-development and post-development land use pollutant rankings under MaineDEP redevelopment guidelines. The written analysis indicated that the proposed development had a lower pollutant ranking than the existing site and is therefore required to treat 60% of the proposed site's disturbed surface area. A summary of pollutant rankings was provided and reviewed, and the proposed pollutant rankings are agreed to.
 - Response: As previously mentioned, pollutant impact rankings for the proposed and existing site were recalculated due to changes to the site and stormwater management system design. Based on the revised water quality calculations, the proposed project continues to be required to provide treatment for 60% of the redevelopment area.
- High-pollutant surface areas should be prioritized for stormwater treatment under the redevelopment standard. The Applicant has provided a summary indicating that the majority of treated area is impervious. Please provide a discussion on how much of the surfaces with pollutant ranking 4 are receiving treatment, and a statement on site practicality requiring treatment of lesser-ranked surfaces.



- Response: Higher pollutant ranking areas (Rank 4 and Rank 3) will be captured and treated in their entirety (medium use road, medium use parking and flat roof), with exception to a few segments of the fire access road, which is not anticipated to see much traffic. Approximately 85% of the redevelopment area will be captured and the proposed stormwater management system will treat a volume of stormwater greater than the required water quality volume.
- *An executed maintenance contract for the BMP systems is required. Maintenance agreements may be provided as a condition of approval.*
 - Noted.

R-Tank and Jellyfish Filter

- *A letter from the manufacturer(s) stating the proposed project was designed in accordance with the MaineDEP standards is required for proprietary treatment devices. Please provide this information.*
 - Response: A letter demonstrating that the design of the stormwater treatment system has been reviewed and approved by the manufacturer is attached.
- *Site grading proposes no access of flood waters to catch basins in the 100-year flood elevation, no further action necessary.*
 - Noted.
- *R-Tank is designed with consistent elevations in HydroCAD, Site Plans, and Details. Please provide the number of R-Tank modules (length by width) on the Grading, Drainage Plan, and Erosion Control Plan to confirm the proposed layout matches the plan. Module height has been provided.*
 - Response: Additional R-Tank information, including a module layout, is provided in the revised civil design plans.
- *R-Tank location appears to be within heavy truck area. Information on minimum depth of cover is proposed on the detail, but is not noted to meet loading criteria of the proposed trucks. Please provide information from the manufacturer indicating that the proposed system can sustain expected traffic loading.*
 - Response: The R-Tank Storage system was relocated south of the proposed building under the fire access road to reduce traffic and loading impacts. The fire access road will only see occasional maintenance traffic, or rare, emergency traffic. The R-Tank module type was selected per manufacturer recommendation based on proposed loading.
- *A note indicating a valve at the stormwater outlet was provided, but was not observed. Please provide a detail for the stormwater outlet restrictor, or confirm where the detail is located in the plan set.*
 - Response: The note was modified to include more specific information on the valve type.
- *Plans call for a 24" Jellyfish filter outlet, and the HydroCAD shows a 30" outlet. Please review.*
 - Response: The HydroCAD model is now consistent with the revised Grading & Drainage Plan.



Flooding Standard

- *The applicant has requested a waiver to the flooding standard, on the basis that the project conveys flows to a tidally influenced waterbody. The basis of this waiver is justified and supported by the reviewer.*
 - Noted.

Grading and Drainage

- *Applicant has noted that Maine Construction General Permit is required for the project due to the extent of grading.*
 - Noted.
- *Applicant has noted the Owner is a participant in the VRAP through the MaineDEP, and that soil management plans will need to be developed and approved through the MaineDEP.*
 - Noted.
- *Typical details, or a note on the grading plan, should show a maximum 2% cross-slope for crosswalks.*
 - Response: Notes have been added to the Grading and Drainage Plan.

Utility Connections

- *Ability to serve letters have not been provided for utilities impacted by the proposed project, but have been requested by the applicant for applicable utilities. The applicant has indicated that ability to serve letters will be submitted to Planning upon receipt.*
 - Response: We are working with PWD on ability to serve and will provide their response as soon as it is received.
- *Standard design for the water and fire system has been provided. Adherence to PWD standards is typically provided by the water utility for water connections, and would be addressed in an ability to serve letter and acceptance through PWD.*
 - Noted.
- *Standard design for the electrical and gas and electric utilities has been provided.*
 - Noted.
- *Planting impacts to utilities: Several plantings are located over underground utilities near the transformer and generator pad. It is appreciated that these areas require screening. Please confirm how the design incorporates mitigation or prevention for roots impacting underground utilities, while also providing required screening.*
 - Response: Proposed shrub and tree plantings in the vicinity of the transformer and generator have been selected to provide shallow root systems, and will be planted to avoid any underground utilities in the adjacent area.

Comments from Caitlin Cameron from memo dated April 2, 2020:

Lighting

- *Applicant has provided a photometric plan, cut sheets, analysis. Minimal amount of building lighting is provided that would be visible from the residential neighborhoods. All fixtures appear to be full cut off, and mounted low on the building or under canopies so as not to produce glare for vessels or neighboring residential properties.*
 - Response: Please see attached revised site lighting and photometric plans.



Signs

- *Signs will come under separate permit application according to Sign Ordinance in Division 22.*
 - Noted.

Design and Visual Character

- *Long Views/Building Design: Change in roof form provides some visual interest to meet the standard. Rooftop mechanicals are placed on a lower portion of the building to reduce visibility from long views and are screened. PV panels and roof drainage systems have low profiles. Massing variation provides some variation and scale to the overall form.*
 - Noted.
- *Massing: Massing emphasizes uses with a smaller-scale, one-story portion of the building at the ROW interface that indicates the active portions of the building and street-facing entrances.*
 - Noted.
- *Façades – equal treatment: All façades include equal treatment of materials and openings. The roof form is somewhat varied. Materials are placed according to massing and break up the scale of the building from some perspectives. Two of the façades have no massing or material variation with minimal openings and no articulation other than stoops at the entrances.*
 - Response: The southern and western elevations are two of the four main cooler partitions. Administrative support space and loading dock areas have been wrapped around the northern and eastern sides to assure proper functionality for site circulation as well as to address internal space layout demands. This in turn breaks up the form on the two most prominent building façades. Additional form development on the two remaining sides would either require the addition of unused space or require a height change within the cooler reducing the required number of pallet positions. Please refer to the following response for further comment and design intent.
- *Façades – variation and articulation: Project provides some visual interest with varied roof line and massing, change in material texture, windows, canopies, roof drains. Two of the façades have no massing or material variation with minimal openings and no articulation other than stoops at the entrances, roof drains.*
 - Response: The design intent is to break up these large portions of wall area by incorporating a horizontal panel break line that wraps around the south and west elevations. To better accent this change, a two-color panel concept is being proposed. This will break up the wall area, add interest to these two elevations and help tie the building together as the colors continue to wrap around the primary façades. The current building elevations and renderings reflect this revision.
- *Scale and Articulation: Project meets articulation requirement with canopy, entrances, and fenestration. The building also includes massing variation/stepbacks at the street-facing façade.*
 - Noted.

If you have any questions or require additional information, please do not hesitate to contact me at (207) 558-3662 or by email at dstairs@woodardcurran.com.

Sincerely,

WOODARD & CURRAN INC.



A handwritten signature in blue ink, appearing to read 'D. Stairs', is placed over the company name.

Darrin Stairs, PE
Project Manager

Enclosures: Revised Civil, Architectural and Landscaping Design Plans (uploaded to Eplan)
Revised Architectural Renderings (uploaded to Eplan)
Revised Site Lighting Report, Photometric Plans and Site Lighting Plan
Stormwater Management Report Revisions Letter and Attachments
Updated Waiver Table
Updated Zoning Table
Flood Hazard Development Permit (submitted under separate cover)
Building Height Figure
Turning Movement Figures
IFWS Review Response Letter
Geotechnical Report

Att. U

Via Electronic Mail

June 10, 2020



Department of Planning & Development
Attn: Christian Roadman
City of Portland
389 Congress Street
Portland, ME 04101

Re: Maine International Cold Storage Facility Neighborhood Meeting Certification

To Whom It May Concern:

I, Darrin Stairs, PE of Woodard & Curran, hereby certify that a neighborhood meeting was held on June 10, 2020, via an online meeting platform (Zoom), at 5:30pm regarding the Level III Site Plan Submittal for the proposed Maine International Cold Storage Facility project located at 40 W. Commercial Street.

I also certify that on May 29, 2020 invitations were mailed to the following:

1. All addresses on the abutters 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,

WOODARD & CURRAN INC.

A handwritten signature in black ink, appearing to read 'D. Stairs', is written over a horizontal line.

Darrin Stairs, PE
Project Manager

Attached to this certification are:

1. Copy of the meeting notice sent
2. Attendance sheet
3. Meeting Minutes

Dear Neighbor:

Please join us for a neighborhood meeting to discuss plans for a cold-storage facility.

Meeting Location: visit <https://tficapital.com/micsf-neighborhood-zoom-meeting-registration/> to register to receive a Zoom invitation

Meeting Date: Wednesday, June 10th, 2020

Meeting Time: 5:30pm, EST

The city code requires that property owners within 500 feet (1000 feet for proposed industrial subdivisions and industrial zone changes) of the proposed development and residents on an “interested parties list”, be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated and minutes of the meeting will be take. Both sign-in sheet and minutes will be submitted to the Planning Board.

If you have any questions, please call
207-650-0773.

Sincerely,
Andrew Nelson

Treadwell Franklin Infrastructure

40 Forest Falls Drive, Suite 2
Yarmouth, ME 04096



Maine International Cold Storage Facility



Maine International Cold Storage Facility Public Neighborhood Meeting, June 10, 2020

First Name	Last Name	Email
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Members of the Public in Attendance

Aaron	Porter	aaron.porter@proboat.com
Bob (Robert)	Mittel	rmittel@mittelasen.com
Carl	Cramer	carl1cramer@gmail.com
David	Smith	smitti79@gmail.com
Jeff	Irish	jeffrey.irish@graybar.com
Jo	Coyne	jcoyne@gwi.net
Karen	Sarfaty	Salem St.
Katherine	Searles	Stetson Ct.
Mark	McCain	walworthmccain@maine.rr.com
Melissa	Wood	melissafwood@gmail.com
Nathan	Boutin	nathan.boutin@graybar.com
Pamela	Shaw	pskhrrmail@gmail.com
Rosanne	Graef	rgraef@gwi.net
Sidney (Pete)	Thaxter	saintfelix2nd@gmail.com
Sonia	Robertson	robertsonsonia@hotmail.com
Tasha	Binette	tlaroche@nehsc.org
Tom	Robinson	thom.robinson@gmail.com

Development and Consultant Team Members in Attendance

Abraham	Weiner	abe.weiner@huntcompanies.com
Andrew	Nelson	anelson@tficapital.com
Darrin	Stairs	dstairs@woodardcurran.com
Diane	Vatne	diane.vatne@sewall.com
Eivind	Dueland	eivind.dueland@amberinfrastructure.com
Eric	Carlson	ecarlson@woodardcurran.com
Felicia	Knight	felicia@knightcanney.com
George	Campbell	gcampbell@tficapital.com
Guy	Lebrecque	glabrecque@cwsarch.com
Jedd	Steinglass	jsteinglass@woodardcurran.com
Jon	Nass	jon.nass@maineports.com
Kay	Rand	kayrand2018@gmail.com
Matthew	Dieterich	matthew.dieterich@sewall.com
Patrick R	Arnold	parnold@solidginc.com
Tom	O'Shaughnessy	tom.oshaughnessy@amberinfrastructure.com

Maine International Cold Storage Facility Public Neighborhood Meeting Minutes

The meeting for the neighborhood within 500 feet of the proposed Maine International Cold Storage Facility (and interested parties) was held on June 10, via Zoom, from 6-7:37 p.m.

The Zoom meeting was opened at 5:30 to allow any issues with the technology to resolve themselves prior to the scheduled start of the meeting.

Kay Rand, Outside Board Member of Sewall Company, welcomed the participants to the meeting and reviewed the logistics that would allow participants to ask questions after the presentations were complete, either by using the Zoom “raise your hand” feature, or by sending questions via Chat, or simply unmuting and posing the question. Ms. Rand also informed the participants of the tentatively scheduled workshop before the Planning Board for June 23.

Andrew Nelson, one of the owners of Treadwell Franklin Infrastructure, briefly introduced the Maine International Cold Storage Facility (“MICSF”) project, describing its purpose, the types of products that would be stored and the types of customers to be served, the intermodal nature of the facility (ship, truck, rail), the connection to EIMSKIP and the Maine Port Authority, the impact of COVID-19 on the need for cold storage, and the development team’s commitment to sustainability and resiliency.

Mr. Nelson then outlined all the members of the development team, including:

- Eimskip
- Amber Infrastructure
- Treadwell Franklin Infrastructure
- Maine Port Authority
- Sewall Company
- Woodard & Curran
- Sterling Solutions
- CM at Risk (to be determined)
- Operator (to be determined)
- Construction Contractors/Subcontractors (to be determined)

Mr. Nelson introduced Jedd Steinglass of Woodard & Curran who outlined the presentation to follow of the civil and site design and the architectural design of the MICSF. Mr. Steinglass introduced Darrin Stairs of Woodard & Curran to address the civic and site design components of the MICSF.

Mr. Stairs oriented the participants to the location of the MICSF; reviewed the existing conditions of the project site, then took the most time describing the proposed conditions of the site, including orientation of the building on the site; traffic analysis; landscaping, floodplain

management, and other site features such as the loading bays and truck parking areas. Mr. Stairs informed the participants that the design team is considering adding a gatehouse to control access to the loading dock area and that this feature will be available for review/discussion during subsequent planning board workshops.

Mr. Stairs introduced Guy Labrecque of CWS architects, a subcontractor to Woodard & Curran, who reviewed the architectural features of the building.

Mr. Labrecque reviewed the proposed floor plan, showed building elevations (north, south, east and west); described the materials to be used on the outside of the building; stated that the maximum height of the building will be 73 ' 10", showed the location of the building from a map of the waterfront zone, then shared aerial views of the building from several perspectives: looking southwest, looking from Memorial Park, looking from Commercial Street at a pedestrian level; looking from Beach Street at a pedestrian level; looking east from Commercial Street, and looking across the water from Thomas Knight Park in South Portland.

Mr. Labrecque introduced Abe Weiner of Amber Infrastructure who discussed the solar array that is proposed for the roof of the MICSF. The array will contain over 1600 modules, be sized at 664 kWdc, and produce 828,700 kWh of electricity annually.

Ms. Rand then opened up the meeting to questions from the participants.

Question 1: Right now, we have a long line of semis idling at Emskip. Will this facility take care of that noise?

Answer 1: Trucks will arrive by appointment only. Overall, there will be a reduced impact of noise. Trucks will come directly from IMT to cold storage by appointment, and will be more spread out. A good portion of the noise will be kept internal to MICSF.

Question 2: Currently, we hear back up beeps from trucks starting at 6 AM. Can this be delayed until 7 AM?

Answer 2: Back up beeps are necessary safety requirements for trucks. The operation of the facility will conform to the City's noise ordinances. This is a question best answered by the operator.

Question 3: Will there be noise associated with the cooling system?

Answer 3: The cooling equipment will be internal; therefore the noise will be kept inside. There are no doors or windows to speak of in that room, and the robust insulation will dampen the sound.

Question 4: What is the current planned offset from solar?

Answer 4: We expect that it will be around 20%. We won't know the exact figures until the end of the project, but this percentage will be in the final specs.

Question 5: The height of the building has been controversial in the past. Why has the building been made so tall?

Answer 5: The building maximizes the product storage opportunities that the facility can provide as well as efficiency in construction costs.

Question 6: What is the expected construction time?

Answer 6: Construction should take 1 to 1 1/2 years to complete.

Question 7: The building is about the size that Eimskip was considering previously, correct?

Answer 7: Yes.

Question 8: Initial projections I read were that the building would be at 40% capacity once finished. Is that still the case?

Answer 8: We plan to have the facility more full than that, but bear in mind that there will be a ramp up over time. This will be private development on public land. This facility grew out of Eimskip's needs, so that was the focus of our analysis; the building needs to provide for Eimskip's needs first and foremost.

Question 9: What about the soil? Is this a Superfund site?

Answer 9: This land has been used industrially for 100 years. It is in a managed condition; environmental management is part of the construction design and the DEP and EPA will review these management plans.

Question 10: What about the people who live downwind from construction? Do we need to worry about dust?

Answer 10: Dust will be managed; it is a requirement for construction.

Question 11: Is there any public financing of this project? I understood that \$8 million was needed from the public.

Answer 11: The Maine DOT is putting in \$7.4 million to ready the site for leasing to TFIC/Amber. TFIC/Amber will pay this money back over time through a land lease.

Question 12: Should the state be fronting this money during the COVID-19 pandemic?

Answer 12: Maine has been working on this project for a long time and the need for cold storage worldwide, and in Maine, has only increased due to the COVID-19 pandemic.

Question 13: The state spent \$60 million to keep Eimskip in the port. Does Eimskip have equity in this project?

Answer 13: Yes. You will see at the top of the organizational chart that Eimskip is one of three members of the consortium leading the project as bid lead/sponsor. Eimskip is the market facilitator, as its customers will be the ones leasing space in it. The percent of the facility that will be used by Eimskip and its customers has not been finalized yet.

Question 14: When will TFIC/Amber make a final decision on sponsoring the project?

Answer 14: The decision will be made immediately after information has been received from Sterling; these cold storage experts are performing due diligence right now. Already, a letter of intent has been signed on the land lease.

Question 15: Is it possible that Amazon or another huge corporation will come in and take over the facility?

Answer 15: No, it is not possible for a huge corporation like Amazon to come in and serve the port; serving Eimskip is the top priority. The cold storage facility is all part of a larger port strategy for the state.

Question 16: Is there a two-way agreement, or can Eimskip leave and go to Boston, for example?

Answer 16: This project is not easily re-created. Eimskip would lose a lot of money if they decided to relocate. There is also a shortage of cold storage in the entire country. TFIC plays a small part in a much bigger picture, and is comfortable with Eimskip's commitment to the project.

Question 17: Mr. Labrecque spoke about bringing things down to a human scale, especially in the front of the building, but there's almost no landscaping there even though that's the side the neighborhood will have to view. Tall trees in front would go a long way to break up the sleekness. Is that possible?

Answer 17: Mr. Labrecque will take this request into consideration.

Question 18: What customers are we looking at?

Answer 18: This is a huge opportunity for Maine producers.

Question 19: Will the ammonia refrigeration system be high charge or low charge?

Answer 19: It will be a medium charge system.

Question 20: Can there be more screening on the East end where the trucks are to keep noise down - more trees? An attractive fence?

Answer 20: The designers will take a look, but there are limited opportunities due to the size of the parcel.

Question 21: Could you please talk more specifically about the involvement of rail?

Answer 21: This will be a true multimodal facility. Rail is part of the plan, but its use will depend on the needs of customers.

Question 22: How many 18 wheelers a day will be moving up and down Commercial Street?

Answer 22: There will be about 70 trucks per day; 75% of these will come in the morning (about nine per hour), and 25% will arrive in the afternoon, all by appointment only.

Question 23: What is the best case scenario to start construction?

Answer 23: Permits need to be obtained first, and these are now in the process of review by the City. We anticipate a public hearing in late July, and we hope to have the site permits at the beginning of August, allowing construction to start in September.

Question 24: Who will be the construction manager?

Answer 24: We are in the process of identifying a construction manager.

Question 25: Can you tell us who you are interviewing?

Answer 25: We are going through an official procurement process and interviewing a large number of companies.

Question 26: We have been promised many times that the City will provide a traffic study of the impact of all recent development on all of Commercial Street. Do you know where that stands? Are you aware that there will be three buildings under construction at the same time in this area?

Answer 26: We are meeting with the transportation committee tomorrow and can ask about it. Each of the projects planned in the area are required to have an approved construction management plan. Staging for the Cold Storage Facility will be on site.

Question 27: Are all aspects of design complete? If not, where are you percentage-wise?

Answer 27: The architectural design is 95% complete. Other design is 85% complete.

Question 28: Can you give us assurance that trucks will not be left idling, especially overnight?

Answer 28: The goal of the design was to have the trucks unloaded immediately. Trucks will arrive on a set schedule by appointment only so we can control how many trucks come at once. Once the semis enter the loading bay, they will be sealed and the truck refrigeration units can be turned off.

Question 29: Will the operating contract enshrine this?

Answer 29: This information will not be explicitly stated in the permit, but it is in the submittal of documents already sent to the City and available on their website for inspection by the public.

Question 30: But these are not binding?

Answer 30: I am not an attorney, but I don't think so.

Question 31: Regarding the operator, Andy, what's your experience?

Answer 31: TFIC and Amber specialize in infrastructure. Amber has the resources. We put together the Port Everglades (Florida) cold storage facility, which is a much larger facility than this one, but there, we are the owners. We brought in experts to plan different components, such as Sterling for the cold storage unit. For the Maine International Cold Storage Facility operator, we want to find a strategic partner for the long term. TFIC will be a permanent part of this project.

Question 32: Re: Traffic. There is a lot of new construction occurring simultaneously in this neighborhood. We're also concerned with impact on neighborhood streets...not just during construction but ongoing, as commuters try to avoid increased truck traffic. Any thoughts?

Answer 32: We have a traffic meeting tomorrow with city representatives to scope out the traffic impacts of the project and will know more after that meeting.

Question 33: You mentioned some possible fencing and a guard shack; will this be at odds with the scheduled flow? Can you put this on the drawing?

Answer 33: Yes. Queuing was part of the traffic analysis. We intend to move the trucks in and out as quickly as possible, and not have them stay in the yard for long. The guard shack and fencing will be shown on subsequent drawings and renderings.

Question 34: How many construction management companies are being considered for build proposals? Can you share the names of these companies? If not, what is the reasoning for the lack of transparency at this time?

Answer 34: MainedOT and TFIC are working through this process and are considering several companies, including Woodard & Curran. Due diligence, the site plan, and construction management are all being evaluated at the same time. We are in the middle of a process that needs the blessing of the Maine DOT and the MPA.

Question 35: Are offices going to be on the top floor?

Answer 35: Yes, but the entire facility is only one level.

Question 36: Will there be offices for rent, or are the offices only intended for the operators?

Answer 36: They are intended for the operator.

Question 37: What is Eimskip current volume of frozen produce in an out?

Answer 37: Andy Nelson will try to find out; we do not have this information.

At the conclusion of the meeting, Kay Rand let everyone know that the notes from this meeting would be a matter of public record. If anyone had any further questions, Andy Nelson's phone number was on the card they received in the mail.

11. CONSTRUCTION MANAGEMENT PLAN

A Construction Management Plan has been prepared by Woodard & Curran for the proposed development. The Contractor will be required to provide adequate safety fencing and signage directing pedestrians safely around the construction area. The Construction Management Plan is attached to this Section for your reference.

11.1 ATTACHMENTS

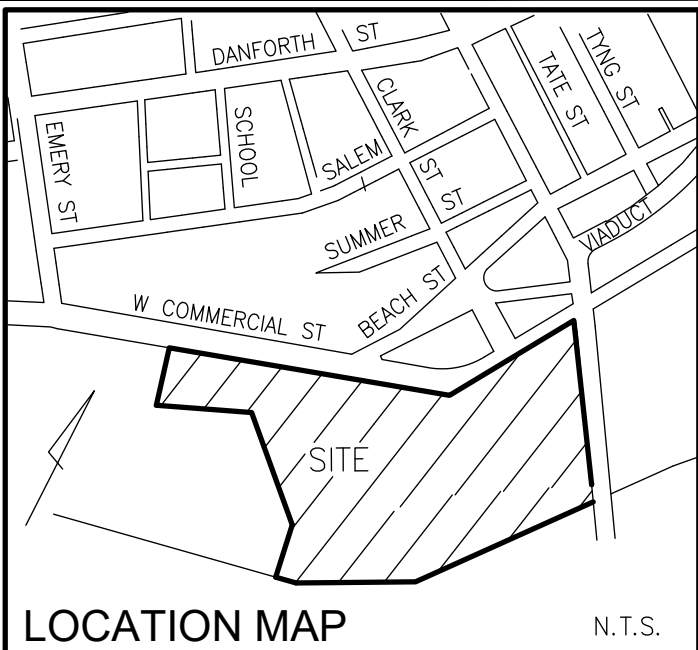
- Construction Management Plan prepared by Woodard & Curran (Uploaded to the Construction Management Plan folder on Eplan)

12. BOUNDARY SURVEY

A boundary survey of the project area was completed by Owen Haskell, Inc. Professional Land Surveyors in October 2019 and is attached to this Section.

12.1 ATTACHMENTS

- Boundary Survey prepared by Owen Haskell, Inc.



PLAN REFERENCES

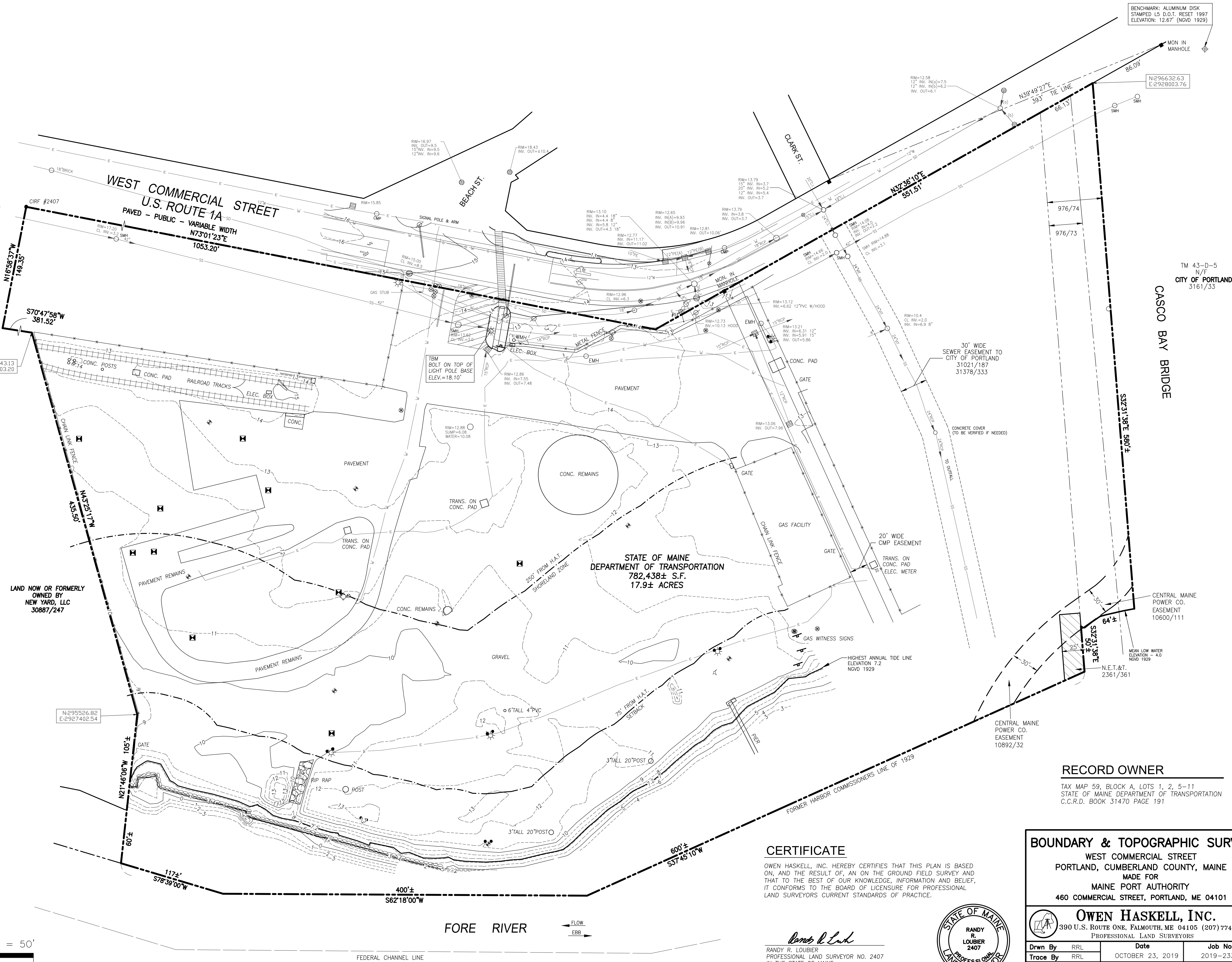
1. LAND ON WEST COMMERCIAL STREET, PORTLAND, MAINE, MAINE CENTRAL RAILROAD COMPANY TO NEW YARD LLC, DATED JULY 30, 2013, BY OWEN HASKELL, INC.
2. ALTA/ACSM LAND TITLE SURVEY WEST COMMERCIAL STREET PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR NEW YARD LLC BY OWEN HASKELL, INC. DATED JULY 2, 2012 REVISED THROUGH SEPTEMBER 23, 2013. RECORDED IN PLAN BOOK 213 PAGES 352 & 353.
3. STATE OF MAINE DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP LAND ACQUISITION PLAN PART II WET COMMERCIAL STREET, PORTLAND, CUMBERLAND COUNTY, MAINE BY OWEN HASKELL, INC. DATED APRIL 25, 2014. RECORDED IN PLAN BOOK 219, PAGE 37.

GENERAL NOTES

1. THE FEDERAL CHANNEL LINE TAKEN FROM PLAN REFERENCE NO. 7 USING COORDINATES IN THE DIGITAL FORMAT OF SAID PLAN.
2. VERTICAL DATUM IS NGVD 1929 BASED UPON MAINE DEPARTMENT OF TRANSPORTATION DISK L 5 (NGS) RESET 1997 FOUND SET IN CONCRETE BRIDGE ABUTMENT THAT SUPPORTS THE BEACH STREET ON RAMP WHERE IT CONNECTS TO THE CASCO BAY BRIDGE.
3. BEARINGS ARE MAINE STATE PLANE WEST COORDINATES NAD 83 MAINE WEST.
4. THE SUBJECT PARCEL IS IN THE DIVISION 18.5 WATERFRONT PORT DEVELOPMENT ZONE & DIVISION 26 SECTION 14-446 SHORE LAND REGULATION ZONE PER THE CITY OF PORTLAND CODE OF ORDINANCES LAND USE CHAPTER 14.
5. THE SUBJECT PARCEL IS IN ZONE C & ZONE A2 (ELEV. 10) AS SHOWN ON THE FLOOD INSURANCE RATE MAP 230051 0016B WITH AN EFFECTIVE DATE OF JULY 17, 1986.

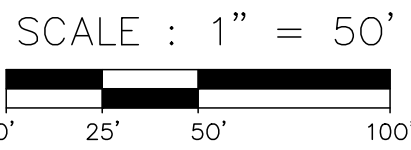
UTILITY NOTE

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-800-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.



LEGEND

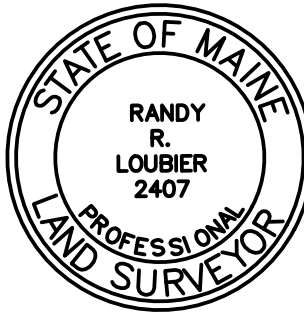
- | | | |
|------------------------|---------|----------------------|
| ● IRON PIPE OR ROD FND | EMH/CMP | ELECTRIC MANHOLE |
| ■ MONUMENT FOUND | WMH | WATER MANHOLE |
| ⊙ GAS VALVE | —X—X— | FENCE |
| ⊙ WATER VALVE | —X—X— | CURB |
| ● BOLLARD | —OHW— | OVERHEAD WIRES |
| ⊙ HYDRANT | —E— | UNDERGROUND ELECTRIC |
| ⊙ UTILITY POLE | —T— | TELEPHONE |
| ⊙ LIGHT POLE | —W— | WATER LINE |
| ⊙ MANHOLE | —G— | GAS LINE |
| ⊙ CATCH BASIN | —SS— | SANITARY SEWER |
| ⊙ SIGN | —SD— | STORM DRAIN |
| ⊙ MONITORING WELL | —10— | 1' CONTOUR |
| ⊙ TEST PIT | | |



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
PROFESSIONAL LAND SURVEYOR NO. 2407
IN THE STATE OF MAINE



RECORD OWNER

TAX MAP 59, BLOCK A, LOTS 1, 2, 5-11
STATE OF MAINE DEPARTMENT OF TRANSPORTATION
C.C.R.D. BOOK 31470 PAGE 191

BOUNDARY & TOPOGRAPHIC SURVEY

WEST COMMERCIAL STREET
PORTLAND, CUMBERLAND COUNTY, MAINE
MADE FOR
MAINE PORT AUTHORITY
460 COMMERCIAL STREET, PORTLAND, ME 04101



OWEN HASKELL, INC.

390 U.S. ROUTE ONE, FALMOUTH, ME 04105 (207) 774-0424
PROFESSIONAL LAND SURVEYORS

Drwn By	RRL	Date	Job No.
Trace By	RRL	OCTOBER 23, 2019	2019-233P
Check By	JLW	Scale	Drwg. No.
Book No.	FILE	1" = 50'	1

TRAFFIC IMPACT STUDY
MAINE INTERNATIONAL COLD STORAGE FACILITY
PORTLAND, MAINE

August 25, 2020

Prepared For:
Woodard & Curran
41 Hutchins Drive,
Portland, ME 04102



Prepared by:



ATFC Company

INTRODUCTION

The purpose of this report is to summarize a traffic impact study for the proposed Maine International Cold Storage Facility (MICS). The cold storage facility will be located adjacent to the International Marine Terminal (IMT) on West Commercial Street in Portland, as shown on the map in Figure 1. The proposed cold storage facility will be 108,000 square feet (S.F.) in size. The facility is expected to employ a maximum of 25 employees, which will be spread over two primary shifts and a late night shift. Access to the facility will be provided by a single full movement signalized drive to West Commercial Street, directly opposite Beach Street, and by an internal connection to the IMT. The facility is projected to generate a maximum of 70 trucks per day or 140 one-way truck trips. The majority of these truck trips (75 %) are expected to occur between 6:00 AM and 12:00 noon with the remaining 25 % occurring in the afternoon. It is expected that the facility will reduce off-site truck trips from the adjacent IMT since there is no available cold storage at the IMT now.

Construction of the facility is expected to begin in late 2020 with completion and occupancy planned for 2022. Given this construction schedule, 2022 was selected as the study year for traffic analysis purposes.

TRIP GENERATION ANALYSIS

The number of trips to be generated by the proposed storage facility was estimated using the most recent Institute of Transportation Engineers (ITE) "Trip Generation, 10th Edition" report. The calculations were performed utilizing Land Use Code 150 - Warehousing on the basis of both employees and square footage. The results on the basis of 108,000 S.F. and 25 employees are summarized in the table below:

<u>Time Period</u>	10th Edition ITE (one-way trip ends)		
	<u>Emp.</u>	<u>S.F.</u>	<u>Average</u>
Weekday	126	188	158
AM Peak Hour – Adjacent Street	15	18	17
AM Peak Hour – Generator	17	24	21
PM Peak Hour – Adjacent Street	17	21	19
PM Peak Hour – Generator	17	26	22

As seen above, the employee and square footage bases yielded similar results so they were averaged to best estimate expected site trips.

SITE SPECIFIC ESTIMATES

Given the availability of specific truck and employee numbers, trip generation was also estimated specific to this site. The facility expects 53 trucks from 6:00 AM to noon, or 9 per hour. To allow for some peaking within that period, 12 trucks are assumed for this analysis, equal to 24 one-way truck trips. The ITE estimates on an employee basis appear reasonable for the facility even though those numbers would have included some trucks. Assuming 15 employee trips and 24 truck trips results in an AM peak hour estimate of 39 one-way trips. Only 17 trucks are anticipated in the afternoon period, from noon to 6:00 PM, which equates to approximately 3 trucks per hour. To allow for peaking within this slower period, 6 trucks are assumed during the PM peak hour with 15 employee trips for 21 PM peak hour trips. This PM estimate is virtually identical to the ITE result of 22, which will be utilized for the remainder of this analysis to be conservative.

PERMITTING REQUIREMENTS

The trips must be converted to passenger car equivalents (PCEs) to determine if a Traffic Movement Permit (TMP) is required under state law. For these calculations, each truck trip equals two PCEs. The peak hour calculations are as follows:

AM Peak Hour – 24 trucks x 2.0 PCEs = 48 PCEs + 15 employee PCEs = 63 PCEs

PM Peak Hour – 7 trucks X 2.0 PCEs = 14 PCEs + 15 employee PCEs = 29 PCEs

Based upon these results, which are expected to be conservative, a TMP would not be required for the Cold Storage facility since peak hour trip generation will not exceed the 100-trip threshold, defined in terms of PCEs. However, the City of Portland has requested that trips generated by the adjacent IMT also be considered.

IMT TRIP GENERATION

Trips to and from the IMT were recorded in turning movement and classification counts performed in 2019 by Gorrill Palmer and Traffic Solutions. These counts were conducted as follows:

<u>Intersection</u>	<u>Date/Count Period</u>	<u>Peak Hour</u>
W. Commercial St, Beach St. & Site Drive	8/13/2019 7 – 9 AM	7:30 – 8:30 AM
W. Commercial St, Beach St. & Site Drive	8/13/2019 3 – 6 PM	4:45 - 5:45 PM
W. Commercial Street & IMT Drive	11/14/2019 7 – 9 AM	7:30 – 8:30 AM
W. Commercial Street & IMT Drive	11/14/2019 4 – 6 PM	4:30 – 5:30 PM

The counts were summarized in terms of passenger car equivalents for the AM and PM peak hours of both the adjacent street system and the peak hour of the IMT. The AM results are shown in Figure 2 while the PM results are summarized in Figure 3. As seen in these figures, during the AM peak hour of the IMT it generated 33 PCEs. During the PM peak hour of the IMT it generated 28 PCEs. These trips are added to the projected peak hours for the International Cold Storage Facility as follows:

AM Peak Hour – 63 PCEs Cold Storage + 33 PCEs IMT = 96 PCEs

PM Peak Hour – 29 PCEs Cold Storage + 28 PCEs IMT = 57 PCEs

As seen above, the maximum PCEs for the entire combined site after development of the cold storage facility will be 96 during the AM peak hour and 57 during the PM peak hour. These estimates are expected to be conservative since they are based upon the following assumptions:

- Both the IMT and Cold Storage facilities will peak during the exact same hours of the day
- Both the employee trips and truck trips for the cold storage facility will peak during the same hours
- The cold storage facility will reduce off-site trips from the IMT since there is no cold storage currently available
- The analysis allowed for peaking in truck traffic while in practice the cold storage trips will be scheduled and more steady state

Given the above results, with the AM peak hour approaching the 100-PCE TMP threshold, additional information was requested by the City of Portland regarding IMT operations and expected growth. Specifically, additional information was requested regarding IMT shipping to determine if the traffic counts conducted in August and November of 2019 would be considered typical of average conditions. Additionally, the City was interested to know if the IMT facility was operating at projected full build out volumes in 2019 and what growth in their traffic numbers could be anticipated.

This information was provided to the City in a letter dated July 7th and the City concurred that a TMP is not required based upon this additional information, supplied by the Port, including an expected 30 % reduction in Port trucks due to the addition of the cold storage facility.

Based upon the trip generation results, and the finding that a TMP is not required, the study area was defined by the City as encompassing the intersection of West Commercial Street, Beach Street and the site drive. The expected AM and PM peak hour trips for the analysis are summarized in the following table:

<u>Time Period</u>	COLD STORAGE TRIP GENERATION (one-way trip-ends)		
	<u>Passenger Vehicles</u>	<u>Trucks</u>	<u>Total Trips</u>
AM Peak Hour – Adjacent Street	15	24	39
Entering	11	12	23
Exiting	4	12	16
PM Peak Hour – Adjacent Street	15	7	22
Entering	5	3	8
Exiting	10	4	14

The trip assignments were based upon the passenger vehicle and truck patterns recorded during the turning movement counts at the IMT drives. The resulting trip assignments are shown in Figures 4 and 5 for the AM and PM peak hour analysis periods.

TRAFFIC VOLUMES

As previously noted, turning movement counts were performed at the study area intersection by Traffic Solutions in 2019 for the “Traffic Impact Study for Proposed Department of Veteran Affairs, Community Based Outpatient Clinic”. This study was performed by William Bray, P.E. and was dated Revised April 5, 2020. The counts are summarized below and the count records are included in the appendix:

<u>Intersection</u>	<u>Date/Count Period</u>	<u>Peak Hour</u>
Commercial, Beach & Site Drive	8/13/2019 7 – 9 AM	7:30 – 8:30 AM
Commercial, Beach & Site Drive	8/13/2019 3 – 6 PM	4:45 - 5:45 PM

Existing average annual daily traffic (AADT) data for the vicinity of the site was obtained from "Traffic Volume Counts, 2017 and 2014 Annual Reports", published by MaineDOT. This data is summarized as follows:

<u>Location</u>	Average Annual Daily Traffic		
	<u>2010</u>	<u>2013</u>	<u>2016</u>
West Commercial Street, east of Cassidy Point	19,000	20,890	20,430
Commercial Street, southwest of Park Street	---	---	17,320
Commercial Street, southwest of High Street	13,820	15,460	14,330

As demonstrated above, traffic volumes in the vicinity of the site have increased at an annual rate of less than 1 % during the period 2010 to 2016 period. Hence, based upon this historical data, a 1 % annual growth rate would have been utilized by Sewall to project the 2019 volumes to base 2022 conditions. It is noted that the volumes developed in the Bray VA Clinic study also utilized a 1 % annual traffic growth rate. The VA Clinic study included volumes from ten other recently approved developments within the VA Clinic study area. The City of Portland has directed Sewall to build upon these VA volumes so that these other developments, as well as

the VA clinic, are considered in the cold storage analysis. The VA volumes were developed for the same 2022 study year as the cold storage facility. Hence, the VA Clinic's Post Development 2022 volumes are the same as the 2022 No Build volumes for the Maine International Cold Storage facility. These No Build volumes are shown in Figures 6 and 7. Lastly, the projected Build volumes with the cold storage at full operations are shown in Figures 8 and 9. It is important to note that no reduction was made for the 30 % reduction in trucks entering and exiting the IMT to be conservative.

ACCIDENT REVIEW

The Maine Department of Transportation uses two criteria to determine high crash locations (HCLs). The first is the critical rate factor (CRF), which is a measure of the accident rate. A CRF greater than one indicates a location which has a higher than expected crash rate. The expected rate is calculated as a statewide average of similar facilities.

The second criterion, which must also be met, is based upon the number of accidents that occur at a particular location. Eight or more accidents must occur over the three-year study period for the location to be considered a high crash location. Accident data was obtained from MaineDOT for Commercial Street and Beach Street in the vicinity of the site and is included in the appendix. The CRF and number of accidents are summarized by location for the most recent three-year period, 2017 to 2019, in the following table:

<u>Location Description</u>	<u># of Acc.</u>	<u>CRF</u>
West Commercial between Beach Street and 0.29 mile west	11	0.45
Intersection of West Commercial Street and Beach Street	28	1.02
West Commercial Street between Beach Street and Commercial Street	4	0.43
Beach Street between West Commercial Street and Clark/York Streets	0	0.00

As seen above, there is one high crash location in the vicinity of the site, the signalized intersection of West Commercial Street, Beach Street and the site drive. An analysis in the Bray Traffic Impact Study for the VA Clinic found that the intersection had a CRF of 1.17 and 30 crashes during the 2016 – 2018 3-year period. The data for the most recent 3-year period has a CRF of 1.02 (just over 1.00) with 28 reported accidents. The Bray study found a pattern of rear-end crashes between through vehicles on West Commercial Street. Additionally, it identified a minor pattern of four crashes involving left turns off Commercial Street onto Beach Street.

An updated collision diagram was obtained from MaineDOT for the more recent 2017 – 2019 period. That collision diagram is included in the appendix of this report. The diagram shows a continued pattern of crashes involving through vehicles on West Commercial Street, with 19

crashes being of this type. Due to the left-turn lanes on the mainline this crash pattern is generally considered uncorrectable provided the clearance times for the traffic signal are appropriate. There were six angle collisions involving left turns onto Beach Street, also constituting a pattern and a small increase from the 2016 – 2018 period.

The VA Clinic project will be making improvements at this intersection to improve safety. Specifically the project will:

- Provide “No Right Turn on Red” Blank Out sign for the Beach Street approach given that vehicles often take inadequate gaps.
- Provide “Red Signal Ahead” advance traffic light warning sign on the outside of the curve for westbound Commercial Street traffic to reduce the rear-end potential.
- Provide improved directional signage on West Commercial Street in advance of the left turn lane to Beach Street with guidance to Casco Bay Bridge and the Old Port to potentially reduce rear-ends in this direction.

Additionally, the Bray report suggested that the City may want to consider protected only left turn phasing for the turns onto Beach Street if that crash pattern becomes more predominant. Currently, the left turn operates as protected-permitted. The impacts of this potential change in signal phasing will be evaluated in the capacity analysis.

CAPACITY ANALYSIS

Traffic operations are evaluated in terms of level of service (LOS). Level of service is a qualitative measure that describes operations by letter designation. The levels range from A - very little delay to F - extreme delays. Level of service "D" is generally considered acceptable in urban locations while LOS "E" is generally considered the capacity of a facility and the minimum tolerable level. The level of service for signalized intersections is based upon the average control or signal delay per vehicle. These criteria are defined in the following table excerpted from the 2010 "Highway Capacity Manual":

Signalized Intersection Level of Service

<u>LOS</u>	<u>Delay Range</u>
A	< = 10.0 seconds
B	> 10.0 and <= 20.0
C	> 20.0 and <= 35.0
D	> 35.0 and <= 55.0
E	> 55.0 and <= 80.0
F	> 80.0

SIGNALIZED INTERSECTION ANALYSIS

The level of service (LOS) was calculated for the signalized access intersection of West Commercial Street and Beach Street for projected 2022 No Build and Build conditions using Synchro 10/SimTraffic. The signal timings and phasings from the Bray study for 2022 conditions were optimized so the timings for this analysis were similarly optimized. The City also requested analysis of providing Adaptive Signal Control at this intersection so the optimization best represents adaptive control. The capacity analysis accounted for the planned “No Right Turn on Red” blank out sign for Beach Street by reducing the right-turns on red accordingly. The average of the results of five (5) SimTraffic runs for No Build and Build conditions are provided in the appendix and are summarized in the following tables:

West Commercial, Beach and Site Drive		
AM Peak Hour Level of Service		
<u>Approach</u>	No Build <u>2022</u>	Build <u>2022</u>
Eastbound West Commercial	B (16.3)	C (21.8)
Westbound West Commercial	C (20.9)	D (39.1)
Northbound Site Drive	D (38.7)	E (65.6)
Southbound Beach	D (47.3)	D (38.6)
Intersection Overall	B (18.2)	C (29.3)
PM Peak Hour Level of Service		
<u>Approach</u>	No Build <u>2022</u>	Build <u>2022</u>
Eastbound West Commercial	D (44.5)	D (44.1)
Westbound West Commercial	F (95.5)	F (96.7)
Northbound Site Drive	F (87.8)	F (124.5)
Southbound Beach	F (126.3)	F (132.8)
Intersection Overall	E (69.1)	E (71.5)

As shown above, the signalized intersection of West Commercial Street, Beach Street and the site drive is expected to operate at an overall LOS “C”, with all road approaches at LOS “D” or better during the AM peak hour under Build volumes. The site drive will operate at a LOS “E” but given the minor volumes this is desirable to preserve capacity for the mainline. This indicates that there are no capacity concerns during the AM peak hour, which is expected to be the busiest peak hour (versus PM peak hour) for the cold storage facility.

The intersection is projected to be constrained at an overall LOS “E” for the PM peak hour, under both No Build and Build condition, given 1 % annual traffic growth and the other approved development projects. Several approaches will operate with extensive delays, at LOS “F”, based upon the analysis. Given that this intersection has been built to its maximum desirable lanes and given the multi-modal complete streets aspects, providing bicycle lanes and pedestrian amenities, there is little that can be done to the intersection configuration to improve operations and lessen these delays. It is important to note that the proposed cold storage facility will have minimal impact on operations at this intersection during the constrained PM peak hour, with similar delays and LOS for all approaches, with the exception of the site drive given the increase in site volumes, as well as overall.

Modification of the signal to adaptive control is recommended, due to the large directional shifts between AM and PM peak hours and given that the intersection is capacity constrained during the PM peak hour. During the AM peak hour, there are 1,256 eastbound through movements and 810 westbound through movements. These volumes are essentially flipped during the PM peak hour with 860 eastbound through movements and 1,251 westbound movements. Additionally, it is expected that weekend patterns and Old Port and Portland events add to the variation in daily and hourly traffic flows, which favors adaptive control.

As previously noted, the Bray VA Clinic study suggested that protected only left-turn phasing for eastbound traffic (versus the current permitted/protected) be evaluated to reduce the angle collisions occurring between left turns onto Beach Street and westbound Commercial Street traffic. The overall impact on delays for Build volumes for the protected-only left option is summarized below:

<u>Approach</u>	West Commercial, Beach and Site Drive Build 2022 Peak Hour Level of Service with Protected Left-Turn Phasing	
	<u>AM Peak Hour</u>	<u>PM Peak Hour</u>
Eastbound West Commercial	C (26.6)	E (74.9)
Westbound West Commercial	D (48.5)	F (97.5)
Northbound Site Drive	D (52.2)	F (106.0)
Southbound Beach	D (54.5)	F (125.3)
Intersection Overall	D (35.3)	F (87.2)

The overall LOS for the intersection drops from “C” with 29.3 seconds of delay to “D” with 35.3 seconds of delay during the AM peak hour. The overall impact on operations during this time period is minor and the improvement in safety would be justified since operations would remain acceptable. During the PM peak hour, which is already constrained, the LOS would drop from “E” to “F” with a 16 second increase in delay. The City of Portland should determine if the potential reduction in crashes (a potential of six over the most recent three-year period) involving these left turns warrants the overall increases in delay.

QUEUE ANALYSIS

In addition to level of service, queues were also evaluated using SimTraffic, to assure that the cold storage facility will have minimal impact off-site on queue lengths and to evaluate existing turn lane storage lengths. The average of five (5) runs for projected 2022 No Build and Build conditions, with and without the protected only left-turn phasing, are summarized below:

AM Peak Hour - 95 th Percentile Queues				
Approach/Lane	Available	No Build	Build	w/ Protected Left-Turn
		<u>2022</u>	<u>2022</u>	<u>2022</u>
Eastbound West Commercial Street Left	700'	276'	289'	388'
Eastbound West Commercial Through/Rights	---	234'	365'	407'
Westbound West Commercial Street Left	55'	12'	31'	73'
Westbound West Commercial Through/Rights	---	557'	899'	975'
Southbound Beach Street	350'	30'	35'	20'
Northbound Site Drive	---	59'	207'	160'

PM Peak Hour - 95 th Percentile Queues				
Approach/Lane	Available	No Build	Build	w/ Protected Left-Turn
		<u>2022</u>	<u>2022</u>	<u>2022</u>
Eastbound West Commercial Street Left	700'	779'	749'	847'
Eastbound West Commercial Through/Rights	---	940'	815'	1,958'
Westbound West Commercial Street Left	55'	8'	12'	13'
Westbound West Commercial Through/Rights	---	1,202'	1,239'	1,223'
Southbound Beach Street	350'	277'	334'	291'
Northbound Site Drive	---	119'	217'	218'

As seen above, the 95th percentile Build queue lengths in turn lanes are generally similar to No Build queue lengths, again demonstrating that the proposed cold storage will have limited impact on this signalized intersection. The Commercial Street through queues will increase somewhat, as would be expected, given the drop in LOS and associated increase in delay. Adequate storage is available for all turn lanes considering the Build volumes with the exception of the eastbound left onto Beach Street during the PM peak hour, which based upon the analysis, exceeds the storage length by two vehicles. This is an existing deficiency, which is not especially problematic in that it only increases the through queue until the left-turning vehicles can reach the left-turn lane. It is important to note that under Build volumes this queue length actually decreases. Hence, the trips generated by the cold storage facility are not expected to worsen this existing deficiency.

The protected left-turn option would significantly increase the eastbound queue lengths, as would be expected, since the portion of the cycle when left-turn movements can occur will be more limited. The other queue lengths are not significantly affected by this potential change in phasing.

To summarize, the signalized intersection of West Commercial Street, Beach Street and the site drive is expected to operate at LOS "C" overall during the AM peak hour with no capacity concerns. The intersection is expected to operate at LOS "E" overall during the PM peak hour with most approaches near or over capacity. The analysis did not show any significant increase in delays due to the proposed cold storage facility which is expected given the limited volumes generated by the IMT and Cold Storage facility. The provision of protected only left-turn phasing for turns onto Beach Street would worsen LOS and increase delays but it would improve safety. This change in phasing has the potential to eliminate or reduce the six angle collisions that occurred at the intersection during the past three years but will significantly increase delays and also queues for eastbound movements.

PEDESTRIAN AND BICYCLE EVALUATION

The City requested an evaluation of the West Commercial Street, Beach Street and site drive intersection in regard to multi-modal transportation.

There are bike lanes provided (and marked) through the Beach Street intersection on West Commercial Street connecting bicyclists to the Fore River Parkway Trail. The shoulder on West Commercial Street ranges from six to ten feet providing for bicyclists until they reach the Fore River Trail. At the Beach Street intersection there is a blank out "no right turn on red" sign, which activates when bicyclists are approaching Beach Street.

There is a continuous sidewalk on Commercial Street to the east connecting to the Old Port. The sidewalk continues to the west on West Commercial Street for approximately ½ mile where there is a gap until one reaches the Fore River Parkway Trail. MaineDOT has scheduled (funded) a multi-modal trail which will run from Beach Street for 0.57 mile connecting to the Fore River Parkway Trail. With this project there will be continuous sidewalk or trail along West Commercial Street from the Veteran's Memorial Bridge and Fore River Parkway area to the Old Port providing continuous pedestrian facilities. There is also existing sidewalk along Beach Street, connecting to York Street and Clark Street and the West End neighborhood.

There are two crosswalks at the signalized intersection. One crosses the Beach Street approach and one crosses West Commercial Street on the easterly side, connecting to the site. A field review showed that there are pedestrian pushbuttons which activate the pedestrian signals and that they operate acceptably with adequate walk time. It is recommended that the blank out "no right turn" sign onto Beach Street also activate when the pedestrian signal crossing Beach Street is activated to improve pedestrian safety.

The pedestrian phase for the Beach Street crossing is concurrent with West Commercial Street movements. Under current phasing this is more difficult and potentially dangerous for pedestrians to cross given the high volume of permitted left turns onto Beach Street, especially during the PM peak hour with 482 eastbound left turns. If protected only left turn phasing was implemented the pedestrian phase could be concurrent with the Commercial Street through movements improving the safety of this pedestrian crosswalk.

TRAVEL DEMAND MANAGEMENT PLAN

The City has requested that the project consider a Travel Demand Management (TDM) plan. The cold storage facility is expected to have a maximum of 25 employees, which will be split between 3 shifts. There will be 10 employees during the first primary shift, 10 during the second primary shift, and up to 5 during the third (night) shift. The provision of three shifts inherently manages demand and reduces peak hour trips.

As noted in the preceding pedestrian and bicycle evaluation, there will be continuous sidewalk or multi-use trail, which will allow nearby employees to walk to work or employees to walk to lunch, etc. There will be a bike rack and showers at the cold storage facility so that employees could bike longer distances to work. Additionally, the site is approximately 1,300 feet from a Portland Metro Route 8 – Peninsula Loop bus stop, providing a transit alternative. It is expected that there will be limited opportunities for ride sharing (given the limited number of employees per shift) but it is recommended that a rideshare board be placed in the employee break room to encourage employees to seek ride sharing opportunities.

SUMMARY AND RECOMMENDATIONS

The Maine International Cold Storage Facility is expected to generate 39 one-way trips during the AM peak hour and 22 during the PM peak hour.

The signalized intersection of West Commercial Street, Beach Street and the site drive is expected to operate at LOS "C" under Build volumes overall during the AM peak hour with no capacity concerns. It is important to note that the AM peak hour is when the cold storage facility is expected to be busiest (versus the PM peak hour).

The intersection is expected to operate at LOS "E" overall during the PM peak hour with most approaches near or over capacity. This same LOS "E" is projected under No Build volumes. The analysis did not show any significant increase in delays due to the proposed cold storage facility which would be expected given the limited volumes generated by the Cold Storage facility.

Given that this intersection has been built to its maximum desirable lanes, and given the multi-modal components, there is little that can be done to improve operations and lessen the PM peak hour delays. Modification of the signal to adaptive control is recommended given the existing capacity constraint and large directional shifts between the AM and PM peak hours. Additionally, it is expected that weekend patterns and Old Port and Portland events add to the variation in daily and hourly traffic flows, favoring adaptive control.

Build queue lengths in the turn lanes are generally similar to No Build queue lengths, again demonstrating that the proposed cold storage will have limited impact on the signalized intersection. The Commercial Street through queues will increase somewhat, as would be expected, given the drop in LOS and associated increase in delay. Adequate storage is available for the turn lanes for Build volumes with the exception of the eastbound left onto Beach Street during the PM peak hour, which based upon the analysis, exceeds the storage length by two vehicles. This is an existing deficiency and under Build volumes this queue length actually decreases.

In terms of safety, there is one high crash location within the study area; the intersection of West Commercial Street, Beach Street and the site drive. Analysis of the collision diagram for the most recent three-year period shows a continued pattern of rear ends for through vehicles on West Commercial Street as well as minor pattern of angle collisions involving left-turns onto Beach Street. The VA Clinic will be enhancing signage on West Commercial to reduce the potential for the rear-end collisions on Commercial Street. The Bray VA Clinic study suggested that protected only left-turn phasing for eastbound traffic (versus the current permitted/protected) would reduce the angle collisions occurring between left turns onto Beach Street and westbound Commercial Street traffic. This option of protected only left-turn phasing for turns onto Beach Street would worsen LOS and increase delays but it would improve safety. This change in phasing has the potential to eliminate or reduce the six angle

collisions that occurred at the intersection during the past three years but it will significantly increase delays and also queues for eastbound movements. A change to protected left-turn only phasing would also improve the safety of the Beach Street crosswalk since the pedestrian phase could be concurrent with the Commercial Street through movements eliminating conflicts between permitted left turns and pedestrians.

In terms of a TDM, the 25 employees will be spread over three shifts thus reducing peak hour trips. The site is directly served by both pedestrian and bicycle facilities. Additionally, there is a transit stop within a reasonable distance of the facility. The facility will provide a bike rack and showers to encourage employees to bike to work. It is recommended that a ride share board be located in the employee break room although given the small number of employees per shift rideshare opportunities are expected to be limited.



Figure 1

Site Location Map

Maine International Cold Storage Facility

Portland, Maine





-- AM Peak Hour Adj. St
(--) AM Peak Hour IMT

AM Peak Hour Adj. St - 7:30-8:30
19 PCEs

AM Peak Hour IMT - 8:00-9:00
33 PCEs

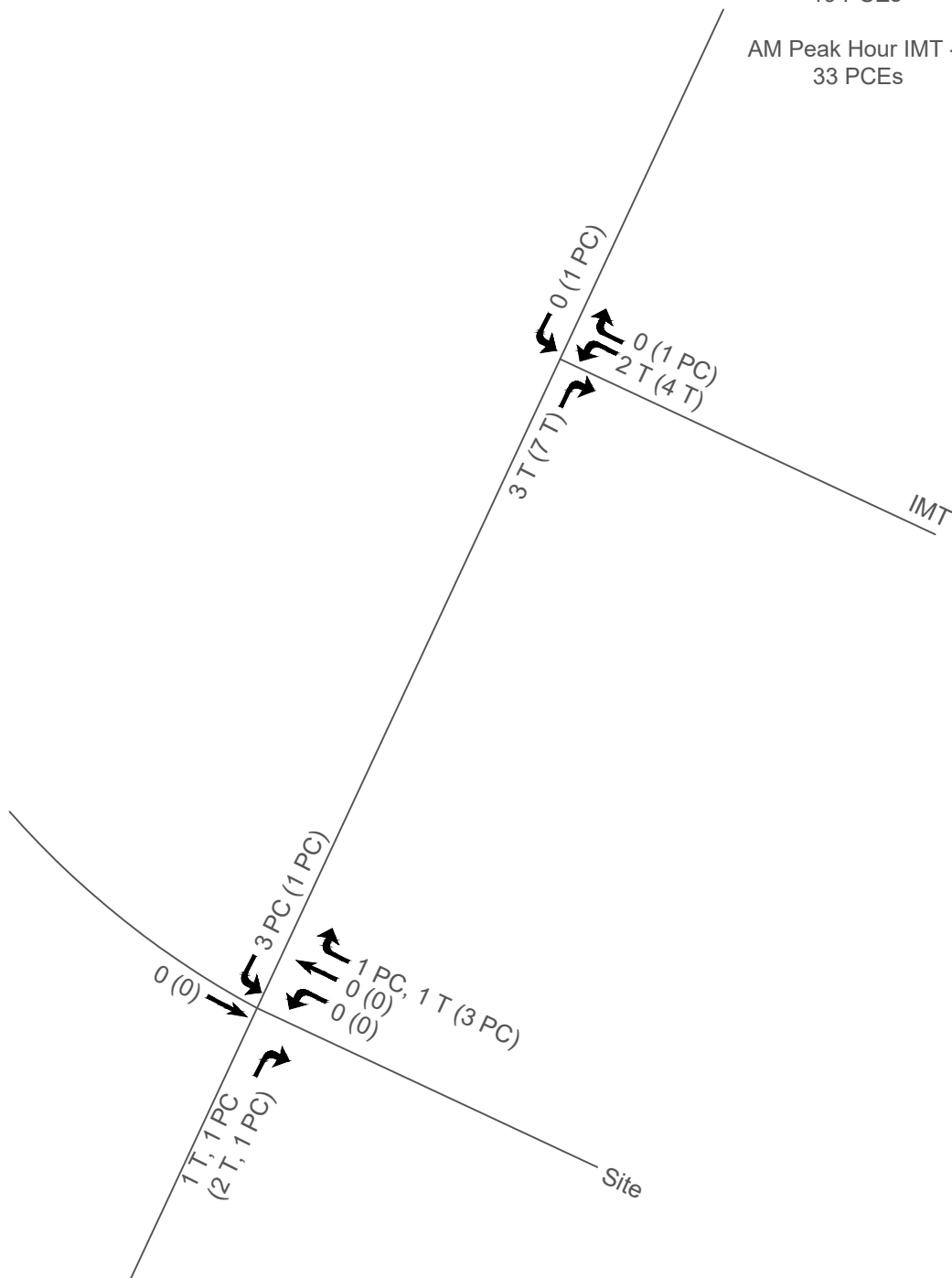


Figure 2

Existing AM IMT Trips
Maine International Cold Storage Facility
Portland, Maine





-- PM Peak Hour Adj. St
(--) PM Peak Hour IMT

PM Peak Hour - Adj. St
20 PCEs

PM Peak Hour - IMT
28 PCEs

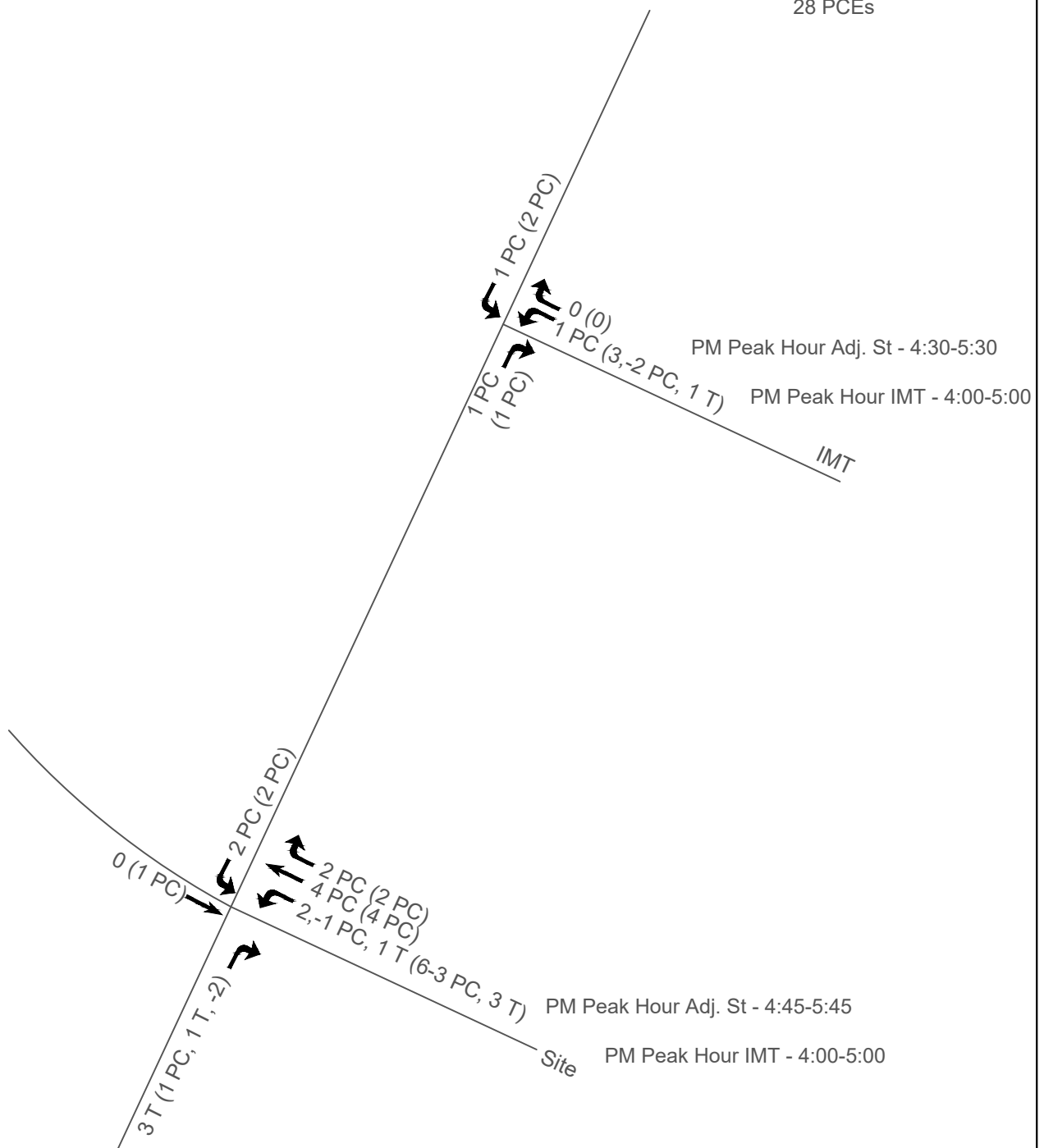


Figure 3

Existing PM IMT Trips
Maine International Cold Storage Facility
Portland, Maine



-- Passenger Vehicles
(--) Trucks

Passenger Vehicles:
11 IN
4 OUT

Trucks:
(12) IN
(12) OUT

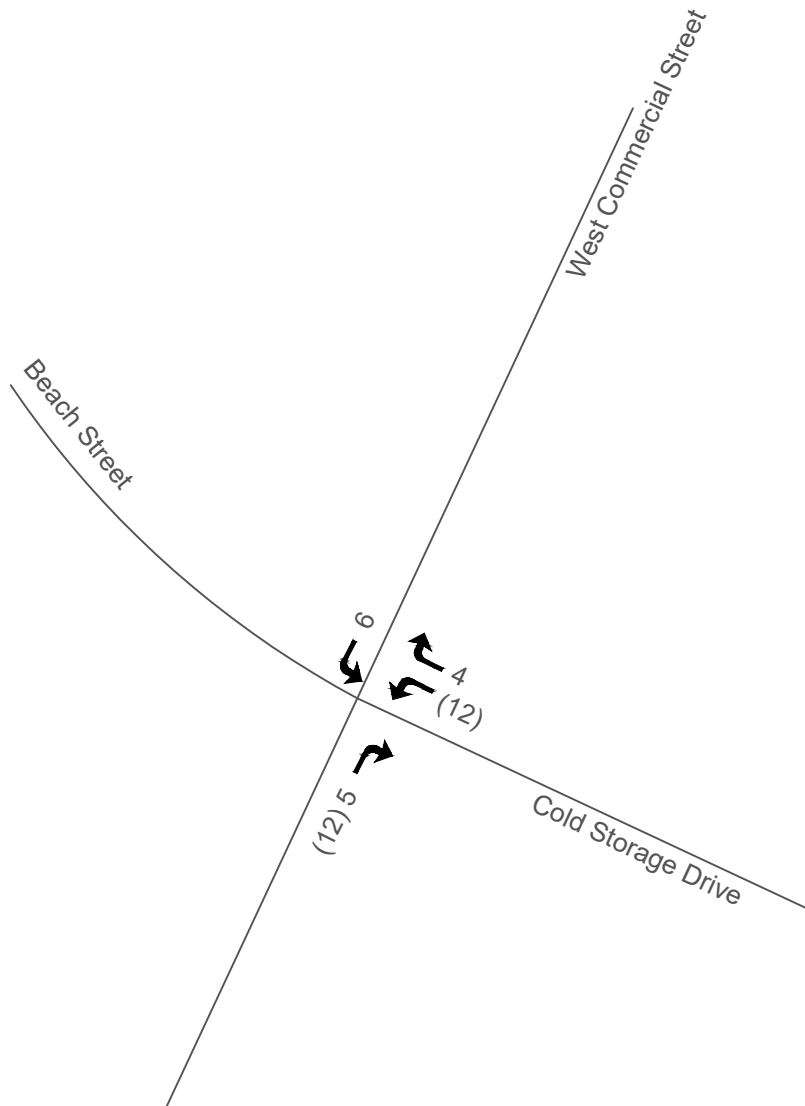


Figure 4

AM Peak Hour Trip Assignments
Maine International Cold Storage Facility
Portland, Maine





-- Passenger Vehicles
(--) Trucks

Passenger Vehicles:
5 IN
10 OUT

Trucks:
(3) IN
(4) OUT

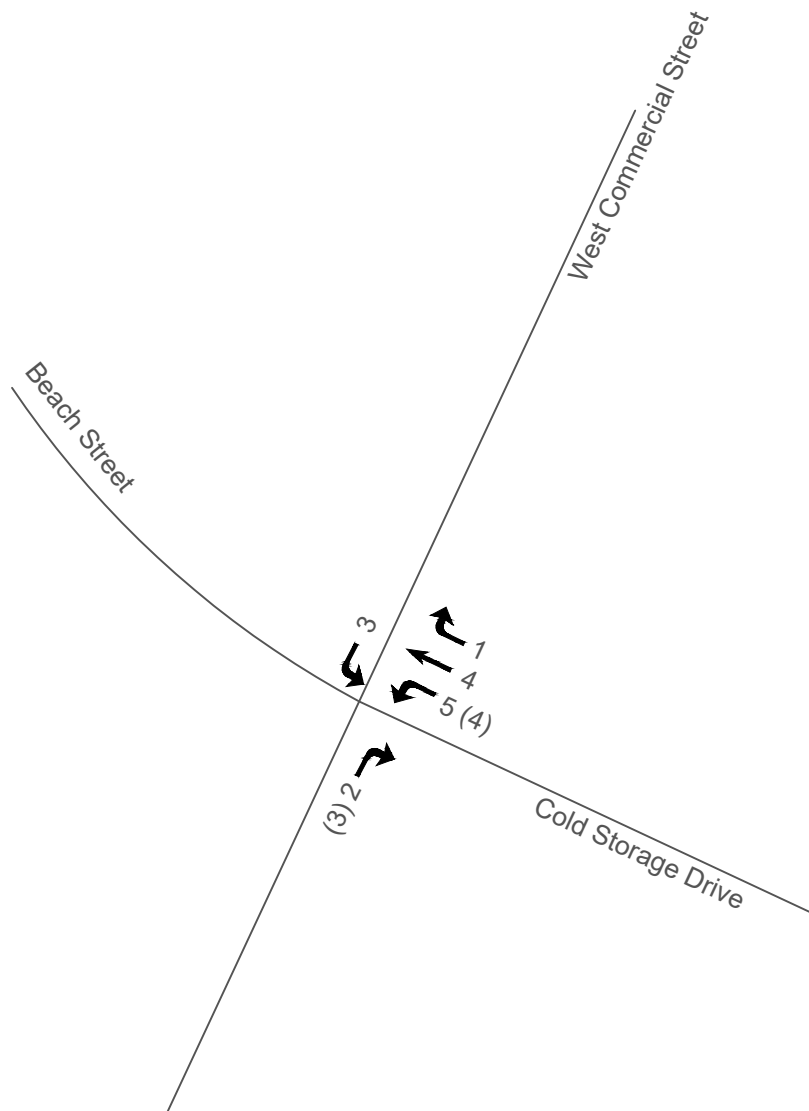


Figure 5

PM Peak Hour Trip Assignments
Maine International Cold Storage Facility
Portland, Maine

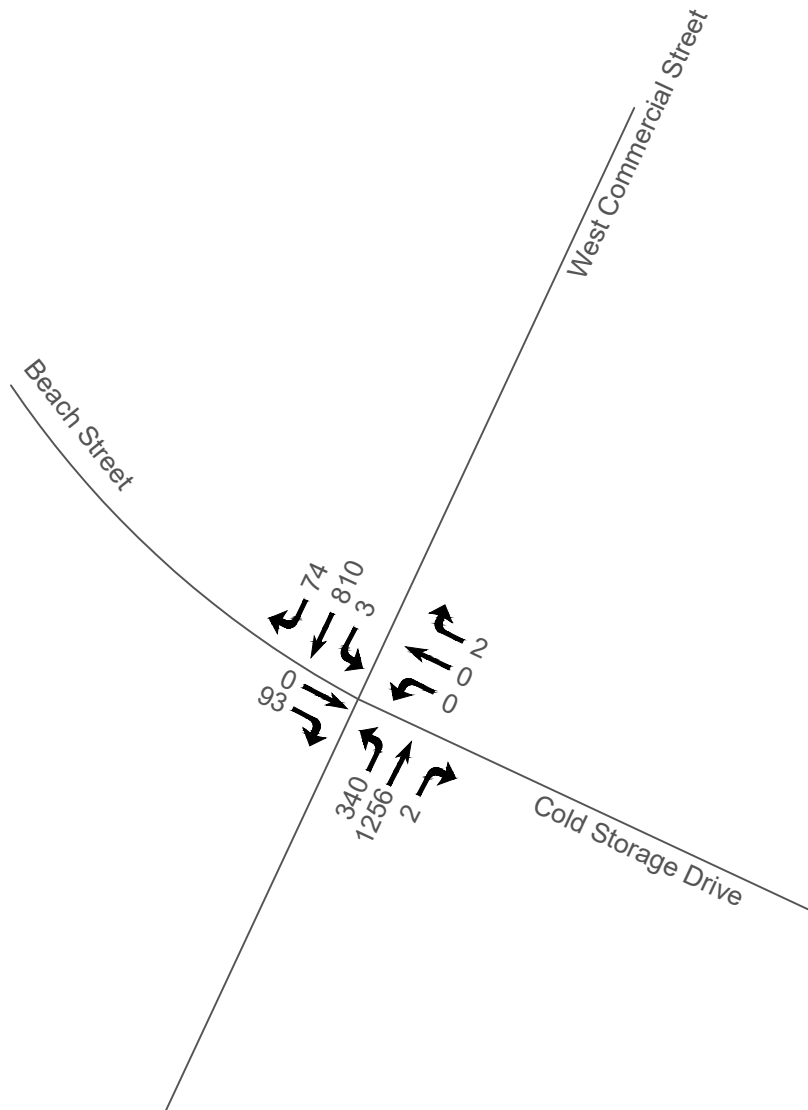


Figure 6

2022 No-Build AM Peak Hour Volumes
Maine International Cold Storage Facility
Portland, Maine

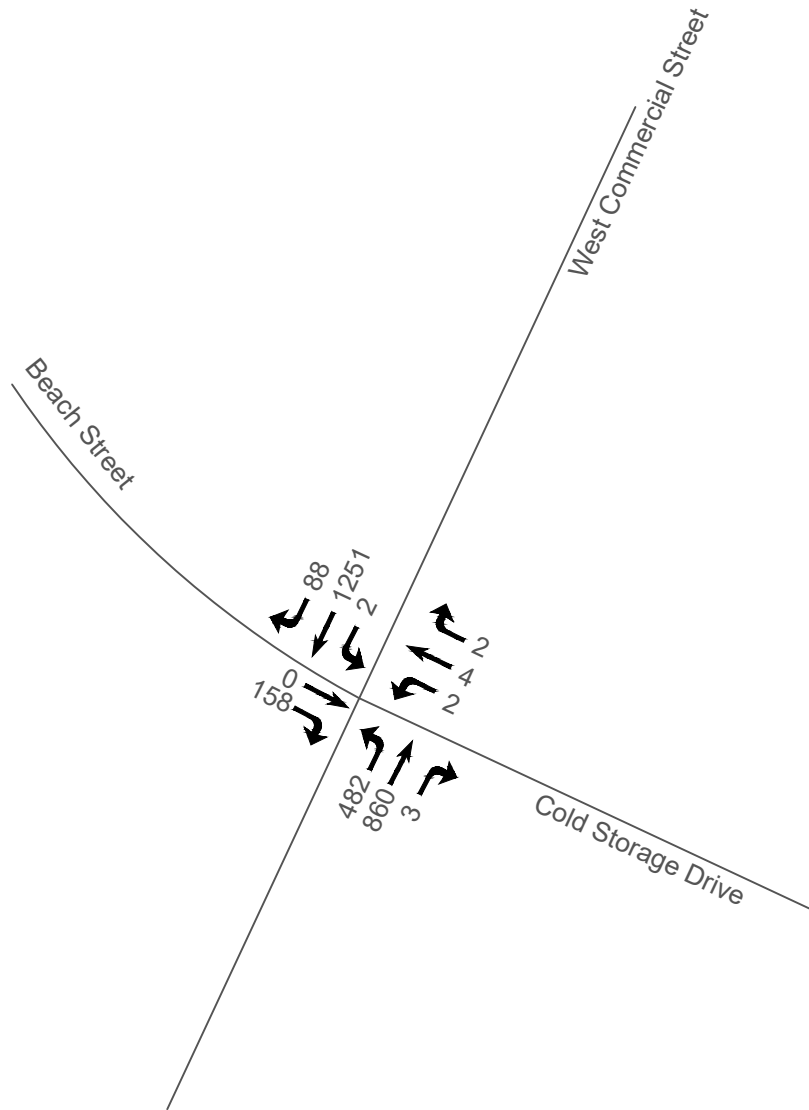


Figure 7

**2022 No-Build PM Peak Hour Volumes
Maine International Cold Storage Facility
Portland, Maine**

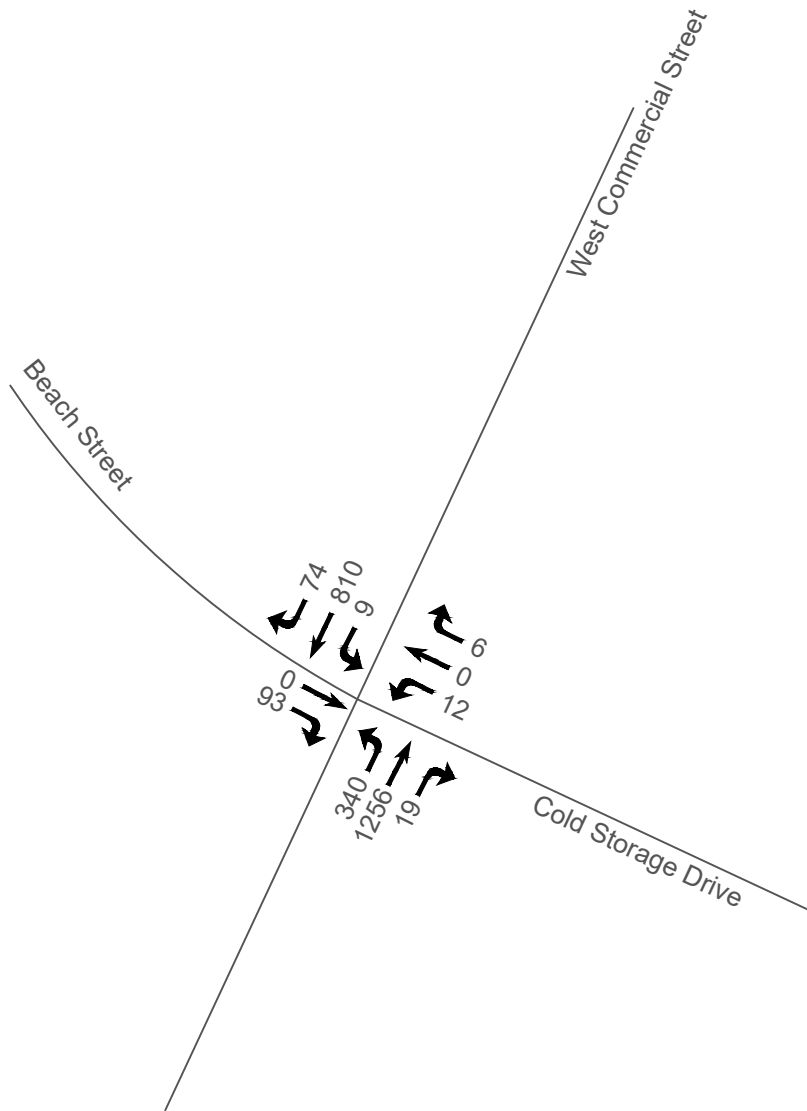


Figure 8

2022 Build AM Peak Hour Volumes
Maine International Cold Storage Facility
Portland, Maine

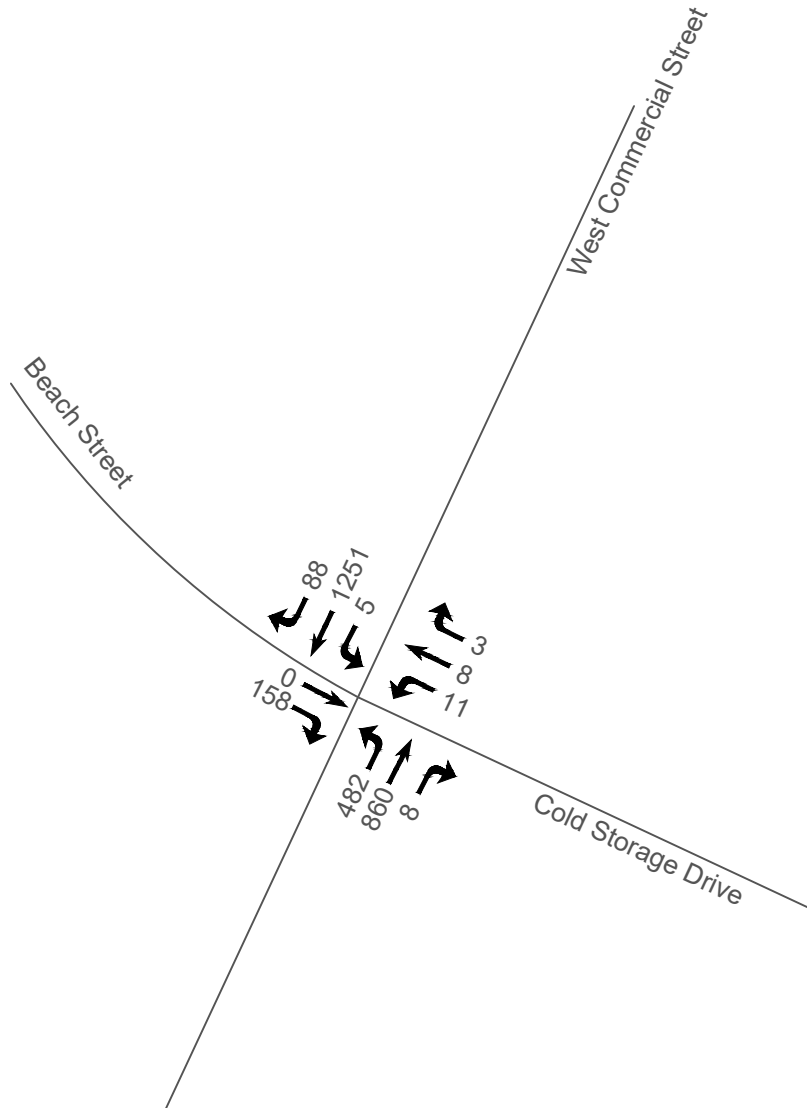


Figure 9

2022 Build PM Peak Hour Volumes
Maine International Cold Storage Facility
Portland, Maine

APPENDIX

Turning Movement Counts

Accident Data

Collision Diagram

Capacity Analysis

Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 AM
Light Rain
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 AM
Site Code : 00813191
Start Date : 8/13/2019
Page No : 1

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

	W Commerical St From North				Eimskip From East				W Commerical St From South				Beach St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	12	129	0	141	0	0	0	0	0	166	40	206	19	0	0	19	366
07:15 AM	14	142	0	156	1	0	0	1	3	189	66	258	26	0	0	26	441
07:30 AM	17	182	0	199	0	0	0	0	0	230	86	316	21	0	0	21	536
07:45 AM	16	168	2	186	0	0	0	0	1	259	81	341	22	0	0	22	549
Total	59	621	2	682	1	0	0	1	4	844	273	1121	88	0	0	88	1892
08:00 AM	15	154	0	169	2	0	0	2	1	240	85	326	28	0	0	28	525
08:15 AM	14	138	1	153	0	0	0	0	0	268	81	349	18	0	0	18	520
08:30 AM	6	141	0	147	0	0	0	0	0	216	71	287	27	0	0	27	461
08:45 AM	16	114	0	130	1	0	0	1	1	192	86	279	26	0	0	26	436
Total	51	547	1	599	3	0	0	3	2	916	323	1241	99	0	0	99	1942

*** BREAK ***

Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 AM
Light Rain
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 AM
Site Code : 00813191
Start Date : 8/13/2019
Page No : 2

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

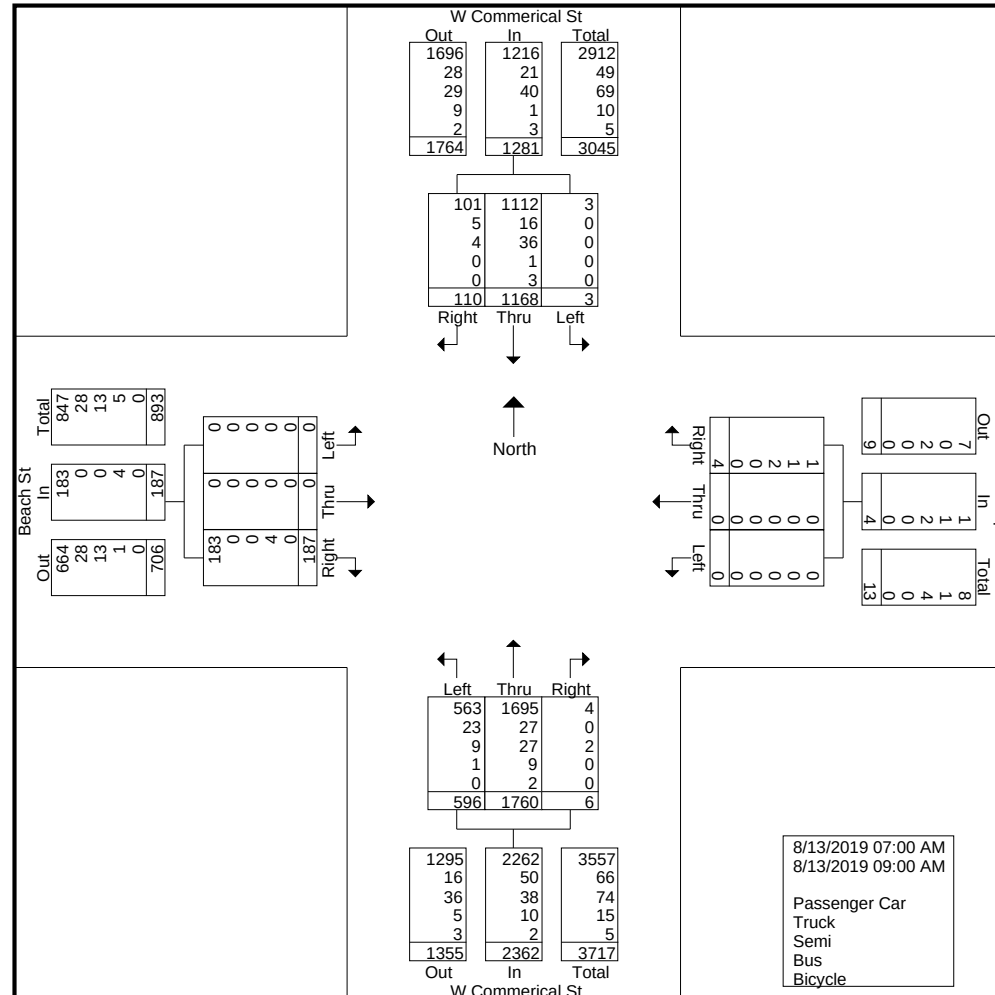
	W Commerical St From North				Eimskip From East				W Commerical St From South				Beach St From West				
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Grand Total	110	1168	3	1281	4	0	0	4	6	1760	596	2362	187	0	0	187	3834
Apprch %	8.6	91.2	0.2		100	0	0		0.3	74.5	25.2		100	0	0		
Total %	2.9	30.5	0.1	33.4	0.1	0	0	0.1	0.2	45.9	15.5	61.6	4.9	0	0	4.9	
Passenger Car	101	1112	3	1216	1	0	0	1	4	1695	563	2262	183	0	0	183	3662
% Passenger Car	91.8	95.2	100	94.9	25	0	0	25	66.7	96.3	94.5	95.8	97.9	0	0	97.9	95.5
Truck	5	16	0	21	1	0	0	1	0	27	23	50	0	0	0	0	72
% Truck	4.5	1.4	0	1.6	25	0	0	25	0	1.5	3.9	2.1	0	0	0	0	1.9
Semi	4	36	0	40	2	0	0	2	2	27	9	38	0	0	0	0	80
% Semi	3.6	3.1	0	3.1	50	0	0	50	33.3	1.5	1.5	1.6	0	0	0	0	2.1
Bus	0	1	0	1	0	0	0	0	0	9	1	10	4	0	0	4	15
% Bus	0	0.1	0	0.1	0	0	0	0	0	0.5	0.2	0.4	2.1	0	0	2.1	0.4
Bicycle	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
% Bicycle	0	0.3	0	0.2	0	0	0	0	0	0.1	0	0.1	0	0	0	0	0.1

Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 AM
Light Rain
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 AM
Site Code : 00813191
Start Date : 8/13/2019
Page No : 3



Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 AM
Light Rain
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 AM
Site Code : 00813191
Start Date : 8/13/2019
Page No : 5

	W Commerical St From North				Eimskip From East				W Commerical St From South				Beach St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	17	182	0	199	0	0	0	0	0	230	86	316	21	0	0	21	536
07:45 AM	16	168	2	186	0	0	0	0	1	259	81	341	22	0	0	22	549
08:00 AM	15	154	0	169	2	0	0	2	1	240	85	326	28	0	0	28	525
08:15 AM	14	138	1	153	0	0	0	0	0	268	81	349	18	0	0	18	520
Total Volume	62	642	3	707	2	0	0	2	2	997	333	1332	89	0	0	89	2130
% App. Total	8.8	90.8	0.4		100	0	0		0.2	74.8	25		100	0	0		
PHF	.912	.882	.375	.888	.250	.000	.000	.250	.500	.930	.968	.954	.795	.000	.000	.795	.970

Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 PM
Thunder Showers
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 PM
Site Code : 00813192
Start Date : 8/13/2019
Page No : 1

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

	W Commercial St From North				Eimskip From East				W Commercial St From South				Beach St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
03:00 PM	21	203	0	224	0	1	1	2	0	102	87	189	30	1	0	31	446
03:15 PM	23	208	2	233	2	1	4	7	1	106	92	199	15	0	0	15	454
03:30 PM	20	227	0	247	0	0	2	2	0	120	84	204	25	0	0	25	478
03:45 PM	16	177	1	194	1	1	2	4	3	136	66	205	21	0	1	22	425
Total	80	815	3	898	3	3	9	15	4	464	329	797	91	1	1	93	1803
04:00 PM	24	194	1	219	2	1	5	8	0	102	104	206	36	1	0	37	470
04:15 PM	13	217	0	230	0	0	0	0	0	117	117	234	37	0	0	37	501
04:30 PM	13	226	0	239	0	2	0	2	1	118	110	229	24	0	0	24	494
04:45 PM	19	239	1	259	0	1	1	2	1	156	95	252	28	0	0	28	541
Total	69	876	2	947	2	4	6	12	2	493	426	921	125	1	0	126	2006
05:00 PM	17	222	1	240	1	1	0	2	1	144	140	285	36	0	0	36	563
05:15 PM	19	241	0	260	1	2	0	3	1	175	88	264	39	0	0	39	566
05:30 PM	10	211	0	221	0	0	1	1	0	142	98	240	46	0	0	46	508
05:45 PM	25	232	0	257	0	0	0	0	0	124	85	209	14	0	1	15	481
Total	71	906	1	978	2	3	1	6	2	585	411	998	135	0	1	136	2118

Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 PM
Thunder Showers
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 PM
Site Code : 00813192
Start Date : 8/13/2019
Page No : 2

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

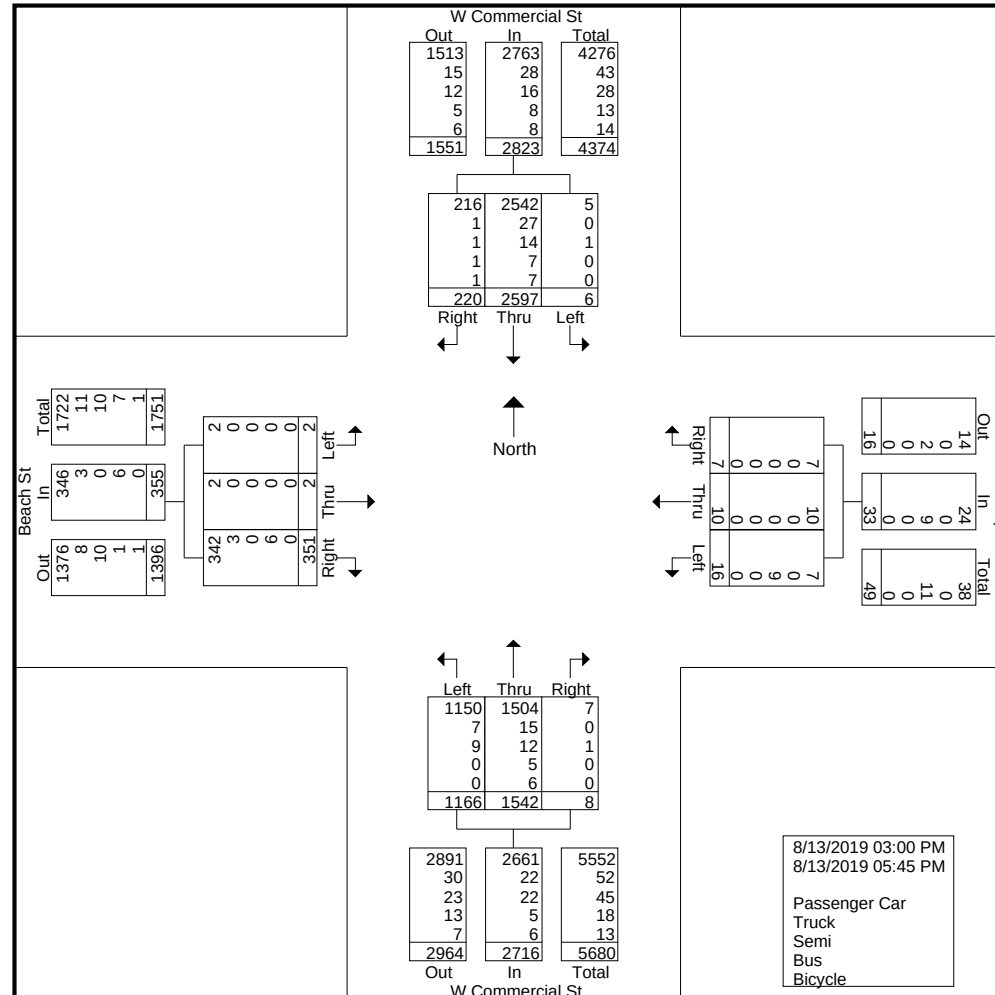
	W Commercial St From North				Eimskip From East				W Commercial St From South				Beach St From West				
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Grand Total	220	2597	6	2823	7	10	16	33	8	1542	1166	2716	351	2	2	355	5927
Apprch %	7.8	92	0.2		21.2	30.3	48.5		0.3	56.8	42.9		98.9	0.6	0.6		
Total %	3.7	43.8	0.1	47.6	0.1	0.2	0.3	0.6	0.1	26	19.7	45.8	5.9	0	0	6	
Passenger Car	216	2542	5	2763	7	10	7	24	7	1504	1150	2661	342	2	2	346	5794
% Passenger Car	98.2	97.9	83.3	97.9	100	100	43.8	72.7	87.5	97.5	98.6	98	97.4	100	100	97.5	97.8
Truck	1	27	0	28	0	0	0	0	0	15	7	22	3	0	0	3	53
% Truck	0.5	1	0	1	0	0	0	0	0	1	0.6	0.8	0.9	0	0	0.8	0.9
Semi	1	14	1	16	0	0	9	9	1	12	9	22	0	0	0	0	47
% Semi	0.5	0.5	16.7	0.6	0	0	56.2	27.3	12.5	0.8	0.8	0.8	0	0	0	0	0.8
Bus	1	7	0	8	0	0	0	0	0	5	0	5	6	0	0	6	19
% Bus	0.5	0.3	0	0.3	0	0	0	0	0	0.3	0	0.2	1.7	0	0	1.7	0.3
Bicycle	1	7	0	8	0	0	0	0	0	6	0	6	0	0	0	0	14
% Bicycle	0.5	0.3	0	0.3	0	0	0	0	0	0.4	0	0.2	0	0	0	0	0.2

Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Portland W Commerical & Beach St
August 13, 2019 PM
Thunder Showers
Count by Jen Gilbert

File Name : Portland W Commercial St & Beach St 8-14-19 PM
Site Code : 00813192
Start Date : 8/13/2019
Page No : 3



Traffic Solutions

17 Mountview Drive
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	W Commercial St From North				Eimskip From East				W Commercial St From South				Beach St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	19	239	1	259	0	1	1	2	1	156	95	252	28	0	0	28	541
05:00 PM	17	222	1	240	1	1	0	2	1	144	140	285	36	0	0	36	563
05:15 PM	19	241	0	260	1	2	0	3	1	175	88	264	39	0	0	39	566
05:30 PM	10	211	0	221	0	0	1	1	0	142	98	240	46	0	0	46	508
Total Volume	65	913	2	980	2	4	2	8	3	617	421	1041	149	0	0	149	2178
% App. Total	6.6	93.2	0.2		25	50	25		0.3	59.3	40.4		100	0	0		
PHF	.855	.947	.500	.942	.500	.500	.500	.667	.750	.881	.752	.913	.810	.000	.000	.810	.962

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I
 ☐ Section Detail
 ☒ Crash Summary II
 ☐ 1320 Public
 ☐ 1320 Private
 ☐ 1320 Summary

REPORT DESCRIPTION

Portland: W Commercial St/Commercial St/Rte 1A from Veterans Memorial Bridge (node 66542) to High St (node 16784); Beach St from Commercial St (node 16780) to York St (node 19129); Beach St Ramp to Casco Bay Bridge (nodes 16780-10549)

REPORT PARAMETERS

Year 2017, Start Month 1 through Year 2019 End Month: 12

Route: 0001A	Start Node: 66542 End Node: 16784	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☐ Exclude Last Node
Route: 001AS	Start Node: 16779 End Node: 60469	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 001AS	Start Node: 60469 End Node: 16747	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 001AS	Start Node: 16747 End Node: 66542	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 0560041	Start Node: 16780 End Node: 19129	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node
Route: 05A0077	Start Node: 16780 End Node: 10549	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☐ Exclude Last Node

Crash Summary I

Nodes															
Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury A	Crashes B	Crashes C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF	
66542	0001A - 9.70	Int of FORE RIVER PKY VETERANS BRIDGE	9	10	0	0	0	2	8	20.0	9.969	0.33	1.14	0.00	
												Statewide Crash Rate:	0.75		
16747	0001A - 9.86	Int of FORE RIVER PKY VALLEY ST W COMMERCIAL ST	9	29	0	1	2	5	21	27.6	10.636	0.91	1.13	0.00	
												Statewide Crash Rate:	0.75		
66547	0001A - 9.91	Int of CASSIDY POINT DR W COMMERCIAL ST	2	0	0	0	0	0	0	0.0	4.216	0.00	0.41	0.00	
												Statewide Crash Rate:	0.16		
60470	0001A - 9.95	Int of CASSIDY POINT DR W COMMERCIAL ST	2	0	0	0	0	0	0	0.0	4.169	0.00	0.41	0.00	
												Statewide Crash Rate:	0.16		
60469	0001A - 10.04	Int of CASSIDY POINT DR W COMMERCIAL ST	9	4	0	0	0	2	2	50.0	8.163	0.16	1.18	0.00	
												Statewide Crash Rate:	0.75		
16779	0001A - 10.10	Non Int W COMMERCIAL ST	2	0	0	0	0	0	0	0.0	7.948	0.00	0.35	0.00	
												Statewide Crash Rate:	0.16		
73433	0001A - 10.12	Non Int W COMMERCIAL ST	2	0	0	0	0	0	0	0.0	3.951	0.00	0.42	0.00	
												Statewide Crash Rate:	0.16		
73122	0001A - 10.40	Non Int W COMMERCIAL ST	2	0	0	0	0	0	0	0.0	3.951	0.00	0.42	0.00	
												Statewide Crash Rate:	0.16		
16780	0001A - 10.69	Int of BEACH ST ENT TO PORTLAND YACHT RAMP BEACH	9	28	0	0	2	9	17	39.3	7.648	1.22	1.19	1.02	
												Statewide Crash Rate:	0.75		
16781	0001A - 10.79	Int of COMMERCIAL ST W COMMERCIAL ST	2	0	0	0	0	0	0	0.0	3.290	0.00	0.44	0.00	
												Statewide Crash Rate:	0.16		
16782	0001A - 10.96	RRX 837536 COMMERCIAL ST	2	0	0	0	0	0	0	0.0	3.290	0.00	0.44	0.00	
												Statewide Crash Rate:	0.16		
16783	0001A - 11.05	Int of COMMERCIAL ST PARK ST	2	17	0	0	1	4	12	29.4	7.962	0.71	0.35	2.03	
												Statewide Crash Rate:	0.16		
16784	0001A - 11.13	Int of COMMERCIAL ST HIGH ST	2	4	0	2	0	1	1	75.0	5.860	0.23	0.38	0.00	
												Statewide Crash Rate:	0.16		
66548	001AS - 2.61	Int of FORE RIVER PKY RD INV 3209586	2	0	0	0	0	0	0	0.0	5.475	0.00	0.38	0.00	
												Statewide Crash Rate:	0.16		
19129	0560041 - 0.08	Int of BEACH ST CLARK ST YORK ST	2	0	0	0	0	0	0	0.0	0.243	0.00	0.68	0.00	
												Statewide Crash Rate:	0.16		
10549	05A0077 - 0.22	Int of RAMP BEACH ST ROUTE 77 SB	2	1	0	0	0	1	0	100.0	6.199	0.05	0.37	0.00	
												Statewide Crash Rate:	0.16		
Study Years:	3.00	NODE TOTALS:		93	0	3	5	24	61	34.4	92.970	0.33	0.49	0.69	

Crash Summary I

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	K	Injury A	Crashes B	Crashes C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
66542	16747	3140171	0 - 0.16	0001A - 9.70	0.16	2	2	0	0	0	1	1	50.0	0.00801	83.26	446.88	0.00
Int of FORE RIVER PKY VETERANS BRIDGE															Statewide Crash Rate: 220.75		
16747	66547	3117392	0 - 0.05	0001A - 9.86	0.05	2	1	0	0	0	0	1	0.0	0.00211	158.12	622.96	0.00
Int of FORE RIVER PKY VALLEY ST W COMMERCIAL ST															Statewide Crash Rate: 220.75		
66547	60470	3510989	0 - 0.04	0001A - 9.91	0.04	2	0	0	0	0	0	0	0.0	0.00166	0.00	662.73	0.00
Int of CASSIDY POINT DR W COMMERCIAL ST															Statewide Crash Rate: 220.75		
60470	60469	3510990	0 - 0.09	0001A - 9.95	0.09	2	1	0	0	0	0	1	0.0	0.00375	88.84	537.07	0.00
Int of CASSIDY POINT DR W COMMERCIAL ST															Statewide Crash Rate: 220.75		
60469	16779	3121916	0 - 0.06	0001A - 10.04	0.06	2	0	0	0	0	0	0	0.0	0.00240	0.00	602.49	0.00
Int of CASSIDY POINT DR W COMMERCIAL ST															Statewide Crash Rate: 220.75		
16779	73433	4628058	0 - 0.02	0001A - 10.10	0.02	2	2	0	0	0	0	2	0.0	0.00158	421.82	671.13	0.00
Non Int W COMMERCIAL ST															Statewide Crash Rate: 220.75		
73433	73122	4628059	0 - 0.28	0001A - 10.12	0.28	2	2	0	0	1	0	1	50.0	0.02213	30.13	361.77	0.00
Non Int W COMMERCIAL ST															Statewide Crash Rate: 220.75		
73122	16780	4364862	0 - 0.29	0001A - 10.40	0.29	2	11	0	0	1	0	10	9.1	0.02292	160.00	359.45	0.00
Non Int W COMMERCIAL ST															Statewide Crash Rate: 220.75		
16780	16781	3121544	0 - 0.10	0001A - 10.69	0.10	2	4	0	0	0	2	2	50.0	0.00658	202.63	467.83	0.00
Int of BEACH ST ENT TO PORTLAND YACHT RAMP BEACH ST W COMMERCIAL ST															Statewide Crash Rate: 220.75		
16781	16782	3119915	0 - 0.17	0001A - 10.79	0.17	2	20	0	0	4	5	11	45.0	0.01119	595.96	414.78	1.44
Int of COMMERCIAL ST W COMMERCIAL ST															Statewide Crash Rate: 220.75		
16782	16783	3121545	0 - 0.09	0001A - 10.96	0.09	2	17	0	0	1	4	12	29.4	0.00592	956.85	479.75	1.99
RRX 837536 COMMERCIAL ST															Statewide Crash Rate: 220.75		
16783	16784	3116401	0 - 0.08	0001A - 11.05	0.08	2	8	0	0	1	0	7	12.5	0.00410	650.36	525.19	1.24
Int of COMMERCIAL ST PARK ST															Statewide Crash Rate: 220.75		
16779	60469	3121919	0 - 0.06	001AS - 2.24	0.06	2	0	0	0	0	0	0	0.0	0.00234	0.00	606.11	0.00
Non Int W COMMERCIAL ST															Statewide Crash Rate: 220.75		
60469	16747	4628063	0 - 0.18	001AS - 2.30	0.18	2	1	0	0	0	0	1	0.0	0.00765	43.58	451.62	0.00
Int of CASSIDY POINT DR W COMMERCIAL ST															Statewide Crash Rate: 220.75		
16747	66548	3117394	0 - 0.13	001AS - 2.48	0.13	2	4	0	0	0	0	4	0.0	0.00712	187.33	459.26	0.00
Int of FORE RIVER PKY VALLEY ST W COMMERCIAL ST															Statewide Crash Rate: 220.75		
66548	66542	3121654	0 - 0.04	001AS - 2.61	0.04	2	0	0	0	0	0	0	0.0	0.00195	0.00	635.68	0.00
Int of FORE RIVER PKY RD INV 3209586															Statewide Crash Rate: 220.75		
16780	19129	192452	0 - 0.08	0560041 - 0	0.08	2	0	0	0	0	0	0	0.0	0.00032	0.00	1590.52	0.00
Int of BEACH ST ENT TO PORTLAND YACHT RAMP BEACH ST W COMMERCIAL ST															Statewide Crash Rate: 417.26		
10549	16780	3105184	0 - 0.22	05A0077 - 0	0.22	2	1	0	0	0	0	1	0.0	0.00463	72.07	509.63	0.00
Int of RAMP BEACH ST ROUTE 77 SB															Statewide Crash Rate: 220.75		
Study Years:		3.00	Section Totals:		2.14		74	0	0	8	12	54	27.0	0.11635	212.01	284.73	0.74

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	Injury Crashes				Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
								A	B	C	PD					
Grand Totals:					2.14	167	0	3	13	36	115	31.1	0.11635	478.46	407.06	1.18

Search...

60369

PORTLAND

SOUTH
PORTLAND

Scale: 1:8196

600ft

H. C. L. CRASH COLLISION DIAGRAM DATA PACKAGE

COUNTY: CUMBERLAND

TOWN: PORTLAND

LOW NODE: 16780 HIGH NODE: 0000

REGION: 1

U/R: URBAN

DESCRIPTION: Jct of West Commercial St & Beach St

RTE # / RD #: 0001A

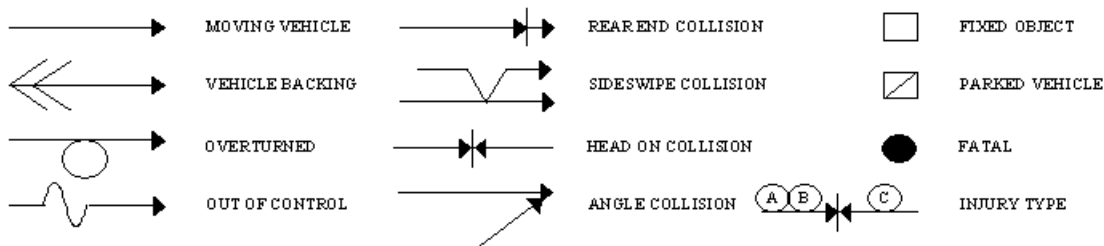
DATE DRAWN: 5/15/2020 DRAWN BY: Katherine

STUDY FROM: 1/1/2017

STUDY TO: 12/31/2019

CRASH RATE: 1.22 CRF: 1.02 % INJURY: 39.3 TOTAL CRASHES: 28

LEGEND



--- PATH OF: [P] PEDESTRIAN [B] BICYCLE [A] ANIMAL [S] SLED

PAVEMENT: D - DRY, I - ICY, W - WET, S - SNOW

WEATHER: C - CLEAR, F - FOG, R - RAIN, SL - SLEET, S - SNOW, CL - CLOUDY

TIME: A - AM, P - PM

Portland

Node: I6780

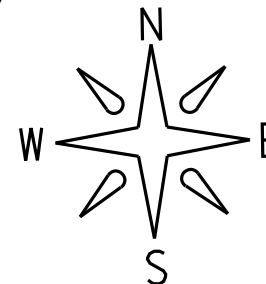
Study Period: 2017-2019

of Crashes: 28 / CRF: 1.02

Prepared by Office of Safety

(KAG 1/8/20)

Beach St



West Commercial St
Rt 1A

Pole



20364 6-20-18 4:01P D/C Unknown

23985 8-11-17 11:20A
Oil/C Inattention



61408 8-12-19 9:45P D/C Follow Too Close

67021 10-4-19 11:06A D/CL Distracted

28223 9-21-17 2:44P D/C Follow Too Close

74073 11-21-19 4:49P D/C Follow Too Close

11377 4-6-17 1:45A D/C Inattention

25652 9-6-18 7:42A D/C Follow Too Close

27848 10-2-18 7:22A W/R Follow Too Close

12257 4-24-18 5:59P
D/C Fail To Yield



4067 2-1-17 3:08P D/C Fail To Yield

1666 1-15-18 9:24P S/S Fail To Yield

16283 6-9-18 9:26A D/C Fail To Yield

9879 3-24-18 4:08P D/C Fail To Yield

70246 11-4-19 6:00P D/C Fail To Yield

67023 10-4-19 2:24P D/CL Fail To Yield

left only lane

3589 1-28-19 4:30P D/C Follow Too Close

68688 10-22-19 7:45A D/C Follow Too Close

44282 3-4-19 10:02A S/CL Follow Too Close

27334 9-11-17 4:46P D/C Follow Too Close

21053 7-14-17 3:27P D/C Mechanical Failure

66606 10-2-19 6:47P D/C Improper Backing

9049 3-16-17 5:47P D/CL Follow Too Close

13864 5-14-18 2:45P D/C Follow Too Close

58620 7-18-19 1:26P D/C Operated Recklessly

53394 5-30-19 8:23A D/C Follow Too Close

59705 7-22-19 4:54P W/R Distracted/Cigarette

51297 5-9-19 12:35P D/C Follow Too Close

Cement Barrier



= Traffic Signal

Pole

Portland Yacht Services Inc

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:15	7:15	7:15	7:15	7:15	7:15
Total Time (min)	18	18	18	18	18	18
Time Recorded (min)	15	15	15	15	15	15
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	665	679	653	660	656	662
Vehs Exited	644	674	633	658	628	647
Starting Vehs	58	68	67	70	67	66
Ending Vehs	79	73	87	72	95	82
Travel Distance (mi)	431	449	419	441	426	433
Travel Time (hr)	19.8	22.3	19.2	19.9	19.7	20.2
Total Delay (hr)	5.2	7.0	4.9	4.9	5.2	5.4
Total Stops	247	250	218	223	201	228
Fuel Used (gal)	14.2	15.5	13.8	14.4	14.2	14.4

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	665	679	653	660	656	662
Vehs Exited	644	674	633	658	628	647
Starting Vehs	58	68	67	70	67	66
Ending Vehs	79	73	87	72	95	82
Travel Distance (mi)	431	449	419	441	426	433
Travel Time (hr)	19.8	22.3	19.2	19.9	19.7	20.2
Total Delay (hr)	5.2	7.0	4.9	4.9	5.2	5.4
Total Stops	247	250	218	223	201	228
Fuel Used (gal)	14.2	15.5	13.8	14.4	14.2	14.4

5: Cold Storage Facility Drive/Beach St & W. Commercial Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	8.7	1.1	0.1	0.1	5.7
Total Del/Veh (s)	16.3	20.9	38.7	47.3	18.2

Total Network Performance

Denied Del/Veh (s)	5.7
Total Del/Veh (s)	21.6

Intersection: 5: Cold Storage Facility Drive/Beach St & W. Commercial

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	R	R
Maximum Queue (ft)	257	239	11	528	55	30
Average Queue (ft)	159	83	2	304	15	9
95th Queue (ft)	276	234	12	557	59	30
Link Distance (ft)		2505		1078	321	442
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	700		75			
Storage Blk Time (%)				26		
Queuing Penalty (veh)				1		

Network Summary

Network wide Queuing Penalty: 1

Intersection: 5: Cold Storage Facility Drive/Beach St & W. Commercial

Phase	1	2	4	5	6
Movement(s) Served	WBL	EBTL	NBTL	EBL	WBTL
Maximum Green (s)	4.0	84.0	4.0	19.0	69.0
Minimum Green (s)	4.0	4.0	4.0	10.0	8.0
Recall	None	Min	None	None	Min
Avg. Green (s)	0.0	215.0	4.5	16.2	69.2
g/C Ratio	-0.01	-0.01	-0.01	NA	NA
Cycles Skipped (%)	100	71	63	0	0
Cycles @ Minimum (%)	0	0	38	11	0
Cycles Maxed Out (%)	0	29	38	44	63
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:15	7:15	7:15	7:15	7:15	7:15
Total Time (min)	18	18	18	18	18	18
Time Recorded (min)	15	15	15	15	15	15
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	685	686	675	669	684	680
Vehs Exited	647	653	640	657	667	654
Starting Vehs	55	54	64	73	77	62
Ending Vehs	93	87	99	85	94	92
Travel Distance (mi)	436	442	427	436	448	438
Travel Time (hr)	22.0	24.2	21.3	23.7	22.2	22.7
Total Delay (hr)	7.2	9.1	6.8	8.9	7.0	7.8
Total Stops	359	403	381	468	301	382
Fuel Used (gal)	15.0	15.9	14.5	15.5	15.3	15.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	685	686	675	669	684	680
Vehs Exited	647	653	640	657	667	654
Starting Vehs	55	54	64	73	77	62
Ending Vehs	93	87	99	85	94	92
Travel Distance (mi)	436	442	427	436	448	438
Travel Time (hr)	22.0	24.2	21.3	23.7	22.2	22.7
Total Delay (hr)	7.2	9.1	6.8	8.9	7.0	7.8
Total Stops	359	403	381	468	301	382
Fuel Used (gal)	15.0	15.9	14.5	15.5	15.3	15.2

5: Cold Storage Facility Drive/Beach St & W. Commercial Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	8.0	1.1	0.1	0.1	5.2
Total Del/Veh (s)	21.8	39.1	65.6	38.6	29.3

Total Network Performance

Denied Del/Veh (s)	5.2
Total Del/Veh (s)	32.8

Intersection: 5: Cold Storage Facility Drive/Beach St & W. Commercial

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	R
Maximum Queue (ft)	294	315	22	750	192	32
Average Queue (ft)	192	199	10	507	105	12
95th Queue (ft)	289	365	31	899	207	35
Link Distance (ft)		2505		1085	324	442
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	700		75			
Storage Blk Time (%)				35		
Queuing Penalty (veh)				3		

Network Summary

Network wide Queuing Penalty: 3

Intersection: 5: Cold Storage Facility Drive/Beach St & W. Commercial

Phase	1	2	4	5	6
Movement(s) Served	WBL	EBTL	NBTL	EBL	WBTL
Maximum Green (s)	4.0	81.0	7.0	19.0	66.0
Minimum Green (s)	4.0	4.0	4.0	10.0	8.0
Recall	None	Min	None	None	Min
Avg. Green (s)	0.0	108.6	7.6	18.2	71.5
g/C Ratio	-0.01	NA	NA	NA	NA
Cycles Skipped (%)	100	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	0	100	86	75	86
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:15	7:15	7:15	7:15	7:15	7:15
Total Time (min)	18	18	18	18	18	18
Time Recorded (min)	15	15	15	15	15	15
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	685	686	675	669	684	680
Vehs Exited	635	655	633	644	658	645
Starting Vehs	55	54	71	68	76	63
Ending Vehs	105	85	113	93	102	100
Travel Distance (mi)	432	440	423	432	447	435
Travel Time (hr)	23.7	24.8	22.0	24.8	23.6	23.8
Total Delay (hr)	9.1	9.8	7.6	10.1	8.4	9.0
Total Stops	463	415	427	515	371	437
Fuel Used (gal)	15.4	16.0	14.6	15.6	15.7	15.4

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	685	686	675	669	684	680
Vehs Exited	635	655	633	644	658	645
Starting Vehs	55	54	71	68	76	63
Ending Vehs	105	85	113	93	102	100
Travel Distance (mi)	432	440	423	432	447	435
Travel Time (hr)	23.7	24.8	22.0	24.8	23.6	23.8
Total Delay (hr)	9.1	9.8	7.6	10.1	8.4	9.0
Total Stops	463	415	427	515	371	437
Fuel Used (gal)	15.4	16.0	14.6	15.6	15.7	15.4

5: Cold Storage Facility Drive/Beach St & W. Commercial Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	8.1	1.2	0.1	0.1	5.3
Total Del/Veh (s)	26.6	48.5	52.2	54.5	35.3

Total Network Performance

Denied Del/Veh (s)	5.3
Total Del/Veh (s)	38.5

Intersection: 5: Cold Storage Facility Drive/Beach St & W. Commercial

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	R
Maximum Queue (ft)	368	374	47	879	153	22
Average Queue (ft)	252	218	16	617	89	5
95th Queue (ft)	388	407	73	975	160	20
Link Distance (ft)		2505		1085	324	442
Upstream Blk Time (%)				0		
Queuing Penalty (veh)				0		
Storage Bay Dist (ft)	700		75			
Storage Blk Time (%)				39		
Queuing Penalty (veh)				4		

Network Summary

Network wide Queuing Penalty: 4

Intersection: 5: Cold Storage Facility Drive/Beach St & W. Commercial

Phase	1	2	4	5	6
Movement(s) Served	WBL	EBT	NBTL	EBL	WBTL
Maximum Green (s)	4.0	81.0	7.0	23.0	62.0
Minimum Green (s)	4.0	4.0	4.0	10.0	8.0
Recall	None	Min	None	None	Min
Avg. Green (s)	0.0	103.3	7.2	22.7	66.7
g/C Ratio	-0.01	NA	NA	NA	NA
Cycles Skipped (%)	100	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	0	100	86	75	100
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:15	7:15	7:15	7:15	7:15	7:15
Total Time (min)	18	18	18	18	18	18
Time Recorded (min)	15	15	15	15	15	15
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	618	680	639	655	620	642
Vehs Exited	601	615	586	593	606	600
Starting Vehs	92	81	83	64	94	82
Ending Vehs	109	146	136	126	108	124
Travel Distance (mi)	366	381	357	368	357	366
Travel Time (hr)	37.5	46.2	48.2	39.0	45.4	43.3
Total Delay (hr)	25.0	33.1	35.9	26.4	33.2	30.7
Total Stops	595	713	761	581	527	636
Fuel Used (gal)	17.2	19.5	19.3	17.2	18.7	18.4

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	618	680	639	655	620	642
Vehs Exited	601	615	586	593	606	600
Starting Vehs	92	81	83	64	94	82
Ending Vehs	109	146	136	126	108	124
Travel Distance (mi)	366	381	357	368	357	366
Travel Time (hr)	37.5	46.2	48.2	39.0	45.4	43.3
Total Delay (hr)	25.0	33.1	35.9	26.4	33.2	30.7
Total Stops	595	713	761	581	527	636
Fuel Used (gal)	17.2	19.5	19.3	17.2	18.7	18.4

5: Maine Internationa Cold Storage Facility/Beach St & W. Commercial Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	3.1	147.9	0.1	0.3	75.8
Total Del/Veh (s)	44.5	95.5	87.8	126.3	69.1

Total Network Performance

Denied Del/Veh (s)	75.8
Total Del/Veh (s)	70.5

Intersection: 5: Maine Internationa Cold Storage Facility/Beach St & W. Commercial

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	LT	R	TR
Maximum Queue (ft)	659	852	6	1118	112	44	257
Average Queue (ft)	460	324	1	1087	37	9	146
95th Queue (ft)	779	940	8	1202	119	43	277
Link Distance (ft)		2200		1078	321	321	442
Upstream Blk Time (%)				52			
Queuing Penalty (veh)				0			
Storage Bay Dist (ft)	700		75				
Storage Blk Time (%)	5	7		42			
Queuing Penalty (veh)	48	35		1			

Network Summary

Network wide Queuing Penalty: 84

Intersection: 5: Maine International Cold Storage Facility/Beach St & W. Commercial

Phase	1	2	4	5	6	8
Movement(s) Served	WBL	EBTL	NBTL	EBL	WBTL	SBT
Maximum Green (s)	4.0	91.0	7.0	23.0	72.0	7.0
Minimum Green (s)	4.0	4.0	4.0	10.0	8.0	4.0
Recall	None	Min	None	None	Min	None
Avg. Green (s)	0.0	109.7	7.4	23.6	81.6	7.4
g/C Ratio	-0.01	NA	NA	NA	NA	NA
Cycles Skipped (%)	100	0	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	0	100	100	100	100	100
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:15	7:15	7:15	7:15	7:15	7:15
Total Time (min)	18	18	18	18	18	18
Time Recorded (min)	15	15	15	15	15	15
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	621	693	653	663	630	652
Vehs Exited	601	620	587	602	610	604
Starting Vehs	93	80	85	69	92	82
Ending Vehs	113	153	151	130	112	131
Travel Distance (mi)	363	377	356	367	359	365
Travel Time (hr)	38.9	46.6	47.8	39.3	45.2	43.6
Total Delay (hr)	26.5	33.7	35.6	26.7	32.9	31.1
Total Stops	615	711	739	591	551	641
Fuel Used (gal)	17.5	19.5	19.1	17.3	18.7	18.4

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	621	693	653	663	630	652
Vehs Exited	601	620	587	602	610	604
Starting Vehs	93	80	85	69	92	82
Ending Vehs	113	153	151	130	112	131
Travel Distance (mi)	363	377	356	367	359	365
Travel Time (hr)	38.9	46.6	47.8	39.3	45.2	43.6
Total Delay (hr)	26.5	33.7	35.6	26.7	32.9	31.1
Total Stops	615	711	739	591	551	641
Fuel Used (gal)	17.5	19.5	19.1	17.3	18.7	18.4

5: Maine Internationa Cold Storage Facility/Beach St & W. Commercial Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	3.1	145.3	0.2	0.3	73.1
Total Del/Veh (s)	44.1	96.7	124.5	132.8	71.5

Total Network Performance

Denied Del/Veh (s)	73.1
Total Del/Veh (s)	72.8

Intersection: 5: Maine Internationa Cold Storage Facility/Beach St & W. Commercial

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	R
Maximum Queue (ft)	652	944	11	1128	214	301
Average Queue (ft)	451	277	2	1080	117	170
95th Queue (ft)	749	815	12	1239	217	334
Link Distance (ft)		2200		1085	324	442
Upstream Blk Time (%)				52		
Queuing Penalty (veh)				0		
Storage Bay Dist (ft)	700		75			
Storage Blk Time (%)	9	4		43		
Queuing Penalty (veh)	81	23		3		

Network Summary

Network wide Queuing Penalty: 106

Intersection: 5: Maine Internationa Cold Storage Facility/Beach St & W. Commercial

Phase	1	2	4	5	6
Movement(s) Served	WBL	EBTL	NBTL	EBL	WBTL
Maximum Green (s)	4.0	90.0	8.0	23.0	71.0
Minimum Green (s)	4.0	4.0	4.0	10.0	8.0
Recall	None	Min	None	None	Min
Avg. Green (s)	0.0	108.3	8.5	23.4	71.0
g/C Ratio	-0.01	NA	NA	NA	NA
Cycles Skipped (%)	100	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	0	100	100	100	100
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:15	7:15	7:15	7:15	7:15	7:15
Total Time (min)	18	18	18	18	18	18
Time Recorded (min)	15	15	15	15	15	15
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	623	671	631	657	625	642
Vehs Exited	578	585	547	570	599	576
Starting Vehs	95	81	84	71	96	85
Ending Vehs	140	167	168	158	122	149
Travel Distance (mi)	358	366	332	352	355	353
Travel Time (hr)	40.7	50.2	53.4	42.3	47.5	46.8
Total Delay (hr)	28.5	37.7	42.0	30.2	35.4	34.7
Total Stops	668	797	906	713	601	736
Fuel Used (gal)	17.8	20.2	19.9	17.7	19.2	18.9

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	623	671	631	657	625	642
Vehs Exited	578	585	547	570	599	576
Starting Vehs	95	81	84	71	96	85
Ending Vehs	140	167	168	158	122	149
Travel Distance (mi)	358	366	332	352	355	353
Travel Time (hr)	40.7	50.2	53.4	42.3	47.5	46.8
Total Delay (hr)	28.5	37.7	42.0	30.2	35.4	34.7
Total Stops	668	797	906	713	601	736
Fuel Used (gal)	17.8	20.2	19.9	17.7	19.2	18.9

5: Maine International Cold Storage Facility/Beach St & W. Commercial Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	6.9	148.7	0.2	0.3	76.7
Total Del/Veh (s)	74.9	97.5	106.0	125.3	87.2

Total Network Performance

Denied Del/Veh (s)	76.7
Total Del/Veh (s)	88.0

Intersection: 5: Maine International Cold Storage Facility/Beach St & W. Commercial

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	R
Maximum Queue (ft)	739	1740	11	1128	212	276
Average Queue (ft)	572	652	2	1090	109	154
95th Queue (ft)	847	1958	13	1223	218	291
Link Distance (ft)		2200		1085	324	442
Upstream Blk Time (%)		6		52		
Queuing Penalty (veh)		0		0		
Storage Bay Dist (ft)	700		75			
Storage Blk Time (%)	17	12		43		
Queuing Penalty (veh)	153	59		3		

Network Summary

Network wide Queuing Penalty: 215

Intersection: 5: Maine International Cold Storage Facility/Beach St & W. Commercial

Phase	1	2	4	5	6	8
Movement(s) Served	WBL	EBT	NBTL	EBL	WBTL	SBR
Maximum Green (s)	4.0	90.0	8.0	26.0	68.0	8.0
Minimum Green (s)	4.0	4.0	4.0	10.0	8.0	4.0
Recall	None	Min	None	None	Min	None
Avg. Green (s)	0.0	108.5	8.4	26.6	68.0	8.4
g/C Ratio	-0.01	NA	NA	NA	NA	NA
Cycles Skipped (%)	100	0	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	0	100	100	100	100	100
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY

SOLAR INFORMATION

Solar Array

- Number of modules – Over 1,600
- Total system size – 664 kWdc
- Annual kWh production – 828,700 kWh

Annual Greenhouse Gas Equivalents

- Equivalent of powering 67.6 average US homes for one year.
- Taking 127 passenger vehicles off the road
- 645,608 pounds of coal burned
- 24,931 trash bags of waste recycled in stead of landfilled





Att.
Z

MAINE INTERNATIONAL COLD STORAGE FACILITY

Site Location of
Development

41 Hutchins Drive
Portland, ME 04102
800-426-4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

0232277.00

**Maine International Cold
Storage Facility, LLC**
March 2020

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February 28, 2020

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

Re: Maine International Cold Storage Facility – Authorization for Permitting

To Whom it May Concern:

On behalf of Maine International Cold Storage Facility, LLC, Woodard & Curran is authorized to apply for Planning Board approval for the proposed Maine International Cold Storage Facility to be located at approximately 40 West Commercial Street in Portland. Furthermore, Woodard & Curran is authorized to act on behalf of Maine International Cold Storage Facility, LLC throughout the permitting process.

Should you have any further questions, please do not hesitate to contact me at Tom.Oshaughnessy@amberinfrastructure.com

Regards,



Tom O'Shaughnessy, President Maine International Cold Storage Facility, LLC

Department of Environmental Protection
Bureau of Land & Water Quality
17 State House Station
Augusta, Maine 04333
Telephone: 207-287-3901

FOR DEP USE
ATS # _____
L- _____
Total Fees: _____
Date: Received _____

FORM A PAGE 1

SITE LOCATION OF DEVELOPMENT PERMIT APPLICATION 38 M.R.S.A. §§481-490

PLEASE TYPE OR PRINT IN *INK ONLY*

This application is for: (CHECK THE ONE THAT APPLIES)		☐ 20 acre development	☐ Marine Oil Terminal	☐ Major Amendment
		☐ Planning Permit	☒ Structure	☐ Minor Amendment
		☐ Metallic Mining	☐ Subdivision	
1. Name of Applicant:	Maine Intl. Cold Storage Facility, LLC	6. Name of Agent (if applicable):	Woodard & Curran	
2. Applicant's Mailing Address:	40 Forest Falls Drive, Suite 2, Yarmouth, Maine 04096	7. Agent's Mailing Address:	41 Hutchins Dr., Portland, ME 04102	
3. Applicant's Daytime Phone #:	(207) 817-5410	8. Agent's Daytime Phone #:	(207) 558-3662	
4. Applicant's Fax # (if available):		9. Agent's Fax # (if available):		
5. Applicant's e-mail address (REQUIRED -license will be sent via: e-mail):	matthew.dieterich@sewall.com	10. Agent's e-mail address (REQUIRED - license will be sent via e-mail):	dstairs@woodardcurran.com	

PROJECT INFORMATION

11. Name of Development:	Maine International Cold Storage Facility															
12. Map and Lot #'s:	Map #: 59	Lot #: BA 1, 2, 5-11	13. Deed Reference #'s:	Book #: 36501	Page #: 146											
14. Location of Project City/Town:	Portland	15. County:	Cumberland	16. UTM Northing	Unknown	17. UTM Easting	Unknown									
18. Brief Description of Project including total parcel size:	Construction of a new 108,024 SF cold storage building and associated site improvements on a +/- 17.9 acre parcel.															
19. Type of Direct Watershed: (Check all that apply)	<table border="0"><tr><td>☐ Lake not most at risk</td><td>☒ River, stream or brook</td><td>☒ Coastal wetland</td></tr><tr><td>☐ Lake most at risk</td><td>☐ Urban impaired stream</td><td>☐ Wellhead or public water</td></tr><tr><td>☐ Lake most at risk, severely blooming</td><td>☐ Freshwater wetland</td><td></td></tr></table>							☐ Lake not most at risk	☒ River, stream or brook	☒ Coastal wetland	☐ Lake most at risk	☐ Urban impaired stream	☐ Wellhead or public water	☐ Lake most at risk, severely blooming	☐ Freshwater wetland	
☐ Lake not most at risk	☒ River, stream or brook	☒ Coastal wetland														
☐ Lake most at risk	☐ Urban impaired stream	☐ Wellhead or public water														
☐ Lake most at risk, severely blooming	☐ Freshwater wetland															
20. Name of Waterbody Project Site drains to:	Fore River															
21. Amount of Developed Area:	Total 7.39 acres:	Existing Developed area:	7.39 acres	New Developed area:	0 acres											
22. Amount of Impervious Area:	Total 5.07 acres:	Existing Impervious areas:	5.72 acres	New Impervious area:	0 acres											
23. Development started prior to obtaining a license?:	☐ Yes ☒ No															
24. Development or any portion of the site subject to enforcement action?	☐ Yes ☐ No			If yes, name of enforcement staff involved?												
25. Common scheme of development?:	☐ Yes ☐ No	26. Title, Right or Interest:	☐ own ☐ lease	☒ purchase option ☐ written agreement												
27. Natural Resources Protection Act permit required?:	☒ Yes ☐ No		If yes:	☒ PBR	☐ Tier 1	☐ Full Permit	☐ Tier 2									
28. Existing DEP Permit number (if applicable):	N/A															
29. Names of DEP staff person(s) present at the pre-application meeting:	N/A															
30. Does agent have an interest in project? If yes, what is the interest?	☐ Yes ☒ No															

CERTIFICATIONS AND SIGNATURES LOCATED ON PAGE 2

IMPORTANT: IF THE SIGNATURE BELOW IS NOT THE APPLICANT'S SIGNATURE, ATTACH LETTER OF AGENT AUTHORIZATION SIGNED BY THE APPLICANT.

By signing below the applicant (or authorized agent), certifies that he or she has read and understood the following :

CERTIFICATIONS / SIGNATURES

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein.

Further, I hereby authorize the DEP to send me an electronically signed decision on the license I am applying for with this application by emailing the decision to the electronic address located on the front page of this application (see #5 for the applicant and #10 for the agent)".

Signed:  Title Project Manager Date: 3/13/2020

**Notice of Intent to Comply
with Maine Construction
General Permit**

With this Site Law application form and my signature, I am filing notice of my intent to carry out work which meets the requirements of the Maine Construction General Permit (MCGP). I have read and will comply with all of the MCGP standards.

If this form is not being signed by the landowner or lessee of the property, attach documentation showing authorization to sign.

Signed _____ Date: _____

NOTE: You must file a MCGP Notice of Termination (Form K) within 20 days of completing permanent stabilization of the project site.

CERTIFICATION

The person responsible for preparing this application and/or attaching pertinent site and design information hereto, by signing below, certifies that the application for development approval is complete and accurate to the best of his/her knowledge.

Signature: 

Name (print): Darrin Stairs

Date: 3/13/2020

Re/Cert/Lic No.: _____

Engineer _____

Geologist _____

Soil Scientist _____

Land Surveyor _____

Site Evaluator _____

Active Member of the Maine Bar _____

Professional Landscape Architect _____

Other _____

SUBMISSIONS CHECKLIST

If a provision is not applicable, put "NA"

Section 1. Development description

A. Narrative

- X 1. Objectives and details
X 2. Existing facilities (with dates of construction)

B. Topographic map

- X 1. Location of development boundaries
X 2. Quadrangle name

C. Construction plan

- X 1. Outline of construction sequence (major aspects)
 2. Dates

D. Drawings

- X 1. Development facilities
X a. Location, function and ground area
X b. Length/cross-sections for roads
X 2. Site work (nature and extent)
X 3. Existing facilities (location, function ground area and floor area)
 4. Topography
X a. Pre- and post-development (contours 2 ft or less)
X b. Previous construction, facilities and lot lines

X **Section 2. Title, right or interest** (copy of document)

Section 3. Financial capacity

A. Estimated costs

X

B. Financing

- N/A 1. Letter of commitment to fund
 2. Self-financing
X a. Annual report
N/A b. Bank statement
 3. Other
N/A a. Cash equity commitment
N/A b. Financial plan
X c. Letter
N/A 4. Affordable housing information

Section 4. Technical ability (description)

- X A. Prior experience (statement)
N/A B. Personnel (documents)

Section 5. Noise

- X A. Developments producing a minor noise impact (statement)
N/A 1. Residential developments
N/A 2. Certain non-residential subdivisions
N/A 3. Schools and hospitals
X 4. Other developments
X a. Type, source and location of noise
X b. Uses, zoning and plans
N/A c. Protected locations
X d. Minor nature of impact

X	e. Demonstration
N/A	B. Developments producing a major noise impact (full noise study)
N/A	1. Baseline
N/A	a. Uses, zoning and plans
N/A	b. Protected locations
N/A	c. Quiet area
N/A	2. Noise generated by the development
N/A	a. Type, source and location of noise
N/A	b. Sound levels
N/A	c. Control measures
N/A	d. Comparison with regulatory limits
N/A	e. Comparison with local limits

X **Section 6. Visual quality and scenic character**(narrative, description, visual impact analysis)

X **Section 7. Wildlife and fisheries** (narrative)

X **Section 8. Historic sites** (narrative)

X **Section 9. Unusual natural areas** (narrative)

Section 10. Buffers

N/A A. Site plan and narrative

Section 11. Soils

X	A. Soil survey map and report
X	1. Soil investigation narrative
X	2. Soil survey map
N/A	B. Soil survey intensity level by development type
	1. Class A (High Intensity) Soil Survey
	2. Class B (High Intensity) Soil Survey
	3. Class C (Medium High-Intensity) Soil Survey
	4. Class D (Medium Intensity) Soil Survey
X	C. Geotechnical Investigation
N/A	D. Hydric soils mapping

Section 12. Stormwater management

	A. Narrative
X	1. Development location
X	2. Surface water on or abutting the site
N/A	3. Downstream ponds and lakes
X	4. General topography
X	5. Flooding
N/A	6. Alterations to natural drainage ways
X	7. Alterations to land cover
X	8. Modeling assumptions
X	9. Basic standard
X	10. Flooding standard
X	11. General standard
X	12. Parcel size
X	13. Developed area
X	14. Disturbed area
X	15. Impervious area
	B. Maps
X	1. U.S.G.S. map with site boundaries
X	2. S.C.S. soils map with site boundaries
X	C. Drainage Plans (a pre-development plan and a post-development plan)

X	1. Contours
X	2. Plan elements
X	3. Land cover types and boundaries
X	4. Soil group boundaries
X	5. Stormwater quantity subwatershed boundaries
X	6. Stormwater quality subwatershed boundaries
X	7. Watershed analysis points
X	8. Hydrologic flow lines (w/flow types and flow lengths labeled)
X	9. Runoff storage areas
X	10. Roads and drives
X	11. Buildings, parking lots, and other facilities
X	12. Drainage system layout for storm drains, catch basins, and culverts
X	13. Natural and man-made open drainage channels
X	14. Wetlands
N/A	15. Flooded areas
X	16. Benchmark
X	17. Stormwater detention, retention, and infiltration facilities
X	18. Stormwater treatment facilities
N/A	19. Drainage easements
X	20. Identify reaches, ponds, and subwatersheds matching stormwater model
N/A	21. Buffers
X	D. Runoff analysis (pre-development and post development)
X	1. Curve number computations
X	2. Time of concentration calculations
X	3. Travel time calculations
X	4. Peak discharge calculations
X	5. Reservoir routing calculations
X	E. Flooding Standard
X	1. Variance submissions (if applicable)
X	a. Submissions for discharge to the ocean, great pond, or major river
X	i. Map
X	ii. Drainage plan
X	iii. Drainage system design
X	iv. Outfall design
N/A	v. Easements
N/A	b. Insignificant increase
N/A	i. Downstream impacts
N/A	c. Submissions for discharge to a public stormwater system
N/A	i. Letter of permission
N/A	ii. Proof of capacity
N/A	ii. Outfall analysis and design (pictures)
X	2. Sizing of storm drains and culverts
N/A	3. Stormwater ponds and basins
N/A	a. Impoundment sizing calculations
N/A	b. Inlet calculations
N/A	c. Outlet calculations
N/A	d. Emergency spillway calculations
N/A	e. Subsurface investigation report
N/A	f. Embankment specifications
N/A	g. Embankment seepage controls
N/A	h. Outlet seepage controls
N/A	i. Detail sheet
N/A	j. Basin cross sections
N/A	k. Basin plan sheet
N/A	4. Infiltration systems
N/A	a. Well locations map
N/A	b. Sand and gravel aquifer map
N/A	c. Subsurface investigation report with test pit or boring logs

N/A	d. Permeability analysis
N/A	e. Infiltration structure design
N/A	f. Pollutant generation and transport analysis
N/A	g. Monitoring and operations plan
N/A	i. Locations of storage points of potential contaminants
N/A	ii. Locations of observation wells and infiltration monitoring plan
N/A	iii. Groundwater quality monitoring plan
N/A	5. Drainage easement declarations.
X	F. Stormwater quality treatment plan peak discharge calculations
X	1. Basic stabilization plan
N/A	a. Ditches, swales, and other open channel stabilization
X	b. Culvert and storm-drain outfall stabilization
X	c. Earthen slope and embankment stabilization
X	d. Disturbed area stabilization
X	e. Gravel roads and drives stabilization
X	2. General Standard
X	a. Calculations for sizing BMP
X	b. Impervious area calculation
X	c. Developed area calculation
X	d. Summary spreadsheet of calculations
N/A	3. Phosphorus control plan
N/A	a. Calculations for the site's allowable phosphorus export
N/A	b. Calculations for determining the developed site's phosphorus export
N/A	c. Calculations for determining any phosphorus compensation fees
N/A	4. Offset Credits
N/A	a. Urban impaired stream
N/A	Offset credit calculation
N/A	b. Phosphorus credit determination
N/A	i. Location map
N/A	ii. Scaled plan
N/A	iii. Title and right
N/A	iv. Demolition plan
N/A	v. Vegetation plan
N/A	vi. Offset credit calculation
N/A	vii. Calculation for the new allowable export
X	5. Runoff treatment measures
X	a. structural measures
X	i. Design drawings and specifications
X	ii. Design calculations
X	iii. Maintenance plan
N/A	iv. TSS removal or phosphorus treatment factor determinations
X	v. Stabilization plan
N/A	b. Vegetated buffers
N/A	i. Soil survey
N/A	ii. Buffer plan
N/A	iii. Turnout and level spreader designs
N/A	iv. Deed restrictions
N/A	6. Control plan for thermal impacts to coldwater fisheries
N/A	7. Control plan for other pollutants
X	8. Engineering inspection of stormwater management facilities
X	G. Maintenance of common facilities or property
X	1. Components of the maintenance plan
X	A. Maintenance of facilities by owner or operator
X	1. Site owner or operator (name legally responsible party)
X	2. Contact person responsible for maintenance
X	3. Transfer mechanism

X	4. List of facilities to be maintained
X	5. List of inspection and maintenance tasks for each facility
N/A	6. Identifications of any deed covenants, easements, or restrictions
X	7. Sample maintenance log
N/A	8. Copies of any third-party maintenance contracts
N/A	B. Maintenance of facilities by homeowner's association
N/A	1. Incorporation documents for the association
N/A	2. Membership criteria
N/A	3. Association officer responsible for maintenance
N/A	4. Establishment of fee assessment for maintenance work
N/A	5. Establishment of lien system
N/A	6. Reference to department order(s) in association charter
N/A	7. Transfer mechanism from developer to association
N/A	8. List of facilities to be maintained
N/A	9. Identification of any deed covenants, easements, or restrictions
N/A	10. Renewal of covenants and leases
N/A	11. List of inspection and maintenance tasks for each facility
N/A	12. Sample maintenance log
N/A	13. Copies of any third-party maintenance contracts
N/A	C. Maintenance of facilities by municipality or municipal district
N/A	1. Identification of the municipal department or utility district
N/A	2. Contact person responsible for maintenance
N/A	3. Evidence of acceptance of maintenance responsibility
N/A	4. Transfer mechanism from developer
N/A	5. List of facilities to be maintained
N/A	6. List of inspection and maintenance tasks for each facility
N/A	7. Identifications of any deed covenants, easements, or restrictions
N/A	8. Sample maintenance log
X	2. General inspection and maintenance requirements
N/A	a. Drainage easements
X	b. Ditches, culverts, and catch-basin systems
X	c. Roadways and parking surfaces
X	d. Stormwater detention and retention facilities
N/A	1. Embankment inspection and maintenance
X	2. Outlet inspection and clean-out
N/A	3. Spillway maintenance
X	4. Sediment removal and disposal
N/A	e. Stormwater infiltration facilities
N/A	1. Sediment protection plan
N/A	2. Infiltration rehabilitation plan
N/A	3. Sediment removal and disposal
N/A	4. Groundwater monitoring plan
X	f. Proprietary treatment devices
N/A	g. Buffers
N/A	h. Other practices and measures

Section 13. Urban Impaired Stream Submissions

N/A	1. Off-site credits
N/A	2. Compensation fees (Urban Impaired Stream/Phosphorus)
N/A	3. Development impacts

Section 14. Basic Standards

X	A. Narrative
X	1. Soil types
N/A	2. Existing erosion problems
N/A	3. Critical areas
X	4. Protected natural resources
X	5. Erosion control measures

X	6. Site stabilization
X	B. Implementation schedule
X	C. Erosion and sediment control plan
X	1. Pre-development and post-development contours
X	2. Plan scale and elements
X	3. Land cover types and boundaries
N/A	4. Existing erosion problems
N/A	5. Critical areas
X	6. Protected natural resources
X	7. Locations (general)
X	8. Locations of controls
X	9. Disturbed areas
X	10. Stabilized construction entrance
X	D. Details and specifications (for both temporary and permanent measures)
N/A	E. Design calculations
X	F. Stabilization plan
X	1. Temporary seeding
X	2. Permanent seeding
N/A	3. Sodding
X	4. Temporary mulching
X	5. Permanent mulching
X	G. Winter construction plan
X	1. Dormant seeding
X	2. Winter mulching
N/A	H. Third-party inspections
N/A	1. Inspector's name, address, and telephone number
N/A	2. Inspector's qualifications
N/A	3. Inspection schedule
NA	4. Contractor contact
N/A	5. Reporting protocol

Section 15. Groundwater

N/A	A. Narrative
N/A	1. Location and maps
N/A	2. Quantity
N/A	3. Sources
N/A	4. Measures to prevent degradation
N/A	B. Groundwater protection plan
N/A	C. Monitoring plan
N/A	1. Monitoring points
N/A	2. Monitoring frequency
N/A	3. Background conditions
N/A	4. Monitoring parameters
N/A	5. Personnel qualifications
N/A	6. Proof of training
N/A	7. Equipment and methods
N/A	8. Quality assurance/quality control
N/A	9. Reporting requirements
N/A	10. Remedial action plan
N/A	D. Monitoring well installation report
N/A	1. Well location map
N/A	2. Elevation data
N/A	3. Well installation data
N/A	4. Well construction details
N/A	5. Borehole logs
N/A	6. Summary of depth measurements
N/A	7. Characteristics of subsurface strata
N/A	8. Well installation contract

N/A	9. Schematic cross-sections
N/A	10. Monitoring point summary table
N/A	11. Protective casing
N/A	12. On-site well identification

Section 16. Water supply

X	A. Water supply method
N/A	1. Individual wells (evidence of sufficient/healthful supply)
N/A	a. Support of findings by well drillers
N/A	b. Support of findings by geologist
N/A	2. Common well(s) (reports)
N/A	a. Hydrogeology report
N/A	b. Engineering report
N/A	c. Well installation report
N/A	d. Long-term safe yield and zone of influence determination
N/A	e. Public water supply
N/A	i. Proposed well or wells
N/A	ii. Existing well or wells
N/A	iii. Water quality analysis
N/A	3. Well construction in shallow-to-bedrock areas
N/A	4. Additional information
X	5. Off-site utility company or public agency
N/A	6. Other sources
N/A	B. Subsurface wastewater disposal systems (locations of systems and wells)
X	C. Total usage (statement re: total anticipated water usage)

Section 17. Wastewater disposal

N/A	A. On-site subsurface wastewater disposal systems (investigation results)
N/A	1. Site plan
N/A	2. Soil conditions summary table
N/A	3. Logs of subsurface explorations
N/A	4. Additional test pits, borings or probes
N/A	a. Soil conditions A
N/A	b. Soils with Profiles 8 and 9 parent material
N/A	c. Soil conditions D
N/A	d. Disposal field length 60 feet or greater
N/A	5. 3-bedroom design
N/A	6. Larger disposal systems
N/A	a. System design details
N/A	b. Plan view
N/A	c. Cross sections
N/A	d. Test pit data
N/A	e. Mounding analysis
N/A	B. Nitrate-nitrogen impact assessment
N/A	1. When required
N/A	a. Exempted_____
N/A	i. Conventional systems meeting certain setbacks
N/A	ii. Denitrification systems
N/A	b. Special conditions and other exemptions
N/A	2. Assumptions
N/A	a. Initial concentration
N/A	b. Background concentration
N/A	c. Contribution from development
N/A	d. Mixing and dilution
N/A	e. Severe-drought scenario
N/A	f. Wastewater flow to subsurface wastewater disposal fields

N/A	3. Assessment report minimum requirements
N/A	a. Narrative and calculations
N/A	b. Site plan
N/A	i. Well locations
N/A	ii. 10 mg/l and 8 mg/l isocons
N/A	iii. Groundwater contours and groundwater flow divides
N/A	c. References
N/A	4. Denitrification systems
N/A	a. Design plans and specifications
N/A	b. Installation information
N/A	c. Monitoring plan
N/A	d. Maintenance
N/A	e. Backup system
X	D. Municipal facility or utility company letter
N/A	E. Storage or treatment lagoons

X	Section 18. Solid waste (list: type, quantity, method of collection and location)
X	A. Commercial solid waste facility (final disposal location)
X	B. Off-site disposal of construction/demolition debris (final disposal location)
	C. On-site disposal of woodwaste/land clearing debris
N/A	1. Applicability of rules (evidence re: applicability of rules)
	2. Burning of wood wastes
N/A	a. Delineation on site plan
N/A	b. Plans for handling unburned woodwaste and woodash
N/A	c. Evidence of capacity to accept waste (approved facility)
N/A	d. Usage of materials
N/A	e. Data on mixing ratios and application rates
X	D. Special or Hazardous Waste

	Section 19. Flooding
X	A. Explanation of flooding impact
X	B. Site plan showing 100-year flood elevation
N/A	C. Hydrology analysis
X	D. FEMA flood zone map with site boundaries

	Section 20. Blasting
N/A	A. Site Plan or map
N/A	B. Report
	1. Assessment
	2. Blasting plan

	Section 21. Air emissions (narrative and summary)
N/A	A. Point and non-point sources identified
N/A	B. Emission components (point sources)

	Section 22. Odors
N/A	A. Identification of nature/source
N/A	B. Estimate of areas affected
N/A	C. Methods of control)

N/A	Section 23. Water vapor (narrative)
-----	--

N/A	Section 24. Sunlight (statement and drawing, if required)
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	Section 25. Notices
N/A	A. Evidence that notice sent
N/A	B. List of abutters for purposes of notice

1. DEVELOPMENT DESCRIPTION

This narrative report is in support of a Site Location of Development (SLOD) Permit Application for the proposed Cold Storage Facility located at 40 West Commercial Street in Portland, Maine. A letter authorizing Woodard & Curran to act as the agent on behalf of the Applicant is attached to this application.

1.1 OBJECTIVES & DETAILS

The Site was operated by Portland Gas Light Company (Portland Gas) between 1852 and 1965. During this time, coal was delivered to the Site by ship and rail and then converted into coal gas, which was used for lighting, heating, and cooking purposes. In 1965, Portland Gas ceased operations at the Site, and the manufactured gas plant (MGP) was decommissioned. In 1966, Portland Gas merged with Lewiston Gas Light Company to form Northern Utilities, Inc. (Northern Utilities). Northern Utilities and a tenant (NGL Energy Partners, LP) operated a natural gas/propane distribution facility at the Site until 2016. The Site is currently owned by the State of Maine (acquired through eminent domain on April 30, 2014) and is currently operated by the Maine Port Authority as part of the adjacent International Marine Terminal (IMT), an intermodal container shipping facility that supports cargo coming and going from the Site via rail, ship, and truck.

In 2014, the State of Maine acquired 23 acres of vacant land (which includes the Site) adjacent to the IMT to develop intermodal rail access and construct a larger trucking yard for freight transfer operations. In addition, logistics and freight capabilities have been expanded through improvements at the container terminal and ocean shipping operations facility at the IMT.

The Cold Storage Facility will be constructed in the vacant portion of the site previously occupied by a coal to gas facility and natural gas facilities. The building will be approximately 108,000 total square feet and comprised of roughly 91,000 square feet space for offloading and cold storage, 13,000 square feet of administrative space, and 4,000 square feet of mechanical and utility space. There will be 12 loading docks located on the east side of the building, as well as 12 truck parking spaces. A 24-foot wide fire access road will circulate around the building to the west and south along the Fore River.

In addition to the SLOD permit, the proposed work requires the following permits:

- City of Portland Level III Site Plan;
- City of Portland Flood Hazard Development Permit;
- MaineDEP Natural Resources Protection Act Permit-by-Rule;
- ACOE Category II Permit;
- Maine Construction General Permit Notice of Intent; and
- FAA Notice of Proposed Construction.

1.2 EXISTING FACILITIES

The area of the 17.9-acre property where the Cold Storage Facility is proposed is currently vacant. There are remnant concrete slabs and pavements, site lights, transformer pads, railroad tracks, and gravels that will be removed. Other portions of the property, outside of the proposed Cold Storage Facility, are currently being used for various IMT operations. There is also a gas facility operated by Unitil located on the parcel. The Existing Conditions Plan, included in the drawings submitted with this application, depicts the existing conditions of the project area, based on a ground-level survey and site observations completed by Owen-Haskell on October 23, 2019.

1.3 TOPOGRAPHIC MAP

A USGS topographic map showing the approximate location of proposed development is attached to this Section for your reference. Topography slopes generally from West Commercial Street towards the Fore River, from approximate elevation 15' down to 10' at the approximate top of bank, before breaking in slope down to the river. The Highest Annual Tide Line is at Elevation 7.2 (NGVD 1929).

1.4 CONSTRUCTION PLAN

Construction is anticipated to begin in August of 2020. Erosion and sediment control measures will be installed prior to any ground disturbing activities, as described in Section 14 of this Report. A Construction Management Plan has been submitted to the City as part of the Site Plan Application review process.

The Site will be managed during construction to minimize impacts to the adjacent land uses. Maintaining access to adjacent properties and public facilities will be a priority. Traffic impacts to adjacent roadways, including West Commercial Street and Beach Street, will be minimized during construction to the greatest extent possible. Traffic controls will consist of temporary signage and barriers where necessary to manage vehicle, pedestrian, and bicycle traffic and direct it safely around the construction area. Underground utility work and grading activities are not anticipated to impact traffic circulation at the site entrance at the intersection of Beach Street and West Commercial Street as all utilities are all stubbed into the extents of the project site and the electrical tie-in is anticipated to be completed at an existing pole located off West Commercial street. Street opening permits will not be required for these utility connections. Additionally, stormwater will be discharged through an outfall to Fore River.

Below is the anticipated sequence of construction activities for major aspects of the development:

- Installation of erosion and sediment control measures and traffic control measures;
- Demolition and site preparation activities;
- Construction of utilities, stormwater management system, and the driveway;
- Construction of the building;
- Installation of landscaping and final surface materials; and
- Removal of erosion and sediment control measures.

1.5 DRAWINGS

Design drawings showing the proposed development are included with this application.

1.6 LIST OF ATTACHMENTS

The following documents are attached to this Section:

- Topographic Map; and
- Design Drawings (Bound Separately).



Service Layer Credits: Esri, HERE, Garmin
(c) OpenStreetMap contributors, and the GIS user community

0 1,000 2,000
Feet

IMT COLD STORAGE FACILITY

COMMERCIAL STREET
PORTLAND, ME

FIGURE 1 - SITE LOCATION MAP



Project #: 0232277.00
Map Created: September 2019

2. TITLE, RIGHT, AND INTEREST

As noted on the survey, the Cold Storage Facility will be located on a parcel of land currently owned by the Maine Port Authority. A copy of the deed and the Option to Ground Lease Agreement, which serves as evidence of right, title, and interest, has been attached to this Section.

2.1 ATTACHMENTS

- Deed of Convenience, dated March 11, 2020, Cumberland County Registry of Deeds, Book 36501, Pg 146.
- Option to Ground Lease Agreement, dated March 12, 2020, between Maine Port Authority and Maine International Cold Storage Facility LLC.

DEED OF CONVENIENCE

The **STATE OF MAINE**, acting by and through its **DEPARTMENT OF TRANSPORTATION** (the "Grantor" or "MaineDOT"), under and pursuant to the provisions of 23 M.R.S. § 4424, for consideration, hereby **TRANSFERS** all its right, title and interest in and to land and rights in land situated on the southerly side of West Commercial Street in the City of Portland, County of Cumberland, State of Maine, as further described herein to **THE MAINE PORT AUTHORITY**, a body both corporate and politic in the State of Maine (the "Grantee" or "MPA"), having a mailing address of 460 Commercial Street, Portland, Maine 04101.

Said property (the "Premises") is more particularly described in the attached **Exhibit A Legal Description** and shown on the attached **Exhibit B Plans**, being copies of the following MaineDOT Right of Way Maps:

- A. Plan entitled "State of Maine Department of Transportation Right of Way Map, Land Acquisition Plan Part II, West Commercial Street, Portland, Cumberland County, Maine" dated April 25, 2014 and recorded in Plan Book 219, Page 37 of the Cumberland County Registry of Deeds, and being further identified in MaineDOT's records as D.O.T. File No. 3-596.
- B. Plan entitled "State of Maine Department of Transportation Right of Way Map, Land Acquisitions, West Commercial Street, Portland, Cumberland County, Maine" dated April 2014, revised March 9, 2020 and recorded in Plan Book 220, Page 63 of said Registry of Deeds and being further identified in MaineDOT's records as D.O.T. File No. 3-595.

The Premises are conveyed **SUBJECT TO** the following:

1. All easements and encumbrances of record;
2. All Certificates of Completion, all recorded covenants and restrictions, and all conditions and protections affecting the Premises as set forth in the records of the Maine Department of Environmental Protection's ("DEP") Voluntary Response Action Program ("VRAP") referencing the former Portland Gas Works site. Recorded covenants and restrictions encumbering the property include the following:
 - a. Declaration of Environmental Covenant dated May 24, 2015 and recorded in Book 32334, Page 6 of said Registry of Deeds;
 - b. Declaration of Environmental Covenant dated September 18, 2019 and recorded in Book 36025, Page 267 of said Registry of Deeds; and
 - c. Declaration of Environmental Covenant dated September 18, 2019 and recorded in Book 36025, Page 291 of said Registry of Deeds.
3. The condition subsequent that, in the event MPA no longer uses the Premises for port-related transportation purposes, MaineDOT shall have the right, upon sixty (60) days prior written notice, to reenter and retake the Premises, and MPA shall surrender

Deed of Convenience
MaineDOT to Maine Port Authority
Portland, Maine

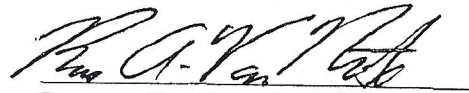
the same and execute any documentation that MaineDOT reasonably requires to evidence the vesting of fee simple title in Maine DOT.

4. The condition that MPA shall not convey the Premises, or any portion thereof, to a third party without obtaining MaineDOT's prior written permission, which shall be granted at MaineDOT's sole discretion.
5. The terms of an existing Easement Agreement between MaineDOT and Northern Utilities, Inc. d/b/a Unitil dated December 15, 2016 and recorded in Book 33716, Page 257 of said Registry of Deeds.
6. All utility easements and installations of record and located on the Premises and to those rights that any utility enjoys over the Premises for maintenance, location or relocation of poles and other installations.

The Grantor makes no representations or warranties with respect to the Premises conveyed. The representations and warranties so excluded encompass, but are not limited to, those pertaining to: land use and environmental matters; fitness of the Premises or any portion thereof for any particular purpose; water quality or quantity; the condition or quality of the soil; inchoate or unrecorded liens; or the existence, status, or condition of access to, or public utilities serving the Premises. Any subsequent use of, improvement to, or construction on the parcel is subject to all applicable laws, regulations, ordinances, and permitting requirements.

IN WITNESS WHEREOF, the said State of Maine, acting by and through its Department of Transportation, has caused this instrument to be executed by Bruce A. Van Note, its Commissioner, thereunto duly authorized this 11th day of March in the year two thousand twenty.

STATE OF MAINE
Department of Transportation

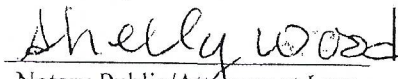

Bruce A. Van Note, Commissioner

STATE OF MAINE
County of Kennebec

March 11, 2020

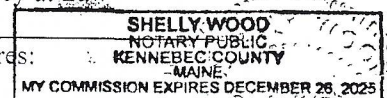
Personally appeared the above-named Bruce A. Van Note, Commissioner of the Maine Department of Transportation, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of the State of Maine.

Before me,


Notary Public/Attorney at Law

Print name: _____

My commission expires: _____



Deed of Convenience
MaineDOT to Maine Port Authority
Portland, Maine



EXHIBIT A
Legal Description

THREE CERTAIN PARCELS OF LAND, together with any improvements held by the Grantor thereon and not otherwise excepted or excluded herein, situated on the southerly side of West Commercial Street in the City of Portland, County of Cumberland and State of Maine described as follows (the "Premises") and depicted on the attached **Exhibit B Plans** (the "Right of Way Maps"):

PARCEL ONE:

All land, and rights in land located within the following described boundaries:

COMMENCING at a granite monument found in a manhole located in the southerly sideline of West Commercial Street about 393' northerly of the intersection of the said West Commercial Street and Clark Street, as shown on said Right of Way Map;

THENCE S 32°36'10" W along the southerly sideline of West Commercial Street 86.09 feet to the **point of beginning**, said point being the northeasterly corner of property conveyed by Portland Terminal Company to New Yard, LLC by deed dated July 31, 2013 and recorded in Book 30887, Page 247 of the Cumberland County Registry of Deeds;

THENCE from said point of beginning S 32°31'38" E along the westerly line of land now or formerly of the City of Portland 580 feet, more or less to mean low water;

THENCE westerly and southwesterly along mean low water 64 feet, more or less, to a point on the easterly line of land now or formerly of Casco Wharf & Storage as described in Book 1507, Page 126 of said Registry of Deeds (which is a part of the parcel herein described);

THENCE S 32°31'38" E along said easterly line of said Casco Wharf & Storage 50 feet more or less to the Former Harbor Commissioner's Line of 1929;

THENCE S 37°45'10" W along said Harbor Commissioner's Line 600 feet, more or less to a point;

THENCE S 62°18'00" W along said Harbor Commissioner's Line 400 feet, more or less, to a point;

THENCE S 78°39'00" W along said Harbor Commissioner's Line 117 feet, more or less, to the southerly corner of a parcel shown on said Right of Way Map as "Parcel 5";

Deed of Convenience
MaineDOT to Maine Port Authority
Portland, Maine

THENCE N 21°46'06" W 60 feet, more or less, to the mean low water line as shown on said Right of Way Map;

THENCE continuing N 21°46'06" W 105 feet, more or less, through land now or formerly of New Yard, LLC to the southerly corner of a parcel of land formerly owned by Northern Utilities, Inc., d/b/a Until;

THENCE N 43°25'17" W along the westerly boundary of said land formerly of said Northern Utilities (which is a part of the parcel herein described) and the easterly boundary of land now or formerly of said New Yard, LLC 435.50 feet to the northwest corner of said former Northern Utilities parcel and a point that represents the northeast corner of said land now or formerly of said New Yard, LLC;

THENCE S 70°47'58" W along the northerly boundary of said land now or formerly of said New Yard, LLC 381.52 feet to land formerly of Portland Terminal Company and Maine Central Railroad Company and now of the State of Maine as described in a Notice of Condemnation recorded in Book 31408, Page 301 of said Registry of Deeds (said land now of the State of Maine being Parcel Two described herein);

THENCE N 16°58'37" W along land of the State of Maine and now or formerly owned by Portland Terminal Company and Maine Central Railroad Company 149.35 feet to the southerly side of West Commercial Street;

THENCE N 73°01'23" E along the southerly sideline of said West Commercial Street 1053.20 feet to a point;

THENCE N 32°36'10"E along the southerly sideline of said West Commercial Street 551.51 feet to the **point of beginning**.

The above described parcel contains 18 acres, more or less.

EXCEPTING FROM THE ABOVE DESCRIBED PARCEL any existing gas facilities, including without limitation, natural gas and propane pipelines, buildings, associated fixtures and related appurtenances, improvements and other personal property that are owned by or are in the custody and control of Northern Utilities, Inc., d/b/a Until.

MEANING AND INTENDING TO CONVEY all rights acquired by the Grantor through the following:

- a. Notice of Condemnation filed in said Registry of Deeds on April 30, 2014 in Book 31470, Page 191 of said Registry of Deeds; and

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- b. Notice of Condemnation filed in said Registry of Deeds on May 11, 2016 in Book 33101, Page 252 of said Registry of Deeds

PARCEL TWO:

All land and rights in land within the following described boundaries:

COMMENCING at a point on the southerly sideline of West Commercial Street at the northwesterly corner of land now or formerly of New Yard, LLC recorded in the Cumberland County Registry of Deeds in Book 30887, Page 247;

THENCE, S 16°58'37" E along the westerly line of land of said New Yard, LLC 90.30 feet to the **point of beginning**;

THENCE from said point of beginning S 16°58'37" E continuing along the westerly line of land of New Yard, LLC 67.90 feet;

THENCE the following courses and distances through land of Maine Central Railroad Company:

S 66°19'39" W for a distance of 57.45 feet;
S 62°41'27" W for a distance of 125.13 feet;
S 59°26'10" W for a distance of 495.19 feet;

THENCE, along a curve to the right with a radius of 725.74 feet, having an arc length of 165.42 feet, having a chord bearing of S 65°57'58" W and chord length of 165.07 feet;

THENCE, S 72°29'45" W for a distance of 519.07 feet;

THENCE, along a curve to the right with a radius of 725.78 feet, having an arc length of 185.34 feet, having a chord bearing of S 79°48'41" W and chord length of 184.84 feet;

THENCE, S 87°07'38" W for a distance of 21.45 feet to a point;

THENCE, S 02°52'22" E for a distance of 26 feet, more or less, to the spring high tide line;

THENCE, generally westerly along the spring high tide line 1316 feet, more or less, to land now or formerly of Cianbro Corp. recorded in said Registry of Deeds in Book 3424, Page 116, being on a bearing of S 74°55'10" W a distance of 1075.68 feet from the last mentioned point;

THENCE, the following courses and distances along land of said Cianbro Corp.:
N 16°59'42" W for a distance of 171.32 feet;
S 79°48'18" W for a distance of 347.84 feet;

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MaineDOT to Maine Port Authority
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N 16°59'42"W for a distance of 53.00 feet to the southerly sideline of Cassidy Point Road;

THENCE, N 73°00'18" E along the southerly sideline of Cassidy Point Road 263.93 feet to the southerly sideline of West Commercial Street;

THENCE, N 82°56'03" E continuing along the southerly sideline of West Commercial Street 543.92 feet to an angle point;

THENCE, N 77°41'31" E continuing along the southerly sideline of West Commercial Street 16.88 feet;

THENCE, the following courses and distances through land of Maine Central Railroad Company:

N 84°41'57" E for a distance of 219.48 feet;

N 86°01'33" E for a distance of 312.82 feet;

N 87°07'38" E for a distance of 273.21 feet;

N 72°29'45" E for a distance of 542.24 feet;

THENCE, along a curve to the left with a radius of 673.74 feet, having an arc length of 153.57 feet, having a chord bearing of N 65°57'58" E and chord length of 153.24 feet;

THENCE, N 59°26'10"E a distance of 693.10 feet to the point of beginning.

The above described parcel contains 5.0 acres, more or less.

EXCEPTING FROM THE ABOVE DESCRIBED PARCEL the premises conveyed by the State of Maine to Cianbro Corporation by Governor's Deed dated January 8, 2015 and recorded in Book 32199, Page 285 of said Registry of Deeds containing 5780 square feet, more or less.

MEANING AND INTENDING TO CONVEY all rights acquired by the Grantor through its Notice of Condemnation filed in said Registry of Deeds on March 27, 2014 in Book 31408, Page 301 of said Registry of Deeds, excepting the aforementioned premises conveyed to Cianbro Corporation in Book 32199, Page 285.

PARCEL THREE:

All right, title and interest in and to the intertidal and submerged lands adjoining the parcels described above and located between the spring high tide line and the Former Harbor Commissioner's Line of 1929 as shown on said Right of Way Maps and acquired by the Grantor by virtue of the above-referenced Notices of Condemnation, to the extent that such rights are not otherwise excepted herefrom.

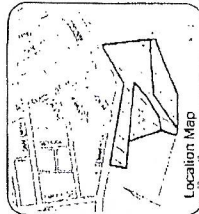
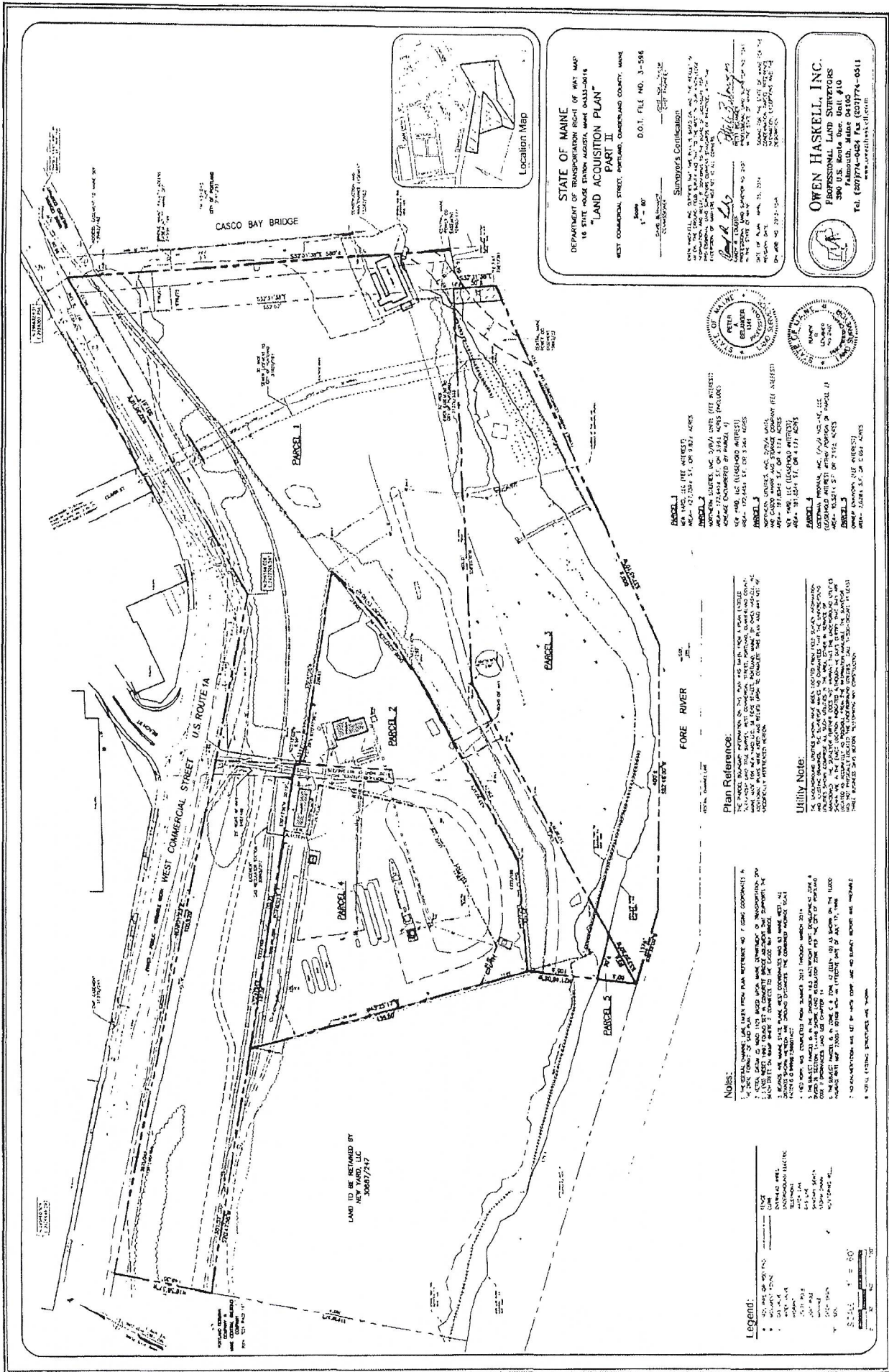
Deed of Convenience
MaineDOT to Maine Port Authority
Portland, Maine

EXHIBIT B

Plans

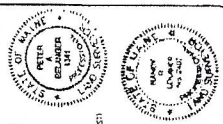
(see following two pages)

Deed of Convenience
MaineDOT to Maine Port Authority
Portland, Maine



STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP
 18 STATE ROAD STATION AUGUSTA MAINE 04303-0018
"LAND ACQUISITION PLAN"
PART II
 WEST COMMERCIAL STREET, PORTLAND, CAMDEN AND COUNTY, MAINE
 Scale: 1" = 60'
 D.O.I. FILE NO. 3-556
 SURVEYOR'S CERTIFICATION
 I, the undersigned, being duly sworn, depose and say that the foregoing is a true and correct copy of the original map on file in the office of the State Engineer, and that the same was prepared by me or under my direct supervision and to the best of my knowledge and belief it is a true and correct copy of the original map on file in the office of the State Engineer.

OWEN HASKELL, INC.
 PROFESSIONAL LAND SURVEYORS
 390 U.S. Route One, Unit #10
 Portland, Maine 04105
 Tel: (207) 774-0424 Fax: (207) 774-0511
 www.owenhaskell.com



PARCEL 1
 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 AREA: 12,720.61 S.F. OF 0.27 ACRES
PARCEL 2
 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 AREA: 12,720.61 S.F. OF 0.27 ACRES
PARCEL 3
 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 AREA: 12,720.61 S.F. OF 0.27 ACRES
PARCEL 4
 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 AREA: 12,720.61 S.F. OF 0.27 ACRES
PARCEL 5
 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 AREA: 12,720.61 S.F. OF 0.27 ACRES

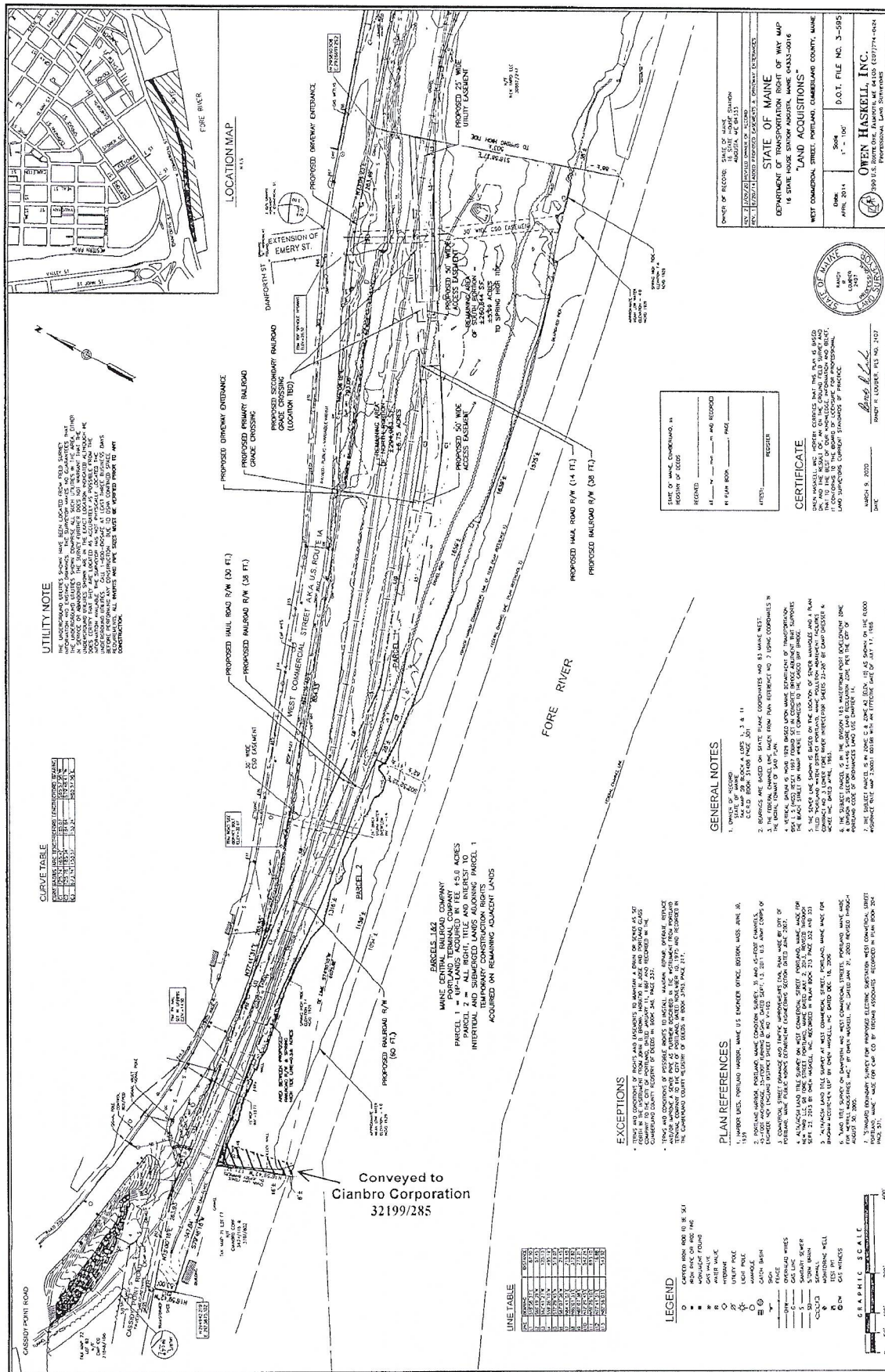
Plan Reference:
 The parcel boundary information on this map was taken from a plan (noted) in the office of the State Engineer, and the same was prepared by me or under my direct supervision and to the best of my knowledge and belief it is a true and correct copy of the original map on file in the office of the State Engineer.

Utility Note:
 The utility lines shown on this map were taken from a plan (noted) in the office of the State Engineer, and the same was prepared by me or under my direct supervision and to the best of my knowledge and belief it is a true and correct copy of the original map on file in the office of the State Engineer.

Notes:
 1. ALL DIMENSIONS ARE GIVEN FROM PLAN REFERENCE NO. 7 (SEE COMMENTS) & 8 (SEE COMMENTS) & 9 (SEE COMMENTS) & 10 (SEE COMMENTS) & 11 (SEE COMMENTS) & 12 (SEE COMMENTS) & 13 (SEE COMMENTS) & 14 (SEE COMMENTS) & 15 (SEE COMMENTS) & 16 (SEE COMMENTS) & 17 (SEE COMMENTS) & 18 (SEE COMMENTS) & 19 (SEE COMMENTS) & 20 (SEE COMMENTS) & 21 (SEE COMMENTS) & 22 (SEE COMMENTS) & 23 (SEE COMMENTS) & 24 (SEE COMMENTS) & 25 (SEE COMMENTS) & 26 (SEE COMMENTS) & 27 (SEE COMMENTS) & 28 (SEE COMMENTS) & 29 (SEE COMMENTS) & 30 (SEE COMMENTS) & 31 (SEE COMMENTS) & 32 (SEE COMMENTS) & 33 (SEE COMMENTS) & 34 (SEE COMMENTS) & 35 (SEE COMMENTS) & 36 (SEE COMMENTS) & 37 (SEE COMMENTS) & 38 (SEE COMMENTS) & 39 (SEE COMMENTS) & 40 (SEE COMMENTS) & 41 (SEE COMMENTS) & 42 (SEE COMMENTS) & 43 (SEE COMMENTS) & 44 (SEE COMMENTS) & 45 (SEE COMMENTS) & 46 (SEE COMMENTS) & 47 (SEE COMMENTS) & 48 (SEE COMMENTS) & 49 (SEE COMMENTS) & 50 (SEE COMMENTS) & 51 (SEE COMMENTS) & 52 (SEE COMMENTS) & 53 (SEE COMMENTS) & 54 (SEE COMMENTS) & 55 (SEE COMMENTS) & 56 (SEE COMMENTS) & 57 (SEE COMMENTS) & 58 (SEE COMMENTS) & 59 (SEE COMMENTS) & 60 (SEE COMMENTS) & 61 (SEE COMMENTS) & 62 (SEE COMMENTS) & 63 (SEE COMMENTS) & 64 (SEE COMMENTS) & 65 (SEE COMMENTS) & 66 (SEE COMMENTS) & 67 (SEE COMMENTS) & 68 (SEE COMMENTS) & 69 (SEE COMMENTS) & 70 (SEE COMMENTS) & 71 (SEE COMMENTS) & 72 (SEE COMMENTS) & 73 (SEE COMMENTS) & 74 (SEE COMMENTS) & 75 (SEE COMMENTS) & 76 (SEE COMMENTS) & 77 (SEE COMMENTS) & 78 (SEE COMMENTS) & 79 (SEE COMMENTS) & 80 (SEE COMMENTS) & 81 (SEE COMMENTS) & 82 (SEE COMMENTS) & 83 (SEE COMMENTS) & 84 (SEE COMMENTS) & 85 (SEE COMMENTS) & 86 (SEE COMMENTS) & 87 (SEE COMMENTS) & 88 (SEE COMMENTS) & 89 (SEE COMMENTS) & 90 (SEE COMMENTS) & 91 (SEE COMMENTS) & 92 (SEE COMMENTS) & 93 (SEE COMMENTS) & 94 (SEE COMMENTS) & 95 (SEE COMMENTS) & 96 (SEE COMMENTS) & 97 (SEE COMMENTS) & 98 (SEE COMMENTS) & 99 (SEE COMMENTS) & 100 (SEE COMMENTS)

Legend:
 1. 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 2. 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 3. 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 4. 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 5. 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 6. 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 7. 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 8. 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 9. 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)
 10. 10000 SOUTHERN, LLC 3.0000 ACRES (SEE INTEREST)

LAND TO BE RETAINED BY
 NEW YARD, LLC
 306617417



Received
Recorded Register of Deeds
Mar 12, 2020 08:21:19A
Cumberland County
Nancy A. Lane

OPTION TO GROUND LEASE AGREEMENT

This OPTION TO GROUND LEASE AGREEMENT (this “**Agreement**”) is entered into as of the Effective Date by and between Owner and Optionee. In consideration of the mutual promises of the parties herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Optionee and Owner hereby agree as follows:

BASIC OPTION PROVISIONS

EFFECTIVE DATE	<u>March 12</u> , 2020.
OWNER	The Maine Port Authority, a State of Maine “body both corporate and politic,” a quasi-governmental entity created under Maine Statute at 23 M.R.S. §§ 4420-4430.
OPTIONEE	Maine International Cold Storage Facility LLC, a limited liability company.
PROPERTY	That real property consisting of the parcel(s) located in the City/Town of Portland, County of Cumberland, State of Maine, as more particularly depicted in <u>Exhibit A</u> , together with any improvements located thereon and rights, benefits and easements appurtenant to the parcel(s).
LAND	The Land is co-extensive with the Property (see Exhibit A).
OPTION PERIOD	Three (3) months from the Effective Date, which Optionee may extend for an additional period of three (3) months pursuant to <u>Section 2(a)</u> .
OPTION PAYMENT	An amount equal to 10 and 00/100 Dollars (\$10.00), to be paid up front on the Effective Date (the “ Option Payment ”).

LIST OF EXHIBITS

EXHIBIT A – Depiction of the Land (entitled “Existing Conditions,” “IMT WEST COLD STORAGE FACILITY,” July 2015)

EXHIBIT B – Letter of Intent from Amber Infrastructure Group (January 27, 2020)

EXHIBIT C – Design-Build Agreement between Maine Port Authority and Woodard & Curran Constructors, LLC (Feb. 13, 2019, and as amended May 28, 2019)(without exhibits)

EXHIBIT D– Deed of Convenience, Book 36501, Page 146 (March 11, 2020)

1. **Grant of Option.** Owner hereby grants to Optionee the exclusive option (the “**Option**”) to lease all or any portion of the Land and obtain any easements upon other portions of the Property reasonably required for access and utility connections (the “**Easements**” and together with the Land, the “**Premises**”) that Optionee deems necessary for the Project (defined below), in accordance with this Agreement. If Optionee exercises the Option in accordance with Section 3 below, the parties shall enter into the ground lease agreement (the “**Lease**”) as discussed in Section 4 below. “**Project**” shall mean the construction of the Maine International Cold Storage Facility as discussed in the Letter of Intent (attached as Exhibit B) (the “**LOI**”).

2. **Option Period and Payment.**

(a) **Option Period.** The period during which the Option may be exercised shall commence on the Effective Date and continue until the expiration of the Option Period as described in the Basic Option Provisions above. Optionee shall have the right to extend the Option Period for one (1) additional three (3) month period, provided that Optionee delivers notice to Owner of its intent to extend the Option Period at least five (5) days prior to the original expiration of the Option Period. Notwithstanding the foregoing, the Option Period shall automatically terminate upon the earlier of (i) execution of the Lease by Owner and Optionee; (ii) Optionee providing written notice of its election to cancel this Agreement (in Optionee's sole and absolute discretion); or (iii) 5:00 p.m. (in the time zone where the Property is located) on the date of expiration of the Option Period (or extended Option Period, if Optionee so extends under this section).

(b) **Option Payment.** Within twenty (20) days after the Effective Date, Optionee shall pay to Owner the Option Payment.

3. **Notice of Exercise of Option.** Optionee may exercise the Option at any time during the Option Period by delivering to Owner a written notice exercising the Option (the "**Option Notice**").

4. **Lease Agreement.** If Optionee delivers an Option Notice to Owner, then Owner and Optionee shall, in good faith, negotiate and agree to a Lease over the Property. The terms and conditions of the Lease shall in all events include the relevant sections of the LOI, unless otherwise agreed by the parties.

5. **Closing.** Upon delivery of the Option Notice to Owner in accordance with Section 3 above, the execution of the Lease by Owner and Optionee (the "**Closing**") shall take place on a date mutually agreed by the Parties.

6. **Due Diligence; Title.**

(a) **Due Diligence.** Owner has already provided Optionee with a certain Design-Build Agreement between the Maine Port Authority and Woodard & Curran Constructors, LLC (attached as **Exhibit C**, without underlying exhibits). In furtherance of providing Exhibit C and related exhibits and papers, the Owner has already shared with Optionee all documents that Owner considers relevant to analyzing the Project contemplated in the LOI (Ex. B). Optionee may, at its discretion, utilize Exhibit C and its underlying documents during the Option Period or during the follow-on project, to whatever extent the Optionee deems appropriate. Owner provided Exhibit C and its related exhibits and papers to Optionee on an as-is, where-is basis without warranty, but Owner is not aware of any information contradicting Exhibit C and its underlying exhibits. If Owner becomes aware of additional documents or information that undermine or contradict any information contained in Exhibit C, Owner will notify Optionee of the same within ten (10) days.

(b) **Title.** Optionee, at its sole cost, may obtain a preliminary title report (the "**Title Report**") and/or survey (the "**Survey**") for the Property. If Optionee, in its sole discretion, determines that the existence, use, operation, implementation, or exercise of any matters identified by the Title Report or Survey could materially delay, interfere with, impair or prevent Optionee's development, operation or financing of the Project, then Optionee may notify Owner of such issues and Owner shall cooperate with Optionee in efforts to obtain a release, subordination, non-disturbance agreement, consent, or other agreement (in a form reasonably acceptable to Optionee) from the holder(s) of such rights. In the event that any holder(s) of such rights are unwilling to enter into a reasonable agreement to resolve the identified issue(s), the Optionee may, in its discretion, either accept the issue and execute the Option, thereby, subject to the terms of any definitive agreements (including the Lease), accepting the known issue, or terminate this Option, in which event the Owner will retain the Option Payment and this matter will be concluded.

7. **Right of Entry**

(a) **Investigations.** Beginning on the Effective Date and throughout the Option Period, Owner shall provide to Optionee, its employees, agents, contractors, and current or potential lenders or investors, reasonable access to the Property to conduct the Survey, evaluate, conduct and perform inspections, including soil and water testing, environmental assessments (Phase I and/or Phase II), engineering surveys, topographical, structural and geo-technical tests, and such other tests and inspections (collectively, the “**Investigations**”) that Optionee may deem necessary or advisable in its sole discretion, upon Optionee providing at least twenty-four (24) hours’ prior notice to Owner. Optionee shall keep the Property free from any liens arising out of any work performed, materials furnished, or obligations incurred by or on behalf of Optionee in connection with the Investigations. Optionee shall remove, or cause the removal of, any such lien by bond or otherwise within ten (10) days after Optionee becomes aware of the existence of such lien and if Optionee shall fail to do so, Owner may pay the amount necessary to remove such lien, without being responsible for investigating the validity thereof; provided, however, that the Optionee will be responsible to indemnify Owner in respect of the amounts paid to remove any such liens in accordance with § 7(b), *infra*.

(b) **Optionee Indemnification of Owner.** Optionee shall indemnify, defend and hold Owner harmless from and against all claims, losses, liabilities, damages, losses, costs or expenses (including, without limitation, reasonable attorneys’ fees) (collectively, “**Claims**”) which Owner may incur as a direct result of any act or wrongful omission by Optionee, its agents, or contractors in connection with the use of the Property; provided, however, that Optionee shall have no obligation or duty to indemnify, defend or hold Owner harmless from Claims (including, without limitation, Claims that the Property has declined in value) (i) arising out of, resulting from, or incurred in connection with the results or findings of Optionee’s Investigations, (ii) to the extent such Claims are due to the acts or wrongful omissions of Owner or its employees, agents or contractors during the Option Period, (iii) to the extent such Claims are for any consequential or indirect loss or damage, or (iv) to the extent such Claims exceed amounts recovered by Optionee under the insurances required to be taken out pursuant § 10, *infra*. Notwithstanding the foregoing, Optionee’s indemnification obligations shall not extend to any conditions on, at, or under the Property in existence as of the Effective Date, except and to the extent such conditions are aggravated by the gross negligence or willful misconduct of Optionee or its employees, agents or contractors. Optionee’s obligations hereunder shall survive the termination or expiration of the Option Period for two years.

8. **Owner’s Representations and Warranties.** Owner makes the following representations and warranties, which shall be true as of the Effective Date, the date the Option is exercised by Optionee, and shall survive the expiration or termination of this Agreement:

(a) **Authority.** Pursuant to a vote of the Owner’s Board at a duly noticed public meeting on February 10, 2020, Owner has the full legal right, power and authority, without the consent of any additional party or parties, to enter into this Agreement and to perform its obligations hereunder. The execution and delivery of this Agreement and the consummation of all transactions and performance of all obligations contemplated hereby have been duly authorized and will not conflict with, or result in a breach of any of the terms or provisions of, or constitute a default under, any document or instrument to which Owner is a party.

(b) **Binding on Owner.** Pursuant to a vote of the Owner’s Board at a duly noticed public meeting on February 10, 2020, the person executing this Agreement on behalf of Owner has full power and authority to bind Owner to the obligations set forth herein, and upon execution and delivery of the same, this Agreement will constitute a valid and binding instrument enforceable in accordance with its terms.

(c) **Exclusivity.** Owner represents and warrants it will not enter into any option, lease agreement, or similar transaction relating to the Premises with any other person or entity other than the Optionee during the Option Period (or Option Period as extended, if applicable).

(d) **Claims or Actions.** There are no current, pending or contemplated actions, administrative inquiries or proceedings, suits, arbitrations, claims or proceedings commenced by any person or governmental entity affecting Owner, the Property, or any portion thereof; provided, however, that this representation and warranty is further limited by § 8(g), *infra.*

(e) **No Violation of Laws.** To the best of Owner's knowledge, the Property is not in violation of any applicable federal, state, local or other laws, regulations or codes (the "**Laws**") and Owner has not received notice pertaining to the violation of any Laws affecting the Property or any portion thereof, and Owner has no knowledge of any facts which might be a basis for any such notice; provided, however, that this representation and warranty is further limited by § 8(g), *infra.*

(f) **Bankruptcy.** Owner has not (i) made a general assignment for the benefit of creditors; (ii) filed any voluntary petition in bankruptcy or suffered the filing of any voluntary petition by its creditors; (iii) suffered the appointment of a receiver to take possession of all or substantially all of its assets; or (iv) suffered the attachment or other judicial seizure of all or substantially all of its assets.

(g) **Fee Owner; Liens.** Owner holds the entire fee simple interest in the Property, except for the limitations on ownership detailed in the relevant Deed of Convenience from the Maine Department of Transportation to the Maine Port Authority, which is recorded at Book 36501 and Page 146 in the Cumberland County Registry of Deeds (a copy of which is attached hereto as **Exhibit D**) (the "**Deed**"), and any other encumbrances, covenants, and restrictions of record. Except as previously disclosed by Owner to Optionee in writing or as disclosed in the Title Report or Survey, Owner represents that there are no liens upon Owner's right, title or interest in the Property other than liens for monetary obligations for which Owner shall make best efforts to pursue a SNDA pursuant to § 9(a), *infra.* Except as otherwise listed in the Basic Option Provisions, Owner has not granted or entered into any other options, rights of first refusal, offers to purchase or lease or agreements to sell or lease all or any part of the Property ("**Third Party Interests**") other than with Optionee pursuant hereto.

(h) **Disclaimer of Certain Representations and Warranties.** Notwithstanding any of the foregoing representations and warranties, Owner makes no representations or warranties as to the legal or factual status of: land use and environmental matters; fitness of the Premises or any portion thereof for any particular purpose; water quality or quantity; the condition or quality of the soil; inchoate or unrecorded liens; or the existence, status, or condition of access to, or public utilities serving the Premises. Further reference is made to certain recorded covenants and restrictions, and all conditions and protections affecting the Premises as set forth in the records of the Maine Department of Environmental Protection's ("**DEP**") Voluntary Response Action Program ("**VRAP**") referencing the former Portland Gas Works site, some or all of which are listed in the relevant Deed (**Exhibit D**).

During the Option Period, Owner shall timely notify Optionee in writing of any changes affecting any of the foregoing representations and warranties.

9. **Owner's Covenants.** Owner hereby covenants and agrees that, from and after the Effective Date, though the Option Period and, if the Option is exercised, thereafter during the period up to and including the Closing:

(a) **Owner Mortgages.** Owner shall use commercially reasonable efforts to deliver to Optionee a subordination, non-disturbance and attornment agreement(s), in form and substance reasonably

acceptable to Optionee (each, a “SNDA”) from the current holder(s) of any deed of trust, mortgage or other lien encumbering the Property. Owner shall make all payments required under any loan secured by a mortgage or deed of trust encumbering the Property and pay all real property taxes and assessments levied or imposed against the Property and before any of the same become delinquent. During the Option Period, Owner shall not mortgage or otherwise encumber its interest in the Property without providing Optionee with fifteen (15) days prior written notice thereof and an SNDA reasonably acceptable to Optionee from such holder(s) of any deed of trust, mortgage or other lien encumbering the Property. Notwithstanding anything in this § 9(a), Optionee is aware of the Maine Department of Transportation’s residual interests in the Land as discussed in the Deed (Ex. D), and the Owner shall use commercially reasonable efforts to obtain such assurances or documents from the Department of Transportation as the Optionee may reasonably require.

(b) **Mortgage of Optionee’s Interest.** Optionee shall have the right to obtain financing from one or more Financing Parties (such term to be defined in the Lease) by way of a direct or collateral assignment of this Agreement to a Financing Party, after providing seven days’ written notice to the Owner. Owner agrees that, amongst other Financing Party protections and cure rights, Owner shall (a) acknowledge and consent to, amongst other things, Optionee assigning the Lease and the Easements and any other easements benefitting the Premises by way of direct or collateral assignment to a Financing Party, assignment of the Easements and a lease of the storage facility from such Financing Party to Optionee, grant the Financing Parties a sublease or other real property interest in Optionee’s interest in and to the Premises, grant a first priority security interest in Optionee’s interest in the improvements and/or the Lease and Optionee’s other interests in and to the Premises, including, but not limited to, any Easements, rights of way or other similar interests; and (b) agree to execute such subordination agreements, consents, estoppels and other acknowledgements of the foregoing as Optionee or the Financing Parties may request. Notwithstanding the foregoing, Owner retains discretion to decline to acknowledge, consent, and/or agree to the items listed in this § 9(b), provided that such acknowledgement, consent, and/or agreement shall not be unreasonably withheld. Notwithstanding anything in this § 9(b), Optionee is aware of the Maine Department of Transportation’s residual interests in the Land as discussed in the Deed (Ex. D), and the Owner shall use commercially reasonable efforts to obtain such additional assurances or documents from the Department of Transportation as the Optionee may reasonably require.

(c) **Permits; Cooperation with Development.** Optionee shall have the right to apply for applications for land use entitlements, environmental approvals and permits, site plans, and subdivision or minor land division requests and parcel maps. Owner shall cooperate with Optionee in Optionee’s efforts to obtain such approvals by executing such documents as are reasonably necessary. Nothing in this § 9(c) relieves Optionee’s obligations further discussed in § 7, *supra*; by way of example only and not limitation, these obligations include Optionee’s obligation to pay for its investigations and indemnify Owner for same.

(d) **Use of the Property.** During the term of this Option, Owner will not commit waste on the Property or otherwise materially change the Property, nor will Owner agree to grant or permit any easement, lease, license, right of access or other possessory right in the Premises to any third party without the prior written consent of Optionee. Owner shall comply with all Laws applicable to the Property.

10. **Insurance.** Effective as of the date Optionee enters the Property for the Investigations, and continuing through the Option Period, Optionee shall obtain and maintain liability insurance for its activities on the Property. Such insurance will be in the amount of One Million Dollars (\$1,000,000) per occurrence and a Ten Million Dollar (\$10,000,000) policy limit, and will name Owner as an additional insured but only for liability arising out of Optionee’s operations on the Property including, without limitation, coverage for damage or harm caused or incurred by Optionee and its employees and agents.

11. **Assignment.** Optionee shall have the right to assign its rights and obligations under this Agreement to any Optionee affiliate, third party, and/or party providing financing to Optionee only with the prior written consent of Owner. Owner shall not have any right to assign its rights and obligations under this Agreement without Optionee's prior written consent, not to be unreasonably withheld, conditioned or delayed.

12. **Termination.**

(a) **Default.** Each of the following events shall constitute an event of default by the applicable party and shall permit the non-defaulting party to terminate this Agreement and pursue the remedies at law described below, which, as to Owner, shall consist solely of the remedies at law described in Section 11(b) below, and, as to Optionee, shall consist solely of the remedies at law contained in Section 11(c) below.

(i) The failure of Optionee to pay the amount required to be paid hereunder when due.

(ii) The failure of either party to perform any of the other terms, agreements or conditions set forth in this Agreement, where such failure continues for thirty (30) days (or such longer period required to cure such failure, not to exceed sixty (60) days), after receipt of written notice from the other party; or

(iii) A party files for bankruptcy or has an involuntary petition in bankruptcy or a request for appointment of a receiver filed against it, where such involuntary petition or request is not dismissed within ninety (90) days after filing.

(b) **Owner Remedies – Liquidated Damages.** EXCEPT FOR OPTIONEE'S INDEMNIFICATION OBLIGATIONS CONTAINED IN THIS AGREEMENT, OWNER'S SOLE REMEDY AT LAW UPON AN EVENT OF DEFAULT BY OPTIONEE SHALL BE TO RETAIN THE OPTION PAYMENTS IT HAS THEN RECEIVED AS LIQUIDATED DAMAGES FOR SUCH DEFAULT OF OPTIONEE, AND IN SUCH EVENT, OPTIONEE SHALL HAVE NO FURTHER RIGHT WHATSOEVER TO LEASE THE PREMISES AND OWNER SHALL HAVE NO RIGHT TO SEEK ANY FURTHER DAMAGES OR REMEDY AT LAW. THE PARTIES AGREE THAT IT WOULD BE IMPRACTICAL AND/OR EXTREMELY DIFFICULT TO ASCERTAIN THE ACTUAL DAMAGES THAT WOULD BE SUFFERED BY OWNER AS A RESULT OF ANY SUCH DEFAULT BY OPTIONEE, AND THAT UNDER THE CIRCUMSTANCES EXISTING AS OF THE DATE OF THIS AGREEMENT, THE LIQUIDATED DAMAGES PROVIDED FOR IN THIS SECTION REPRESENT A REASONABLE ESTIMATE OF THE DAMAGES WHICH OWNER WILL INCUR AS A RESULT OF ANY SUCH DEFAULT BY OPTIONEE. SUCH RETENTION OF THE OPTION PAYMENTS BY OWNER IS INTENDED TO CONSTITUTE LIQUIDATED DAMAGES TO OWNER AND SHALL NOT BE DEEMED TO CONSTITUTE A FORFEITURE OR PENALTY.

(c) **Optionee Remedies – Liquidated Damages.** OPTIONEE'S SOLE REMEDY AT LAW UPON AN EVENT OF DEFAULT BY OWNER SHALL BE TO RECOVER AN AMOUNT EQUAL TO THE OPTION PAYMENT(S) IT HAS THEN PAID AS LIQUIDATED DAMAGES AS RECOMPENSE FOR SUCH DEFAULT OF OWNER. THE PARTIES AGREE THAT IT WOULD BE IMPRACTICAL AND/OR EXTREMELY DIFFICULT TO ASCERTAIN THE ACTUAL DAMAGES THAT WOULD BE SUFFERED BY OPTIONEE AS A RESULT OF ANY SUCH DEFAULT BY OWNER, AND THAT UNDER THE CIRCUMSTANCES EXISTING AS OF THE DATE OF THIS AGREEMENT, THE LIQUIDATED DAMAGES PROVIDED FOR IN THIS SECTION REPRESENT A REASONABLE ESTIMATE OF THE DAMAGES WHICH OWNER WILL INCUR AS A RESULT OF ANY SUCH DEFAULT BY OWNER. SUCH RECOVERY OF AN AMOUNT EQUAL TO THE OPTION

PAYMENTS TO OWNER IS INTENDED TO CONSTITUTE LIQUIDATED DAMAGES FOR OPTIONEE AND SHALL NOT BE DEEMED TO CONSTITUTE A FORFEITURE OR PENALTY.

(d) **Equitable and Statutory Remedies.** Notwithstanding any of the foregoing, both parties retain all rights to pursue equitable remedies (e.g. injunctive relief) and non-monetary statutory relief (e.g. forcible entry and detainer) as may be cognizable against the other. In no event will money damages, costs of suit, attorney's fees, interest, or any other amounts of money of any description be awarded to either party against the other to exceed the amount of liquidated damages described in § 12(b)-(c), *supra*. In the event the Parties are unable to negotiate to a mutually agreeable Lease, the maximum equitable remedy available will be an order to continue negotiating in good faith for a reasonable amount of time; in no event can either party be ordered to enter into a Lease as specific performance of this Option.

(e) **Termination by Optionee Absent Default by Owner.** If Optionee determines, in its sole and absolute discretion, that the Land is unsuitable or undesirable for leasing by Optionee, Optionee shall have the right to terminate this Agreement by giving written notice thereof to Owner and this Agreement shall terminate on the date specified in Optionee's written notice. If the Agreement is terminated during the Option Period pursuant to the preceding sentence, then neither party shall have any further rights or obligations hereunder; provided, however, that Owner shall retain all Option Payments it shall have received hereunder prior to the date of termination of the Option Agreement and any provisions hereof that expressly survive termination of this Agreement shall remain in effect.

13. **Miscellaneous.**

(a) **Investigatory Results.** For any Investigation undertaken by Optionee that involved entry onto the Premises by Optionee or any of its employees, contractors, or agents of any kind, Optionee will provide a copy of such investigatory reports, findings, or results of any kind to Owner within fourteen (14) days of such investigatory reports, findings, or results, at no charge to Owner. These materials may be provided electronically. By way of example only and not limitation, expressly included in this duty to turn over reports and findings are any soil sample findings and land survey results.

(b) **Waiver of Jury Trial and Selection of Venue.** EACH PARTY HERETO WAIVES, TO THE FULL EXTENT PERMITTED BY LAW, THE RIGHT TO A JURY TRIAL IN ANY LITIGATION CONCERNING THIS AGREEMENT OR ANY DEFENSE, CLAIM, COUNTERCLAIM, CLAIM OF SET-OFF OR SIMILAR CLAIM OF ANY NATURE. THE PARTIES AGREE THAT ANY DISPUTES OVER THIS AGREEMENT WILL BE LITIGATED EXCLUSIVELY IN THE MAINE STATE COURTS, AND WAIVE THE RIGHT TO PURSUE ANY DEFENSE, CLAIM, COUNTERCLAIM, CLAIM OF SET-OFF OR SIMILAR CLAIM OF ANY NATURE IN ANY OTHER FORUM. EACH PARTY CONSENTS IN ADVANCE TO PERSONAL JURISDICTION IN THE MAINE STATE COURTS.

(c) **Counterparts.** This Agreement may be executed in counterparts. All executed counterparts shall constitute one agreement, and each counterpart shall be deemed an original. The parties hereby agree signatures transmitted by facsimile or email shall be legal and binding and shall have the same full force and effect as if an original of this Agreement had been delivered and hereby waive any defenses to the enforcement of the terms of this Agreement based on the foregoing forms of signature.

(d) **Time Periods.** If any date for exercise of any right, giving of any notice, or performance of any provision of this Agreement falls on a Saturday, Sunday or holiday, the time for performance will be extended to the next business day.

(e) **No Waiver.** The failure of either party to require strict performance by the other party of any provision of this Agreement will not be considered a waiver of any other provision, nor prevent any party from enforcing that or any other performance at any time thereafter.

(f) **Further Assurances.** The parties shall at their own cost and expense execute and deliver such further documents and instruments and shall take such other actions as may be reasonably required or appropriate to carry out the intent and purposes of this Agreement.

(g) **Governing Law.** This Agreement is made pursuant to, and shall be construed and enforced in accordance with, the laws of the State of Maine.

(h) **Amendments; Entire Agreement.** This Agreement contains the entire agreement between the parties and is intended by the parties to set forth their entire agreement with respect to the subject matter hereof, and any agreement hereafter made shall be ineffective to change, modify or discharge this Agreement, in whole or in part, unless such agreement is in writing and signed by the party against whom enforcement of the change, modification or discharge is sought. Owner and Optionee agree that all prior or contemporaneous oral or written agreements between or amongst themselves or their agents are merged in or revoked by this Agreement.

(i) **Partial Invalidity.** If any term or provision of this Agreement is, to any extent, determined by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this Agreement shall not be affected thereby, and each remaining term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

(j) **Successors and Assigns.** This Agreement, and the rights and obligations of the parties hereto, shall be binding upon and inure to the benefit of the parties and their respective successors, heirs, executors, administrators and permitted assigns.

(k) **Interpretation.** Each party acknowledges that it has been represented by or had the opportunity to be represented by legal counsel in its review of this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Agreement or any amendments or exhibits hereto.

(l) **Survival of Terms.** All covenants, representations and warranties contained in this Agreement shall survive Closing. Those provisions in this Agreement which by their terms are intended to be or must be performed in whole or in part after the Closing or after termination of this Agreement shall survive Closing and the termination of this Agreement.

(m) **Headings.** The headings herein are inserted only for convenience and shall have no effect in interpreting the meaning of any provision.

(n) **Time is of the Essence.** Time is of the essence in this Agreement and each and every provision of this Agreement.

(o) **Notices.** All notices, approvals, disapprovals or elections required or permitted to be given under this Agreement shall be in writing and shall be (i) delivered personally; (ii) mailed by certified or registered mail, return receipt requested; (iii) sent by email transmission; (iv) sent by facsimile transmission; or (v) sent by Federal Express or other professional carrier, to the parties at the addresses listed below or at such other addresses as shall be designated by Optionee or Owner in writing. Except as expressly set forth in this Agreement, notices shall be deemed given upon delivery or tender of delivery to the intended recipient; provided, however, that (x) notice sent by email or facsimile shall only be deemed received when

both (A) the sender has electronic confirmation that it was sent to all parties (and has retained a confirmation of the delivery) and (B) at least one addressee entitled to notice for the applicable party has acknowledged receipt of the transmission; and (y) if a post office box is provided as the notice address, notice shall be deemed to have been given or made five (5) days after being deposited in the United States mail with appropriate postage prepaid. Copies of notices are for informational purposes only, and a failure to give or receive copies of any notice shall not be deemed a failure to give notice.

Owner Address

Maine Port Authority
Attn: Jon Nass, CEO
460 Commercial Street
Portland, ME 04101

Phone: 207-200-2400
E-mail: jon.nass@maineports.com

With a copy to:

Office of the Attorney General
Attn: Timothy Steigelman, AAG
6 State House Station
Augusta, ME 04333

Phone: 207-626-8509
E-mail: timothy.steigelman@maine.gov

Optionee Address

Attn: Thomas O'Shaughnessy
230 Park Avenue,
19th Floor
New York
10169
Phone: (347) 263-3213

With a copy to:

Attn: General Counsel
Amber Infrastructure Limited
3 More London Riverside
London, United Kingdom
SE1 2AQ

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, and intending to be bound hereby, the parties hereto have executed this Agreement on the date written above.

“Owner”

Maine Port Authority
a State of Maine “body both corporate and politic.” 23 M.R.S. § 4420.

By:


Name: Jon Nass

Title: Chief Executive Officer

“Optionee”

Maine International Cold Storage Facility LLC,
a Delaware limited liability company

By:


Name: Tom O'Shaughnessy

Title: President

Exhibit A

**Depiction of the Land
(entitled "Existing Conditions," "IMT WEST COLD STORAGE FACILITY," July 2015)**

Exhibit B

Letter of Intent from Amber Infrastructure Group (January 27, 2020)

Exhibit C

**Design-Build Agreement between Maine Port Authority Woodard & Curran Constructors, LLC
(Feb. 13, 2019, and as amended May 28, 2019)(without exhibits)**

Exhibit D

**Deed of Convenience
Book 36501, Page 146 (March 11, 2020)**

3. FINANCIAL CAPACITY

3.1 ESTIMATED COSTS

The construction budget for the proposed development is \$28,100,000.

3.2 FINANCING

A copy of a letter verifying the Applicant's financial capacity to undertake the project is attached to this Section.

3.3 CERTIFICATE OF GOOD STANDING

A copy of the Secretary of State's Certificate of Good Standing for Maine International Cold Storage Facility, LLC (the Applicant) is attached to this Section.

3.4 LIST OF ATTACHMENTS

- Financial Capacity Letter; and
- Certificate of Good Standing.

Ms Christine Grimando
AICP Planning Director
Planning & Urban Development
Department 389 Congress Street 4th Floor
Portland
ME 04101

February 28, 2020

Re: the Maine International Cold Storage Facility ("MICSF")

Dear Ms. Grimando,

It is my pleasure to provide this letter confirming Amber Infrastructure Group's ("Amber") relationship with Maine International Cold Storage Facility LLC.

MICSF LLC is a wholly owned subsidiary of Amber and has been created as a Special Purpose Entity to undertake the development, financing, construction, ownership and operation of the proposed MICSF to be constructed in partnership with the Port Authority at the Portland Marine Terminal.

Amber is an international infrastructure developer and fund manager with over \$8bn under management. Amber invests in eight countries internationally across six funds. Amber's core business focuses on sourcing, developing and investing in infrastructure sectors that support the lives of people, homes and businesses internationally. Amber is headquartered in London with offices in Europe, North America and Australia and employs approximately 125 infrastructure professionals.

I have attached Amber's latest set of annual audited accounts for your review. These demonstrate our available cash resources which exceed £107m (\$139m) which exceed the anticipated financing requirement of the development and financing of the MICSF.

Should you require any further information please do not hesitate to contact me.

Yours sincerely



Tom O'Shaughnessy, President, Amber Infrastructure LLC

Delaware

The First State

Page 1

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "MAINE INTERNATIONAL COLD STORAGE FACILITY LLC" IS DULY FORMED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE TWENTY-SEVENTH DAY OF FEBRUARY, A.D. 2020.

AND I DO HEREBY FURTHER CERTIFY THAT THE SAID "MAINE INTERNATIONAL COLD STORAGE FACILITY LLC" WAS FORMED ON THE TWENTY-SEVENTH DAY OF FEBRUARY, A.D. 2020.

AND I DO HEREBY FURTHER CERTIFY THAT THE ANNUAL TAXES HAVE BEEN ASSESSED TO DATE.



A handwritten signature of Jeffrey W. Bullock in black ink, written over a horizontal line. Below the line, the text "Jeffrey W. Bullock, Secretary of State" is printed.

7873797 8300

SR# 20201654726

You may verify this certificate online at corp.delaware.gov/authver.shtml

Authentication: 202476888

Date: 02-27-20

4. TECHNICAL ABILITY

On behalf of the Applicant, Woodard & Curran is preparing this application for the proposed development. Woodard & Curran has extensive experience with design for site development projects and specifically on the peninsula within the City of Portland. Woodard & Curran, a 1,000-person Portland-based firm, has provided engineering services to the public and private sector for over 40 years, including permitting, civil/site engineering, stormwater and construction management services.

Woodard & Curran has been involved in numerous development projects in the Greater Portland Area and has developed working relationships with various consultants who are called upon, as necessary, to provide specialized services. The project is also supported by a design team including CWS Architects, Pat Carroll Landscape Architects, Thornton Tomasetti Structural Engineers and Bartlett Electrical Engineering. Copies of resumes or project examples can be provided upon request.

5. NOISE

An acoustic study was performed for the proposed refrigeration facility. The study is summarized in the Noise Modeling Analysis Report by Tech Environmental dated February 25, 2020 attached to this Section. The acoustic modeling included thirty-two residential receptors and three property line receptors. Two modeling scenarios were performed: daytime, which consisted of twenty refrigerated trucks and one condenser, and nighttime, which consisted of ten refrigerated trucks and one condenser.

The results of the acoustic study were compared to the Maine Department of Environmental Protection (Maine DEP) Noise Policy. One-third octave bands were not available for the equipment data used in the model, so as per Maine DEP regulations a 5-dBA penalty was added to the predicted project sound levels. The pre-existing sound levels are in the 50-60 dBA range for daytime and nighttime sound levels. The study demonstrates that project operations will not cause an increase in the existing sound levels. Tables 2 in the letter report presents the results from the model and demonstrate that the project will comply with the Maine DEP 06-096 Chapter 375 (10) Control of Noise.

Construction activities will be limited to the hours permitted by the City. HVAC and primary mechanical equipment will be located and screened to mitigate noise impacts.

5.1 LIST OF ATTACHMENTS

- Noise Modeling Analysis prepared by Tech Environmental

February 25, 2020

Mr. Jedd Steinglass, LSP
Project Manager
Woodard & Curran
41 Hutchins Drive
Portland, ME 04102

Ref 4496

Re: Noise Modeling Analyses for SLODA- Compliance Demonstration

Dear Mr. Steinglass:

This letter report presents the results of an acoustic study for the proposed refrigeration facility located at 40 West Commercial Street, Portland, Maine (herein referred to as the Project). The proposed project is a total of 125,572 square feet, with 12 loading docks. The current Project location is a vacant lot that is located in a waterfront port development zone.

The acoustic modeling includes 32 residential receptors, and 3 property line receptors. Two modeling scenarios were performed:

1. daytime: which consists of up to 20 refrigerated trucks, 1 outdoor condenser, and
2. nighttime: which consists of having 10 refrigerated trucks, 1 outdoor condenser.

One-third octave bands were not available for the equipment data used in the model, so as per Maine DEP regulations a 5 dBA penalty was added to the predicted project sound levels.

The results of the acoustic study were compared to the Maine Department of Environmental Protection (Maine DEP) Noise Policy and the City of Portland Zoning Bylaw. **Tables 1** and **2** present the results from the model and demonstrate that the Proposed Project will comply with both the Maine DEP Noise Policy and the City of Portland Code of Ordinance.

1.0 THE DECIBEL SCALE FOR SOUND

All sounds originate with a source – a human voice, vehicles on a roadway, or an airplane overhead. The sound energy moves from the source to a person's ears as sound waves, which are minute variations of air pressure. The loudness of a sound depends on the sound pressure level, which has units of decibel (dB). The decibel scale is logarithmic to accommodate the wide range of sound intensities to which the human ear is subjected. On this scale, the quietest sound we can hear is 0 dB, while the loudest is 120 dB. Every 10-dB increase is perceived as a doubling of loudness. Most sounds we hear in our daily lives have sound pressure levels in the range of 30 dB to 90 dB.

Community noise studies and regulations use an A-weighting scale (dBA) when measuring sound pressure levels as this approximates the response of the human ear to sounds, we experience in everyday life. Typical sound levels associated with various activities and environments are presented in **Figure 1**. Here are examples of sound levels we all encounter. A quiet suburban area at night without any traffic typically has an average sound level of 40 to 45 dBA. The freight train you hear in the distance may be 50 dBA, and crickets and tree frogs in the summer sing a sound level of 55 dBA. Two people having a conversation in a normal tone of voice will hear each other speak at 65 dBA. Standing near a road, a car passing by can produce 75 dBA, and a truck passing by is louder at 80 dBA.

There are various measures of sound pressure designed for different purposes. To establish the background ambient sound level in an area, the L_{90} metric, which is the sound level exceeded 90 percent of the time, is typically used. The L_{90} can also be thought of as the level representing the quietest 10 percent of any time period. The L_{10} metric, which is the sound level exceeded 10 percent of the time is typically used to assess transient noise highway or rail activities. The L_{eq} , or equivalent sound level, is the steady-state sound level over a period of time that has the same acoustic energy as the fluctuating sounds that actually occurred during that same period. It is commonly referred to as the average sound level. The L_{max} , or maximum sound level, represents the one second peak level experienced during a given time period. These are a broadband sound pressure measure, i.e., it includes sounds at all frequencies.

Sound level measurements typically include an analysis of the sound spectrum into its various frequency components to determine tonal characteristics. The unit of frequency is Hertz (Hz), measuring the cycles per second of the sound pressure waves, and typically the frequency analysis examines eleven octave bands from 16 to 16,000 Hz.

2.0 APPLICABLE NOISE REGULATIONS

This section provides a summary of the Maine Department of Environmental Protection (Maine DEP) Noise Policy and the City of Portland Code of Ordinance.

2.1 Maine Department of Environmental Protection Noise Policy

The Maine Department of Environmental Protection (Maine DEP) 06-096 Chapter 375 (10) Control of Noise. There are three criteria that could apply, the first is at the industrial fenceline, Chapter 375 (10) (1) (a) (i), and the second is at the fenceline of the residential locations, Chapter 375 (10) (1) (a) (ii). Both of these assume that the background is less than these limits. If the background is great than these limits because of existing background sound then the limit for the industrial fenceline, the residential fenceline, or possibly both could be an incremental increase Chapter 375 (10).

(1)(a)(i) At any property line of the development or contiguous property owned by the developer, whichever is farther from the proposed development's regulated sound sources:

75 dBA at any time of day.

(1)(a)(ii) At any protected location in an area for which the zoning, or, if unzoned, the existing use or use contemplated under a comprehensive plan, is not predominantly commercial, transportation, or industrial;

*60 dBA between 7:00 a.m. and 7:00 p.m.
(the "daytime hourly limit"), and
50 dBA between 7:00 p.m. and 7:00 a.m.
(the "nighttime hourly limit").*

Tech was provided with the "City of Portland Baseline Sound Monitoring Report" which included sound measurements taken near the project site, at Location: 10- Casco Bay Bridge, where the lowest measured day time and night time sound levels were 66 dBA and 57 dBA respectively. Location 3- Fore and Union, is a representative location for the residential area and the lowest measured day and nighttime sound levels were 60 dBA and 54 dBA.

Based on the provided Maine regulations "Notwithstanding the above, the developer need not measure or estimate the pre-development ambient hourly sound levels at a protected location if he demonstrates, by estimate for example, that the hourly sound levels resulting from routine operation of the development will not exceed 50 dBA in the daytime or 40 dBA at night" The pre-existing background of the project location and residential area are above 50 dBA (day) and 40 dBA (night). Which demonstrates that the developer does not need to take measurements and instead can use the limits presented in Chapter 375 (10) stated above.

2.2 City of Portland Code of Ordinance

The Project is located in a zoning area labeled as waterfront port development. The City of Portland Code of Ordinance Chapter 14 Sec. 14-320.3 states the following:

All uses in the waterfront port development zone shall comply with the following standards.

(b) Noise:

1. The level of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American National Standards Institute, Inc.), inherently and recurrently generated within the waterfront port development zone between the hours of 7:00 p.m. and 7:00 a.m. from industrial facilities or operation commenced on or after July 1, 1988, shall not exceed fifty-five (55) decibels on the A scale at or within the boundaries of any residential zone, except for sound from construction activities, sound from traffic on public streets, sound from temporary activities such as festivals, and sound created as a result of, or relating to, an emergency, including sound from emergency warning signal devices.

To comply with the City of Portland Code of ordinance the proposed project predicted sound levels cannot exceed fifty-five (55) decibels on the A scale at or within the boundaries of any residential zone.

3.0 ACOUSTIC MODELING APPROACH AND RESULTS

This section provides a summary of the acoustic modeling approach and results.

3.1 Acoustic Modeling Approach

The future sound levels from the Project, when it is producing maximum electrical power, were calculated with the Cadna/A acoustic model. Cadna/A is a three-dimensional model for sound propagation and attenuation based on International Standard ISO 9613¹. Atmospheric absorption, the process by which sound energy is absorbed by the air, was calculated using ANSI S1.26-1995.² Digital terrain data for the Project areas were analyzed to obtain terrain heights. The model assumes the most-favorable sound propagation conditions, as occur under downwind conditions or during a ground-based temperature inversion on a clear night. Under these atmospheric conditions, sound travels further than if a person is upwind from a source and the atmosphere is well mixed, which would dampen the sound. Tech used refrigerated truck sound data from past noise projects to model twenty (20) refrigerated trucks for the daytime, and ten (10) refrigerated trucks during the nighttime, and was provided sound data to model one (1) condenser. A safety factor of 2 dBA was added onto each sound source.

Figure 2 shows modeling receptors included in Cadna/A representing both the residential and property line receptors.

3.2 Acoustic Modeling Results

Presented in this section is the predicted daytime and night sound levels for the Project and a comparison of compliance to the Maine DEP Noise Policy and Portland Noise Bylaw. Attachment A presents the acoustic modeling results.

Table 1 presents the predicted project daytime and nighttime sound levels, and one-third octave bands were not available for the equipment data used in the model, as per Maine DEP regulations a 5 dBA penalty was added to the predicted project sound levels. The predicted sound level increases were zero decibels above daytime and nighttime sound levels limits. The predicted project sound levels compared to the City of Portland noise limits are presented in **Table 2**, the predicted sound level increases were zero decibels above daytime and nighttime sound level limits.

Decibel-level contour maps of the predicted Project daytime and nighttime sound levels are presented in **Figures 3 and 4**.

¹ International Standard, ISO 9613-2, Acoustics – Attenuation of Sound During Propagation Outdoors, -- Part 2 General Method of Calculation.

² American National Standards Institute, ANSI S1.26-1995, “American National Standard Method for the Calculation of the Absorption of Sound by the Atmosphere,” 1995.

**Table 1:
Predicted Project Sound Levels Compliance with Maine DEP Noise Limits**

Receptor #	Address	Predicted Project Sound Levels (dBA)		Predicted Project Sound Levels (dBA) with additional 5 dBA for Tonal Sound		Maine DEP Noise Limits (dBA)		Compliance	
		Day	Night	Day	Night	Day	Night	Day	Night
1	65 Summer St 1FL	34	33	39	38	60	50	Yes	Yes
2	65 Summer St 2FL	34	33	39	38	60	50	Yes	Yes
3	51 Summer St 1FL	34	33	39	38	60	50	Yes	Yes
4	51 Summer St 2FL	34	33	39	38	60	50	Yes	Yes
5	49 Summer St 1FL	34	32	39	37	60	50	Yes	Yes
6	49 Summer St 2FL	34	33	39	38	60	50	Yes	Yes
7	45 Summer St 1FL	32	30	37	35	60	50	Yes	Yes
8	45 Summer St 2FL	33	32	38	37	60	50	Yes	Yes
9	33 Summer St 1FL	30	28	35	33	60	50	Yes	Yes
10	33 Summer St 2FL	31	29	36	34	60	50	Yes	Yes
11	28 Summer St 1FL	28	26	33	31	60	50	Yes	Yes
12	28 Summer St 2FL	29	27	34	32	60	50	Yes	Yes
13	265 York St 1FL	29	27	34	32	60	50	Yes	Yes
14	265 York St 2FL	32	30	37	35	60	50	Yes	Yes
15	78 Salem St 1FL	32	31	37	36	60	50	Yes	Yes
16	78 Salem St 2FL	33	32	38	37	60	50	Yes	Yes
17	82 Salem St 1FL	34	33	39	38	60	50	Yes	Yes
18	82 Salem St 2FL	35	35	40	40	60	50	Yes	Yes
19	90 Salem St 1FL	33	32	38	37	60	50	Yes	Yes
20	90 Salem St 2FL	34	33	39	38	60	50	Yes	Yes
21	84R Salem St 1FL	31	30	36	35	60	50	Yes	Yes
22	84R Salem St 2FL	32	32	37	37	60	50	Yes	Yes
23	88 Salem St 1FL	31	29	36	34	60	50	Yes	Yes
24	88 Salem St 2FL	32	32	37	37	60	50	Yes	Yes
25	263 York St 1FL	29	27	34	32	60	50	Yes	Yes
26	263 York St 2FL	31	29	36	34	60	50	Yes	Yes
27	259 York St 1FL	28	26	33	31	60	50	Yes	Yes
28	259 York St 2FL	30	28	35	33	60	50	Yes	Yes
29	251 York St 1FL	28	26	33	31	60	50	Yes	Yes
30	251 York St 2FL	29	27	34	32	60	50	Yes	Yes
31	24 Brackett St 1FL	28	26	33	31	60	50	Yes	Yes
32	24 Brackett St 2FL	30	27	35	32	60	50	Yes	Yes
33	Property Line Receptor 1	56	56	61	61	75	75	Yes	Yes
34	Property Line Receptor 2	42	39	47	44	75	75	Yes	Yes
35	Property Line Receptor 3	69	64	74	69	75	75	Yes	Yes

**Table 2:
Predicted Project Sound Levels Compliance with City of Portland Noise Limits**

Receptor #	Address	Predicted Project Sound Levels (dBA)		City of Portland Noise Limits (dBA)		Compliance	
		Day	Night	Day	Night	Day	Night
1	65 Summer St 1FL	34	33	55	55	Yes	Yes
2	65 Summer St 2FL	34	33	55	55	Yes	Yes
3	51 Summer St 1FL	34	33	55	55	Yes	Yes
4	51 Summer St 2FL	34	33	55	55	Yes	Yes
5	49 Summer St 1FL	34	32	55	55	Yes	Yes
6	49 Summer St 2FL	34	33	55	55	Yes	Yes
7	45 Summer St 1FL	32	30	55	55	Yes	Yes
8	45 Summer St 2FL	33	32	55	55	Yes	Yes
9	33 Summer St 1FL	30	28	55	55	Yes	Yes
10	33 Summer St 2FL	31	29	55	55	Yes	Yes
11	28 Summer St 1FL	28	26	55	55	Yes	Yes
12	28 Summer St 2FL	29	27	55	55	Yes	Yes
13	265 York St 1FL	29	27	55	55	Yes	Yes
14	265 York St 2FL	32	30	55	55	Yes	Yes
15	78 Salem St 1FL	32	31	55	55	Yes	Yes
16	78 Salem St 2FL	33	32	55	55	Yes	Yes
17	82 Salem St 1FL	34	33	55	55	Yes	Yes
18	82 Salem St 2FL	35	35	55	55	Yes	Yes
19	90 Salem St 1FL	33	32	55	55	Yes	Yes
20	90 Salem St 2FL	34	33	55	55	Yes	Yes
21	84R Salem St 1FL	31	30	55	55	Yes	Yes
22	84R Salem St 2FL	32	32	55	55	Yes	Yes
23	88 Salem St 1FL	31	29	55	55	Yes	Yes
24	88 Salem St 2FL	32	32	55	55	Yes	Yes
25	263 York St 1FL	29	27	55	55	Yes	Yes
26	263 York St 2FL	31	29	55	55	Yes	Yes
27	259 York St 1FL	28	26	55	55	Yes	Yes
28	259 York St 2FL	30	28	55	55	Yes	Yes
29	251 York St 1FL	28	26	55	55	Yes	Yes
30	251 York St 2FL	29	27	55	55	Yes	Yes
31	24 Brackett St 1FL	28	26	55	55	Yes	Yes
32	24 Brackett St 2FL	30	27	55	55	Yes	Yes

4.0 CONCLUSION

Tech performed an acoustic modeling study for the proposed refrigeration facility located at 40 West Commercial Street. The future sound levels from the Project, were calculated with the Cadna/A acoustic model. The model included twenty (20) refrigerated trucks for the daytime, and ten (10) refrigerated trucks during the nighttime, and one (1) condenser; and 32 residential receptors, and 3 property line receptors. One-third octave bands were not available for the equipment data used in the model, so as per Maine DEP regulations a 5 dBA penalty was added to the predicted project sound levels.

The study demonstrated that because the pre-existing sound levels are in the 50-60 dBA range for day time and nighttime sound levels, the Project operations will not cause an increase in the existing sound levels. The results of the acoustic study were then compared to the Maine Department of Environmental Protection (Maine DEP) Noise Policy and the City of Portland Zoning Bylaw. If Project includes the equipment that were modeled and the surrounding area does not have a pre-existing tonal sound, there would be no observed tonal sounds predicted at the site property lines or the residential receptors. Therefore, the Projects will comply with both the Maine DEP Noise Policy and the City of Portland Code of Ordinance.

Please call if you have any questions regarding this report.

Sincerely,

TECH ENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read "Michael T. Lannan". The signature is fluid and cursive, with a long horizontal stroke at the end.

Michael T. Lannan, P.E.

President

4496/ Letter Report December 2019

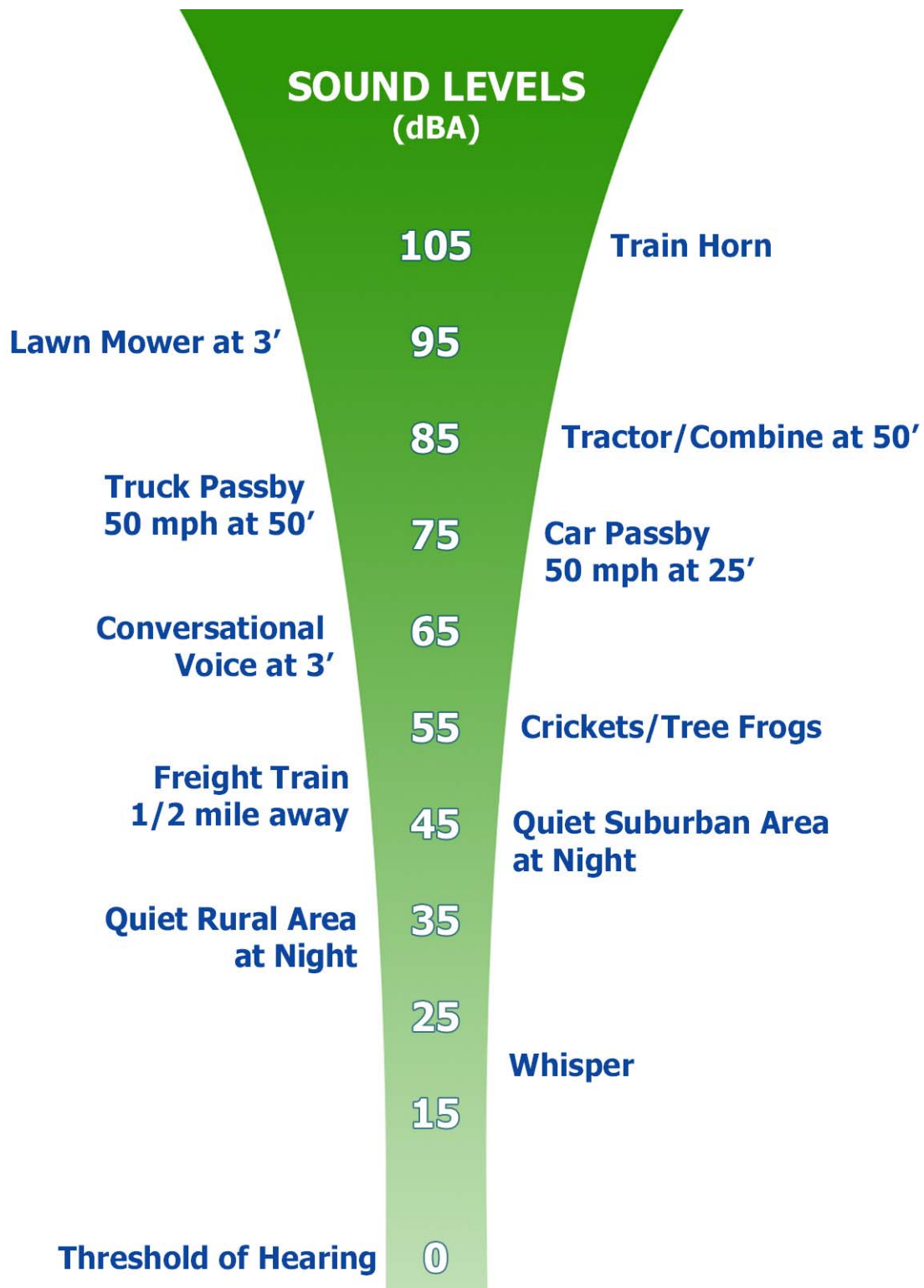


FIGURE 1.
Common Outdoor Sound Levels

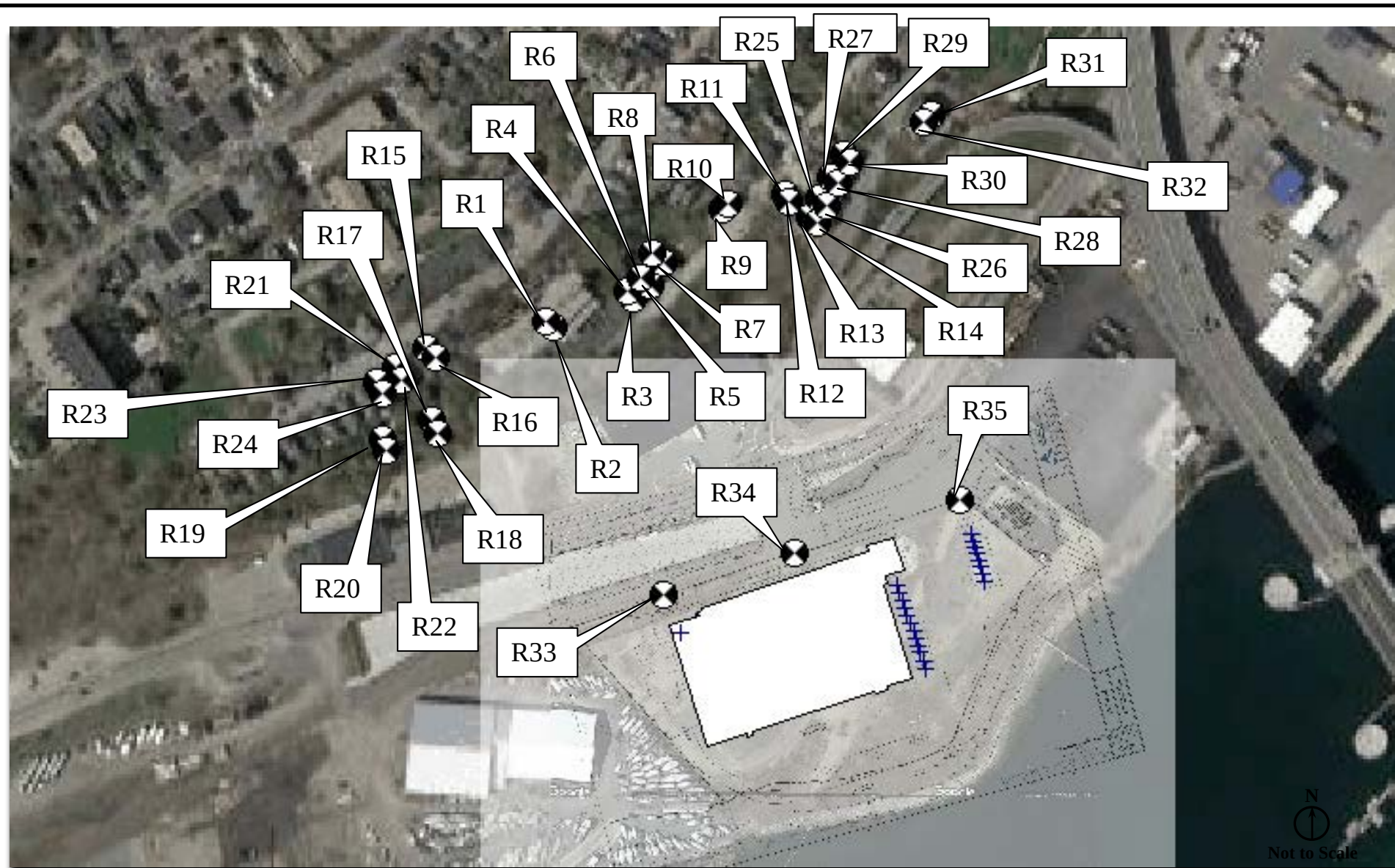


FIGURE 2.
Modeling Receptors Location
40 West Commercial Street, Portland, ME

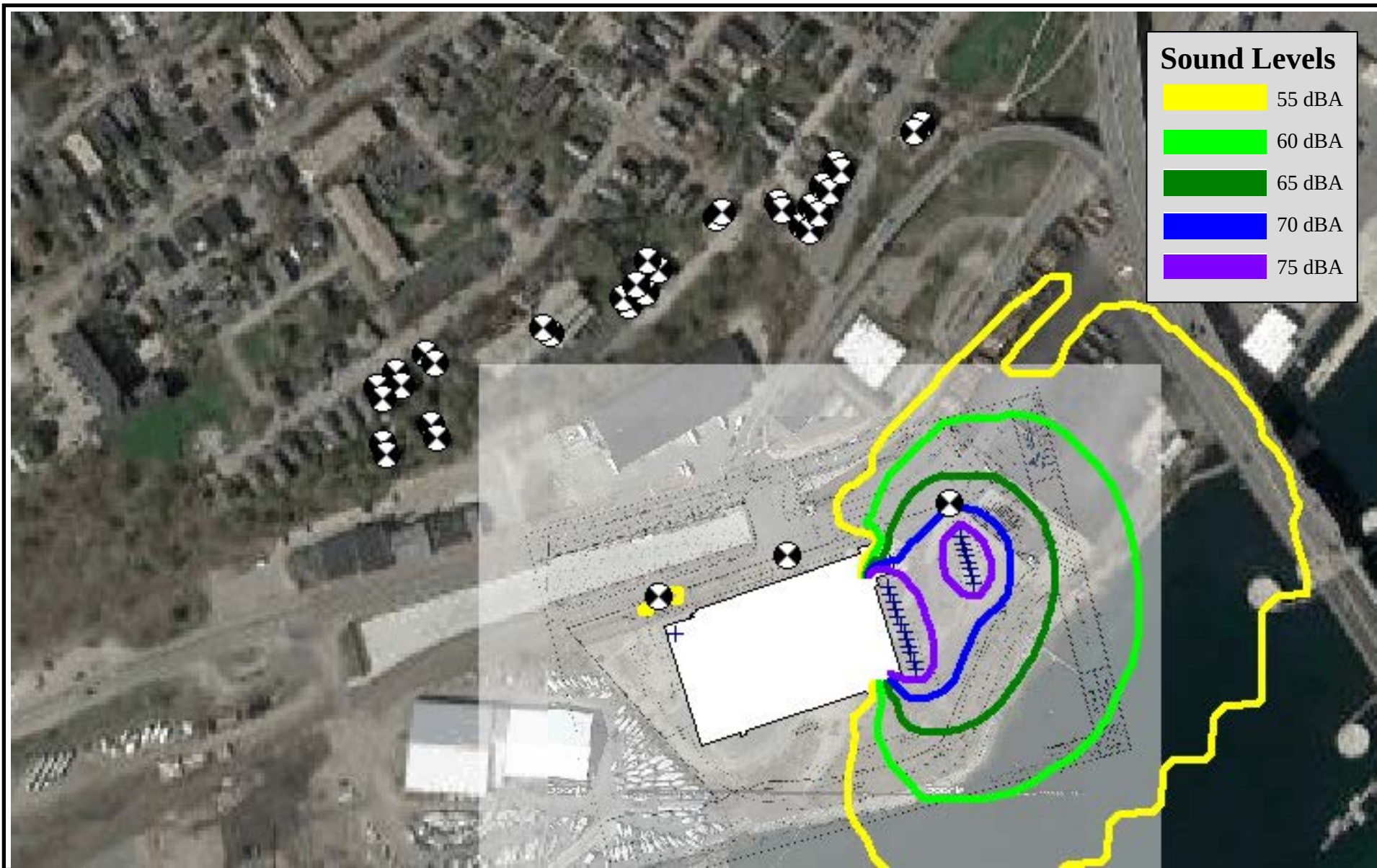


FIGURE 3.
Daytime Predicted Sound Levels
40 West Commercial Street, Portland, ME

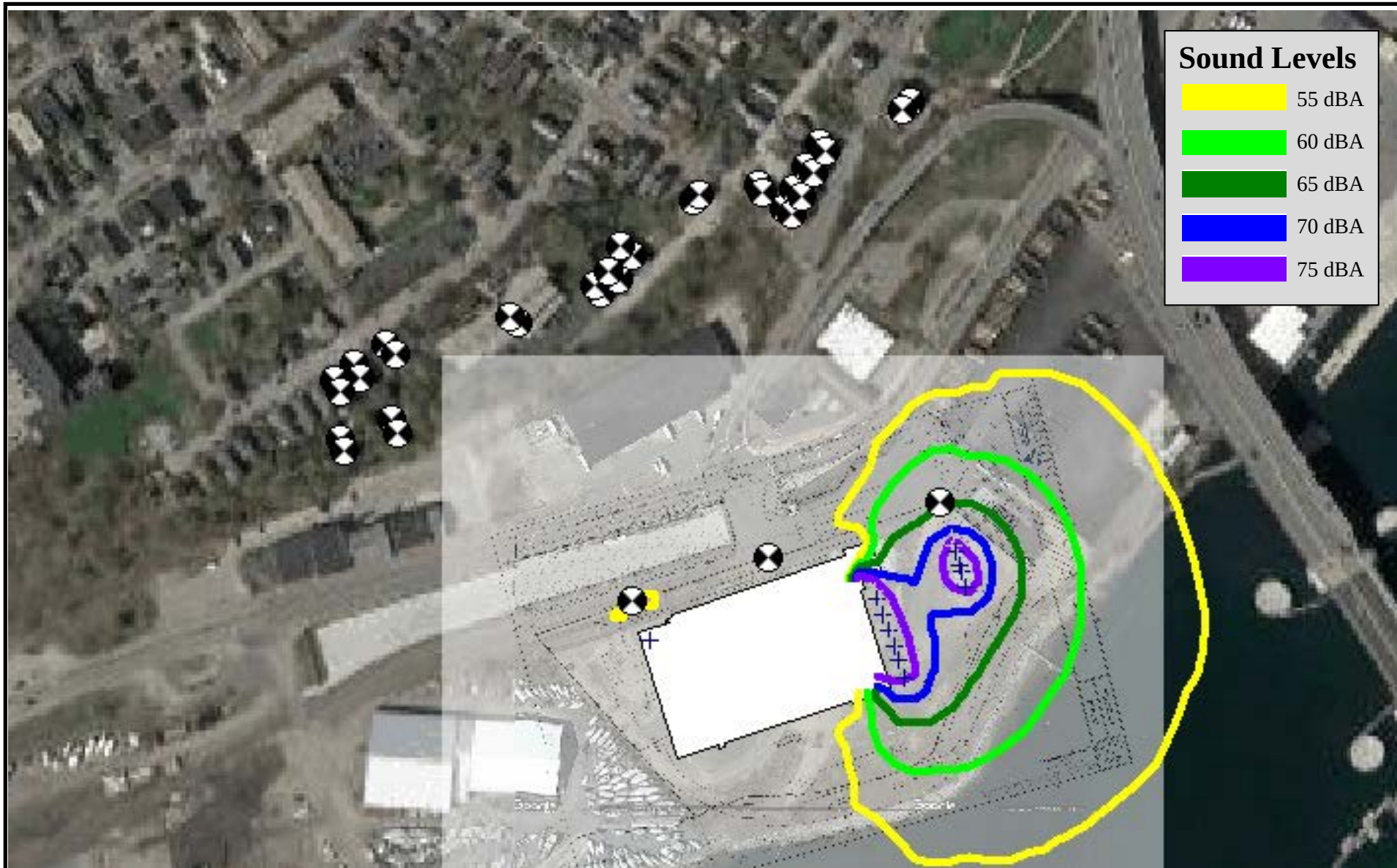


FIGURE 3.
Nighttime Predicted Sound Levels
40 West Commercial Street, Portland, ME

6. VISUAL QUALITY & SCENIC CHARACTER

As further described in the City of Portland Site Plan Application for the proposed development, the architecture and landscaping have been designed to be consistent with the scenic character of the surrounding urban waterfront area. The Site Plan Application includes renderings of the proposed development. It is not anticipated that the proposed development will result in any negative visual impacts.

7. WILDLIFE & FISHERIES

The Site has been previously developed and there are no known areas of significant natural features, including areas of significant wildlife habitats or wetlands. The attached Official Species List identifies the northern long-eared bat, which has been listed as a Federally Threatened Species, in association with the project area; however, there are no critical habitat areas located within the project area. Based on US Fish & Wildlife information, the northern long-eared bat typically lives in caves during the winter months and in trees larger than three inches in diameter during the summer, with migration between these two habitats in the spring in the fall. The project is located in an existing urban, developed area and no trees meeting the criteria for bat habitat are proposed to be impacted by the project. It is not anticipated that the proposed development will have a negative impact on the northern long-eared bat.

A letter has been sent to the Maine Department of Inland Fisheries and Wildlife (MDIFW) requesting information regarding any known threatened or endangered species or critical habitat relative to the project area; a copy of this letter is attached to this Section for your reference. A copy of the MDIFW response can be provided upon receipt.

7.1 LIST OF ATTACHMENTS

- Official Species List; and
- MDIFW Environmental Review Request Letter.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Maine Ecological Services Field Office

P. O. Box A

East Orland, ME 04431

Phone: (207) 469-7300 Fax: (207) 902-1588

<http://www.fws.gov/mainefieldoffice/index.html>



In Reply Refer To:

February 24, 2020

Consultation Code: 05E1ME00-2020-SLI-0741

Event Code: 05E1ME00-2020-E-02460

Project Name: MPA Cold Storage Facility

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies the threatened, endangered, candidate, and proposed species and designated or proposed critical habitat that may occur within the boundary of your proposed project or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC Web site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the Endangered Species Consultation Handbook at: <http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

This species list also identifies candidate species under review for listing and those species that the Service considers species of concern. Candidate species have no protection under the Act but are included for consideration because they could be listed prior to completion of your project. Species of concern are those taxa whose conservation status is of concern to the Service (i.e., species previously known as Category 2 candidates), but for which further information is needed.

If a proposed project may affect only candidate species or species of concern, you are not required to prepare a Biological Assessment or biological evaluation or to consult with the Service. However, the Service recommends minimizing effects to these species to prevent future conflicts. Therefore, if early evaluation indicates that a project will affect a candidate species or species of concern, you may wish to request technical assistance from this office to identify appropriate minimization measures.

Please be aware that bald and golden eagles are not protected under the Endangered Species Act but are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). Projects affecting these species may require development of an eagle conservation plan: http://www.fws.gov/windenergy/eagle_guidance.html Information on the location of bald eagle nests in Maine can be found on the Maine Field Office Web site: <http://www.fws.gov/mainefieldoffice/Project%20review4.html>

Additionally, wind energy projects should follow the wind energy guidelines: <http://www.fws.gov/windenergy/> for minimizing impacts to migratory birds and bats. Projects may require development of an avian and bat protection plan.

Migratory birds are also a Service trust resource. Under the Migratory Bird Treaty Act, construction activities in grassland, wetland, stream, woodland, and other habitats that would result in the take of migratory birds, eggs, young, or active nests should be avoided. Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g.,

cellular, digital television, radio, and emergency broadcast) can be found at:
<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm> and at:
<http://www.towerkill.com>; and at:
<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Maine Ecological Services Field Office

P. O. Box A

East Orland, ME 04431

(207) 469-7300

Project Summary

Consultation Code: 05E1ME00-2020-SLI-0741

Event Code: 05E1ME00-2020-E-02460

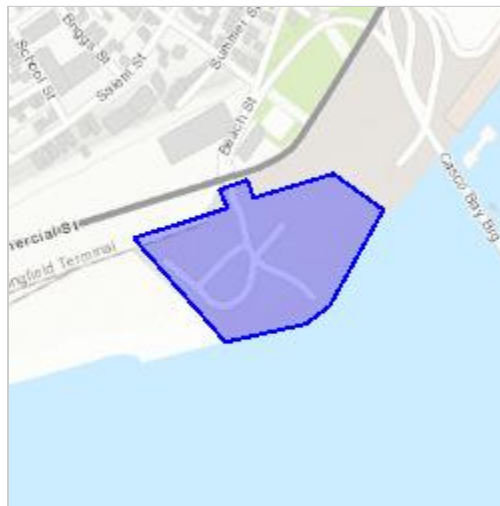
Project Name: MPA Cold Storage Facility

Project Type: DEVELOPMENT

Project Description: Proposed development located at 40 West Commercial Street in Portland, ME.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/43.64488761927891N70.2617886507607W>



Counties: Cumberland, ME

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

February 28, 2020



Maine Department of Inland Fisheries and Wildlife
41 State House Station
Augusta, ME 04333

RE: Maine International Cold Storage Facility – Environmental Review Request

To Whom It May Concern:

Maine Port Authority is proposing to construct a cold storage facility on a 17.9-acre property located at 40 West Commercial Street in Portland, Maine. The project site was previously developed, but is currently vacant, with remnant concrete slabs and pavements, site lights, transformer pads, railroad tracks and gravels. The proposed project will include construction of an approximately 108,000 square foot building with a truck parking and loading area, employee parking lot, emergency access drive and associated site improvements.

The proposed work will require a Maine Department of Environmental Protection Site Location of Development Permit, which requires coordination with the Maine Department of Inland Fisheries and Wildlife (MDIFW). On behalf of Maine Port Authority, we are requesting a review of the project area for any known threatened or endangered species or critical habitat. A Site Location Map and Site Plan have been attached for your reference.

We appreciate your review of this project. If you have any questions regarding this information or the proposed project, please do not hesitate to contact me at (207)558-3662 or dstairs@woodardcurran.com. Thank you for your assistance.

Sincerely,

WOODARD & CURRAN

A handwritten signature in blue ink, appearing to read "D. Stairs", is placed above the printed name and title.

Darrin Stairs, P.E.
Project Manager

Enclosure(s) Site Location Map
 Site Plan

PN: 0232277.00

8. HISTORIC SITES

A letter has been sent to the Maine Historic Preservation Commission (MHPC) requesting a review of the project area relative to historic properties; a copy of this letter is attached to this Section for your reference. A copy of the MHPC response can be provided upon receipt.

8.1 LIST OF ATTACHMENTS

- MHPC Project Review Request Letter.

February 28, 2020



Kirk F. Mohny, Director
Maine Historic Preservation Commission
55 Capitol Street, 65 State House Station
Augusta, Maine 04333-0065

Re: Maine International Cold Storage Facility – Project Review Request

Dear Mr. Mohny:

Maine Port Authority is proposing to construct a cold storage facility on a 17.9-acre property located at 40 West Commercial Street in Portland, Maine. The project site was previously developed, but is currently vacant, with remnant concrete slabs and pavements, site lights, transformer pads, railroad tracks and gravels. The proposed project will include construction of an approximately 108,000 square foot building with a truck parking and loading area, employee parking lot, emergency access drive and associated site improvements.

The proposed work will require a Maine Department of Environmental Protection Site Location of Development Permit, which requires coordination with the Maine Historic Preservation Commission. On behalf of Maine Port Authority, we are requesting a review of the project area for any known historic properties. The proposed project is not located within or adjacent to a City of Portland Historic Preservation District. A USGS topographic map has been attached for your reference.

We appreciate your review of this project. If you have any questions regarding this information or the proposed project, please do not hesitate to contact me at (207)558-3662 or dstairs@woodardcurran.com. Thank you for your assistance.

Sincerely,

WOODARD & CURRAN

A handwritten signature in black ink, appearing to read "D. Stairs", is written over the company name.

Darrin Stairs, P.E.
Project Manager

Enclosure(s) USGS Map

PN: 0232277.00

9. UNUSUAL NATURAL AREAS

The Site has been previously developed and there are no known unusual natural areas. A letter was sent to the Maine Natural Areas Program (MNAP) requesting a review of the Site relative to rare and exemplary botanical features. A response letter was received from MNAP confirming there are no rare or significant botanical features within the project area; a copy of this letter is attached to this Section.

9.1 LIST OF ATTACHMENTS

- MNAP Site Review Response Letter.



STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

March 10, 2020

Darrin Stairs
Woodard & Curran
41 Hutchins Drive
Portland, ME 04102

Via email: dstairs@woodardcurran.com

Re: Rare and exemplary botanical features in proximity to: #0232277.00, Maine International Cold Storage Facility, Portland, Maine

Dear Mr. Stairs:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received February 28, 2020 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Portland, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. Based on the information in our files and the landscape context of this project, there is a low probability that rare or significant botanical features occur at this project location.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
90 BLOSSOM LANE, DEERING BUILDING



PHONE: (207) 287-8044
WWW.MAINE.GOV/DACF/MNAP

The Maine Natural Areas Program has instituted a fee structure of \$75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for \$150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

A handwritten signature in cursive script, appearing to read "Krist Puryear".

Kristen Puryear | Ecologist | Maine Natural Areas Program
207-287-8043 | kristen.puryear@maine.gov

10. BUFFERS

The Site has been previously developed. There are no existing or proposed buffers. This Section is not applicable.

11. SOILS

Copies of the United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey and the Geotechnical Report prepared for the Site are attached to this Section for your reference. Environmental assessments of the Site have been conducted and the Owner is a participant in the Maine Department of Environmental Protection Voluntary Response Action Program (VRAP) as described in greater detail in Section 18 of this report. The existing soil management plan will be revised for the site in accordance with the Maine DEP VRAP No Action Assurance Letter (NAAL).

11.1 LIST OF ATTACHMENTS

- United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey; and
- Geotechnical Report.



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Cumberland County and Part of Oxford County, Maine



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.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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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.

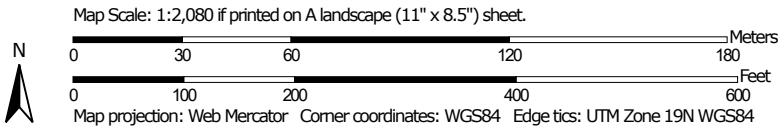
Soil Map

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



Soil Map may not be valid at this scale.



Custom Soil Resource Report

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 16, Sep 16, 2019

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
Cu	Cut and fill land	12.0	97.9%
W	Water	0.3	2.1%
Totals for Area of Interest		12.2	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

Cu—Cut and fill land

Map Unit Setting

National map unit symbol: blh4
Elevation: 10 to 2,200 feet
Mean annual precipitation: 30 to 55 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 70 to 195 days
Farmland classification: Not prime farmland

Map Unit Composition

Cut and fill land: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cut And Fill Land

Typical profile

H1 - 0 to 65 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 35 percent
Natural drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to very high (0.06 to 20.00 in/hr)
Depth to water table: About 24 to 42 inches
Available water storage in profile: Moderate (about 6.6 inches)

Minor Components

Windsor

Percent of map unit: 2 percent
Landform: Outwash terraces, kames
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Elmwood

Percent of map unit: 2 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: No

Hollis

Percent of map unit: 2 percent
Landform: Hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex

Custom Soil Resource Report

Across-slope shape: Convex

Hydric soil rating: No

Tidal marsh

Percent of map unit: 2 percent

Landform: Tidal flats

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Buxton

Percent of map unit: 2 percent

Landform: Coastal plains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

W—Water

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Setting

Landform: Lakes

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Via Electronic Mail

April 30, 2018



Matt Burns
Executive Director
Maine Port Authority
16 State House Station
Augusta, ME 04333-0016

Re: Preliminary Geotechnical Survey and Foundation System Recommendations
Proposed Cold Storage Facility, Portland IMT

Dear Matt:

This letter report describes the work completed by Woodard & Curran to provide information relative to geotechnical conditions at the cold storage development site and how these conditions may impact the type of foundation that is appropriate to support the proposed building.

The following sections describe the work that was completed to evaluate conditions relative to the various engineering disciplines applicable to the project, as well as the resulting recommended preliminary foundation design concept and associated estimated construction cost.

Please note that the information contained in this letter report is based solely on the limited investigation conducted at the project site and basic design details provided by Americold Logistics, LLC (Americold) in their September 9, 2016, Request for Proposal (RFP). Therefore, the findings presented herein must be considered preliminary in nature and are not appropriate for use in construction without verification during the building design phase of the project.

Background

Consistent with our direct experience at the cold storage facility development site, existing geology may present an unacceptable risk of total and differential post-construction building and slab settlement, which could result in slab/foundation failure if a soil-supported foundation system and slab-on-grade is constructed at the site. Conversely, we understand that the premium costs associated with the design and construction of a deep pile-supported foundation system have the potential to impact the financial feasibility of the project as well as the lease terms with the developer. Therefore, Woodard & Curran investigated subsurface conditions at the site to determine the feasibility of supporting the building using a conventional shallow spread footing foundation system, evaluated several alternative foundation systems, and estimated the potential cost premiums of the alternative systems relative to the foundation design provided by Americold in their September 9, 2016, RFP.

Preliminary Geotechnical Investigation

Field Program

Between December 18 and 27, 2017, Woodard & Curran and our project partner, S.W. Cole, completed five test borings at the site and one additional boring that was abandoned due to refusal. Boring locations are presented on the Exploration Location Plan, which is included in **Attachment A**.



The borings encountered up to 20 feet of fill over up to 10 feet of bay mud over native deposits of glaciomarine clay overlying outwash sands. At the borings nearest West Commercial Street (B-1001 and B-1002), the glaciomarine clay was thin to non-existent and the outwash sands started at approximately 24 feet below ground surface (bgs). At the borings in the center of the site (B-1003) and nearest the Fore River (B-1004 and B-1005), the glaciomarine clays were encountered at depths of 24 to 29 feet bgs extended to depths of approximately 69 feet bgs overlying the outwash sands. Each of the five borings was terminated in the outwash sands.

Groundwater was observed at 4 to 8 feet bgs at the time of drilling. Below-grade obstructions, interpreted to represent relic concrete foundations and slabs, were encountered at several boring locations.

Samples collected during the advancement of the soil borings were analyzed by S.W. Cole for gradation and consolidation. In addition, concurrent with the subsurface exploration program, Hager-Richter completed Shear Wave Velocity Testing on three seismic lines over the building footprint.

Conclusions

The subsurface conditions at the site are variable with fill over bay mud over glaciomarine clays over outwash sands. The glaciomarine clay is of varying thickness, stiffness, and compressibility (normally consolidated to slightly overconsolidated). Soil boring logs and results of gradation and consolidation testing are included as **Attachment B**.

Results of the shear wave velocity testing classified the site as Seismic Site Class D per the 2015 International Building Code (IBC). The Shear Wave Velocity Testing report is included as **Attachment C**.

Consistent with conditions observed during drilling and subsequent laboratory testing, and the preliminary building design plus anticipated storage rack loads provided by Americold in their September 9, 2016, RFP, constructing the proposed building on a shallow soil supported foundation would likely trigger an unacceptable degree of differential settlement. In other words, the shallow soil supported foundation proposed in the September 9, 2016, RFP is unlikely to be adequate and may result in damage to the building slab and/or the building itself.

A graphic that models the varying degrees of potential settlement that could be anticipated across a shallow soil supported building using the preliminary design parameters described above is included as **Attachment D**.

Based on these conditions, the shallow soil supported foundation option was found to be infeasible for the development of the site and several alternative design options were generated. These options are discussed below.

Evaluation of Alternative Foundations

Following the completion of the preliminary geotechnical investigation, Woodard & Curran and our project partners S.W. Cole and Becker Structural Engineers evaluated three different design alternative categories:

1. Hybrid of rigid inclusion ground improvement across the entire building footprint with removal of existing fill and replacement with low density lightweight fill material.
2. Rigid inclusion ground improvement (e.g., aggregate piles terminating in outwash sands) across the entire building footprint with spread footings and an on-grade structural floor slab with normal weight fill.



3a. Deep displacement closed end pipe piles terminating in outwash sands with pile caps, grade beams, and a structural floor slab.

3b. Deep end-bearing H-piles terminating at bedrock with pile caps, grade beams, and a structural floor slab.

Following the identification of the foundation alternatives, Woodard & Curran developed budgetary estimates of probable cost for each option. To the greatest extent possible, each budgetary cost estimate was focused to quantify the cost premium associated with the necessary ground improvements above and beyond what could be anticipated to construct the building presented in Americold's September 9, 2016, RFP.

These estimates describe the expected budgetary labor, materials, and general conditions costs for standard construction divisions as informed by preliminary site and grading, geotechnical, and structural designs.

A table that summarizes the engineering and design considerations as well as the estimated cost for each option is presented below. Schematic descriptions of the alternatives are included as **Attachment E** and budgetary cost estimate summaries are included as **Attachment F**.



Table 1: Foundation Alternative Considerations Matrix

Alternative	Structural Considerations	Civil Considerations	Environmental Considerations	Other Considerations	Budgetary Cost Range
1. Hybrid of rigid inclusion and lightweight fill <u>Details:</u> Sketch: Refer to Attachment B, Sheet 1 Costs: Refer to Attachment C, Option 1	Could allow a less robust structural slab and ground improvement density, reducing cost.	Removal of existing fill material would likely increase earthwork costs.	Approximately 33,600 tons of fill material that is likely contaminated would need to be managed and disposed to install the lightweight fill, likely increasing environmental costs.	- Could possibly eliminate sub-slab heating system due to the insulating properties of lightweight fill material, reducing operational costs. - Subsurface obstructions could interfere with the installation of rigid inclusions.	\$8,710,000 to \$10,017,000
2. Rigid inclusion and normal weight fill <u>Details:</u> Sketch: Refer to Attachment B, Sheet 2 Costs: Refer to Attachment C, Option 2	Foundation construction materials would likely be similar in cost to the RFP design; however, labor costs are likely to increase.	Additional earthwork would be required to install the structural slab design, likely increasing earthwork costs.	Approximately 26,700 tons of fill material that is likely contaminated would need to be managed and disposed due to the foundation design, likely increasing environmental costs.	- Installation of rigid inclusions does not appear to create a significant risk of mobilization of contaminants, but additional study would be needed to confirm. - Subsurface obstructions could interfere with the installation of rigid inclusions.	\$6,412,000 to \$7,374,000
3a. Deep displacement pipe piles <u>Details:</u> Sketch: Refer to Attachment B, Sheet 3 Costs: Refer to Attachment C, Option 3a	Foundation construction materials and labor costs would likely increase relative to RFP design.	Additional earthwork would be required to install grade beams and pile caps, likely increasing earthwork costs.	Approximately 3,600 tons of fill material that is likely contaminated would need to be managed and disposed due to the foundation design, likely increasing environmental costs.	- Installation of rigid inclusions does not appear to create a significant risk of mobilization of contaminants, but additional study would be needed to confirm. - Subsurface obstructions could interfere with the installation of pipe piles.	\$6,397,000 to \$7,357,000
3b. Deep end-bearing H-piles <u>Details:</u> Sketch: Refer to Attachment B, Sheet 3 Costs: Refer to Attachment C, Option 3b	Foundation construction materials and labor costs would likely increase relative to RFP design.	Additional earthwork would be required to install grade beams and pile caps, likely increasing earthwork costs.	Approximately 3,600 tons of fill material that is likely contaminated would need to be managed and disposed due to the foundation design.	H-piles would represent the lowest risk of mobilization of contaminants and would also be least likely to experience interference from subsurface obstructions.	\$5,515,000 to \$6,342,000



Recommended Alternative Foundation System Design and Next Steps

Following the completion of our evaluation, Woodard & Curran has identified a deep end-bearing H-pile system terminating at bedrock with pile caps, grade beams, and a structural floor slab as the design alternative that meets the technical requirements of the project and is likely to be the most cost-effective approach to implement. In addition, this design is least likely to result in the mobilization of existing site contamination and is least likely to experience interference from potential subsurface structures. Therefore, this option may offer a lower risk of potential unforeseen conditions that could impact cost and schedule.

Consistent with our findings, this design option would increase the construction cost of the building described in Americold's September 9, 2016, RFP by approximately \$5,515,000 to \$6,342,000.

To continue to move this project towards implementation, we recommend the Maine Port Authority initiate the following next steps:

1. Reengage Americold and share the details of the recommended design approach;
2. Negotiate final land lease terms; and
3. Facilitate financial commitments and the initiation of site development by Americold.

Please contact us if you have any questions and thank you again for the opportunity to continue to support you through the initial stages of this project.

Sincerely,

WOODARD & CURRAN

Jedd Steinglass, L.S.P.
Project Manager

Eric Carlson, C.G., P.E.
Senior Vice President

PN: 229944.02

Attachments:

- Attachment A: Exploration Location Plan
- Attachment B: Soil Boring Logs, Gradation, and Consolidation Results
- Attachment C: Shear Wave Velocity Testing Report
- Attachment D: Graphical Model of Potential Total Settlement
- Attachment E: Foundation Detail Sketches
- Attachment F: Budget Estimate Summaries



ATTACHMENT A: EXPLORATION LOCATION PLAN



ATTACHMENT B: SOIL BORING LOGS, GRADATION, AND CONSOLIDATION RESULTS

BORING / WELL 16-1314.GPJ SWCE TEMPLATE.GDT 1/29/18



BORING LOG

BORING NO.: **B-1001A**

SHEET: 1 of 2

PROJECT NO. 16-1314

DATE START: 12/20/2017

DATE FINISH: 12/20/2017

CLIENT: Woodard & Curran

PROJECT: Proposed IMT West Cold Storage Facility

LOCATION: West Commercial Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 14' +/- TOTAL DEPTH (FT): 52.0 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 300 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.81 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): ∇ 5 ft 12/20/2017 Soils saturated below 5'
GENERAL NOTES: Moved boring 25' +/- west of B-1001. Backfilled borehole with bentonite and drill cuttings.

KEY TO NOTES AND SYMBOLS: ∇ Water Level ∇ At time of Drilling ∇ At Completion of Drilling ∇ After Drilling
D = Split Spoon Sample U = Thin Walled Tube Sample R = Rock Core Sample V = Field Vane Shear
Pen. = Penetration Length Rec. = Recovery Length bpf = Blows per Foot mpf = Minute per Foot
WOR = Weight of Rods WOH = Weight of Hammer RQD = Rock Quality Designation PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft. q_u = Unconfined Compressive Strength, kips/sq.ft. N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
10	5								Brown-black gravelly silty SAND with brick (FILL)	∇	
5	10										
0	15		1D	X	15-17	24/12	9-6-4-7		-petroleum odor and sheen		
-5	20		2D	X	20-22	24/22	WOH FOR 12"-2-3 w =31.2 % O =2.0%		19.0 Very loose to loose, gray SAND and silt, some clay with shells (Bay Mud)		
-10	25		3D	X	25-27	24/20	2-4-3-3		24.0 Loose to medium dense, gray SAND and silt with frequent silty clay layers		
-15	30		4D	X	30-32	24/18	3-5-5-6 w =24.5 %				
-20	35		5D	X	35-37	24/2	4-3-10-9				
-25											

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: **B-1001A**



BORING LOG

CLIENT: Woodard & Curran

PROJECT: Proposed IMT West Cold Storage Facility

LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B-1001A**

SHEET: 2 of 2

PROJECT NO. 16-1314

DATE START: 12/20/2017

DATE FINISH: 12/20/2017

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			6D	X	40-42	24/24	4-3-4-6		Loose to medium dense, gray silty SAND with clay layers		
-30	45		7D	X	45-47	24/24	WOH FOR 12"-5-5	w =19.4 %			
-35	50		8D	X	50-52	24/18	7-11- 11-12	w =21.2 %	49.0 Medium dense, brown silty SAND with clay layers		

52.0 Bottom of Exploration at 52.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1001A**



BORING LOG

BORING NO.: **B-1002**
SHEET: 1 of 2
PROJECT NO. 16-1314
DATE START: 12/27/2017
DATE FINISH: 12/27/2017

CLIENT: Woodard & Curran
PROJECT: Proposed IMT West Cold Storage Facility
LOCATION: West Commercial Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 12' +/- TOTAL DEPTH (FT): 52.0 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 300 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.79 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): ∇ 7 ft 12/27/2017 Soils saturated below 7'

GENERAL NOTES: Backfilled borehole with bentonite to 16' below ground surface.

KEY TO NOTES AND SYMBOLS: Water Level
 ∇ At time of Drilling D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods
 ∇ At Completion of Drilling U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer
 ∇ After Drilling R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation q_u = Unconfined Compressive Strength, kips/sq.ft.
V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
10			1D	X	3-5	24/126	4-4-3-2		Concrete		
5			2D	X	5-7	24/15	4-4-4-4		1.1 Loose, brown silty SAND (FILL)		
5									6.5 Loose, black silty SAND (FILL) -petroleum odor	∇	
10			3D	X	10-12	24/14	4-7-9-6		9.0 Medium dense, gray gravelly SAND, some silt -petroleum odor		
0									14.0 Very loose, gray silty SAND with organics -petroleum odor and sheen		
15			4D	X	15-17	24/11	4-1-1-1	w =28.8 % O =1.9%	19.0 Medium dense, gray silty gravelly SAND		
-5									24.0 Medium dense to loose, light brown silty SAND with silty clay layers		
20			5D	X	20-22	24/14	2-5-7-13				
-10											
25			6D	X	25-27	24/14	3-3-9-7	w =25 %			
-15											
30			7D	X	30-32	24/12	4-8-8-7				
-20											
35			8D	X	35-37	24/20	5-4-6-6	w =22.4 %			
-25											

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: **B-1002**



BORING LOG

CLIENT: Woodard & Curran

PROJECT: Proposed IMT West Cold Storage Facility

LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B-1002**

SHEET: 2 of 2

PROJECT NO. 16-1314

DATE START: 12/27/2017

DATE FINISH: 12/27/2017

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
-30	45		9D	X	40-42	24/18	6-4-2-5		40.0 Loose, gray silty SAND, some gravel with silty clay layers		
-35									45.0 Medium dense, gray SAND and silt		
-50			10D	X	50-52	24/14	4-8-18-19	w =23.1 %			
-40									52.0 Bottom of Exploration at 52.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1002**



BORING LOG

BORING NO.: B-1003**SHEET:** 1 of 2**PROJECT NO.:** 16-1314**DATE START:** 12/21/2017**DATE FINISH:** 12/21/2017**CLIENT:** Woodard & Curran**PROJECT:** Proposed IMT West Cold Storage Facility**LOCATION:** West Commercial Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan **ELEVATION (FT):** 12' +/- **TOTAL DEPTH (FT):** 82.0 **LOGGED BY:** Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Cased Boring
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:**
HAMMER EFFICIENCY FACTOR: 0.81 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): ∇ 4.5 ft 12/21/2017 Free water at 4.5'

GENERAL NOTES: Moved borehole 8-10' west after drilling through concrete at 4-5' and void from 5-10'. Backfilled borehole with bentonite to 16' below ground surface.

KEY TO NOTES AND SYMBOLS: ∇ Water Level ∇ At time of Drilling ∇ At Completion of Drilling ∇ After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
10									Medium dense, black-brown silty gravelly SAND with brick (FILL) -Petroleum odor at 5-7'		
5			1D	X	5-7	24/19	5-12-8-3				
5											
10			2D	X	10-11.5	18/7	1-1-1-25/0"		Very loose		
0									11.5 Concrete		
15			3D	X	15-17	24/13	6-12-12-16		13.0 Medium dense, black sandy SILT with ash (FILL) -Petroleum odor and sheen		
-5											
20			4D	X	20-22	24/9	6-6-4-3	w = 22.6 % O = 1.7%	19.0 Medium dense to loose, gray-brown silty SAND with wood		
-10											
25			5D	X	25-27	24/15	WOH-1-1-1	w = 39.7 % O = 2.8%	Very loose, gray sandy SILT with shells and organics (Bay Mud)		
-15											
30			6D	X	30-32	24/24	WOH FOR 24"		29.0 Medium to stiff, gray silty CLAY with shells and organics to 32'		
-20											
35			1U	■	35-37	24/24		W _L =55 W _P =30			
-25			1V 1V'	■	37-37.5 37.5-38	6 6		S _v =1.55/0.31ksf S _v =1.61/0.31ksf			

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: B-1003



BORING LOG

CLIENT: Woodard & Curran
 PROJECT: Proposed IMT West Cold Storage Facility
 LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B-1003**
 SHEET: 2 of 2
 PROJECT NO. 16-1314
 DATE START: 12/21/2017
 DATE FINISH: 12/21/2017

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
-30									Medium to stiff, gray silty CLAY		
-45			2U		45-47	24/24					
-35			2V		47-47.5	6			W _L =55 W _P =27 S _v =1.92/0.43ksf S _v =2.11/0.62ksf		
			2V'		47.5-48	6					
-50											
-55			3U		55-57	24/24					
-45			3V		57-57.5	6			W _L =48 W _P =25 S _v =1.61/0.43ksf S _v =1.92/0.43ksf		
			3V'		57.5-58	6					
-60			7D		60-62	24/24	WOH- WOH FOR 12"-2		59.0 Very loose, gray SAND and silt with shells and wood		
-50											
-65			8D		65-67	24/24	1-1-2-2	w =23.6 %			
-55											
-70			9D		70-72	24/19	7-16- 21-22	w =16.5 %	69.0 Dense, gray fine to medium SAND, some gravel, some silt		
-60											
-75											
-80			10D		80-82	24/21	8-18- 20-29	w =20.6 %	79.0 Dense, gray silty fine to medium SAND		
-70									82.0 Bottom of Exploration at 82.0 feet		

BORING / WELL 16-1314.GPJ SWCE TEMPLATE.GDT 1/29/18

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1003**



BORING LOG

BORING NO.: **B-1004**
SHEET: 1 of 2
PROJECT NO. 16-1314
DATE START: 12/18/2017
DATE FINISH: 12/18/2017

CLIENT: Woodard & Curran
PROJECT: Proposed IMT West Cold Storage Facility
LOCATION: West Commercial Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 10' +/- TOTAL DEPTH (FT): 82.0 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 140 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.81 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): ∇ 8 ft 12/18/2017 Soils wet 5-7' and saturated below 8'.
GENERAL NOTES: Backfilled borehole with bentonite to 22' below ground surface.

KEY TO NOTES AND SYMBOLS: Water Level
 ∇ At time of Drilling D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods
 ∇ At Completion of Drilling U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer
 ∇ After Drilling R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation S_v = Field Vane Shear Strength, kips/sq.ft.
V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			1D	X	0-2	24/16	5-5-6-6		Medium dense, brown-gray-black silty gravelly SAND (FILL)		
5	5		2D	X	5-7	24/8	4-1-1-1		5.5 Very loose, gray SAND and silt, some clay with shells (FILL) -naphthalene odor	∇	
0	10		3D	X	10-12	24/10	5-3-6-6		8.0 Loose, brown-black silty SAND and gravel (FILL) -petroleum sheen and naphthalene odor		
-5	15		4D	X	15-17	24/12	2-3-2-2				
-10	20		5D	X	20-22	24/13	1-2-1-1	w=31 % O=1.8%	19.0 Very loose, gray SILT and sand, trace gravel with shells, organics (Bay Mud)		
-15	25		6D	X	25-27	24/24	WOH FOR 24"	w=48.3 % O=2.9%	24.0 Medium to stiff, gray silty CLAY with sand layers/seams		
-20	30		1U	■	30-32	24/12		W _L =47 W _P =28 w=53.4 % S _v =1.05/0.27ksf S _v =1.09+ksf			
			1V	■	32-32.7	8					
			1V	■	32.7- 33.4	8					
-25	35										

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: **B-1004**



BORING LOG

CLIENT: Woodard & Curran
 PROJECT: Proposed IMT West Cold Storage Facility
 LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B-1004**
 SHEET: 2 of 2
 PROJECT NO. 16-1314
 DATE START: 12/18/2017
 DATE FINISH: 12/18/2017

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			2U		40-42	24/24					
			2V		42-						
-35	45								could not advance vane		
									Medium to stiff, gray silty CLAY with occasional sand layers		
-40	50		3U		50-52	24/24					
			3V		52-				could not advance vane		
-45	55										
-50	60		7D		60-62	24/24	3-4-2-8				
								w =25.7 %	60.5		Loose, gray silty SAND with shells and wood
-55	65		8D		65-67	24/14	3-6-4-3				
									64.5		Medium dense to loose, gray silty medium to coarse SAND with wood and occasional silty clay seams/layers
-60	70		9D		70-72	24/18	WOR-5-8-15				
								w =21.7 %	69.0		Medium dense, gray SAND and silt with silty clay layers
-65	75										
-70	80		10D		80-82	24/16	5-10-9-19				
								w =21 %			
									82.0		Bottom of Exploration at 82.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1004**



BORING LOG

CLIENT: Woodard & Curran
PROJECT: Proposed IMT West Cold Storage Facility
LOCATION: West Commercial Street, Portland, Maine

BORING NO.: B-1005
SHEET: 1 of 2
PROJECT NO. 16-1314
DATE START: 12/19/2017
DATE FINISH: 12/19/2017

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 11' +/- TOTAL DEPTH (FT): 82.0 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 140 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.81 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): 8 ft 12/19/2017 Soils saturated below 8'

GENERAL NOTES: Backfilled borehole with bentonite to 19' below ground surface.

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling
▽ At Completion of Drilling
▽ After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
10			1D	×	0-2	24/16	3-6-11-18		Medium dense to very loose, brown-black silty gravelly SAND with brick (FILL) -petroleum odor and sheen below-		
5	5		2D	×	5-7	24/18	13-15-6-8				
0	10		3D	×	10-12	24/18	1-2-1-2				
-5	15		4D	×	15-17	24/7	2-1-1-3				
-10	20		5D	×	20-22	24/16	4-6-5-6	w =25.5 % O =1.2%			
-15	25		6D	×	25-27	24/1	6-4-2-2		Cobble at 24'		
-20	30		7D	×	30-32	24/5	1-1-2-3	w =38.9 % O =2.0%			
-25	35		1U	■	35-37	24/24		W _L =49 W _p =26 w =46.5 % S _v =2.05/0.31ksf S _v =1.86/0.31ksf			
			1V	□	37-37.5	6					
			1V	□	37.5-38	6					

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: B-1005



BORING LOG

CLIENT: Woodard & Curran
 PROJECT: Proposed IMT West Cold Storage Facility
 LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B-1005**
 SHEET: 2 of 2
 PROJECT NO. 16-1314
 DATE START: 12/19/2017
 DATE FINISH: 12/19/2017

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
-30									Medium to stiff, gray silty CLAY with sand layers/seams		
-35	45		2U		45-47	24/22					
			2V		47-47.5	6			W _L =54 W _P =29 w=51.1 % S _v =2.17/0.43ksf S _v =2.17/0.62ksf		
			2V'		47.5-48	6					
-40	50										
-45	55		3U		55-57	24/21					
			3V		57-57.5	6			W _L =43 W _P =24 w=41.2 % S _v =2.05/0.56ksf S _v =2.17/0.50ksf		
			3V'		57.5-58	6					
-50	60		8D		60-62	24/18	4-3-4-5		w=23 %	59.0	Loose to medium dense, gray silty fine to coarse SAND with wood and pinecones
-55	65		9D		65-67	24/16	6-7-11-15				
-60	70		10D		70-72	24/10	5-5-5-2		w=21.1 %	69.0	Loose to medium dense, gray SAND, some silt, some gravel
-65	75									75.0	Medium dense, gray silty SAND
-70	80		11D		80-82	24/18	2-5-11-13		w=21 %		
										82.0	Bottom of Exploration at 82.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1005**

KEY TO NOTES & SYMBOLS

Test Boring and Test Pit Explorations

All stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

w	-	water content, percent (dry weight basis)
q _u	-	unconfined compressive strength, kips/sq. ft. - laboratory test
S _v	-	field vane shear strength, kips/sq. ft.
L _v	-	lab vane shear strength, kips/sq. ft.
q _p	-	unconfined compressive strength, kips/sq. ft. – pocket penetrometer test
O	-	organic content, percent (dry weight basis)
W _L	-	liquid limit - Atterberg test
W _P	-	plastic limit - Atterberg test
WOH	-	advance by weight of hammer
WOM	-	advance by weight of man
WOR	-	advance by weight of rods
HYD	-	advance by force of hydraulic piston on drill
RQD	-	Rock Quality Designator - an index of the quality of a rock mass.
γ _T	-	total soil weight
γ _B	-	buoyant soil weight

Description of Proportions:

Trace:	0 to 5%
Some:	5 to 12%
"Y"	12 to 35%
And	35+%
With	Undifferentiated

Description of Stratified Soils

Parting:	0 to 1/16" thickness
Seam:	1/16" to 1/2" thickness
Layer:	1/2" to 12" thickness
Varved:	Alternating seams or layers
Occasional:	one or less per foot of thickness
Frequent:	more than one per foot of thickness

REFUSAL: Test Boring Explorations - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

REFUSAL: Test Pit Explorations - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Material Source **B-1001A 4D 30-32**

Project Number 16-1314

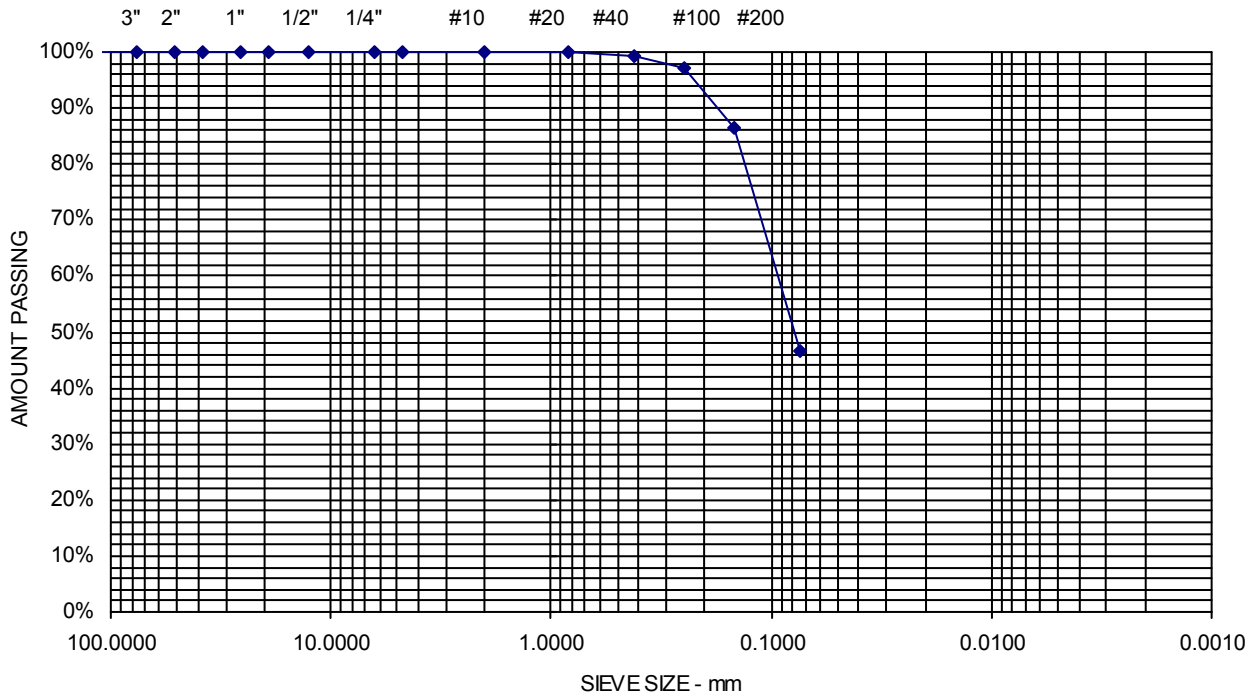
Lab ID 23279G

Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	100	
425 μm	No. 40	99	53.3% Sand
250 μm	No. 60	97	
150 μm	No. 100	86	
75 μm	No. 200	46.7	46.7% Fines



Report of Gradation

ASTM C-117 & C-136

Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Material Source **B-1001A 6D 40-42**

Project Number 16-1314

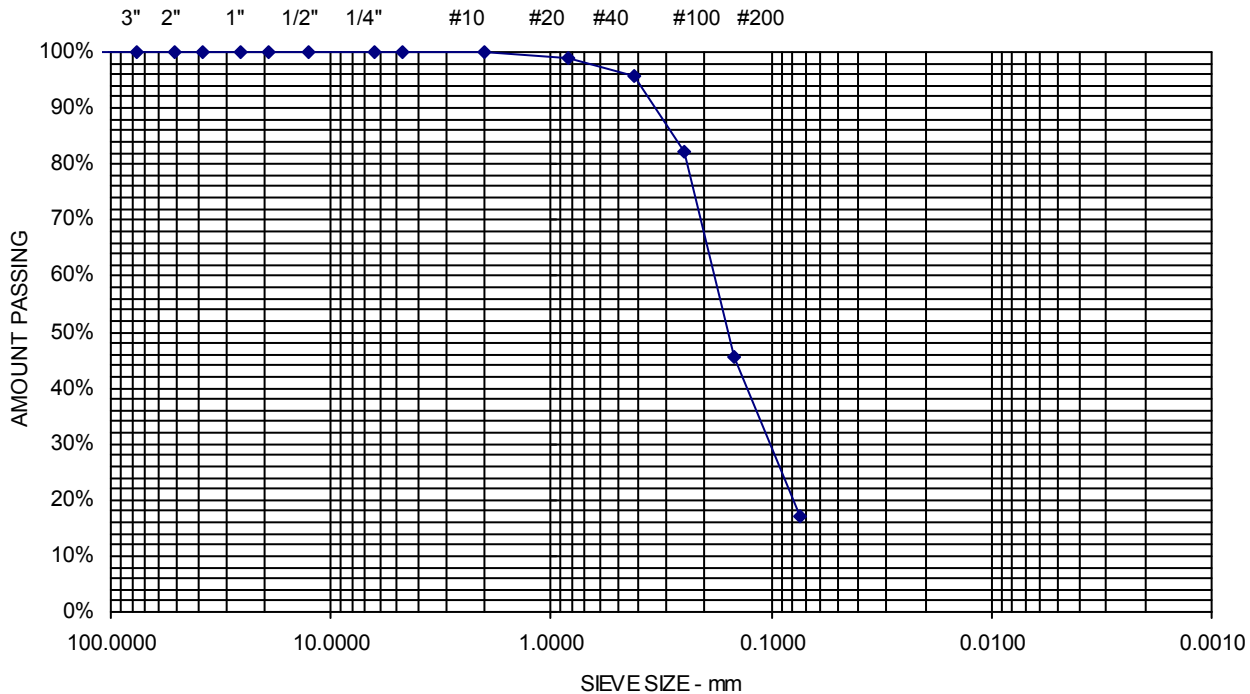
Lab ID 23280G

Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	99	
425 μm	No. 40	96	82.8% Sand
250 μm	No. 60	82	
150 μm	No. 100	46	
75 μm	No. 200	17.2	17.2% Fines



Project Name **PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
 GEOTECHNICAL ENGINEERING SERVICES**

 Client **WOODARD & CURRAN, INC.**

 Project Number **16-1314**

 Lab ID **23281G**

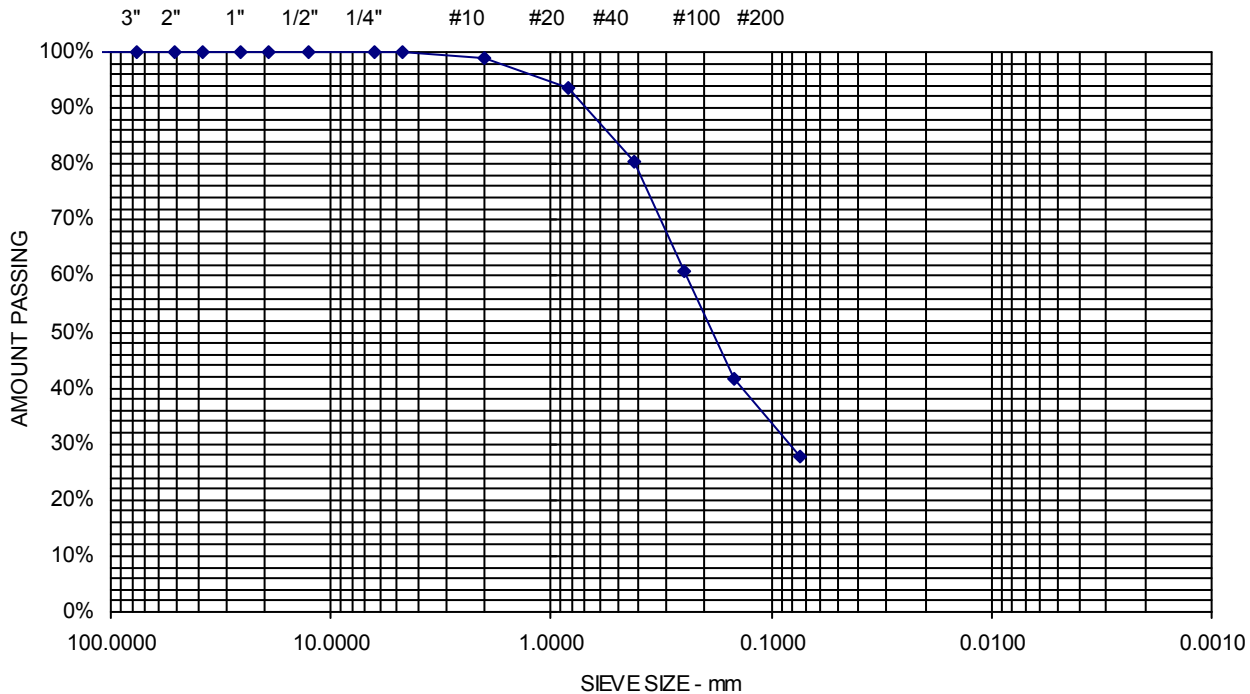
 Date Received **12/29/2017**

 Date Completed **1/3/2018**

 Tested By **PAUL SHAFFER**

 Material Source **B-1001A 8D 50-52**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	99	
850 μm	No. 20	93	
425 μm	No. 40	80	72.4% Sand
250 μm	No. 60	61	
150 μm	No. 100	42	
75 μm	No. 200	27.6	27.6% Fines



Report of Gradation

ASTM C-117 & C-136

 Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
 GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Project Number 16-1314

Lab ID 23283G

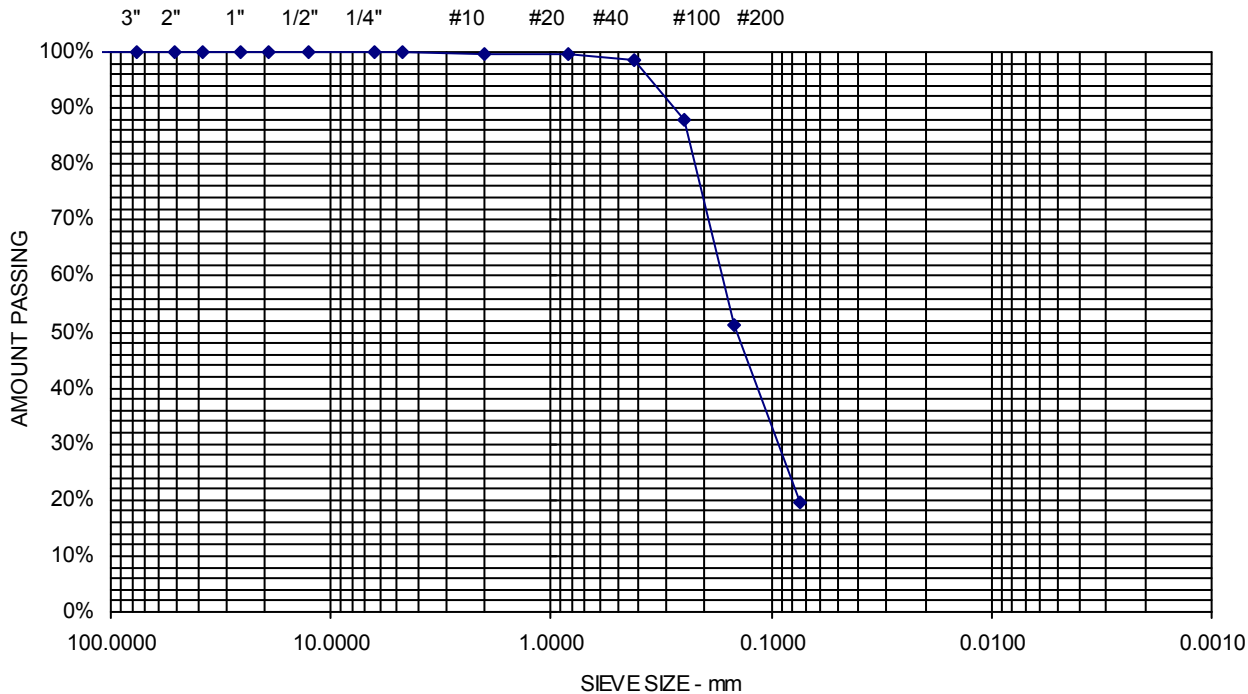
Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

Material Source B-1002 6D 25-27

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	100	
425 μm	No. 40	98	80.3% Sand
250 μm	No. 60	88	
150 μm	No. 100	51	
75 μm	No. 200	19.7	19.7% Fines



Project Name **PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -**
GEOTECHNICAL ENGINEERING SERVICES

 Client **WOODARD & CURRAN, INC.**

 Project Number **16-1314**

 Lab ID **23284G**

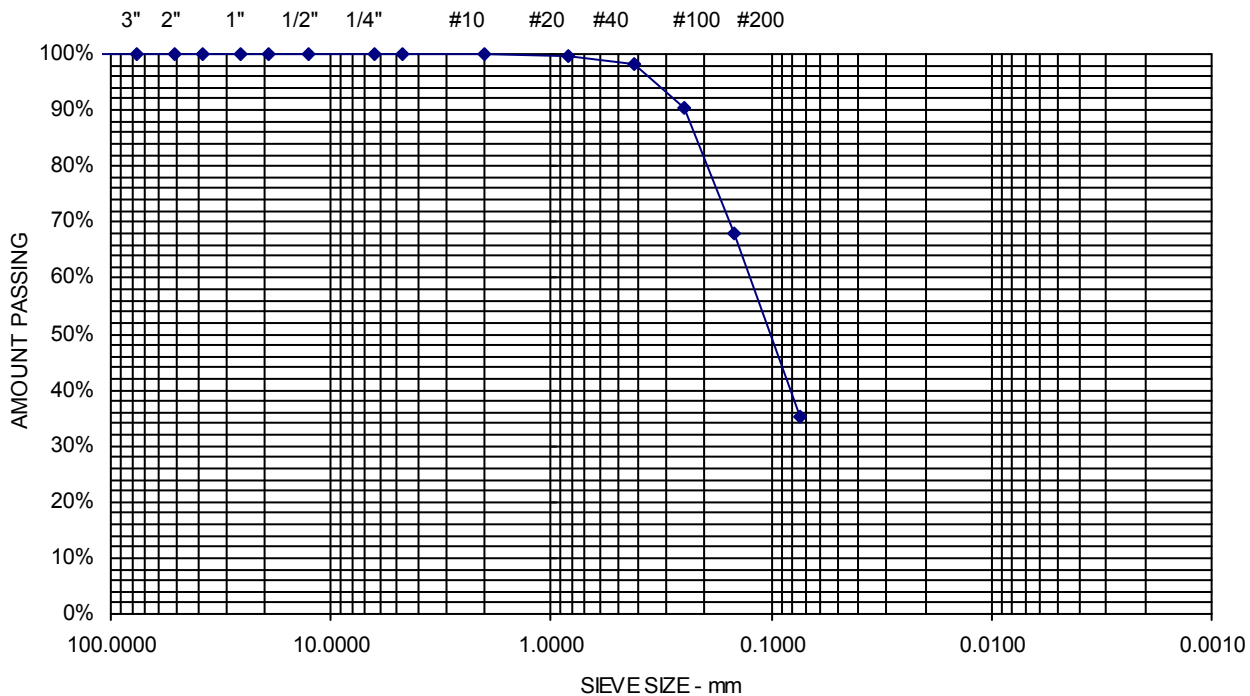
 Date Received **12/29/2017**

 Date Completed **1/3/2018**

 Tested By **PAUL SHAFFER**

 Material Source **B-1002 8D 35-37**

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150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	100	
425 μm	No. 40	98	64.6% Sand
250 μm	No. 60	90	
150 μm	No. 100	68	
75 μm	No. 200	35.4	35.4% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
 GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Project Number 16-1314

Lab ID 23285G

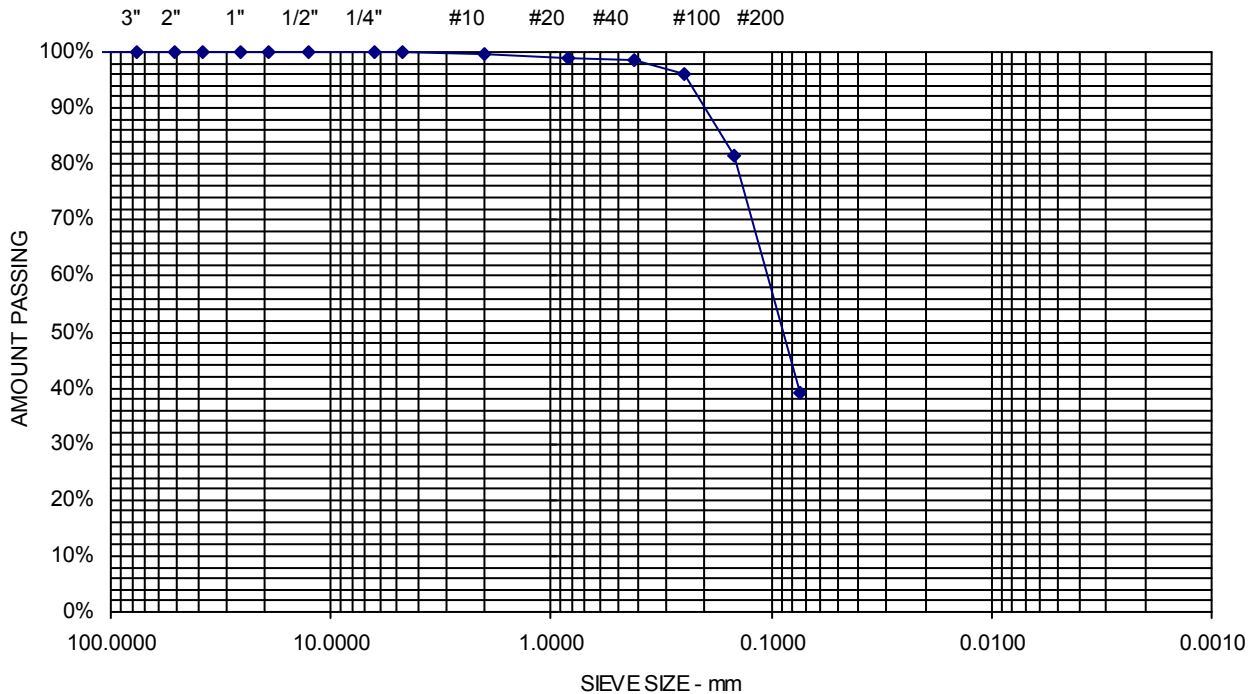
Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

 Material Source **B-1002 10D 50-52**

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150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	99	
425 μm	No. 40	98	60.9% Sand
250 μm	No. 60	96	
150 μm	No. 100	82	
75 μm	No. 200	39.1	39.1% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
 GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Project Number 16-1314

Lab ID 23288G

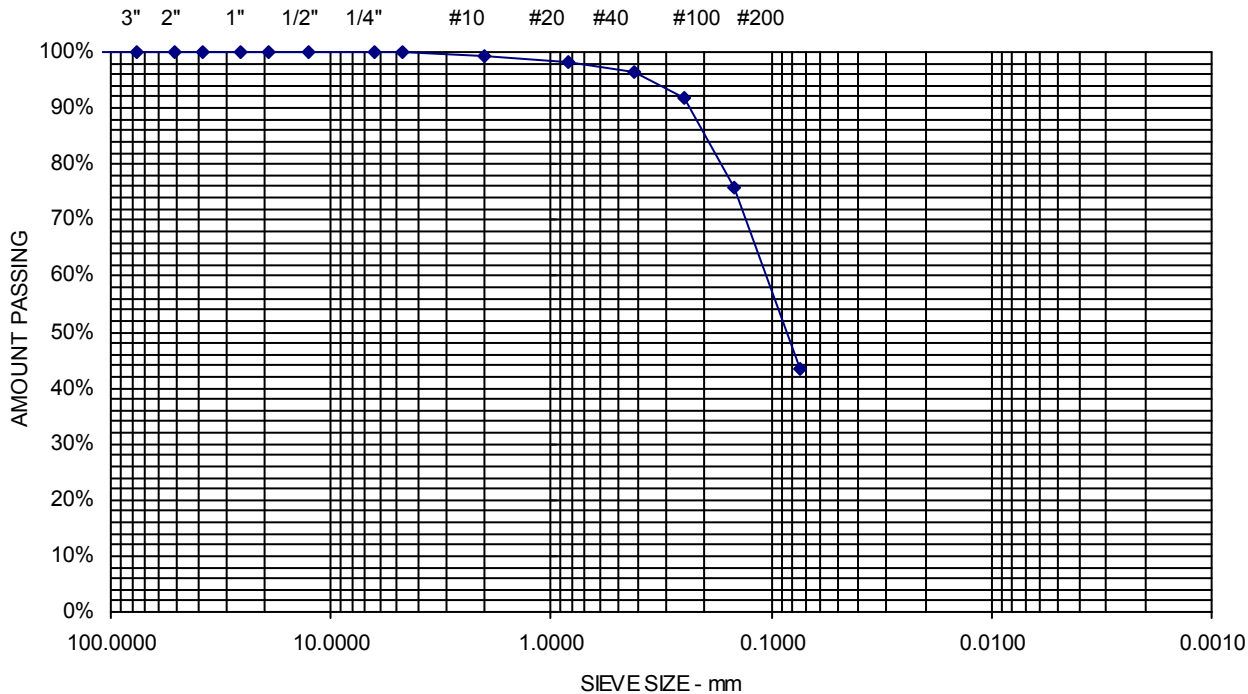
Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

Material Source B-1003 8D 65-67

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	99	
850 μm	No. 20	98	
425 μm	No. 40	96	56.5% Sand
250 μm	No. 60	92	
150 μm	No. 100	76	
75 μm	No. 200	43.5	43.5% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Material Source **B-1003 9D 70-72**

Project Number 16-1314

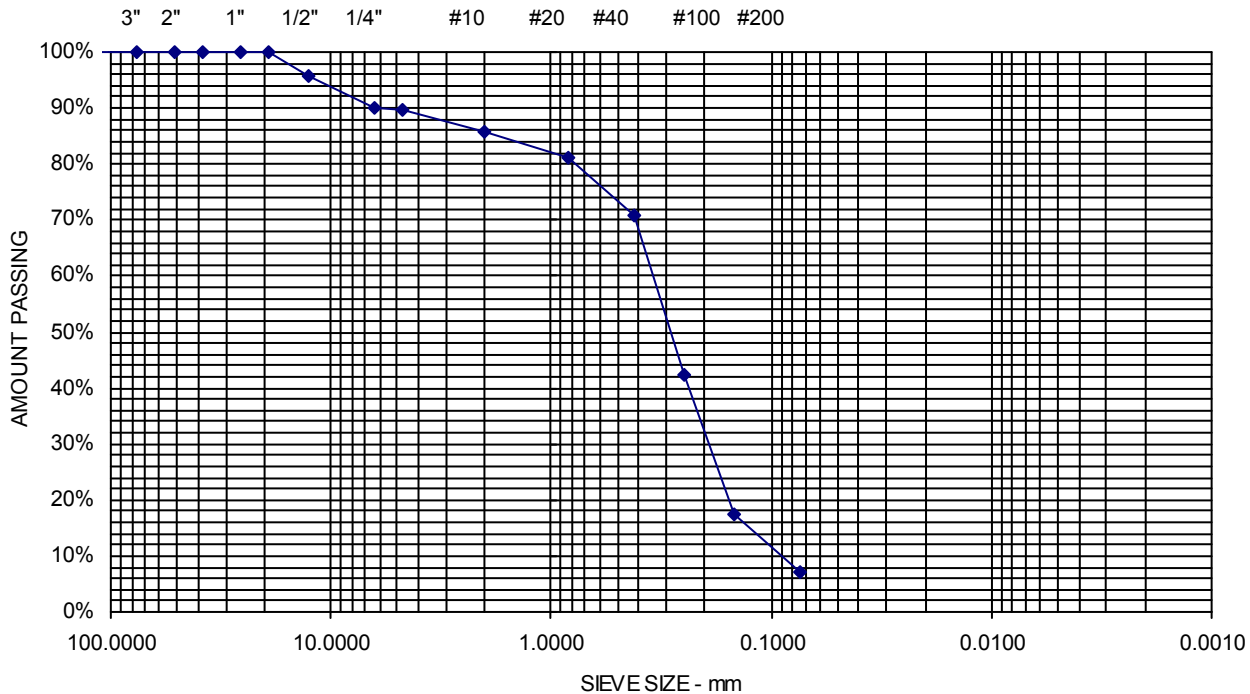
Lab ID 23289G

Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	96	
6.3 mm	1/4"	90	
4.75 mm	No. 4	90	10.3% Gravel
2.00 mm	No. 10	86	
850 μm	No. 20	81	
425 μm	No. 40	71	82.7% Sand
250 μm	No. 60	42	
150 μm	No. 100	17	
75 μm	No. 200	7.0	7% Fines

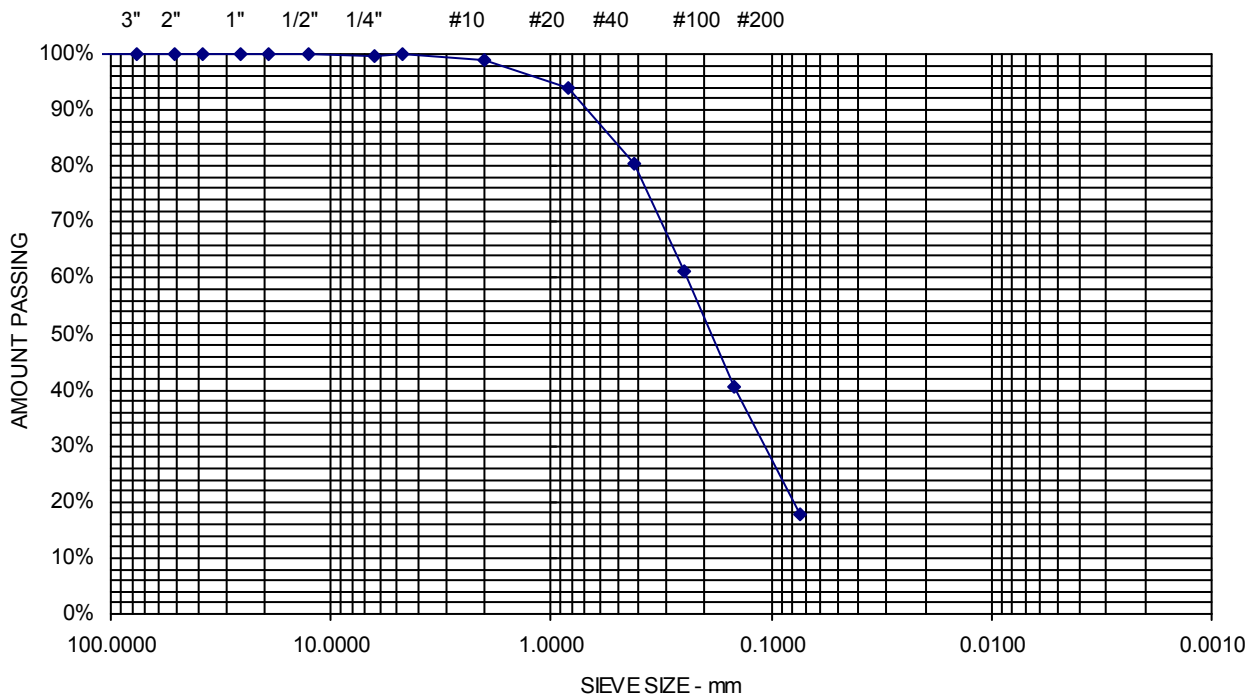


Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
 GEOTECHNICAL ENGINEERING SERVICES
 Client WOODARD & CURRAN, INC.

Project Number 16-1314
 Lab ID 23290G
 Date Received 12/29/2017
 Date Completed 1/3/2018
 Tested By PAUL SHAFFER

Material Source **B-1003 10D 80-82**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	99	
850 μm	No. 20	94	
425 μm	No. 40	81	82.2% Sand
250 μm	No. 60	61	
150 μm	No. 100	40	
75 μm	No. 200	17.8	17.8% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Material Source **B-1004 7D 60-62**

Project Number 16-1314

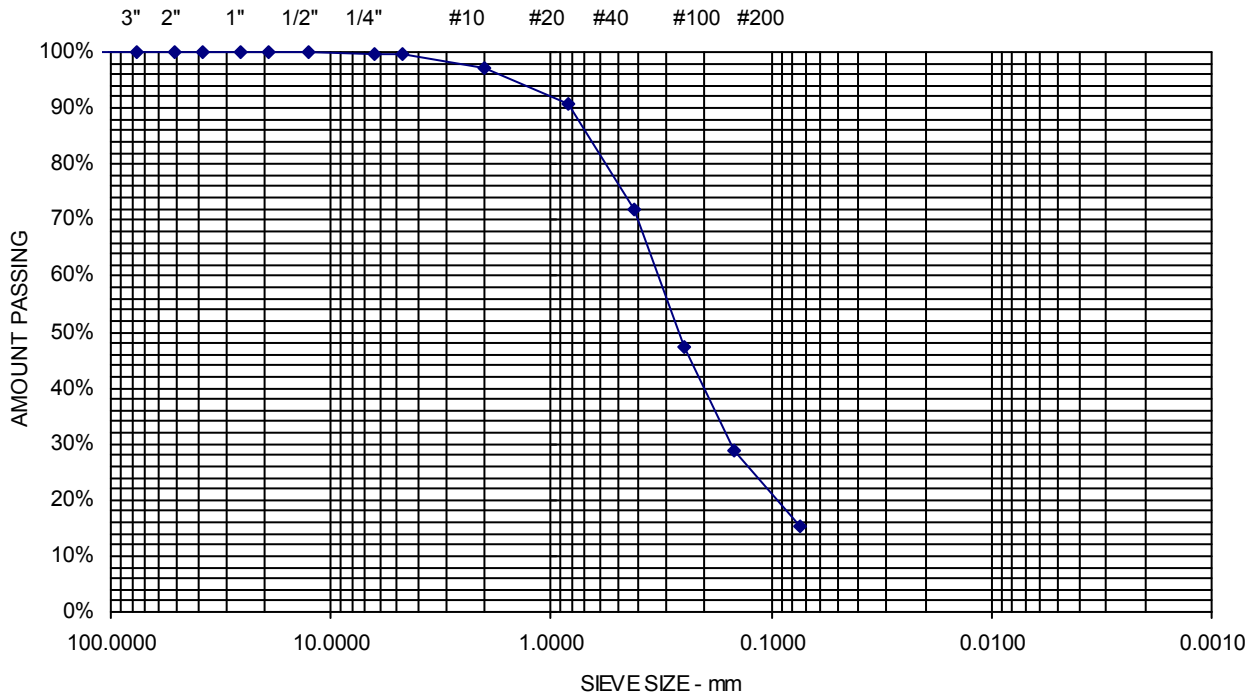
Lab ID 23293G

Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0.5% Gravel
2.00 mm	No. 10	97	
850 μm	No. 20	91	
425 μm	No. 40	72	84.2% Sand
250 μm	No. 60	47	
150 μm	No. 100	29	
75 μm	No. 200	15.4	15.4% Fines



Report of Gradation

ASTM C-117 & C-136

Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Material Source **B-1004 9D 70-72**

Project Number 16-1314

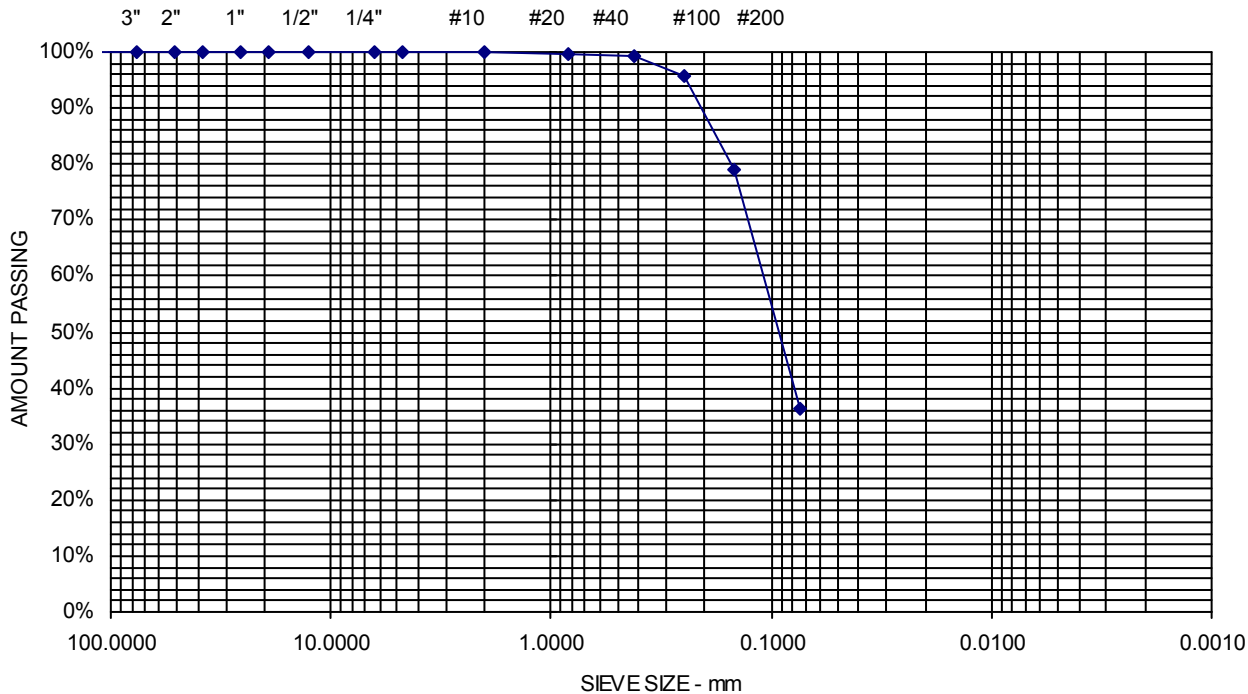
Lab ID 23294G

Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

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150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	100	
425 μm	No. 40	99	63.8% Sand
250 μm	No. 60	96	
150 μm	No. 100	79	
75 μm	No. 200	36.2	36.2% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
 GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Project Number 16-1314

Lab ID 23295G

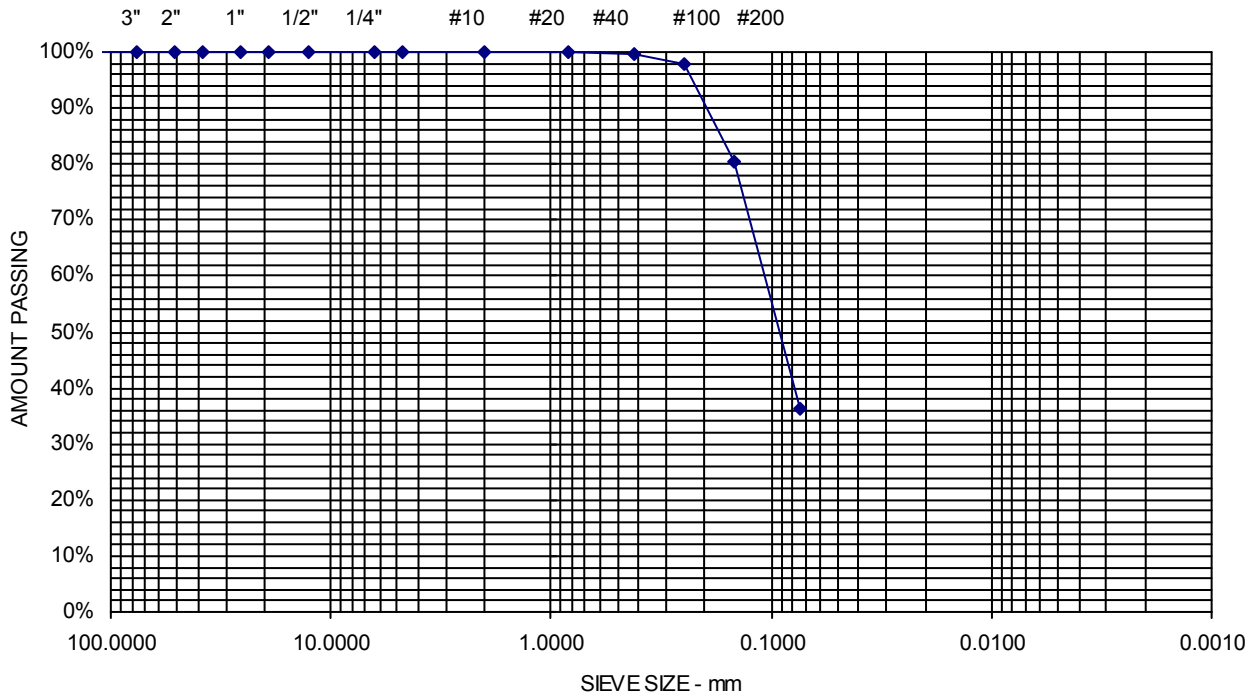
Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

 Material Source **B-1004 10D 80-82**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	100	
425 μm	No. 40	100	63.6% Sand
250 μm	No. 60	98	
150 μm	No. 100	80	
75 μm	No. 200	36.4	36.4% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Project Number 16-1314

Lab ID 23298G

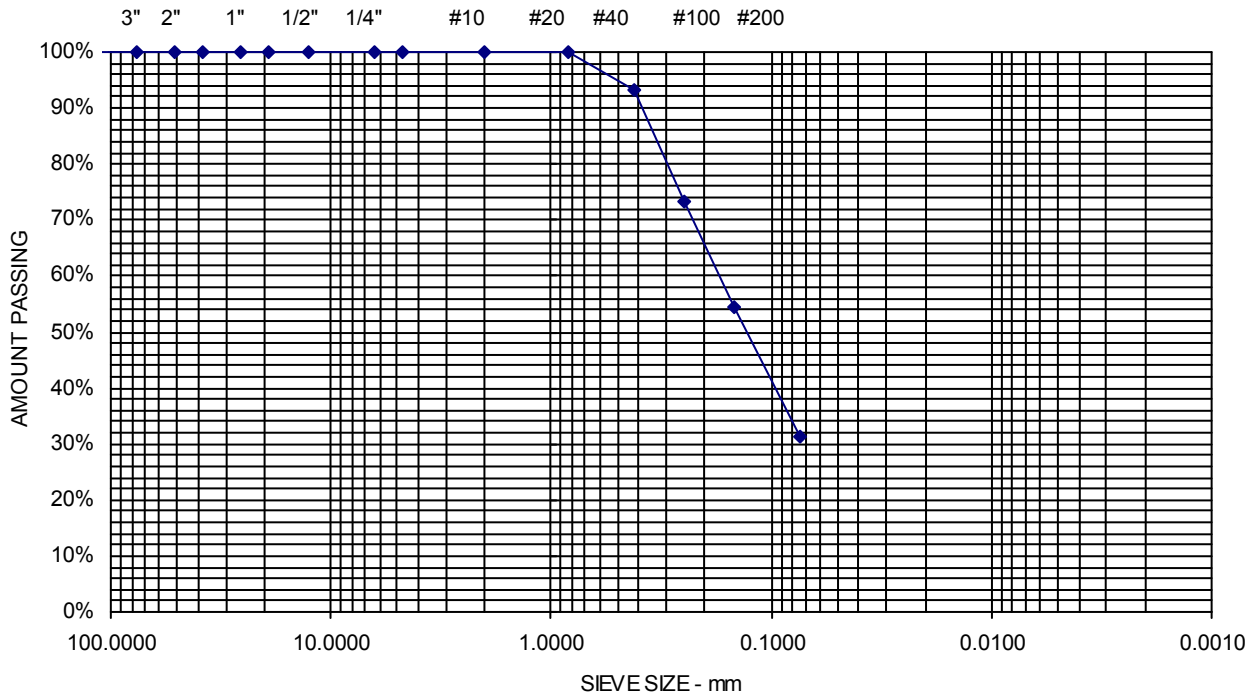
Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

Material Source B-1005 8D 60-62

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	100	
425 μm	No. 40	93	68.6% Sand
250 μm	No. 60	73	
150 μm	No. 100	55	
75 μm	No. 200	31.4	31.4% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Project Number 16-1314

Lab ID 23299G

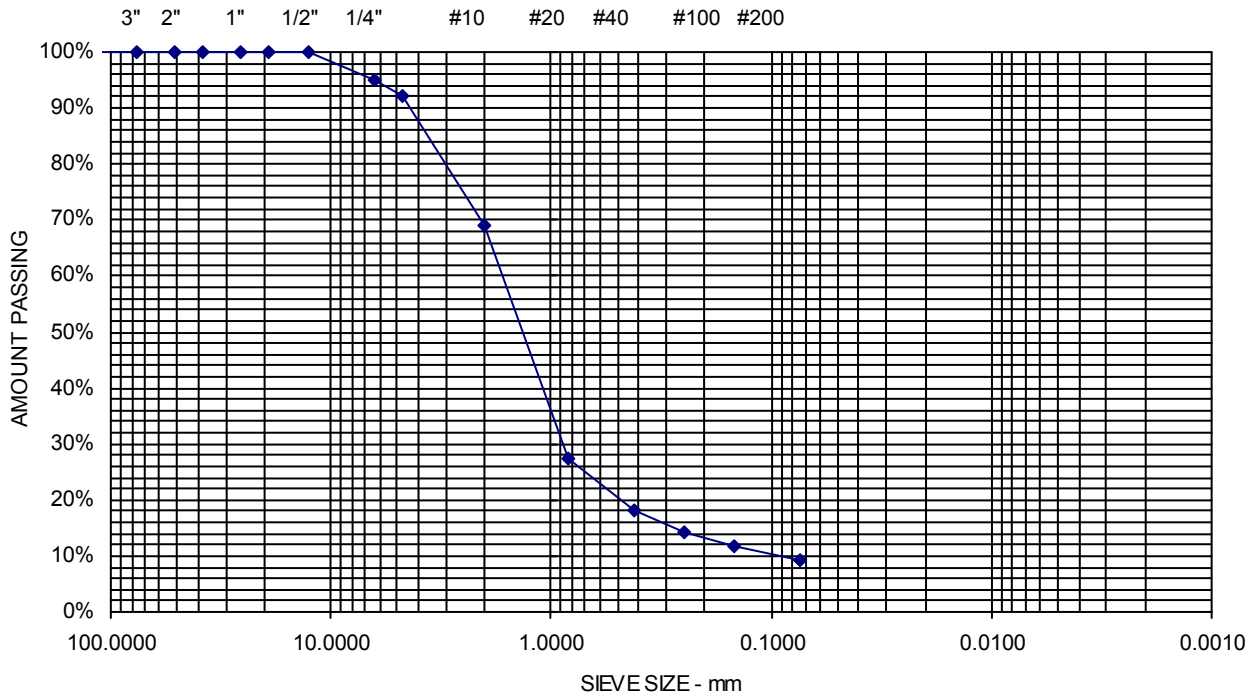
Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

Material Source **B-1005 10D 70-72**

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150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	95	
4.75 mm	No. 4	92	8% Gravel
2.00 mm	No. 10	69	
850 μm	No. 20	27	
425 μm	No. 40	18	82.8% Sand
250 μm	No. 60	14	
150 μm	No. 100	12	
75 μm	No. 200	9.2	9.2% Fines



Project Name PORTLAND ME - PROPOSED IMT COLD STORAGE WAREHOUSE -
GEOTECHNICAL ENGINEERING SERVICES

Client WOODARD & CURRAN, INC.

Material Source **B-1005 11D 80-82**

Project Number 16-1314

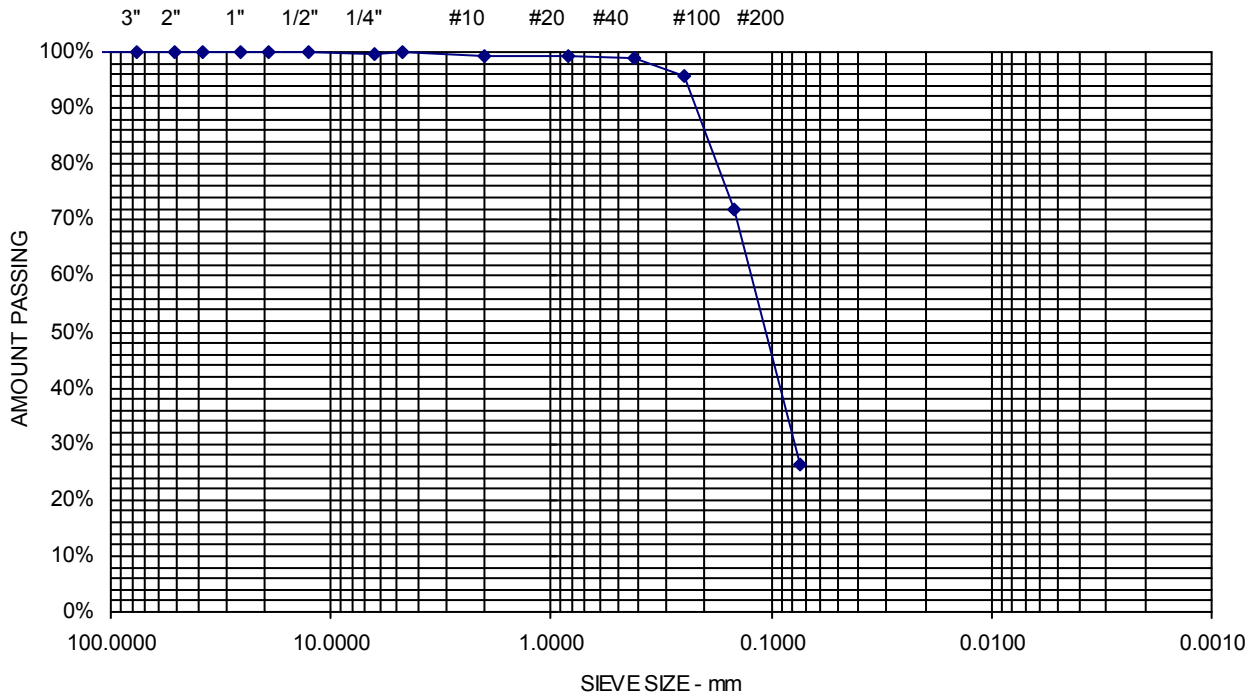
Lab ID 23300G

Date Received 12/29/2017

Date Completed 1/3/2018

Tested By PAUL SHAFFER

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0% Gravel
2.00 mm	No. 10	99	
850 μm	No. 20	99	
425 μm	No. 40	99	73.6% Sand
250 μm	No. 60	96	
150 μm	No. 100	72	
75 μm	No. 200	26.4	26.4% Fines



Consolidation Test

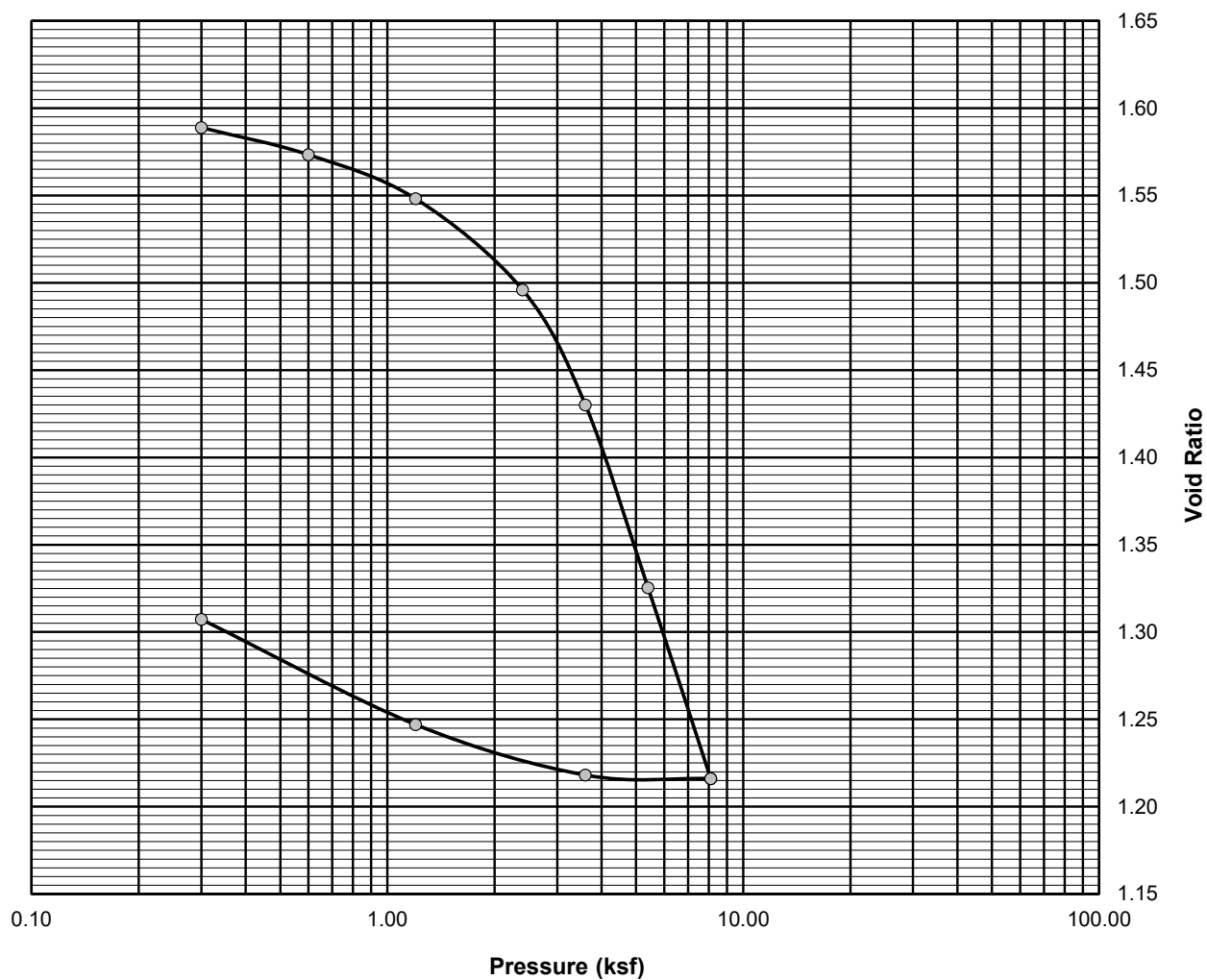
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21264B
Date: 1/30/2018

Boring: B1003
Sample: 1U
Depth: 35-37'

$P_C =$	2.7	ksf
$C_C =$	0.61	
$C_R =$	0.05	
$w =$	55.2%	
$W_L =$	55	
$W_P =$	30	



Comments:

Reviewed By



Consolidation Test

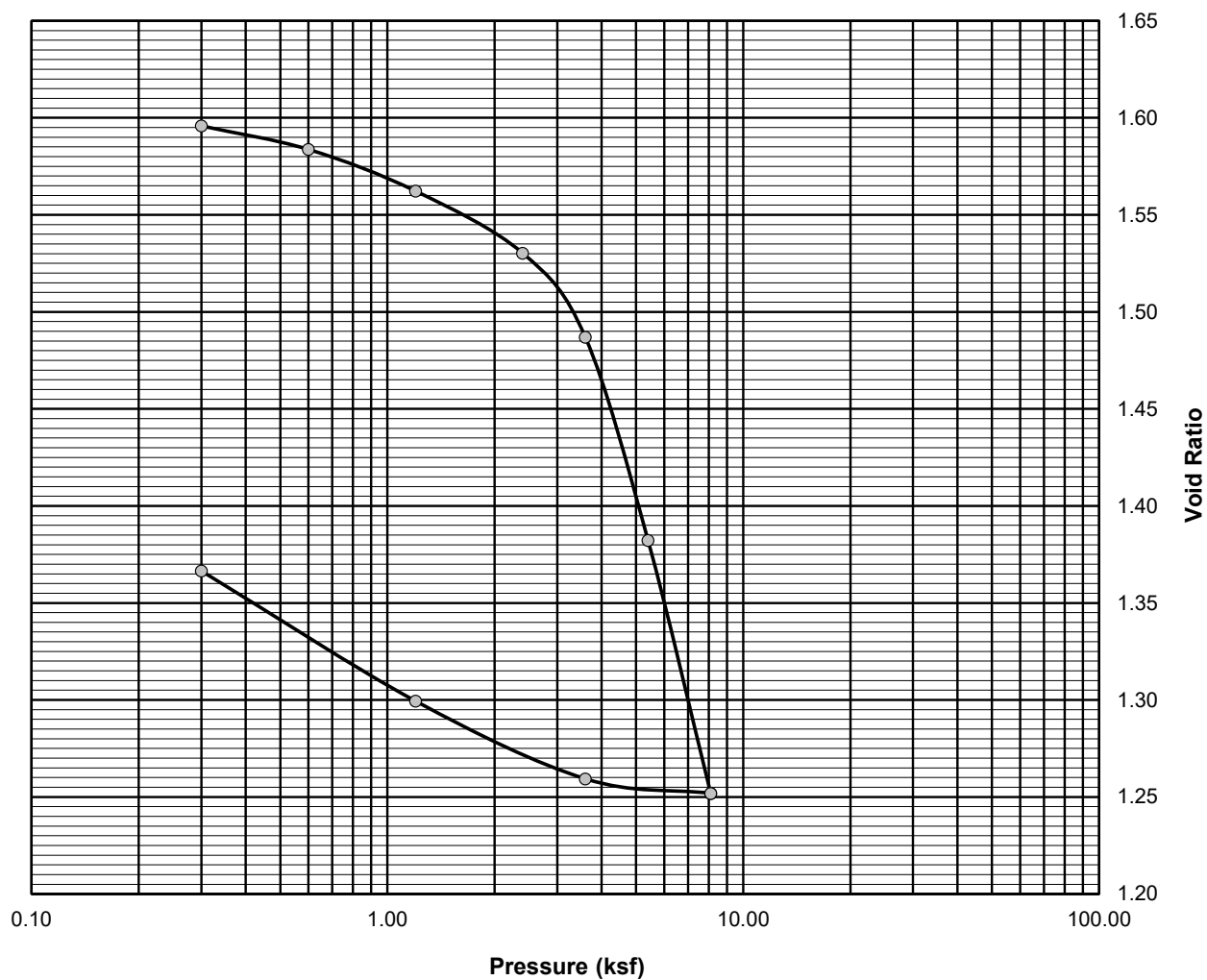
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21265B
Date: 1/30/2018

Boring: B1003
Sample: 2U
Depth: 45-47'

$P_C =$	3.1	ksf
$C_C =$	0.67	
$C_R =$	0.04	
$w =$	54.7%	
$W_L =$	48	
$W_P =$	25	



Comments:

Reviewed By



Consolidation Test

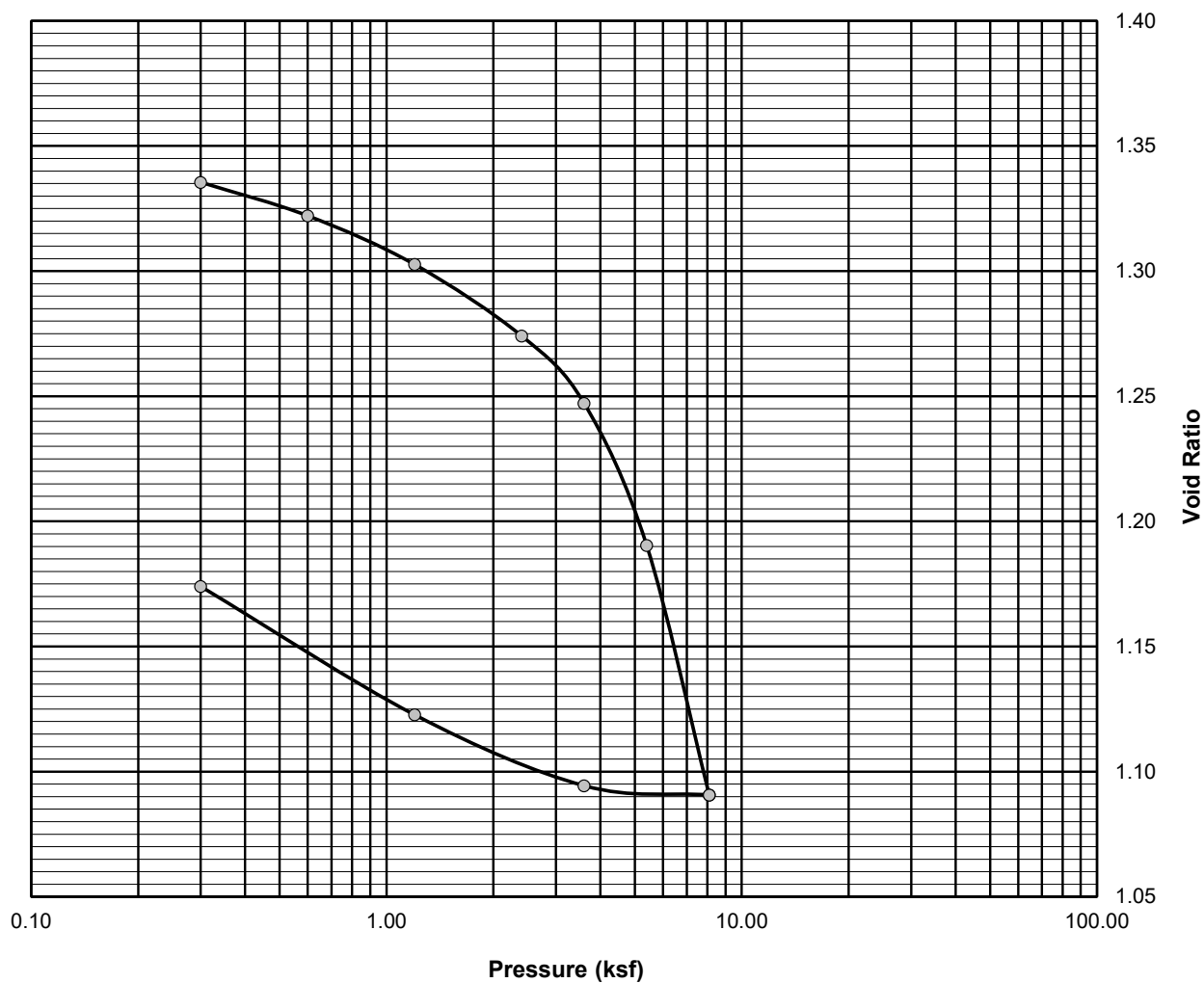
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21266B
Date: 1/30/2018

Boring: B1003
Sample: 3U
Depth: 55-57'

$P_C =$	4	ksf
$C_C =$	0.44	
$C_R =$	0.04	
$w =$	49.0%	
$W_L =$	55	
$W_P =$	27	



Comments:

Reviewed By



Consolidation Test

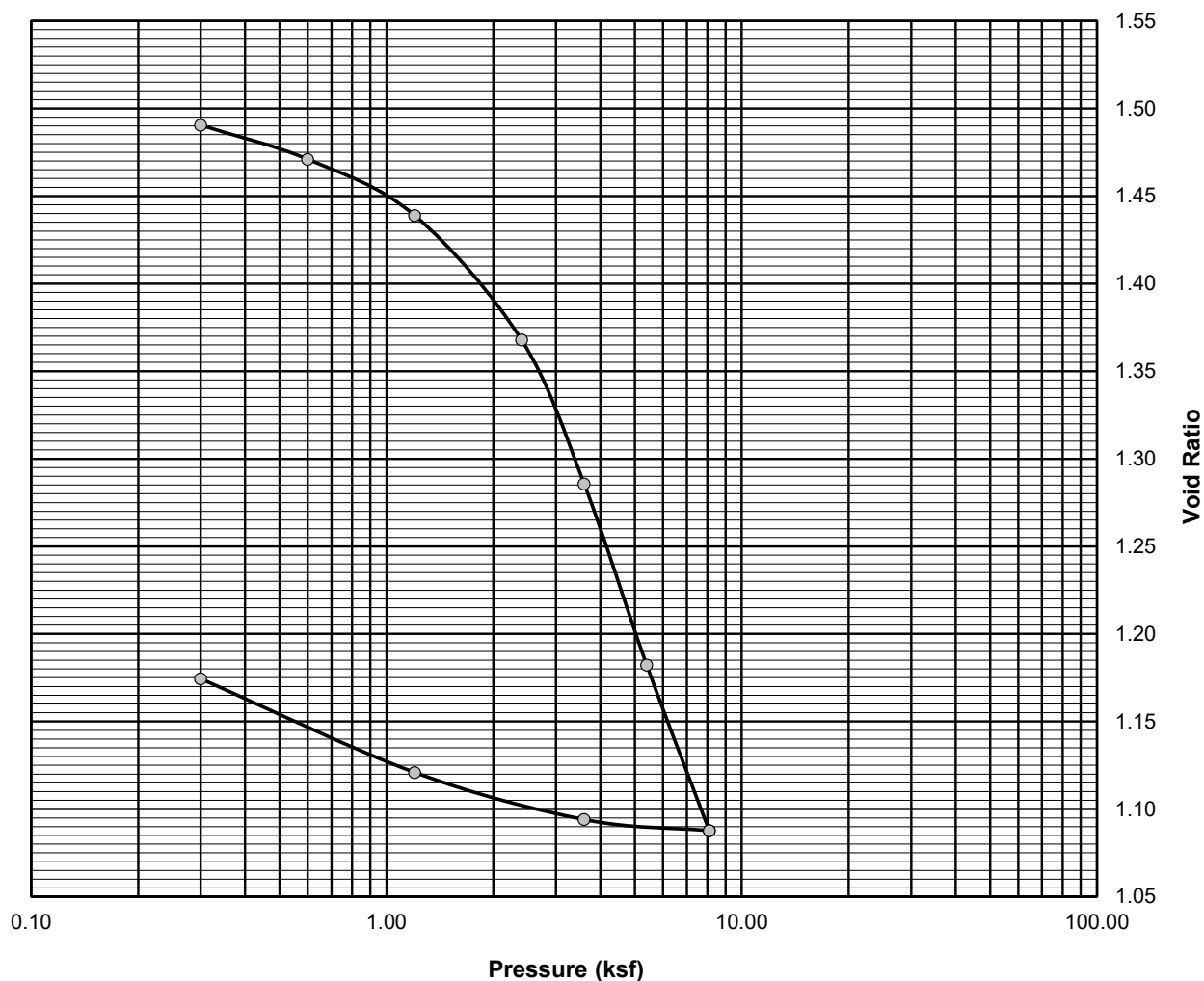
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21267B
Date: 12/29/2017

Boring: B1004
Sample: 1U
Depth: 30-32'

P_C	=	2.1	ksf
C_C	=	0.56	
C_R	=	0.06	
w	=	53.4%	
W_L	=	47	
W_P	=	48	



Comments:

Reviewed By



Consolidation Test

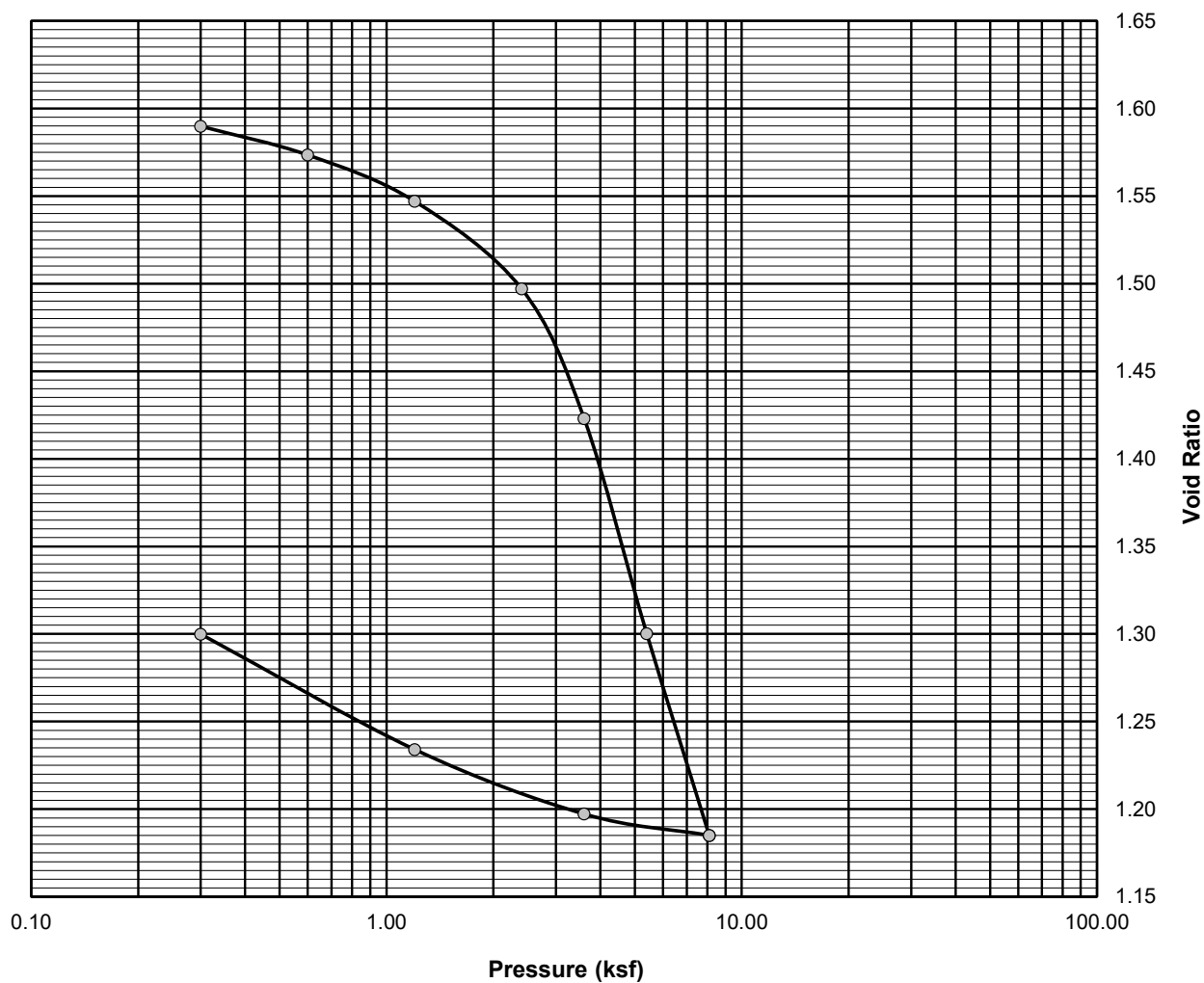
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21268B
Date: 12/29/2017

Boring: B1004
Sample: 2U
Depth: 40-42'

$P_C =$	2.9	ksf
$C_C =$	0.68	
$C_R =$	0.05	
$w =$	54.6%	
$W_L =$	53	
$W_P =$	29	



Comments:

Reviewed By



Consolidation Test

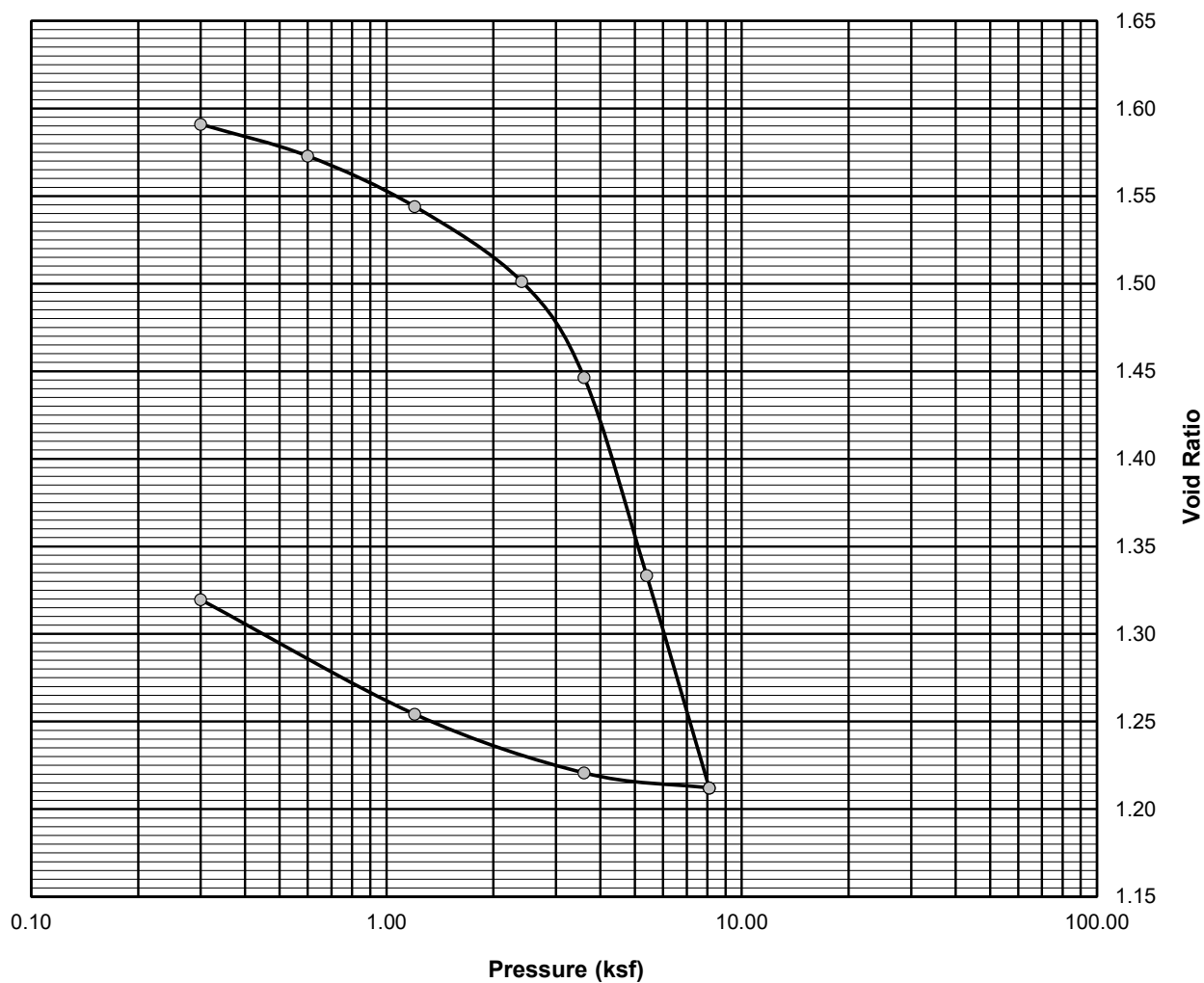
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21269B
Date: 12/29/2017

Boring: B1004
Sample: 3U
Depth: 50-52'

P_C =	3.1	ksf
C_C =	0.67	
C_R =	0.08	
w =	55.4%	
W_L =	55	
W_P =	30	



Comments:

Reviewed By



Consolidation Test

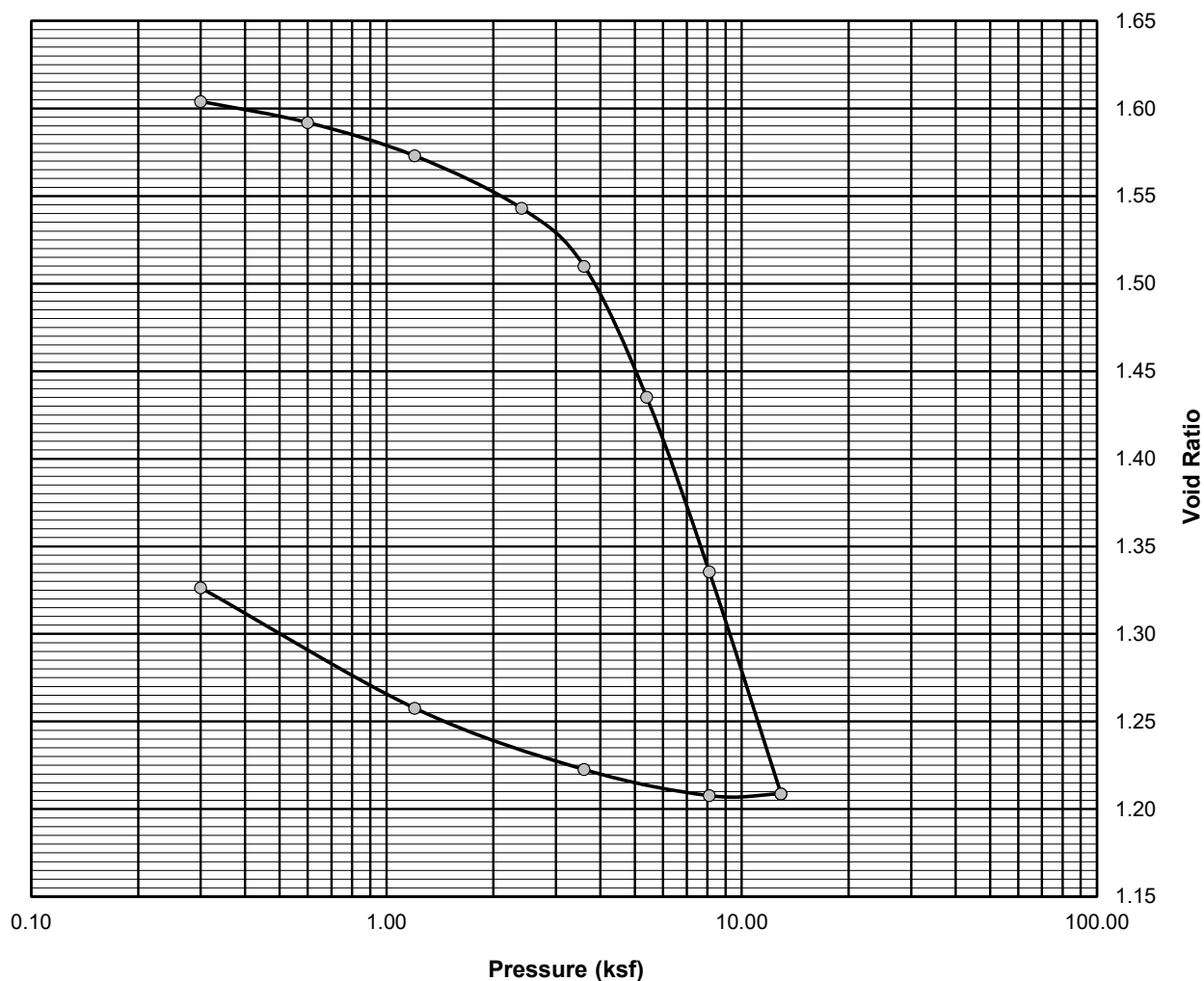
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21270B
Date: 12/29/2017

Boring: B1005
Sample: 1U
Depth: 35-37'

$P_C =$	3.8	ksf
$C_C =$	0.60	
$C_R =$	0.06	
$w =$	46.5%	
$W_L =$	49	
$W_P =$	26	



Comments:

Reviewed By



Consolidation Test

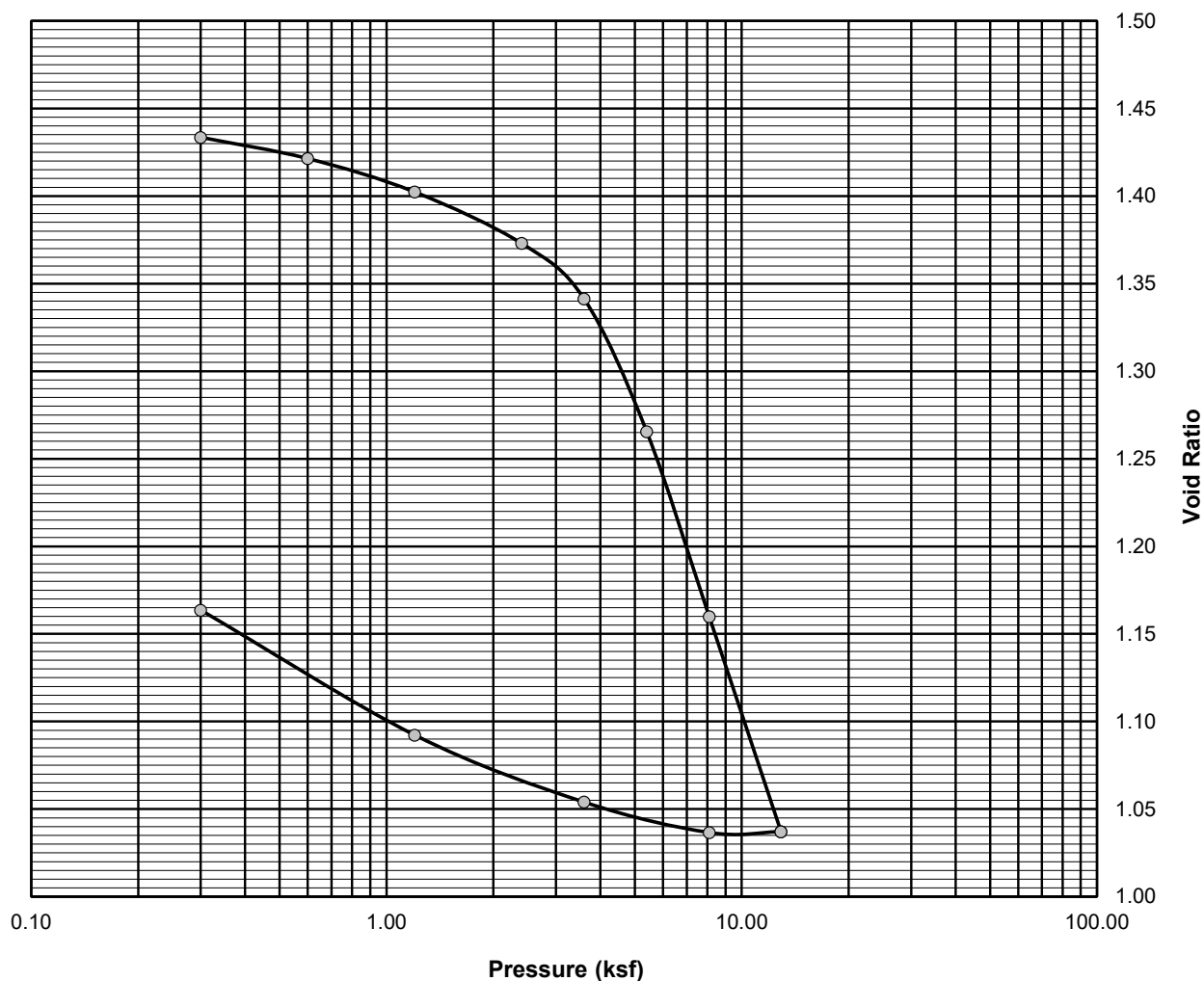
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21271B
Date: 12/29/2017

Boring: B1005
Sample: 2U
Depth: 45-47'

$P_C =$	4	ksf
$C_C =$	0.60	
$C_R =$	0.06	
$w =$	51.1%	
$W_L =$	54	
$W_P =$	29	



Comments:

Reviewed By



Consolidation Test

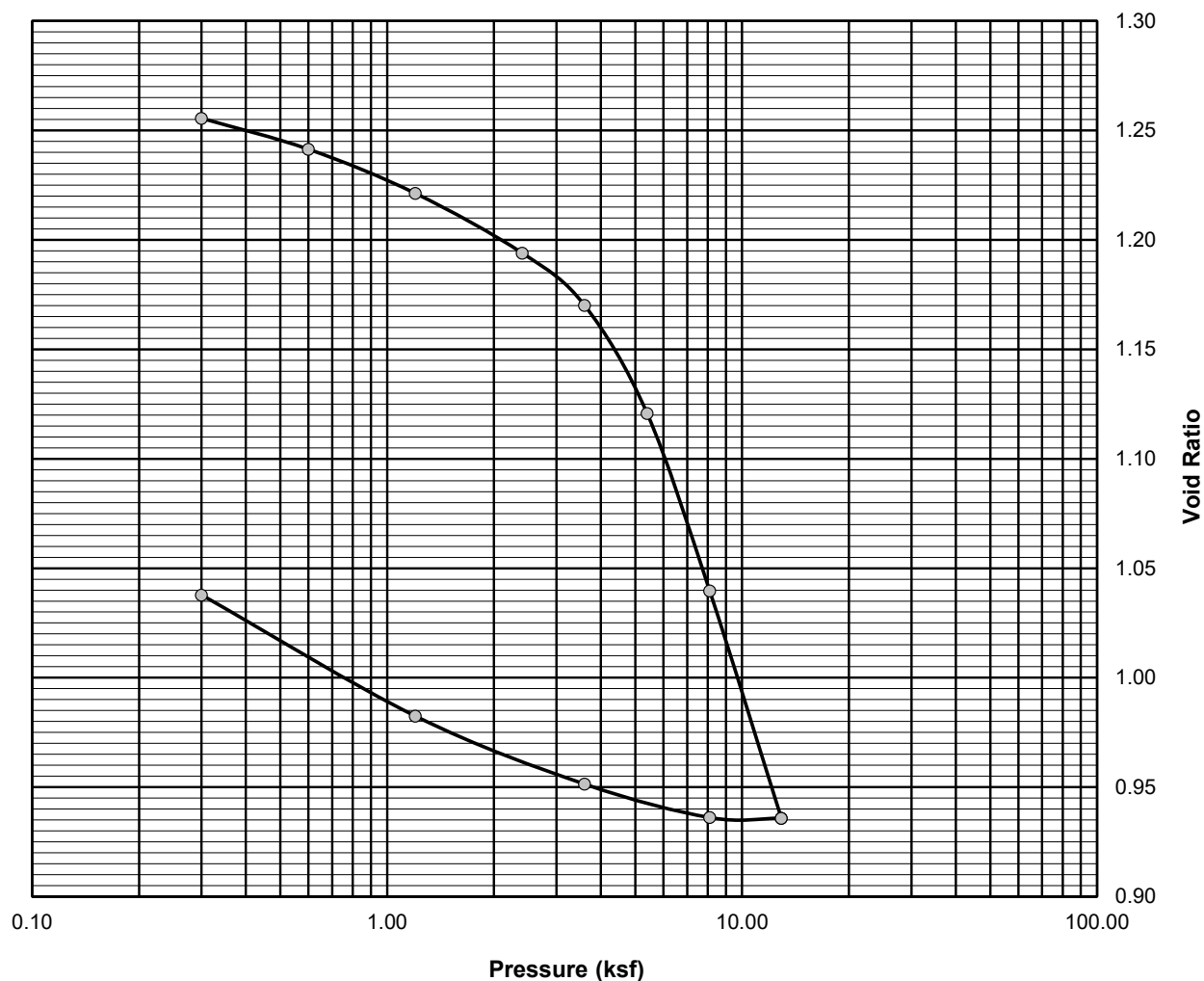
ASTM D-4767

Project Name: Proposed IMT Cold Storage Warehouse
Client: Woodard & Curran, Inc.

Project Number: 16-1314
Lab ID: 21272B
Date: 12/29/2017

Boring: B1005
Sample: 3U
Depth: 55-57'

$P_C =$	4.3	ksf
$C_C =$	0.51	
$C_R =$	0.07	
$w =$	41.2%	
$W_L =$	43	
$W_P =$	24	



Comments:

Reviewed By





ATTACHMENT C: SHEAR WAVE VELOCITY TESTING REPORT

**SHEAR WAVE VELOCITY TESTING
FORMER PORTLAND GAS WORKS SITE
400 COMMERCIAL STREET
PORTLAND, MAINE**

Prepared for:

S. W. Cole Engineering, Inc.
286 Portland Road
Gray, Maine 04039

Prepared by:

Hager-Richter Geoscience, Inc.
8 Industrial Way, Suite D10
Salem, New Hampshire 03079

File 17J109
January, 2018

TABLE OF CONTENTS

1.	Introduction	1
2.	Equipment and Procedures	3
3.	Results and Discussion	5
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FIGURES

1. General Site Location
2. pVs Survey Line Locations

APPENDIX

1. Boring Locations and Logs Provided by S.W. Cole

1. INTRODUCTION

Hager-Richter Geoscience, Inc. (Hager-Richter) conducted passive surface shear wave velocity testing at the Former Portland Gasworks Site located at 400 Commercial Street in Portland, Maine in December, 2017 for S. W. Cole Engineering Inc., (S.W. Cole) of Gray, Maine. The geophysical testing was performed as part of a geotechnical investigation of the project site by S.W. Cole.

The site is the location of the former Portland Gasworks located at 400 Commercial Street in Portland. The property is located on the south side of Commercial Street at the intersection with York Street. Figure 1 shows the general location of the site. According to information provide by S.W. Cole, a low temperature warehouse is planned for the vacant Site. Stratigraphy at the Site reportedly consists of fill overlying soft clay and silt to depths of over 100 feet. Bedrock was not encountered in borings installed at the Site. S.W.Cole requested site specific shear wave velocity information as a function of depth for the soil and bedrock to a depth of 100 feet for the determination of seismic site class at the site.

The surface shear wave velocity testing was conducted using the passive shear wave seismic (pVs) method. Figure 2 is a Google Earth image of the site showing the location of the three seismic testing lines specified by S.W. Cole.

Jeffrey Reid, P.G., and Sean Reid of Hager-Richter conducted the seismic testing on December 19, 2017. The project was coordinated with Mr. Tim Boyce, P.E., of S.W. Cole. Mr. Patrick Otto, also of S.W. Cole, was present on site for the fieldwork and specified the pVs line location. Data analysis and interpretation were completed at the Hager-Richter offices. Original data and field notes will be retained in the Hager-Richter files for a minimum of three years.

2. EQUIPMENT AND PROCEDURES

2.1 *Method*

The passive shear wave seismic (pVs) method is a geophysical method to determine a shear-wave velocity profile at a single location by analyzing a particular type of seismic wave recorded on a multichannel record. The name pVs is derived from p for passive and Vs for velocity of shear waves. The pVs method, also called the Refraction Microtremor method, or ReMi™, uses Rayleigh waves, a particular kind of wave first described by Lord Rayleigh in 1885. Such waves are dispersive (meaning that the velocity is a function of the wavelength), and the amplitude of such waves decreases with depth. The velocity depends primarily on the shear wave velocities and layering of the subsurface material.

Rayleigh waves are a significant part of the ambient subsurface noise at most, if not all, sites. There are many sources of such noise, including, but not limited to, wind, pedestrian and vehicular traffic, surface and subway trains, and construction activities. Although such noise can be troublesome for most seismic methods, it is the source of signals for the pVs method, and the higher the noise level, the better the results for this method.

Low frequency (4.5 Hz) geophones are installed five feet apart along a straight line and connected to a seismograph. The ambient noise is recorded for 30 seconds two or three times, and examined to be sure that noise of sufficiently low frequency is present. If the noise is sufficient, then 10 to 15 such records are acquired. If the noise spectra do not reach sufficiently low frequencies, then one walks or runs along the testing line during data acquisition to add low frequency noise to the ambient noise. The surface waves used in the pVs method, considered noise in seismic refraction and seismic reflection surveys, are enhanced during data acquisition and processing for the pVs method. The seismic data are analyzed using SeisOpt® ReMi™, a commercially licensed software package developed by Optim, Inc. located at the University of Nevada at Reno. Results are normally presented as 1-D plots or in tabular form showing shear wave velocity as a function of depth for the center point of the seismic line.

2.2 *Determination of Average Shear Wave Velocity for Building Code Purposes*

The pVs method determines (a) the shear wave velocity at the mid point along a survey line for several layers, averaged over the length of the survey line, and (b) the average shear wave velocity V_{avg} for site classification for seismic design in accordance with building codes. Similar calculations can be performed with the results of the shear wave velocity survey. The average value V_{avg} is determined using the equation 16-44 of the IBC as follows:

$$V_{avg} = \left(\sum_{i=1}^N d_i \right) / \sum_{i=1}^N d_i / V_i$$

where d_i is thickness of layer i
 V_i is shear wave velocity of layer i
 N denotes the total number of layers

The Seismic Site Class, *based solely on average shear wave velocity*, is defined by the IBC as follows:

Site Class	Soil Profile Name	Soil Shear Wave Velocity (ft/s)
A	Hard rock	$V_s > 5000$
B	Rock	$2500 < V_s \leq 5000$
C	Very dense soil and soft rock	$1200 < V_s \leq 2500$
D	Stiff soil profile	$600 \leq V_s \leq 1200$
E	Soft soil profile	$V_s < 600$

Although the IBC provides other methods to determine the Site Class, such as standard penetration resistance (blow counts) and soil undrained shear strength, this report provides shear wave velocity data only. There is no consideration of other factors that may affect a site class such as liquefaction. The final determination of seismic site class should be made by the project engineer.

2.3 Equipment

We used a 48-channel digital seismograph (Geometrics Geode) coupled to 48 geophones to acquire the pVs data for the subject testing. We used 4.5-Hz frequency vertical geophones for the subject shear wave velocity testing.

2.4 Limitations of the Method

As with all physical measurements, there is experimental error in the velocities that are determined using the passive shear wave velocity method. For the pVs method, the accuracy of V_{avg} is stated by Optim, Inc. to be 5-15%.

The depth of investigation is a function of the noise spectrum, and long wave lengths (low frequencies) are required to determine velocity at large depths. Noise levels can be improved by a person running along the seismic spread during data acquisition.

2.5 *Site Specific*

The locations of the pVs test lines at the subject site are shown in Figure 2. The position of the pVs testing lines were located using a Trimble Geo 7X CM GPS receiver coupled with a Zephyr-2 external antenna. The pVs data were acquired using 48 4.5Hz geophones and a geophone spacing of 6 feet for Line 1 and 5 feet for Lines 2 and 3. The pVs method yields a simple vertical shear wave velocity profile for the mid-point of the test line. The seismic source for the pVs testing was ambient noise from nearby traffic and activity as well as thumping along the lines with a sledge hammer. Photo 1 shows the general surface conditions encountered.

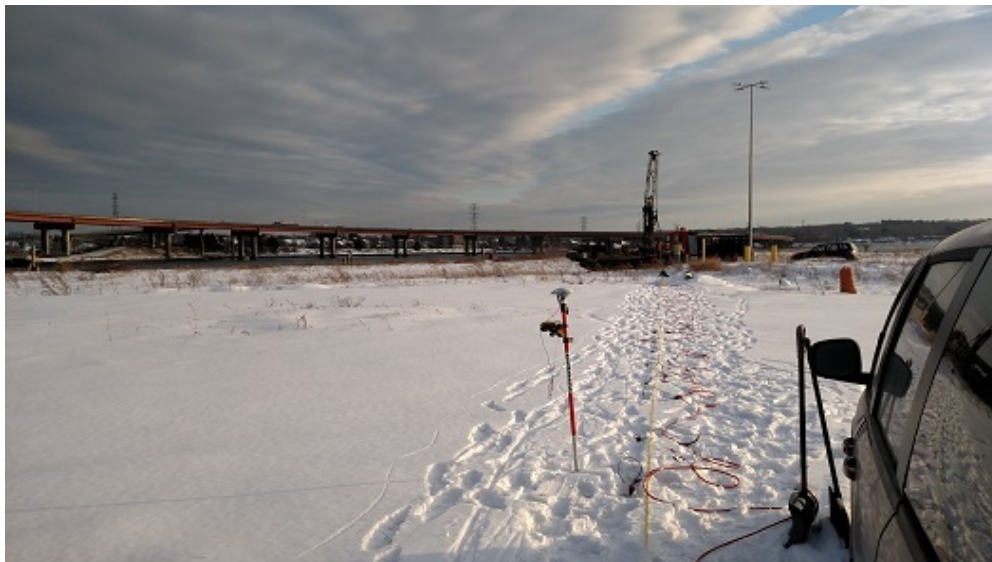


Photo 1. View looking south along pVs Test Line 3. Geophones were installed into the sand and gravel below the snow. Note the S.W. Cole drill rig in the background.

3. RESULTS AND DISCUSSION

The surface shear wave velocity testing was conducted using the passive shear wave seismic (pVs) method at three test locations specified by S.W. Cole and designated as Lines 1-3. The test locations and center points for the velocity profiles are shown in Figure 2.

According to information provided by S.W.Cole, stratigraphy consists of fill overlying soft clay and silt to depths of over 100 feet. Bedrock was not encountered in borings installed at the Site.

The quality for the pVs data at the subject site is judged to be very good. The results of the pVs testing are reported in Table 1. The pVs results are derived over test lines that span about 200-250 feet, providing an average velocity structure over the length of the test line. However, the borings provide very localized point information. Because of the localized nature of the boring data, no attempt was made to “force” a specific velocity model based on the boring data provided by SW Cole to remove any possible local bias from a point source. For modeling purposes, the subsurface stratigraphy was divided into four or five discrete units. The layer thicknesses that provide the best statistical fit to the dispersion curve are used for the models.

The root mean square error for the fit of the dispersion curves versus the measured data using the model velocities is 1.6% , 1.9%, and 2.9%, respectively, for pVs Lines 1-3. These very low error values indicate that the models fit the data extremely well. While the resulting velocity units do not necessarily correlate with specific lithologic units identified in any individual boring, there is very good general correlation between the generated velocity models the general site-wide stratigraphy.

The shear wave velocities for the individual stratigraphic modeled units are provided in Table 1. The average value of the velocity of shear waves for the depth interval of 0-100 ft based on Equation 1 of the IBC , V_{s100} , are provided in Table 1 as 650 fps, 667 fps, and 611 fps, respectively, for Lines 1-3.

TABLE 1: pVs TEST RESULTS

Geologic Unit *	Line 1	
	Depth Interval (ft)	V _s ** (ft/s)
Loose Fill	0 - 10	422
More Dense Fill	10 - 16.5	1,582
Soft Clay and Silt	16.5 - 65	503
More Dense Sand and Silt (Till ?)	65 - 100	1,178
V _{s100} (ft/s)	650	
RMS	1.6%	
Geologic Unit *	Line 2	
	Depth Interval (ft)	V _s ** (ft/s)
Loose Fill	0 - 11	481
More Dense Fill	11 - 17	1,846
Soft Clay and Silt	17 - 69	537
More Dense Sand and Silt (Till ?)	69 - 100	1,156
V _{s100} (ft/s)	667	
RMS	1.9%	
Geologic Unit *	Line 3	
	Depth Interval (ft)	V _s ** (ft/s)
Loose Fill	0 - 5	456
Dense Fill	5 - 13	756
Soft Clay and Silt	13 - 52	503
Soft Clay and Silt (cont.)	52 - 80	532
More Dense Sand and Silt (Till ?)	80 - 100	1,657
V _{s100} (ft/s)	611	
RMS	2.9%	

* Part of the description of stratigraphy is based on boring logs provided by S.W. Cole

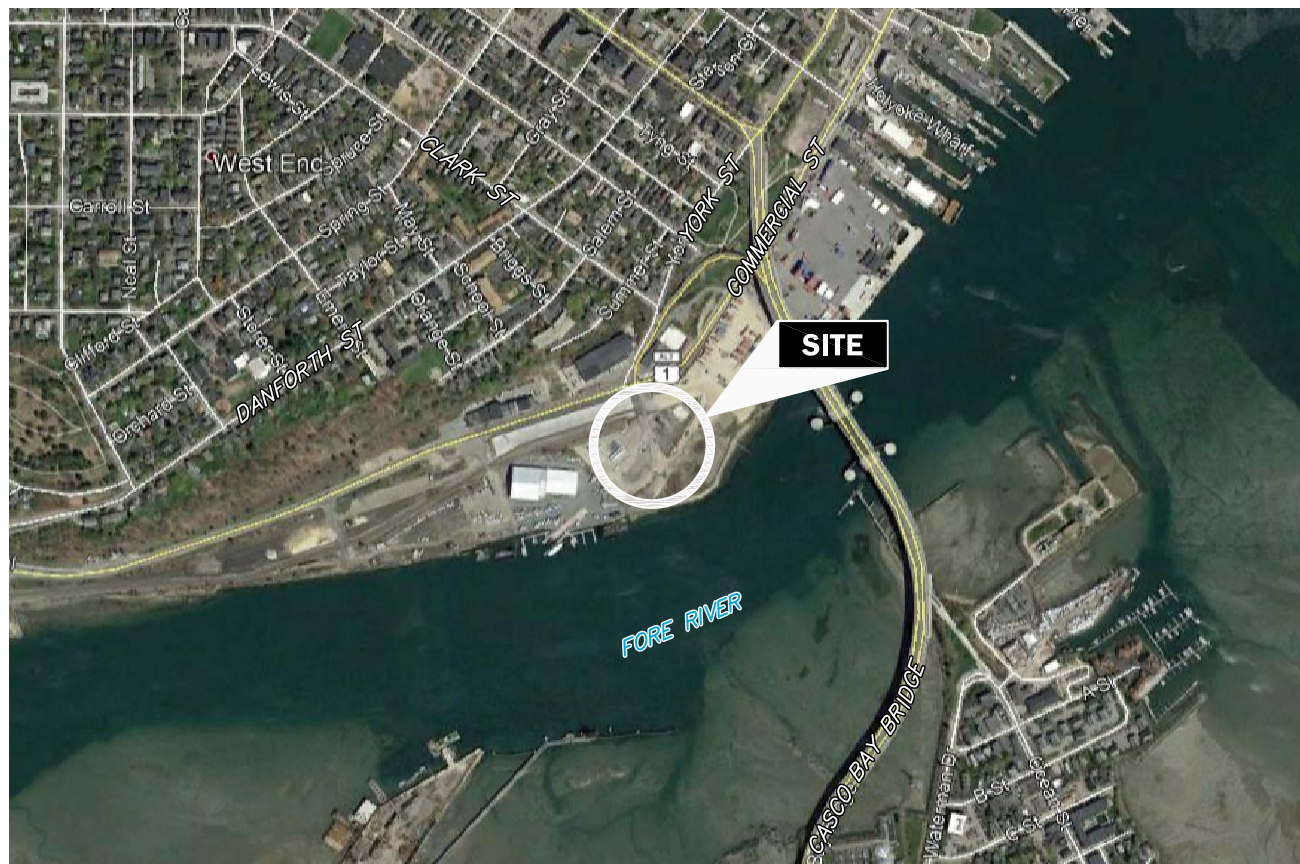
** Shear wave velocity profile is determined for the mid-point of the testing line

4. LIMITATIONS

This report was prepared for the exclusive use of S. W. Cole Engineering, Inc. (Client). No other party shall be entitled to rely on this Report or any information, documents, records, data, interpretations, advice or opinions given to Client by Hager-Richter Geoscience, Inc. (H-R) in the performance of its work. The Report relates solely to the specific project for which H-R has been retained and shall not be used or relied upon by Client or any third party for any variation or extension of this project, any other project or any other purpose without the express written permission of H-R. Any unpermitted use by Client or any third party shall be at Client's or such third party's own risk and without any liability to H-R.

H-R has used reasonable care, skill, competence and judgment in the preparation of this Report consistent with professional standards for those providing similar services at the same time, in the same locale, and under like circumstances. Unless otherwise stated, the work performed by H-R should be understood to be exploratory and interpretational in character and any results, findings or recommendations contained in this Report or resulting from the work proposed may include decisions which are judgmental in nature and not necessarily based solely on pure science or engineering. It should be noted that our conclusions might be modified if subsurface conditions were better delineated with additional subsurface exploration including, but not limited to, test pits, soil borings with collection of soil and water samples, and laboratory testing.

Except as expressly provided in this limitations section, H-R makes no other representation or warranty of any kind whatsoever, oral or written, expressed or implied; and all implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed.



APPROXIMATE SCALE (feet)

0 1000 2000



LOCATION

NOTE:

Modified from Google Earth Pro aerial photograph.

Figure 1
General Site Location
Former Portland Gasworks Site
Commercial Street
Portland, Maine

File 17J109

January, 2018

HAGER-RICHTER
Salem, NH | Fords, NJ



N

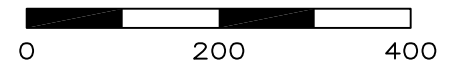


LEGEND



pVs TEST LINE
WITH MIDPOINT

SCALE (feet)



NOTE:

Modified from Google Earth Pro aerial photograph.

Figure 2
pVs Test Line Locations
Former Portland Gasworks Site
Commercial Street
Portland, Maine

File 17J109

January, 2018

HAGER-RICHTER
Salem, NH | Fords, NJ

APPENDIX

Boring Location Plan and Logs Provided by S.W. Cole



LEGEND:

APPROXIMATE BORING LOCATION

NOTES:

1. EXPLORATION LOCATION PLAN WAS PREPARED FROM A 1"=40' SCALE PLAN OF THE SITE ENTITLED "SITE GRADING CONCEPT," PREPARED BY WOODARD & CURRAN, DATED FEBRUARY 2016.
2. THE BORINGS WERE LOCATED IN THE FIELD BY MEASUREMENTS FROM EXISTING SITE FEATURES.
3. THIS PLAN SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT.
4. THE PURPOSE OF THIS PLAN IS ONLY TO DEPICT THE LOCATION OF THE EXPLORATIONS IN RELATION TO THE EXISTING CONDITIONS AND PROPOSED CONSTRUCTION AND IS NOT TO BE USED FOR CONSTRUCTION.

0 40 80 Feet

S.W. COLE
ENGINEERING, INC.

WOODARD & CURRAN
EXPLORATION LOCATION PLAN
PROPOSED LOW TEMP WAREHOUSE
460 COMMERCIAL STREET
PORTLAND, MAINE

Job No.: 16-1314 Date: 01/05/2018 Scale: 1" = 40' Sheet: 1



BORING LOG

CLIENT: Woodard & Curran
 PROJECT: Proposed IMT West Cold Storage Facility
 LOCATION: West Commercial Street, Portland, Maine

BORING NO.: B-1001
 SHEET: 1 of 1
 PROJECT NO. 16-1314
 DATE START: 12/20/2017
 DATE FINISH: 12/20/2017

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 14' +/- TOTAL DEPTH (FT): 25.0 LOGGED BY: Patrick Otto
 DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
 RIG TYPE: Track Mounted CME 850 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
 HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 300 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
 HAMMER EFFICIENCY FACTOR: 0.81 HAMMER DROP (inch): 30 / 16
 WATER LEVEL DEPTHS (ft): 4 ft 12/20/2017 Free water at 4'
 GENERAL NOTES: Backfilled borehole with bentonite and drill cuttings.

KEY TO NOTES AND SYMBOLS: Water Level
 At time of Drilling
 At Completion of Drilling
 After Drilling
 D = Split Spoon Sample
 U = Thin Walled Tube Sample
 R = Rock Core Sample
 V = Field Vane Shear
 Pen. = Penetration Length
 Rec. = Recovery Length
 bpf = Blows per Foot
 mpf = Minute per Foot
 WOR = Weight of Rods
 WOH = Weight of Hammer
 RQD = Rock Quality Designation
 PID = Photoionization Detector
 S_v = Field Vane Shear Strength, kips/sq.ft.
 q_u = Unconfined Compressive Strength, kips/sq.ft.
 N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			1D		0.5-2.5	24/18	13-9-7-8		Medium dense, brown silty gravelly SAND (FILL)		
			2D		5-7	24/12	5-4-6-4		Medium dense to loose, black gravel, some silt, some sand with wood (FILL) -petroleum odor		
			3D		10-12	24/12	4-3-4-3		-petroleum odor and sheen below 10'		
			4D		15-17	24/10	3-3-4-3		FILL and coal tar		
			5D		20-21.8	21/5	8-7-6-50/3"				
									Concrete		
									Coal tar in casing prevented further drilling		

Bottom of Exploration at 25.0 feet
 Abandoned hole at 25', excessive coal tar

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: B-1001



BORING LOG

BORING NO.: **B-1001A**

SHEET: 1 of 2

PROJECT NO. 16-1314

DATE START: 12/20/2017

DATE FINISH: 12/20/2017

CLIENT: Woodard & Curran

PROJECT: Proposed IMT West Cold Storage Facility

LOCATION: West Commercial Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 14' +/- TOTAL DEPTH (FT): 52.0 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 300 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.81 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): ∇ 5 ft 12/20/2017 Soils saturated below 5'
GENERAL NOTES: Moved boring 25' +/- west of B-1001. Backfilled borehole with bentonite and drill cuttings.

KEY TO NOTES AND SYMBOLS: ∇ Water Level ∇ At time of Drilling ∇ At Completion of Drilling ∇ After Drilling
D = Split Spoon Sample U = Thin Walled Tube Sample R = Rock Core Sample V = Field Vane Shear
Pen. = Penetration Length Rec. = Recovery Length bpf = Blows per Foot mpf = Minute per Foot
WOR = Weight of Rods WOH = Weight of Hammer RQD = Rock Quality Designation PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft. q_u = Unconfined Compressive Strength, kips/sq.ft. N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
10	5								Brown-black gravelly silty SAND with brick (FILL)	∇	
5	10										
0	15		1D	X	15-17	24/12	9-6-4-7		-petroleum odor and sheen		
-5	20		2D	X	20-22	24/22	WOH FOR 12"-2-3 w =31.2 % O =2.0%		19.0 Very loose to loose, gray SAND and silt, some clay with shells (Bay Mud)		
-10	25		3D	X	25-27	24/20	2-4-3-3		24.0 Loose to medium dense, gray SAND and silt with frequent silty clay layers		
-15	30		4D	X	30-32	24/18	3-5-5-6 w =24.5 %				
-20	35		5D	X	35-37	24/2	4-3-10-9				
-25											

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: **B-1001A**



BORING LOG

CLIENT: Woodard & Curran

PROJECT: Proposed IMT West Cold Storage Facility

LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B-1001A**

SHEET: 2 of 2

PROJECT NO. 16-1314

DATE START: 12/20/2017

DATE FINISH: 12/20/2017

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			6D	X	40-42	24/24	4-3-4-6		Loose to medium dense, gray silty SAND with clay layers		
-30	45		7D	X	45-47	24/24	WOH FOR 12"-5-5	w =19.4 %			
-35	50		8D	X	50-52	24/18	7-11- 11-12	w =21.2 %	49.0 Medium dense, brown silty SAND with clay layers		

52.0 Bottom of Exploration at 52.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1001A**



BORING LOG

BORING NO.: **B-1002**
SHEET: 1 of 2
PROJECT NO. 16-1314
DATE START: 12/27/2017
DATE FINISH: 12/27/2017

CLIENT: Woodard & Curran
PROJECT: Proposed IMT West Cold Storage Facility
LOCATION: West Commercial Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 12' +/- TOTAL DEPTH (FT): 52.0 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 300 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.79 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): ∇ 7 ft 12/27/2017 Soils saturated below 7'

GENERAL NOTES: Backfilled borehole with bentonite to 16' below ground surface.

KEY TO NOTES AND SYMBOLS: Water Level
 ∇ At time of Drilling D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods
 ∇ At Completion of Drilling U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer
 ∇ After Drilling R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation q_u = Unconfined Compressive Strength, kips/sq.ft.
V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
10			1D	X	3-5	24/126	4-4-3-2		Concrete		
5			2D	X	5-7	24/15	4-4-4-4		1.1 Loose, brown silty SAND (FILL)		
5									6.5 Loose, black silty SAND (FILL) -petroleum odor	∇	
10			3D	X	10-12	24/14	4-7-9-6		9.0 Medium dense, gray gravelly SAND, some silt -petroleum odor		
0									14.0 Very loose, gray silty SAND with organics -petroleum odor and sheen		
15			4D	X	15-17	24/11	4-1-1-1	w =28.8 % O =1.9%	19.0 Medium dense, gray silty gravelly SAND		
-5									24.0 Medium dense to loose, light brown silty SAND with silty clay layers		
20			5D	X	20-22	24/14	2-5-7-13				
-10											
25			6D	X	25-27	24/14	3-3-9-7	w =25 %			
-15											
30			7D	X	30-32	24/12	4-8-8-7				
-20											
35			8D	X	35-37	24/20	5-4-6-6	w =22.4 %			
-25											

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: **B-1002**



BORING LOG

CLIENT: Woodard & Curran
 PROJECT: Proposed IMT West Cold Storage Facility
 LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B-1002**
 SHEET: 2 of 2
 PROJECT NO. 16-1314
 DATE START: 12/27/2017
 DATE FINISH: 12/27/2017

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
-30	45		9D	X	40-42	24/18	6-4-2-5		40.0 Loose, gray silty SAND, some gravel with silty clay layers		
-35									45.0 Medium dense, gray SAND and silt		
-50			10D	X	50-52	24/14	4-8-18-19	w =23.1 %			
-40									52.0 Bottom of Exploration at 52.0 feet		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1002**



BORING LOG

BORING NO.: B-1003**SHEET:** 1 of 2**PROJECT NO.:** 16-1314**DATE START:** 12/21/2017**DATE FINISH:** 12/21/2017**CLIENT:** Woodard & Curran**PROJECT:** Proposed IMT West Cold Storage Facility**LOCATION:** West Commercial Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan **ELEVATION (FT):** 12' +/- **TOTAL DEPTH (FT):** 82.0 **LOGGED BY:** Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC **DRILLER:** Jeff Lee **DRILLING METHOD:** Cased Boring
RIG TYPE: Track Mounted CME 850 **AUGER ID/OD:** N/A / N/A **SAMPLER:** Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic **HAMMER WEIGHT (lbs):** 140 / 300 **CASING ID/OD:** 4 in / 4 1/2 in **CORE BARREL:**
HAMMER EFFICIENCY FACTOR: 0.81 **HAMMER DROP (inch):** 30 / 16
WATER LEVEL DEPTHS (ft): ∇ 4.5 ft 12/21/2017 Free water at 4.5'

GENERAL NOTES: Moved borehole 8-10' west after drilling through concrete at 4-5' and void from 5-10'. Backfilled borehole with bentonite to 16' below ground surface.

KEY TO NOTES AND SYMBOLS: ∇ Water Level ∇ At time of Drilling ∇ At Completion of Drilling ∇ After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
10									Medium dense, black-brown silty gravelly SAND with brick (FILL) -Petroleum odor at 5-7'		
5			1D	X	5-7	24/19	5-12-8-3				
5											
10			2D	X	10-11.5	18/7	1-1-1-25/0"		Very loose		
0									11.5 Concrete		
15			3D	X	15-17	24/13	6-12-12-16		13.0 Medium dense, black sandy SILT with ash (FILL) -Petroleum odor and sheen		
-5											
20			4D	X	20-22	24/9	6-6-4-3	w = 22.6 % O = 1.7%	19.0 Medium dense to loose, gray-brown silty SAND with wood		
-10											
25			5D	X	25-27	24/15	WOH-1-1-1	w = 39.7 % O = 2.8%	Very loose, gray sandy SILT with shells and organics (Bay Mud)		
-15											
30			6D	X	30-32	24/24	WOH FOR 24"		29.0 Medium to stiff, gray silty CLAY with shells and organics to 32'		
-20											
35			1U	■	35-37	24/24		W _L =55 W _P =30			
-25			1V 1V'	■	37-37.5 37.5-38	6 6		S _v =1.55/0.31ksf S _v =1.61/0.31ksf			

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: B-1003



BORING LOG

CLIENT: Woodard & Curran
 PROJECT: Proposed IMT West Cold Storage Facility
 LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B-1003**
 SHEET: 2 of 2
 PROJECT NO. 16-1314
 DATE START: 12/21/2017
 DATE FINISH: 12/21/2017

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
-30									Medium to stiff, gray silty CLAY		
-45			2U		45-47	24/24					
-35			2V		47-47.5	6			W _L =55 W _P =27 S _v =1.92/0.43ksf S _v =2.11/0.62ksf		
			2V'		47.5-48	6					
-50											
-55			3U		55-57	24/24					
-45			3V		57-57.5	6			W _L =48 W _P =25 S _v =1.61/0.43ksf S _v =1.92/0.43ksf		
			3V'		57.5-58	6					
-60			7D		60-62	24/24	WOH- WOH FOR 12"-2		59.0 Very loose, gray SAND and silt with shells and wood		
-50											
-65			8D		65-67	24/24	1-1-2-2	w =23.6 %			
-55											
-70			9D		70-72	24/19	7-16- 21-22	w =16.5 %	69.0 Dense, gray fine to medium SAND, some gravel, some silt		
-60											
-75											
-80			10D		80-82	24/21	8-18- 20-29	w =20.6 %	79.0 Dense, gray silty fine to medium SAND		
-70									82.0 Bottom of Exploration at 82.0 feet		

BORING / WELL 16-1314.GPJ SWCE TEMPLATE.GDT 1/29/18

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1003**



BORING LOG

CLIENT: Woodard & Curran
PROJECT: Proposed IMT West Cold Storage Facility
LOCATION: West Commercial Street, Portland, Maine

BORING NO.: B-1004
SHEET: 1 of 2
PROJECT NO. 16-1314
DATE START: 12/18/2017
DATE FINISH: 12/18/2017

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 10' +/- TOTAL DEPTH (FT): 82.0 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 140 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.81 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): 8 ft 12/18/2017 Soils wet 5-7' and saturated below 8'.
GENERAL NOTES: Backfilled borehole with bentonite to 22' below ground surface.

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling
▽ At Completion of Drilling
▽ After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			1D	X	0-2	24/16	5-5-6-6		Medium dense, brown-gray-black silty gravelly SAND (FILL)		
5	5		2D	X	5-7	24/8	4-1-1-1		5.5 Very loose, gray SAND and silt, some clay with shells (FILL) -naphthalene odor	▽	
0	10		3D	X	10-12	24/10	5-3-6-6		8.0 Loose, brown-black silty SAND and gravel (FILL) -petroleum sheen and naphthalene odor		
-5	15		4D	X	15-17	24/12	2-3-2-2				
-10	20		5D	X	20-22	24/13	1-2-1-1	w=31 % O=1.8%	19.0 Very loose, gray SILT and sand, trace gravel with shells, organics (Bay Mud)		
-15	25		6D	X	25-27	24/24	WOH FOR 24"	w=48.3 % O=2.9%	24.0 Medium to stiff, gray silty CLAY with sand layers/seams		
-20	30		1U	■	30-32	24/12		W _L =47 W _P =28 w=53.4 % S _v =1.05/0.27ksf S _v =1.09+ksf			
			1V	■	32-32.7	8					
			1V	■	32.7- 33.4	8					
-25	35										

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: B-1004



BORING NO.: B-1004

SHEET: 2 of 2

PROJECT NO. 16-1314

DATE START: 12/18/2017

DATE FINISH: 12/18/2017

CLIENT: Woodard & Curran

PROJECT: Proposed IMT West Cold Storage Facility

LOCATION: West Commercial Street, Portland, Maine

BORING / WELL 16-1314.GPJ SWCE TEMPLATE.GDT 1/29/18

BORING NO.: B-1004



BORING LOG

BORING NO.: **B-1005**

SHEET: 1 of 2

PROJECT NO. 16-1314

DATE START: 12/19/2017

DATE FINISH: 12/19/2017

CLIENT: Woodard & Curran

PROJECT: Proposed IMT West Cold Storage Facility

LOCATION: West Commercial Street, Portland, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 11' +/- TOTAL DEPTH (FT): 82.0 LOGGED BY: Patrick Otto
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic / Automatic HAMMER WEIGHT (lbs): 140 / 140 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.81 HAMMER DROP (inch): 30 / 16
WATER LEVEL DEPTHS (ft): 8 ft 12/19/2017 Soils saturated below 8'

GENERAL NOTES: Backfilled borehole with bentonite to 19' below ground surface.

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling
▽ At Completion of Drilling
▽ After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
10			1D		0-2	24/16	3-6-11-18		Medium dense to very loose, brown-black silty gravelly SAND with brick (FILL) -petroleum odor and sheen below-		
5			2D		5-7	24/18	13-15-6-8				
0			3D		10-12	24/18	1-2-1-2				
-5			4D		15-17	24/7	2-1-1-3				
-10			5D		20-22	24/16	4-6-5-6				
-15			6D		25-27	24/1	6-4-2-2				
-20			7D		30-32	24/5	1-1-2-3				
-25			1U		35-37	24/24					
			1V		37-37.5	6					
			1V		37.5-38	6					

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: **B-1005**



BORING LOG

CLIENT: Woodard & Curran
 PROJECT: Proposed IMT West Cold Storage Facility
 LOCATION: West Commercial Street, Portland, Maine

BORING NO.: **B-1005**
 SHEET: 2 of 2
 PROJECT NO. 16-1314
 DATE START: 12/19/2017
 DATE FINISH: 12/19/2017

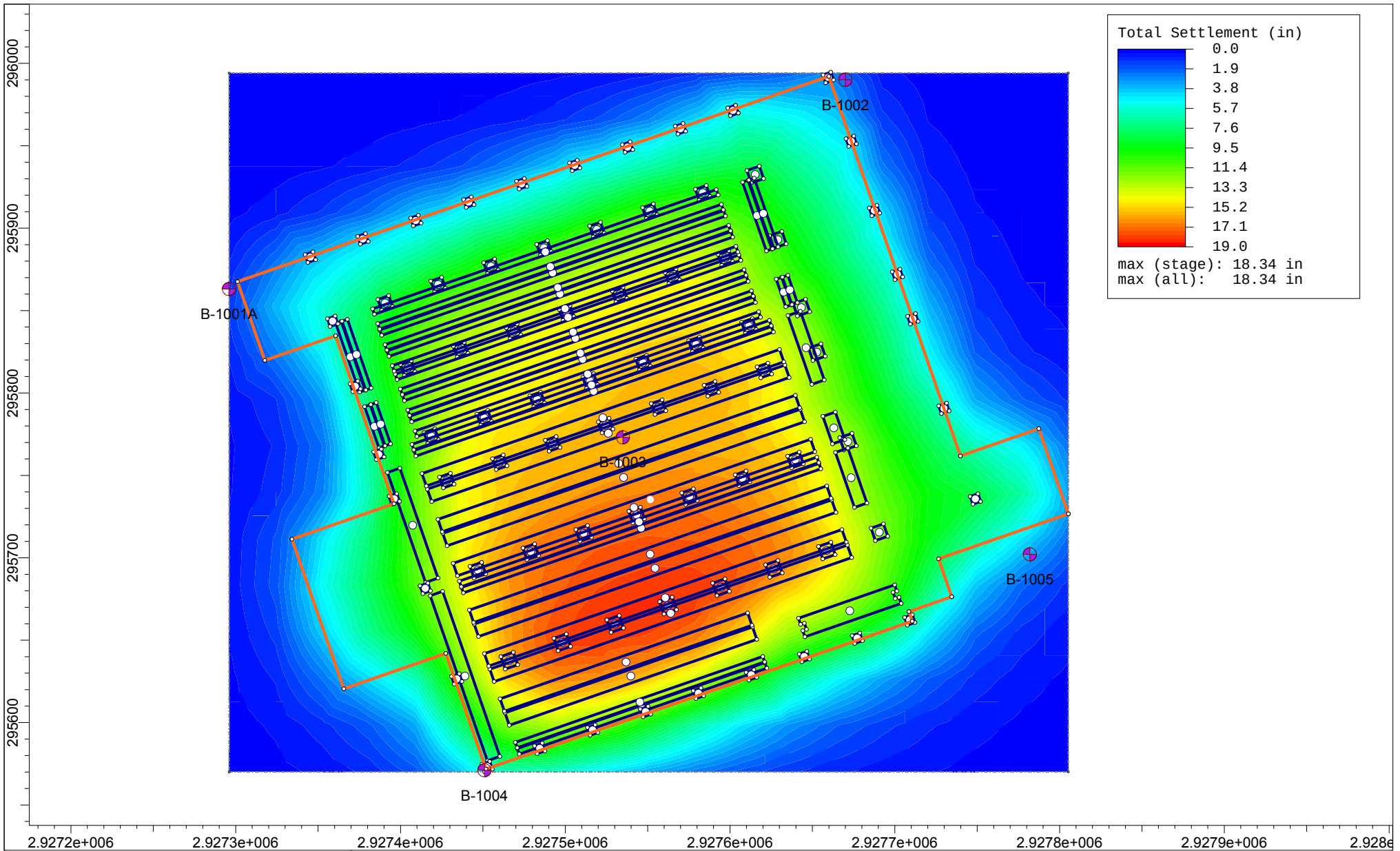
Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
-30									Medium to stiff, gray silty CLAY with sand layers/seams		
-35	45		2U		45-47	24/22					
			2V		47-47.5	6			W _L =54 W _P =29 w=51.1 % S _v =2.17/0.43ksf S _v =2.17/0.62ksf		
			2V'		47.5-48	6					
-40	50										
-45	55		3U		55-57	24/21					
			3V		57-57.5	6			W _L =43 W _P =24 w=41.2 % S _v =2.05/0.56ksf S _v =2.17/0.50ksf		
			3V'		57.5-58	6					
-50	60		8D		60-62	24/18	4-3-4-5		w=23 %	59.0	Loose to medium dense, gray silty fine to coarse SAND with wood and pinecones
-55	65		9D		65-67	24/16	6-7-11-15				
-60	70		10D		70-72	24/10	5-5-5-2		w=21.1 %	69.0	Loose to medium dense, gray SAND, some silt, some gravel
-65	75									75.0	Medium dense, gray silty SAND
-70	80		11D		80-82	24/18	2-5-11-13		w=21 %		
										82.0	Bottom of Exploration at 82.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1005**



ATTACHMENT D: GRAPHICAL MODEL OF POTENTIAL TOTAL SETTLEMENT



Project

Proposed IMT West Cold Storage Facility

Analysis Description

Drawn By

EJB

Company

S.W. Cole Engineering

Date

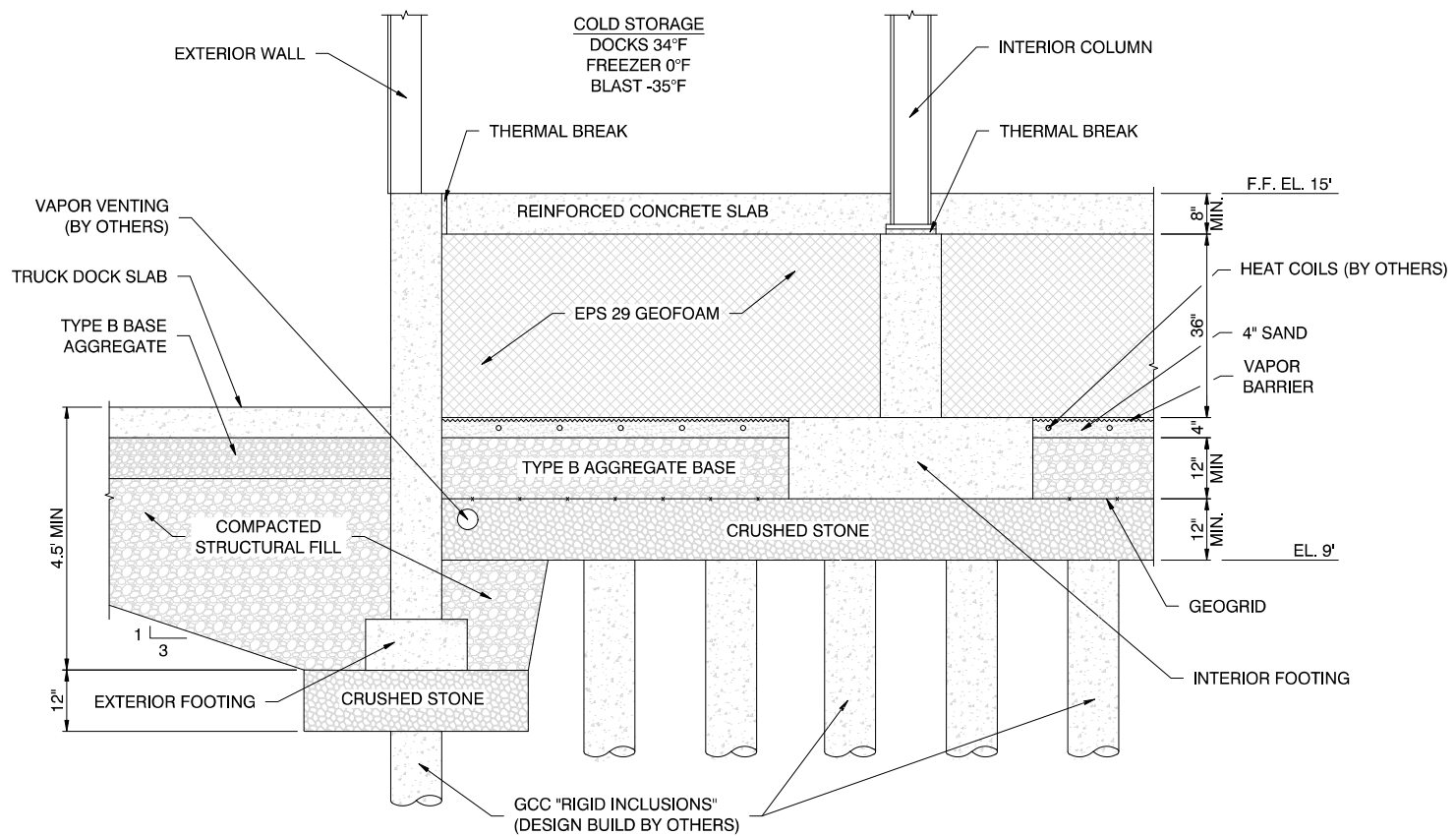
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File Name

IMT Site.s3z



ATTACHMENT E: FOUNDATION DETAIL SKETCHES

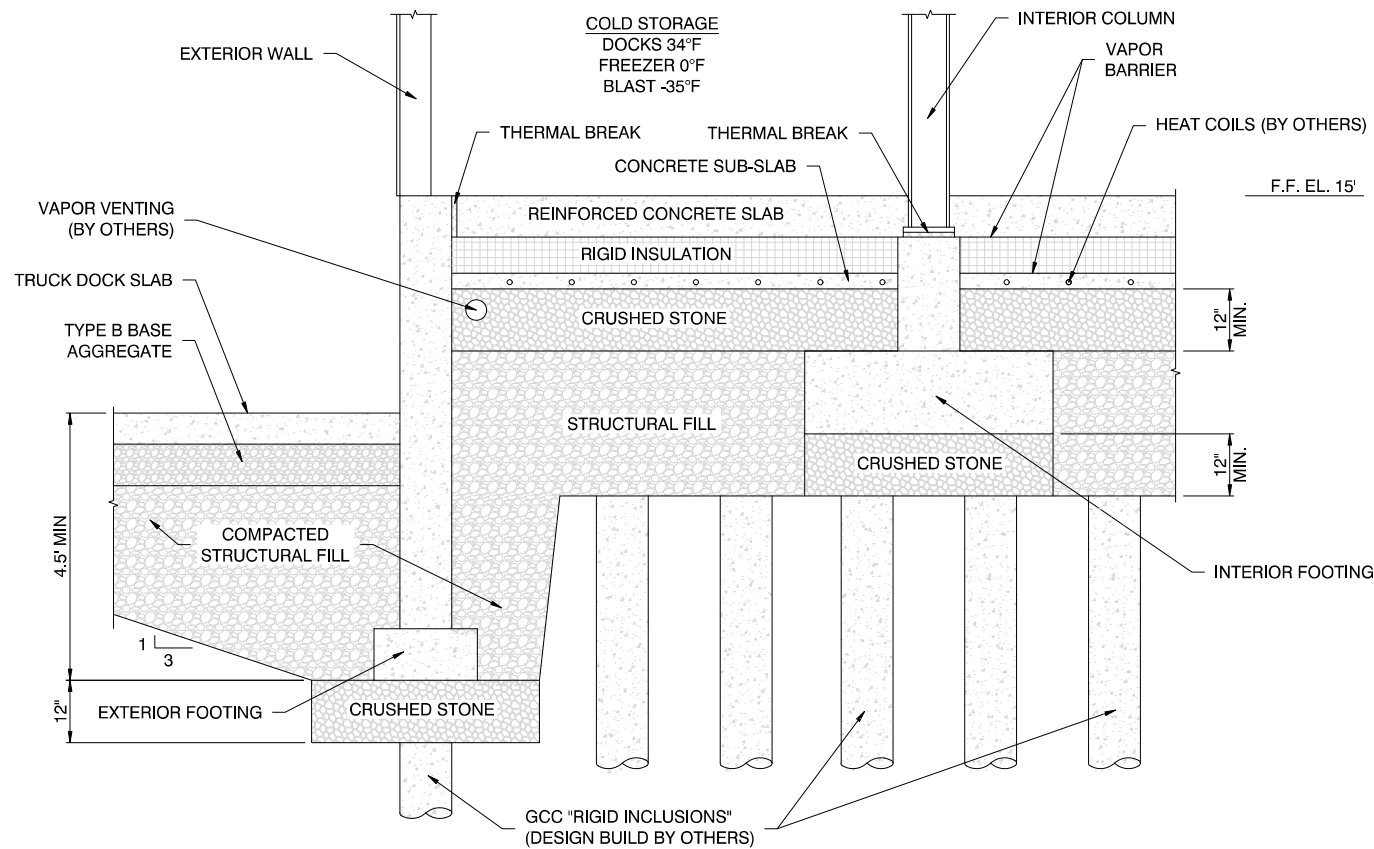


WOODARD & CURRAN

FOUNDATION DETAIL SKETCH

PROPOSED LOW TEMP WAREHOUSE
460 COMMERCIAL STREET
PORTLAND, MAINE

Job No.:	16-1314	Scale:	Not to Scale
Date :	02/14/2018	Sheet:	1

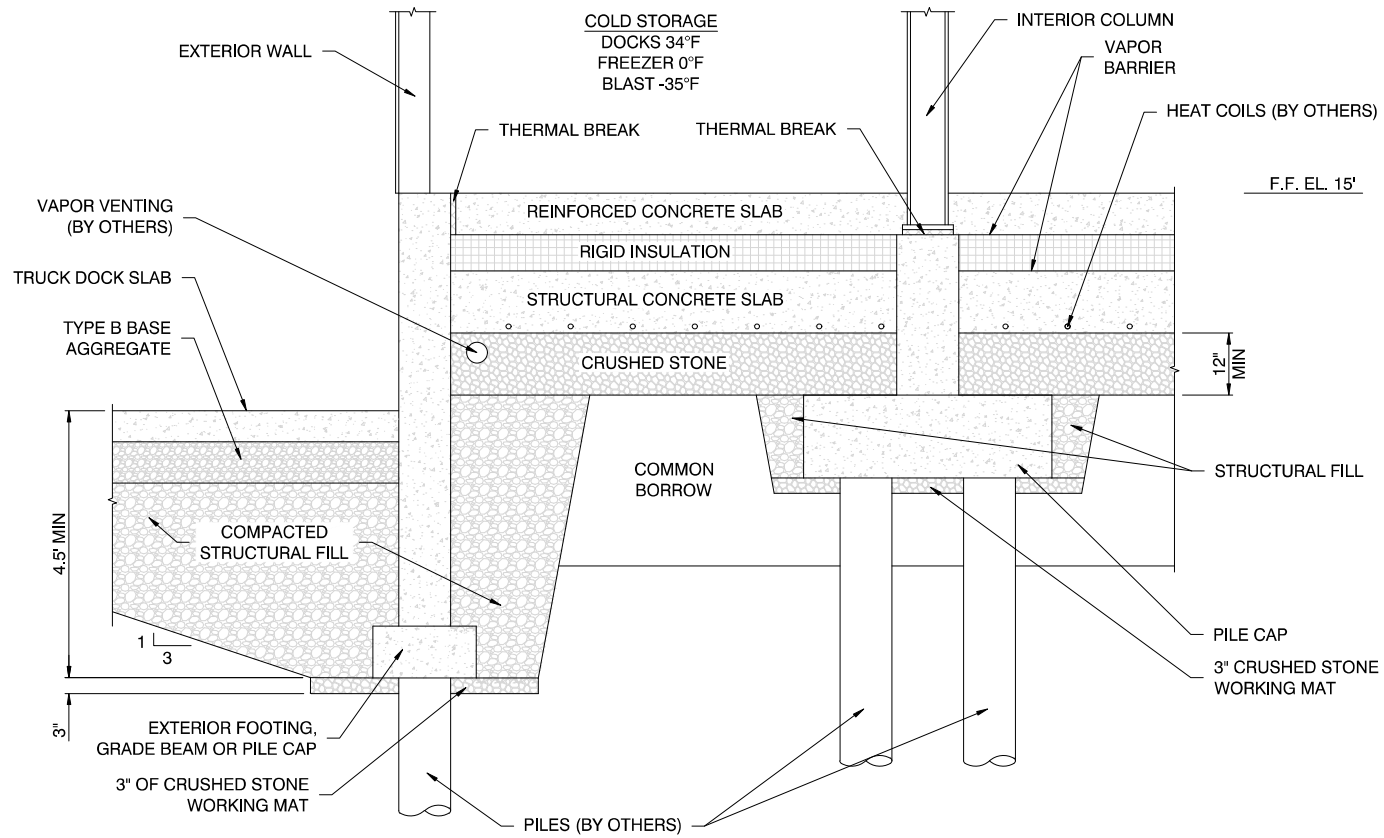


WOODARD & CURRAN

FOUNDATION DETAIL SKETCH

PROPOSED LOW TEMP WAREHOUSE
460 COMMERCIAL STREET
PORTLAND, MAINE

Job No.:	16-1314	Scale:	Not to Scale
Date :	02/14/2018	Sheet:	2



WOODARD & CURRAN

FOUNDATION DETAIL SKETCH

PROPOSED LOW TEMP WAREHOUSE
460 COMMERCIAL STREET
PORTLAND, MAINE

Job No.: 16-1314
Date : 02/14/2018

Scale: Not to Scale
Sheet: 3



ATTACHMENT F: BUDGET ESTIMATE SUMMARIES



Option 1: Geopier GeoConcrete Columns (GCC)

Estimate Detail - Maine Port Authority - Cold Storage Site Preparation (GCC Option #1)

Recap - With Taxes and Insurance

Group 1: Divisions

Group 2: Major ItemCode Groups

Estimator : John Brockington

Project Size : 0 SQFT

Description	Quantity	UM	Labor	Material	Subcontract	Cons. Eqp.	Proc. Eqp.	Unit Cost	Total Cost
General Conditions									
Administrative requirements			116,626.46	12,459.08	402.00	8,953.99			138,442
Quality requirements					15,000.00				15,000
Temporary facilities and controls			742.50	10,529.75	267.00	4,190.97			15,730
Execution requirements				972.00	2,947.50				3,920
* Total General Conditions	1.00	LS	117,368.96	23,960.83	18,616.50	13,144.97		173,091.26	173,091
Sitework									
Site preparation			21,707.16	3,775.06		41,535.52			67,018
Earthwork			235,716.66	281,772.20	1,377,600.00	322,247.98			2,217,337
Foundations			90,946.31	1,056,940.00	3,508,934.76				4,656,821
* Total Sitework	1.00	LS	348,370.13	1,342,487.26	4,886,534.76	363,783.50		6,941,175.65	6,941,176
Total Gross Cost			465,739.09	1,366,448.09	4,905,151.26	376,928.47			7,114,267

Estimate Detail - Maine Port Authority - Cold Storage Site Preparation (GCC Option #1)

Detail - With Taxes and Insurance

Group 1: Divisions

Group 2: Major ItemCode Groups

Estimator : John Brockington

Project Size : 0 SQFT

Description	Quantity	UM	Labor	Material	Subcontract	Cons. Eqp.	Proc. Eqp.	Unit Cost	Total Cost
General Conditions									
Administrative requirements									
Mobilize/Demobilize	1.00	LS	5,062.46	896.00		8,953.99		14,912.45	14,912
Project Manager	6.00	WEEK	22,680.00					3,780.00	22,680
Project Superintendent	14.00	WEEK	49,140.00					3,510.00	49,140
Field Engineer	12.00	WEEK	29,808.00					2,484.00	29,808
Safety Engineer	4.00	WEEK	9,936.00					2,484.00	9,936
Permit (Allowance)	1.00	LS		9,345.79				9,345.79	9,346
Purchase drawings	1.00	LS		467.29				467.29	467
Travel expenses	14.00	WEEK		1,750.00				125.00	1,750
Progress photographs	3.00	MO			402.00			134.00	402
** Total Administrative requirements			116,626.46	12,459.08	402.00	8,953.99			138,442
Quality requirements									
Testing (Allowance)	1.00	LS			15,000.00			15,000.00	15,000
** Total Quality requirements					15,000.00				15,000
Temporary facilities and controls									
Job telephone	3.00	MO		1,050.00				350.00	1,050
Electrical energy costs	3.00	MO		1,350.00				450.00	1,350
Water usage costs	3.00	MO		300.00	267.00			189.00	567
Office trailer	3.00	MO		1,350.00				450.00	1,350
Storage trailer(s)	3.00	MO		375.00				125.00	375
Temporary toilets	3.00	MO		1,020.00				340.00	1,020
Water, ice and cups	3.00	MO		427.50				142.50	428
First aid supplies	3.00	MO		150.00				50.00	150
Safety supplies	3.00	MO		456.75				152.25	457
Office supplies	3.00	MO		250.50				83.50	251
Small tools	3.00	MO				520.86		173.62	521
Gasoline and lubricating oil	800.00	GALS		2,800.00				3.50	2,800
Automobile	1.50	MO				931.50		621.00	932
Pick-up truck	3.00	MO				2,738.61		912.87	2,739
Job sign	2.00	EACH	742.50	1,000.00				871.25	1,743
** Total Temporary facilities and controls			742.50	10,529.75	267.00	4,190.97			15,730
Execution requirements									
Layout supplies	12.00	WEEK		972.00				81.00	972
Rubbish removal	180.00	CUYD			2,947.50			16.38	2,948
** Total Execution requirements				972.00	2,947.50				3,920
* Total General Conditions	1.00	LS	117,368.96	23,960.83	18,616.50	13,144.97		173,091.26	173,091
Sitework									
Site preparation									
Erosion control	1,500.00	LNFT	2,768.50	1,045.80				2.54	3,814
Rough grading	2.54	ACRE	4,673.26	2,089.26		4,619.08		4,482.66	11,382
Dewatering pumps	2.00	EACH	5,272.87			33,000.00		19,136.43	38,273
Dewatering sumps	100.00	LNFT	8,992.53	640.00		3,916.44		135.49	13,549
** Total Site preparation			21,707.16	3,775.06		41,535.52			67,018
Earthwork									
Site cut to waste (Assumed Qty)	22,400.00	CUYD	53,218.14	23,793.28		79,836.42		7.00	156,848

Estimate Detail - Maine Port Authority - Cold Storage Site Preparation (GCC Option #1)

Detail - With Taxes and Insurance

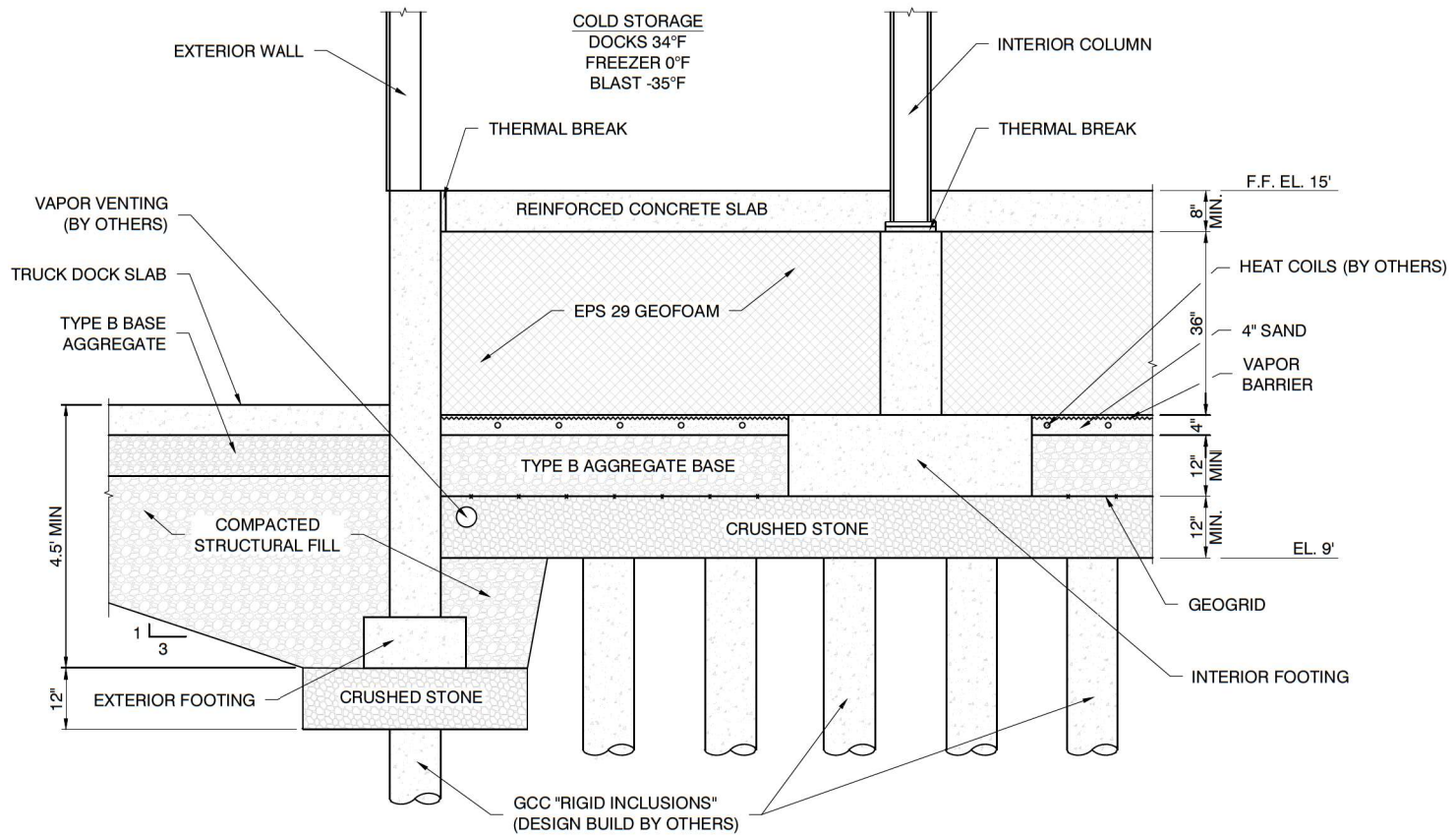
Group 1: Divisions

Group 2: Major ItemCode Groups

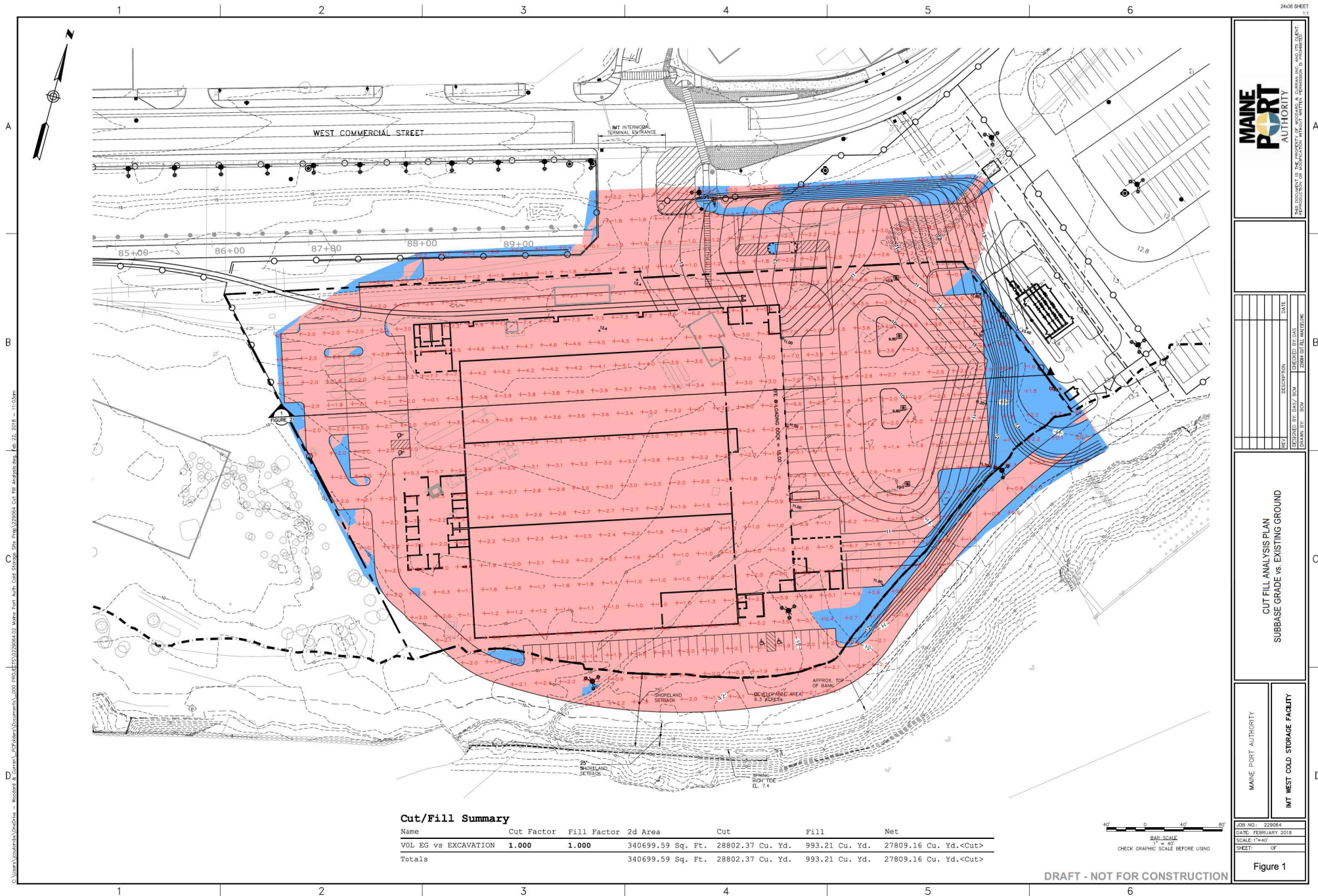
Estimator : John Brockington

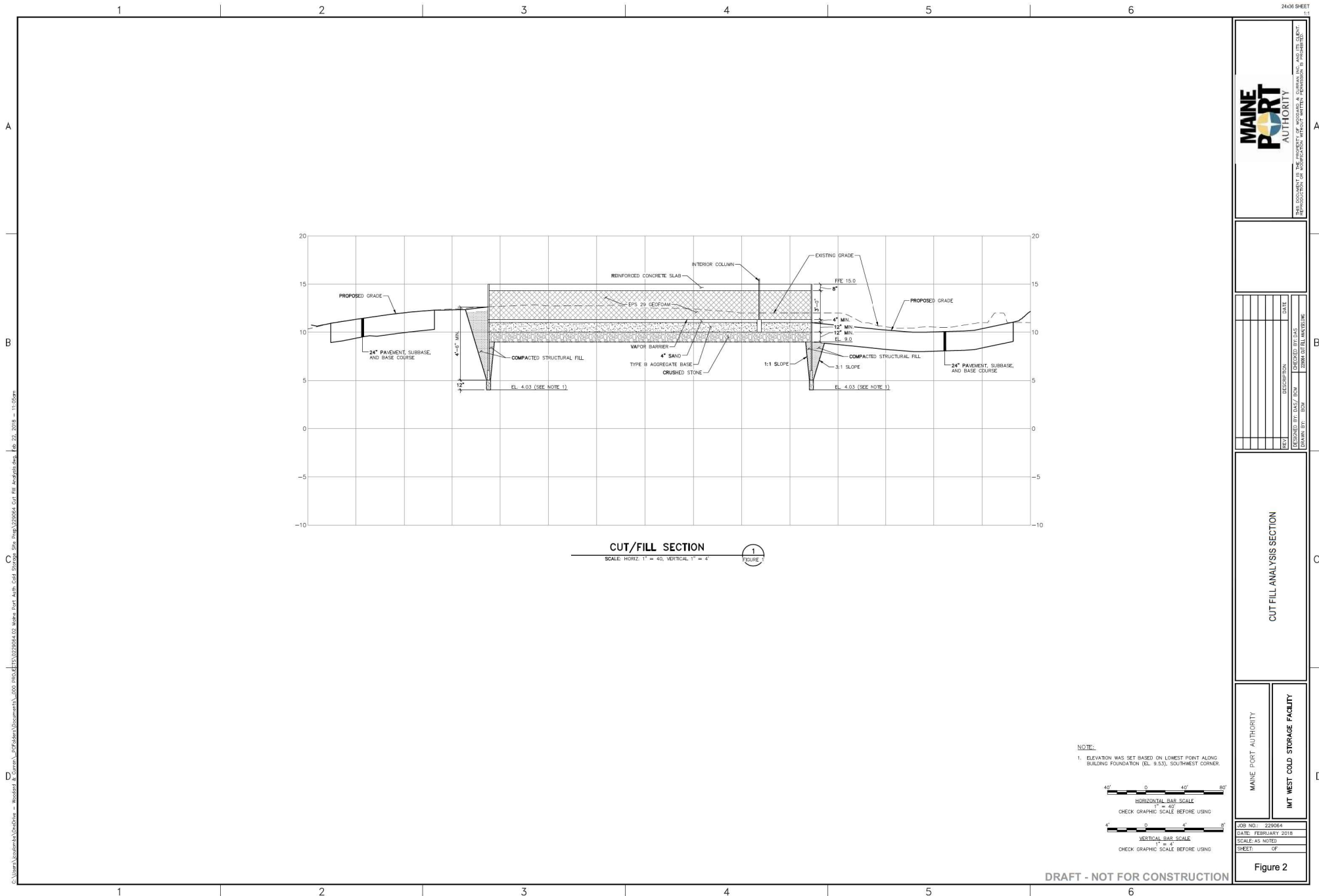
Project Size : 0 SQFT

Description	Quantity	UM	Labor	Material	Subcontract	Cons. Eqp.	Proc. Eqp.	Unit Cost	Total Cost
Haul excavated material 8-10 miles (Assumed QTY)	33,600.00	TONS	63,852.60	11,299.68		112,935.06		5.60	188,087
Contaminated soil disposal	33,600.00	TONS			1,377,600.00			41.00	1,377,600
Compact subgrade	110,600.00	SQFT	28,493.33	12,741.12		28,171.31		0.63	69,406
Vapor barrier	121,660.00	SQFT	21,286.24	3,090.16				0.20	24,376
Sand fill layer, 4" depth	1,844.00	CUYD	7,376.36	12,357.93		13,453.49		18.00	33,188
Type B aggregate base layer, 12" depth	5,530.00	CUYD	25,286.84	72,387.15		46,119.79		26.00	143,794
Geogrid soil stabilization	12,290.00	SQYD	13,900.67	45,254.24		1,055.77		4.90	60,211
Crushed stone layer, 12" depth	5,120.00	CUYD	22,302.49	100,848.64		40,676.13		32.00	163,827
** Total Earthwork			235,716.66	281,772.20	1,377,600.00	322,247.98			2,217,337
Foundations									
Geopier GCC Ground Improvement	118,000.00	SQFT			3,400,004.80			28.81	3,400,005
Geofoam, EPS 29	12,290.00	CUYD	90,946.31	1,056,940.00	108,929.96			102.26	1,256,816
** Total Foundations			90,946.31	1,056,940.00	3,508,934.76				4,656,821
* Total Sitework	1.00	LS	348,370.13	1,342,487.26	4,886,534.76	363,783.50		6,941,175.65	6,941,176
Total Gross Cost			465,739.09	1,366,448.09	4,905,151.26	376,928.47			7,114,267



 S.W. COLE ENGINEERING, INC.		
WOODARD & CURRAN FOUNDATION DETAIL SKETCH PROPOSED LOW TEMP WAREHOUSE 460 COMMERCIAL STREET PORTLAND, MAINE		
Job No.:	16-1314	Scale: Not to Scale
Date :	02/14/2018	Sheet: 2







Option 2: Geopier GeoConcrete Columns (GCC)

Estimate Detail - Maine Port Authority - Cold Storage Site Preparation (GCC Option #2)

Recap - With Taxes and Insurance

Group 1: Divisions

Group 2: Major ItemCode Groups

Estimator : John Brockington

Project Size : 0 SQFT

Description	Quantity	UM	Labor	Material	Subcontract	Cons. Eqp.	Proc. Eqp.	Unit Cost	Total Cost
General Conditions									
Administrative requirements			116,626.46	12,459.08	402.00	8,953.99			138,442
Quality requirements					15,000.00				15,000
Temporary facilities and controls			742.50	10,529.75	267.00	4,190.97			15,730
Execution requirements				972.00	2,947.50				3,920
* Total General Conditions	1.00	LS	117,368.96	23,960.83	18,616.50	13,144.97		173,091.26	173,091
Sitework									
Site preparation			21,707.16	3,775.06		41,535.52			67,018
Earthwork			211,675.35	274,565.61	1,094,700.00	282,660.98			1,863,602
Foundations					3,133,000.00				3,133,000
* Total Sitework	1.00	LS	233,382.51	278,340.67	4,227,700.00	324,196.50		5,063,619.68	5,063,620
Total Gross Cost			350,751.47	302,301.50	4,246,316.50	337,341.47			5,236,711

Estimate Detail - Maine Port Authority - Cold Storage Site Preparation (GCC Option #2)

Detail - With Taxes and Insurance

Group 1: Divisions

Group 2: Major ItemCode Groups

Estimator : John Brockington

Project Size : 0 SQFT

Description	Quantity	UM	Labor	Material	Subcontract	Cons. Eqp.	Proc. Eqp.	Unit Cost	Total Cost
General Conditions									
Administrative requirements									
Mobilize/Demobilize	1.00	LS	5,062.46	896.00		8,953.99		14,912.45	14,912
Project Manager	6.00	WEEK	22,680.00					3,780.00	22,680
Project Superintendent	14.00	WEEK	49,140.00					3,510.00	49,140
Field Engineer	12.00	WEEK	29,808.00					2,484.00	29,808
Safety Engineer	4.00	WEEK	9,936.00					2,484.00	9,936
Permit (Allowance)	1.00	LS		9,345.79				9,345.79	9,346
Purchase drawings	1.00	LS		467.29				467.29	467
Travel expenses	14.00	WEEK		1,750.00				125.00	1,750
Progress photographs	3.00	MO			402.00			134.00	402
** Total Administrative requirements			116,626.46	12,459.08	402.00	8,953.99			138,442
Quality requirements									
Testing (Allowance)	1.00	LS			15,000.00			15,000.00	15,000
** Total Quality requirements					15,000.00				15,000
Temporary facilities and controls									
Job telephone	3.00	MO		1,050.00				350.00	1,050
Electrical energy costs	3.00	MO		1,350.00				450.00	1,350
Water usage costs	3.00	MO		300.00	267.00			189.00	567
Office trailer	3.00	MO		1,350.00				450.00	1,350
Storage trailer(s)	3.00	MO		375.00				125.00	375
Temporary toilets	3.00	MO		1,020.00				340.00	1,020
Water, ice and cups	3.00	MO		427.50				142.50	428
First aid supplies	3.00	MO		150.00				50.00	150
Safety supplies	3.00	MO		456.75				152.25	457
Office supplies	3.00	MO		250.50				83.50	251
Small tools	3.00	MO				520.86		173.62	521
Gasoline and lubricating oil	800.00	GALS		2,800.00				3.50	2,800
Automobile	1.50	MO				931.50		621.00	932
Pick-up truck	3.00	MO				2,738.61		912.87	2,739
Job sign	2.00	EACH	742.50	1,000.00				871.25	1,743
** Total Temporary facilities and controls			742.50	10,529.75	267.00	4,190.97			15,730
Execution requirements									
Layout supplies	12.00	WEEK		972.00				81.00	972
Rubbish removal	180.00	CUYD			2,947.50			16.38	2,948
** Total Execution requirements				972.00	2,947.50				3,920
* Total General Conditions	1.00	LS	117,368.96	23,960.83	18,616.50	13,144.97		173,091.26	173,091
Sitework									
Site preparation									
Erosion control	1,500.00	LNFT	2,768.50	1,045.80				2.54	3,814
Rough grading	2.54	ACRE	4,673.26	2,089.26		4,619.08		4,482.66	11,382
Dewatering pumps	2.00	EACH	5,272.87			33,000.00		19,136.43	38,273
Dewatering sumps	100.00	LNFT	8,992.53	640.00		3,916.44		135.49	13,549
** Total Site preparation			21,707.16	3,775.06		41,535.52			67,018
Earthwork									
Site cut to waste (Assumed Qty)	17,800.00	CUYD	42,289.42	18,907.16		63,441.44		7.00	124,638

Estimate Detail - Maine Port Authority - Cold Storage Site Preparation (GCC Option #2)

Detail - With Taxes and Insurance

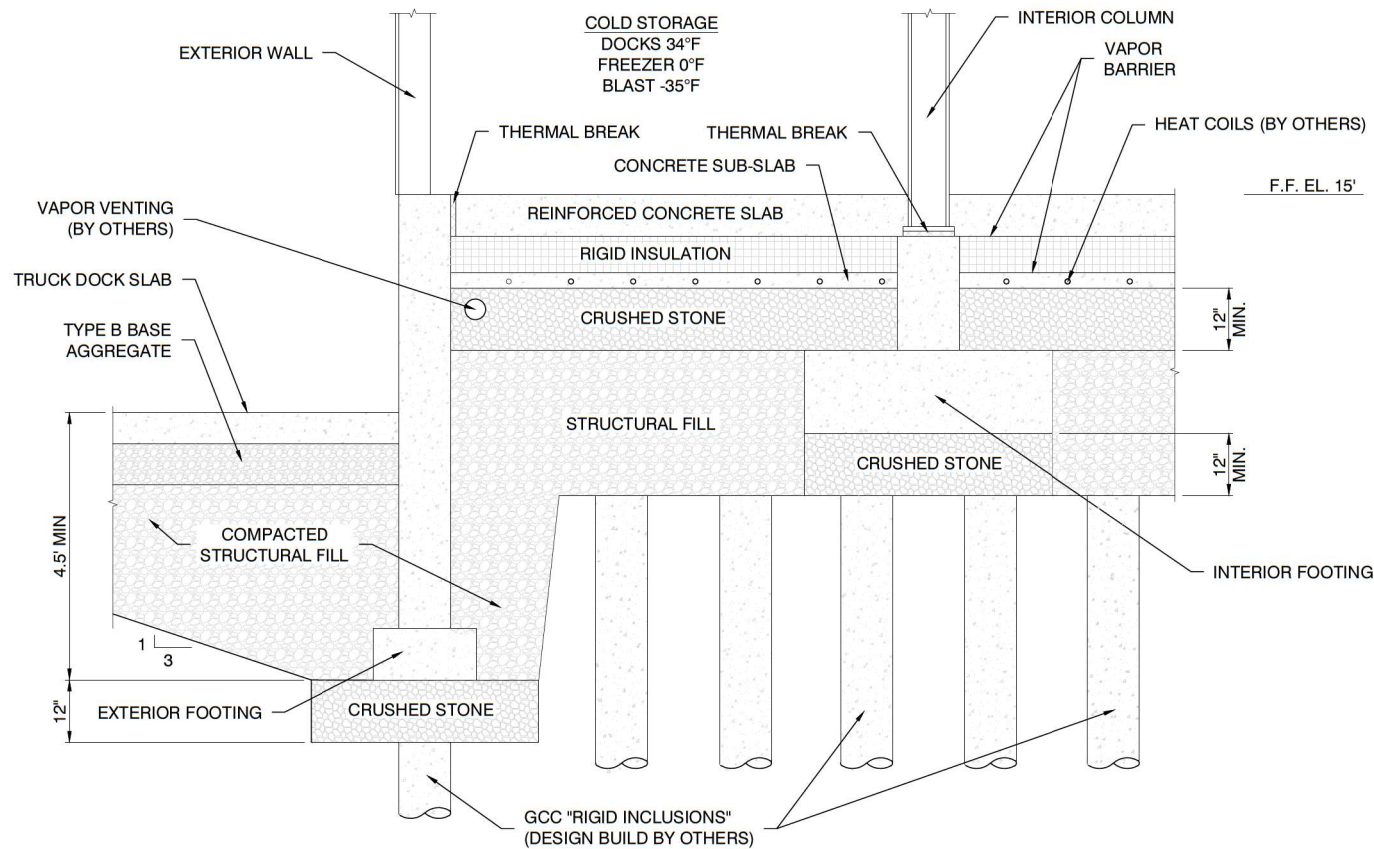
Group 1: Divisions

Group 2: Major ItemCode Groups

Estimator : John Brockington

Project Size : 0 SQFT

Description	Quantity	UM	Labor	Material	Subcontract	Cons. Eqp.	Proc. Eqp.	Unit Cost	Total Cost
Haul excavated material 8-10 miles (Assumed QTY)	26,700.00	TONS	50,740.01	8,979.21		89,743.04		5.60	149,462
Contaminated soil disposal	26,700.00	TONS			1,094,700.00			41.00	1,094,700
Compact subgrade	110,600.00	SQFT	28,493.33	12,741.12		28,171.31		0.63	69,406
Vapor barrier	121,660.00	SQFT	21,286.24	3,090.16				0.20	24,376
Sand fill layer, 4" depth	1,844.00	CUYD	7,376.36	12,357.93		13,453.49		18.00	33,188
Type B aggregate base layer, 12" depth	5,530.00	CUYD	25,286.84	72,387.15		46,119.79		26.00	143,794
Geogrid soil stabilization	12,290.00	SQYD	13,900.67	45,254.24		1,055.77		4.90	60,211
Crushed stone layer, 12" depth	5,120.00	CUYD	22,302.49	100,848.64		40,676.13		32.00	163,827
** Total Earthwork			211,675.35	274,565.61	1,094,700.00	282,660.98			1,863,602
Foundations									
Geopier GCC Rigid Inclusions, 16" dia at 7' oc	2,000.00	EACH			3,133,000.00			1,566.50	3,133,000
Geofoam, EPS 29 (DELETED)		CUYD						102.26	
** Total Foundations					3,133,000.00				3,133,000
* Total Sitework	1.00	LS	233,382.51	278,340.67	4,227,700.00	324,196.50		5,063,619.68	5,063,620
Total Gross Cost			350,751.47	302,301.50	4,246,316.50	337,341.47			5,236,711



WOODARD & CURRAN

FOUNDATION DETAIL SKETCH

PROPOSED LOW TEMP WAREHOUSE
460 COMMERCIAL STREET
PORTLAND, MAINE

Job No.: 16-1314
Date : 02/14/2018

Scale: Not to Scale
Sheet: 3



Option 3a: Pipe Piles

Estimate Detail - Maine Port Authority - Cold Storage Site Preparation (Pipe Pile Option #3a)

Recap - With Taxes and Insurance

Group 1: Divisions

Group 2: Major ItemCode Groups

Estimator : John Brockington

Project Size : 0 SQFT

Description	Quantity	UM	Labor	Material	Subcontract	Cons. Eqp.	Proc. Eqp.	Unit Cost	Total Cost
General Conditions									
Administrative requirements			116,626.46	12,459.08	402.00	8,953.99			138,442
Quality requirements					15,000.00				15,000
Temporary facilities and controls			742.50	10,529.75	267.00	4,190.97			15,730
Execution requirements				972.00	2,947.50				3,920
* Total General Conditions	1.00	LS	117,368.96	23,960.83	18,616.50	13,144.97		173,091.26	173,091
Sitework									
Site preparation			21,707.16	3,775.06		41,535.52			67,018
Earthwork			84,102.71	120,283.22	141,450.00	88,640.94			434,477
Foundations					3,280,000.00				3,280,000
* Total Sitework	1.00	LS	105,809.87	124,058.28	3,421,450.00	130,176.47		3,781,494.61	3,781,495
Concrete									
Formwork			188,228.26	15,532.53					203,761
Concrete reinforcing			338,129.45	244,004.45					582,134
Cast in place concrete			131,980.30	300,078.88		51,835.51			483,895
* Total Concrete	1.00	LS	658,338.00	559,615.85		51,835.51		1,269,789.36	1,269,789
Total Gross Cost			881,516.84	707,634.96	3,440,066.50	195,156.94			5,224,375

Estimate Detail - Maine Port Authority - Cold Storage Site Preparation (Pipe Pile Option #3a)

Detail - With Taxes and Insurance

Group 1: Divisions

Group 2: Major ItemCode Groups

Estimator : John Brockington

Project Size : 0 SQFT

Description	Quantity	UM	Labor	Material	Subcontract	Cons. Eqp.	Proc. Eqp.	Unit Cost	Total Cost
General Conditions									
Administrative requirements									
Mobilize/Demobilize	1.00	LS	5,062.46	896.00		8,953.99		14,912.45	14,912
Project Manager	6.00	WEEK	22,680.00					3,780.00	22,680
Project Superintendent	14.00	WEEK	49,140.00					3,510.00	49,140
Field Engineer	12.00	WEEK	29,808.00					2,484.00	29,808
Safety Engineer	4.00	WEEK	9,936.00					2,484.00	9,936
Permit (Allowance)	1.00	LS		9,345.79				9,345.79	9,346
Purchase drawings	1.00	LS		467.29				467.29	467
Travel expenses	14.00	WEEK		1,750.00				125.00	1,750
Progress photographs	3.00	MO			402.00			134.00	402
** Total Administrative requirements			116,626.46	12,459.08	402.00	8,953.99			138,442
Quality requirements									
Testing (Allowance)	1.00	LS			15,000.00			15,000.00	15,000
** Total Quality requirements					15,000.00				15,000
Temporary facilities and controls									
Job telephone	3.00	MO		1,050.00				350.00	1,050
Electrical energy costs	3.00	MO		1,350.00				450.00	1,350
Water usage costs	3.00	MO		300.00	267.00			189.00	567
Office trailer	3.00	MO		1,350.00				450.00	1,350
Storage trailer(s)	3.00	MO		375.00				125.00	375
Temporary toilets	3.00	MO		1,020.00				340.00	1,020
Water, ice and cups	3.00	MO		427.50				142.50	428
First aid supplies	3.00	MO		150.00				50.00	150
Safety supplies	3.00	MO		456.75				152.25	457
Office supplies	3.00	MO		250.50				83.50	251
Small tools	3.00	MO				520.86		173.62	521
Gasoline and lubricating oil	800.00	GALS		2,800.00				3.50	2,800
Automobile	1.50	MO				931.50		621.00	932
Pick-up truck	3.00	MO				2,738.61		912.87	2,739
Job sign	2.00	EACH	742.50	1,000.00				871.25	1,743
** Total Temporary facilities and controls			742.50	10,529.75	267.00	4,190.97			15,730
Execution requirements									
Layout supplies	12.00	WEEK		972.00				81.00	972
Rubbish removal	180.00	CUYD			2,947.50			16.38	2,948
** Total Execution requirements				972.00	2,947.50				3,920
* Total General Conditions	1.00	LS	117,368.96	23,960.83	18,616.50	13,144.97		173,091.26	173,091
Sitework									
Site preparation									
Erosion control	1,500.00	LNFT	2,768.50	1,045.80				2.54	3,814
Rough grading	2.54	ACRE	4,673.26	2,089.26		4,619.08		4,482.66	11,382
Dewatering pumps	2.00	EACH	5,272.87			33,000.00		19,136.43	38,273
Dewatering sumps	100.00	LNFT	8,992.53	640.00		3,916.44		135.49	13,549
** Total Site preparation			21,707.16	3,775.06		41,535.52			67,018
Earthwork									
Site cut to waste (Assumed Qty)	2,300.00	CUYD	5,464.36	2,443.06		8,197.49		7.00	16,105

Estimate Detail - Maine Port Authority - Cold Storage Site Preparation (Pipe Pile Option #3a)

Detail - With Taxes and Insurance

Group 1: Divisions

Group 2: Major ItemCode Groups

Estimator : John Brockington

Project Size : 0 SQFT

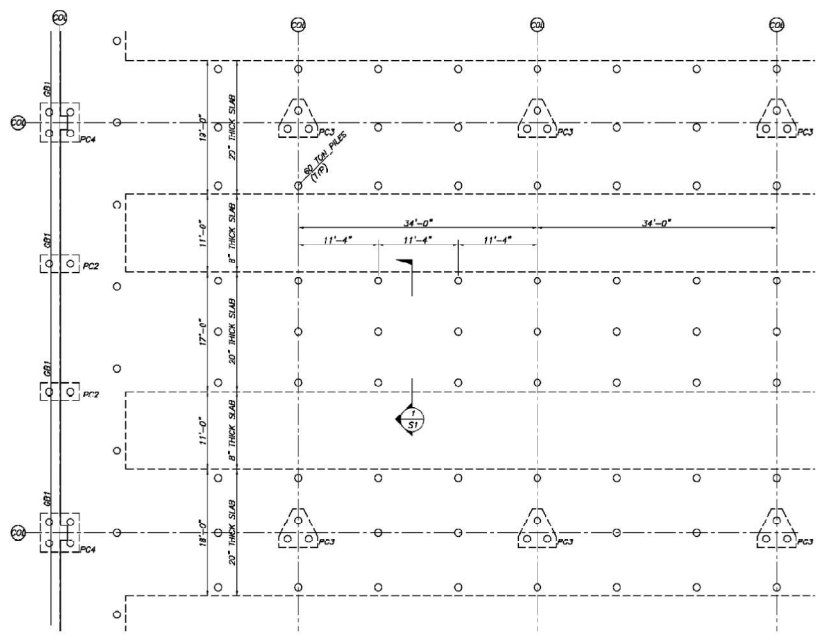
Description	Quantity	UM	Labor	Material	Subcontract	Cons. Eqp.	Proc. Eqp.	Unit Cost	Total Cost
Haul excavated material 8-10 miles (Assumed QTY)	3,450.00	TONS	6,556.29	1,160.24		11,596.01		5.60	19,313
Contaminated soil disposal	3,450.00	TONS			141,450.00			41.00	141,450
Compact subgrade	110,600.00	SQFT	28,493.33	12,741.12		28,171.31		0.63	69,406
Vapor barrier	121,660.00	SQFT	21,286.24	3,090.16				0.20	24,376
Sand fill layer, 4" depth (DELETED)		CUYD						18.00	
Type B aggregate base layer, 12" depth (DELETED)		CUYD						26.00	
Geogrid soil stabilization (DELETED)		SQYD						4.90	
Crushed stone layer, 12" depth	5,120.00	CUYD	22,302.49	100,848.64		40,676.13		32.00	163,827
** Total Earthwork			84,102.71	120,283.22	141,450.00	88,640.94			434,477
Foundations									
Pipe Piles, 14" dia concrete filled, 70' ave. depth	840.00	EACH			3,280,000.00			3,904.76	3,280,000
Geofoam, EPS 29 (DELETED)		CUYD						102.26	
** Total Foundations					3,280,000.00				3,280,000
* Total Sitework	1.00	LS	105,809.87	124,058.28	3,421,450.00	130,176.47		3,781,494.61	3,781,495
Concrete									
Formwork									
Pile cap edge forms	3,957.00	SQFT	49,982.07	1,708.24				13.06	51,690
Grade beam form 0' to 2' deep	19,800.00	SQFT	124,039.97	12,264.12				6.88	136,304
Grade beam form hardware	9,900.00	SQFT		1,013.76				0.10	1,014
Form releasing agent	23,757.00	SQFT	14,206.21	546.41				0.62	14,753
** Total Formwork			188,228.26	15,532.53					203,761
Concrete reinforcing									
SOG rebar	67.82	TONS	114,128.46	81,378.36				2,882.93	195,507
Pile cap rebar	14.11	TONS	23,326.01	16,934.83				2,852.88	40,261
Grade beam rebar	121.41	TONS	200,674.97	145,691.26				2,852.88	346,366
** Total Concrete reinforcing			338,129.45	244,004.45					582,134
Cast in place concrete									
** Concrete in pile caps and pier caps **		****							
4000 psi direct	177.90	CUYD	5,129.98	18,323.91		105.87		132.43	23,560
Concrete in grade beams		****							
4000 psi direct	1,299.38	CUYD	42,821.42	133,835.63		883.70		136.64	177,541
Concrete in slab on grade		****							
4000 psi w/pump	1,393.52	CUYD	51,962.06	144,748.53		29,986.54		162.68	226,697
* No. of pile caps *	139.00	EACH							
* Grade beam length *	6,600.00	LNFT							
* SOG area *	43,000.00	SQFT							
Finish footing concrete top surface	25,324.75	SQFT	4,442.72	154.48		2,888.47		0.30	7,486
Point and patch	19,800.00	SQFT	4,838.43	421.74		3,147.72		0.42	8,408
Protect and cure vertical surfaces	23,757.00	SQFT	6,089.51	783.98		3,961.21		0.46	10,835
Protect and cure horizontal surfaces	68,324.75	SQFT	16,696.18	1,810.61		10,862.00		0.43	29,369
** Total Cast in place concrete			131,980.30	300,078.88		51,835.51			483,895
* Total Concrete	1.00	LS	658,338.00	559,615.85		51,835.51		1,269,789.36	1,269,789
Total Gross Cost			881,516.84	707,634.96	3,440,066.50	195,156.94			5,224,375

Drawn By	Checked By	Reviewed By
Date	Date	Date
Scale	Scale	Scale

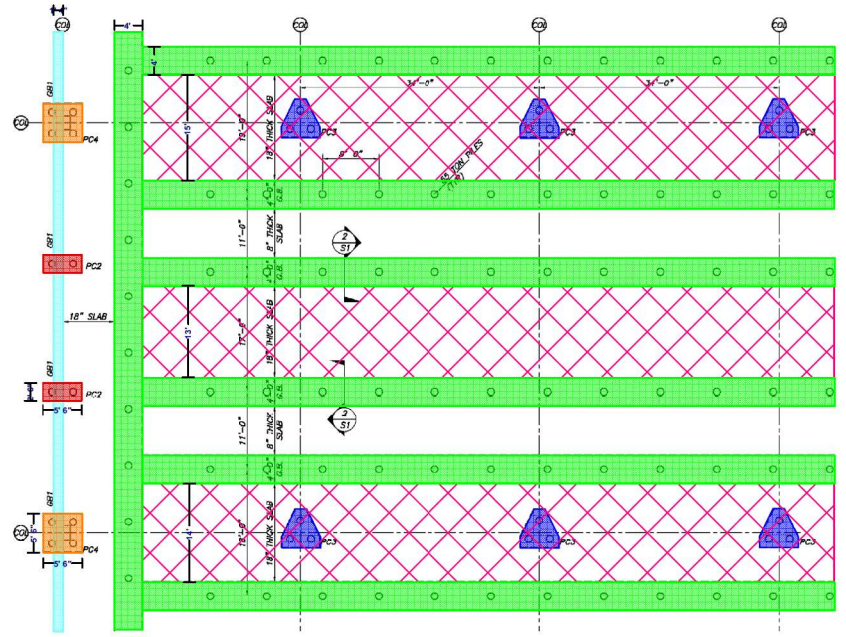
ME PORT AUTHORITY
 COLD STORAGE BUILDING
 PRELIMINARY UNDERSLAB PLAN

Version	Drawn	NOTED
01	3/9/18	
02	3/9/18	
03	4/27/18	

S1



PARTIAL PLAN - OPTION 1
 1/8"=1'-0"



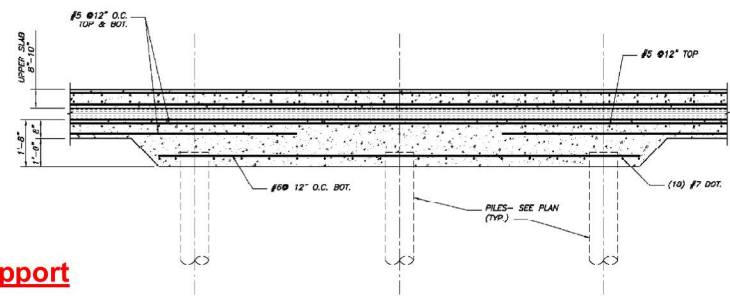
PARTIAL PLAN - OPTION 2
 1/8"=1'-0"

CONCRETE NOTES

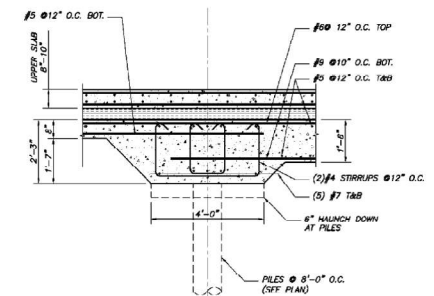
1. CONCRETE WORK SHALL CONFORM TO THE ACI "MANUAL OF CONCRETE PRACTICE," INCLUDING BUT NOT LIMITED TO ACI 318, INCLUDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, AND ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE."
2. ALL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI. ADDITIONAL CONCRETE MIX PERFORMANCE DATA INCLUDING MIX CONTENT, WATER-CEMENT RATIO, AGGREGATE SIZE, SLUMP, ETC. HAS BEEN INCLUDED IN THE PROJECT SPECIFICATIONS. SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
3. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS AND SHALL BE DETAIL-FABRICATED AND PLACED IN ACCORDANCE WITH ACI 318.
4. REINFORCEMENT SHALL BE CONTINUOUS AROUND CORNERS AND AT INTERSECTIONS. PROVIDE LAPPED BARS AT NECESSARY SPLICES OR HOOKED BARS AT DISCONTINUOUS ENDS. SEE SCHEDULE FOR REQUIRED REBAR LAP SPLICE LENGTHS.
5. SLAB THICKNESSES INDICATED ON THE DRAWINGS ARE MINIMUMS. PROVIDE SUFFICIENT CONCRETE TO ALLOW FOR STRUCTURAL DEFLECTION, SHORING FLUCTUATIONS, AND TO OBTAIN THE TO ACCOUNT ELEVATION AT THE FLATNESS AND LEVELNESS INDICATED.

Option 2 Concrete Support

- 8 - Pile Cap (PC2) - 46 Total QTY
- 9 - Pile Cap (PC3) - 48 Total QTY
- 10 - Pile Cap (PC4) - 45 Total QTY
- 11 - Grade Beam, 1'-7" depth - 5,100 Total LF
- 12 - Thickened Slab, 10" depth - 43,000 Total SF
- 13 - Grade Beam (GB1) - 1,500 Total LF

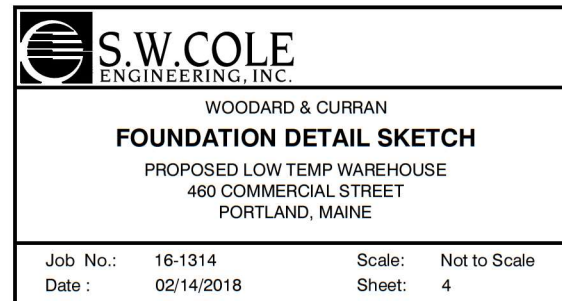


SECTION 1
 1/2"=1'-0"



SECTION 2
 1/2"=1'-0"

NOT FOR CONSTRUCTION
 PRELIMINARY
 THESE DWGS ARE NOT COMPLETE.
 DESIGN IS STILL IN PROGRESS.
 CONTRACTOR SHALL CARRY
 APPROPRIATE CONTINGENCY.





Option 3b: H-Piles

Estimate Detail - Maine Port Authority - Cold Storage Site Preparation (H-Pile Option #3b)

Recap - With Taxes and Insurance

Group 1: Divisions

Group 2: Major ItemCode Groups

Estimator : John Brockington

Project Size : 0 SQFT

Description	Quantity	UM	Labor	Material	Subcontract	Cons. Eqp.	Proc. Eqp.	Unit Cost	Total Cost
General Conditions									
Administrative requirements			116,626.46	12,859.08		8,953.99			138,440
Quality requirements					15,000.00				15,000
Temporary facilities and controls			742.50	10,729.75		4,190.97			15,663
Execution requirements				972.00	3,000.01				3,972
* Total General Conditions	1.00	LS	117,368.96	24,560.83	18,000.01	13,144.97		173,074.77	173,075
Sitework									
Site preparation			21,707.16	3,775.06		41,535.52			67,018
Earthwork			84,102.71	120,283.22	141,450.00	88,640.94			434,477
Foundations					3,045,000.00				3,045,000
* Total Sitework	1.00	LS	105,809.87	124,058.28	3,186,450.00	130,176.47		3,546,494.62	3,546,495
Concrete									
Formwork			188,228.26	15,532.53					203,761
Concrete reinforcing			338,129.45	244,004.45					582,134
Cast in place concrete			131,980.30	300,078.88		51,835.51			483,895
* Total Concrete	1.00	LS	658,338.00	559,615.85		51,835.51		1,269,789.36	1,269,789
Total Gross Cost			881,516.84	708,234.96	3,204,450.01	195,156.94			4,989,359

Estimate Detail - Maine Port Authority - Cold Storage Site Preparation (H-Pile Option #3b)

Detail - With Taxes and Insurance

Group 1: Divisions

Group 2: Major ItemCode Groups

Estimator : John Brockington

Project Size : 0 SQFT

Description	Quantity	UM	Labor	Material	Subcontract	Cons. Eqp.	Proc. Eqp.	Unit Cost	Total Cost
General Conditions									
Administrative requirements									
Mobilize/Demobilize	1.00	LS	5,062.46	896.00		8,953.99		14,912.45	14,912
Project Manager	6.00	WEEK	22,680.00					3,780.00	22,680
Project Superintendent	14.00	WEEK	49,140.00					3,510.00	49,140
Field Engineer	12.00	WEEK	29,808.00					2,484.00	29,808
Safety Engineer	4.00	WEEK	9,936.00					2,484.00	9,936
Permit (Allowance)	1.00	LS		9,345.79				9,345.79	9,346
Purchase drawings	1.00	LS		467.29				467.29	467
Travel expenses	14.00	WEEK		1,750.00				125.00	1,750
Progress photographs	3.00	MO		400.00				133.33	400
** Total Administrative requirements			116,626.46	12,859.08		8,953.99			138,440
Quality requirements									
Testing (Allowance)	1.00	LS			15,000.00			15,000.00	15,000
** Total Quality requirements					15,000.00				15,000
Temporary facilities and controls									
Job telephone	3.00	MO		1,050.00				350.00	1,050
Electrical energy costs	3.00	MO		1,350.00				450.00	1,350
Water usage costs	3.00	MO		500.00				166.67	500
Office trailer	3.00	MO		1,350.00				450.00	1,350
Storage trailer(s)	3.00	MO		375.00				125.00	375
Temporary toilets	3.00	MO		1,020.00				340.00	1,020
Water, ice and cups	3.00	MO		427.50				142.50	428
First aid supplies	3.00	MO		150.00				50.00	150
Safety supplies	3.00	MO		456.75				152.25	457
Office supplies	3.00	MO		250.50				83.50	251
Small tools	3.00	MO				520.86		173.62	521
Gasoline and lubricating oil	800.00	GALS		2,800.00				3.50	2,800
Automobile	1.50	MO				931.50		621.00	932
Pick-up truck	3.00	MO				2,738.61		912.87	2,739
Job sign	2.00	EACH	742.50	1,000.00				871.25	1,743
** Total Temporary facilities and controls			742.50	10,729.75		4,190.97			15,663
Execution requirements									
Layout supplies	12.00	WEEK		972.00				81.00	972
Rubbish removal	180.00	CUYD			3,000.01			16.67	3,000
** Total Execution requirements				972.00	3,000.01				3,972
* Total General Conditions	1.00	LS	117,368.96	24,560.83	18,000.01	13,144.97		173,074.77	173,075
Sitework									
Site preparation									
Erosion control	1,500.00	LNFT	2,768.50	1,045.80				2.54	3,814
Rough grading	2.54	ACRE	4,673.26	2,089.26		4,619.08		4,482.66	11,382
Dewatering pumps	2.00	EACH	5,272.87			33,000.00		19,136.43	38,273
Dewatering sumps	100.00	LNFT	8,992.53	640.00		3,916.44		135.49	13,549
** Total Site preparation			21,707.16	3,775.06		41,535.52			67,018
Earthwork									
Site cut to waste (Assumed Qty)	2,300.00	CUYD	5,464.36	2,443.06		8,197.49		7.00	16,105

Estimate Detail - Maine Port Authority - Cold Storage Site Preparation (H-Pile Option #3b)

Detail - With Taxes and Insurance

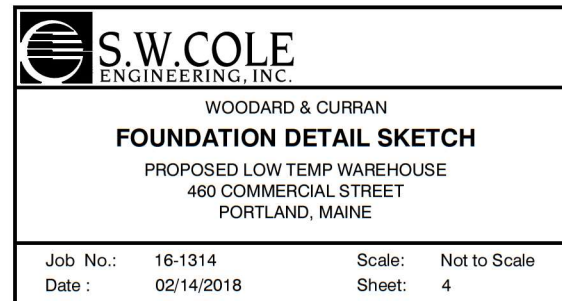
Group 1: Divisions

Group 2: Major ItemCode Groups

Estimator : John Brockington

Project Size : 0 SQFT

Description	Quantity	UM	Labor	Material	Subcontract	Cons. Eqp.	Proc. Eqp.	Unit Cost	Total Cost
Haul excavated material 8-10 miles (Assumed QTY)	3,450.00	TONS	6,556.29	1,160.24		11,596.01		5.60	19,313
Contaminated soil disposal (Assume 1.5T/CY)	3,450.00	TONS			141,450.00			41.00	141,450
Compact subgrade	110,600.00	SQFT	28,493.33	12,741.12		28,171.31		0.63	69,406
Vapor barrier	121,660.00	SQFT	21,286.24	3,090.16				0.20	24,376
Sand fill layer, 4" depth (DELETED)		CUYD						18.00	
Type B aggregate base layer, 12" depth (DELETED)		CUYD						26.00	
Geogrid soil stabilization (DELETED)		SQYD						4.90	
Crushed stone layer, 12" depth	5,120.00	CUYD	22,302.49	100,848.64		40,676.13		32.00	163,827
** Total Earthwork			84,102.71	120,283.22	141,450.00	88,640.94			434,477
Foundations									
H-Piles, HP10x42, 60-Ton capacity, 110' ave. depth	840.00	EACH			3,045,000.00			3,625.00	3,045,000
Geofoam, EPS 29 (DELETED)		CUYD						102.26	
** Total Foundations					3,045,000.00				3,045,000
* Total Sitework	1.00	LS	105,809.87	124,058.28	3,186,450.00	130,176.47		3,546,494.62	3,546,495
Concrete									
Formwork									
Pile cap edge forms	3,957.00	SQFT	49,982.07	1,708.24				13.06	51,690
Grade beam form 0' to 2' deep	19,800.00	SQFT	124,039.97	12,264.12				6.88	136,304
Grade beam form hardware	9,900.00	SQFT		1,013.76				0.10	1,014
Form releasing agent	23,757.00	SQFT	14,206.21	546.41				0.62	14,753
** Total Formwork			188,228.26	15,532.53					203,761
Concrete reinforcing									
SOG rebar	67.82	TONS	114,128.46	81,378.36				2,882.93	195,507
Pile cap rebar	14.11	TONS	23,326.01	16,934.83				2,852.88	40,261
Grade beam rebar	121.41	TONS	200,674.97	145,691.26				2,852.88	346,366
** Total Concrete reinforcing			338,129.45	244,004.45					582,134
Cast in place concrete									
** Concrete in pile caps and pier caps **		****							
4000 psi direct	177.90	CUYD	5,129.98	18,323.91		105.87		132.43	23,560
Concrete in grade beams		****							
4000 psi direct	1,299.38	CUYD	42,821.42	133,835.63		883.70		136.64	177,541
Concrete in slab on grade		****							
4000 psi w/pump	1,393.52	CUYD	51,962.06	144,748.53		29,986.54		162.68	226,697
* No. of pile caps *	139.00	EACH							
* Grade beam length *	6,600.00	LNFT							
* SOG area *	43,000.00	SQFT							
Finish footing concrete top surface	25,324.75	SQFT	4,442.72	154.48		2,888.47		0.30	7,486
Point and patch	19,800.00	SQFT	4,838.43	421.74		3,147.72		0.42	8,408
Protect and cure vertical surfaces	23,757.00	SQFT	6,089.51	783.98		3,961.21		0.46	10,835
Protect and cure horizontal surfaces	68,324.75	SQFT	16,696.18	1,810.61		10,862.00		0.43	29,369
** Total Cast in place concrete			131,980.30	300,078.88		51,835.51			483,895
* Total Concrete	1.00	LS	658,338.00	559,615.85		51,835.51		1,269,789.36	1,269,789
Total Gross Cost			881,516.84	708,234.96	3,204,450.01	195,156.94			4,989,359



12. STORMWATER MANAGEMENT

The attached Stormwater Management Plan describes the proposed stormwater management measures for the project, as shown on the design drawings attached to Section 1 of this Report. A USGS map and a soils map are attached to Section 1 and Section 11 of this Report, respectively.

12.1 LIST OF ATTACHMENTS

- Stormwater Management Plan (Bound Separately)

13. URBAN IMPAIRED STREAM

The proposed development is not located within the watershed of an Urban Impaired Stream; the Urban Impaired Stream Standard does not apply.

14. BASIC STANDARD

The proposed development is adjacent to the Fore River; there are no other known protected resources associated with the Site. As shown by the soil survey attached to Section 11 of this Report, the Site is comprised primarily of cut and fill land. The Soil Erosion and Sediment Control Plan and compliance with the Basic Standard is described in the Stormwater Management provided as part of Section 12 of this Report.

During construction, the Contractor will be responsible for conducting inspections in accordance with the attached *Stormwater Erosion & Sediment Control Inspection Report Form* (or equivalent). Inspections shall be performed at least once a week, as well as before and after storm events. A person with knowledge of stormwater management and erosion and sediment control, including the standards and conditions of the permit approvals, shall conduct the inspections and perform maintenance of the facilities. If maintenance or modifications are necessary, implementation will be completed within seven days and prior to any rainfall event. After construction, the Owner will be responsible for inspecting and maintaining the Site's stormwater system.

14.1 LIST OF ATTACHMENTS

- Erosion & Sediment Control Inspection Report Form

**EROSION & SEDIMENT CONTROL
INSPECTION REPORT FORM**

Inspectors:

Date: ____ / ____ / ____

____ of ____ (Project Owner)
____ of ____ (Contractor)
____ of ____
____ of ____

Storm Event? ☐ Yes ☐ No Rainfall Amount ____ Storm Duration ____ hours

Visual Observations of Activity and Site Conditions:

Disturbed Soil Areas:

Storage Of Soils:

Sediment & Erosion Control Measures:

Construction Site Entrance:

Surface Stabilization:

Corrective Action Taken:

Attachments (if any):

Signature:

Name

Title

Date

15. GROUNDWATER

The proposed development is not located within a Significant Sand and Gravel Aquifer. As previously noted, the Site is comprised primarily of cut and fill land. Environmental assessments of the Site have been conducted and the Owner is a participant in the Maine Department of Environmental Protection Voluntary Response Action Program (VRAP) as discussed in greater detail in Section 18 of this Report. The proposed development will not infiltrate to or extract groundwater and is not anticipated to result in any impacts to groundwater.

16. WATER SUPPLY

The proposed development will be provided with both fire protection water service and domestic water service as shown on the drawings that will connect to existing water services on the property. Woodard & Curran has been working directly with the Portland Water District to determine the appropriate design for this work. An ability to serve determination will be provided upon receipt.

17. WASTEWATER DISPOSAL

The proposed development will be provided with sanitary sewer service to an existing sewer manhole adjacent to West Commercial Street as shown on the drawings. A Wastewater Capacity Application was submitted to the City under separate cover as part of the Site Plan Application for the proposed development. A copy of the City's determination will be provided upon receipt.

18. SOLID WASTE

18.1 SOLID WASTE

All solid waste materials and recyclables from the proposed development will be transported and disposed of or recycled in accordance with applicable laws and regulations.

18.2 CONSTRUCTION & DEMOLITION DEBRIS

The proposed development will generate construction waste and demolition debris (CDD). The Contractor will be responsible for properly disposing of the CDD. The Contractor will be responsible for handling, managing, and disposing of all waste generated by construction in accordance with the Maine Solid Waste Management Regulations and all other applicable local, state, and federal regulations.

18.3 SPECIAL & HAZARDOUS WASTE

Numerous investigations have been completed to evaluate soil, groundwater, and soil vapor conditions at the Site since 1999. In addition, several active remedial efforts have been completed to address known environmental conditions. These activities have been completed in coordination with the Maine DEP VRAP and related Spills & Site Cleanup programs. Consistent with a Maine DEP VRAP No Action Assurance Letter (NAAL) dated June 1, 2012, the necessary steps that must be taken in order to receive closure and liability protection under the VRAP are summarized below:

1. The existing soil management plan will be revised and submitted to the Maine DEP for review and approval;
2. Any potential soil vapor issues in future on-site structures will either be addressed and characterized with investigation prior to construction or presumptively addressed through installation of vapor collection systems;
3. No potable wells will be installed on the property in the future, and;
4. The property use will remain non-residential use unless other uses are approved by the Maine DEP.

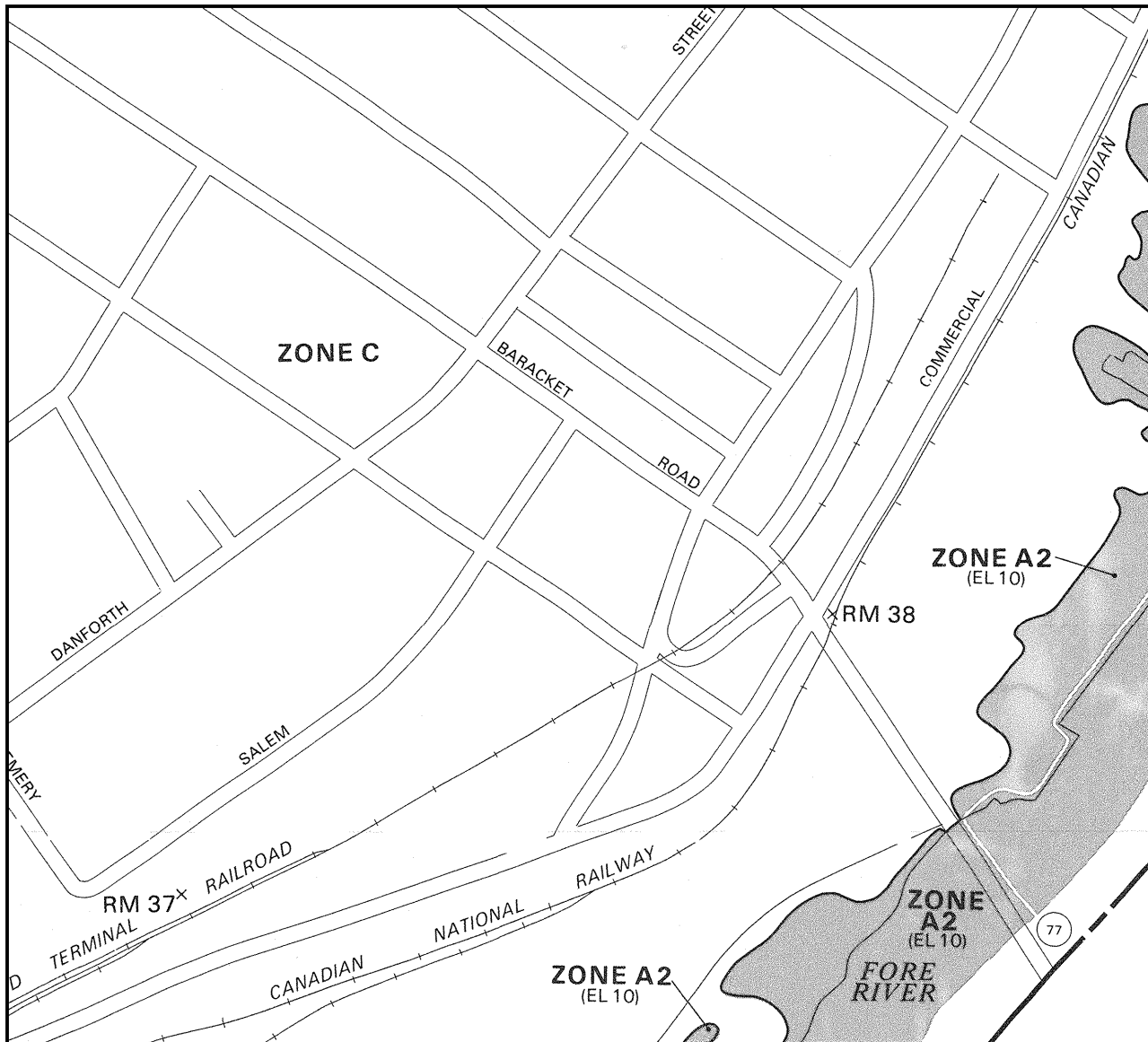
It is anticipated that the Maine DEP VRAP requirements outlined above will be fulfilled as part of the proposed project. Special and hazardous waste encountered during the construction process will be handled, managed and disposed of in accordance with the Maine DEP approved revised soil management plan and all applicable local, state and federal regulations.

19. FLOODING

The proposed development is partially located within a flood hazard zone (A2), as shown on the FEMA Flood Insurance Rate Map attached to this Section. The Base Flood Elevation for the site is 10'. An application for a Flood Hazard Development Permit will be submitted to the City of Portland. The proposed development will not cause or increase flooding or cause an unreasonable flood hazard to any adjacent structures. The flood zones are located along the southern portions of the proposed development, as shown on the drawings.

19.1 LIST OF ATTACHMENTS

- FEMA Flood Insurance Rate Map



APPROXIMATE SCALE

400 0 400 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND, MAINE
CUMBERLAND COUNTY

PANEL 13 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

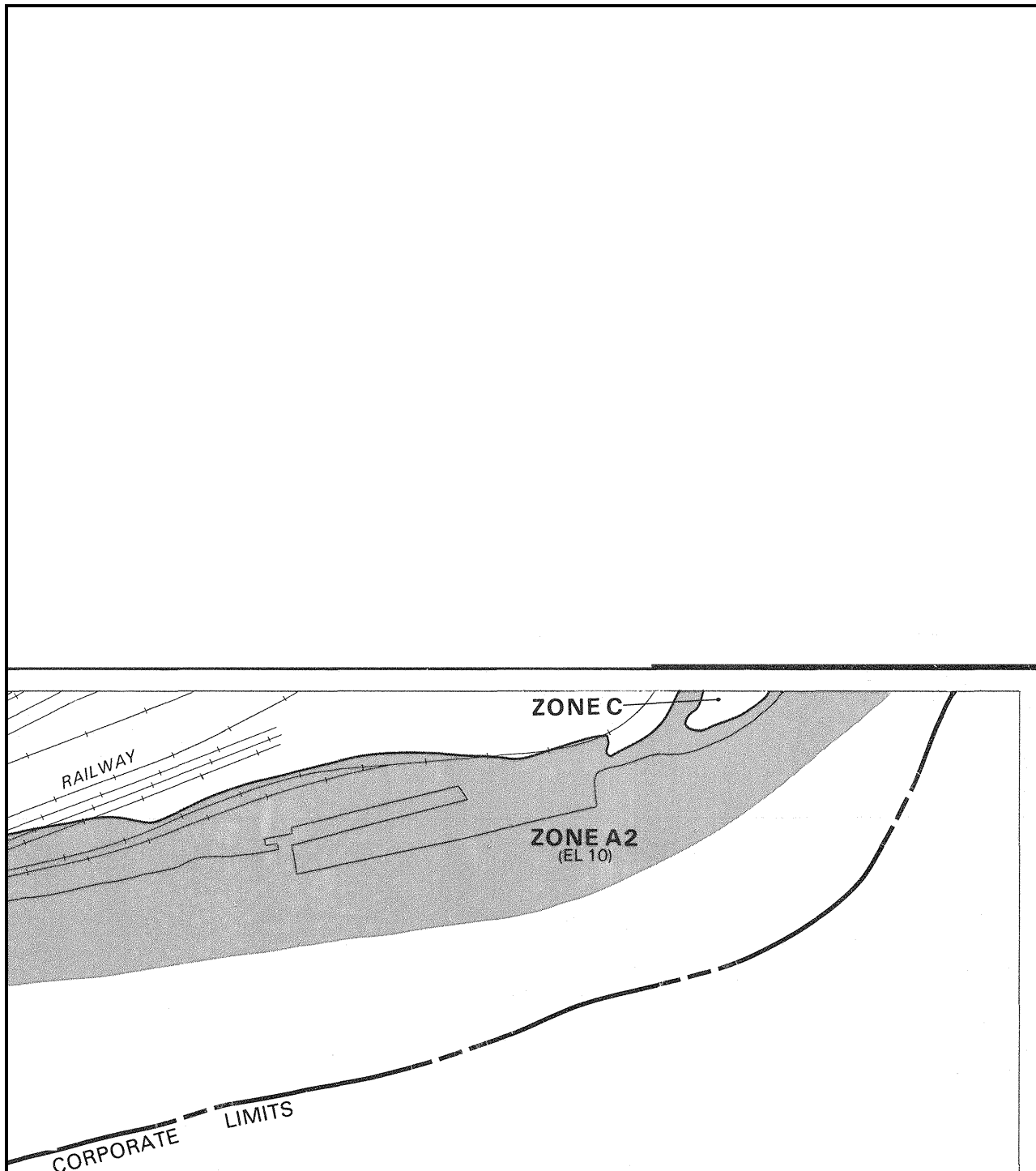
COMMUNITY-PANEL NUMBER
230051 0013 B

EFFECTIVE DATE:
JULY 17, 1986

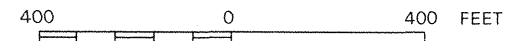


Federal Emergency Management Agency

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



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND, MAINE
CUMBERLAND COUNTY

PANEL 16 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230051 0016 B

EFFECTIVE DATE:
JULY 17, 1986



Federal Emergency Management Agency

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

20. BLASTING

Based on geotechnical investigations completed to date, no blasting is anticipated for this project. The geotechnical report for this project is attached to Section 11.

21. AIR EMISSIONS

The project is not anticipated to require an air emissions license; this Section is not applicable.

22. ODORS

The proposed development will not involve any processes that emit significant odors; this Section is not applicable.

23. WATER VAPOR

The proposed refrigeration system cooling tower will generate water vapor, but not at a scale that has the potential to change the local climate. Therefore, this Section is not applicable.

24. SUNLIGHT

The proposed development will not block access to sunlight for any structures utilizing solar energy; this Section is not applicable.

25. NOTICES

The City of Portland has Delegated Review Authority for this application; as such, it is our understanding that the public notice requirements associated with MaineDEP Site Law are accomplished through the public notice process by the City of Portland for the Level III Site Plan process.



woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

Google Groups

Cold Storage

Carl Cramer <carl1cramer@gmail.com>

Apr 16, 2020 10:50 AM

Posted in group: **Planning Board**

I received your notification card about this project.

Even without taking into account the current health and economic devastation of Covid-19, this proposal is preposterous.

Do any of you remember AmeriCold's proposal? It was accepted by the planning board. Only to be subsequently rejected by AmericCold itself as "economically unfeasible." So the MPA wants to build a much larger eyesore, with 40% occupancy to begin.

Here's a thought -- and I am totally opposed to this project in any fashion: build a building that meets 100% of current shipments, but with the ability to expand if and when it is proven that such a need exists. If I had written this proposal as part of an MBA, it would be rejected without comment.

There is NO WAY any public money should be used for this example of MPA's grandiose impossibilities.

And now let's look at today's economic situation. Do you seriously believe with all the crises facing us, that our economy can support such willful waste? Frankly, I am annoyed this is even being considered at this time. We have so many more important issues facing us.

I have so much more to say about this, but will refrain at this moment.

Not one penny in public funds for this boondoggle.

Thank you for listening.

Carl Cramer
225 York Street
Unit 2
Portland, ME 04102

Google Groups

Cold Storage on Commercial St.

Davi Smitti <smitti79@gmail.com>

Apr 17, 2020 10:12 AM

Posted in group: **Planning Board**

Dear Board members,

I am a resident of Portland and have been watching the rampant construction over the past several years. I am concerned because it seems to be occurring without sufficient thought given to parking issues, and beauty, as well as history of the area. The proposed 75 FOOT high cold storage building is another example of looking for income without looking at the long term ramifications. Every time I approach Portland from the Islands, I am dismayed at the ugly beige tall condo ediface on Fore St. that looms over the harbor from the brow of Munjoy Hill.. We do not need another eyesore. Since there are other options such as rail track extension to move cold storage to a non-seaside facility, or adhering to the 40 ft. height limit which was created for a reason already, I am adamantly against this proposal. Please look at more than dollars. Look at the bigger picture.

Sincerely,
Elizabeth Smith
Portland, ME

Cold Storage proposal

david smith <dlsmithmd57@yahoo.com>

Apr 17, 2020 11:07 AM

Posted in group: **Planning Board**

Dear Board:

I am writing to strongly oppose the Maine International Cold Storage facility proposal.

1. How do you envision our need for a cold storage facility to go from nothing significant at present, to abruptly rise up to 108,000 square feet? Really? 2-1/2 acres?

If the projections for its future utilization are similar to the process used to justify the purchase of a second crane for our container ship terminal... I live where I can see them loading and offloading the Eimskip vessels. As a retiree, I enjoy watching that process. I can assure you, that in the two years that we have had two cranes there, *never once* have the two cranes been used simultaneously. One is completely idle. All the time. I strongly fear the same gross underutilization for this massive structure. What's wrong with the 40 (or was it 45) foot height restriction?

2. There is a rail spur right next to the container facility...is there any reason this could not be extended/used to carry refrigerator containers to some other property that is not on the waterfront?

3. This will be a major eyesore. Like other construction projects that are not to scale for our pretty little city by the bay, this is going to stick out like the proverbial sore thumb. Nor will it go away in any of our lifetimes. Some legacy.

I am all in favor of business development, but let's keep it to scale, and let's not permanently despoil our town's waterfront property. I would suspect a condo developer could put up a lovely two or three story building here that would generate far more tax revenue for the city, and would be a much better utilization of the little waterfront property that remains undeveloped here in Portland.

Or, here's a counter-proposal that is quality-of-life driven..very anti-business in the short run, but...long-term yield??? Appropriate the land for a waterfront park. Build a West End water access. Or, something akin to what's happening on Thompson's Point, which is siphoning people out of our downtown. Hmmm?

Sincerely,
David L. Smith
24 Brackett St #4
Portland
520.249.8648

Google Groups

Cold Storage

Melissa Wood <melissafwood@gmail.com>

Jun 4, 2020 4:53 PM

Posted in group: **Planning Board**

I received notification about the development of a cold storage warehouse on West Commercial Street. It should not go forward. Here's why:

If Americold couldn't build its dream 120,000-square-foot facility, we were told, it would walk away. But it did anyway.

And yet the Port Authority is still pushing for cold storage on a grand scale. This time, it's not market-driven thanks to subsidies from the DOT, which leaves me confused: If it doesn't make sense in the marketplace why are we still building it? Shouldn't we at least rethink the scale?

I have some ideas. Newspaper articles have described this warehouse as "hotly anticipated" and "long awaited". Developer and former DOT commissioner George Campbell told Maine Biz it would be the "final crowning piece" of his waterfront achievements. He and his colleagues have never justified why it needs to be so huge. Back in March, they predicted using only 40 percent of the space. Given the current environment, they probably need even less. Regardless, does that sound like something we urgently need? My guess is that a "crowning piece" needs to be prominent. Look at what we built. Please. This is not the London Eye or Sydney Opera House.

But much more importantly, this warehouse is a terrible idea. Most of our food supply is based on global trade, but international markets are unpredictable (e.g., lobster tariffs). Imagine if we invested in improving waterfront access and developing more stable regional markets for local fishermen and aquaculture businesses instead? This huge warehouse only serves to convert our local food into an industrialized, low-cost commodity. I believe in a working waterfront, but not this.

When you step back and think about it, the only thing this warehouse will do is turn the Portland waterfront into a transportation hub. It will become a lonely place dominated by the endless rattle of idling diesel engines and generic containers whose insides are a mystery. When the city decided on the slogan, "Yes, Life's Good Here," is this what you envisioned?

We can do better; we can be more creative. There's never been a more appropriate time to rethink what we think we know, and to question what we believe is best. Stop this misguided development before it's too late.

Sincerely,

Melissa Wood
225 York Street, #2

Cold storage on Commercial St

Davi Smitti <smitti79@gmail.com>

Tue, Jun 16, 2020 at 2:21 PM

To: planning@portlandmaine.gov

Hello,

I am a neighbor to the proposed cold storage facility - living at the water end of Brackett St.

I attended the virtual meeting on 6/10 when the proposal was presented to the neighbors.

Concerns : hours of operation. Semi trucks are required

by law to have back up beeps -meant to be very annoying to get attention. Thus, having trucks arrive before 7 a.m. would be rude and deeply interfere with sleep and quality of life. I would request 8 a.m. but I realize that would be "fighting city hall. "

I realize the height falls within regulations. The new huge Portland Yacht barn is shorter but in the drawings, the cold storage building does not look higher when it is significantly so. The Portland Yacht barn is a blemish on our views. Please feel free to come to our place and take a real look.

I would propose trees, a large wall or some barrier between the facility and the Eimskip lot to dull the noise of the trucks at the loading dock.

Commercial St. already has lines of semis every day idling waiting to get into the Eimskip lot. This is bad for our environment. There should be restrictions on idling that are enforceable.

As construction is contemplated, please make note that it is a city ordinance that it doesn't start til 7 p.m. Please make this crystal clear to that team. I have lived during construction at other Portland sites and seen this disrespected. It is often mentioned by others in See,clickm,fix complaints. I would deeply appreciate thoughtfulness in this arena.

Thank you for your attention and work.

Elizabeth Smith

[24 Brackett St](#)

[Portland, ME](#)

Public Comment on Plan Number: PL-001042-2020, West Commercial St. cold storage project

Elizabeth Parsons <ecparsons33@hotmail.com>

Jun 18, 2020 4:08 PM

Posted in group: **Planning Board**

To members of the Planning Board and the City's Planning Department:

A review of materials submitted and notes obtained from the recent neighborhood meeting has not clarified if the proposed project will make use of the nearby railroad line. It does appear that the project, as currently envisioned, would entail significant truck traffic. And this project is not the only one going forward on Commercial Street. There's the Veteran's health care building further on towards the bridge that is anticipated to have considerable vehicular traffic involved. And then Hobson's Landing and one or two hotels further towards the Old Port will bring in more cars and trucks as well.

I hope that the Board will carefully review the City's Comprehensive Plan; the joint planning process with South Portland: One Climate Future; and the excellent work being done by the Maine Climate Council particularly on the issue of **transportation** as you consider this current project. Transportation is responsible for over half of this state's CO2 emissions and global CO2 parts per million are now over 417, far higher than ever in human history

A basic question to probe should be:

- How does the project's plan for transport to/from the building align with not only our City's goals but the necessity of doing much more than we are currently to reduce fossil fuel emissions?

Thank you for considering these comments.

Sincerely,
Elizabeth C. Parsons
44 Winter Street

A prohibited use in the WPDZ

June 18, 2020

To Chairman Mazer and members of the Planning Board:

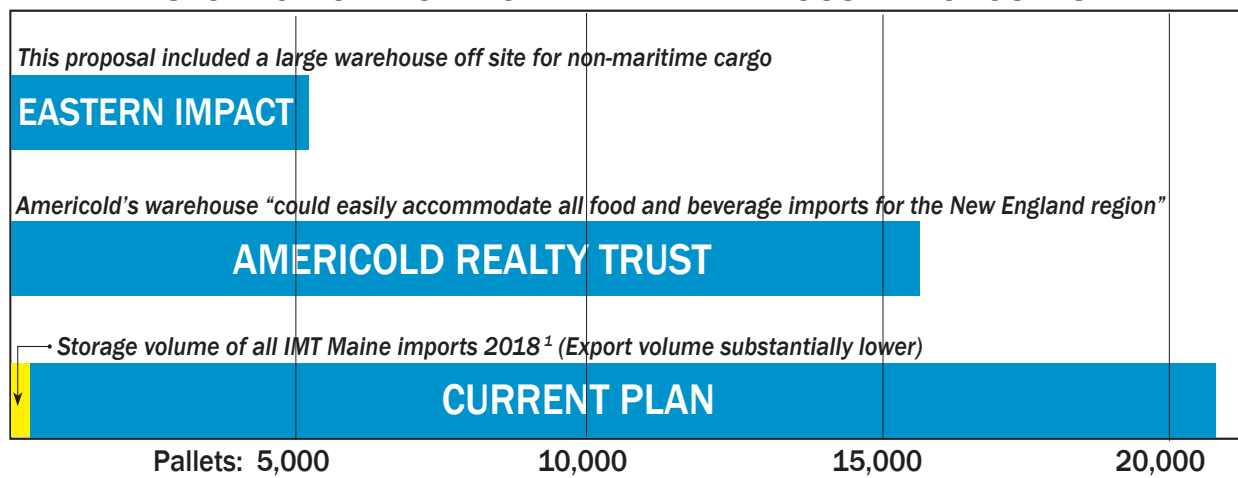
The Waterfront Port Development Zone is designed to prevent truck-centric developments – like this proposed warehouse – along a narrow stretch of Portland’s deep-water frontage. The applicant has said Eimskip’s maritime customers would use up to 40% of the warehouse. If one accepts that exceedingly optimistic estimate,¹ then non-maritime cargo transported by tractor trailers would fill at least 60% of the storage space.

With that exponential increase in truck traffic, WPDZ restrictions would prohibit the International Marine Terminal from being a permitted “intermodal transportation facility.” Consequently, the zoning definition of truck terminal, “a facility primarily for handling and storage of goods transported by tractor trailers,” would apply to this warehouse.² And truck terminals are a prohibited use in the WPDZ.

Moreover, this proposal fails to meet both overarching requirements of the port zone. Developments are limited primarily to those “dependent upon deep water” and “which contribute to port activity.”

- Even the broadest definition of deep-water dependence would exclude cargo that arrives and leaves by tractor trailer. The warehouse would be dependent on West Commercial Street, not the Fore River.
- The warehouse would have an adverse impact on port activity by adding significant traffic – and noxious pollution from each refrigerated truck’s two engines.³ Sixty percent non-maritime cargo would generate about 20,000 tractor-trailer trips annually at the IMT, conservatively.⁴ Adjusting for partial loads and thousands of empty loads (after deliveries and before pickups), unnecessary tractor-trailer trips would exceed 40,000, and higher yet if maritime storage volume realistically remained below 25% in the warehouse for decades to come.
- The IMT has one of the smallest footprints among U.S. container ports, and quadrupling the project’s size for non-maritime customers would adversely impact future marine uses.⁵ The development site would best contribute to the port’s continued expansion⁶ if used as much as possible for essential marine-related needs – rather than exclusively for a warehouse to store frozen food rarely to arrive or leave by cargo ship.

STORAGE CAPACITY OF THREE WAREHOUSE PROPOSALS



The applicant is seeking to build a warehouse with 33% more capacity than one previously proposed by Americold.⁷ Yet credible analysis of maritime-storage demand is lacking. In fact, a market-analysis summary from the applicant does not even mention maritime cargo.⁸ Rather, it stresses the need for a “distribution center,” partly driven by “ecommerce and home delivery,” for frozen-food products trucked into Portland’s congested urban core.

For most cargo that arrives by ship, Portland is simply a transfer point before the refrigerated containers leave via I-95. Out-of-state and Canadian companies import about 90% of the terminal’s refrigerated cargo, and most have financial and operational reasons to move containers to their own cold storage, or to public cold storage near their facilities.⁹

Those companies are IMT shipping customers – not IMT storage customers. That helps explain Eimskip’s growth in Portland without nearby cold storage, except for an older Americold facility on Read Street (which would have a competitive edge over any IMT warehouse for local low-value product like bait fish).

As for refrigerated exports, volume is modest compared to imports. Moreover, many Maine exporters – including pharmaceutical, wild blueberry and potato product companies – operate their own cold storage. Blueberry processors, for instance, have invested heavily in cold storage over the past decade. Their exports, trucked from Down East, are loaded directly onto Eimskip vessels.

A local consortium, mindful of the zoning and logistical problems of a massive IMT warehouse, envisioned a smaller facility – yet large enough to accommodate substantial future growth of maritime cargo. Eastern Impact LLC, together with a top-ten cold storage company, proposed a waterfront warehouse one quarter the size of the current proposal. In tandem, the local consortium planned to build a much larger warehouse off site for non-maritime cargo, value-added services and distribution.¹⁰

That right-sized IMT warehouse would already be storing maritime cargo, but the Port Authority rejected the concept twice, in 2015 and 2017. Instead it financed a campaign for zoning changes to allow construction of Americold’s facility, which “could easily accommodate all food and beverage imports for the New England region,” according to the company.¹¹

During its independent lobbying for the Americold project, the Port Authority commissioned maritime-storage analysis that stretched credulity with inflated numbers.¹² But that faulty analysis could not override the reality of limited demand for IMT maritime storage – a primary constraint on Americold’s profitability prospects. In 2018, for instance, 100% of Maine’s refrigerated imports would have filled about 1% of the warehouse.¹³ Americold abandoned the plan two years ago, saying it failed the company’s “underwriting criteria.”¹⁴

Now the Planning Board is being asked to approve a larger warehouse that flouts the letter and spirit of the Waterfront Port Development Zone in order to maximize the project’s building envelope.¹⁵ The applicant has not shown how the warehouse would be dependent on deep water, nor how it would provide a net-positive contribution to port activity. Most critically, the proposal fits the definition of a prohibited truck terminal, and its construction would cause irreparable damage to the port development zone. The application should be denied.

Sincerely,



Mark McCain

45 Summer Street, Portland, Maine 04102
walworthmccain@maine.rr.com

¹ 40% of the warehouse space would accommodate about 130,000 pallets of frozen product annually, assuming an average pallet turnover of 16 per year. (In its RFP proposal, page 16, Americold specified a 25% faster turnover of 20 per year.) Maine companies imported 37 refrigerated containers during the fourth quarter of 2018, the most recent period analyzed, or about 3,000 pallets on an annualized basis. That equals 1% of the warehouse space if every pallet was stored on site. (37 forty-foot containers x 20 pallets each x 4 quarters in 2018 = 2,960 pallets.)

“Up to 40%” comment from George Campbell of Treadwell Franklin Infrastructure Capital, a development partner of the proposed Maine International Cold Storage Facility, *“Developers Revive Plans for Cold Storage Facility on Portland Waterfront”* Portland Press Herald 3/5/2020. Affirmed in a 3/18/2020 email from the development team: “Maine’s need for imported food products is growing and will continue to grow; it is expected that the facility will be used to store some of these products. Eimskip intends to use up to 40% of the facility for its own customers.”

² The Sec. 14-47 definition of truck terminal includes an exception: It “does not apply to truck activity incorporated into or ancillary to an Intermodal Transportation Facility.” Intermodal facilities are a permitted use in the Waterfront Port Development Zone – but only if “principally for vessels with regularly scheduled destination service or for railroad transportation service” (Sec. 14-319). With the addition of this warehouse, storing primarily cargo transported both ways by truck, the International Marine Terminal would not clear that hurdle.

Tractor trailers would be the principal mode of transportation in the IMT, not vessels or rail. Therefore, the IMT could not be permitted as an intermodal facility, and the warehouse would be a prohibited “truck terminal” as defined in Sec. 14-47: “a facility primarily for handling and storage of goods transported by tractor trailers.”

(If two separate parcels – 10 acres owned by the city, including the Eimskip pier, and 18 acres owned by the state, including the proposed warehouse – cannot be permitted as a single intermodal facility, then any arguments supporting this proposal collapse even quicker. Permitting only the 10-acre parcel with the Eimskip pier as an intermodal facility, then defining the warehouse truck activity as “ancillary,” would not be allowable. The majority of that truck activity would be independent of the International Marine Terminal – not ancillary. But more importantly, that parcel by itself does not include the multiple modes of transportation necessary to meet the definition of an “intermodal transportation facility.”)

Estimated weekly transportation of containers at the IMT, including the proposed warehouse:

- **330 loaded 40-foot containers transported by vessel**, maritime, either incoming or outgoing (120% of 2019 volume, which was 14,300 40-foot containers, or 275 weekly)
- **718 loaded 40-foot containers transported by tractor trailer:**
 - 330 by tractor trailer, maritime, either incoming or outgoing (including warehouse volume)
 - 388 by tractor trailer, non-maritime loaded containers, half incoming, half outgoing (60% of warehouse storage space)
- Negligible by rail

(Current rail transport of IMT containers is essentially nonexistent. Nationwide, primarily dry containers, not “reefers,” are shipped by rail – typically long distances. IMT non-maritime cold storage would be regional, with short-haul trucking of containers to and from the warehouse.)

The warehouse truck volume is based on a conservative pallet turnover rate of 16 per year. Using Americold’s annual turnover rate of 20 pallets, 60% non-maritime cargo would generate **485 warehouse container** shipments weekly – for a tractor-trailer total of 829 loaded 40-foot containers. (See footnote no. 4 for container calculations.) Moreover, maritime storage likely

would fill less than 40% of the warehouse, thereby increasing the volume of non-maritime truck traffic. And many tractor trailers would carry partial loads – especially with the applicant’s intention to provide supermarkets and other customers with just-in-time shipments.

“Cold storage facility” is a conditional WPDZ use, but that is superseded by the prohibited use of “truck terminal” for this proposal. Additionally, the warehouse would not be “compatible with water dependent and marine uses,” as required of conditional uses (Sec. 14-320). A cold-storage facility storing +/-75% marine freight likely could be shown to be compatible with water dependent and marine uses, but not one storing +/-25% marine freight – some of the reasons having been outlined in this letter.

³ The adverse impact would include significant exhaust and diesel soot, both to the IMT and its environs. Refrigerated tractor trailers are especially toxic because highly polluting auxiliary engines operate continuously for cooling. Those diesel engines are essentially unregulated, and emit up to six times as much nitrogen oxide and 30 times as much fine-particulate soot as primary truck engines.

⁴ Calculations for 20,000 trips:

Americold estimated that a 15,000-pallet warehouse could store +/-300,000 pallets yearly, i.e., an average annual turnover of 20 pallets per pallet position. For 60% non-maritime cargo in the proposed warehouse, assuming all full trailer loads:

21,000 pallet positions x 20 turnovers x 0.6 share ÷ 20 pallets/trailer x 2 arrival/departure = 25,200 fully loaded tractor-trailer trips annually or 485 trips weekly.

Reducing the pallet turnover rate by 20% to be conservative, 16 turnovers per year would generate 20,160 one-way trips annually or 388 weekly. That count does not include empty loads, after deliveries and before pickups. (The applicant has estimates a maximum of 140 one-way truck trips daily. Multiplied by 7, 60% of that estimate is 588 weekly trips, both full and empty.)

⁵ Non-maritime cold storage at U.S. container ports is virtually nonexistent, and rarely do ports even elect to use waterfront acreage for maritime cold storage. The closest cold storage to Eimskip's previous U.S. port of call in Norfolk, VA, for instance, is six miles from the port.

⁶ The IMT has seen significant growth since 2013, and the applicant predicts freight volume will increase by 30% to 50% over the next two years. But estimating IMT growth is hardly an exact science: In a 2016 federal grant application, the Port Authority predicted “line-of-sight growth targets to exceed 50,000 containers by 2020” – or in excess of 100,000 TEUs (“twenty-foot equivalent units”), about 60% by vessel, and 20% each by rail and barge. Last year the IMT handled 28,600 TEUs – less than 30% of the Port Authority estimate for 2020 volume.

⁷ The current proposed capacity of +/-21,131 pallets (see footnote no. 15) would be 33% larger than Americold’s final design for 15,864 pallets.

⁸ PowerPoint slide from the development team, 5/7/2020:

Market Analysis Preliminary Conclusions

We have uncovered four key learnings in confirming and validating the need for additional cold storage capacity:

1. There is pent up and immediate demand for a local/regional cold storage warehouse
2. This demand for a state-of-the-art cold storage facility is coming from in state processors, growers and grocery retailers that now depend on out of state cold storage operators...which is costly and unsustainable

3. The COVID crisis has surfaced the need for food chains and cold storage to become more local and much more functional in assuring a more flexible and responsive food supply

4. In addition, spikes in ecommerce and home delivery will not abate anytime soon, and can only be accommodated by a modern refrigerated distribution center that has the flexibility and functionality to accommodate a wide range of current and evolving needs for consumers and the community

⁹ The seafood importer High Liner Foods, for instance, has cold-storage capacity for 24,000 pallets in its New Hampshire and Massachusetts warehouses.

One snapshot of IMT import volume: During the fourth quarter of 2018, Eimskip offloaded approximately 470 refrigerated 40-foot containers (about 20 pallets each). That represents a storage volume of about 2,400 pallet positions on an annualized basis, or about 11% of the proposed warehouse, assuming a pallet turnover of 16 per year.

However, supply-chain executives at the two consistently largest importers (Q4 2018, 24% share of imports) have said they do not plan to use IMT cold storage: High Liner Foods of Peabody, MA, and Lindt & Sprungli USA of Stratham, NH. Two other top importers, Atlantika Inc. of New Canaan, CT, and Nordic Group Inc. of Boston, have said the same. Smaller out-of-state importers were not contacted about their storage needs.

¹⁰ Compared to a single warehouse shoehorned into a congested area, Eastern Impact's dual-location proposal offered the opportunity to develop a more powerful economic engine for Maine. The off-waterfront warehouse could be part of a so-called "inland port," similar to ones other states have established, usually with daily rail transportation to the companion water port. With the availability of lower-cost land, the inland ports provide economical and efficient freight distribution, dry storage, customs clearance, container storage and transshipments. They nurture small businesses by leasing space and equipment in their distribution facilities. In addition, inland ports provide easier access for non-maritime users of port services (such as customs clearance for companies like L.L. Bean).

An excerpt from a 2017 letter, Eastern Impact to Port Authority board members:

"As a member of the local community committed to sustainable waterfront development, we would like to bring to your and the public's attention that there are other concepts for the project, including our original proposal, that have yet to be fully explored . . . Our approach from the beginning has been to work with potential customers in Maine and New England to define the most viable cold storage concept for the region while taking into account all stakeholder needs. Reissuing the RFP will allow for a fresh process to ensure that as many of the benefits of the project as possible accrue within the State of Maine and New England to our agriculture, aquaculture, fishing, food and beverage industries, the West End neighborhood and the local tax base and economy." (The Port Authority did not re-issue an RFP.)

¹¹ Americold RFP submission, 9/4/2015, page 12.

¹² "Proposed State of Maine West Commercial Street Cold Storage Facility: Model of Eimskip Cold Storage Need," Woodard & Curran, 4/24/2017. (Rebuttal: "Analysis of Woodard & Curran Study," Tom Robinson, 5/1/2017.) Among the report's significant errors was the assumption that an on-site warehouse would store 100% of IMT refrigerated imports.

¹³ In Q1 2014, Maine companies imported 36 refrigerated containers (13% share of 288 total). In Q4 2018, they imported 37 containers (8% share of 470 total). That represents a negligible increase for Maine imports over four years; a +70% increase for customers outside Maine. The Maine cargo (about 3,000 pallets, annualized) would have filled 1% of the Americold warehouse (150 pallet positions), assuming turnover as stated in Americold's RFP submission.

¹⁴ Americold statement, 6/25/2018: "After three years of careful study, Americold has decided to forgo development of a new facility at the 40 West Commercial Street site along the Fore River in Portland. We have considered the regional economics, construction costs, and industry analysis, and our conclusion is that the cost to operate a state-of-the-art temperature-controlled facility on the 6.6-acre parcel of land at the waterfront does not meet Americold's underwriting criteria."

¹⁵ On October 7, 2019, the warehouse design team met with a group of West End residents to share "initial conceptual ideas." A team member said the Port Authority intended to obtain necessary approvals and permits, then a private entity would proceed as the project developer. The stated capacity was 21,131 pallets. Jon Nass, CEO of the Maine Port Authority, was not present.

One month later, a West End neighborhood leader talked with Mr. Nass, and reported back to other residents that according to Mr. Nass there had been a misunderstanding: The design discussed on October 7 was only an exercise to show maximum optimization of the site; a private developer would determine the actual building size and capacity based on its own market research.

However, during a May 7 remote meeting with a group of West End residents, after the current development team had taken over the project, a team member said the warehouse capacity was essentially unchanged from the conceptual plan's 21,131 pallets: "The amount of pallets stored within are roughly the same, within a few hundred."

Cold Storage Warehouse on West Commercial St.

Barbara Wood <barbawood@yahoo.com>

Jun 23, 2020 10:23 AM

Posted in group: **Planning Board**

I'm guessing that eventually something is going to be built on the lot being discussed for this project. No one is going to want to look at a long and tall wall of any size.

I have read that that side of the building will be painted with different colors to give it a more human scale. I would suggest that in addition to color you also look at design. I worked In Management at LL Bean in Distribution thru the building of several warehouses. We got better at trying to build in some design features so that neighbors were not looking at a large box. Some silo like features were created to bring in the feel of barns in this once farmland area. Some color design on the sides of the buildings was also used to create the sense of rolling fields.

With the maritime history of our waterfront I believe some creative designers could come up with some design features, as well as colors, to give it a more appropriate look for the area.

I'd be happy to help facilitate a conversation with engineers who were involved in those projects at LL Bean.

Best,

Barb Wood

125 Emery St.

Subject: Cold Storage proposal

Davi Smitti <smitti79@gmail.com>
To: planning@portlandmaine.gov

Thu, Jun 25, 2020 at 5:41 PM

I've made two other comments, but now that I've reviewed their detailed proposal, one new thought:

--this facility should not get a waiver for the stormwater run-off fee...my run-off goes to almost the exact same spot. Or, to acquiesce to their argument, if they get a waiver, then so should much of the West End!

Thnx for your attention,

David Smith
24 Brackett St #4
Portland.

Google Groups

Opposition to Cold-Storage Warehouse

Vanessa Janes <vanessamariejanes@gmail.com>

Aug 13, 2020 9:38 AM

Posted in group: **Planning Board**

Dear Planning Board,

I am a Portland resident and would like to register my opposition to the proposed cold-storage warehouse. This warehouse would not support local fishermen and would be detrimental to my neighborhood by increasing traffic and pollution. Please put a stop to this plan!

Sincerely,
Vanessa Janes
92 Salem St.
Unit 2
Portland, ME

Cold-Storage Warehouse Opposition

Adam Janes <w.adam.janes@gmail.com>

Aug 14, 2020 1:07 PM

Posted in group: **Planning Board**

Dear Planning Board,

I am a West End Portland resident and would like to register my opposition to the proposed cold-storage warehouse. This warehouse would not support local fishermen and would be detrimental to my neighborhood by increasing traffic and pollution. Please put a stop to this plan!

Sincerely,

W. Adam Janes

92 Salem St.

Unit 2

Portland, ME

August 18, 2020

To Chairman Mazer and members of the Planning Board:

According to the developer of the cold-storage warehouse proposed for Portland's International Marine Terminal, the coronavirus crisis has generated a surge in refrigerated food imports.

However, data from U.S. Customs and Border Protection shows that Maine companies imported fewer than 1,200 refrigerated pallets during the first half of this year.* Refrigerated exports were much lower.

All of that vessel-transported frozen food would fill **less than 1.5% of the warehouse**, with its annual storage capacity of about 250,000 to 400,000 pallets. But even that percentage overstates storage demand. Some companies would continue to use privately owned cold storage or less expensive public storage within two hours of the port.

The huge disconnect between warehouse size and maritime demand should concern anyone examining this proposal for the Waterfront Port Development Zone. It is impossible to reconcile how this warehouse, with almost entirely non-waterborne cargo, could be considered *"compatible with water dependent and marine uses,"* as required of conditional WPDZ uses.

Moreover, by adding tens of thousands of tractor-trailer trips annually to Portland's urban streets, this warehouse would exacerbate congestion and diesel pollution, while creating costly inefficiencies for the vast majority of cold storage customers best served by a non-urban warehouse with good Interstate and rail access.

Despite massive oversizing of the project, and despite the WPDZ's clear statement of purpose – *"This zone exists to ensure the continued viability of the Port of Portland"* – this warehouse actually would exclude storage of a primary product for lobster fishermen, whose economic contribution to our state greatly exceeds that of all other seafood harvesters combined: No space would be available for fresh locally-caught bait fish.

Yet space would be available every year for more than a hundred million pounds of frozen peas and pizza, chicken nuggets and corn dogs, packed onto pallets by the hundreds of thousands, arriving at the maritime port by tractor trailer, and leaving the same way.

Approval of this warehouse would make a mockery of the priorities and goals of Portland's Waterfront Port Development Zone.

Sincerely,

The Undersigned Portland Neighbors

Irit Altman, 57 Clark Street
Linwood Ashton, 30 West Street
Claudia Bantz, 100 Neal Street
David Bantz, 100 Neal Street
Karin Lindholm Belsheim, 15 Clifford Street
Doug Berry, 2b Summer Street
Aimée Bessire, 314 Danforth Street
Mark Bessire, 314 Danforth Street
Constance Bloomfield, 382 Danforth Street
Nick Burnett, 5 Briggs Street
Marsha Campbell, 108 Salem Street
Deb Chase, 4 Orchard Street
Jo Coyne, 36 Salem Street
Carl Cramer, 225 York Street
Sarah P. Daignault, 350 Danforth Street
Eli Dale, 40 Salem Street
Wm. Norris Dale, 40 Salem Street
Louise L. Davis, 24 Brackett Street
Kevin Dowling, 174 Danforth Street
Victoria Dowling, 174 Danforth Street
Theolonius Dutton, 57 Clark Street
Ruth Elkin, 24 Richardson Street
David Fenton, 50 Western Promenade
Anthony Filippone, 225 York Street
Michelle Filippone, 225 York Street
Bob Fiske, 263 York Street
Margaret L. Freeman, 45 Park Street
John Funk, 4 Orchard Street
Justin Funk, 90 Salem Street
Karen Geraghty, 15 Briggs Street
Rosanne Graef, 30A Salem Street
Steve Graef, 30A Salem Street
Peter Green, 11 Summer Street
Devie Hamlen, 358 Danforth Street
Rachael Harkness, 25 Summer Street
Seth Harkness, 25 Summer Street
Brian Harris, 17 Summer Street
Alison Hawkes, 17 Summer Street
Lawrence Hayden, 671 Auburn Street
Derek Hengstenberg, 37 Salem Street
Jennifer Hunter, 37 Salem Street
Samar Post Jamali, 358 Danforth Street
Vanessa Janes, 92 Salem Street
William Adam Janes, 92 Salem Street
Edward Kaynor, 88 Vesper Street
Leslie Kaynor, 88 Vesper Street
Carol Kelly, 15 Briggs Street
Adam King, 263 York Street

Rachel Kobasa, 263 York Street
Susan LoGiudice, 5 Briggs Street
Mark McCain, 45 Summer Street
Bill McFarlane, 382 Danforth Street
Sara Miller, 96 Salem Street
Margot Milliken, 159 Pine Street
Steve Morrison, 158 Danforth Street
Caitlin Mushial, 36 Clark Street
Erik Mushial, 36 Clark Street
Wyatt Mushial, 36 Clark Street
Elizabeth Parsons, 44 Winter Street
Lin Parsons, 44 Winter Street
Leslie Pohl, 263 York Street
Darcy Brennan Poor, 15 Vaughan Street
Kent Redford, 198 Danforth Street
Frank Reilly, 168 York Street
Sharon Reilly, 168 York Street
Dena Riegel, 41 Lucas Street
John Robertson, 336 Danforth Street
Sonia Robertson, 336 Danforth Street
Ashley Salisbury, 26 Brackett Street
Karen Sarfaty, 46 Salem Street
Pamela Shaw, 198 Danforth Street
Pamela W Shelton, 225 York Street
Charles Skold, 59 State Street
David L. Smith, 24 Brackett Street
Elizabeth A. Smith, 24 Brackett Street
Gail Spaen, 31-35 Salem Street
Simon Thompson, 14 Winter Street
Deborah J. Towle, 100 Salem Street
Gary Wagner, 31 Brackett Street
Cornelia Walworth, 45 Summer Street
Shoshannah White, 39 Brackett Street
Melissa Wood, 225 York Street

cc: Mayor Kate Snyder
District 2 Councilor Spencer Thibodeau
City Manager Jon Jennings
Christine Grimando, Director, Planning & Urban Development Department

* Maine import volume is based on bills of lading for refrigerated containers offloaded between January 1 and June 30 at the International Marine Terminal this year. If not specified in its bill of lading, a 40-foot container was assumed to hold 30 pallets (which is well above the seafood industry average).

Bristol Seafood LLC and Nova Seafood Ltd., both of Portland, imported 1,001 pallets of frozen seafood. Cape Seafood LLC of Saco, J&K Lobster Bait Inc. of Columbia Falls, and Ready Seafood Co. of Saco imported 188 pallets of lobster bait.

Those 1,189 pallets were shipped in 52 containers. By comparison, one out-of-state company that operates its own cold-storage facilities, High Liner Foods, imported 187 refrigerated containers during this period. Other companies with operations and cold storage located outside Maine imported 776 containers.

Recently quoted in the *Portland Press Herald*, Angelo Ciocca, president of Nova Seafood said: "The major buyers of frozen seafood are south of Maine, and they will probably not be storing seafood in Portland. ... What we need is a smaller freezer to serve mostly the local seafood industry. That would leave land to build processing space for our growing aquaculture businesses, and space for seafood processing and distribution businesses who otherwise must move off the peninsula to grow."

Estimated capacity of the proposed +/-21,000-pallet warehouse is based on two benchmarks: For an earlier IMT proposal, Americold projected its warehouse would have an annual turnover of 20 pallets per pallet position, while a Woodard & Curran report commissioned by the Maine Port Authority estimated 12 pallet turnovers. That represents a storage range of 252,000 to 420,000 pallets for the current proposal.

Cold Storage Warehouse

sheila filipone <safrncs@gmail.com>

Aug 19, 2020 2:44 PM

Posted in group: **Planning Board**

Dear Planning Board Members:

Thank you for hearing my concerns regarding the proposed Fore River cold storage warehouse site. Although I'm a resident of South Portland, I conduct most of my business and recreational activities in Portland, as do the majority of my friends and neighbors.

The proposed facility would worsen traffic and pollution issues. Such an installation would also be a blight on the architecturally significant working waterfront, an area that draws thousands from all over the world for the pleasure of experiencing its uniqueness and charm.

Putting a gigantic cold storage structure on the waterfront (an increasingly rare and valuable resource to Portlanders and Mainers at large), would be the equivalent of parking a refrigerator on your front lawn. Consider the old song: "Don't it always seem to go

That you don't know what you've got til it's gone..."

Thank you for your consideration,

Respectfully,

Sheila Filippone

148 Breakwater Drive, #8,

South Portland, ME 04106

Cold Storage Project

John Funk <wjohnfunk@hotmail.com>

Aug 31, 2020 9:14 AM

Posted in group: **Planning Board**

To Planning Board Members:

We are mystified by the seeming determination of the Board to move forward with this oversized, unnecessary project. Planning should be based on fact, not speculation. You have been presented with ample evidence that the size of the proposed facility is greatly in excess of need, and yet you persist in moving forward with its approval. Perhaps you are motivated by the phrase "If you build it, they will come" from Field of Dreams. But the facts suggest otherwise, and once the facility is built there will be no undoing of its visual impact on this area of the City. Please defeat this project and require one that is more tailored to need.

John Funk

Deborah Chase

4 Orchard Street

Portland, ME 04102

Maine International Cold Storage

Marsha Campbell <saalemstreetbb@gmail.com>

Aug 31, 2020 9:19 AM

Posted in group: **Planning Board**

Dear Planning Board,

I am writing about the Maine International Cold Storage facility proposal. I am a resident of the West End who received a postcard on this project. Frankly, I was incredulous and hoped it would go no farther, but it appears you are going on with this plan. I oppose it for many reasons.

1. It's too big, (you admit it is way more than the current need). It will block views of the waterfront and be a huge eyesore.
2. Truck traffic is a big concern for many reasons: noise, pollution and traffic congestion
3. You do not seem to be taking into consideration the overall impact to the city's general need for a beautiful, peaceful and healthy environment, one that all the residents can enjoy. An industrial building of this size should be built in an industrial park far from the center of the city!

Others have expressed their concerns more eloquently. I feel there are many of us who feel strongly about this but do not write, none the less, this is our city, too, and we care a lot about it being a strong, thriving and LIVABLE one for all the residents of all classes and backgrounds.

Sincerely yours,

Marsha Campbell
108 Salem Street
Portland, ME 04102

Public comment for plan number CU-001146-2020

September 2, 2020

To the Portland Planning Board:

The following four measures would help assure thoroughness of the Planning Board's examination of the proposed warehouse at 40 West Commercial Street before voting on its conditional-use application.

1. To assist in assessing demand for on-site storage of waterborne cargo at the International Marine Terminal, request that the Planning Department obtain from the applicant: 2018, 2019 and 2020 pallet volume for all Maine consignees and consignors of refrigerated containers. (This information is not confidential or proprietary.)

2. Request that the Planning Department obtain from the applicant: The names of Maine importers and exporters, if any, that have stated their intentions to lease cold-storage space, together with the estimated pallet-position volume for each of these potential customers who ship refrigerated containers through the Portland port.

3. Request that the Planning Department obtain from the applicant: An independent analysis of truck, rail and vessel transportation volume within the IMT with the inclusion of the proposed warehouse, conducted by a firm agreed to by the City and the West End Neighborhood Association. This analysis would assist the Planning Board in determining if non-maritime truck traffic would disallow the IMT from being permitted as an intermodal transportation facility, thus making the warehouse a truck terminal according to the city's Land Use Code (i.e., "A facility primarily for handling and storage of goods transported by tractor trailers..." Sec. 14-47).

(Truck terminals are prohibited in the Waterfront Port Development Zone, except within permitted intermodal transportation facilities, which must be "principally for vessels with regularly scheduled destination service or for railroad transportation service" [Sec. 14-319]. The IMT would not meet that zoning requirement if non-maritime truck traffic generated by the proposed warehouse caused tractor trailers to be the principal mode of transportation within the marine terminal.)

4. Obtain a legal opinion of Planning Board options if the warehouse meets the definitions of both truck terminal, a prohibited use, and cold-storage facility, a conditional use.

Sincerely,
Mark McCain
45 Summer Street
Portland, Maine 04102

Cold Storage 09/3/20

September 3, 2020

To: Chairman Mazer and Members of the Portland Planning Board

From: Carl Cramer
225 York Street, Unit 2
Portland, ME 04102
207-664-9337

re: Cold Storage at 40 West Commercial Street

I'd like to request that you consider the above application as an exceptional one.

Why exceptional?

It is an extreme version of a single-use structure, and one based on aggressive financial growth. This is not an apartment building, where the financial failure of the originator can be improved by a second apartment-developer.

If this is passed by the board, you will be giving your endorsement for a very large, ungainly building that can only be used for cold storage.

What if they fail to meet their projections?

What entity is liable to step in and resume operation of a failed enterprise? Certainly not another operator of a cold storage facility.

What then? A hotel?

An office building?

Condos or apartments?

None of these meet existing zoning requirements.

Thus, I hope you agree with me that this is an exceptional case, and you will treat it accordingly.

Thank you for your consideration, Carl

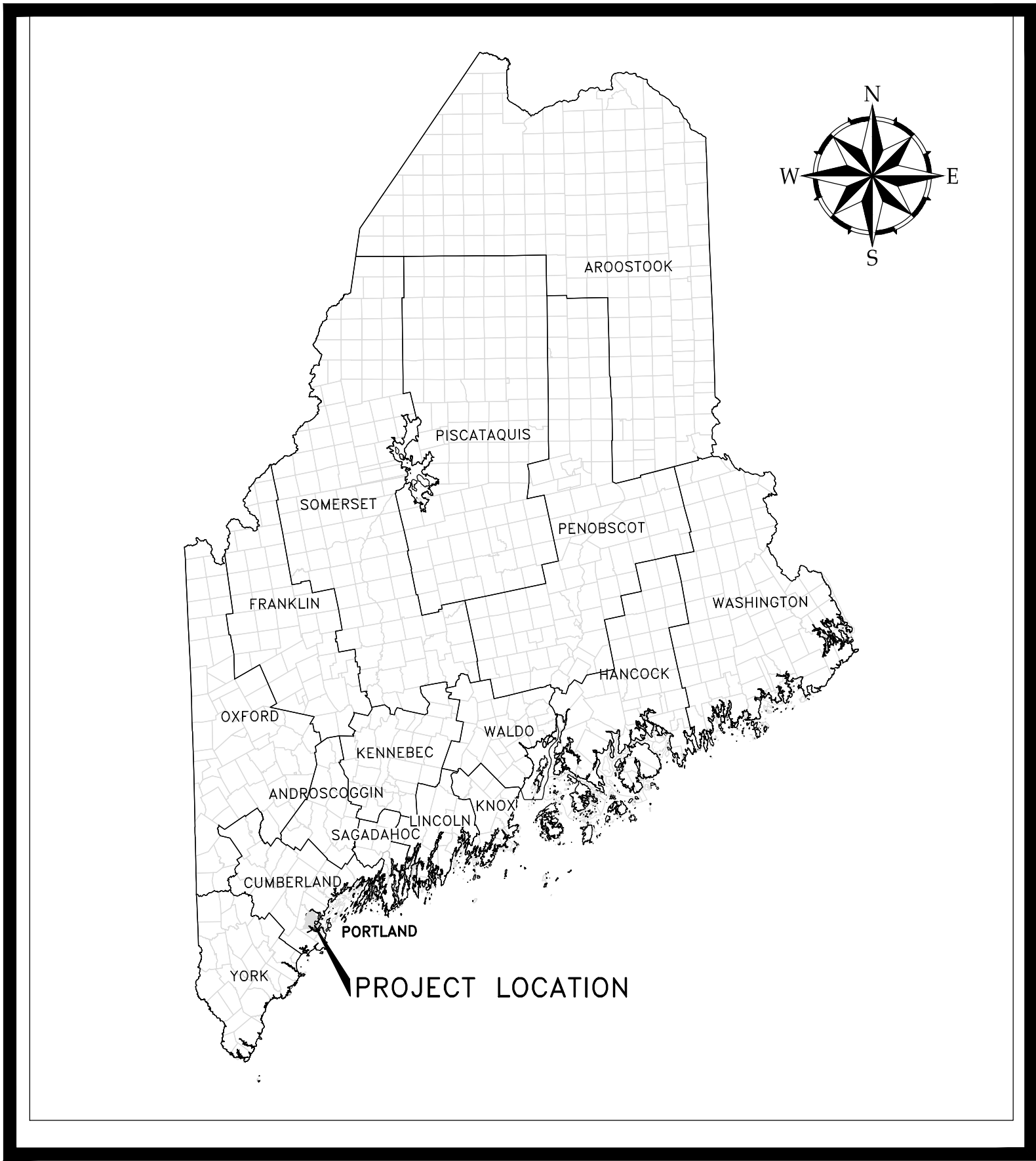
MAINE INTERNATIONAL COLD STORAGE FACILITY

PORTLAND, ME

PROJECT NO. 0232277.00

JULY 2020

ISSUED FOR BID - NOT FOR CONSTRUCTION



PROJECT LOCATION MAP

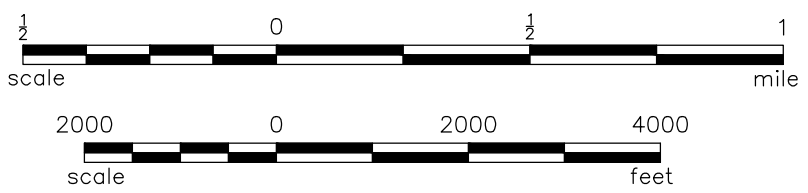


SHEET INDEX	
NUMBER	SHEET TITLE
GENERAL	
G-000	COVER
G-001	GENERAL NOTES, LEGEND, SHEET INDEX & ABBREVIATIONS
CIVIL	
C-001	DEMOLITION PLAN
C-100	SITE PLAN
C-101	GRADING, DRAINAGE AND EROSION CONTROL PLAN
C-102	UTILITY PLAN
C-200	CIVIL DETAILS - 1
C-201	CIVIL DETAILS - 2
C-202	CIVIL DETAILS - 3
C-203	CIVIL DETAILS - 4
C-204	CIVIL DETAILS - 5
C-205	CIVIL DETAILS - 6
LANDSCAPE	
L-1.0	LANDSCAPING PLAN
ELECTRICAL	
E00.01	ELECTRICAL LEGEND
E05.01	ELECTRICAL SITE PLAN
E05.02	ELECTRICAL SITE GROUNDING PLAN
E10.01	ONE-LINE DIAGRAMS SHEET 1
E10.02	ONE-LINE DIAGRAMS SHEET 2
E20.01	LIGHTING PLAN - OVERALL
E20.02	LIGHTING PLAN - COLD STORAGE LOWER LEVEL
E20.03	LIGHTING PLAN - COLD STORAGE UPPER LEVEL
E20.04	LIGHTING PLAN - ADMIN, MAINTENANCE & DOCK SUPPORT/OFFICES
E20.05	LIGHTING PLAN - TRUCK BAY, MECHANICAL ROOM & MAIN ELECTRICAL ROOM
E30.01	POWER PLAN - OVERALL
E30.02	POWER PLAN - COLD STORAGE
E30.03	POWER PLAN - ADMIN, MAINTENANCE & DOCK SUPPORT/OFFICES
E30.04	POWER PLANS - TRUCK BAY, MECHANICAL ROOM AND MAIN ELECTRICAL ROOM
E30.05	ROOF POWER PLAN
E60.01	LIGHT FIXTURE & LIGHTING CONTROL SCHEDULES
E60.02	PANEL SCHEDULES
E60.03	PANEL SCHEDULES
E80.01	ELECTRICAL DETAILS SHEET 1
E80.02	ELECTRICAL DETAILS SHEET 2
SITE LIGHTING	
SL-100	SITE LIGHTING PLAN



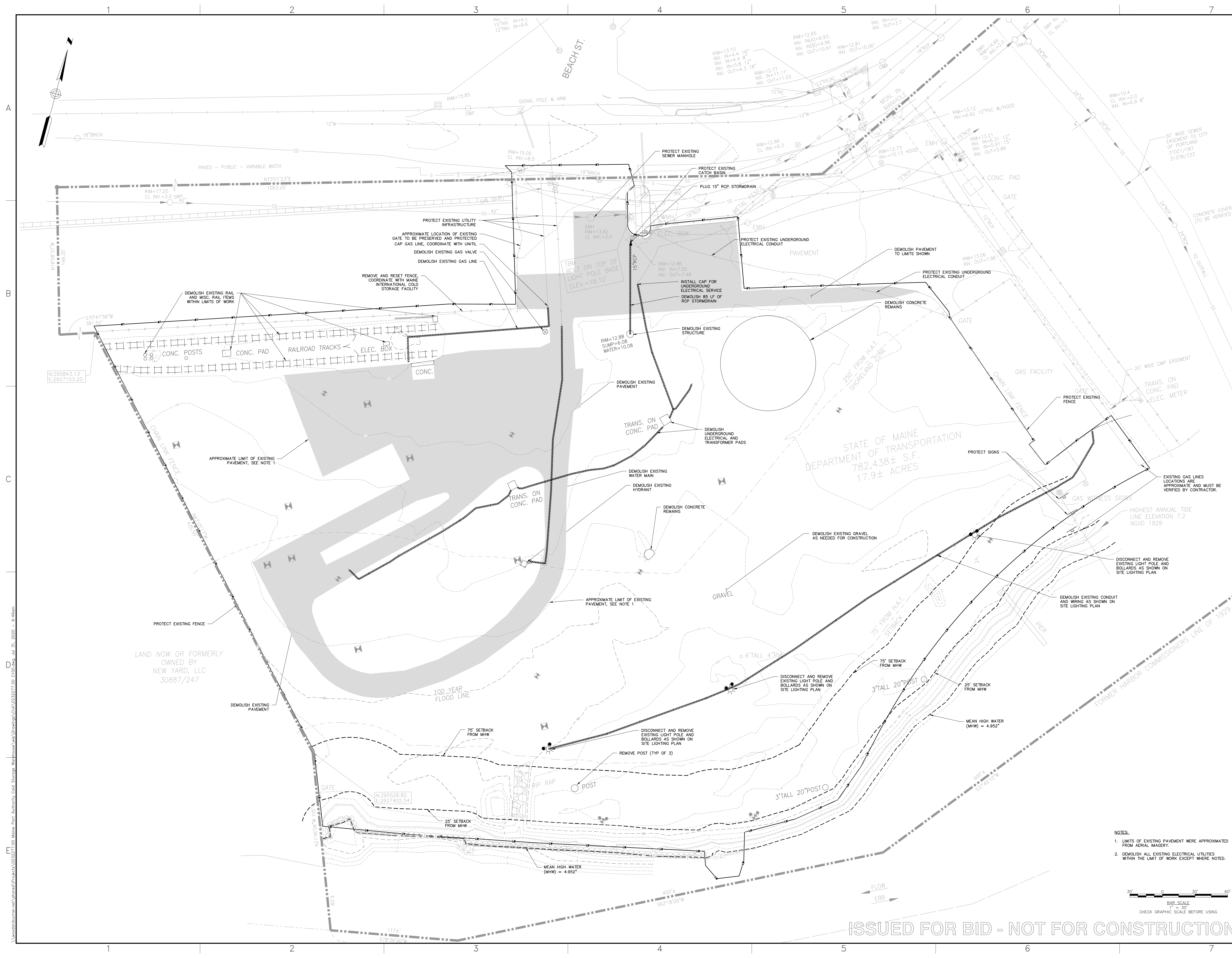
SOURCE: USGS TOPOGRAPHIC MAP

SITE LOCATION MAP



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

COMMITMENT & INTEGRITY DRIVE RESULTS



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

**WOODWARD
CURRAN**

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REV	DATE	DESCRIPTION	CHECKED BY	DATE
1	7/1/2020	ISSUED FOR BID	AN	7/1/2020
2	7/1/2020	ISSUED FOR BID	AN	7/1/2020
3	7/1/2020	ISSUED FOR BID	AN	7/1/2020
4	7/1/2020	ISSUED FOR BID	AN	7/1/2020
5	7/1/2020	ISSUED FOR BID	AN	7/1/2020
6	7/1/2020	ISSUED FOR BID	AN	7/1/2020
7	7/1/2020	ISSUED FOR BID	AN	7/1/2020
8	7/1/2020	ISSUED FOR BID	AN	7/1/2020
9	7/1/2020	ISSUED FOR BID	AN	7/1/2020
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37	7/1/2020	ISSUED FOR BID	AN	7/1/2020
38	7/1/2020	ISSUED FOR BID	AN	7/1/2020
39	7/1/2020	ISSUED FOR BID	AN	7/1/2020
40	7/1/2020	ISSUED FOR BID	AN	7/1/2020
41	7/1/2020	ISSUED FOR BID	AN	7/1/2020
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99	7/1/2020	ISSUED FOR BID	AN	7/1/2020
100	7/1/2020	ISSUED FOR BID	AN	7/1/2020

DESIGNED BY: AN

DRAWN BY: SCALPE

CHECKED BY: DS

DATE: 03/27/2020

1"=30'

0

30'

60'

BAR SCALE

CHECK GRAPHIC SCALE BEFORE USING

ISSUED FOR BID - NOT FOR CONSTRUCTION

MAINE INTERNATIONAL COLD STORAGE FACILITY
PORTLAND, MAINE

MAINE INTERNATIONAL
COLD STORAGE FACILITY

JOB NO: 0232277.00

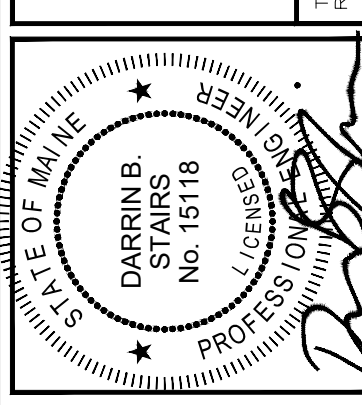
DATE: JULY 2020

SCALE: 1"=30'

SHEET: 3 OF 3

C-001

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



REV	DATE	DESCRIPTION	CHECKED BY	DATE
1	7/1/20	ISSUED FOR BID	DAVID B. STAIRS	7/1/20
2	7/1/20	REVISIONS TO CITY COMMENTS	DAVID B. STAIRS	7/1/20
3	7/1/20	REVISIONS TO CITY COMMENTS	DAVID B. STAIRS	7/1/20
4	7/1/20	REVISIONS TO CITY COMMENTS	DAVID B. STAIRS	7/1/20
5	7/1/20	REVISIONS TO CITY COMMENTS	DAVID B. STAIRS	7/1/20
6	7/1/20	REVISIONS TO CITY COMMENTS	DAVID B. STAIRS	7/1/20
7	7/1/20	REVISIONS TO CITY COMMENTS	DAVID B. STAIRS	7/1/20
8	7/1/20	REVISIONS TO CITY COMMENTS	DAVID B. STAIRS	7/1/20
9	7/1/20	REVISIONS TO CITY COMMENTS	DAVID B. STAIRS	7/1/20
10	7/1/20	REVISIONS TO CITY COMMENTS	DAVID B. STAIRS	7/1/20

SITE PLAN

MAINE INTERNATIONAL COLD STORAGE FACILITY
PORTLAND, MAINE

MAINE INTERNATIONAL
COLD STORAGE FACILITY

C-100

WEST COMMERCIAL STREET
U.S. ROUTE 1A

PAVED - PUBLIC - VARIABLE WIDTH

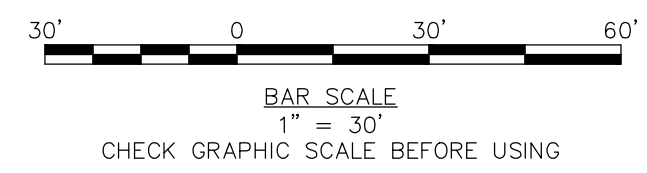
BEACH ST.

FORE RIVER

ISSUED FOR BID - NOT FOR CONSTRUCTION



Point #	Northing	Eastng
1	295867.59	2927302.56
2	295598.18	2927396.04
3	295716.89	2927738.20
4	295918.16	2927668.36
5	295931.97	2927708.02
6	295990.23	2927687.81
7	295977.23	2927650.34
8	295992.66	2927644.98
9	295911.91	2927412.25
10	295906.32	2927414.19



EROSION AND SEDIMENTATION CONTROL NOTES

TEMPORARY EROSION CONTROL MEASURES MAY INCLUDE THE USE OF STABILIZED CONSTRUCTION ENTRANCES, HYDRAULIC MULCH, HAY AND STRAW MULCH, EROSION CONTROL BLANKET, TURF REINFORCED MATING, RIPRAP AND TEMPORARY SEEDING. TEMPORARY SEDIMENT CONTROL MEASURES INCLUDE THE USE OF SILT FENCE, EROSION CONTROL MIX BERMS, FLANGE POOLS, CHECK DAMS, SEDIMENT TRAPS, CATCH BASIN SEDIMENT COLLECTION BAGS AND GEOTEXTILE FILTER BAGS. PERMANENT MEASURES INCLUDE THE USE OF RIPRAP AT EXPOSED STORMWATER AND CULVERT INLETS AND OUTLETS, ARMORED SWALES AND SLOPES AND PERMANENT VEGETATION.

GENERAL

- THE PROJECT SHALL CONFORM WITH THE STANDARDS OF THE MAINE CONSTRUCTION GENERAL PERMIT, IF APPLICABLE. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPs HANDBOOK PUBLISHED BY THE MAINE DEP UNLESS OTHERWISE NOTED IN THESE PLANS. HTTP://WWW.MAINE.GOV/DEP/LAND/EROSION/ESCBMP/
- ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES DEEMED NECESSARY BY THE OWNER'S REPRESENTATIVE, DEPARTMENT OF ENVIRONMENTAL PROTECTION, AND/OR MUNICIPAL OFFICIALS SHALL BE INSTALLED BY THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES RESULTING FROM EROSION OR SEDIMENTATION FROM THE SITE TO SURROUNDING PROPERTIES, WATER BODIES, OR WETLANDS AS A RESULT OF THIS PROJECT.
- THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE SITE WHENEVER POSSIBLE WHILE ALLOWING PROPER SITE DEVELOPMENT.
- CONSTRUCTION STAGING SHALL BE CONDUCTED IN A WAY TO MINIMIZE THE POTENTIAL FOR STORMWATER RUN-ON TO DISTURBED AREAS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR/REPLACEMENT/MAINTENANCE OF ALL EROSION CONTROL MEASURES UNTIL ALL DISTURBED AREAS ARE STABILIZED TO THE SATISFACTION OF THE ABOVE PERSONNEL. DESCRIPTIONS OF PERMANENT STABILIZATION FOR VARIOUS COVER TYPES FOLLOWS:
 - FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS THAT 90% OF THE DISTURBED AREA IS COVERED WITH REASONABLY THICK UNMANAGED GRASS SEEDS, FREE FROM SIZABLE, TREE OR BARE SPOTS.
 - FOR SOODED AREAS, PERMANENT STABILIZATION MEANS THAT COMPLETE BINDING OF THE SOO ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOO OR DIE OFF.
 - FOR MULCHED AREAS, PERMANENT STABILIZATION MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL.
 - FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE. STONE MUST BE SIZED APPROPRIATELY AND IN ACCORDANCE WITH SECTION E-6 OF THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL.
 - FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE ASPHALT BINDER COURSE.
 - FOR OPEN CHANNELS, LEVEL SPREADERS, ENGINEERED BUFFERS OR OTHER DESIGNED STORMWATER CONVEYANCE STRUCTURE. PERMANENT STABILIZATION MEANS THE CHANNELIZED AREA(S) IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH APPROVED RIPRAP, OR WITH OTHER NON-EROSIVE LINING CAPABLE OF WITHSTANDING THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHOUT RELIANCE ON CHECK DAMS TO SLOW FLOW. THERE SHALL BE NO EVIDENCE OF SLUMPING, UNDERCUTTING OR DOWNCUTTING OF THE DESIGNED CHANNEL.
- IF THE AREA WILL REMAIN UNWORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, AND WILL NOT BE BUILT ON, THEN IMMEDIATELY PROVIDE PERMANENT STABILIZATION USING VEGETATION THROUGH PLANTING, SEEDING, SOO OR THROUGH THE USE OF PERMANENT MULCH OR RIPRAP. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, MOISTURE, AND SOIL CONDITIONS. AMEND AREAS OF DISTURBED OVERLY-COMPACTED SUBSOIL WITH TOPSOIL OR COMPOST AND LIGHTLY TILL 2-3" OF SOIL AMENDMENTS INTO THE TOP 8" OF SOIL.

- PERMANENT SEEDING: SEED MIXES AND APPLICATION ARE SPECIFIED ON THE LANDSCAPING PLANS.
- PROTECT ALL SEEDING AREAS WITH MULCH OR EROSION CONTROL BLANKET IN AREAS OF SHEET OR CONCENTRATED FLOWS. MULCH ALL AREAS SO THAT SOIL IS NOT VISIBLE THROUGH THE MULCH REGARDLESS OF THE APPLICATION RATE. SCHEDULE SEEDING FROM SUMMER DRAINAGE TO FALL FROST. NEWLY SEED AREAS SHOULD BE PROTECTED FROM VEHICLE TRAFFIC, PEDESTRIAN TRAFFIC AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL ESTABLISHED. AREAS MUST BE REWORKED AND RESTABILIZED IF GERMINATION IS SPARSE OR SURFACE EROSION IS EVIDENT.
- DITCH LININGS AND RIPRAP INLET AND OUTLET PROTECTION SHALL BE INSTALLED WITHIN 48 HOURS OF COMPLETING THE GRADING OF THAT SECTION OF DITCH OR INSTALLATION OF THE CULVERT.
- EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL PERMANENT SLOPES STEEPER THAN 3:1, IN THE BASE OF DITCHES AND ANY DISTURBED AREAS WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE (WETLANDS AND WATER RESOURCES). EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN S1080N OR APPROVED EQUAL. EROSION CONTROL BLANKET SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURE UPON STABILIZATION OF PROJECT AREA & COST SHALL BE INCIDENTAL TO CONTRACT.

WINTER CONDITIONS

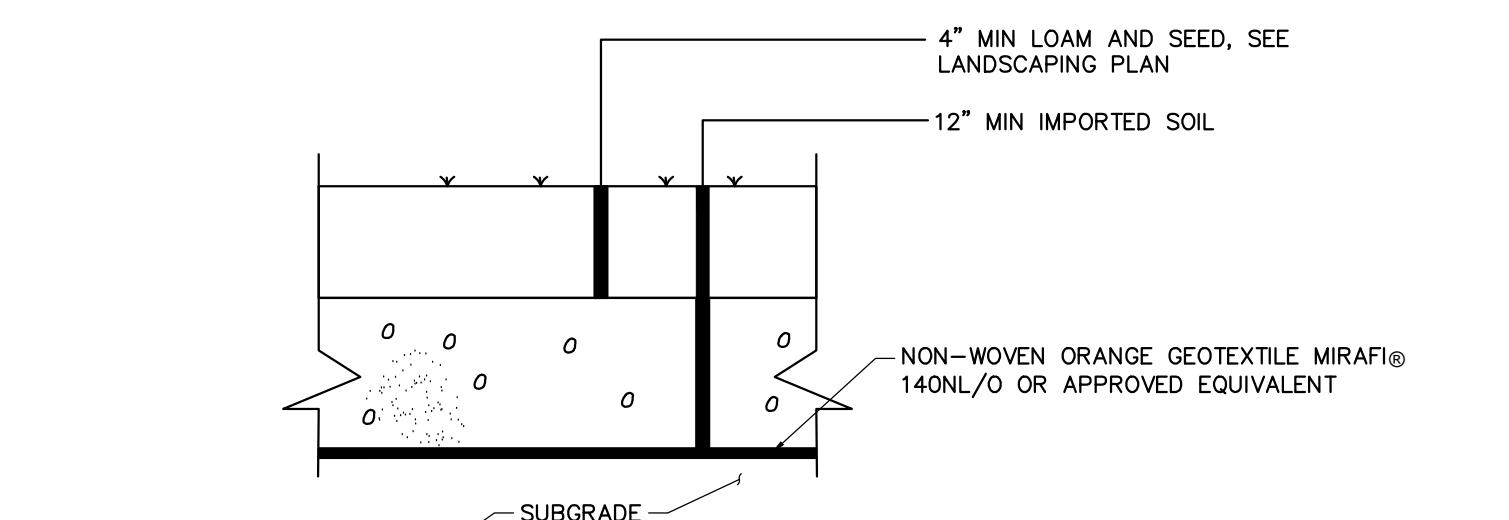
- WINTER CONSTRUCTION IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1 THROUGH APRIL 15. IF AREAS WITHIN THE CONSTRUCTION AREA ARE NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES OUTLINED ABOVE BY NOVEMBER 1 THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES THAT ARE SPECIFIC TO WINTER CONDITIONS.

GOOD HOUSEKEEPING AND POLLUTION PREVENTION

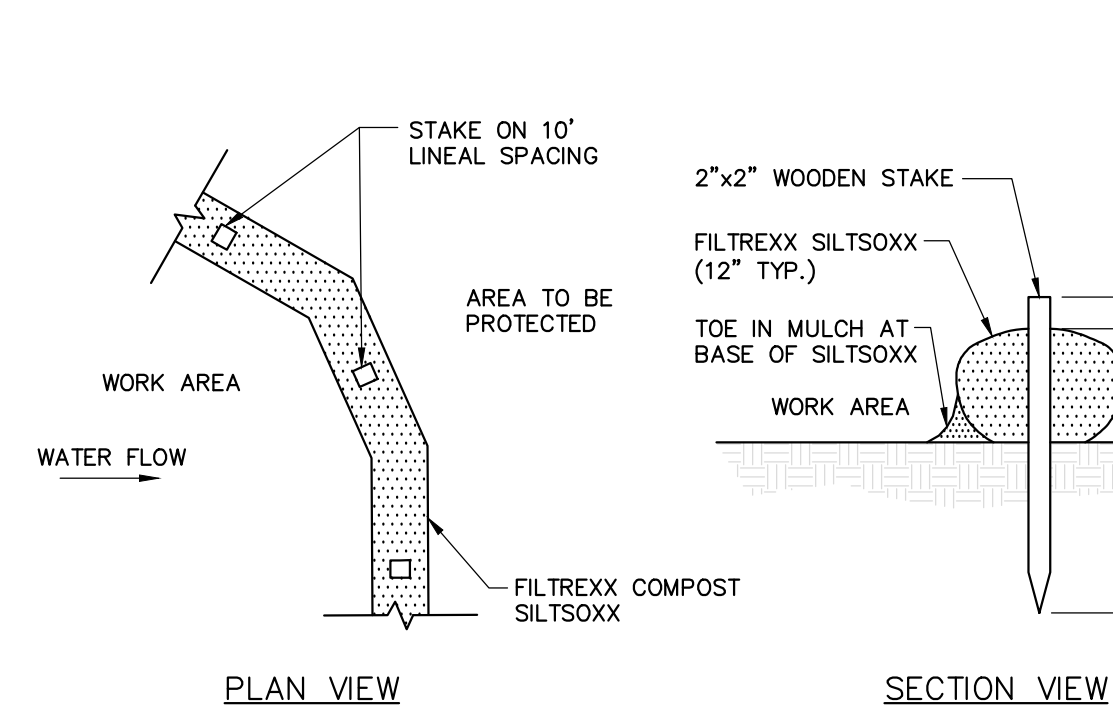
- SPILL PREVENTION CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER RUNOFF AND APPROPRIATE SPILL PREVENTION, CONTAINMENT AND RESPONSE PLANNING AND IMPLEMENTATION.
- DURING CONSTRUCTION, PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUND OR SURFACE WATERS MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO INFILTRATION AREAS. AN "INFILTRATION AREA" IS ANY ARE OF THE SITE THAT BY DESIGN, OR AS A RESULTS OF SOIL AND TOPOGRAPHY, ACCUMULATES RUNOFF THAT INFILTRATES IN THE SOIL. DIKES, BERMS, BUMPS AND OTHER FORMS OF TEMPORARY 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.
- LOCATE ALL MATERIAL STOCKPILES WITH CONSIDERATION FOR STORMWATER DRAINAGE PATTERNS AND INFRASTRUCTURE.
- TAKE ALL REASONABLE MEASURES TO MINIMIZE DUST RESULTING FROM THE PROJECT. OIL MAY NOT BE USED FOR DUST CONTROL.
- LOCATE ALL LITTER, CONSTRUCTION DEBRIS AND CONSTRUCTION CHEMICALS WITH CONSIDERATION FOR STORMWATER DRAINAGE PATTERNS AND INFRASTRUCTURE.
- TRENCH OR FOUNDATION DE-WATERING MUST BE SPREAD THROUGH SUFFICIENT NATURAL BUFFERS THAT HAVE CAPACITY TO INFILTRATE THE PUMPED WATER OR SHOULD BE PUMPED TO DESIGNED DRAINAGE DRAINAGE DEVICES AS DESCRIBED IN THE MAINE EROSION AND SEDIMENT CONTROL BMPs HANDBOOK.
- SEDIMENTS AND SOIL MATERIALS SHOULD BE SWEEPED FROM PAVED SURFACES AT THE END OF EACH WORKDAY OR PRIOR TO RAIN EVENTS, WHENEVER POSSIBLE.

INSPECTION AND MAINTENANCE

- A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROLS, INCLUDING THE STANDARDS IN THE MAINE CONSTRUCTION GENERAL PERMIT, THE MAINE EROSION AND SEDIMENT CONTROL BMPs HANDBOOK OR ANY MUNICIPAL REQUIREMENTS MUST CONDUCT THE INSPECTION. THIS PERSON MUST BE IDENTIFIED IN THE INSPECTION LOG. IF ADDITIONAL BMPs OR MODIFICATIONS TO BMPs ARE NECESSARY, THE MODIFICATIONS MUST BE IMPLEMENTED WITH 7 CALENDAR DAYS OR PRIOR TO ANY PRECIPITATION EVENT. ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.
- AN INSPECTION AND MAINTENANCE LOG MUST BE KEPT BY THE CONTRACTOR, SUMMARIZING THE SCOPE OF THE INSPECTION, DATE, AND MAJOR OBSERVATIONS RELATING TO THE OPERATION OF EROSION AND SEDIMENT CONTROL BMPs, MATERIAL STORAGE AREAS, AND VEHICLE ACCESS POINTS TO THE CONSTRUCTION AREA. THE INSPECTION LOG SHOULD BE DELIVERED TO THE PROPERTY OWNER OR RESPONSIBLE CONTRACTING ENTITY UPON COMPLETION OF THE PROJECT.



LOAM & SEED DETAIL - OPTION 1
N.T.S.



LOAM & SEED DETAIL - OPTION 2
N.T.S.

SEDIMENT BARRIER - SILT SOXX

N.T.S.

1. WHEN STAKING IS NOT POSSIBLE, HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND THE SEDIMENT CONTROL TO HELP STABILIZE DURING RAINFALL/RUNOFF EVENTS.

Inspections:

Regular inspections of all erosion and sedimentation controls shall be made at least weekly and prior to and following storm events. Minimum inspections shall be made as listed in the table below.

Inspected Item	Look For
Mulched Surfaces	Thin mulch or inadequate application. Wind movement.
Seeded Surfaces	Poor seed germination. Loss of mulch. Development of rills.
Sediment Barrier	Sediment build-up to one half the height of the barrier. Undermining of the barrier. Supporting stakes loose, toppled, or unmarked. Breaks in barrier.
Perimeter Diversion	Discharge is to stabilized area. Erosion or breaks in barrier. Supporting stakes loose, toppled or unmarked.
Catch Basin Protection	Sediment build-up and structure blockages. Slow flow/Ponding water. Breaks in fabric or voids in barrier.
Dewatering Filter	Breaks in fabric or supporting structure. Slow flow, indicating high sediment build-up.
Construction Entrance	Sedimentation of roadways. Off-site dust complaints.

Permanent Erosion Control:

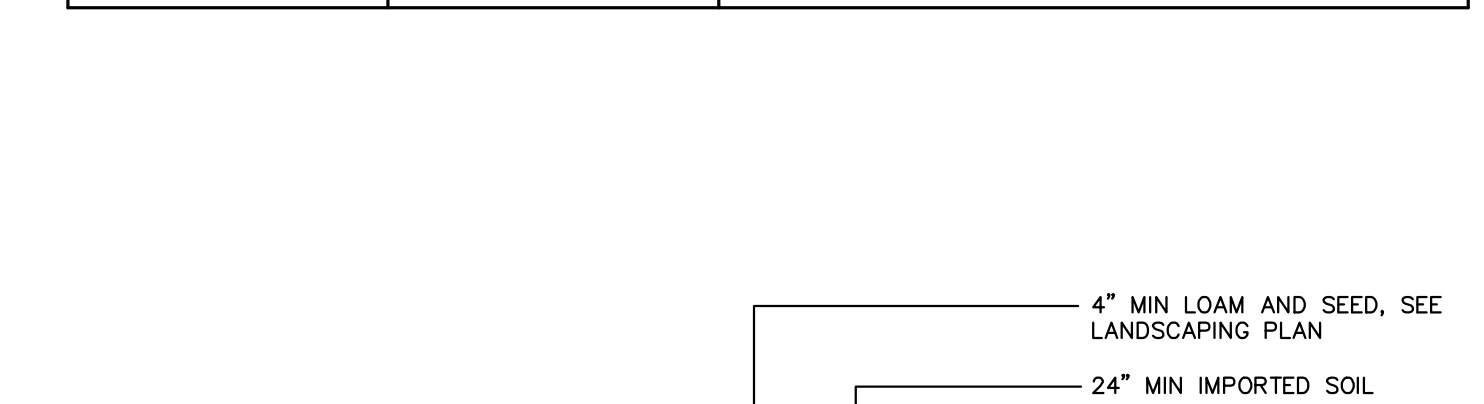
Measure	Dates For Use	Timing, Activity, and Location
Pavement - Base Course - Final Course	When no frost is in ground	Install only in areas shown on the plan, shortly after completion of project.
Permanent Seeding	April 15 to Sept. 15	On final grade areas, within 7 days of grade preparation, prepare topsoil, followed by seed and mulch application.
Dormant Seeding	Sept. 16 to April 15	On final grade areas, with prepared topsoil. Apply seed at double the specified rate on bare soil, and follow with an application of winter mulch.
Ground Cover, Trees, Shrubs	April 15 to Nov. 1	Install with final landscaping.
Permanent Mulch	ALL	Install with final landscaping.

EROSION AND SEDIMENT CONTROL NOTES

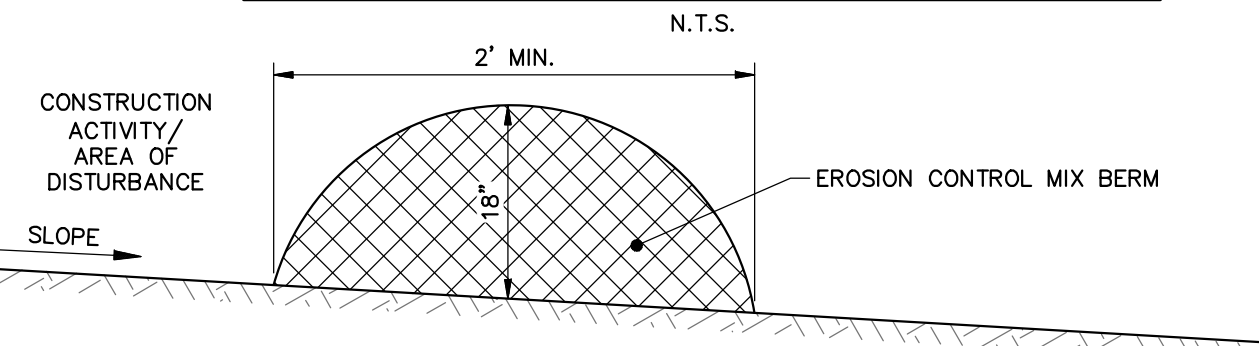
Temporary Erosion Control

Contractor shall prepare and submit a soil erosion and water pollution control plan to engineer

Measure	Dates For Use	Timing, Activity, and Location
Sedimentation Barrier	ALL	Before soil disturbance, install downhill of areas to be disturbed and around material stockpiles.
Up-slope Diversion	ALL	Before soil disturbance, install uphill of areas to be disturbed and around material stockpiles.
Catch Basin Protection	ALL	Before soil or pavement disturbance, install ACF Environmental, Inc. High Flow Siltsock, Siltsoxx Inlet Filter, or equal, installed per manufacturer's requirements.
Dust Control	ALL	During dry weather, apply water and calcium chloride to control dust.
Temporary Seeding	April 15 to Oct. 1	Soil stockpiles that are not covered and disturbed areas that will not be disturbed again within 14 days. If grass growth provides less than 95% soil coverage by Nov. 1, apply mulch and anchor with erosion control blanket.
Mulch	April 15 to Sept. 15	On all areas of exposed soil prior to rain events or every 7 days, apply 100-150 lbs (2.5 bales) per 1,000 sq. ft. by mechanical blower.
Winter Mulch	Sept. 16 to Oct. 31	On all areas of exposed soil prior to precipitation or every 7 days, apply 150 to 170 lbs. mulch (4 bales) per 1,000 sq. ft. by mechanical blower. Erosion control blanket may be used as a substitute for winter mulch.
Inspections	Until site is permanently stabilized	Inspect the erosion and sedimentation control measures per inspections table below and maintain and repair as necessary.



LOAM & SEED DETAIL - OPTION 2
N.T.S.

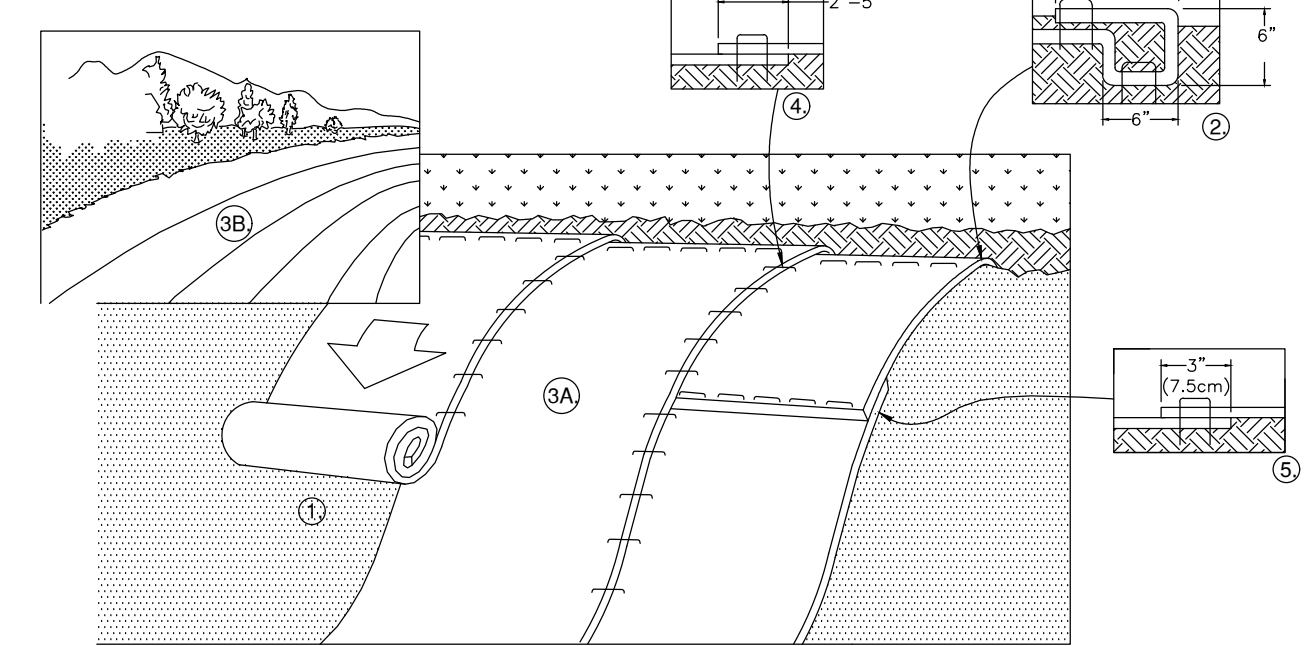


NOTES:

- EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE PROJECT SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.
- EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:
 - THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80 AND 100% DRY WEIGHT BASIS.
 - PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70% MAXIMUM OF 85% PASSING A 0.75" SCREEN.
 - THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
 - LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
 - SOLUBLE SALTS CONTENT SHALL BE < 4.0 MMHOS/CM.
 - THE PH SHOULD FALL BETWEEN 5.0 AND 8.0.

SEDIMENT BARRIER - EROSION CONTROL MIX BERM

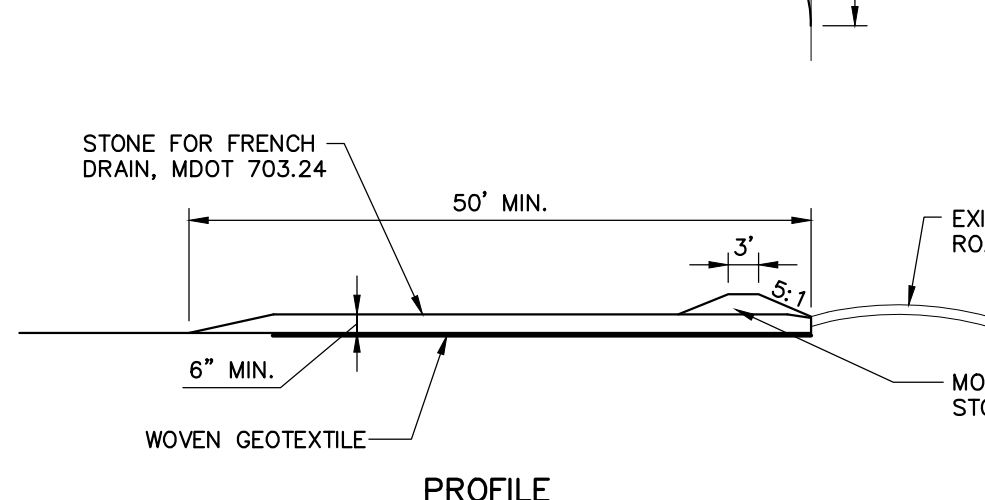
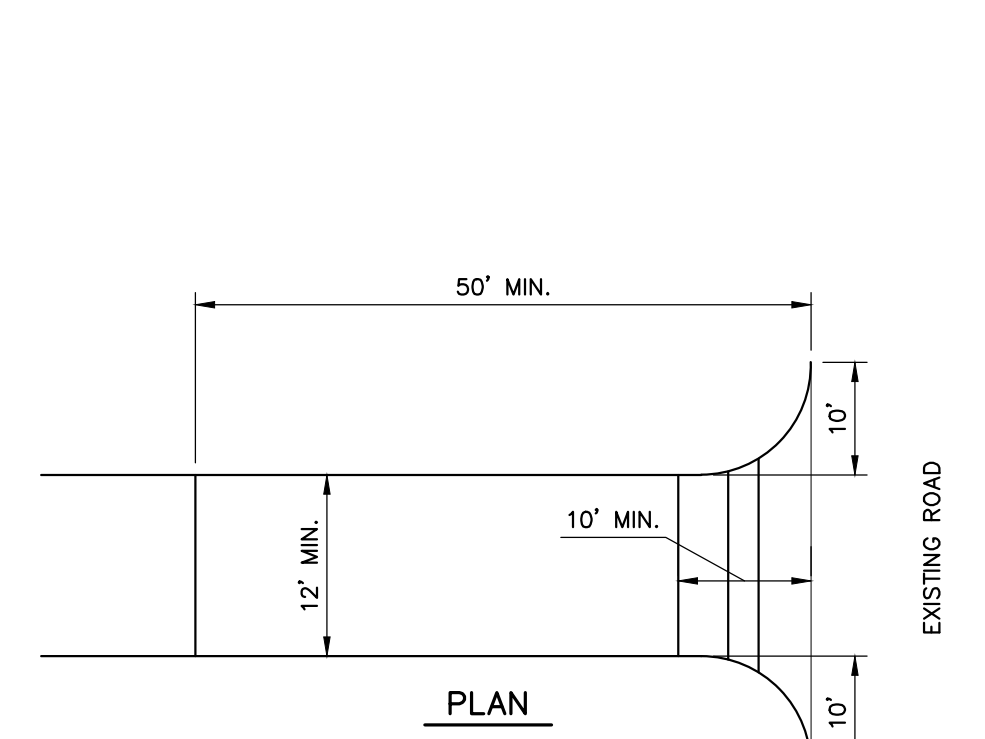
N.T.S.



- PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED AS WELL AS REMOVING ANY MUTILATING ROCKS, STUMPS OR ROOTS. DURING THE GROWING SEASON (APRIL 15-SEPTEMBER 15) USE RECP'S ON THE BASE OF GRASSED WATERWAYS, SOIL SLOPES HAVING A GRADE GREATER THAN 15%, OR ANYWHERE WHERE HAY MULCH HAS PROVEN TO BE INEFFECTIVE AT CONTROLLING SHEET EROSION. RECP'S ARE A MANUFACTURED COMBINATION OF MULCH AND NETTING DESIGNED TO PREVENT EROSION AND RETAIN SOIL MOISTURE. FOR OVER WINTER PROTECTION, APPLY RECP'S ON THE BASE AND SIDE SLOPES OF GRASSED WATERWAYS AND ON SLOPES STEEPER THAN AN 8:1 GRADE.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
- ROLL THE RECP'S (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" - 5" OVERLAP DEPENDING ON RECP'S TYPE.
- CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.
- UNTIL GRASS IS ABUNDANT, INSPECT PERIODICALLY AND AFTER EACH RAINSTORM TO CHECK FOR EROSION. IMMEDIATELY REPAIR AND ADD MORE MULCH UNTIL GRASSES ARE FIRMLY ESTABLISHED. DO NOT MOW THE YEAR.

ROLLED EROSION CONTROL MATTING

N.T.S.



ROLLED EROSION CONTROL MATTING
N.T.S.

NOTES:

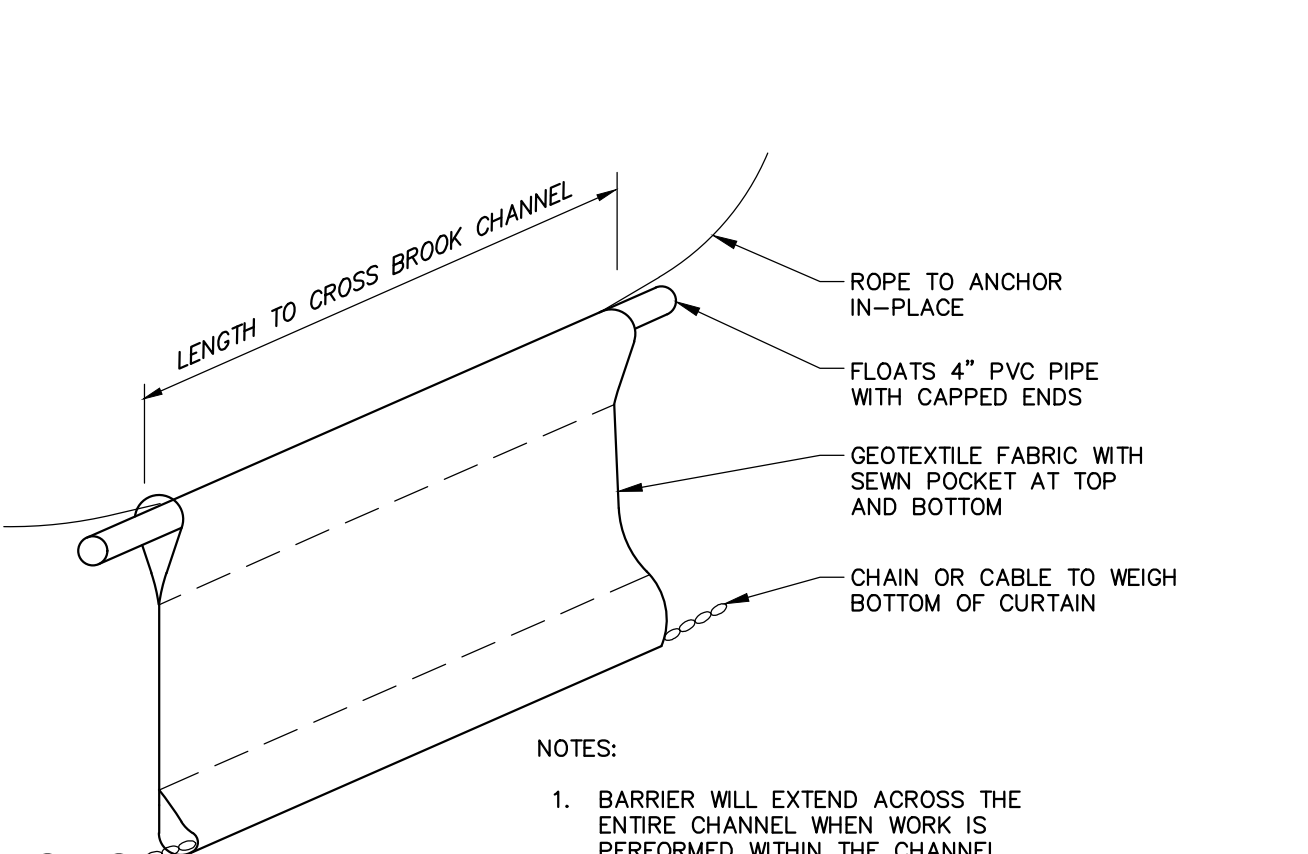
- SIZE AS INDICATED ABOVE UNLESS INDICATED ON DRAWINGS.
- CONSTRUCTION ENTRANCES MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
- WHEEL WASH PITS MAY ALSO BE USED, IF APPROVED.

MAINTENANCE: INSPECT FOR EFFECTIVE REMOVAL OF SOIL FROM VEHICLES PRIOR TO LEAVING THE SITE. SWEEP ANY SOIL FROM ADJACENT ROADWAYS.

REMOVAL: AT LEAST ONE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED UNTIL ALL AREAS OF THE SITE ARE STABILIZED.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

N.T.S.



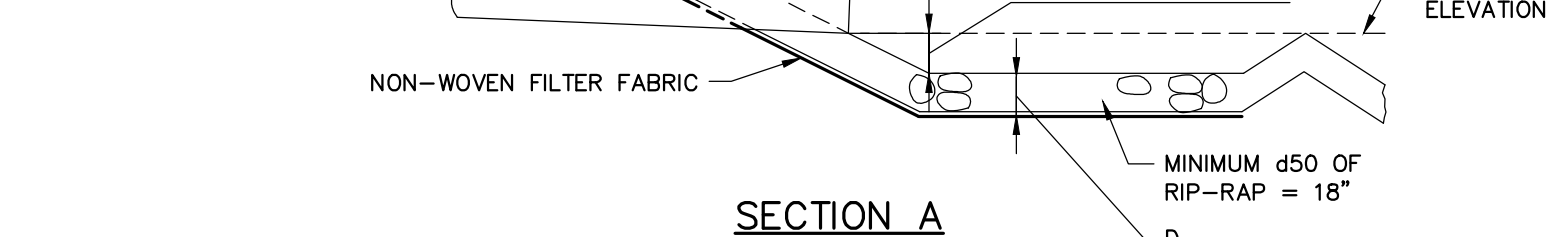
STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.

FLOATING TURBIDITY BARRIER DETAIL

N.T.S.

1. BARRIER WILL EXTEND ACROSS THE ENTIRE CHANNEL WHEN WORK IS PERFORMED WITHIN THE CHANNEL.

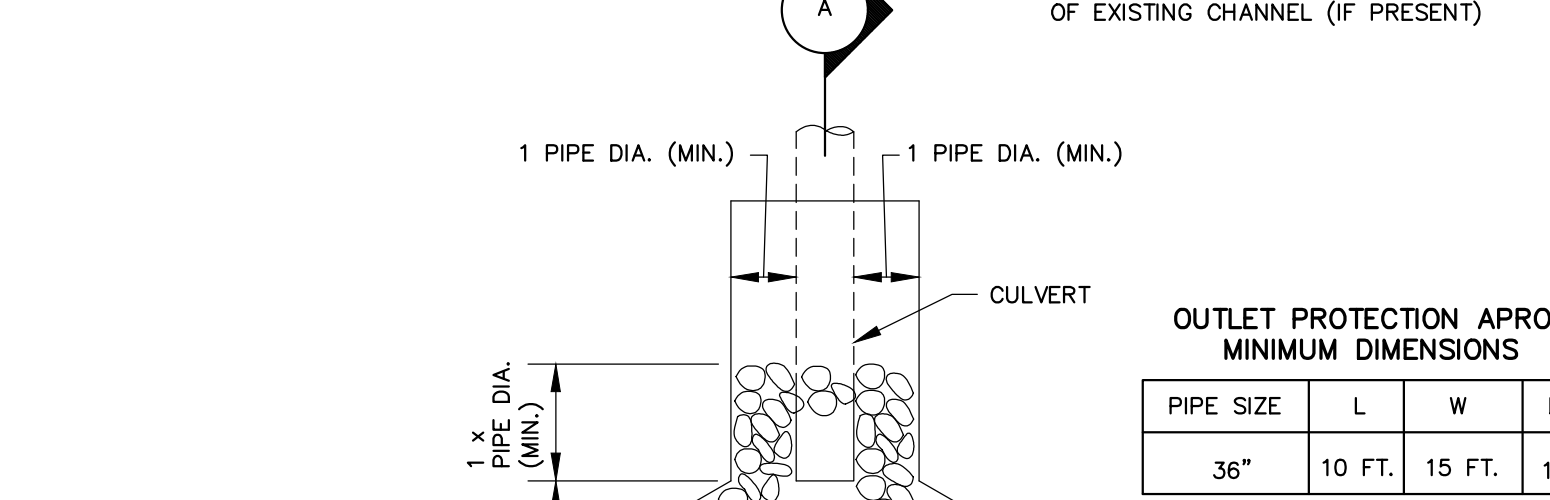
2. ROPE SHALL BE 1/2" NYLON OR MANILA.



RIP-RAP OUTLET PROTECTION APRON DETAIL
N.T.S.

NOTES:

- 12" MIN RIP-RAP UP SIDE SLOPES OF EXISTING CHANNEL (IF PRESENT)



RIP-RAP OUTLET PROTECTION APRON DETAIL
N.T.S.

NOTES:

- APRON WIDTH SHALL EXTEND FULL WIDTH OF BOTTOM AND ONE FOOT ABOVE MAX. TAILWATER OR UP BANK FULL, WHICHEVER IS LESS.

APRON LENGTH + 1 PIPE DIA. IN DEFINED CHANNELS W

APRON LENGTH + 1 PIPE DIA. IN DEFINED CHANNELS W

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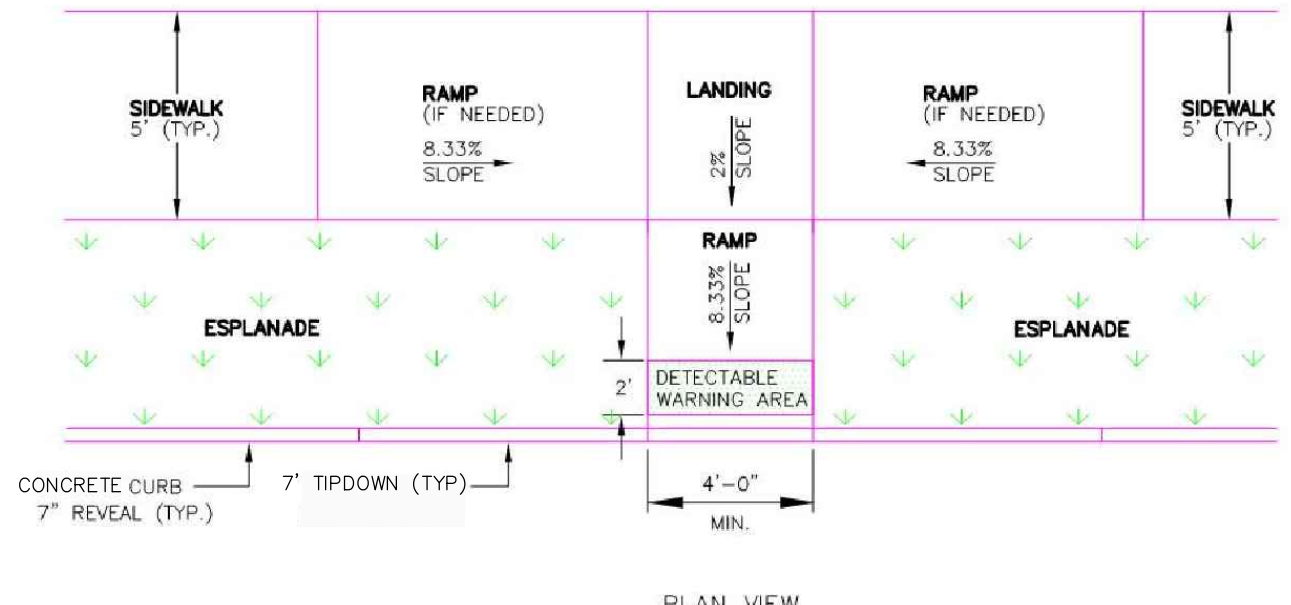
APRON LENGTH + 1 PIPE DIA. IN DEFINED CHANNELS W

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APRON LENGTH + 1 PIPE DIA. IN DEFINED CHANNELS W

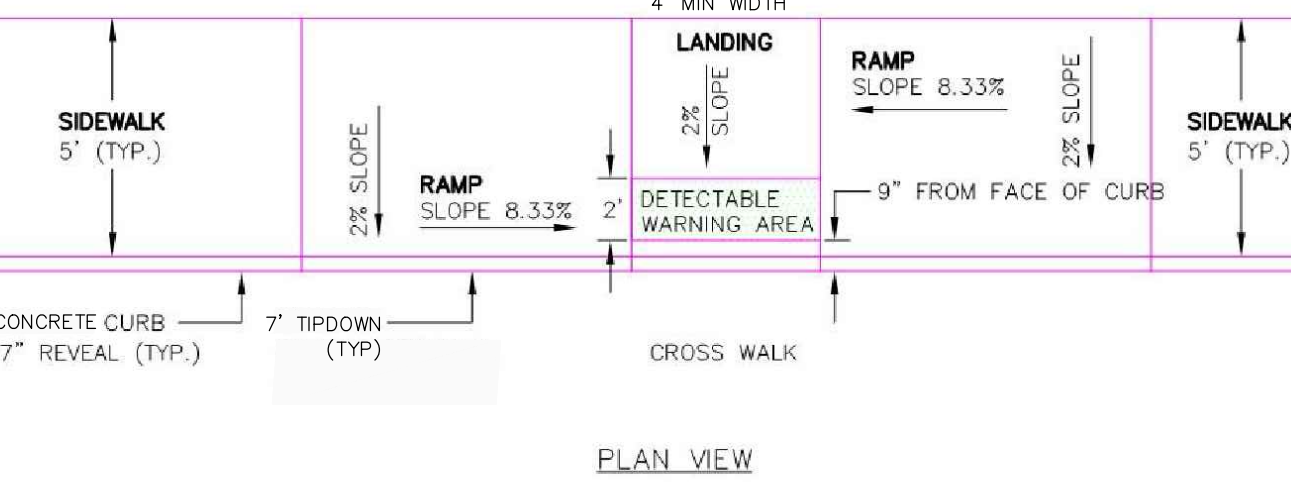
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4	7/15/2020	REVISED DRAWING SET	W.C.	
5	7/15/2020	REVISED DRAWING SET	W.C.	
6	7/15/2020	REVISED DRAWING SET	W.C.	
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100	7/15/2020	REVISED DRAWING SET	W.C.	

NOTES:
ALL RAMPS SHALL COMPLY WITH ADA STANDARDS.
GRANITE CURB ADJACENT TO LANDING SHALL BE FLUSH WITH STREET.
SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.

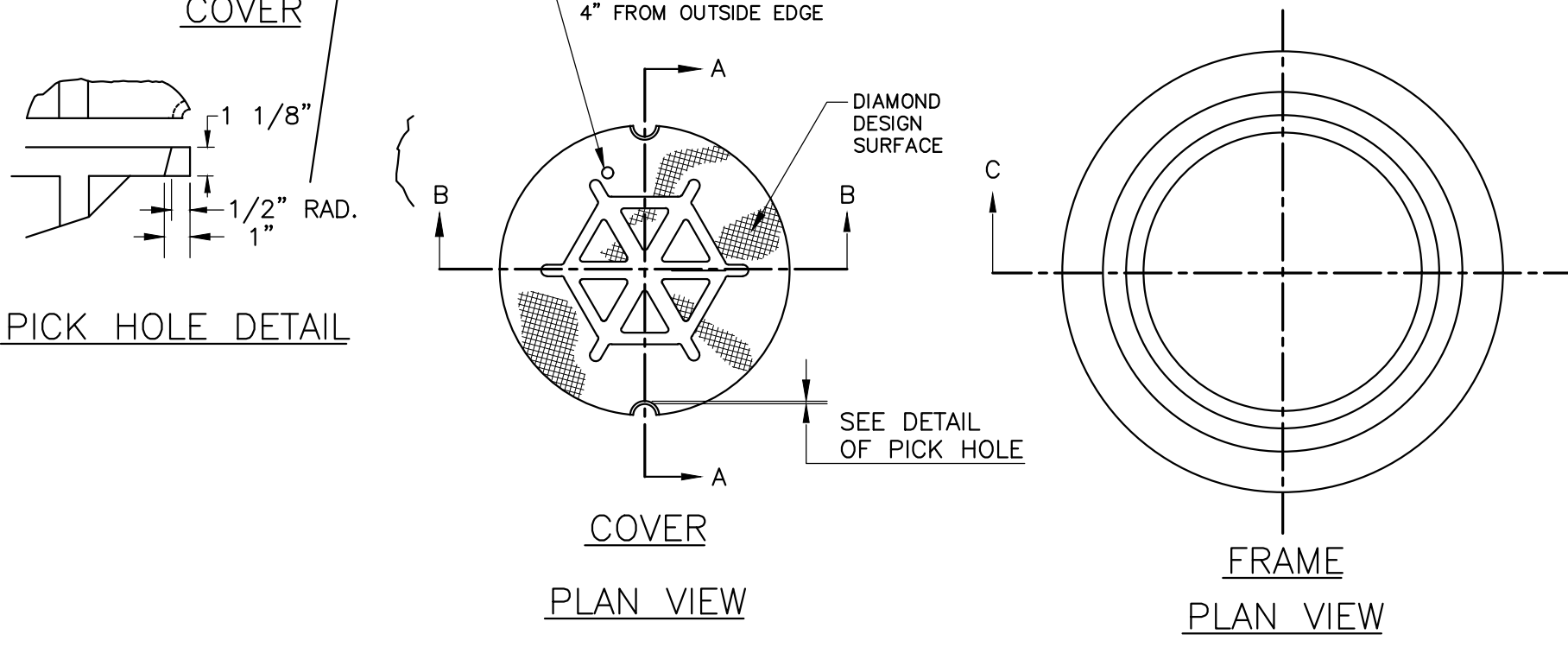
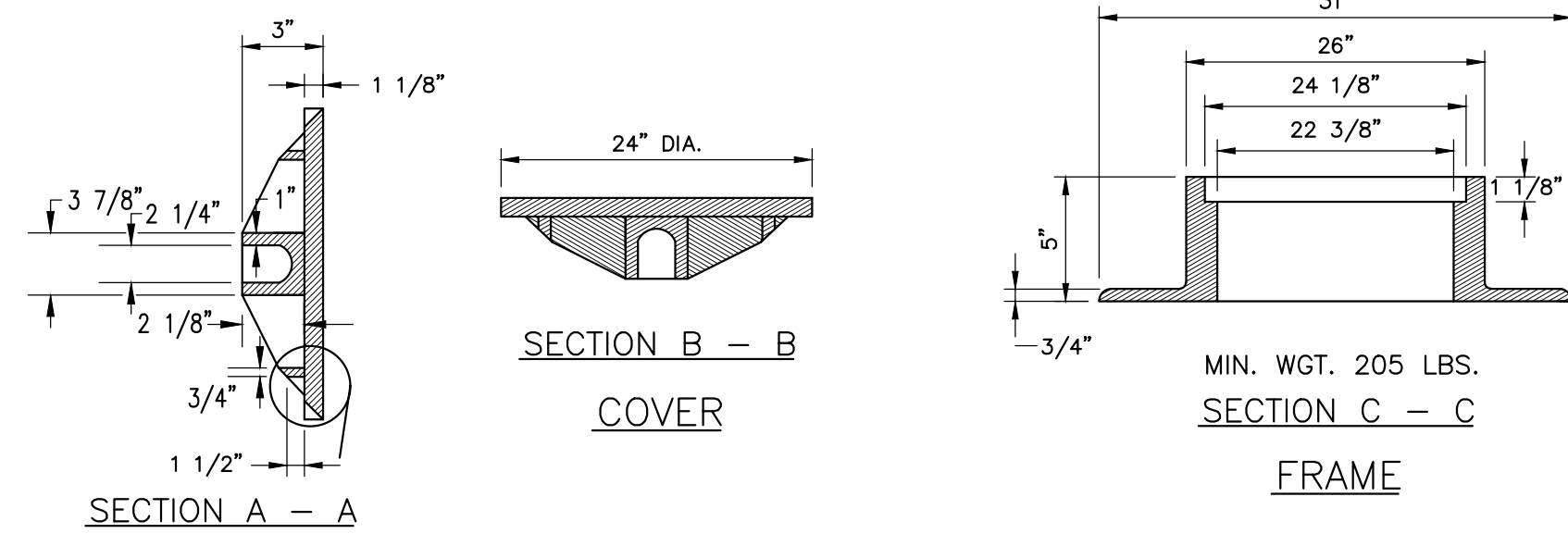


PERPENDICULAR ADA RAMP LAYOUT FOR NARROW SIDEWALK WITH ESPLANADE

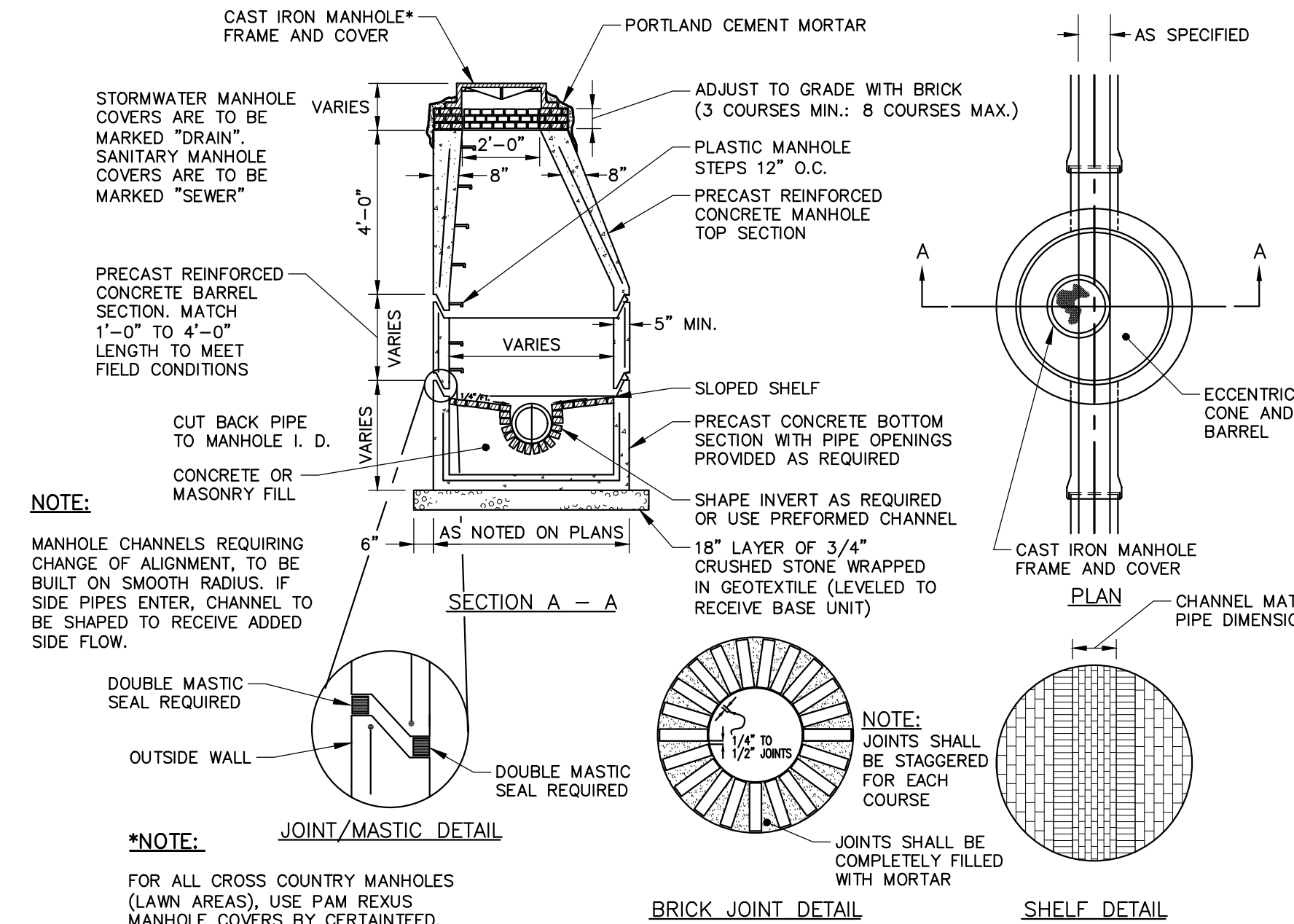
NOTES:
ALL RAMPS SHALL COMPLY WITH ADA STANDARDS.
GRANITE CURB ADJACENT TO LANDING SHALL BE FLUSH WITH STREET.
SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.



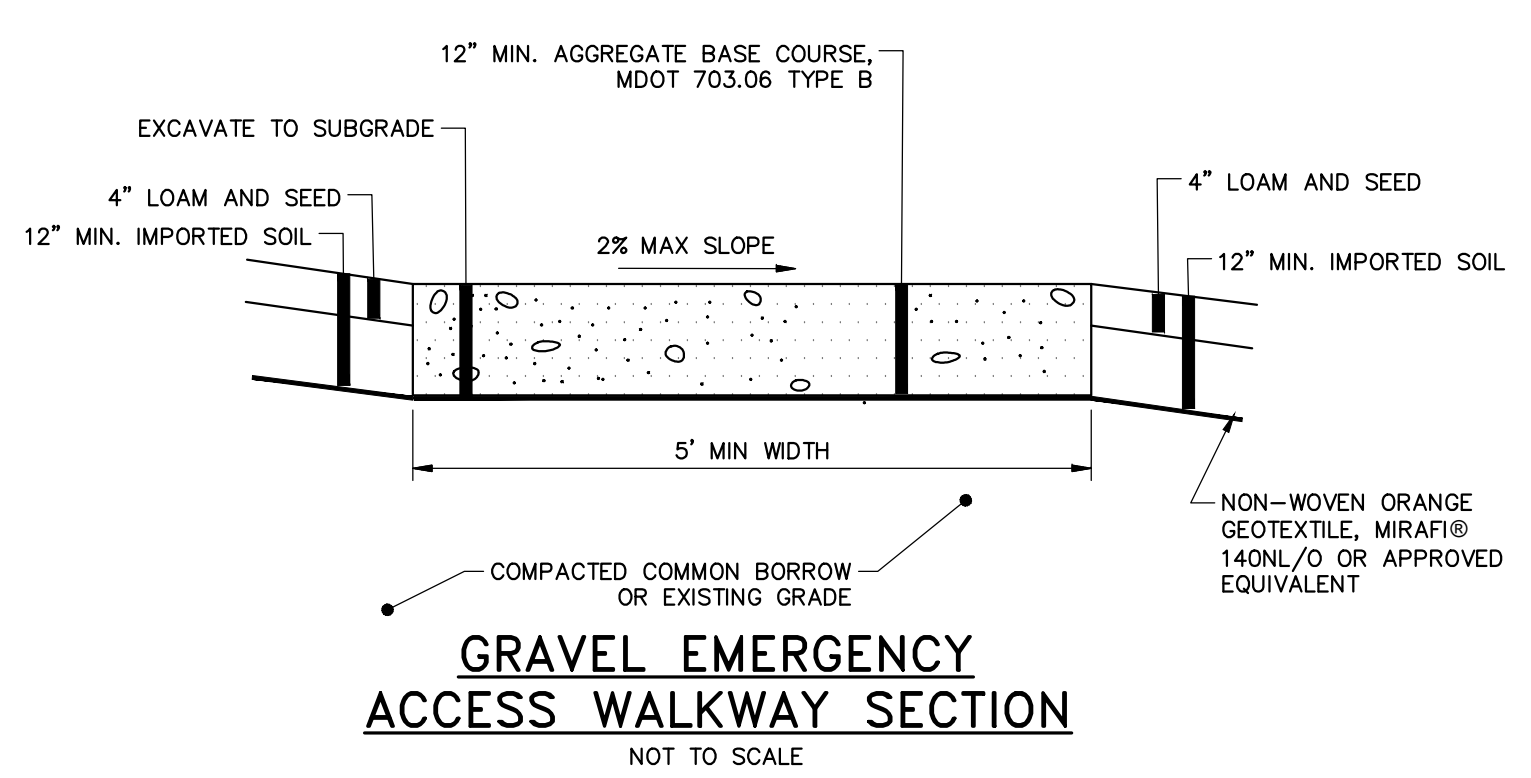
PARALLEL SIDEWALK RAMP LAYOUT FOR NARROW SIDEWALK WITH NO ESPLANADE



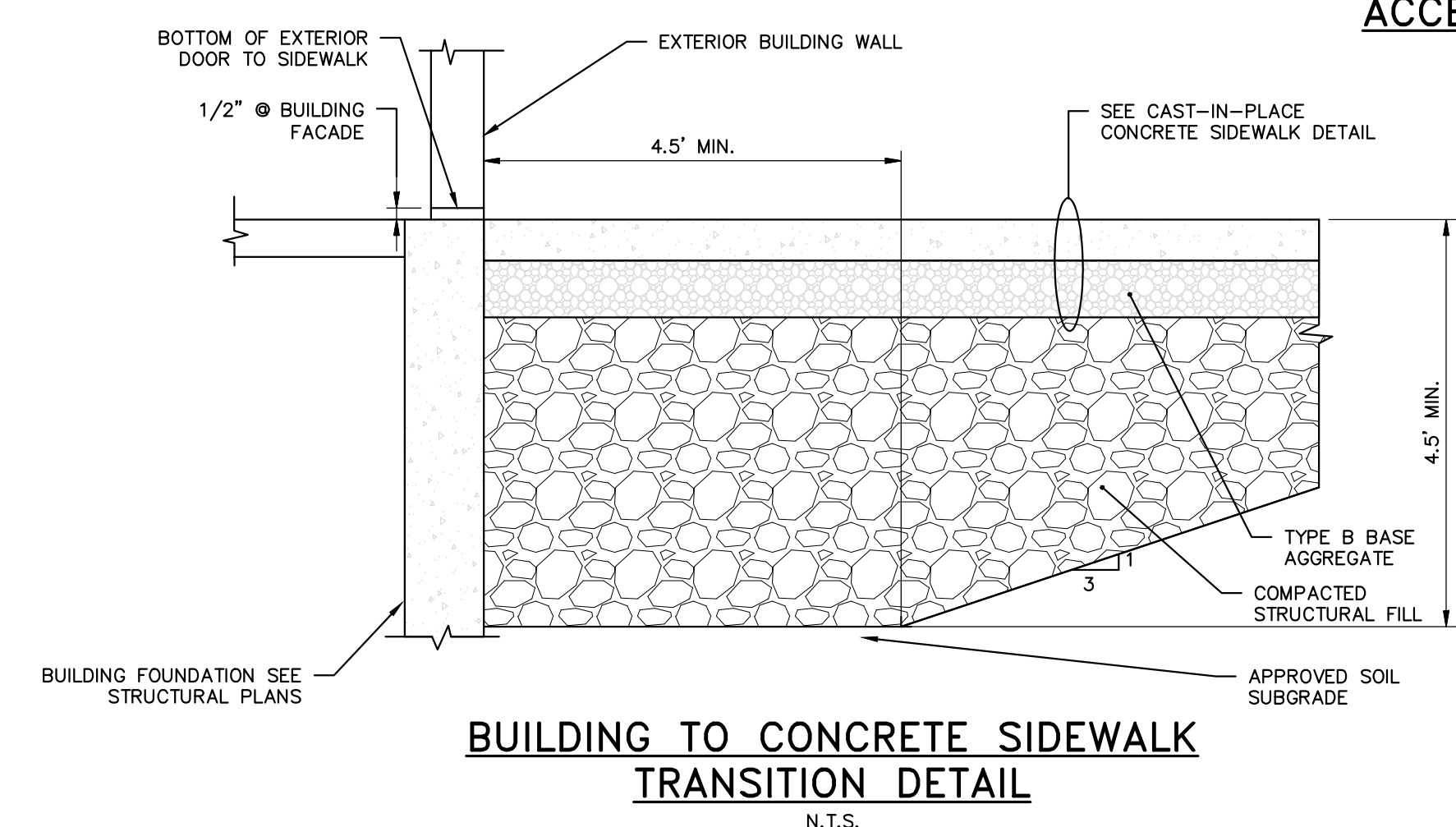
TYPE "A" CAST IRON MANHOLE COVER AND FRAME



PRECAST CONCRETE MANHOLE



GRAVEL EMERGENCY ACCESS WALKWAY SECTION



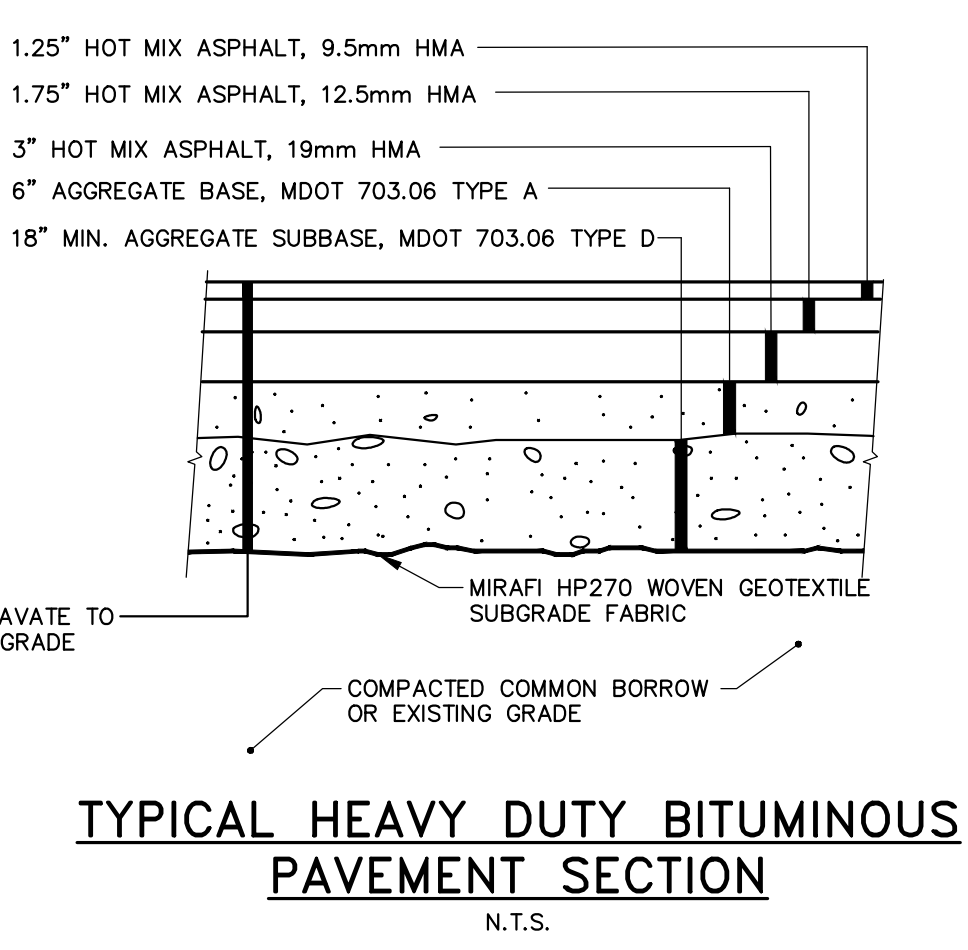
BUILDING TO CONCRETE SIDEWALK TRANSITION DETAIL

- CONCRETE SPECIFICATION:**
- MDOT CLASS A CONCRETE
- CONCRETE JOINT SPECIFICATION:**
- SPACING OF JOINTS - 10 FEET ON CENTER ALONG LENGTH OR AS INDICATED ON STRUCTURAL AND ARCHITECTURAL PLANS.
 - SAW CUT JOINTS AT 1 1/2" MAX. DEPTH
- FINISH SPECIFICATION:**
- BROOM SWEEP FINISH
 - CURE WITH CURE-TO-SPEC MS
 - AFTER CONSTRUCTION JOINTS HAVE BEEN FILLED AND SEALED; APPLY "CONSOLID DECK SALTGUARD"
- NOTE:**
- ALL CONCRETE SHALL BE PLACED BY AN A.C.I. FLATWORK CERTIFIED FINISHER

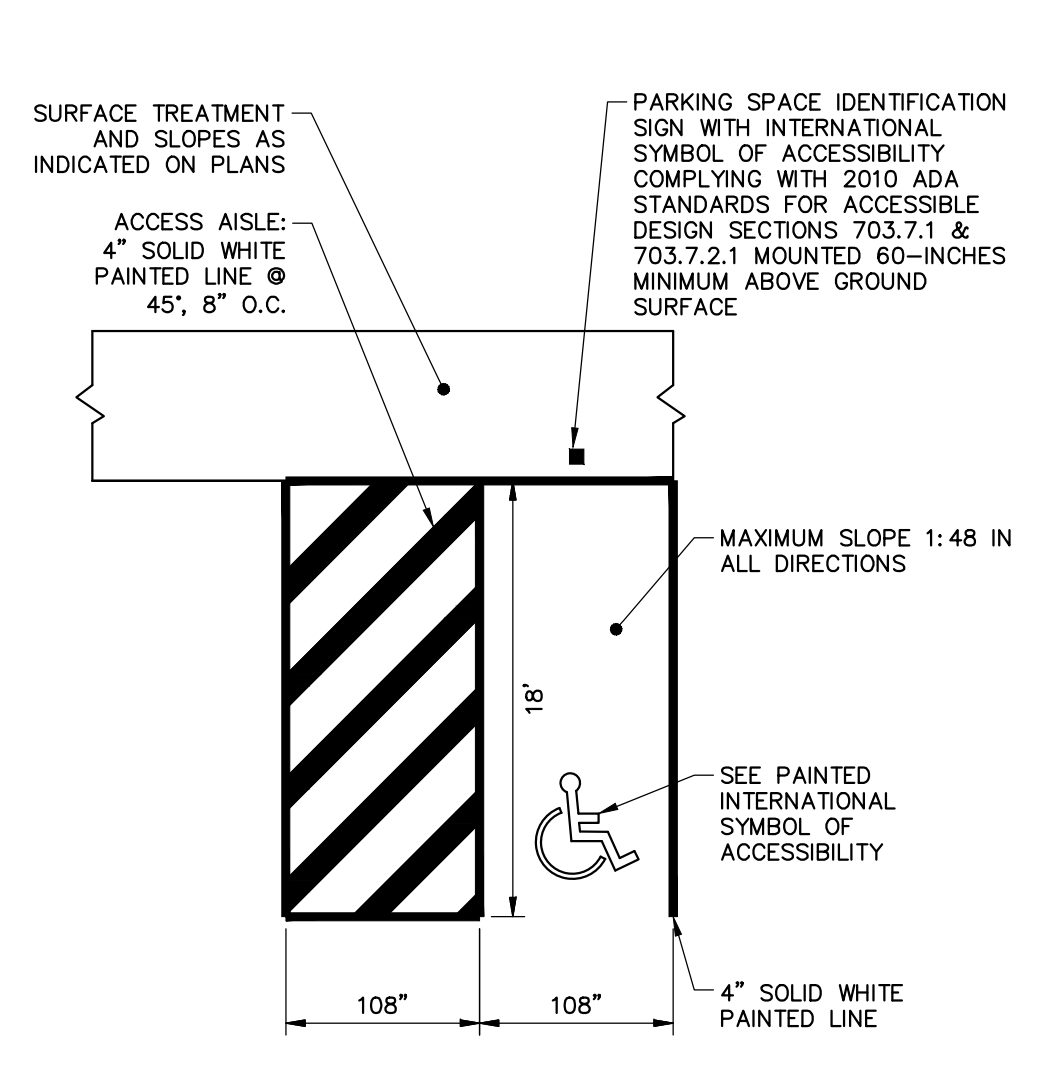
GENERAL NOTES FOR MANHOLES AND CATCH BASINS

1. ALL CONCRETE SHALL BE CLASS "A" AND HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 LBS. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
3. ALL MANHOLES SHALL HAVE A BITUMINOUS WATERPROOFING APPLIED TO THE EXTERIOR SURFACE, IF CONSTRUCTED OF BRICK MASONRY, SURFACE SHALL BE PLASTERED WITH A SMOOTH MORTAR FINISH 3/8" THICK. AFTER THE MORTAR HAS SET, THE SURFACE SHALL BE WATERPROOFED AS REQUIRED BY SUPPLEMENTAL SPECIFICATIONS SECTION 604.
4. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35. ALL PARTS OF CASTINGS, EXCEPT FINISHED SURFACE, SHALL RECEIVE A COAT OF COAL TAR PITCH VARNISH OR ASPHALTUM PAINT WHICH SHALL BE SMOOTH AND TOUGH BUT NOT BRITTLE.
5. MANHOLES MAY BE CONSTRUCTED OF MASONRY, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
6. CONTRACTOR SHALL SUBMIT ANTI-FLOATATION CALCULATIONS FOR ALL MANHOLE AND CATCH BASIN STRUCTURES.
7. ALL PRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION, OFFSET, AND STRUCTURE ID PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
8. STORM AND SEWER MANHOLES SHALL HAVE SOLID COVERS WITH ONE DRILLED PICK HOLE.
9. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF OWNER.
10. WHEN THE FLOW CHANGES DIRECTION IN A MANHOLE, THE CHANNEL ALIGNMENT SHALL FOLLOW A SMOOTH RADIUS. CHANNELS SHALL BE FORMED TO ACCEPT ALL INLET PIPES.
11. ON STORM AND SEWER MANHOLES, THE SHELF AND CHANNEL SHALL BE FORMED BY BRICK SET IN CEMENT MORTAR OR BY FACTORY PRE-CAST CONCRETE. SUCH PRE-CAST CONCRETE SHALL BE EPOXY COATED AND THE SHELF SHALL HAVE A PERMANENT NON-SKID SURFACE.

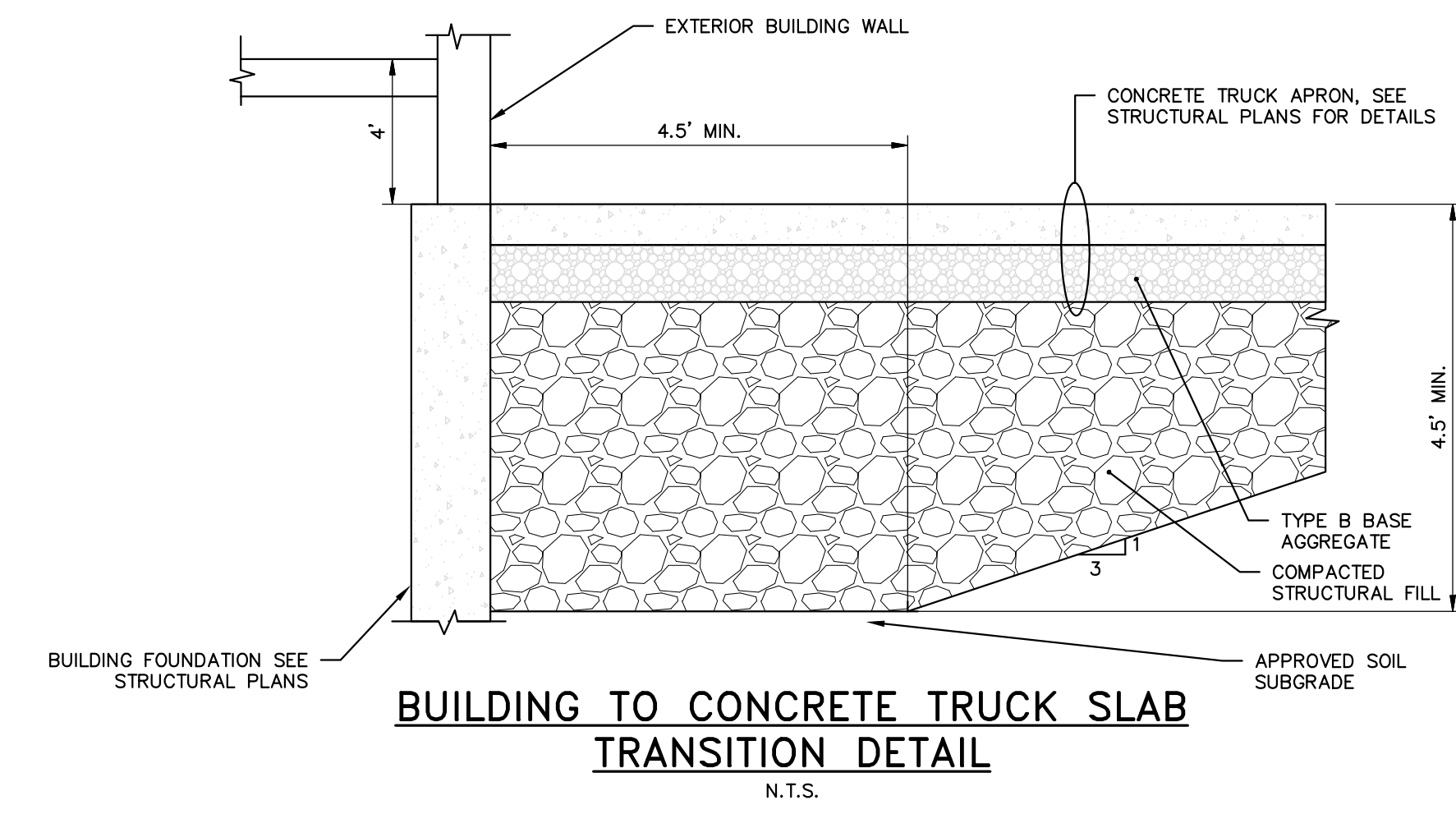
PRECAST CONCRETE CURB (PCC)



TYPICAL HEAVY DUTY BITUMINOUS PAVEMENT SECTION

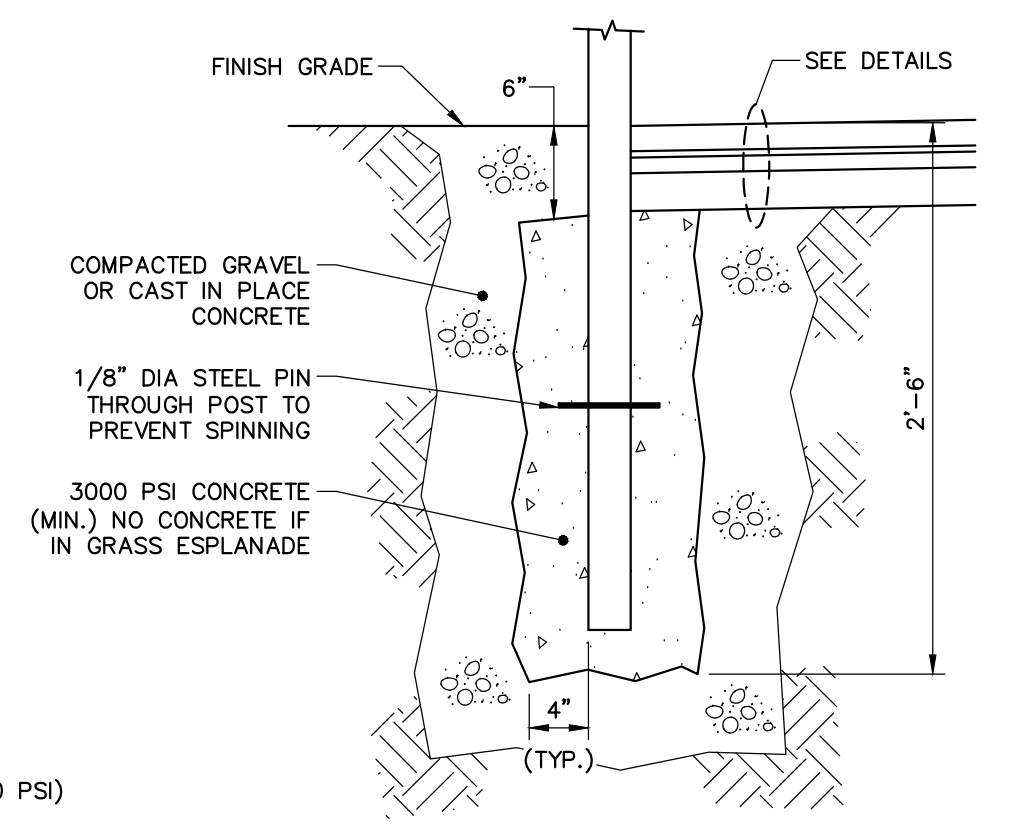


ACCESSIBLE PARKING STALL LAYOUT



BUILDING TO CONCRETE TRUCK SLAB TRANSITION DETAIL

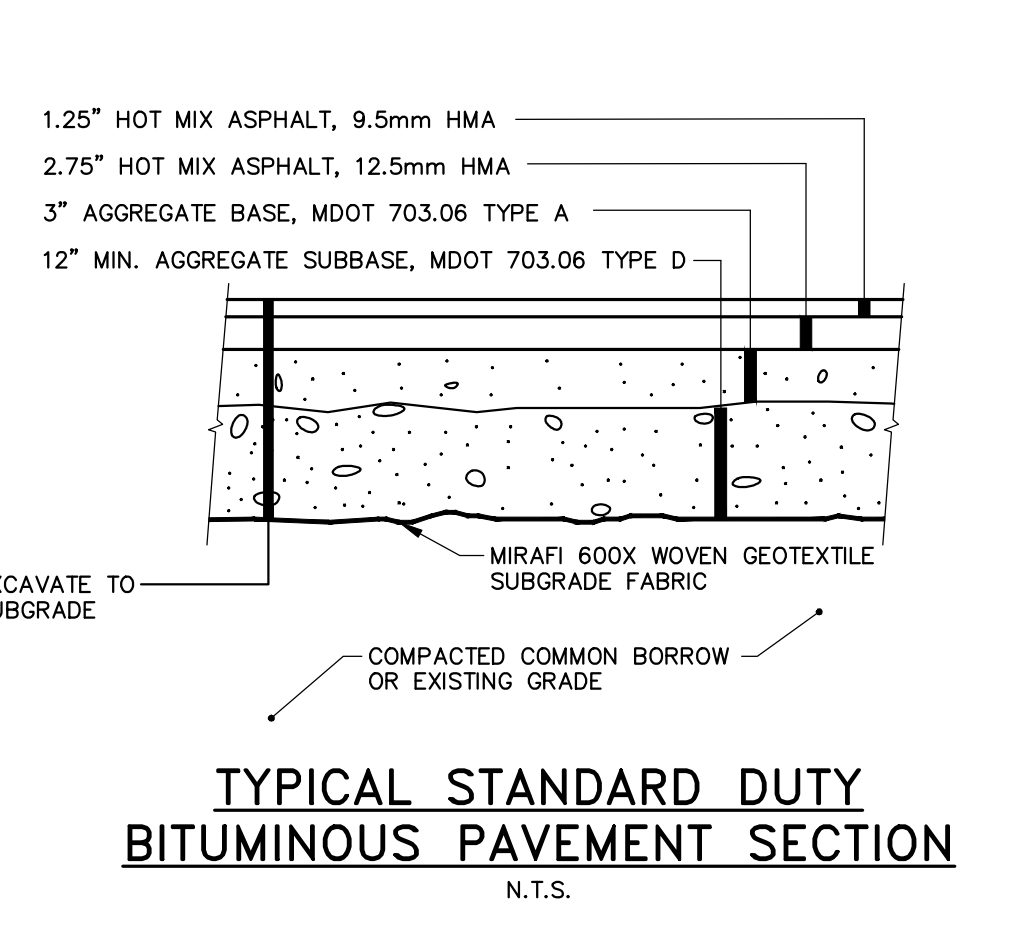
- CONCRETE SPECIFICATION:**
- MDOT CLASS A CONCRETE
- CONCRETE JOINT SPECIFICATION:**
- SPACING OF JOINTS - 10 FEET ON CENTER ALONG LENGTH OR AS INDICATED ON STRUCTURAL AND ARCHITECTURAL PLANS.
 - SAW CUT JOINTS AT 1 1/2" MAX. DEPTH
- FINISH SPECIFICATION:**
- BROOM SWEEP FINISH
 - CURE WITH CURE-TO-SPEC MS
 - AFTER CONSTRUCTION JOINTS HAVE BEEN FILLED AND SEALED; APPLY "CONSOLID DECK SALTGUARD"
- NOTE:**
- ALL CONCRETE SHALL BE PLACED BY AN A.C.I. FLATWORK CERTIFIED FINISHER



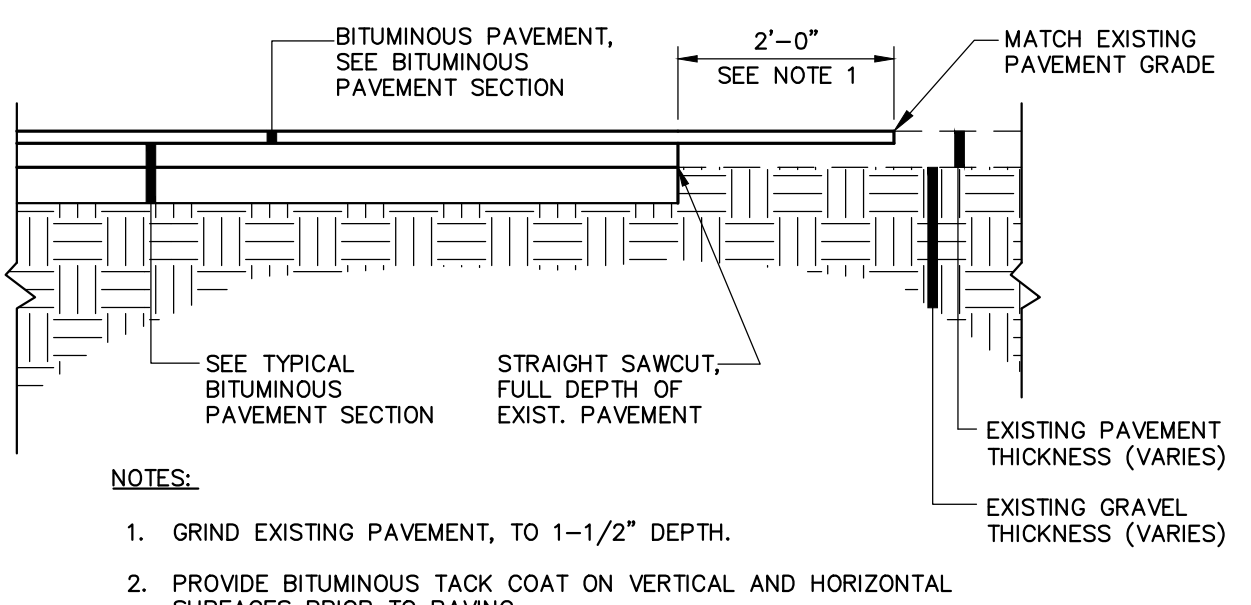
POST SPECIFICATION		
TYPE	HEIGHT ABOVE FIN. GRADE	POST MATERIAL
STREET SIGNAGE	7'-0"	GALV. STEEL

TYPICAL SIGN POST DETAIL

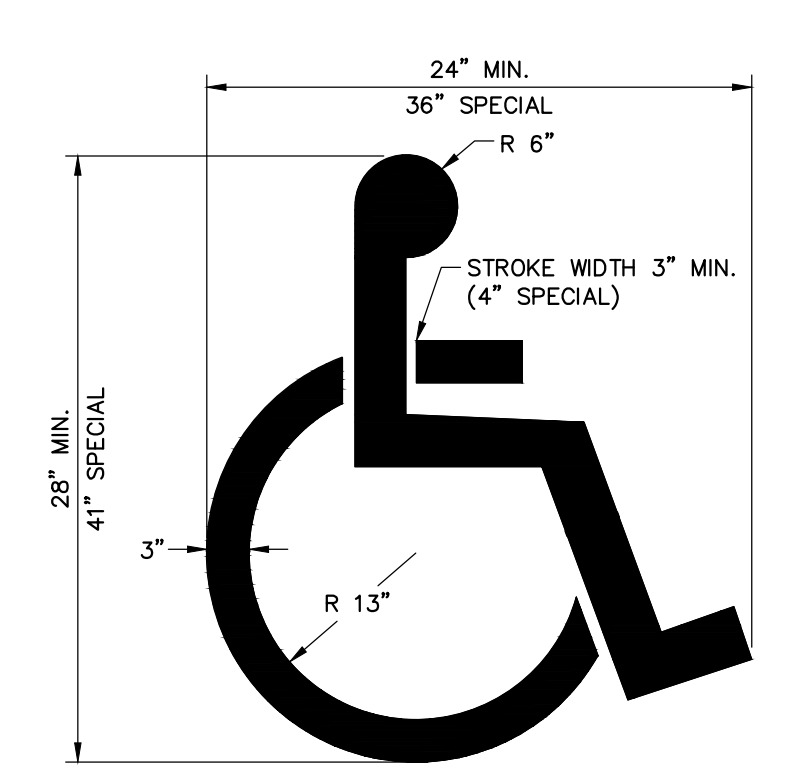
CAST-IN-PLACE CONCRETE SIDEWALK



TYPICAL STANDARD DUTY BITUMINOUS PAVEMENT SECTION

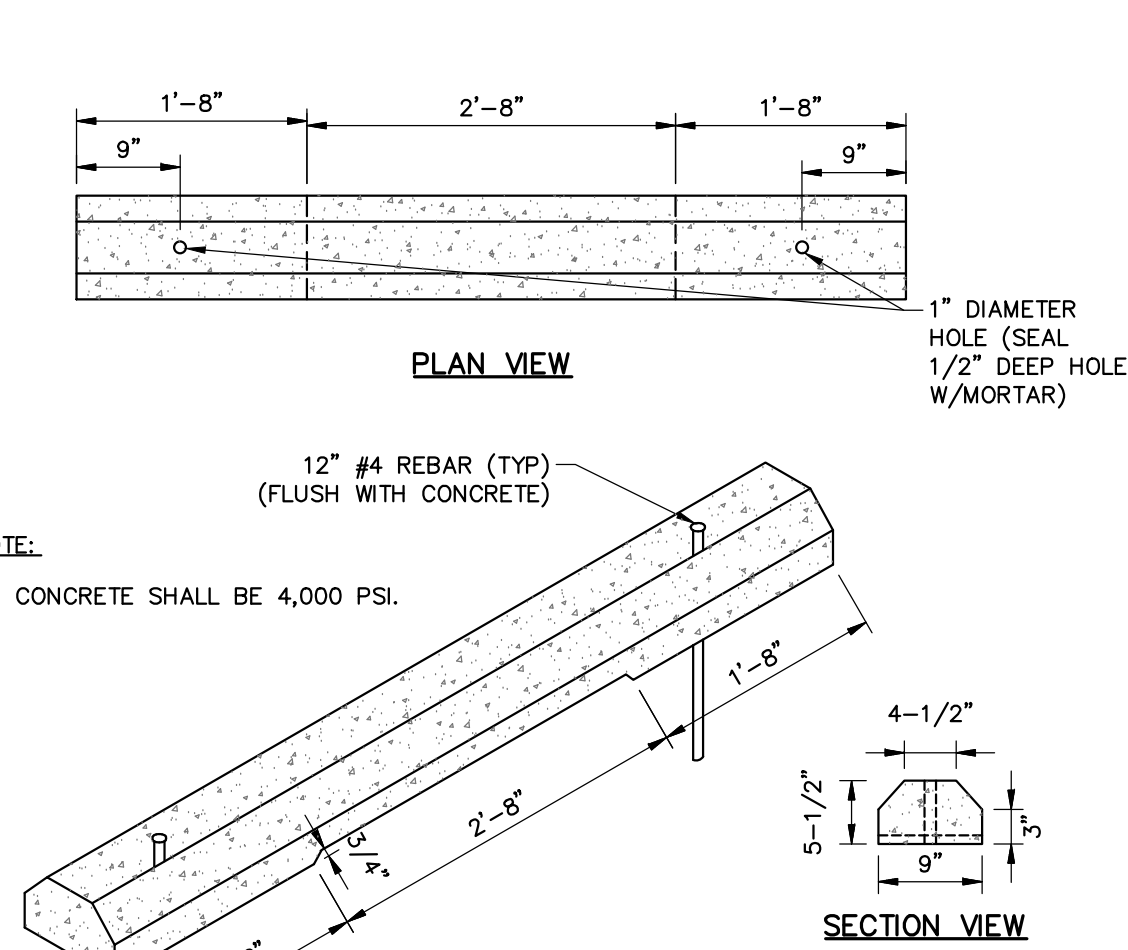


PAVEMENT BUTT JOINT DETAIL

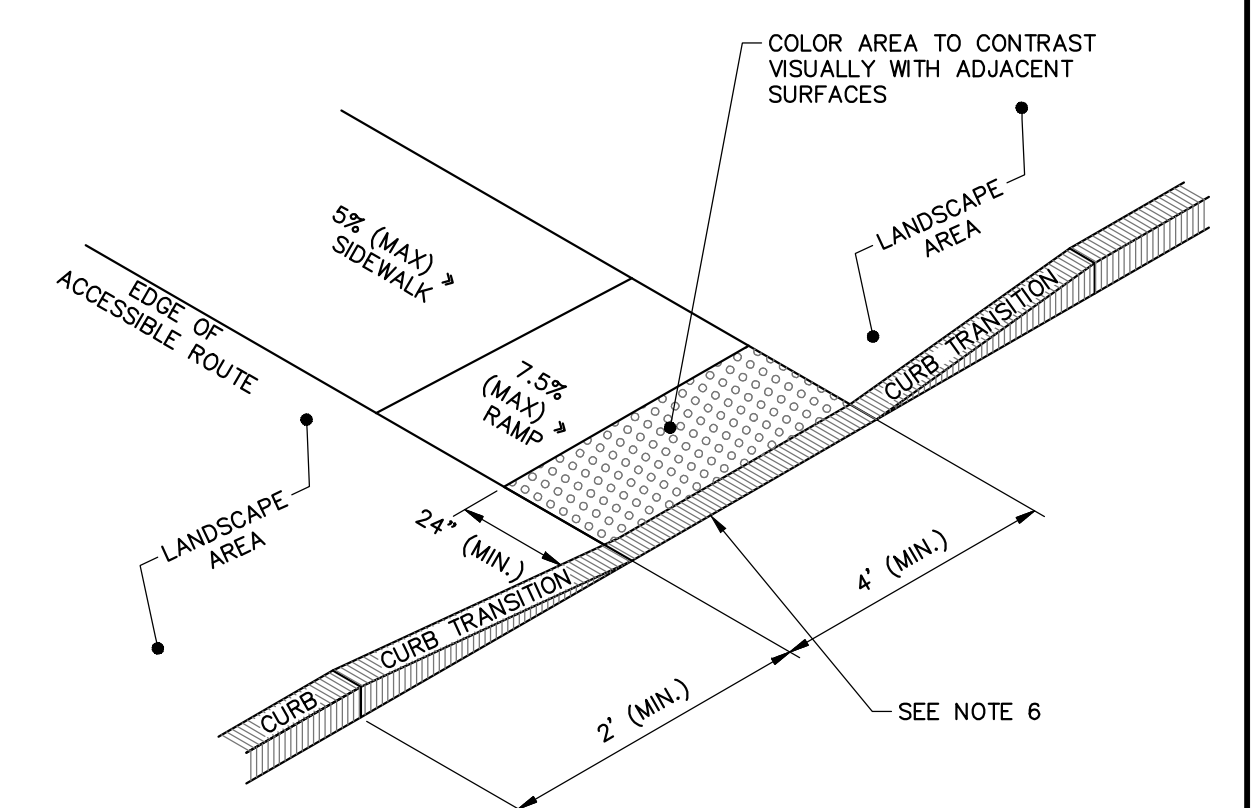


- NOTES:**
1. SYMBOL SHALL BE PAINTED WHITE IN COMPLIANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SECTION 3B.19, SECTION 3B.20 AND FIGURE 3B-22.
 2. A BLUE RECTANGULAR (MIN. 36" X 36") BACKGROUND AND WHITE BORDER ARE OPTIONAL IN ACCORDANCE WITH MUTCD SECTION 3B.19 AND FIGURE 3B-22.
 3. SYMBOL FINISH SHALL BE NON-GLARE IN ACCORDANCE WITH ADA STANDARDS FOR ACCESSIBLE DESIGN SECTION 703.7.1.

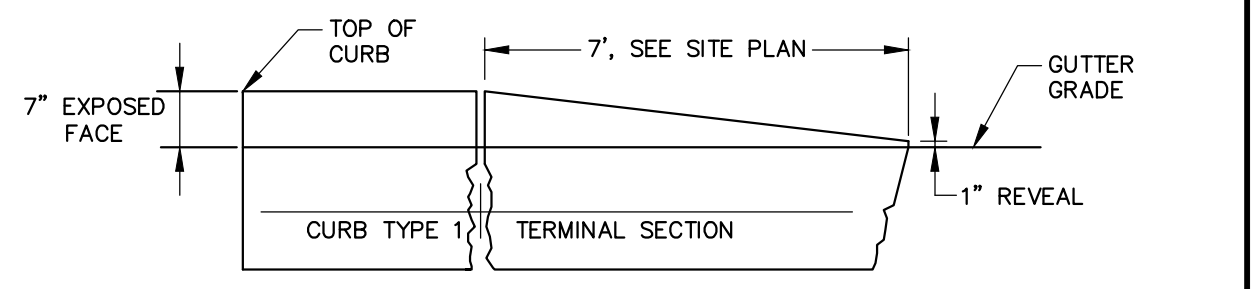
INTERNATIONAL SYMBOL OF ACCESSIBILITY



WHEEL STOP DETAIL

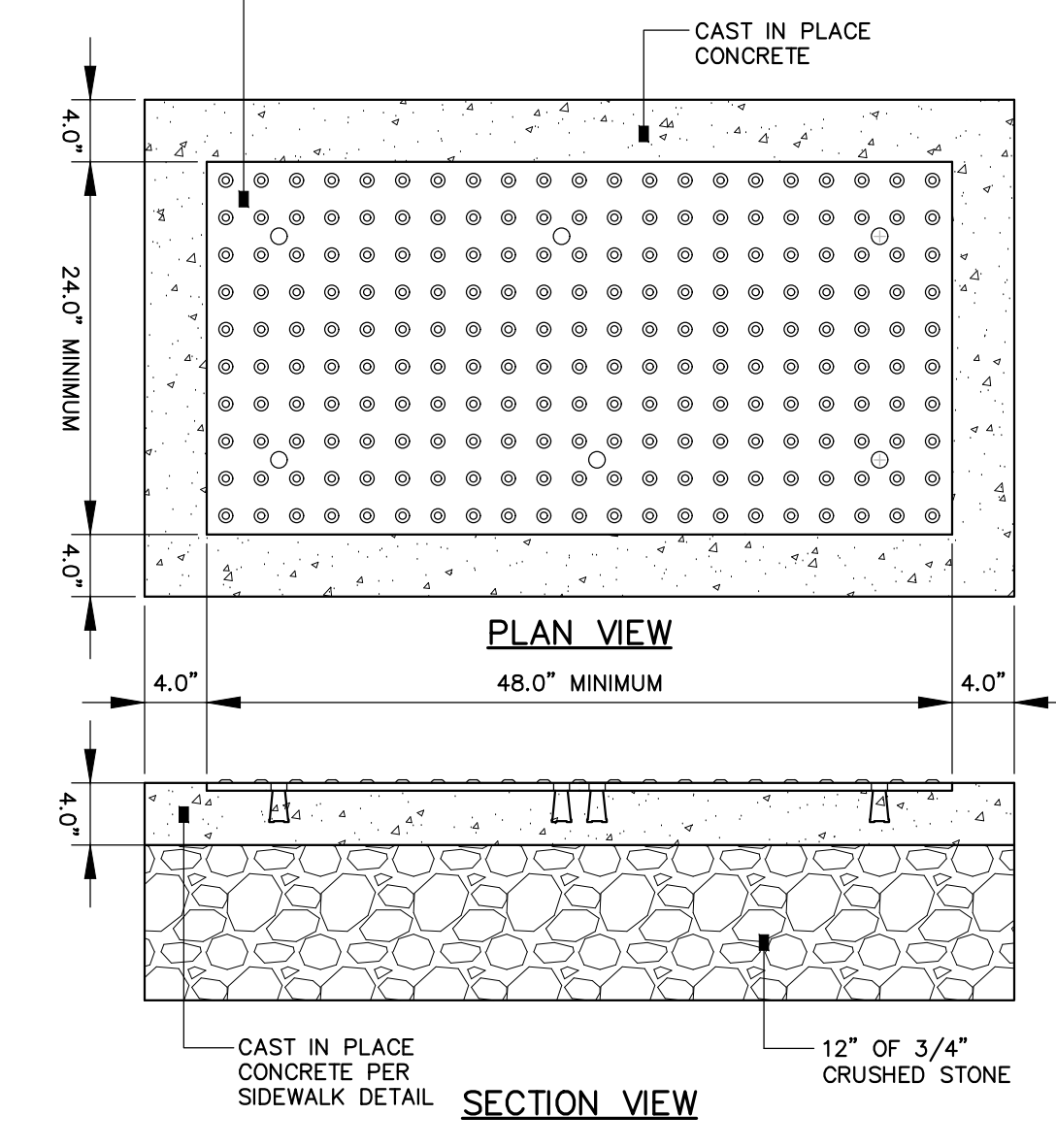


ACCESSIBLE CURB RAMP (ACR) - TYPE 'D'



TERMINAL CURB SECTION

- NOTES:**
1. CAST IRON TACTILE WARNING SURFACE UNITS SHALL BE PER MDOT'S QUALIFIED PRODUCTS LIST.
 2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MDOT CLASS A STRUCTURAL CONCRETE. MINIMUM COMPRESSIVE STRENGTH 4000 PSI. THE CONCRETE SHALL BE SEALED PRIOR TO SETTING PANELS. THE EXPOSED CONCRETE BORDER SHALL RECEIVE A GROOVED EDGE BETWEEN THE TILE AND CONCRETE, ALONG WITH 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.

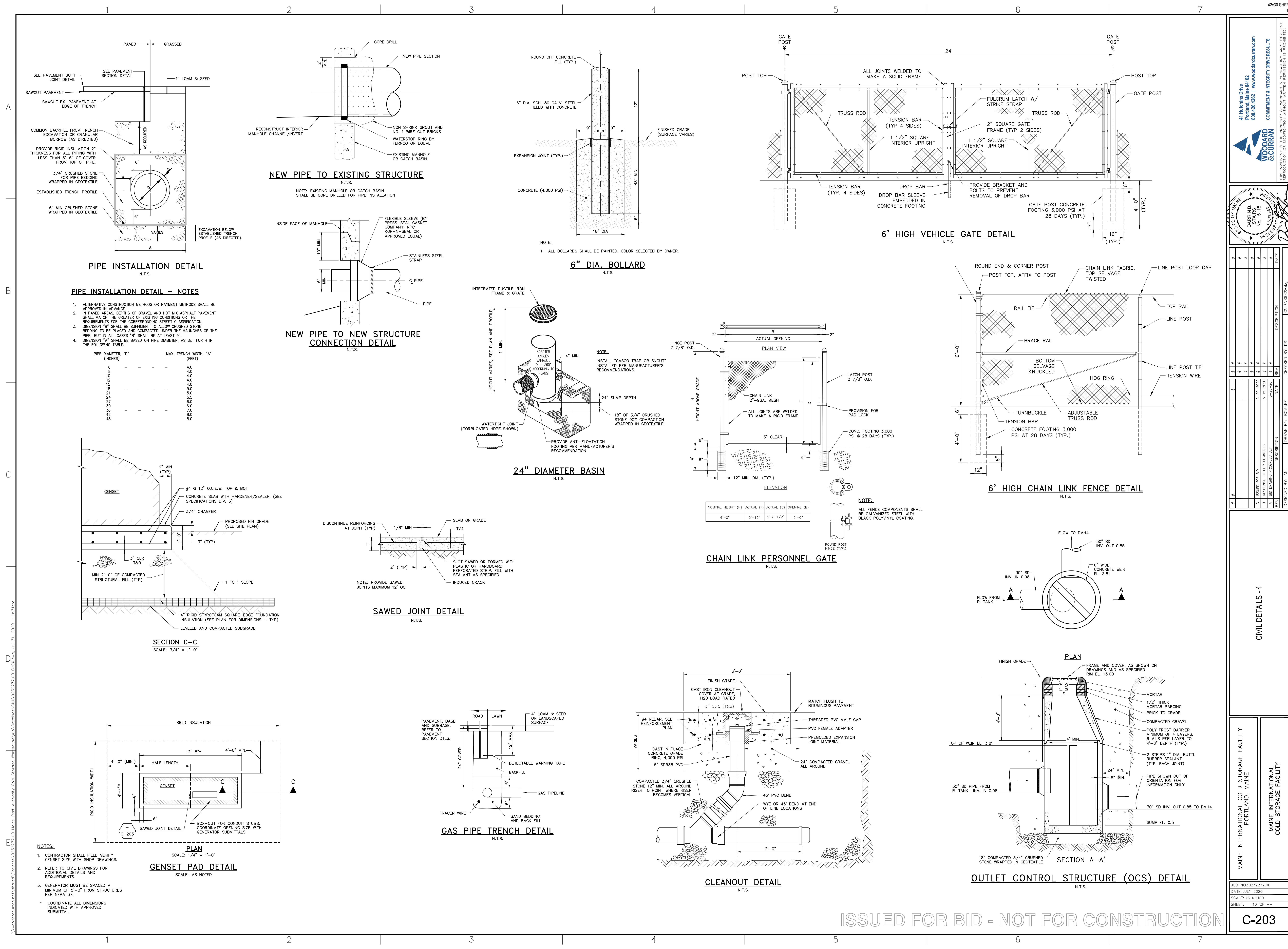


SIDEWALK RAMP DETECTABLE WARNING



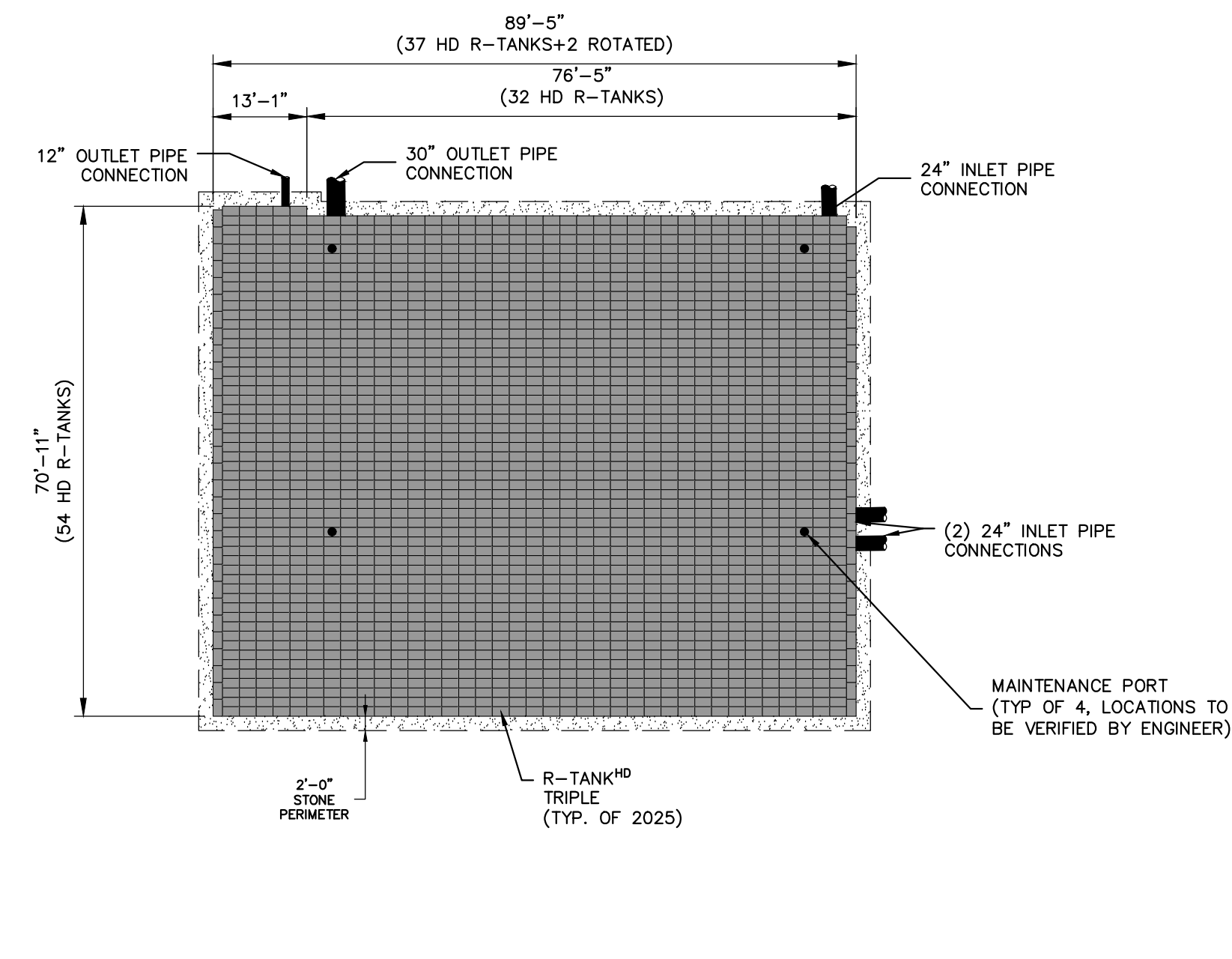
CROSSWALK WITH LONGITUDINAL LINES

NO.	DATE	DESCRIPTION	BY	CHKD.	APP'D.
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3	7/1/20	ISSUED FOR BID	AN	AN	AN
4	7/1/20	ISSUED FOR BID	AN	AN	AN
5	7/1/20	ISSUED FOR BID	AN	AN	AN
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7	7/1/20	ISSUED FOR BID	AN	AN	AN
8	7/1/20	ISSUED FOR BID	AN	AN	AN
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13	7/1/20	ISSUED FOR BID	AN	AN	AN
14	7/1/20	ISSUED FOR BID	AN	AN	AN
15	7/1/20	ISSUED FOR BID	AN	AN	AN
16	7/1/20	ISSUED FOR BID	AN	AN	AN
17	7/1/20	ISSUED FOR BID	AN	AN	AN
18	7/1/20	ISSUED FOR BID	AN	AN	AN
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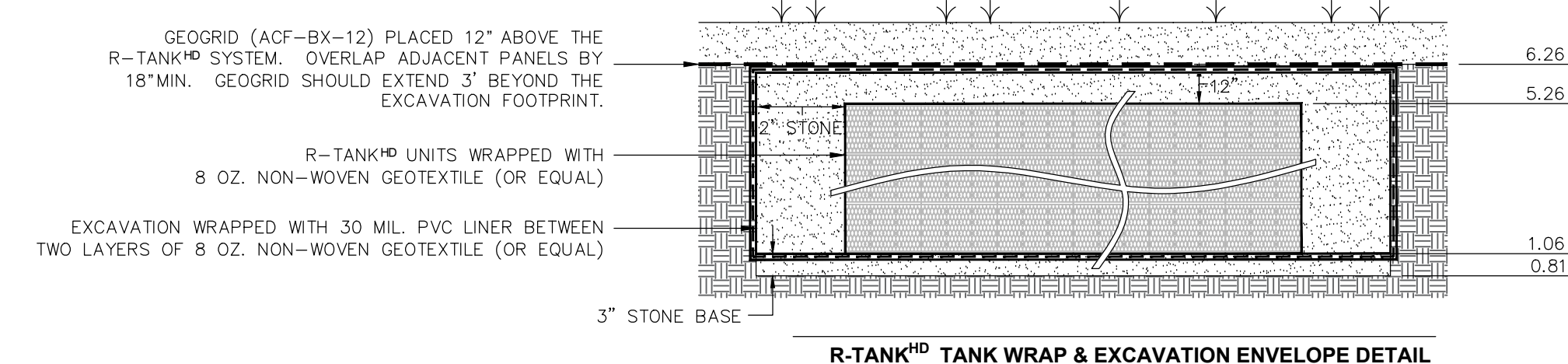
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99	12/22/22	ISSUED FOR BID	W.C.		
100	12/22/22	ISSUED FOR BID	W.C.		

R-TANK [®] QUANTITIES	
R-TANK [®] MODULE TYPE	TRIPLE
# OF TRIPLE R-TANKS	2,025
TOTAL SYSTEM STORAGE	28,733 CF
R-TANK STORAGE VOLUME	24,867 CF
STONE STORAGE VOLUME (40% VOID RATIO)	3,866 CF
STONE BED FOOTPRINT	6,895 SF
STONE QUANTITY	422 CY
8 OZ. NON-WOVEN GEOTEXTILE TANK WRAP	15,891 SF (1,766 SY)
30 MIL PVC LINER EXCAVATION WRAP	17,873 SF (1,986 SY)
8 OZ. NON-WOVEN GEOTEXTILE LINER PROTECTION	35,746 SF (3,972 SY)
ACF BX-12 GEGRID	9,132 SF (1,015 SY)
12" MAINTENANCE PORTS	4
12" PIPE BOOTS	1
24" PIPE BOOTS	3
30" PIPE BOOTS	1
NOTE: STONE QUANTITY INCLUDES 12" OF COVER AND 3" OF BASE.	
NOTE: GEOTEXTILE/LINER QUANTITIES INCLUDE A 15% WASTE FACTOR.	
NOTE: BASE STONE STORAGE NOT INCLUDED IN VOLUMES.	



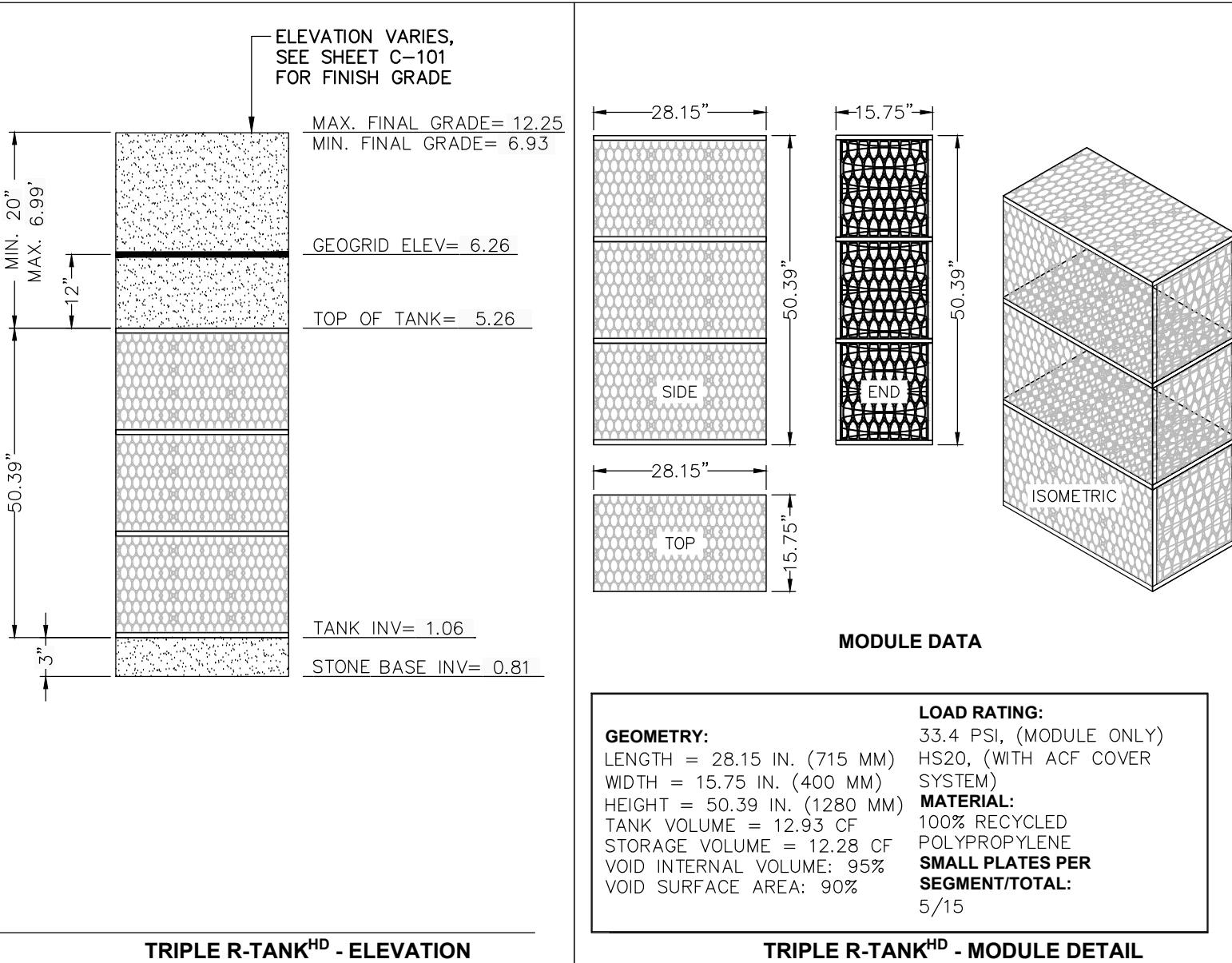
NOTE: BASE STONE STORAGE NOT INCLUDED IN VOLUMES.

LAYOUT SCALE	1"=20'
R-TANK [®] MODULE TYPE	TRIPLE
TRAFFIC LOAD	HS-20
# OF TRIPLE R-TANKS	2,025
TOTAL SYSTEM STORAGE	28,733 CF
R-TANK STORAGE VOLUME	24,867 CF
STONE STORAGE VOLUME (40% VOID RATIO)	3,866 CF
TOP OF COVER STONE ELEV. 12"	6.26
ACF BX-12 GEGRID ELEV.	6.26
TOP OF R-TANK ELEV.	5.26
TANK INVERT	1.06
INVERT OF STONE BASE (3")	0.81
MIN. STONE PERIMETER WIDTH	2.0 FT



R-TANK TANK WRAP & EXCAVATION ENVELOPE DETAIL

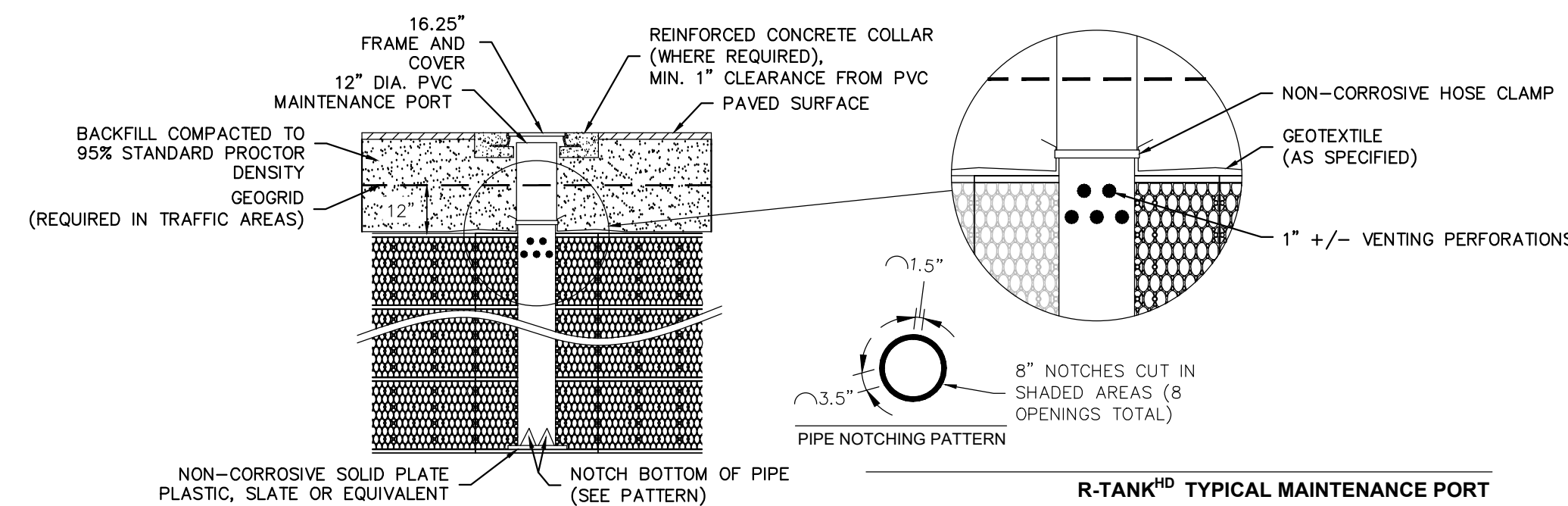
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TRIPLE R-TANK-ELEVATION & MODULE DETAIL

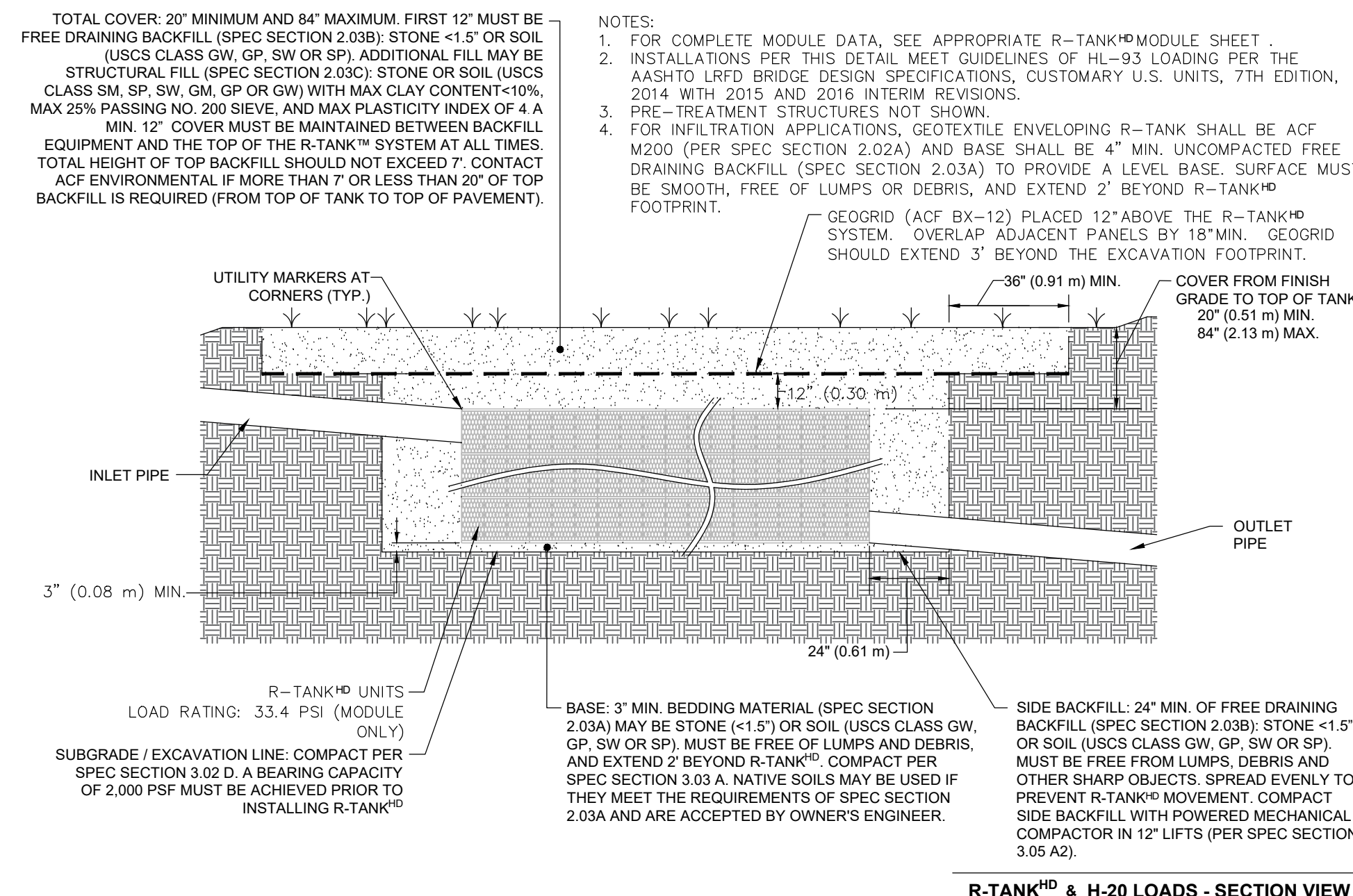
N.T.S.

- NOTES:
- THIS PORT IS USED TO PUMP WATER INTO THE SYSTEM AND RE-SUSPEND ACCUMULATED SEDIMENT SO THAT IT MAY BE PUMPED OUT.
 - MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION DURING THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER, FLUSH AS NEEDED.
 - ONLY R-TANK[®] AND R-TANK[®] MAY BE USED IN TRAFFIC APPLICATIONS.
 - SEE TRAFFIC LOADING DETAIL FOR MINIMUM & MAXIMUM COVER REQUIREMENTS.



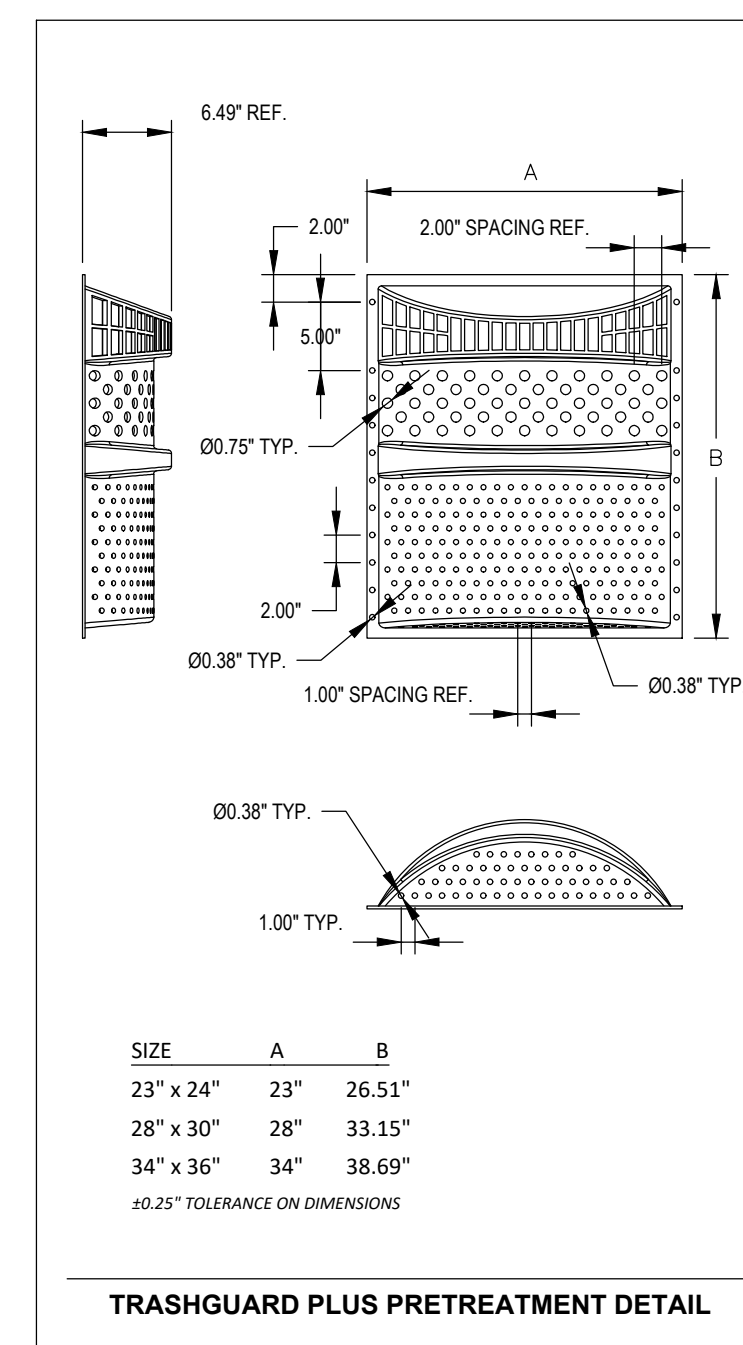
R-TANK TYPICAL MAINTENANCE PORT

N.T.S.



R-TANK & H-20 LOADS - SECTION VIEW

N.T.S.



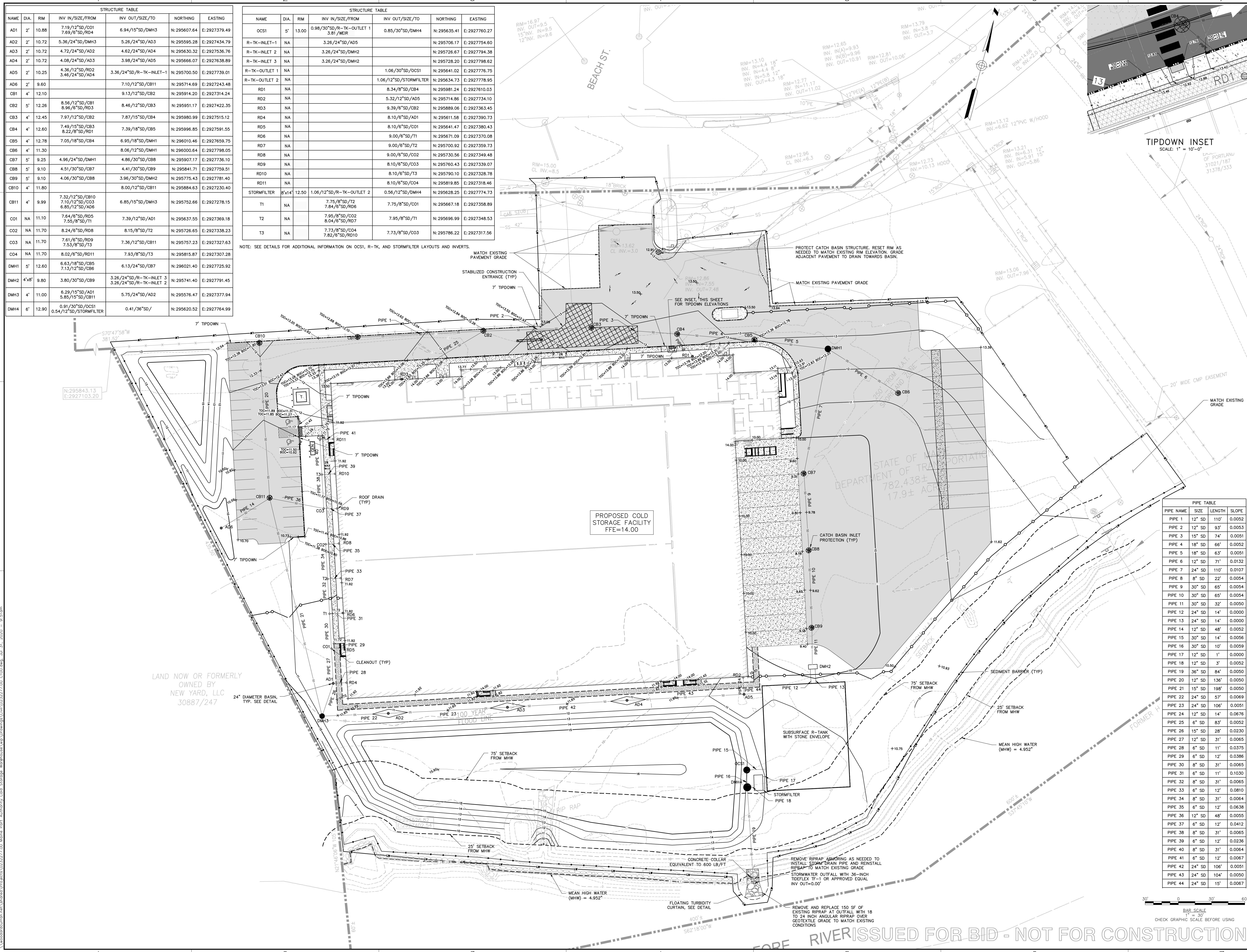
TRASHGUARD PLUS PRETREATMENT DETAIL

N.T.S.

STRUCTURE TABLE					
NAME	DIA.	RIM	INV. IN/SIZE/FROM	INV. OUT/SIZE/TO	NORTHING EASTING
AD1	2'	10.88	7.19/12"SD/CO1 6.69/6"SD/RD4	6.94/15"SD/DMH3	N:295607.64 E:2927379.49
AD2	2'	10.72	5.36/24"SD/DMH3	5.26/24"SD/AD3	N:295595.28 E:2927434.79
AD3	2'	10.72	4.72/24"SD/AD2	4.62/24"SD/AD4	N:295630.32 E:2927536.76
AD4	2'	10.72	4.08/24"SD/AD3	3.98/24"SD/AD5	N:295666.07 E:2927638.89
AD5	2'	10.25	4.36/12"SD/RD2 3.46/24"SD/AD4	3.36/24"SD/R-TK-INLET-1	N:295700.50 E:2927739.01
AD6	2'	9.60		7.10/12"SD/CB11	N:295714.69 E:2927243.48
CB1	4'	12.10		9.13/12"SD/CB2	N:295914.20 E:2927314.24
CB2	5'	12.26	8.56/12"SD/CB1 8.96/6"SD/RD3	8.46/12"SD/CB3	N:295951.17 E:2927422.35
CB3	4'	12.45	7.97/12"SD/CB2	7.87/15"SD/CB4	N:295980.99 E:2927515.12
CB4	4'	12.60	7.49/15"SD/CB3 8.22/8"SD/RD1	7.39/18"SD/CB5	N:295996.85 E:2927591.55
CB5	4'	12.78	7.05/18"SD/CB4	6.95/18"SD/DMH1	N:296010.46 E:2927659.75
CB6	4'	11.30		8.06/12"SD/DMH1	N:296000.64 E:2927798.05
CB7	5'	9.25	4.96/24"SD/DMH1	4.86/30"SD/CB8	N:295907.17 E:2927736.10
CB8	5'	9.10	4.51/30"SD/CB7	4.41/30"SD/CB9	N:295841.71 E:2927759.51
CB9	5'	9.10	4.06/30"SD/CB8	3.96/30"SD/DMH2	N:295775.43 E:2927781.40
CB10	4'	11.80		8.00/12"SD/CB11	N:295884.63 E:2927230.40
CB11	4'	9.99	7.32/12"SD/CB10 7.10/12"SD/CO3 6.85/12"SD/AD6	6.85/15"SD/DMH3	N:295752.66 E:2927278.15
CO1	NA	11.10	7.64/6"SD/RD5 7.55/8"SD/T1	7.39/12"SD/AD1	N:295637.55 E:2927369.18
CO2	NA	11.70	8.24/6"SD/RD8	8.15/8"SD/T2	N:295726.65 E:2927338.23
CO3	NA	11.70	7.61/6"SD/RD9 7.53/8"SD/T3	7.36/12"SD/CB11	N:295757.23 E:2927327.63
CO4	NA	11.70	8.02/6"SD/RD11	7.93/8"SD/T3	N:295815.87 E:2927307.28
DMH1	5'	12.60	6.63/18"SD/CB5 7.13/12"SD/CB6	6.13/24"SD/CB7	N:296021.40 E:2927725.92
DMH2	4'x8'	9.80	3.80/30"SD/CB9	3.26/24"SD/R-TK-INLET 3 3.26/24"SD/R-TK-INLET 2	N:295741.40 E:2927791.45
DMH3	4'	11.00	6.29/15"SD/AD1 5.85/15"SD/CB11	5.75/24"SD/AD2	N:295576.47 E:2927377.94
DMH4	6'	12.90	0.91/30"SD/OC1 0.54/12"SD/STORMFILTER	0.41/36"SD/	N:295620.52 E:2927764.99

STRUCTURE TABLE					
NAME	DIA.	RIM	INV. IN/SIZE/FROM	INV. OUT/SIZE/TO	NORTHING EASTING
OC1	5'	13.00	0.98/30"SD/R-TK-OUTLET 1 3.81/WEIR	0.85/30"SD/DMH4	N:295635.41 E:2927760.27
R-TK-INLET-1	NA		3.26/24"SD/AD5		N:295706.17 E:2927754.60
R-TK-INLET 2	NA		3.26/24"SD/DMH2		N:295726.67 E:2927794.38
R-TK-INLET 3	NA		3.26/24"SD/DMH2		N:295728.20 E:2927798.62
R-TK-OUTLET 1	NA			1.06/30"SD/OC1	N:295641.02 E:2927776.75
R-TK-OUTLET 2	NA			1.06/12"SD/STORMFILTER	N:295634.73 E:2927778.95
RD1	NA			8.34/8"SD/CB4	N:295981.24 E:2927610.03
RD2	NA			5.32/12"SD/AD5	N:295714.66 E:2927734.10
RD3	NA			9.39/6"SD/CB2	N:295889.06 E:2927363.45
RD4	NA			8.10/6"SD/AD1	N:295611.58 E:2927390.73
RD5	NA			8.10/6"SD/CO1	N:295641.47 E:2927380.43
RD6	NA			9.00/6"SD/T1	N:295671.09 E:2927370.08
RD7	NA			9.00/6"SD/T2	N:295700.92 E:2927359.73
RD8	NA			9.00/6"SD/CO2	N:295730.56 E:2927349.48
RD9	NA			8.10/6"SD/CO3	N:295760.43 E:2927339.07
RD10	NA			8.10/6"SD/T3	N:295790.10 E:2927328.78
RD11	NA			8.10/6"SD/CO4	N:295819.85 E:2927318.46
STORMFILTER	6'x14'	12.50	1.06/12"SD/R-TK-OUTLET 2	0.56/12"SD/DMH4	N:295628.25 E:2927774.73
T1	NA		7.75/8"SD/T2 7.84/6"SD/RD6	7.75/8"SD/CO1	N:295667.18 E:2927358.89
T2	NA		7.95/8"SD/CO2 8.04/6"SD/RD7	7.95/8"SD/T1	N:295696.99 E:2927348.53
T3	NA		7.73/8"SD/CO4 7.82/6"SD/RD10	7.73/8"SD/CO3	N:295786.22 E:2927317.56

NOTE: SEE DETAILS FOR ADDITIONAL INFORMATION ON OC1, R-TK, AND STORMFILTER LAYOUTS AND INVERTS.



PIPE TABLE			
PIPE NAME	SIZE	LENGTH	SLOPE
PIPE 1	12" SD	110'	0.0052
PIPE 2	12" SD	93'	0.0053
PIPE 3	15" SD	74'	0.0051
PIPE 4	18" SD	66'	0.0052
PIPE 5	18" SD	63'	0.0051
PIPE 6	12" SD	71'	0.0132
PIPE 7	24" SD	110'	0.0107
PIPE 8	8" SD	22'	0.0054
PIPE 9	30" SD	65'	0.0054
PIPE 10	30" SD	65'	0.0054
PIPE 11	30" SD	32'	0.0050
PIPE 12	24" SD	14'	0.0000
PIPE 13	24" SD	14'	0.0000
PIPE 14	12" SD	48'	0.0052
PIPE 15	30" SD	14'	0.0056
PIPE 16	30" SD	10'	0.0059
PIPE 17	12" SD	1'	0.0000
PIPE 18	12" SD	3'	0.0052
PIPE 19	36" SD	84'	0.0050
PIPE 20	12" SD	136'	0.0050
PIPE 21	15" SD	198'	0.0050
PIPE 22	24" SD	57'	0.0069
PIPE 23	24" SD	106'	0.0051
PIPE 24	12" SD	14'	0.0676
PIPE 25	6" SD	83'	0.0052
PIPE 26	15" SD	28'	0.0230
PIPE 27	12" SD	31'	0.0065
PIPE 28	6" SD	11'	0.0375
PIPE 29	6" SD	12'	0.0386
PIPE 30	8" SD	31'	0.0065
PIPE 31	6" SD	11'	0.1030
PIPE 32	8" SD	31'	0.0065
PIPE 33	6" SD	12'	0.0810
PIPE 34	8" SD	31'	0.0064
PIPE 35	6" SD	12'	0.0638
PIPE 36	12" SD	48'	0.0055
PIPE 37	6" SD	12'	0.0412
PIPE 38	8" SD	31'	0.0065
PIPE 39	6" SD	12'	0.0236
PIPE 40	8" SD	31'	0.0064
PIPE 41	6" SD	12'	0.0067
PIPE 42	24" SD	106'	0.0051
PIPE 43	24" SD	104'	0.0050
PIPE 44	24" SD	15'	0.0067

41 Hutchins Drive
Portland, Maine 04102
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**WOODWARD
CURRAN**

COMMITMENT & INTEGRITY DRIVE RESULTS

STATE OF MAINE
DARRIN B. STARS
No. 15118
PROFESSIONAL ENGINEER

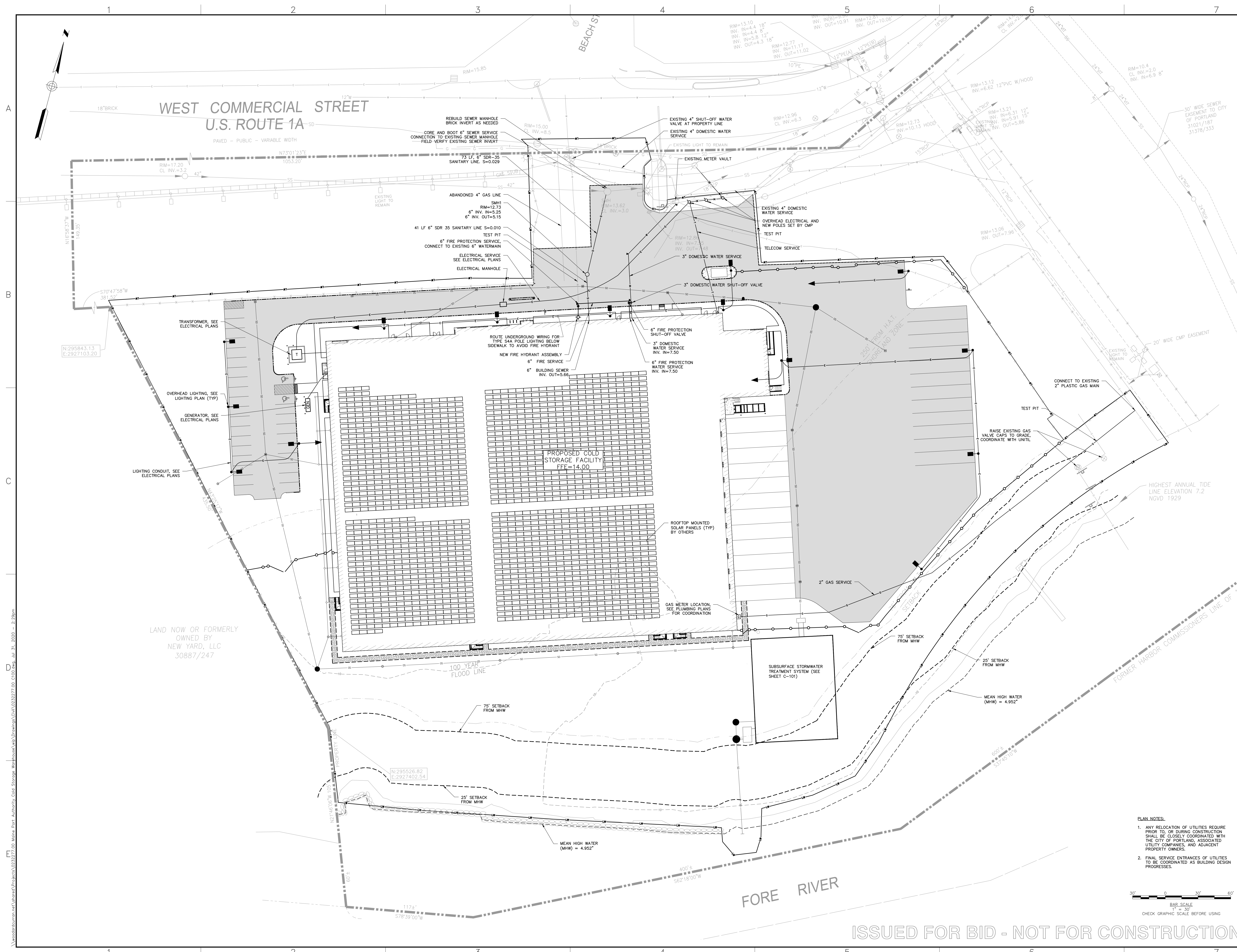
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DRAWN BY: SCV/PF
CHECKED BY: DS
DATE: 03/27/20
JOB NO: 10232277.00
DATE: JULY 2020
SCALE: AS NOTED
SHEET: 5 OF 5

MAINE INTERNATIONAL COLD STORAGE FACILITY
PORTLAND, MAINE

MAINE INTERNATIONAL
COLD STORAGE FACILITY

GRADING, DRAINAGE AND
EROSION CONTROL PLAN

C-101



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Portland, Maine 04102
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COMMITMENT & INTEGRITY DRIVE RESULTS

STATE OF MAINE
DARRIN B. STARRS
No. 15118
Professional Engineer
License No. 15118

REV	DESCRIPTION	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
1	ISSUED FOR BID	5-29-2020	AN	SCW/PT	DS
2	ISSUES & CITY COMMENTS	5-15-2020			
3	REVISIONS	5-15-2020			
4	REVISIONS	5-15-2020			
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19	REVISIONS	5-15-2020			
20	REVISIONS	5-15-2020			

MAINE INTERNATIONAL COLD STORAGE FACILITY
PORTLAND, MAINE

MAINE INTERNATIONAL
COLD STORAGE FACILITY

JOB NO: 10232277.00
DATE: JULY 2020
SCALE: AS NOTED
SHEET: 6 OF --

C-102

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19. **PLANTING SOIL MIX: 1 PART COMPOST, 8 PARTS TOPSOIL, 3 PARTS HUMUS.**
TOPSOIL: FERTILE, FRIABLE, NATURAL TOPSOIL OF LOAMY CHARACTER, WITHOUT ADMIXTURE OF SUBSOLUS MATERIAL, FREE FROM CLAY, LUMPS, COARSE SANDS, STONES, PLANTS, STICKS, AND OTHER FOREIGN MATERIALS GREATER THAN 1" IN ANY DIMENSION, PH RANGE 5.0-7.0, AND SHALL CONTAIN NOT LESS THAN 6% ORGANIC MATTER BY WEIGHT.
- SANDY LOAM OR LOAM SOIL AS DEFINED BY THE USDA SOIL CONSERVATION SERVICE, AND HAVE THE FOLLOWING MECHANICAL ANALYSIS:**
- | TEXTURAL CLASS | % OF TOTAL WEIGHT | AVERAGE % |
|----------------------|-------------------|-----------|
| SAND (0.05-2.0 MM) | 45 TO 60 | 60% |
| SILT (0.002-0.05 MM) | 15 TO 35% | 25% |
| CLAY (< 0.002 MM) | 5 TO 25% | 15% |

: 0232277.00
 MAY 2020
 AS NOTED
 1 OF 1
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MAINE INTERNATIONAL COLD STORAGE FACILITY (MICSF)

Construction Management Plan

41 Hutchins Drive
Portland, ME 04102
1-207-774-2112

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COMMITMENT & INTEGRITY DRIVE RESULTS

Last Updated:
July 30, 2020

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N.	ATTACHMENTS	5
O.	LIST OF REVISIONS	6

A. CONSTRUCTION MANAGEMENT PRINCIPLES

This construction management plan (CMP) will outline the typical construction management principles used to minimize the construction related impacts to traffic, businesses, and communities during the construction of a cold storage facility located adjacent to the intersection of Beach Street and Commercial Street. Woodard and Curran are committed to working in concert with the City of Portland to deliver a project focused on communication, and the safety of project personnel and the surrounding community.

The cold storage facility will incorporate an insulated structural concrete foundation constructed over driven piles and be vertically constructed utilizing a structural steel frame with insulated metal panel siding. The building will be approximately 108,000 total square feet and comprised of roughly 91,000 square feet space for offloading and cold storage, 13,000 square feet of administrative space, and 4,000 square feet of mechanical and utility space.

Throughout this CM plan we will propose management considerations for traffic control, communication with adjacent business and general public safety during construction. We will be diligent in our efforts to meet all City and State requirements and will require participation from all appropriate parties to ensure all standards are being met.

B. DEVELOPMENT REVIEW OF CONSTRUCTION MANAGEMENT PLAN

Woodard and Curran will update the CMP on a quarterly basis to ensure all requirements are being met as the project progresses. The primary focus of updates will include:

- Construction schedule updates
- Project team personnel updates and contact information
- Updates to the site-specific Health and Safety Plan (HASP)
- Notification of any material changes to the established CMP
- Notification of activities that pose an increase to noise or dust to surrounding businesses and neighboring communities
- Anticipated material deliveries and/or high-volume construction activities with a potential impact to both public and private traffic patterns
- Requests for off-hours work as applicable (extended hours, and/or weekends and holiday work)

C. PERFORMANCE GUARANTEES, INSPECTION FEES, PRECONSTRUCTION MEETING, AND PERMITS

Performance guarantees: As referenced in construction contracts and the basis of design

Inspection fees: To be commensurate with City of Portland's standard fee structure for proposed design.

Preconstruction meeting: Project team to participate in all procedural preconstruction meetings required throughout permitting and construction.

Permits:

Street Opening Permits: Sewer, gas and water are all stubbed into the extents of the project site and the electrical tie-in is anticipated to be competed at an existing pole located off West Commercial street; street opening permits will not be required for these utility connections. Additionally, stormwater will be discharged through an outfall to the River

Street Occupancy Permit: the entrance to the project site is located off West commercial street and the site management plan provides ample room within the project site for construction vehicle staging, contractor parking, and material laydown. A street occupancy permit is not anticipated to be needed with this proposed CMP.

Blasting Permit: Blasting is not anticipated for this project

D. CONSTRUCTION ADMINISTRATION AND COMMUNICATION

Woodard and Curran will work in conjunction with this CMP and all appropriate parties to communicate and minimize any foreseeable construction related impacts to the surrounding businesses and communities. Communication targeted for the local community will be performed as needed depending on the duration and potential impact. Woodard and Curran may communicate these potential impacts through letters and activity specific signage, as well as individual or group meetings.

Project meetings during permitting and design phase: TFIC and Woodard and Curran will continue regular (weekly) project meetings with all respective design team members and project managers to ensure all City and State requirements are being coordinated. Client and contractor-based project meetings will be scheduled when the project transitions into the construction phase. Meeting times, frequency and participants will be updated accordingly in the revised CMP

Construction site signage will be used at the project site and any areas immediately adjacent that help convey when and where neighboring businesses, pedestrians, and commuters can expect to encounter project related activities. Typical construction site signage will include (and not limited to): Construction related traffic patterns, restricted access areas, appropriate contact information for the project team, and emergency procedures.

Contact information during the design and preconstruction phase:

Jedd Steinglass, Woodard and Curran Project/Design Manager (207) 756-2319

Gregory Roy, Woodard and Curran Construction Manager (207) 251-1736

Contact information during construction phase (Designated upon progression to construction phase).

E. CONSTRUCTION SCHEDULE

Constructions activities are expected to fall within normal working hours of 7:00am to 5:00pm Monday through Friday. Any considerations outside of these hours will be communicated through proper channels; typical consideration for extended hours would include (but not limited to): maximizing daylight work hours at certain times of the year, protection of personnel during extreme temperatures, critical activities that require substantial set-up and /or process time (ex: crane work, concrete work).

MILESTONE SCHEDULE

Milestone	Start Date	End Date
Design	8/2019	6/2020
Permitting	10/2019	10/2020
Pre-construction and contracting	5/2020	11/2020

Milestone	Start Date	End Date
Mobilization and Site Prep	11/2020	12/2021
Construction	12/2020	6/2022
Close-out	6/2022	9/2022

F. SECURITY & PUBLIC SAFETY

The site will be fully fenced to its adjacent properties and along West commercial street. Existing site fencing will remain and be supplemented with new temporary fence as needed to properly create public awareness and safeguard the project site. Regular interactions with pedestrians are not anticipated based on the project location but signage will be placed along the fence line to clearly identify and inform the community of the boundaries and restrictions associated with the project site.

A twenty-foot fenced gate located within the shared IMP access will provide the primary means of access to the site, another gate will be installed to the south of the abutting gas building to provide secondary access to the rear of the property. Emergency contact information will be posted at all project entrances and inside of the construction site as part of the site-specific Health and Safety Plan.

Good housekeeping across the project site and inside of the built structure will serve as the basis for our life safety and emergency action plan. Maintaining clear avenues of egress and approach is paramount to effectively responding to emergencies on the project site.

Temporary lighting layout has not been defined at this time but may be included in a revised CMP. Temporary lighting may be fixed or portable.

The project will employ a site camera(s) to help document construction progress and provide additional visibility and security for the project. Security personnel are not expected to be required at this time but may be considered as the project progresses.

G. CONSTRUCTION PERMITTING AND TRAFFIC CONTROL

All construction activities are limited to the project site and the shared access serving the International Marine Terminal (IMT). Work outside of these areas or on West Commercial street is not anticipated. Signage will be utilized where appropriate to properly convey the extent of construction activities and regular construction traffic patterns in the vicinity of the project site.

The project location and site access will allow construction related traffic to readily enter the project site after leaving West Commercial street. Street occupancy permits are not expected to be needed during construction. Any specific activity that does pose an anticipated interruption to normal traffic patterns immediately adjacent to the project site will be evaluated, communicated, permitted, and coordinated as to lessen the overall impact on the community.

All construction related deliveries will access the project site either via the Veterans Memorial Bridge -West Commercial street, or via 295/Franklin Street-Commercial Street

H. SITE MANAGEMENT AND CONTROLS

Reference the attached site management plan.

Site access: The project site will be defined, and access will be restricted by way of chain link fencing and two gates. The gates will be locked outside of designated work hours.

Site Layout: The site will have a primary right of way around the building footprint for construction related access and travel, two primary laydown areas, dumpsters (emptied as-needed), a designated area for spoils management, Conex box storage, contractor parking, staging areas, and

Soils Management: Soils excavated during the construction will be managed and re-purposed on site to the extent possible. A construction entrance will be established and maintained to minimize the spread of soils into the shared access to the site and onto West commercial street. Street sweeping will be employed on regular and/or as needed basis.

Dust Controls: Site soil disturbed during construction work shall be handled and maintained to minimize the creation and dispersion of visible dust. Dust suppression shall be conducted through regular sweeping and sprinkling of water, as necessary, and/or with an appropriate commercial grade dust suppressant. Stockpiled and otherwise disturbed soils shall be maintained in a condition that prevents generation and migration of dust as described in the Stockpile Management section below. Areas of attention for dust control include but are not necessarily limited to active excavation areas, haul roads, active soil stockpiles and loading areas, entrances and exits to the site, and adjacent public roadways. Truck tires and equipment will be inspected and cleaned as necessary prior to leaving the site.

Noise and Vibration Controls: Typical construction related noise will be limited to normal working hours and is not expected to disrupt neighboring businesses. Noise and vibration related to pile driving will also be limited to normal working hours, Woodard and Curran expects to notify the neighboring businesses of the anticipated start and duration for pile driving. Meetings to discuss the potential noise and vibration impacts with the affected businesses will be coordinated as needed. Noise and vibration monitoring are not anticipated at this time but can be incorporated into the CMP as required.

Woodard and Curran will be responsible for snow removal within the defined project limits and as required to maintain access into the project access gates.

I. EROSION CONTROL AND PRESERVATION OF TREES

Reference the attached site management plan and the Storm Water Management Report. All installed erosion control measures will be monitored on a regular basis and repaired as needed to ensure they are effectively performing as intended. Formal inspection will be conducted on a weekly basis, and after any significant storms or other events that would feasibly compromise the protections.

Preservation of specific trees and existing vegetation will be in accordance with the site and landscaping drawings

J. CONSTRUCTION STAGING AREA

Reference the attached site management plan. The project site has adequate room for all anticipated construction staging.

K. PARKING DURING CONSTRUCTION

Reference the attached site management plan. The project site has adequate room for all anticipated construction parking.

L. DEWATERING PLANS

Dewatering / Groundwater Management: It is not anticipated that groundwater will be encountered during excavation activities. Storm water and water used for dust control shall be allowed to infiltrate on-site. Any standing water that must be pumped to allow the continuation of construction activities will be discharged to a designated location designed specifically to best mitigate soil erosion and promote the settling of solids.

M. SPECIAL MEASURES AS NECESSARY

There are no special measures identified for this project.

N. ATTACHMENTS

- A. Site Management Plan

O. LIST OF REVISIONS

Woodard & Curran, Inc. – MPA Cold Storage Facility			
Revision Number	Revision Date	Section Revised	Comment
Revision 1	7/30/2020	E: Schedule G: Traffic Control	Revised for pandemic/permitting delays Added language about site deliveries
Revision 2			



****ALL CONSTRUCTION RELATED DELIVERIES SHOULD ACCESS THE SITE FROM EITHER 295 VIA THE VETERANS BRIDGE/WEST COMMERCIAL STREET OR FRANKLIN STREET/COMMERCIAL STREET**

**CONSTRUCTION
MANAGEMENT PLAN
ATTACHMENT A**

BUILDING LAYOUT TABLE		
Point #	Northing	Eastng
1	295867.69	2927302.55
2	295596.18	2927396.04
3	295716.59	2927736.20
4	295916.16	2927658.36
5	295931.57	2927708.02
6	295990.23	2927687.61
7	295977.23	2927650.34
8	295992.66	2927644.98
9	295911.91	2927412.25
10	295906.32	2927414.19

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

COMMITMENT & INTEGRITY DRIVE RESULTS

MAINE
STATE OF MAINE
DARRIN B. STARRS
No. 15118
Professional Engineer
License No. 15118

DESIGNED BY: ANL
DRAWN BY: BOW/VE
CHECKED BY: DS
DATE: 03/07/20
SCALE: AS NOTED
SHEET: 4 OF --

MAINE INTERNATIONAL COLD STORAGE FACILITY
PORTLAND, MAINE

MAINE INTERNATIONAL
COLD STORAGE FACILITY

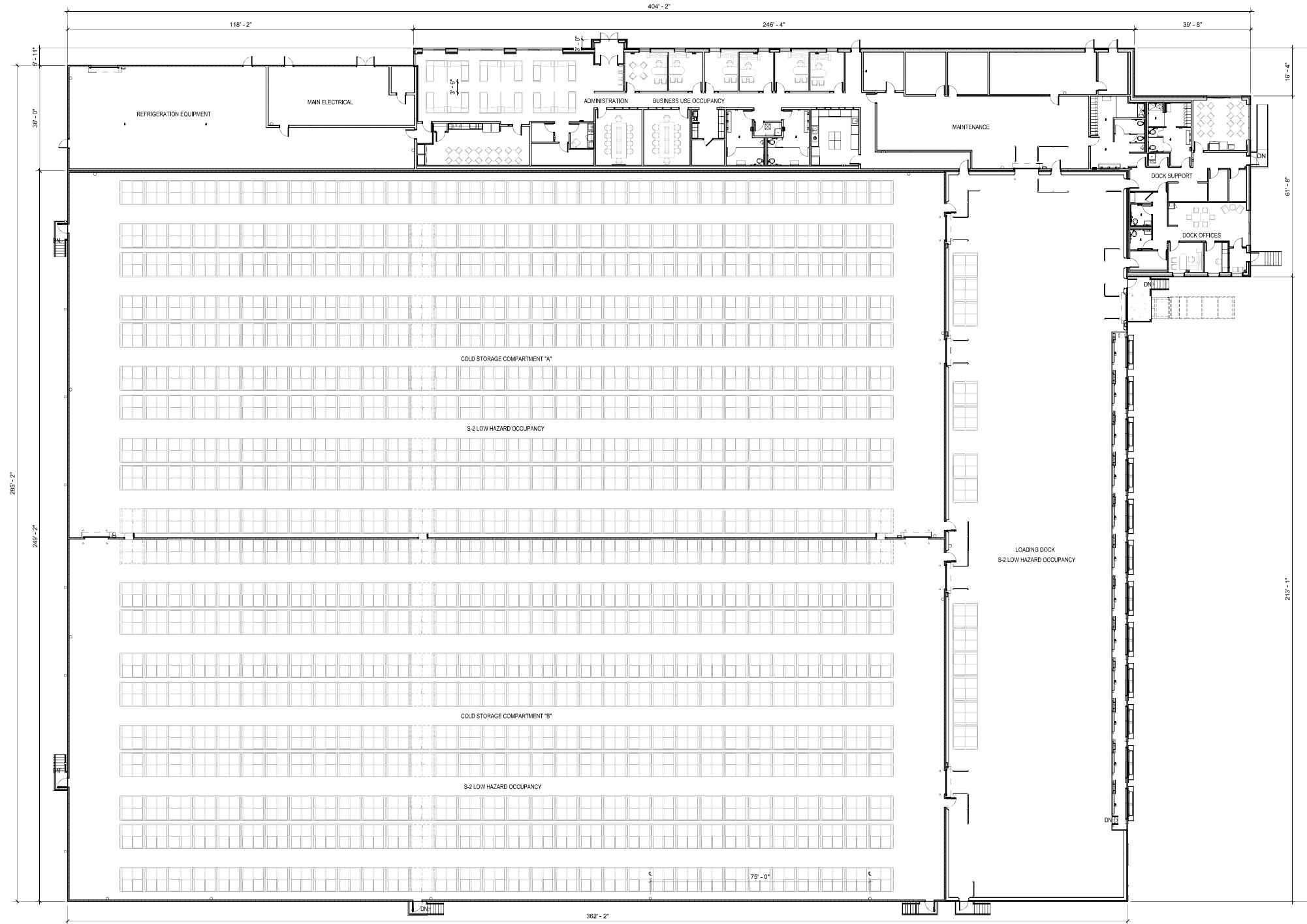
LOG NO: 10232277.00
DATE: JULY 2020
SCALE: AS NOTED
SHEET: 4 OF --

C-100

ISSUED FOR BID - NOT FOR CONSTRUCTION

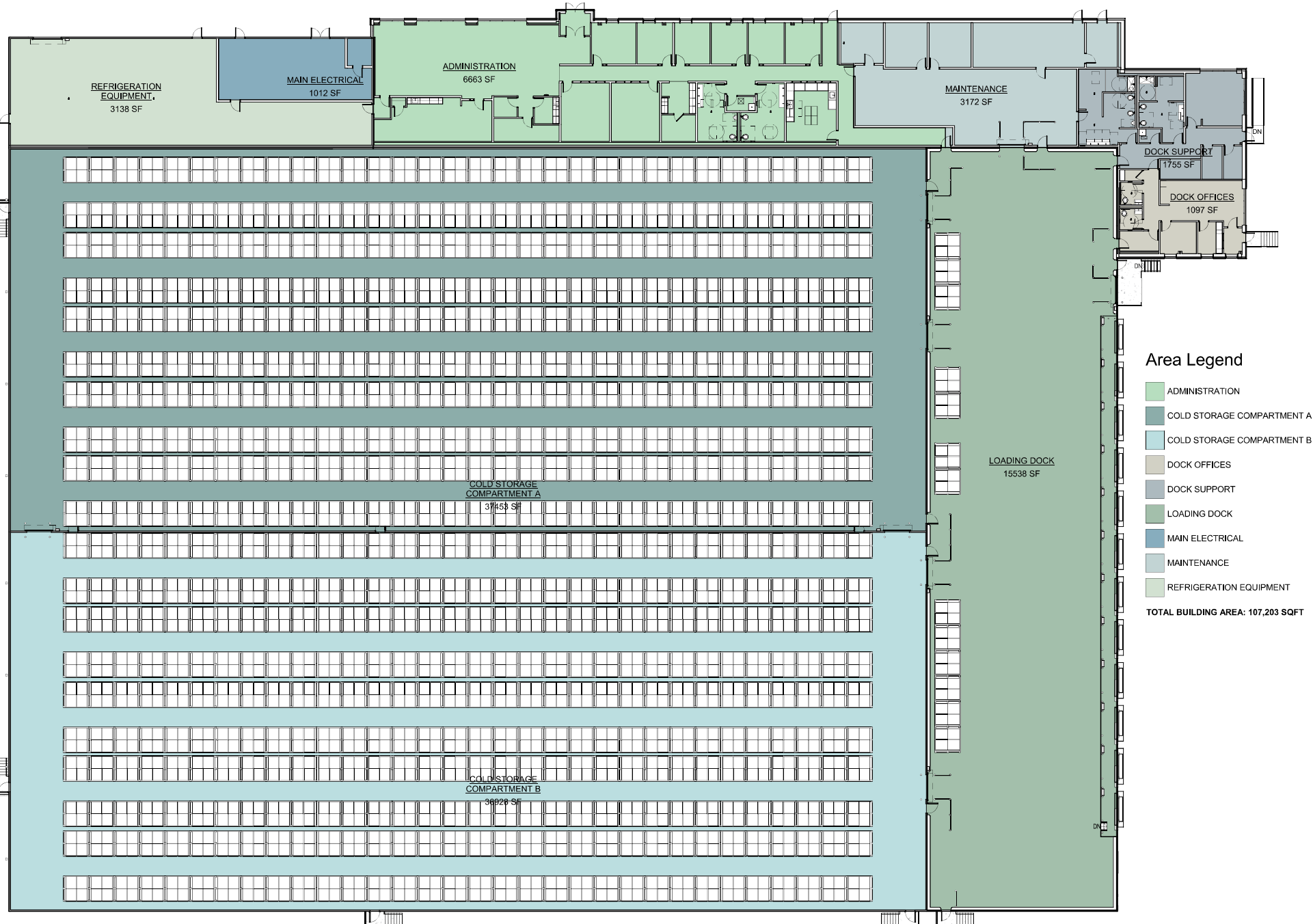
PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY

FLOOR PLAN

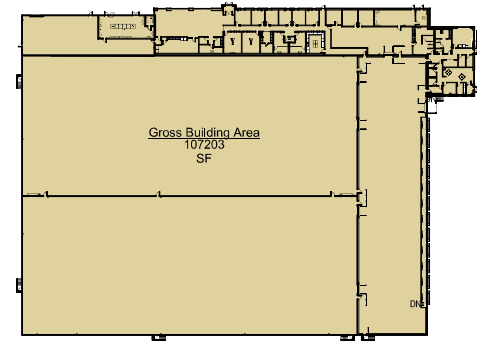


PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY

AREA FLOOR PLAN



COLD STORAGE COMPARTMENT A: 10,196 PALLET POSITIONS
COLD STORAGE COMPARTMENT B: 10,192 PALLET POSITIONS



Area Legend

- ADMINISTRATION
- COLD STORAGE COMPARTMENT A
- COLD STORAGE COMPARTMENT B
- DOCK OFFICES
- DOCK SUPPORT
- LOADING DOCK
- MAIN ELECTRICAL
- MAINTENANCE
- REFRIGERATION EQUIPMENT

TOTAL BUILDING AREA: 107,203 SQFT

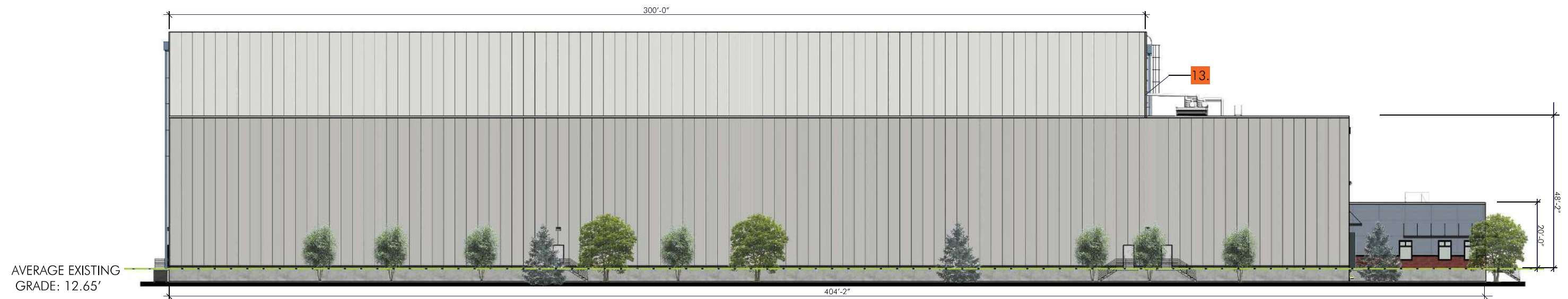
PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY

BUILDING ELEVATIONS

1. INSULATED METAL PANEL - COLOR NO. 1 - OFF WHITE
2. INSULATED METAL PANEL - COLOR NO. 2 - CHARCOAL
3. INSULATED METAL PANEL - COLOR NO. 3 - DUSTY BLUE
4. INSULATED METAL PANEL - COLOR NO. 4 - LIGHT GRAY
5. METAL DOWNSPOUT
6. ALUMINUM STOREFRONT WINDOW SYSTEM
7. OVERHEAD DOORS AND DOOR SEAL ASSEMBLIES BEYOND
8. TPO ROOFING SYSTEM BEYOND
9. RED NARROW FLASHED MODULAR BRICK WAJNSCOT WITH PRECAST CONCRETE CAP
10. EXPOSED CONCRETE FOUNDATION SYSTEM
11. SCREENING AT TALLER ROOF TOP EQUIPMENT
12. MAXIMUM BUILDING HEIGHT AS MEASURED ABOVE THE AVERAGE GRADE SHALL BE 73'-10".
13. TOP OF PENETRATION 57'-0" FROM TOP OF AVERAGE GRADE.



NORTH ELEVATION

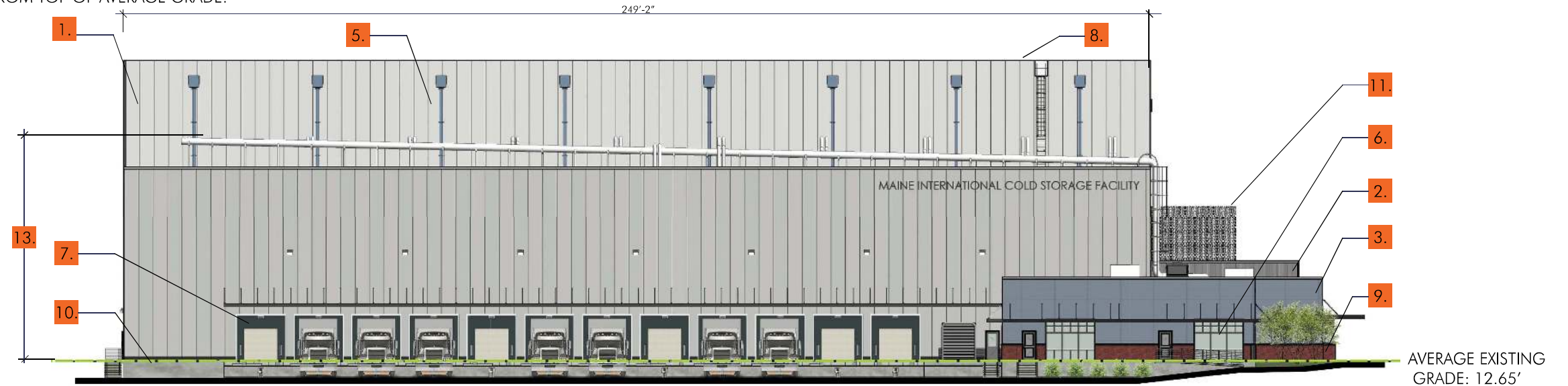


SOUTH ELEVATION

PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY

BUILDING ELEVATIONS

1. INSULATED METAL PANEL - COLOR NO. 1 - OFF WHITE
2. INSULATED METAL PANEL - COLOR NO. 2 - CHARCOAL
3. INSULATED METAL PANEL - COLOR NO. 3 - DUSTY BLUE
4. INSULATED METAL PANEL - COLOR NO. 4 - LIGHT GRAY
5. METAL DOWNSPOUT
6. ALUMINUM STOREFRONT WINDOW SYSTEM
7. OVERHEAD DOORS AND DOOR SEAL ASSEMBLIES BEYOND
8. TPO ROOFING SYSTEM BEYOND
9. RED NARROW FLASHED MODULAR BRICK WAINSCOT WITH PRECAST CONCRETE CAP
10. EXPOSED CONCRETE FOUNDATION SYSTEM
11. SCREENING AT TALLER ROOF TOP EQUIPMENT
12. MAXIMUM BUILDING HEIGHT AS MEASURED ABOVE THE AVERAGE GRADE SHALL BE 73'-10".
13. TOP OF PIPE PENETRATION 57'-0" FROM TOP OF AVERAGE GRADE.



EAST ELEVATION



WEST ELEVATION

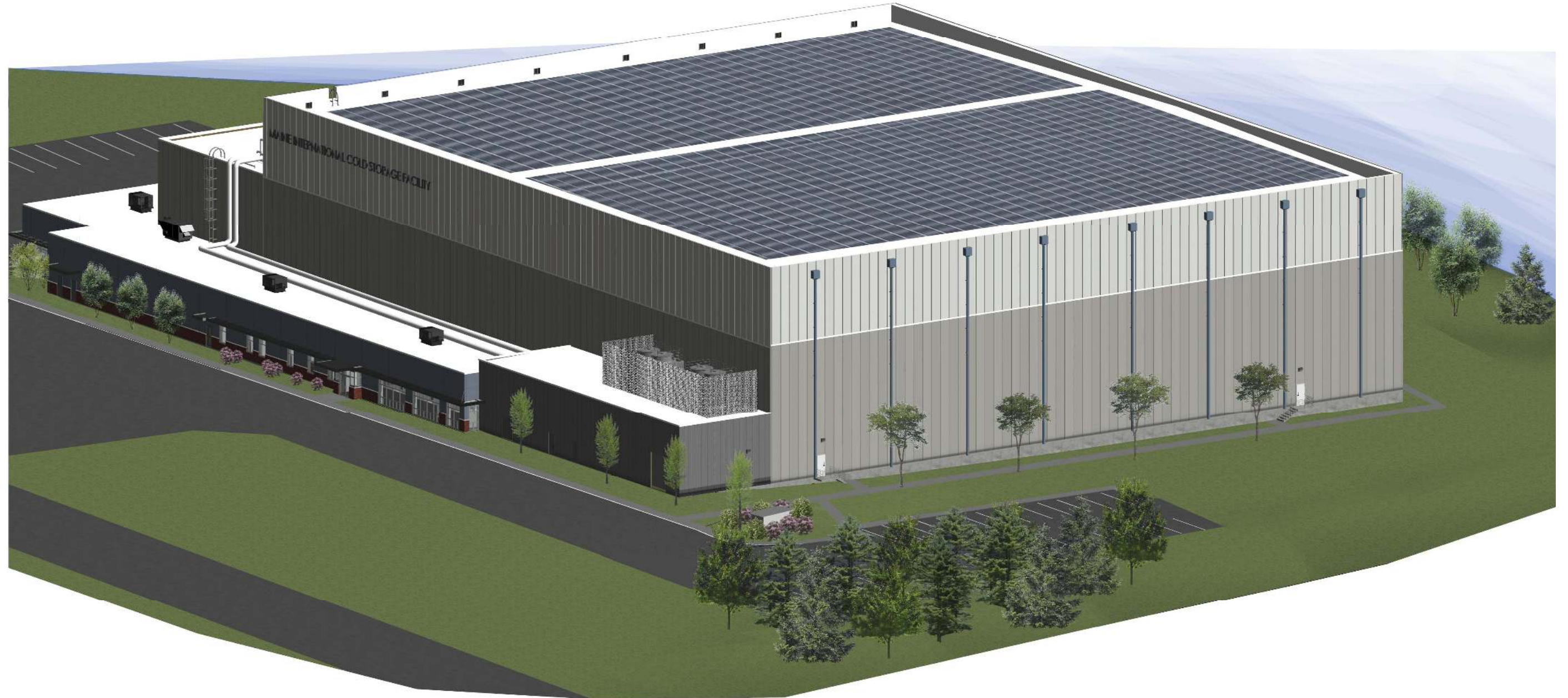
PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY

NORTHEAST PERSPECTIVE



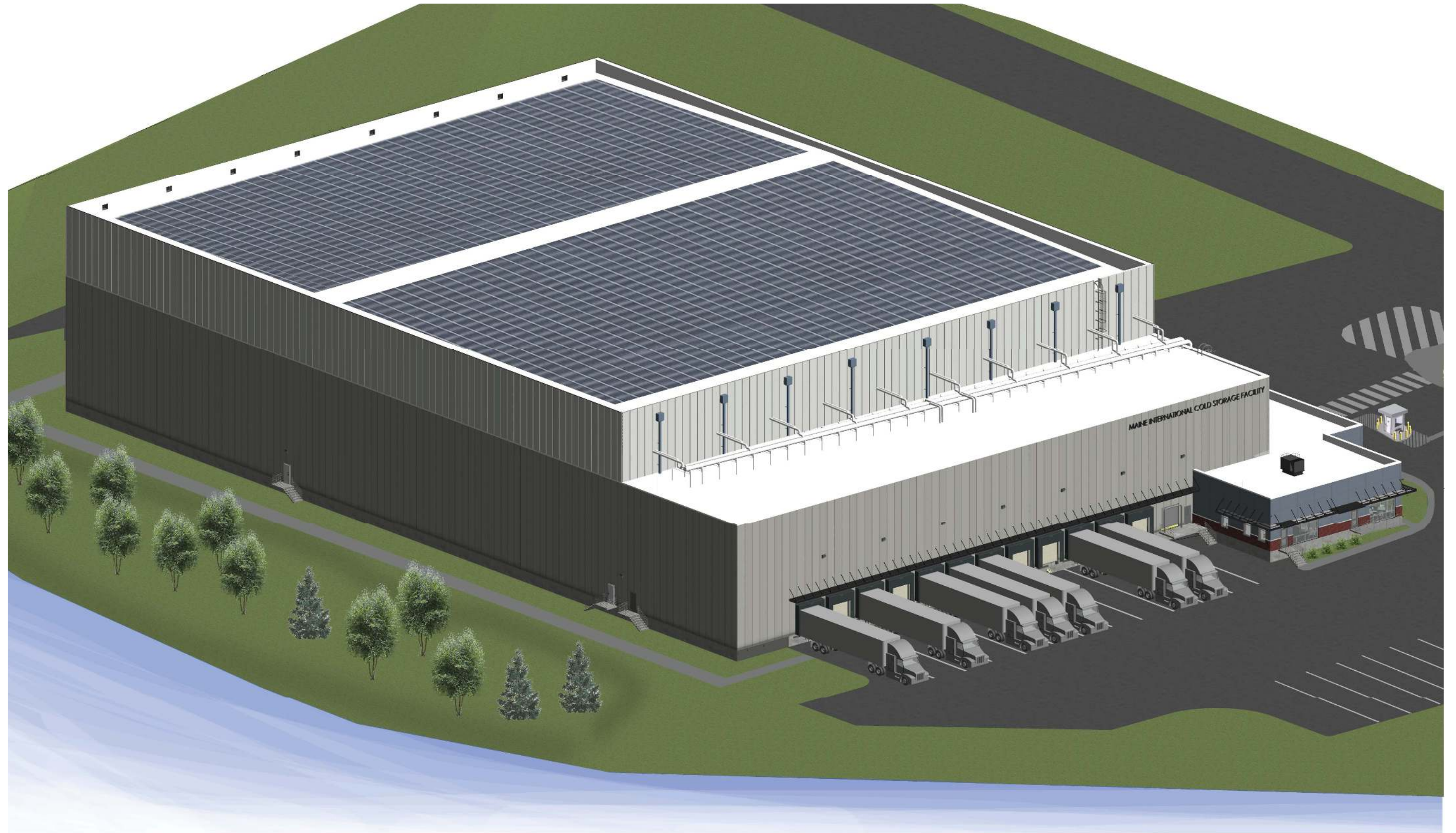
PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY

NORTHWEST PERSPECTIVE



PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY

SOUTHEAST PERSPECTIVE

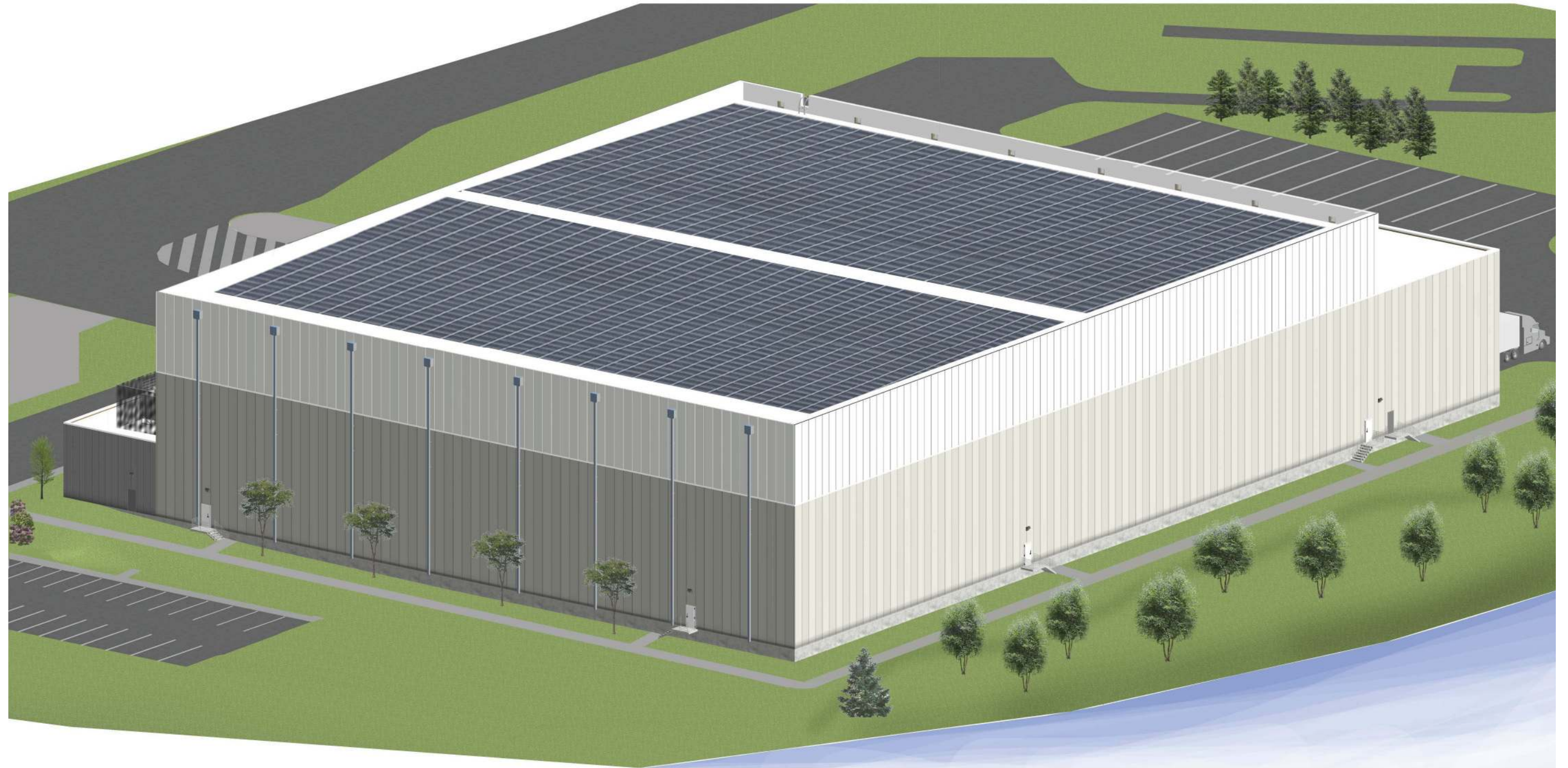


264 US Route One, Suite 100-2A
Scarborough, ME 04074
(207) 774-4441

CWS ARCHITECTS
ARCHITECTURE | INTERIOR DESIGN

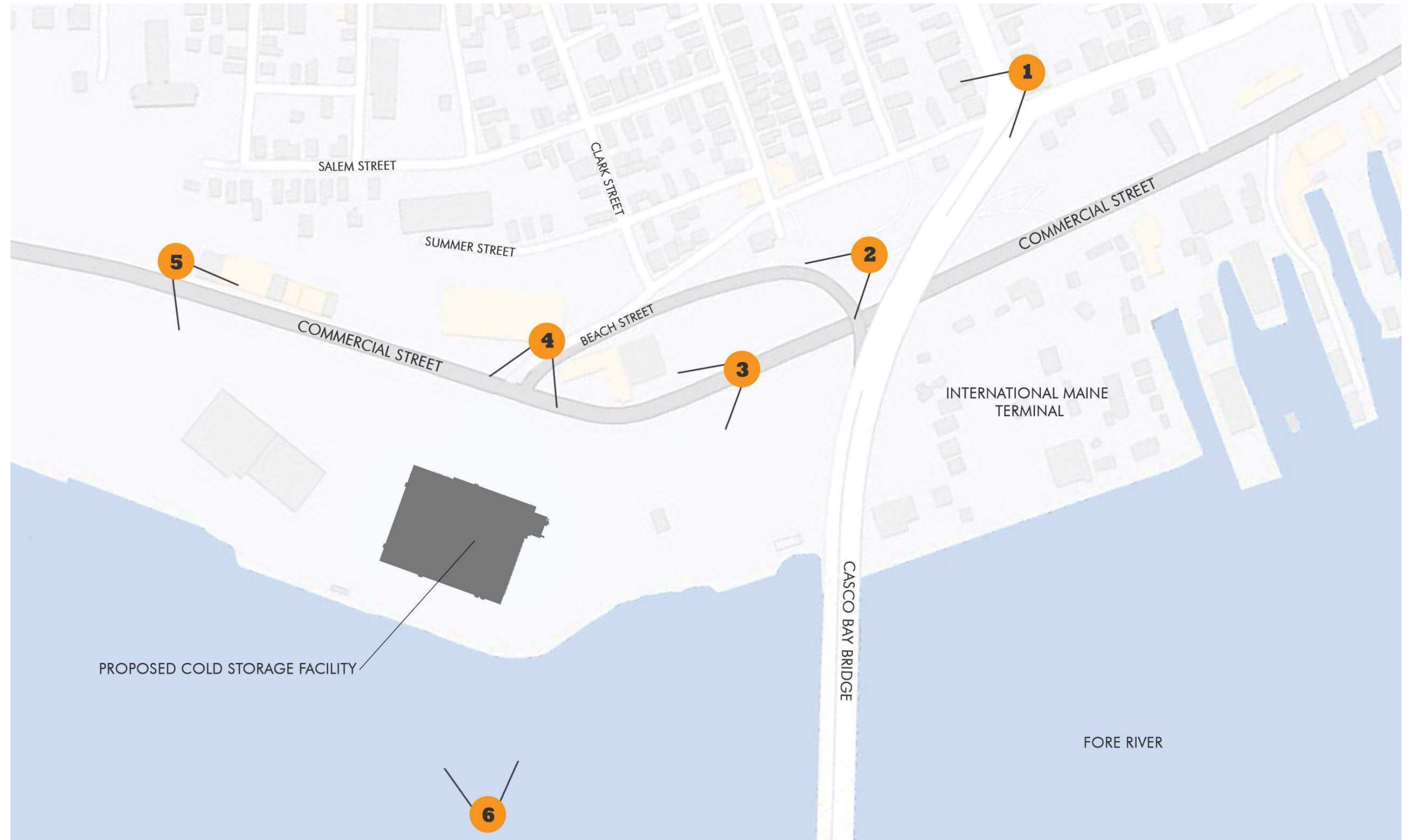
PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY

SOUTHWEST PERSPECTIVE



PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY

BUILDING VIEW LOCATION MAP



PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY

BUILDING VIEW 1: AERIAL VIEW - LOOKING SOUTHWEST



PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY

BUILDING VIEW 2: VIEW FROM HARBOR VIEW MEMORIAL PARK



PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY



BUILDING VIEW 3: VIEW FROM COMMERCIAL STREET - LOOKING SOUTHWEST



BUILDING VIEW 4: VIEW FROM BEACH STREET (AT COMMERCIAL STREET)

PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY

BUILDING VIEW 5: VIEW FROM COMMERCIAL STREET - LOOKING EAST



PROPOSED MAINE INTERNATIONAL COLD STORAGE FACILITY

BUILDING VIEW 6: VIEW FROM SOUTH PORTLAND - THOMAS KNIGHT PARK



Memorandum

Planning and Urban Development Department

Planning Division



To: Brandon Mazer, Chair and Members of the Portland Planning Board
From: Shukria Wiar, Planner
Date: September 4, 2020
Re: 163 Washington Avenue Rezone
Project ID: ZN-000540-2019 **CBL** 012 Foo8
Meeting Date: September 8, 2020

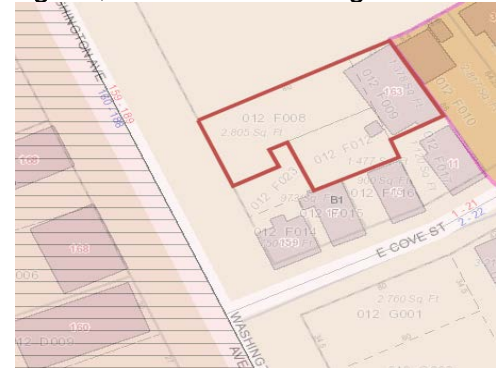
I. INTRODUCTION

This is a request for a zoning map amendment for a property at 163 Washington Avenue, located on the easterly side of Washington Avenue between East Cove Street and the I-295 interchange. The site currently is occupied by a two-story, two-family residence., and is zoned B-1 Neighborhood Business. Jeffrey Curran, the applicant, has applied for a rezoning to B-2b to facilitate the operation of a brewery at this location.

Owner/ Applicant: Jeffery Curran, Newsclapes, Inc.

Applicant Rep: Marshall Tinkle, Esq., Thompson, MacColl & Bass, LLC

Figure 1, Aerial view of Washington Avenue



II. PROPOSED MAP AMENDMENT

Current Zoning:	B-1 Neighborhood Business
Proposed Zoning:	B-2b Community Business
Current Uses at Site:	Two Family Residential
Proposed Uses at Site:	Mixed Use (ground-floor brewery and upper floor residential)
Total Parcel Area:	± 5,660 SF
Area to be Rezoned:	± 5,660 SF

III. BACKGROUND

A. Location of the Proposed Site:

The 163 Washington Avenue site consists of three parcels with a total area of 5,660 SF. The subject property contains a two-story, two-unit building of 1,872 SF in size on the eastern half of the site. The remainder of the site is dedicated to surface parking. The building has approximately 40 feet of frontage on Washington Avenue, is 103 feet deep, and was constructed in 1890, according to the City Assessor's records.

Washington Avenue is a mixture of uses, building types and scales, including single family, two-family, and multi-family residential, and a wide range of non-residential uses such as restaurants, retail, offices, a bicycle shop, a redemption center, and light industrial uses in an approximately half mile stretch. The corridor contains a mixture of residential and commercial on both sides of the street. Commercial uses in this section include the newly constructed bathhouse (145 Washington Avenue) and Northern Burner Supply building (185 Washington Avenue). The Avesta-operated Thomas Heights Apartments at 134

Figure 2 – Photo of the Property in 1924



Figure 3, Street Level Views



Washington Avenue, an 18-unit multifamily building housing a veteran population, is in the vicinity of the proposed site, as are numerous other neighborhood scale residential and commercial buildings.

Prior Zoning Actions:

1. 2014 Rezoning from R-6 to B-1 for the Proposed Site and Surrounding Abutters

In October 2014, the Planning Board voted to recommend a zoning map amendment from R-6 to B-1 to the City Council for a mixed-use development consisting of commercial uses along Washington Avenue, and residences in the form of apartments and townhomes. The Planning Board had determined that

easterly side of Washington Avenue between the I-295 interchange and Walnut Street warranted rezoning in connection with a development proposal and recommended the B-1 zone in lieu of the initial proposal for a B-2b zone. The choice of B-1 over B-2b was driven by the range of allowable uses and development intensity permitted by the former over the latter. Both B-1 and B-2 permit medium-level residential and neighborhood-scale commercial uses by right, but the uses allowed by the B-1 zone facilitate commercial development at a smaller scale than B-2b. At the time, the Board also felt that the B-1 zone was the more contextual choice of zone for this specific section of the street, due to the nearby residential development along Walnut Street, East Cove Street, and Sheridan Street. The rezoning was approved by the City Council in January of 2015.

2. 2006 Rezoning from R-3 to B1-b for Gould Street to I-295 Ramp:

In 2006, the parcels from Gould Street to the I-295 ramp on the west side of Washington Avenue were rezoned from R-3 to B1-b. Planning staff examined the B1-b, B2-b or B2-c zones for this location, and ultimately recommended B1-b because it would allow for mixed-use development while also maintaining residential development that would complement existing patterns of density in the vicinity. The report noted concern over the potential for use conflicts between the successful neighborhood businesses - many of which were located within small commercial lots - and the need for vehicle access to the nearby I-295 interchange.

B. Current Zoning and Uses in the Vicinity

The area surrounding 163 Washington Avenue is an urban mix of residential and commercial uses. Washington Avenue and the East Bayside neighborhood in general are emerging as areas of mixed-use redevelopment. The subject property lies at the intersection of several zones. The property itself is zoned B-1; as such, it is surrounded on two sides by mostly residential uses, including some large multi-family housing to the east. Most of the adjacent housing is of a scale characteristic of the city's East End. A B-2b zone lies across Washington Avenue. To the northwest (also across the street), about a block away, is the B-1b zone. The B-2b zone includes restaurant, retail, office, and residential uses.

B-1 Zone: As previously stated, the subject block was rezoned from R-6 to B-1 in 2014. At that time, the City Council approved the extension of the B-1 zone along the east side of Washington Ave from the intersection of Washington Ave and Walnut Street (with the exception of the first three lots) to the ROS zone near the I-295 on-ramp at exit 5. As a result of that rezoning, two projects have been approved for two of these lots, one of which is being constructed at 145 Washington Avenue and consists of a mixed-use residential and commercial development.

B1-b Zone: The B-1b zone extends along the western side of Washington Avenue between Gould Street and the I-295 ramp at Tukey's Bridge. This area is comprised of single and multi-family residential development. Residential uses with this zone must conform to the zoning requirements of the abutting or nearest residential zone. In this case, the nearest residential zone is R-6 Residential. In any structure with commercial use on the first floor, multifamily dwellings are permitted above the first floor.

B-2b and R-6: The western side from Gould Street and eastern side of Washington Avenue is a mix of R-6 residential and B-2b business. Surrounding non-residential uses include the Oil Burner Supply Company across Washington Avenue, facing Gould Street. In the B-2b zone, surrounding uses include the AM- VET VFW Post, a screen-printing business and the East End Redemption Center. Single and multi-family residential dwellings are interspersed throughout the area.

ROS: Directly across from the site on Washington Avenue is City owned property, which is part of the Eastern Promenade parkland and is zoned ROS- Resource Open Space.

Figure 4, Aerial view of Washington Avenue

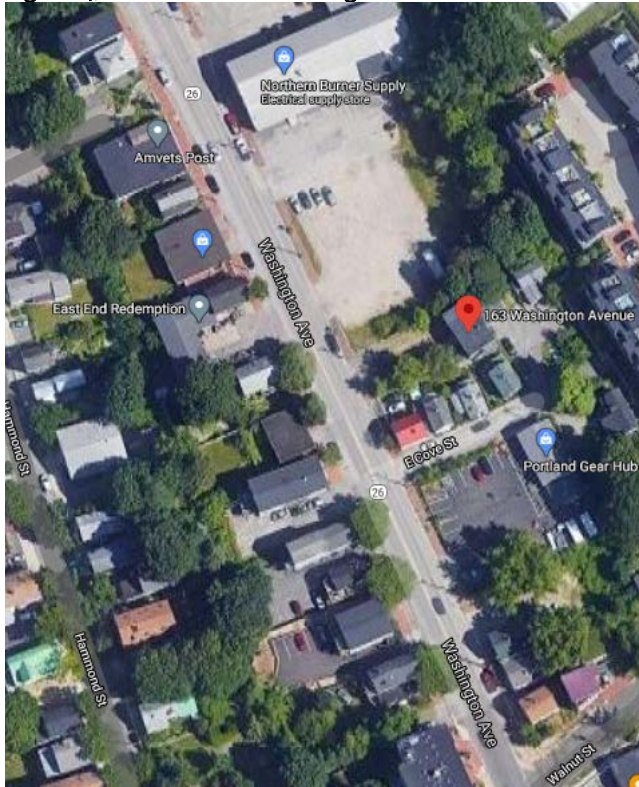


Figure 5, Zoning Context



IV. PROPOSED CONCEPTUAL DEVELOPMENT

No new development sought in connection with this rezoning; the applicant seeks this map amendment to allow the conversion of the first-floor residential unit in the building at 163 Washington Avenue into a either a brewery use. The applicant envisions patio space and picnic tables for patrons and a tasting area on the property. While the applicant has not submitted any conceptual site plan materials, the future use at the subject property will be required to meet City site plan, technical, and design standards.

V. ZONING ANALYSIS

The mixed-use element of the applicant's proposal, with a proposed brewery use on the ground floor, is prohibited in the B-1 zone. For this reason, the applicant originally requested a rezoning to the B-2 zone, which allows both higher residential density (1 unit/435 SF), and, crucially, a broad range of commercial uses, including retail and restaurant uses, distilleries, and breweries by right. The B-2 zone also includes more intensive uses, such as auto- related and auto-oriented business uses and drive-through. The Planning staff worked with the applicant to apply for a map rezoning to B-2b instead, which grants the same dimensional flexibility, the potential for mixed-use developments, and use of brewery and distillery.

The B-1 zone is intended to "provide limited areas for the location of small-scale commercial establishments.... [which are] complimentary, quiet, and generally do not disturb the comfort and enjoyment of the adjoining neighborhood" (*Section 14-167*). It should be noted that the B-1 business zone explicitly encourages mixed-use buildings which allow for commercial

development and high residential density, and that the B-2b likewise encourages neighborhood and community retail, and business and service establishments. The stated purpose of the B-2b zone shares some characteristics with the existing zoning. As with the other zones, the B-2b zoning is explicitly intended to increase housing opportunities by the higher density and encourage mixed-use activities. Table 1 compares the purposes of the two zones as written in the ordinance.

Table 1: Purposes

	B-1 Neighborhood Business	B-2b Community Business
Purpose	The purpose of the B-1 neighborhood business zone is to provide limited areas for the location of small-scale commercial establishments intended to serve a local market. As a result, uses shall be complimentary, quiet and generally do not disturb the comfort and enjoyment of the adjoining neighborhood environment. Uses shall be designed for the pedestrian scale and will provide convenient access for nearby residents and workers to walk in to purchase goods and services. Buildings and uses shall be designed with attractive storefronts or similar features, with windows and doors convenient to a public sidewalk. Building additions are encouraged but not required to meet the maximum setbacks of 14-165(c)(3). This zone shall encourage mixed use buildings such as commercial first floor with residential uses above or combined retail/office uses in a multistory structure. The zone also provides the opportunity for mixed use and high residential density in on-peninsula locations. Suitable locations for this zone may include street intersections and arterial streets with existing or proposed traditional neighborhood retail and service uses.	The B-2b zone is intended to provide neighborhood and community retail, business and service establishments that are oriented to and built close to the street. The B-2b zone is appropriate in areas where a more compact urban development pattern exists such as on-peninsula or in areas off-peninsula where a neighborhood compatible commercial district is established which exhibits a pedestrian scale and character. Such locations may include the peninsula and other arterials and intersections with an existing urban or neighborhood oriented building pattern.

Permitted Uses

The change from B-1 to B-2b would allow a commercial/retail use within the building. As stated previously, the nearest commercial zone is the B-2b zone, which is located across Washington Avenue to the west. The 163 Washington Avenue site is located near Tukey's Bridge and within a compact, neighborhood-oriented development context. The B-2b zone does not require that residential uses be located on the upper stories within this zone, however, in any structure that has commercial uses in the first floor, multi-family dwellings are permitted above the first floor. As mentioned above, the uses allowed in the B-2b Community Business zone include, but are not limited to, residential, offices, personal services, retail establishments, restaurants, drinking establishments, miscellaneous repair services, theaters, hotels or motels, and drive-throughs.

The B-2b zone allows a wider range of uses than the B-1, including brewery/distillery uses and drinking establishments, but does so in a limited square footage capacity. The B-2b also permits major and minor auto service stations existing as of 1999, car washes, drive-throughs associated with a permitted use adjacent to residential zones, and automobile dealerships, as well as a number of other uses which are listed prohibited uses in the B-1 zone. As the purposes indicate, the B-2b zone permits the more intensive range of uses of the two zones considered here. In keeping its purpose statement, the B-1 generally permits fewer intensive uses than the B-2b. The B-1 limits development almost exclusively to residential neighborhood uses, with an exception for low-intensity, compatible nonresidential uses such as cemeteries, parks, bed and breakfasts, and lodging houses. Some slightly more intense uses, including schools, extended care facilities, places of assembly, and hospitals, are allowed under a conditional use permit. The B-1 allows residential density under the regulations of the nearest residential zone (in the case of 163 Washington Avenue, the R-6 zone).

Table 2: Permitted and Conditional Uses – Shown with X if listed in Zone

			B-1	B-2b
Permitted	Residential	Single-family and two-family dwellings	x ¹	x
		Multi-family dwellings	x	x ²
		Handicapped family units	x	x
		Single-family manufactured housing	x	
		Combined living/working spaces		x
		Lodging houses	x	x
	Institutional	Schools	x	x
		Clinics	x	x
		Places of assembly	x	x
		Long term, extended and intermediate care facilities		x
		Governmental buildings and uses/municipal uses	x	x
		College, university or trade schools		x
		Nursery schools, kindergartens	x	
		Day care facilities	x	x
	Business	General, business & professional offices	x	x
		Personal services	x	x
		Offices of building tradesmen	x	x
		Retail establishments	x	x
		Restaurants	x	x
		Drinking establishments		x
		Billiard parlors		x
		Mortuaries or funeral homes		x
		Miscellaneous repair services, excluding motor vehicle repair		x
		Communication studios or broadcast and receiving facilities		x
		Health clubs and gymnasiums		x
		Veterinary hospitals		x
		Theaters		x
		Hotels		x
		Dairies and bakeries		x
		Drive-throughs when accessory to a principal use		x
		Registered medical marijuana dispensaries		x
		Accessory uses	x	x
		Cemeteries	x	
		Parks	x	
		Home occupation	x	
		Special needs independent living units		
		Conversion into bed and breakfast	x	

Table 2: Permitted and Conditional Uses – Shown with X if listed in Zone

			B-1	B-2b
		Hostels	x	x
		Wind energy systems	x	x
		Utility substations	x	x
		Bed and breakfasts	x	x
		Studios for artists and craftspeople	x	x
Conditional	Reside	Sheltered care group homes	x	
		Conversion into bed and breakfast (over 5 rooms)	x	
	Institutional	Schools	x	
		Long-term and extended care facilities	x	
		Intermediate care facility	x	
		Places of assembly	x	
		Hospital	x	
		College, university, trade schools	x	
	Business	Major and minor auto service stations existing as of 1999		x
		Car washes		x
		Drive-throughs associated with a permitted use adjacent to residential zones		x
		Automobile dealerships		x
	Other	Utility substations		
		Professional offices		
		Chancellery		
		Nursery school and kindergartens		
		Off-street parking for passenger cars for permitted uses		
		Day care facilities		
		Temporary wind anemometer towers		x
		Hostels		
		Wind energy systems	x	x
		Printing and publishing establishments		x
		Wholesale distribution establishments		x
		Research and developments and related production establishments		x

¹ Any residential use permitted in the residential zone abutting the lot is permitted. If there is no abutting residential zone, any residential use permitted in the nearest residential zone to the lot is permitted.

² If nearest residential zone is R-4, R-5, R-6, or R-7 or if first floor is used for commercial purposes.

Dimensional Requirements and Form

Lastly, the two zones vary slightly in terms of the form of building that is promoted through dimensional requirements, with the B-2b allowing a maximum building height of 45 feet (50 feet if first floor is partially or wholly occupied by a commercial use) and 65 feet within 65 feet of Franklin St, whereas the maximum building height in the B-1 zone is 35 feet off peninsula and 45 feet on-peninsula.

Table 3: Dimensional Requirements

	B-1	B-2b
Min. Lot Size	o SF (depending on use)	None
Min. Lot Area per D.U.	435 SF (depending on use)	435 SF if active street frontage
Min. Street Frontage	20 ft.	20 ft.
Min. Lot Width	o ft.	
Min. Front Yard	o ft.	None
Max. Front yard	10 ft. or the average depths of adjacent front rds	10 ft., except for irregularly shaped lots or lots with < 40 ft. of frontage
Min. Rear Yard	o ft. except 10 ft. if abutting a residential zone	10 ft.; 5 ft. for accessory structures
Min. Side Yard	o ft. except 10 ft. if abutting a residential zone	None; 5 ft. for accessory structures
Max. Structure Height	35 ft. Off peninsula; 45 ft. On peninsula	45 ft., 50 ft. if first floor is occupied by a commercial use
Max. Lot Coverage	90%	90%
Open Space Ratio		

VI. LAND USE POLICY ANALYSIS

The applicant has submitted their analysis of the project's conformance with the Comprehensive Plan (refer to [Attachment D](#)). The staff has identified the following goals and policies which are relevant to the proposed zoning amendment and finds the proposal in conformance with both the housing and economic development goals of the Comprehensive Plan, as well as the future land use vision. As stated, the purpose of the B-2b zone is:

The B-2b zone is intended to provide neighborhood and community retail, business and service establishments that are oriented to and built close to the street. The B-2b zone is appropriate in areas where a more compact urban development pattern exists such as on-peninsula or in areas off-peninsula where a neighborhood compatible commercial district is established which exhibits a pedestrian scale and character. Such locations may include the peninsula and other arterials and intersections with an existing urban or neighborhood-oriented building pattern.

The central vision of Portland's Plan 2030 is represented by the Venn diagram demonstrating the integral interrelation of the community's core belief that Portland is equitable, sustainable, connected, dynamic, authentic and secure. The vision conveys the message of the City's need to balance many competing needs to assure the advance of the vision as a unified concept. In this instance, that the City's goals for job growth and transforming Portland through orderly growth and development be balanced with needs for connectivity of the street grid, sustainability of infrastructure and the ability to maintain that infrastructure, and security in the sense of public safety. Applicable policy includes the following:



A Vibrant City

Promote an economic climate that increases job opportunities and overall economic well-being.

2. SUPPORT LOCAL BUSINESS RETENTION AND RECRUITMENT

- Pursue policies that create, nurture, and retain local businesses.
- Support job creation and business growth through public initiatives and private, institutional, and regional partnerships.

- Strengthen City programs and services that support business development.

5. TARGET AREAS FOR JOB GROWTH

- Ensure that new employment can be accommodated in priority growth areas across the City.
- Evaluate zoning and the condition of existing infrastructure in priority areas - downtown, in identified neighborhood nodes, and along transit corridors – to ensure that employment and housing growth can be supported.
- Expand possibilities for live/work spaces – residential living space with integrated creative work space.
- Modify ordinances and make strategic investments to better promote business development and job creation in priority areas.

VII. PUBLIC COMMENT/NEIGHBORHOOD MEETING

Notices were sent to a hundred and fifty-two (152) residents and the interested citizen list. The notice also appeared in the Portland Press Herald on September 6 and September 7, 2020, as well as being posted on the City's web page. The City has received written public comments from Ron Gan and Christian MilNeil. Both are in support of this map amendment. Mr. Gan requests his property at 202 Washington Avenue be included in the rezoning area. The owner of Northern Burner Supply has also inquired about the proposed rezoning. A neighborhood meeting has not been held. The applicant is aware that a neighborhood meeting will need to take place prior to the public hearing.

VIII. CONSIDERATION OF EXTENDED REZONING AREA

Generally, when a Zoning Map Amendment is reviewed, the Planning Board examines the proposed boundaries comprehensively and considers other adjacent areas that may be appropriate candidates for a similar rezoning. This may result in the Board contemplating and noticing for a larger geographic area for the purposes of holding a public hearing, which can be reduced in scope when the Board formulates its recommendation to the City Council. The applicant has requested a map amendment for their site only. However, upon further consideration, the Board may wish to extend the rezoning area to include the additional lots abutting the parcel on Washington Avenue in order to rationalize the zoning boundaries; please see map.



As stated previously, the B-2b zone allows for more intense uses than the B-1 zone. Commercial and mixed-use development predominate along this segment of Washington Avenue. If the Board determines that B-2b would be appropriate for areas along the eastern side of the Washington Avenue corridor that extend beyond the subject property, it may wish to do so in manner that takes the existing residential homes along Walnut Street into consideration to limit the potential for higher-intensity business uses immediately adjacent to small-scale residential development.. Uses that are allowed in the B-2b zone, but not allowed in the B-1 zone include drinking establishments, miscellaneous repair services, theaters, hotels or motels, and drive-throughs (the latter only as a conditional use). Planning staff recommend that the subject property and the properties to the north extending to the nearby ROS zone be rezoned from B-1 to B2-b. The parcels between Walnut Street and the proposed site (145, 147-155, 159 Washington Avenue; 3,6,11,15, and 17 E. Cove Street) will be retained as a B-1 zone that will be serve as a transition from the R-6 zone to the B-2b zone. Staff also notes that the site requested for rezoning by Mr. Gan, 202 Washington Avenue, is located on the opposite side of Washington Avenue from the subject property and to the north, and thus a rationale for extension of the B-2b to encompass that site could not be identified during analysis.

IX. NEXT STEPS

- Provide initial feedback on map amendment request
- Obtain Planning Board feedback on the extended rezoning area
- Address any additional information requested by the Planning Board

- Schedule a public hearing or a second workshop

X. ATTACHMENTS

A. MEMO ATTACHMENT

1. Comments Letter to Applicant

B. PUBLIC COMMENTS

PC1 Christian MilNeil 04.02.2020

PC2 Ron Gan 02.25.2020

PC3 Ron Gan 09.02.2020

C. APPLICANT'S ATTACHMENTS

- A. Check List
- B. Project Description
- C. Anne Torregossa 3.17.20 (Cover letter)
C1. Anne Torregossa 4.10.20 (Cover letter)
- D. Consistency with Comprehensive Plan
D1. Comprehensive Plan Consistency
- E. Deed p.1
E1. Deed p.2

D. PLANS

Plan 1 163 Washington Ave Vicinity Map

Plan 2 Vicinity Map



CITY OF PORTLAND
Planning & Urban Development

February 14, 2020

Jeff Curran
Newscapes Brewing Inc
163 Washington Avenue
Portland, ME 04101

Marshall Tinkle
Thompson, Bass & MacColl, LLC.
PO Box 447
Portland, ME 04112-0447

RE: Staff Review Comments for Zoning Map Amendment Application – Planning Board Review

Project Name:	Zoning Map Amendment	Project ID:	ZN-000540-2019
Project Address:	163 Washington Avenue	CBL:	012 Foo8 001
Applicant:	Jeffery Curran		
Planner:	Shukria Wiar		

Dear Mr. Curran:

Thank you for submitting a Zoning Map Amendment application to rezone your property from a B-1 zone to B-2 zone at 163 Washington Ave. Staff has reviewed your application, and the following items are required for a complete application to be forwarded to the Planning Board for review:

1. **Project Description:** Submit a written narrative as to the program of the development that the rezoning would facilitate and the rationale for the rezoning, addressing the following:
 - **Existing Use:** Describe the existing use of the subject property.
 - **Proposed Use of Property:** Please describe the proposed use of the subject property should the rezoning be approved. If any construction or development is proposed, please describe any changes to the physical condition of the property. The intent is to convey to the Planning Board and public how the use would function, the potential impacts of the use to abutters and the wider neighborhood, and how the use is consistent with the purpose and intent of the new zone.
2. **Survey or Site Plan:** On a separate sheet, please provide a survey or site plan of the property showing existing and proposed zones and property boundaries. It needs to be clear as to which properties need to be rezoned. This may be a professionally drawn plan, or a carefully drawn plan, to scale, by the applicant. (Scale to suit, range from 1" = 10' to 1' = 50'.)
3. **Comprehensive Plan Consistency:** Address how the proposed zoning map amendment is consistent with the comprehensive plan, meets applicable land use regulations, and is compatible with the surrounding neighborhood.
4. **Neighborhood Meeting:** In order to improve communication between development applicants and neighbors, the City of Portland requires applicants proposing certain types of projects to hold a neighborhood meeting. In the case of a zoning map amendment, this meeting should take place no less than 7 days prior to the Planning Board public hearing for the project. Please see the City document [A Guide to Holding Neighborhood Meetings](#) for further details.

Upon receipt of the revised material, the City of Portland will review the additional plans and information for conformance with the comprehensive plan and zoning ordinance. After receipt of the final application, the item will be scheduled for a workshop at the Planning Board's next available meeting and the staff will provide the Planning Board with a recommendation to support or deny the final zoning amendment in advance of a Planning Board public hearing. The City Council will make the final determination on adoption of the proposed zoning map amendment following the conclusion of the Planning Board review process.

If you have any questions, feel free to contact me at (207) 756-8083 or by email at shukriaw@portlandmaine.gov.

Sincerely,

Shukria Wiar

Planner

CITY OF PORTLAND
Planning & Urban Development Department

MAP AMENDMENT SUBMISSION CHECKLIST Please submit each document as a separate PDF file Please confirm by electronically checking the boxes to the left	
GENERAL APPLICATION DOCUMENTS	
☒	Project Description Cover Letter with detailed project description
☒	Consistency with Comprehensive Plan Analysis of the consistency of the zone change request with the goals, policies and land use plan of Portland's Comprehensive Plan.
☒	Completed Checklist – Map Amendment Application (this document)
☒	Right, Title and Interest Deeds, leases, or purchase and sales agreements
PLANS	
☒	Vicinity Map <i>NA.</i>
☒	Proposed Map Amendment (please use the Portland zoning map as a reference)
☒	Site Plan (if applicable) <i>NA</i> Provide a site plan of the property showing existing and proposed improvements, including such features as buildings, parking, driveways, walkways, landscape and property boundaries.

NEWSCAPES, INC.
163 Washington Ave.
Portland, ME. 04101

November 22, 2019

Mayor and Members of the City Council

I am excited to apply for a map amendment from the B-1 zone to a B-2 zone. Shown on the included vicinity map, outlined in red. It includes sections of Washington Avenue and East Cove street.

Sincerely,

Jeffrey A. Curran

THOMPSON, MACCOLL & BASS, LLC, P.A.
COUNSELORS AT LAW

EDWARD S. MacCOLL *
MARSHALL J. TINKLE *
JOHN R. BASS, II
OF COUNSEL

* ALSO ADMITTED IN NH & MA

15 MONUMENT SQUARE, 4th Floor
P.O. BOX 447
PORTLAND, MAINE 04112-0447
TELEPHONE (207) 774-7600
FACSIMILE (207) 772-1039

BENJAMIN THOMPSON
(1857-1918)
NATHAN W. THOMPSON
(1895-1969)
BENJAMIN THOMPSON
(1921-2002)

March 17, 2020

Via email

Anne M. Torregrossa, Esq.
Associate Corporation Council
City of Portland
389 Congress Street, Room 211
Portland, Maine 04101

RE: Newsclapes Brewing – Zone change application

Dear Anne:

I am writing in response to your email of February 28, 2020. Although Newsclapes Brewing has previously addressed all of the City's inquiries in connection with its application for a zoning amendment in 2019 (I note that the application passed the completeness check on January 19, 2020), please consider this letter as Newsclapes' supplementation of its 2019 application and of its subsequent submissions to the City. The information you requested is as follows:

1. Project Description: The background to this application has previously been discussed at length. After obtaining all necessary state and federal permits and licenses, and after checking with the City's planning and zoning departments, Newsclapes began operating a brewery at 163 Washington Avenue, which is also the location of the residence of Newsclapes' principal, Jeffrey Curran, in early 2018. However, after applying for a tasting room license in February 2019, Newsclapes was advised by the City for the first time that its brewery was not permitted in the B-1 zone. City officials encouraged Newsclapes to apply for a zoning change in order to resolve the land use issue.

Existing use: In compliance with the City's instructions, the property has not been used as a brewery or for any other commercial purpose since early 2019. It

continues to be used as Mr. Curran's residence, as it has been for the past 17 years.

Proposed use of property: Newsapes proposes to use the property as a brewery, as it was used until early 2019, and also proposes adding a small tasting room. Traffic, parking, olfactory conditions and decibel levels are expected to be no different than in 2018. Newsapes previously had no issues with noise, smell, traffic or parking. The brewery was and will be entirely contained within the building. Startup of the brewery did not entail any new construction in 2018; and no remodeling is anticipated at this time. At some later date, there may be a possible addition of a deck with steps and picnic tables, as outlined on the site plan drawing attached hereto as Exhibit A (previously submitted in February 2019 to Christopher Beaumont, Life Safety Plan Reviewer). Newsapes uses a simple "home-brewing" procedure, involving no industrial equipment. This would be a small-scale, low-impact craft brewery. It would have no adverse impact on abutters or on the general neighborhood.

2. **Survey or Site Plan:** Drawings of the site (as previously submitted to the City) are attached hereto as Exhibit A. A map showing the locus of the proposed zone change, which was previously submitted as part of the application, is attached hereto as Exhibit B.

3. **Comprehensive Plan Consistency:** The proposed zoning map amendment is consistent with the comprehensive plan, applicable regulations, and the character of the surrounding neighborhood for the following reasons. The property is situated in a small block currently designated as "B-1," across from and nearly adjacent to a larger B-2b zone along inner Washington Avenue. The differences between the B-1 and B-2/B-2b zones are relatively minor. A variety of business uses are permitted in the B-1 zone, including beverage dealers, restaurants (with some restrictions), professional and business offices, business services, and retail establishments. The B-2/B-2b zones allow greater flexibility in business uses and specifically permit breweries, distilleries, bakeries and similar establishments.

The latest iteration of Portland's Comprehensive Plan notes with approval that new businesses are appearing on inner Washington Avenue. *See* Portland's Plan 2030 at 39. Applauding the City's entrepreneurial environment, the plan states: "Our food and maker

economies continue to thrive as we explore ways to grow our value-added industries *such as brewing* and distilling, seafood processing, farm-to-table restaurants, and other food producers....” *Id.* at 40. Challenges to face include “a scarcity of office, industrial, and commercial space to meet current demand.” *Id.* Hence, any zoning modification that facilitates brewery entrepreneurship in emerging commercial centers like Washington Avenue actively furthers the comprehensive plan. *See also id* at 39 (“Portland provides a welcoming environment for current and future employers and entrepreneurs both large and small” and its “commercial activity is dynamic and multi-nodal”), 40 (most critical element of City’s future “is tapping the nascent energy of current and future entrepreneurs”), 41 (core economic development focus areas included “growing the economy” and “supporting business”), 42 (manufacture of comestible and value-added products “are an increasingly important part of the local economy”), 43 (local goals include growing employment base and valuing and nurturing Portland-based businesses), 44 (future strategies include supporting and retaining local businesses and evaluating zoning to ensure that employment growth can be supported).

Please see also Newsclapes’ discussion of comprehensive plan compatibility in its initial application and in the letter of Jeffrey Curran to James J. Rather dated December 27, 2019.

4. Neighborhood Meeting: As noted in Mr. Curran’s email to the City dated January 21, 2020, he received an email from the planning department on January 19, 2020 indicating that developments requiring a neighborhood meeting consisted of (1) proposed map amendments that would result in major development, (2) subdivision of five or more units/lots, (3) master development plans, and (4) level III site plans. Because this zone change amendment does not involve a major development, it is our impression that a neighborhood meeting is not required. If this is not the case, please call me at your earliest convenience to discuss what steps need to be taken to hold a neighborhood meeting and why it is necessary.

Anne M. Torregrossa, Esq.
March 17, 2020
Page 4

You have also recommended that Newsapes change its application to request a zone amendment to B-2b instead of B-2. Newsapes will be happy to revise its request, as long as no additional fees are involved and its proposed use will not in any way be prejudiced. The brewery will not have a total floor area of 10,000 square feet or greater. Therefore, it appears that a brewery would be equally permissible in the B-2 and B-2b zones. If you disagree, please advise.

Please let me know if you have any questions or need any further information. Thank you for your consideration.

Sincerely,

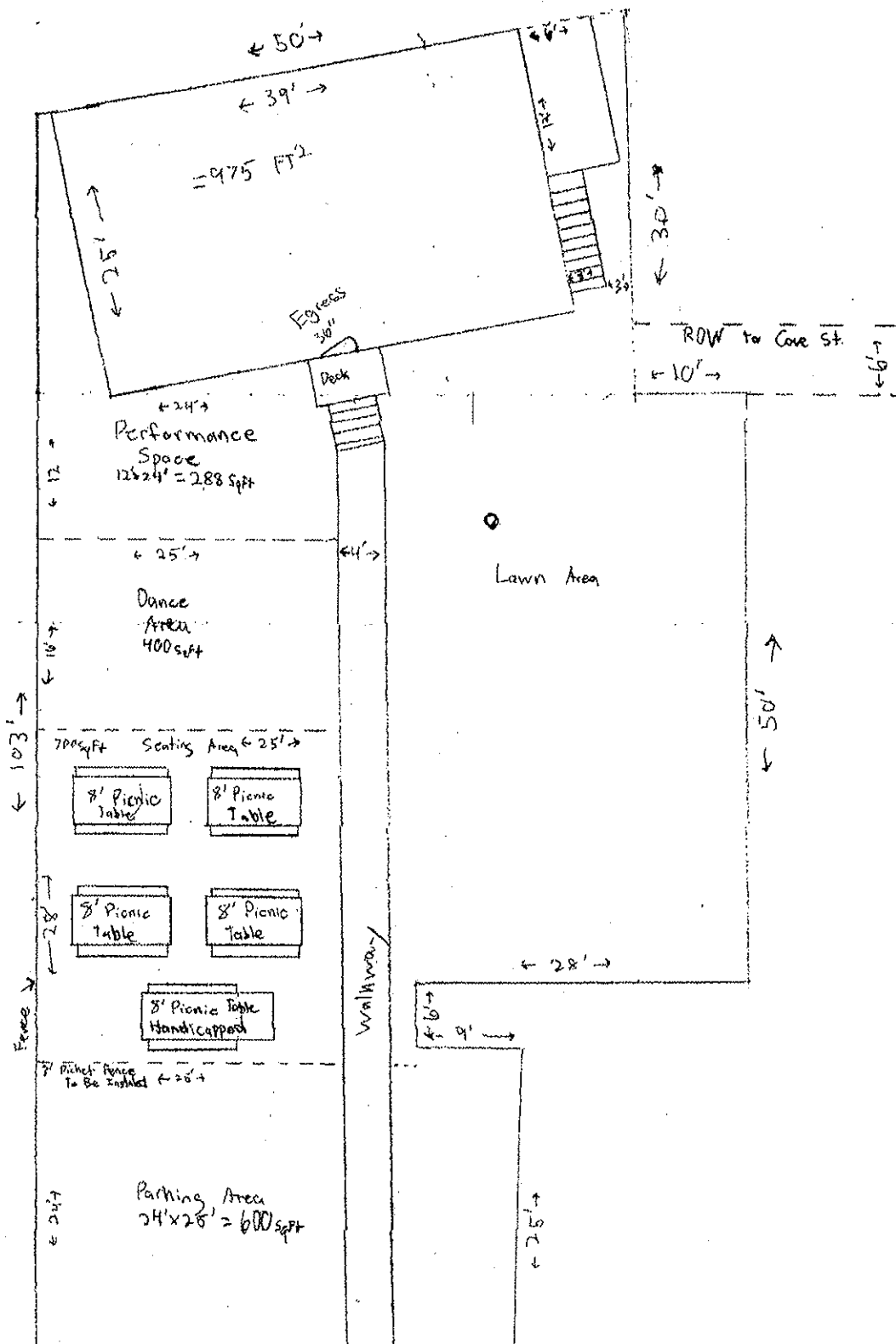
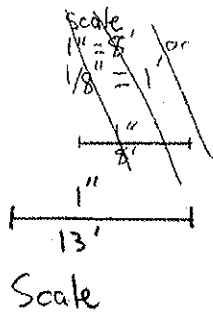


Marshall J. Tinkle (MBN 2833)

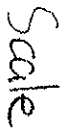
MJT/II
cc: Jeffrey Curran

tabbies*

A



Washington Ave



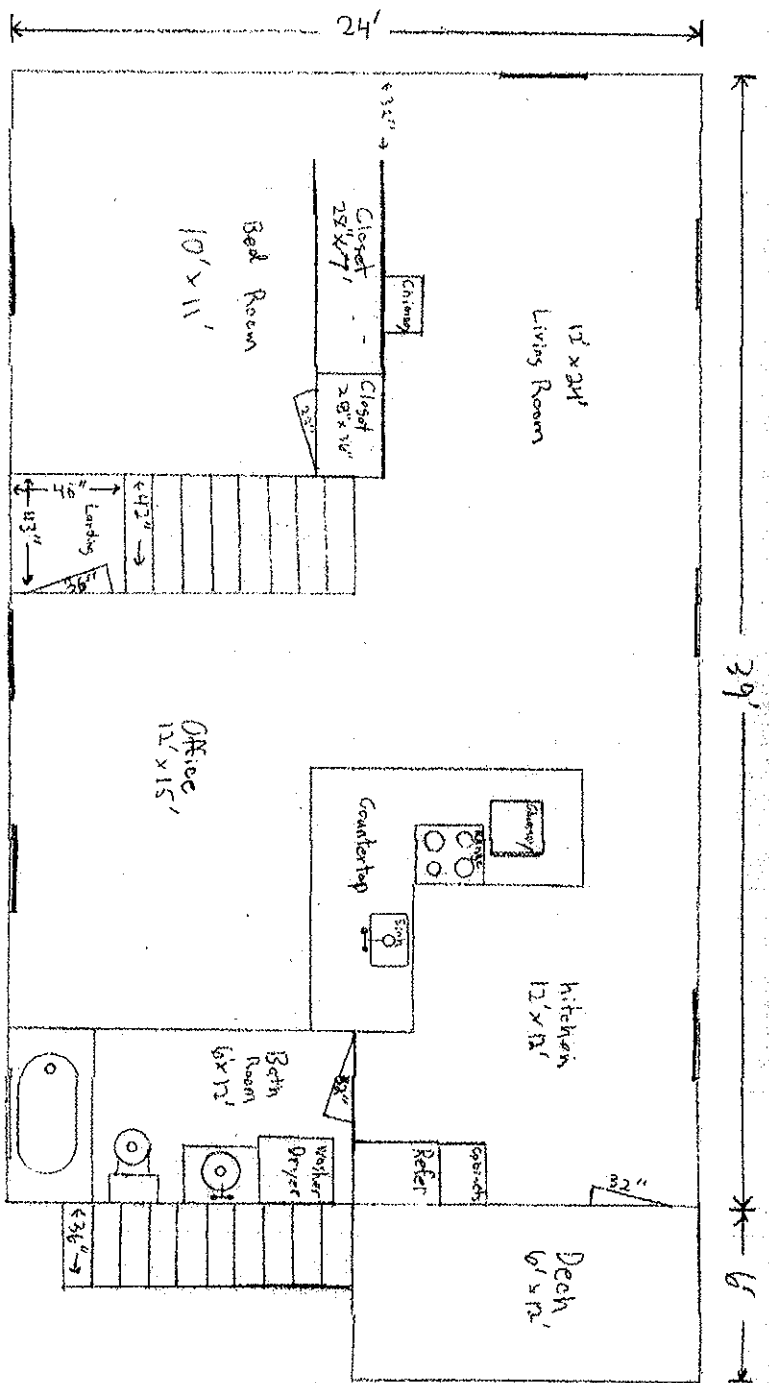


Exhibit C
2nd Floor Plan

1. Occupancy is residential on the 2nd floor

Scale
1" = 4'
1/4" = 1'

Proposed
B-2 Zone

B1

R6

E COLE ST

WHITMAN ST

HAMMOND ST

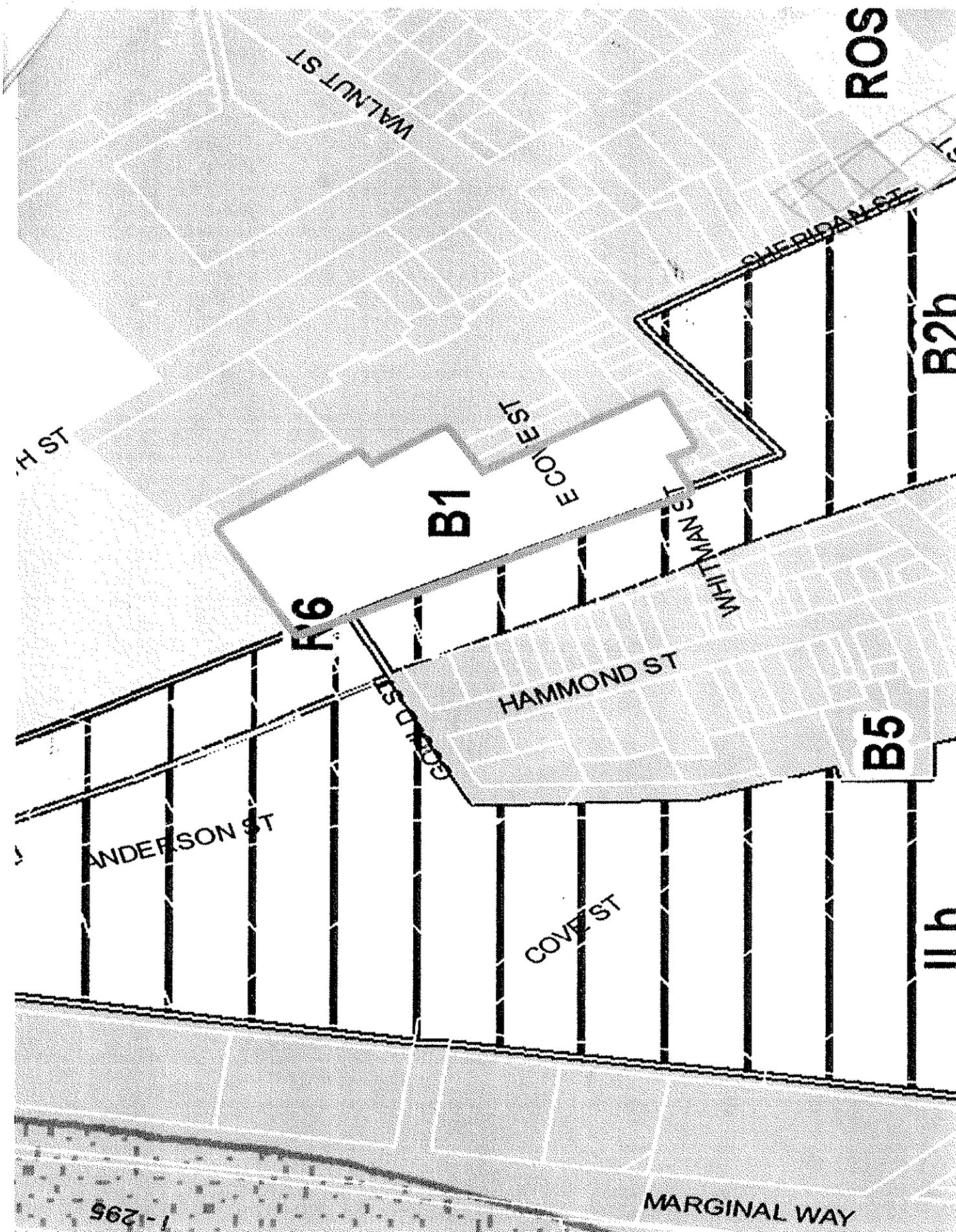
GOLD ST

PERSON ST

ROVE ST

100 200

Scale



THOMPSON, MACCOLL & BASS, LLC, P.A.
COUNSELORS AT LAW

EDWARD S. MACCOLL *
MARSHALL J. TINKLE *
JOHN R. BASS, II
OF COUNSEL

* ALSO ADMITTED IN NH. & MA

15 MONUMENT SQUARE, 4th Floor
P.O. BOX 447
PORTLAND, MAINE 04112-0447

TELEPHONE (207) 774-7600
FACSIMILE (207) 772-1039

BENJAMIN THOMPSON
(1857-1918)
NATHAN W. THOMPSON
(1895-1969)
BENJAMIN THOMPSON
(1921-2002)

April 10, 2020
Via email

Anne M. Torregrossa, Esq.
Associate Corporation Council
City of Portland
389 Congress Street, Room 211
Portland, Maine 04101

RE: Newsclapes Brewing – Zone change application

Dear Anne:

In response to your email of April 6, 2020, in which you requested a fuller description of the proposed use of the applicant's property should the rezoning be approved, I'm writing to further supplement Newsclapes Brewing's 2019 zone amendment application, its follow-up submissions to the City, and my letter to you dated March 17, 2020.

Newsclapes proposes to once again use the first floor of the building at 163 Washington Avenue as a small craft brewery. The physical set-up of the brewery will be as shown in the drawings attached to my letter of March 17th. The brewing equipment will consist of a residential stove, a five-gallon stainless-steel pot, a bucket and a keg. No commercial or industrial equipment will be utilized, and no alteration will be made to the building.

The beer or ale produced at the premises will be transported by motor vehicle to restaurants and stores for sale. The beverages will be transported by Newsclapes' employees, though Newsclapes may also work with a distributor. Newsclapes has reason to believe that a number of restaurants and stores are eager to purchase its products. There is an ever-growing demand in the Portland area for locally-crafted beers and ales; and Newsclapes can help fill that demand.

Anne M. Torregrossa, Esq.
April 10, 2020
Page 2

Additionally, Newsclapes wishes to use an existing room on the first floor of the building as a tasting room. No new construction will be required. The room will contain up to nine chairs or stools so that individual customers may order and sample Newsclapes' products within the building. A bathroom will be available on the same floor. Again, the layout is shown on the plans attached to my prior letter.

In the summer months, Newsclapes may add five picnic tables outside the building, so as to increase the total available seating, weather permitting, for forty or so (but fewer than fifty) customers. The layout of the outdoor seating, with a small performance space and dance area, is again shown on the plans attached to my March 17th letter.

Newsclapes will focus on serving the immediate community and will cater to foot traffic. To the extent parking is needed, it will have four paved parking spaces available on its premises, immediately off Washington Avenue and, should it ever become necessary, is prepared to make arrangements for additional parking. The proposed use will cause no measurable increase in traffic on this otherwise busy thoroughfare.

No odor from the brewing process will escape the building. No noises from the building will be audible outside the premises. To the extent outdoor seating is utilized, any noise will not be disruptive, in that the outdoor activities will be at least twenty-five feet from the street and even farther from any other buildings. All activity will be in keeping with the general character of inner Washington Avenue and environs.

I trust this information is sufficient for purposes of the current application. Newsclapes is anxious to move forward with its application, so please let me know immediately if you need anything further. You have indicated that a neighborhood meeting is necessary. Again, please let me know immediately if Newsclapes needs to take any further steps in order to schedule that meeting. I'll be happy to work with toward that end.

Thank you for your assistance.

Sincerely,



Marshall J. Tinkle (MBN 2833)

MJT/II
cc: Jeffrey Curran

Consistency with Comprehensive Plan

I believe my requested map amendment is consistent with the city comprehensive plan and Vision statement because of the following.

Future land-use adopts a focused approach to growth in target areas like Washington Avenue and others across the city. The future land-use section is organized around five key principles

1. One Portland: spreading the *benefits* and *challenges* of sustainable growth fairly across the community. I am a member of the community. And my company Newscapes brewing deserves a fair chance at this *benefit* because I've had the *challenge* of paying property tax in excess of \$75,000 in the 15+ years I have resided here.

2. Complete neighborhoods: improving livability while retaining the key characteristics that make that neighborhood unique. My home is an old home and it is a very unique home and is very much part of this neighborhood it's been here for more than 100 years.

3. Reinforce the center: recognize that downtown Portland Maine remains a predominant focus of arts and culture, economic, and civil health. At times Portland downtown experiences an overwhelming amount of business some of which It cannot handle allowing for some of the surrounding business zones to fill the need. Newscapes brewing would be another business that would help to accommodate the overflow of the center down town area. We would also embrace the local arts by working with a verity of local artists to showcase their work for Portland's first Friday art walks, as well as supporting the local musicians by recording high quality live recordings for them while they are being employed to entertain our patrons.

4. Support our waterfront; identify the waterfront as a resource central to the identity, economy, ecology, recreational life of Portland. And where do you think all the fishermen go when they get off the boat, to the bar to have a drink! Maybe they'll come to Newscapes brewing. Also, I might serve a lobster role.

5. Connect the chain; connecting and strengthening our open space and transportation networks. Newscapes brewing would be the second new business along with Portland Gear Hub to help rejuvenate this stretch of Washington Ave. which is a priority corridor identified in the city's comprehensive plan.

land-use planning will guide new growth to downtown, key nodes, and corridors.

Sincerely

Jeffrey A. Curran

Newscapes Brewing

Jeffrey Curran
163 Washington Avenue
Portland, Maine 04101

Mr. James J. Rather, AICP
Development Review Manager
Planning & Urban Development Department
389 Congress Street
Portland, ME 04101

December 27, 2019

Re: 163 Washington Ave Zoning Map Amendment-Items Needed

Dear Mr. Rather

I am writing in response to your email correspondence to my attorney dated 12/23/19 seeing additional information concerning my zoning change application. Please accept this letter as my supplement to that application.

Currently I, Jeff Curran, do not have any plans for development of my property with the exception of a possible addition of a deck with new steps and some picnic tables (as outlined on February 2019 site plan drawings submitted to Christopher Beaumont, Life Safety Plan Reviewer and the CSS System).

The reason I'm requesting a map amendment is to allow my business Newsclapes Brewing, a small mom and pop craft beer brewery start-up, to continue operation as it did before the zoning issue surfaced. My brewery was 100% contained inside my property. It had no issues with noise, smell, traffic or parking; and to my knowledge met all zoning codes. The only employees were myself, my mother and my father. No structural changes to the building were made or need to be made to function as a brewery.

Before starting this brewery I asked the Zoning, Planning and Business Licensing Departments about all necessary licenses and permits required. I was informed by all three departments that what I was planning was acceptable and within the code. I assumed that the information given to me from all three departments was correct and accurate and I proceeded accordingly. I was confident there were no issues, and that if any issues arose I would be notified and we could work together to remedy the situation promptly. It appears now that I should have gotten all information in writing.

In regard to "Consistency with Comprehensive Plans" – I offer the following comments:

1. The comprehensive plan states that the code will embrace the entrepreneur and small businesses; that the zoning code will not remain stagnant and will allow for change for the individual to allow business models of all types.
2. The comprehensive plan states that it intends to develop priority corridors like my part of Washington Avenue. This was pointed out to me by Christine Grimando at the same meeting with her on December 31, 2018 when she brought out the comprehensive plan because I asked her if my plan to start a craft brewery there was consistent with what the planning department wanted to see. Christine pointed to the map that showed my stretch of Washington Ave. and it was highlighted as a "priority corridor" intended for development by the City.

3. Everything about my craft brewery business and my business model is consistent with what the city's comprehensive plan sets forth, and I see no conflicts with the comprehensive plan.

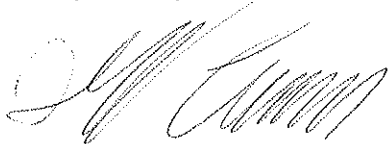
4. Per my discussion with Belinda Rae on May 9, 2019 in regards to this issue, she stated to me that she did check with the zoning dept. and was informed by them that this was consistent with what they are trying to accomplish in the next city-wide re-zoning. On May 16, 2019 I received an email from Belinda Ray where she stated that:

“Changing the small section of B-1, where you are located, is something that appears to be possible during this process. That's good news for you in terms of the fee. However, the re-code process would take a significant amount of time and there is no guarantee as to exactly when this change could take place. I would guess it could happen in the next year to 18-months.”

I am simply trying to get this done now because I was ordered to stop my business after I was allowed to start and operate for an entire year. This interruption has cost me several thousands of dollars in revenue, not to mention financial and emotional hardship. There were no complaints during the year I operated as a brewery – which I believe is further evidence that a change to explicitly allow such use would be consistent with the comprehensive plan.

In closing I look forward to hearing back from you regarding the advancement of my application. I would like to start operating again as soon as possible.

Thank you for your time,

A handwritten signature in black ink, appearing to read 'Jeffrey Curran', with a stylized, cursive script.

Jeffrey Curran

Cc: Marshall J. Tinkle, Esq

Order No: 1066258 (25-0792MCJS)

EXHIBIT 'A'

A certain lot or parcel of land situated on the easterly side of Washington Avenue, in Portland, County of Cumberland and State of Maine. Said lot being thirty (30) feet on said avenue and extending back at right angles to said avenue a distance of eighty (80) feet; being lot numbered six (6) on a Plan of Lots made for William H. Baxter by Anderson and Bonnell & Company and recorded in the Cumberland County Registry of Deeds in Plan Book 2, Page 54.

Also another parcel of land, with the buildings thereon, situated in the rear of Cove Street in said Portland, bounded and described as follows: Beginning at a stake standing forty (40) feet from the northerly side line of said Cove Street and on the westerly line of lot numbered eight (8) as shown on the Plan of W.H. Baxter, recorded in said Registry of Deeds for Cumberland County in Book 2, Page 54; thence running northerly on the line of said lot numbered eight (8), fifty (50) feet to a stake and to the rear line of said lot numbered eight (8); thence easterly twenty-three (23) feet; thence southerly about fifty (50) feet to a stake; thence westerly about thirty (30) feet to first bounds.

Also the privilege of a passageway in common on the most westerly side of said lot numbered eight (8), six (6) feet in width to said Cove Street, being the rear part of said lot numbered eight (8) with a passageway thereto over the front part of said lot.

Also another parcel of land being shown as lot numbered five (5) on a Plan made by Anderson, Bonnell & Co. for William H. Baxter, recorded in the Cumberland County Registry of Deeds in Plan Book 2, Page 54 and bounded and described as follows:

Commencing at a point thirty feet (30) north of the point formed by the northerly line of Cove Street and the easterly line of Washington Avenue, thence running northerly by said Washington Avenue thirty (30) feet and from these two points running easterly at right angles with said Washington Avenue, eighty (80) feet, holding the width of thirty (30) feet, the entire length of said lot, meaning and intending to convey the said parcel as set out in the deed from Thomas A. McDonough recorded in Cumberland Registry of Deeds in Book 1177, Page 153.

Excepting from this conveyance a certain lot or parcel of land as described in a deed from Carmela Thurston and Gaitana Puopolo to Thomas V. King dated August 10, 1987 recorded in the Cumberland County Registry of Deeds in Book 7919, Page 284.

Also conveying a certain lot or parcel of land, with any buildings there, situated in the City of Portland, County of Cumberland and State of Maine and being more particularly bounded and described as follows:

Beginning at an iron pipe found located on the easterly sideline of Washington Avenue and the northwestern corner of Lot 6 as shown on a certain Plan of Property of W.H.. Baxter, Esq., of Portland, Maine dated July 1866 by Anderson Bonnell & Co. recorded in the Cumberland County Registry of Deeds, Plan Book 2, Page 54; thence S 1° 55' 30" E a distance of forty (40) feet to an 5/8 rebar with survey cap #2133 located along said easterly sideline of Washington Avenue; thence N 88° 4' 30" E a distance of twenty-five (25) feet to a 3/8 rebar with survey cap #2133 set in the ground; thence North a distance of forty (40) feet parallel to the first course; thence West a distance of twenty-five (25) feet parallel to the second course, to the point of beginning.

Also hereby conveying all rights, casements, privileges and appurtenances, belonging to the premises hereinabove described.

Being the same premises conveyed to Jeffrey A Curran by deed of Michael Ogastino recorded on August 31, 2004 in the Cumberland County Registry of Deeds as Book 21726, Page 121.



Shukria Wiar <shukriaw@portlandmaine.gov>

Washington Ave. rezoning proposal (ZN-000540-2019)

1 message

Christian MilNeil <c.neal.milneil@gmail.com>

Tue, Feb 4, 2020 at 2:42 PM

To: "Shukria Wiar (shukriaw@portlandmaine.gov)" <shukriaw@portlandmaine.gov>

Hi Shukria,

Can you give me any information about why the landowner is seeking a rezoning of 163 Washington Ave? I'm mostly curious about why a B2b zone – which would be more consistent with the rest of the street – isn't being pursued?

My chief concern with the B2 zone is that it could legalize an auto-oriented, strip-mall type of development, which is inappropriate for the site and a poor use for a transit-accessible parcel next to a school and the Eastern Prom. I'd be wholly supportive of a taller mixed-use building here, on the other hand.

Can you also fill me in on whether the B2 zone still allows drive-through businesses (like banks and fast food restaurants)? I seem to recall there being some conversation about ending those uses for the B2 zone.

Thanks!

Christian MilNeil

double u double u double u dot christianmilneil dot com

Portland Maine Planning Board
Re: 163 Washington, Map Amendment

Dear Planning Board Members,

An application for a map amendment for 163 Washington will soon come before the board. This amendment is to change the zone for this one piece of property from B1b to B2b.

The majority of Washington Avenue is already zoned either B2b or B4. Washington is one of the main arteries into Portland and the current level of development indicates that this strip has become more of a destination than a local shopping street. The B1b zone which is designed to be a neighborhood business district, is more suited to smaller locations like Stevens Ave near Deering High School.

The majority of the open land for development lies between Tukeys Bridge and Walnut Street and most of that land is zoned B1b. The B1b zone does not provide the flexibility needed for future growth in that it limits uses above the ground level to residential only.

I support this idea for a number of reasons not the least is that I own 202 Washington and would also like to be included in this re-zoning.

A 40 unit market rate condo building is going up next to me at 218 Washington. As the abutter I would like to have the flexibility to develop a project that compliments not necessarily competes with my neighbors.

I am currently developing a 40 unit workforce project for that location, with a restaurant on the ground level, 4 floors of workforce housing and two floors of market rate. This cannot be accomplished in the B1b as the density bonus in height is limited to 15' as opposed to 25' in the B2b.

I think this is an opportune time to not just fix the zoning on Washington, but to examine the entirety of the B2b and make any necessary changes that will enhance and promote development in those zones. From a zoning point of view, this is one of the lowest hanging fruits we have and the easiest to accomplish.

Respectfully,

Ronald Gan



September 1, 2020

Brandon Mazer Planning Board Chair
 Planning Board Members
 Christine Grimando Planning Director
 Nell Donaldson

Dear Staff and Board

We have upon us an opportunity to finally do something positive regarding zoning.

On Sept 8th you will be hosting a workshop for a spot zone on Washington from B1b to B2b. Just a few weeks ago you did a spot zone on Congress, now there are a number of new proposals that are requesting spot zoning changes or contract zoning. We are right back to where we were 10 years ago.

If I am elected my goal is to change the re-code process. I believe that we should put our energies in areas that are primed for growth and where that growth is welcomed by property owners. I think we should focus on fixing the zoning in 5 neighborhoods: Inner Washington Ave, East Bayside, Riverside, Forest Ave and Warren Ave.

These areas are virtually indistinguishable from each other and the three beer areas are where we have the most available land for expansion.

We already have the template which is the B5 Urban Commercial Mixed Use Zone. This zone encourages a mixture of all forms of uses whether it be industrial, commercial or residential.

Think about this; one side of the bayside trail is B5 in which we can do anything we want, no setbacks, reduced parking, no limits on residential units, in essence everything that the comprehensive plan is talking about. Perhaps a 6 story building with Uhaul as the anchor tenant.

The other side of the trail which is where we have substantial vacant land, buildings perfectly suited for building up on and a thriving beer and beverage scene, the city is intent on keeping the area fallow. How does keeping land or buildings vacant create economic development?

It's time now for Portland to progress and recognize where our current economic development lies. While most people think food is what drives Portland it is actually

202 WASHINGTON AVE. PORTLAND, ME 04101 - (207) 233-3753

ITSTIMEPORTLAND.COM - ITSTIMEPORTLAND@GMAIL.COM



Ron Gan

CANDIDATE FOR AT-LARGE
PORTLAND CITY COUNCILOR

our Beer industry. Allagash is the 7th largest tourist attraction in the state, drawing over 150,000 people to their tasting room annually. To put that in a perspective, only fast food restaurants draw more. There is not a single restaurant in Portland that draws that many people. AND YET, devoid of all common sense and without any actual knowledge of the area, the city of Portland continues to try and drive home the narrative that we need to keep retail, restaurants and housing out of our best economic areas.

I have spoken with quite a few of my neighbors on Washington, East Bayside and Riverside and without question there is support for this type of change.

We are at the intersection of chaos and chaos and this is no time to keep the lid on development in these areas because someone in some department thinks there is going to be a resurgence of industrial users who wish to relocate to Portland.

East Bayside, Washington Ave and Riverside are the most natural areas for expansion for a wide variety of housing and industry. The future lies with millennials and boomers and they all want some type of cool living.

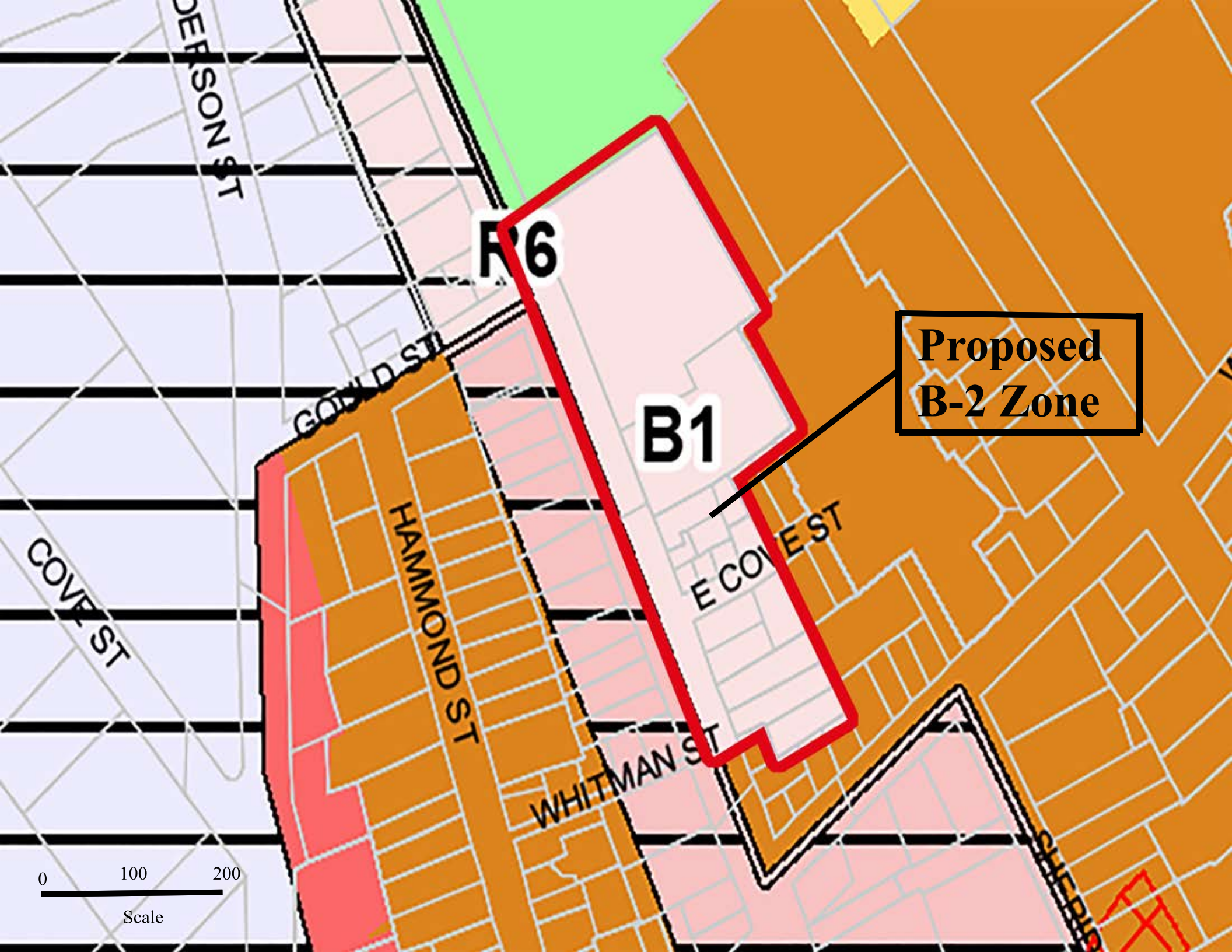
I have given a number of tours around East Bayside and it doesn't take even a lay person but 15 minutes to ask the question, why does the city resist development in this area. No changes to our land use code can be made without walking our neighborhoods. It cannot be done using maps or embracing old narratives.

I have spoken with Christine and Nell and they have agreed to do a walk around East Bayside so they can better understand what is going on and I am extending that same invitation to all members of the planning board.

Respectfully,
Ronald Gan
Candidate At Large City Council

202 WASHINGTON AVE. PORTLAND, ME 04101 - (207) 233-3753

ITSTIMEPORTLAND.COM - ITSTIMEPORTLAND@GMAIL.COM



JERSON ST

R6

B1

Proposed
B-2 Zone

GOULD ST

HAMMOND ST

COVE ST

E COVE ST

WHITMAN ST

0 100 200

Scale

City of PORTLAND, MAINE ZONING



TOWN of FALMOUTH

CITY of
WESTBROOK

Subject

BACK
COVE

PORTLAND
HARBOR

CITY of
SOUTH PORTLAND

Legend

- IR-1 Island Residential
- IR-2 Island Residential
- IR-3 Island Residential
- I-B Island Business
- I-TS Island Transfer Station
- R1 Residential
- R2 Residential
- R3 Residential
- R4 Residential
- R5 Residential
- R-5A Residential
- R6 Residential
- R-6A Residential
- RP Residential Professional
- AB Airport Business
- OP Office Park
- B3* Downtown Business
- B3c Downtown Business
- B4 Commercial Business
- B5 Urban Commercial Business
- B5b Urban Commercial Business
- B6 Urban Commercial Business
- B7 Urban Commercial Business
- IS-FBC India St Farm Based
- IL Industrial - Low Impact
- IM Industrial - Moderate Impact
- IS Industrial - Moderate Impact
- PI Industrial - High Impact
- RPZ Resource Protection
- RIG Recreation Open Space
- WPOL Waterfront

Map Sheet	Map Sheet	Map Sheet
1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	21
22	23	24
25	26	27
28	29	30
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79	80	81
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94	95	96
97	98	99
100	101	102

Legend

- Shoreland Zoning
- Stream Protection District
- Overseas Entertainment (OEOD)
- MHC 302
- Murphy Hill Neighborhood Conservation Overlay District
- Residential (R-1)
- Residential (R-2)
- University of Southern Maine (USM)
- Wayville Core Subdistrict
- Wayville Edge Subdistrict

The depiction of the Shoreland Zoning and the Stream Protection Districts are illustrative of the general location of such zones. The actual boundaries of these zones shall be determined by the measurement of the distance indicated on the maps from the normal high water line of the water body or the upland edge of the wetland vegetation. Where the measurement is not the same as the location of the boundary on the zoning maps, the measurement shall control, unless the zoning map indicates that the zoning boundary shall follow an existing property line.

Note: A shoreland zone is 240 feet wide, while a stream

The information contained on this map is compiled from past zoning maps, City Council orders and other documentation as depicted on the Map Summary of Zoning Documentation map on file in Portland's City Engineer's Archives Vault presently located at 212 Casco Rd and at the Department of Planning and Development located at 380 Congress Street.

**Adopted by Portland City Council
January 17, 2001
Effective February 17, 2001
Last revised February 12, 2019**

This Zoning Map of the City of Portland, Maine is provided for informational purposes only.

The current official zoning map is on file and available for reference in the Department of Planning and Development 874-8703.

PLANNING BOARD REPORT PORTLAND, MAINE



126 and 128R North Street
Level III Site Plan and Subdivision
PL-000791-2019
Upright Properties, LLC, Applicant

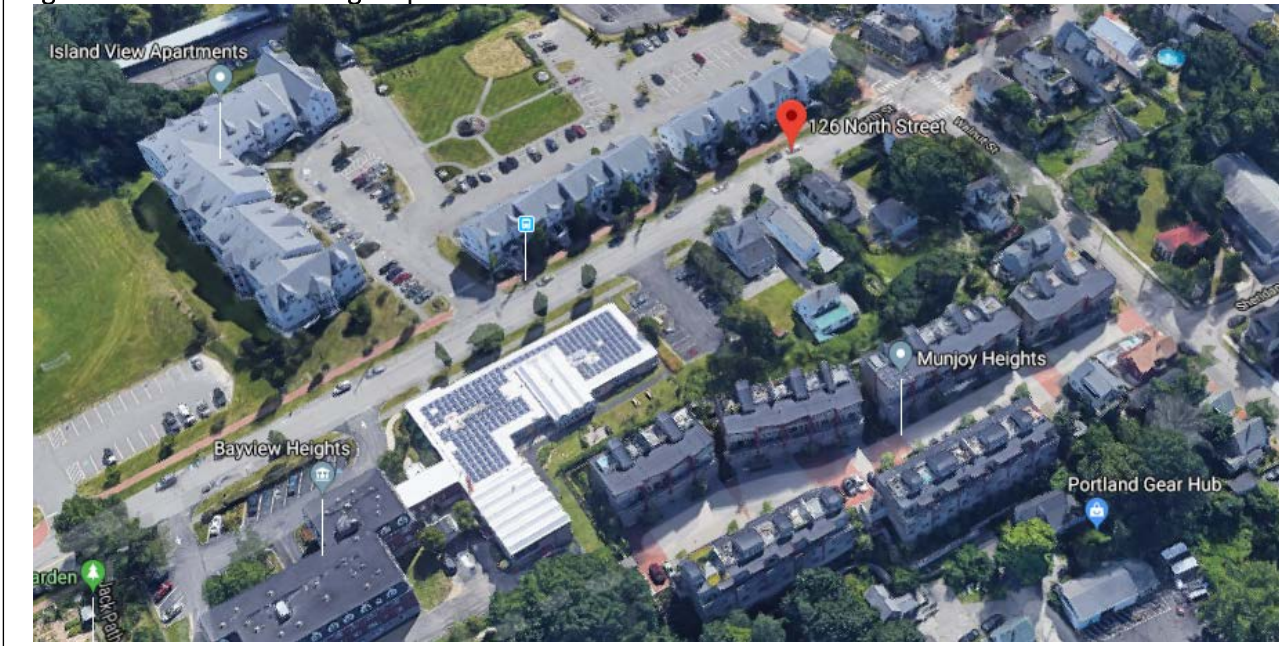
Submitted to: Portland Planning Board
Public Hearing Date: September 8, 2020

Prepared by: Shukria Wiar, Planner
Date: September 4, 2020

I. INTRODUCTION

This is the public hearing for the Upright Properties, LLC application for a three-story, six-unit residential building at 126 North Street and a four-story, six-unit condominium building at 128R North Street, for a total of twelve residential units. The project site is located in the R-6 zone and is within the Munjoy Hill Neighborhood Conservation Overlay. This redevelopment project includes the demolition of the existing structures on the sites and construction of two structures with a six-unit condominium and a six-unit rental, both with on-site parking – a mix of surface and structured. The project will house six parking spaces at 128R and two spaces at 126 North Street. Previously, the development was to be constructed on two separate parcels. The applicant has now elected to merge the two lots into a single lot. For ease of reference, the building at the front will be referred to as 126 and the proposed building at the rear of the lot will be referred to as 128R.

Figure 1 – Aerial of the Existing Proposed Site



This is proposed to be a phased development; Phase One is the structure at 128R North Street and Phase Two is the building at 126 North Street.

The 128R building will contain condominiums and will be owner-occupied. It includes a first-floor workforce housing unit, in order to get a height bonus, and all of the units will be FHA compliant. The 126 residential building will house six apartments for rent. No roof top decks are proposed and none of the roof-mounted condensers will be visible from the street.

The development has had three workshops; the first one was held on January 28, 2020, the second was held on May 26, 2020, and third one was on July 21, 2020. The July 21st workshop was not a required step for approval of the project, but the application was scheduled for additional review to provide the public with ample opportunity to contribute in the public process for the project. A public hearing was scheduled for August 18, 2020 and was tabled to September 8, 2020 at the request of the applicant. The Planning Board will consider this application on the basis of its compliance with the City's site plan and subdivision standards. As the project is over ten units, it will be required to meet the standards of the Inclusionary Zoning ordinance. The applicant is proposing one affordable unit at 126 North Street.

Applicant: Upright Properties, LLC
Consultants: Will Savage, PE, Acorn Engineering, Inc.
Tracie Reed, Architect, Dextrous Creative

II. REQUIRED REVIEWS

Waiver Requests	Applicable Standards
Request: To reduce the required 18-foot wide parking stall dimensional requirement to 16.5 feet	Technical Manual, <i>Section 1.14</i> , requiring that standard parking space to be 9 feet wide by 18 feet long
Review	Applicable Standards
Site Plan	Section 14-526
Subdivision	Section 14-497
Inclusionary Zoning (IZ)	Section 14-474, Section 14-487
Munjoy Hill Neighborhood Conservation Overlay District	Sec. 14-140.5
R-6 Small Infill Development Design Principles & Standards	Appendix 7 of the Design Manual

III. PROJECT DATA

Existing Zoning	R-6 Residential, MHNC overlay
Existing Use	Residential
Proposed Use	Residential
- Bedroom Mix	Seven 2-BR, Four 1-BR, One 4-BR
Combined Parcel Size	9, 787 SF

	Existing		Proposed		Net Change	
	126	128R	126	128R	126	128R
Building Footprint	1,885 SF	1,404 SF	1,670 SF	3,380 SF	-215 SF	+1,976 SF
Building Floor Area	4,360 SF	0 SF	4,820 SF	11,441 SF	+460 SF	+11,441 SF
Impervious Surface Area	82.4%	27.5%	80%	60%	-2.4%	+52.5%
Parking Spaces	3	0	2	6	-1	+6
Bicycle Parking Spaces	0	0	2	2	2	+2
Estimated Cost of Project	\$3,000,000					

IV. EXISTING CONDITIONS and BACKGROUND

The project site is located at 126 and 128R North Street. North Street has frontage on North Street, whereas 128R North Street is a rear lot immediately adjacent to the Bayview Heights senior apartments and across the street from the Island View Apartment complex. Any existing buildings on the site will be demolished - the 126 North Street parcel

currently contains a four-unit residential building and the rear lot, 128R, previously housed a single-family home and is now vacant. Both properties are currently accessed by bituminous driveways off North Street.

The 128R site currently shares a driveway with the neighboring property under different ownership. To the west, the parcel abuts Munjoy Heights Condominiums, where the site slopes down significantly and runs towards a concrete block retaining wall constructed as part of a condominium project from 2015. There is a 10' maintenance easement along the rear property line which would provide future access for the Munjoy Heights property to repair or replace the wall when necessary.

The building at 126 North Street was determined to be "preferably preserved" according to the MHNC overlay demolition criteria. In that circumstance, the applicant may either go through design review of 126 North Street with the Historic Preservation Board according to the R-6 Alternative Design Review criteria, or wait for a demolition delay of one year to expire before receiving building permits for 126 North Street. In the latter option, which this application has pursued, the building design must meet the R-6 MHNC zoning and the R-6 Design Standards as determined by the Planning Board in the course of their application review. The project application includes two phases:

Figure 2 - Existing 126 and 128R (at rear) North Street



Figure 3 - Phasing of Project



- Phase One (in yellow on Figure 4) includes the new six-unit condominium building at 128R, the new widened 16' driveway access using the existing curb cut, and demolition of the building at 126 North Street in order to create the 16' driveway. The existing single-family home has already been demolished.
- Phase Two (in orange on Figure 4) includes the redevelopment of 126 into a three-story building with six rental units and two surface parking spaces using a separate driveway. This phase will take place at least one year after the November 2019 determination of a demolition delay.

The overall phased project will have a net increase of seven dwelling units. Additionally, 126 would grant 128R a five-foot-wide easement to provide a 16-foot-wide access way, providing greater emergency access for three properties.

As part of the development, a single-family home was demolished last year at 128R and five additional units will be demolished at 126 North Street. All units are counted cumulatively across buildings being demolished for one site plan application. This triggers the City's Housing Preservation and Replacement ordinance and the guaranty must be paid prior to issuance of a demolition permit, as stated in the standard below:

Section 14-483 (j). Performance Guaranty/Letter of Credit. Owners or affiliates must post a performance guaranty in the form of a letter of credit, or other security acceptable to the city attorney, in the amount equivalent to the amount the applicant would have been required to contribute to the City's Housing Trust Fund if the applicant had chosen that option pursuant to sub-section g. Such a performance guaranty shall be valid for no more than three years, after which the full amount due shall be provided to the City's Housing Trust Fund if replacement units satisfying the conditions of this Division 29 do not have Certificates of Occupancy.

V. PROPOSED DEVELOPMENT

The development is a three-story, six-unit residential building at along North Street and a four-story, six-unit condominium building at the rear of the lot. The three-story building will have five two-bedroom apartments, one one-bedroom accessible unit, and two off-street, tandem parking spaces. The condominium building will have six units; one is a workforce housing unit on the ground floor and five units serviced via an elevator on upper floors and six parking spaces. A

workforce housing unit is proposed in order to obtain the height bonus for the 128R North Street building. The existing curb cuts/driveways will continue to provide access for the two buildings. The applicant is proposing a phased development, with the construction of the rear building at 128R as the first phase and the front building at 126 as the second phase. Approval of the project will need to ensure proper sequencing of these phases to allow for adequate access to the rear development site. The new building at front will now be directly accessed by pedestrians from the sidewalk rather than using the shared driveway. The applicant states that this new driveway to 128R will “improve access for vehicles and increases visibility for pedestrians and cyclists

Figure 4 - Rendering of 128R North Street



Figure 5 – Elevation of 126 North Street in the front and 128R at the Rear

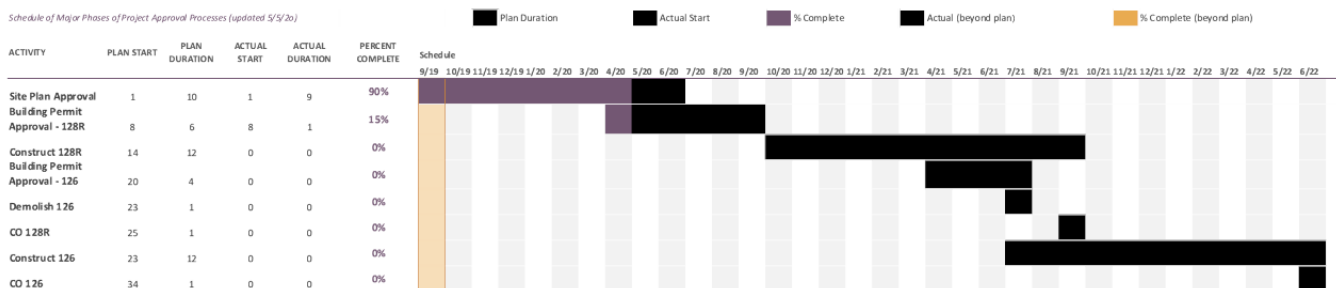


visiting 128R and 126 via a brick walkway leading from North Street”.

During the first workshop, Board members had questions about the development schedule. The applicant has provided a timeline of the project from the site plan and subdivision application to the final certificate of occupancy, included below:

128R & 126 North St

Schedule of Major Phases of Project Approval Processes (updated 5/5/20)



NOTE: This schedule is for planning purposes only. This schedule carries with it the same inherent uncertainties involved in any project schedule relying on multiple parties and spanning 34 months. Factors including (but not limited to) the following may impact the schedule: Timings of City approvals and inspections; Availabilities of sub-contractors and materials; Labor shortages; Weather - specifically the severity of winter, which varies widely in Portland from year to year.

VI. PUBLIC COMMENT AND NEIGHBORHOOD MEETING

A legal ad for the Board workshop was posted on the City’s web page and appeared in the *Portland Press Herald* on September 6th and 7th, 2020. Notices were also sent to 211 property owners within 500 feet of the site and to the interested citizen list.

The project team held two neighborhood meetings to introduce the proposed buildings to the neighbors on September 18, 2019 and January 16, 2020. Nineteen attendees signed in at the meeting. Questions generally focused

on the design of the building, vehicular parking, and emergency vehicles access (see Attachment U - DD for the Neighborhood Meeting minutes). Two additional public comments have been received since the July's third workshop (Attachment PC1- PC43). Neighbors reiterated concerns about the building design and scale.

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

The owner of the property is Upright Properties, LLC. The applicant has provided a copy of a quitclaim deed, recorded at the Cumberland County Registry of Deeds (Book 34890 Page 304), which demonstrates their right, title and interest in the property. The estimated cost of the development is \$3,000,000. The applicant has submitted a letter from Bangor Savings Bank, dated September 4, 2020 (Attachment G), as a demonstration of their financial capacity to complete the proposed development.

In order to address concerns raised by the neighborhood about the extent to which the 128R North Street lot is a nonconforming lot due to a lack of street frontage, the applicant has indicated that lots 126 and 128R North Street will be merged in order to create a single lot that is better able to meet the City's dimensional requirements. The applicant has submitted a purchase and sale (Attachment C1) outlining that intention and has agreed that submission of a duly executed and recorded deed merging the two lots as a condition of approval and prior to issuance of a building permit is feasible.

VIII. ZONING ANALYSIS

A. DIMENSIONAL AND USE REQUIREMENTS

Although the zoning analysis for this application previously focused on the historic nonconformity of Lot 128R due to a lack of road frontage, the applicant has opted to merge lots 126 and 128R, thereby removing the non-conformity. Frontage for the newly merged lot would be on North Street and, as outlined in the Zoning Administrator's analysis, all other dimensional requirements are also met by the newly merged lot.

The proposed twelve (12) residential units are a permitted use in the Residential R-6 zone, which allows multi-family dwellings. Ms. Machado has reviewed the development for zoning requirements and states all of the dimensional requirements (other than street frontage) are being met under the R-6 zone:

Based on the Plan C-10 Revised 3/17/20, the proposed building at 128 R North St. meets the dimensional requirements of the R-6 Zone and the MHNOCOD. The height of the elevator overrun will need to be confirmed when the shell of the building is built to ensure that it does not go above 45 feet since it scales at approximately 44'.

The table below contains the relevant dimensional standards for the project.

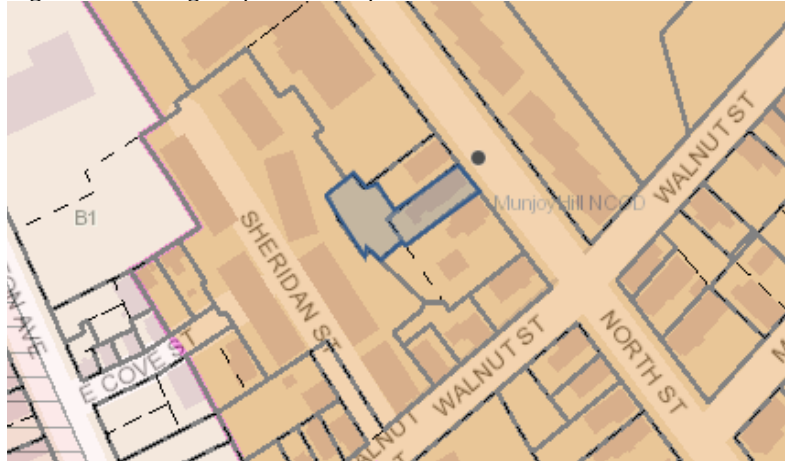
	Required	Proposed	
		126	128R
Lot Size - Combined	2,000 SF	9,787 SF	
Area Per Dwelling Unit	725 SF or a max of 13 units	12 units- Combined Total	
Minimum Street Frontage	20'	38'	
Front Yard Minimum	5'	4' (average)	5.25'
Rear Yard	10'; Buildings more than 35': 15'	16'	15.08'
Yard Right	5'; Buildings more than 35': 10'	5'	12.14'
Yard Left	5'; Buildings more than 35': 10'	10.02'	10.10'
Maximum Lot Coverage	60%	51%	
Maximum Height	35' *	33.32'	44.61 *
Open Space	20%	20%	40%
Off-Street Parking	1 space/unit after first 3 units = 3	2	6
* Height bonus for 128R North Street - 45' for developments of 3 units or more on lots over 2000 sf. that include at least one "workforce housing unit for rent" or "workforce housing unit for sale". Applicant is providing a workforce housing unit.			

^or the average of the depth of adjacent front yards

A 10' maintenance easement runs along the rear property line in connection with a concrete block retaining wall constructed as part of the Munjoy Heights project in 2015, which provide future access for the Munjoy Heights Homeowner's Association to repair or replace the retaining wall when necessary. Review of all setbacks for compliance by the Zoning Administrator is complete and the building has been updated to show that upper decks now meet 10'-0" maintenance easement at the rear and upper deck and the rear corner has been pulled in to eliminate side-setback intrusion. Ann Machado also reviewed the easement in regard to setbacks and states that the "existing ten-foot maintenance easement along the rear of the lot for the abutting property is being maintained....

Where it serves as a foundation, the minimum 7.5' setback for rear decks and porches is being met".

Figure 7 – Zoning Map of the Proposed Site



B. CONDITIONAL USE – INCLUSIONARY ZONING

As required by the City's Inclusionary Zoning Ordinance, residential developments with ten (10) or more units are required to provide a minimum of ten percent (10%) of the dwelling units as Workforce Housing units, and the units themselves must contain in total, ten percent (10%) of the total bedroom count for the entire development. The City's Housing Program Manager, Victoria Volent, has reviewed the application and offers the following comments (Attachment 5):

The development located at 126 and 128R North Street proposes to demolish the existing rental unit at 126 North and has already demolished the single-family dwelling unit at 128R North Street and will replace 126 North with a six (6) unit rental building and will replace 128R North with a six (6) condominium unit building. As the construction of 128R North is conditioned upon the demolition of 126 North Street, this project is determined to be one development project. According to Section 14-487 e 1, "projects shall not be segmented or phased to avoid compliance with these provisions."

The six (6) dwelling units of rental housing at 126 North Street would consist of five (5) two-bedroom units and one (1) one-bedroom unit. The six (6) condominium units at 128R North Street would consist of three (3) one-bedroom units, two (2) two-bedroom units, and one (1) four-bedroom unit. The applicant may determine the location of the workforce unit (126 or 128R North Street). The unit must be a minimum of two-bedrooms. Per my conversation with the applicant, the workforce unit would be located 126 North Street. As a dwelling unit for rent, the designated Workforce Unit will be restricted to a household earning up to 100% of Area Median Income (AMI). Based on the requirements outlined in Section 14-487, the applicant is required to either; provide a minimum of one (1) workforce unit consisting of a total of two (2) bedrooms and pay a fractional fee-in-lieu of \$21,757 (.2 X \$108,757) or, pay a fee-in-lieu for 1.2 units (or \$130,543). The Applicant has elected to provide one (1) two-bedroom workforce unit on-site, and pay a fractional fee-in-lieu of \$21,757 to satisfy the ordinance's minimum requirements. As such, the project has met the minimum requirements set forth in Section 14-487.

Section 14-140.5 C.

Section 14-140.5 c, Munjoy Hill Neighborhood Conservation Overlay District- height bonus, requires developments of three or more units on lots over 2000 sf, with a building height of greater than 35' to a

maximum of 45' in height, include at least one workforce housing unit for rent or for sale. The Workforce unit shall be no smaller than 50% of the average size of the other units in the development and only be sold or rented to a household at or below the applicable income levels. The workforce unit shall be deed restricted for affordability for the longest term possible under the state and federal law.

The development at 128R North Street proposes the creation of a building that allows the maximum height within the Munjoy Hill Neighborhood Conservation Overlay District. Based on the requirements outlined in Section 14-140.5 c, the Applicant is required to create a housing unit that is no smaller than 50% of the average size of the other units (or 672 sf). The Applicant has elected to provide the first-floor unit, a one (1) one-bedroom unit that is 672 sf. As such, the project has met the minimum requirements set forth in Section 14-140.5.

As mentioned above, the applicant has provided a workforce housing unit at 128R in order to be eligible for a height bonus. They are also providing an affordable unit onsite within 126 North Street as well to meet the requirement of Inclusionary Zoning Ordinance. Therefore, the project is eligible for the 25% density increase per Section 14-488 (g) that states:

(g) Projects under 14-487. Projects that are subject to 14-487 that choose to provide the required workforce housing units on site are eligible for a 25% increase in total permitted units. If an eligible project is also subject to 14- 487, the applicant shall have the option of utilizing either this bonus or any bonuses they are eligible for under 14-488.1 but not both.

IX. DEVELOPMENT REVIEW

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

The applicant has submitted recording plats for the two phases of the development. The final review of the plat details is pending and any changes required before filing will be coordinated between staff and the applicant.

B. SUBDIVISION (Section 14-496)

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

1. Will Not Result in Undue Water and Air Pollution (Section 14-497 (a) 1), and Will Not Result in Undue Soil Erosion (Section 14-497 (a) 4)
Lauren Swett, P.E. with Woodard and Curran Engineering, has reviewed the erosion and sediment control plan and states the applicant has provided plans, notes, and details have been that erosion and sediment control requirements and inspection and maintenance requirements.
2. Sufficient Water Available (Section 14-497 (a) 2 and 3)
The project will be served by new water service located in North Street. Confirmation of ability to serve water from the Portland Water District has been submitted to the Planning Authority. The staff finds the proposal in conformance with this standard.
3. Will Not Cause Unreasonable Traffic Congestion (Section 14-497 (a) 5)
The site will be accessed by an existing curb cut on North Street. The proposed project is not anticipated to cause unreasonable traffic congestion. Mike Tremblay, Senior Engineer at Department of Public Works, reviewed the proposal's details including the access, parking, and vehicle circulation, below are his comments (Attachment 1):

- Space 5 in the 128R North Street parking lot is not a sufficient size to be considered a legal parking space under the city's zoning. Its dimensions are below what the city considers to be a compact space (8x15'). While the space is about 16.7 feet long, it narrows to less than 8.0 feet after about 10 feet.

Update: Applicant is requesting a waiver of the parking stall dimensions.

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

There is an existing sewer lateral in North Street that will be serve the new project. Ms. Swett has reviewed the plans and finds the plans acceptable. Confirmation of ability to serve sewer from Department of Public Works has been submitted. The staff finds the proposal in conformance with this standard.

5. Will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat (Section 14-497 (a) 8)

The proposal site is not within an historic district. It is in an urban neighborhood surrounded by a variety of residential building types. The proposed building does not impact the natural beauty of the area or adversely affect any significant wildlife habitat, rare or irreplaceable natural areas, or any public access to the shoreline. The staff finds the proposal in conformance with this standard.

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

The staff has identified the following goals and policies which are relevant to the proposed housing development and finds the proposal in conformance with the Comprehensive Plan.

The central vision of Portland's Plan 2030 is represented by the Venn diagram demonstrating the integral interrelation of the community's core belief that Portland is equitable, sustainable, connected, dynamic, authentic and secure. The vision conveys the message of the City's need to balance many competing needs to assure the advance of the vision as a unified concept. In this instance, that the City's goals for job growth and transforming Portland through orderly growth and development be balanced with needs for connectivity of the street grid, sustainability of infrastructure and the ability to maintain that infrastructure, and security in the sense of public safety.



In addition, the Housing Policy section of Plan 2030 includes specific, applicable housing goals and strategies, included below.

Housing: A Livable City

State Goals: To encourage and promote affordable decent, housing opportunities for all Maine citizens

Local Goals:

- Increase, preserve, and modify the overall supply of housing City-wide to meet the needs, preferences and financial capabilities of all Portland households.
- 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.
- Encourage quality, sustainable design in new housing development.

From Future Strategies:

9. Adopt Affordable Housing

- Pursue new opportunities for increased energy efficiency, increased densities, mixed incomes, and greater connectivity to surrounding neighborhoods.

7. Adequate financial and technical capacity (Section 14-497 (a) 10)

The estimated cost of the development is \$3,000,000. The applicant has submitted a letter from Bangor Savings Bank, dated June 25, 2019, as a demonstration of their financial capacity to complete the proposed development. The Applicant has also provided a financial capacity letter for 126 North Street dated October 22, 2019.

B. SITE PLAN STANDARDS (Section 14-526)

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

a) Transportation Standards

1. Impact on Surrounding Street Systems and Access and Circulation

See Subdivision, Paragraph IX (B) (3), above.

a. Sidewalks

The applicant is proposing to install new brick sidewalk along their frontage on North Street, as well as internal walkway for pedestrian access to 128R North Street. The staff finds the proposal in conformance with this standard.

b. Parking

Division 20 of the land use ordinance requires one parking space/unit for residential development located on the peninsula (*Section 14-332(a)3*) and Section 14-332.1 (k) states "for residential development on the peninsula and in the R-6 and R-6A Zones, including new construction, the parking requirement is one space per dwelling unit, the first three units are exempt from providing parking". Therefore, applicant is required to provide a total of nine space for the development. The applicant is requesting that the Planning Board reduced the parking ratio for the development since an affordable unit is being proposed. The Planning Board may establish a parking ratio that is less than one per unit as part of the final review. Section 14-332.2 (b) of Division 20, Incentives for affordable housing parking reductions, allows the Planning Board to determine the number of parking spaces for affordable housing:

For each low-income or workforce housing unit for rent or sale within an eligible project under the Affordable Housing Ordinance established in Division 30 of this article, no more than one (1) parking space shall be required. The planning board may establish a parking requirement for affordable housing units for rent or sale within an eligible project that is less than one (1) parking space per affordable housing unit, regardless of the size of the structure.

c. Bicycle Parking

The development proposes interior bicycle storage room in each building. This will allow a minimum of two bicycles on each site to be parked in a secure location, with the potential for additional storage within each owner's individual unit. The staff finds the proposal in conformance with this standard.

b) Environmental Quality Standards

1. Preservation of Significant Natural Features

There are no known significant natural features on the site. The staff finds the proposal in conformance with this standard.

2. Landscaping and Landscape Preservation

The site will have a green wall along the sides of the building at 126 North Street as well landscaping at the front and rear of the building. Trellises and screens are proposed to enhance visual interest along the pedestrian walkway. 128R North Street will have a rain garden, trees and shrubs, and a

fence at the westerly side of the property that will have English ivy planted on it. The rear of the property will be landscaped with evergreens.

The street tree requirement would be one tree per unit, or twelve street trees, in or near the ROW. There are two existing street trees on North Street that is proposed to remain. Due to the limited frontage for both parcels, the applicant will pay a contribution of \$4,000 to the Portland Tree Fund as per City requirements. The staff finds the proposal in conformance with this standard.

3. Water Quality, Storm Water Management and Erosion Control

Under Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards. A rain garden at the northerly corner of the site will catch stormwater from the roof drains, gutters, and a downspout, the entirety of the roof and deck runoff (which is essentially the extent of the 128R parking). The runoff generated by the building and driveway at 126 will be routed to a catch basin and storm drain lateral directed to the sewer main.

Lauren Swett, P.E. with Woodard and Curran Engineering, has reviewed the drainage plan and stormwater report, and states that the “applicant has addressed all of my prior comments on erosion control and stormwater management and I have no additional comments”. The staff finds the proposal in conformance with this standard.

c) Public Infrastructure and Community Safety Standards

1. Consistency with City Master Plans

See Subdivision, Paragraph IX (B) (6), above.

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

The Crime Prevention through Environmental Design (CPTED) standards in the site plan ordinance address the principles of natural surveillance, access control and territorial reinforcement so that the design of developments enhance the security of public and private spaces and reduce the potential for crime.

Jason Grant, Life Safety CEO/ Plan Reviewer, reviewed the plans on behalf of the Fire Department, and stated:

The Fire Department approves the site plan for 128 North Street with the following condition:
The construction of the rear unit may begin and be completed with the existing site access. However, before the Certificate of Occupancy for the rear unit is issued, the existing unit shall be demolished and the proposed access lane (driveway) for the rear unit shall be completed.

The staff finds the proposal in conformance with this standard.

3. Availability and Adequate Capacity of Public Utilities

The project will be served by the Portland Water District, City Department of Public Works, and underground power/cable/communications. The applicant has submitted an ability to serve letter from the Department of Public Works and Portland Water District to the Planning Authority. Ms. Swett reviewed the utility plans and states that “*Consideration should be made for landscaping conflicts with utilities. In particular, consider the oak and blue point juniper proposed to the southeast of the southern building. These trees are located over a bank of proposed subsurface utility lines*”. The staff finds the proposal in conformance with this standard.

d) **Site Design Standards**

1. Snow and Ice Loading
Snow storage areas are shown on the site plan. Additional snow removal measures will likely need to be taken after heavy storms. Proposed snow storage areas will be on the green spaces around the buildings. The staff finds the proposal in conformance with this standard.
2. View Corridors
This site is not within a Protected View Corridor as per the “View Corridor Protection Plan” approved by the Portland City Council in 2001.
3. Historic Resources
The site is not in a historic district or within 100 feet of a historic district; therefore, the project does not have to be reviewed by Historic Preservation.
4. Exterior Lighting
The applicant has submitted a lighting and photometric plan that shows all the proposed lighting fixtures and photometrics on site. Catalog cuts of the proposed lighting fixtures were submitted and reviewed by staff and meets standards. The staff finds the proposal in conformance with this standard.
5. Noise and Vibration
All heating, ventilation and air conditioning equipment (HVAC), air handling units (AHU), emergency generators, and similar equipment has been shown on the plans and meet state and federal emissions requirements. This mechanical equipment is to be located to the interior of the site, away from abutting residential properties, and be screened from view from any public street and from adjacent sites by structure walls, evergreen landscaping, fencing, masonry wall or a combination thereof.
6. Signage and Wayfinding
No signage or wayfinding is proposed.
7. Zoning Related Design Standards
A design review according to the *City of Portland Design Manual* standards was performed for the new construction of multi-family dwellings at 126 and 128R North Street. The review was performed by Caitlin Cameron, Urban Designer, Shukria Wiar, Planner, and Deb Andrews, Historic Preservation Program Manager. The project was reviewed against the *R-6 Small Infill Development Design Principles & Standards* (Appendix 7 of the Design Manual). The proposed designs meet the criteria of the R-6 Design Standards. The staff finds the proposal in conformance with this standard. The recent proposal to merge lots 126 and 128R does not change the analysis under the R-6 design standards.

X. **PLANNING BOARD PROPOSED MOTIONS**

A. **CONDITIONAL USE**

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 September 8, 2020 for application PL-000791-2019 relevant to Portland’s Conditional Use Standards and other regulations, and the testimony presented at the Planning Board hearing The Planning Board finds the proposed conditional use for workforce housing [**does** or **does not**] meet the standards of Section 14-484 with the following conditions:

PRIOR TO ISSUANCE OF A BUILDING PERMIT

1. The Applicant and the City shall enter into an Affordable Housing Agreement (AHA) for a two-bedroom workforce unit located at 126 North Street; and

2. For the Munjoy Hill Neighborhood Conservation Overlay District height density bonus, the Applicant and the City shall enter into Agreement (AHA) for the first-floor unit located at 128R North Street.

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

3. The Affordable Housing Agreements shall outline the details of the affordability restrictions placed on the workforce units and shall be filed as a covenant to the 126 and 128R North Street property deeds with the Cumberland County Registry of Deeds; and
4. The Applicant shall pay fee-in-lieu of \$21,757 into the City's Housing Trust Fund prior to issuance of the certificate of occupancy for 126 North Street.

B. WAIVERS

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the planning board report for the public hearing on September 8, 2020 for application PL-000791-2019 relevant to Portland's technical and design standards and other regulations; and the testimony presented at the Planning Board hearing:

1. The Planning Board [**finds/does not find**], based upon the City Engineer's review, that extraordinary conditions exist or undue hardship may result from strict compliance with the *Technical Manual* standard (*Section 1.14*) which requires that standard parking spaces be 9 feet wide by 18 feet long. The Planning Board [**waives/does not waive**] the *Technical Manual* standard (*Section 1.14*) to allow parking space #5 to be 9' x 16.5' in dimension at the interior parking of 128R North Street.

C. SUBDIVISION

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board report for the public hearing on September 8, 2020 for application PL-000791-2019 relevant to the subdivision regulations; and the testimony presented at the Planning Board hearing, the Planning Board finds that the plan [**is/is not**] in conformance with the subdivision standards of the land use code, subject to the following conditions of approval, which must be met prior to the signing of the plat:

PRIOR TO ISSUANCE OF A BUILDING PERMIT

1. A copy of the duly executed and recorded deed merging the two lots shall be submitted for review by the Planning Authority and Corporation Counsel;
2. The applicant shall finalize the subdivision plat for review and approval by the Planning Authority, Corporation Counsel, and the Department of Public Works; and

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

3. The applicant shall submit the final version of the condominium documentation for review and approval by Corporation Counsel.

D. SITE PLAN

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 September 8, 2020 for application PL-000791-2019 relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board finds that the plan [**is/is not**] in conformance with the site plan standards of the land use code, subject to the following conditions of approval:

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

1. That the applicant shall comply with conditions of the construction stormwater management plan and sediment and erosion control plan based on City standards and state guidelines. The owner/operator of the approved stormwater management system, and all assigns shall comply with the conditions of Chapter 32 Stormwater including Article III, Post Construction Stormwater Management, which specifies the annual inspections and reporting requirements. A maintenance agreement for the stormwater drainage system, as attached, or in substantially the same form, shall be submitted for review by Corporation Counsel. Once approved, the document shall be signed and recorded at the Cumberland County Registry of Deeds. Final copies shall be submitted to both the Department of Planning and Urban Development and the Department of Public Works.
2. Due to the limited frontage of the site, the applicant shall pay a contribution of \$4,000 to the City of Portland Tree Fund.

XIII. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. DPW Senior Engineer Review 3.13.2020
2. Consulting Civil Engineer Review 05.20.2020
3. City Arborist Review 01.21.2020
4. Fire Department Review 05.20.2020
5. Urban Designer Comments - 128 North R-6 Design Review (Final)
 - a. 126 North R-6 Design Review (Preliminary)
6. 126 and 128 North Street IZ memo for PB

PUBLIC COMMENT

PC1 Betty Lorber 9-16-19
PC2 Eldon Mayer 9-22-19
PC3 Ann Casady and Peter Pitegoff 9-22-19
PC4 Richard Marino 9-23-19
PC5 Leslie Hart 9-26-19
PC6 Kevin Schochat 9-26-19
PC7 Liz Hays 9-27-18
PC8 Sue Robins 9-30-19
PC9 Deborah Cole 10-4-19
PC10 Nancy Machesney 10-9-19
PC11 Annette and Steven Frye 10-16-19
PC12 Pete Roehrig 10-31-19
PC13 Elizabeth Helming 10-30-19
PC14 Frances Savage
PC15 Katharine Wojcik 10-31-19
PC16 Meagan Sway & Sage Friedman
PC17 Lindsay Mann 9-10-19
PC18 Deborah Cole 1-22-20
PC19 Ann Casady & Peter Pitegoff 1-23-20
PC20 Vana Carmona 1-24-20
PC21 Lindsay Mann 1-24-20
PC22 Leslie Hart 1-24-20

PC23 Kevin Schochat 1-24-20
PC24 Tracy Davis & Michael Kennedy 1-24-20
PC25 David Machesney 1-24-20
PC26 Richard Marino 1-28-20
PC27 Tom Federle 2-10-2020
PC28 George Rheault 5-26-2020
PC29 Travis Davis 5-28-2020
PC30 Leslie Hart 5-28-2020
PC31 Marianna Pratt 5-28-2020
PC32 Nancy Machesney 5-30-2020
PC33 Lindsay Mann 5-31-2020
PC34 Deborah Cole 6-1-2020
PC35 Linda Englert 6-1-2020
PC36 Betts Mayer 6-3-2020
PC36 Sue Robins 6-3-2020
PC37 Eldon Mayer 6-3-2020
PC38 Mary Morse 6-3-2020
PC39 Vana Carmona 6-7-2020
PC40 Michael and Linda Englert 6-17-2020
PC41 Liz Hays 6-22-2020
PC42 Ann Casady 7-16-2020 DUPLICATE OF
TOM'S BELOW

PC43 Tom Federle Memorandum to City

06.18.2020

APPLICANT'S SUBMITTALS

- A. Cover Letter
 - A1. Cover Letter 08.27.2020
- B. Application Form
- C. Right, Title & Interest
 - C1. Purchase and Sale
- D. Zoning Assessment
- E. Easements
 - E1. MH Easement Opinion Letter
- F. Waivers
- 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
- N. Lighting
- O. Architectural Design Narrative
- P. Utility Cover
- Q. Construction Management Report

- R. Solid Waste Disposal
- S. Parking Analysis
- T. Neighborhood Study & Project Renderings
- U. Neighborhood Meeting Invitation
- V. Certification Letter
- W. Neighborhood Meeting Minutes
- X. Sign-in Sheet
- Y. Neighborhood Presentation
- Z. Comment Response Letter
- AA. Neighborhood Invitation 2
- BB. Certification Letter 2
- CC. Meeting Minutes 2
- DD. Sign-In Sheet 2
- EE. Comment Response Letter II
- FF. Rifugio - A Condo Declaration V.3
 - FF1. Rifugio COA Bylaws V.3
 - FF2. Rifugio Rules & Regs V.3
- GG. Project Schedule
- HH. Comment Response Letter III

PLANS

- Plan 1. Cover Sheet
- Plan 2. General Notes
- Plan 3. Survey
- Plan 4. Construction Management Plan
- Plan 5. Site Plan
- Plan 6. Landscape Plan
- Plan 7. Utility Plan
- Plan 8. Grading & Drainage Plan
- Plan 9. Site Details I
- Plan 10. Site Details II
- Plan 11. Landscape Details
- Plan 12. Utility Details I
- Plan 13. Utility Details II
- Plan 14. Drainage Details
- Plan 15. Focal Point Rain Garden Details
- Plan 16. Erosion & Sedimentation Control Notes
- Plan 17. Basement Plan
- Plan 18. First Floor Plan
- Plan 19. Second and Third Floor Plan

- Plan 20. Fourth Floor Plan
- Plan 21. Roof Plan
- Plan 22. Basement Plan
- Plan 23. Front and Back Elevations – A
- Plan 24. Front and Back Elevations – B
- Plan 25. Side Elevations – A
- Plan 26. Side Elevations – B
- Plan 27. Perspectives – A
- Plan 28. Perspectives – B
- Plan 29. Subdivision Plat
- Plan 30. Subdivision Plat - Phase 2
- Plan 31. Phase 2 Plans
- Plan 32. Phase 2 Perspectives – A
- Plan 33. Phase 2 Perspectives – B
- Plan 34. Front and Back Elevations - Phase 2
- Plan 35. Side Elevations - Phase 2
- Plan 36. Site Section
- Plan 37. Color Site Plan
- Plan 38. Civil 2-13-20-Color - Site



Shukria Wiar <shukriaw@portlandmaine.gov>

128 North Street

Mike Tremblay <mtremblay@portlandmaine.gov>

Fri, Mar 13, 2020 at 2:25 PM

To: Shukria Wiar <shukriaw@portlandmaine.gov>

Shukria,

Here are my comments on 126 + 128 North Street:

- Space 5 in the 128R North Street is not a sufficient size to be considered a legal parking space under the city's zoning. Its dimensions are below what the city considers to be a compact space (8x15'). While the space is about 16.7 feet long, it narrows to less than 8.0 feet after about 10 feet. As requested previously, this space should not be shown as a marked parking space.

- The newest proposed site plan has 6 units in each of the two buildings, for a total of 12 units. Seven sufficiently-sized parking spaces are required. As a whole, the project's parking supply is sufficient on the assumption that each building (not the lot as a whole) is exempt from providing the first three parking spaces, with a 1:1 ratio required thereafter. However, the lopsidedness in the parking supply may not be acceptable based on the easements with the adjacent property. The Applicant has previously stated that vehicles associated with 126 North Street may not be permitted to use the access easement associated with 128R North Street. If this is the case, then only two parking spaces are being provided for 126 North Street, possibly in violation of zoning. Zoning should review determine whether a conflict exists, and if so, the applicant should revisit the site plan, providing the correct number of parking spaces at each address.

- The 11x20' turnaround provided in the site plan is required for vehicles to turn around and exit the site facing forward. As such, this area may not be used as parking or for extensive snow storage.

- The drive aisle accessing 128R North Street is sufficient. DPW defers to FPD with regard to drive aisle clear width within the Technical Manual's standards. The drive aisle plus 5-foot walkway combine to a 16-foot clear area sufficient for emergency vehicles. The full width of this clear area should remain clear of obstructions.

- Snow storage areas are shown on the site plan. Additional snow removal measures will likely need to be taken after heavy storms.

Thank you,
Mike

Mike Tremblay, P.E.
Senior Engineer
Engineering Division
Department of Public Works
City of Portland, ME
mtremblay@portlandmaine.gov
P. 207.874.8881 F. 207.874.8852



[Quoted text hidden]



Shukria Wiar <shukriaw@portlandmaine.gov>

128 North Street - No Comments

Lauren Swett <lswett@woodardcurran.com>
To: Shukria Wiar <shukriaw@portlandmaine.gov>

Fri, Aug 14, 2020 at 8:27 AM

Hi Shukria,

I just wanted to follow up on the discussion from Development Review. The Applicant had addressed all of my prior comments, and I have no additional comments for the 128 North Street project.

If you need anything else on this let me know.

Thanks,

Lauren

All Woodard & Curran consulting employees are currently working from home. I do not have regular access to mail or other deliveries made to the office. You can still reach me via email or at my direct or cell phone numbers.

Lauren Swett, P.E.*

Technical Manager

Woodard & Curran

[41 Hutchins Drive](#)

[Portland, Maine 04102](#)

Phone: (207)558-3763 (direct)

(207)219-3591 (cell)

(800)426-4262 (office)

Email: lswett@woodardcurran.com

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M.ASCE

Chair, Leader Training Committee

American Society of Civil Engineers

<http://regions.asce.org/leader-training-committee/>



Shukria Wiar <shukriaw@portlandmaine.gov>

North Street

Jeff Tarling <jst@portlandmaine.gov>

Tue, Jan 21, 2020 at 7:10 PM

To: Shukria Wiar <shukriaw@portlandmaine.gov>

Hi Shukria -

The North Street project should include some type of landscape treatment, after looking at the site they may want to consider smaller scale trees / shrubs like Amelanchier, which can be a small tree or shrub depending on the cultivar selected. Lilacs or viburnums could also work. Plantings can be in groves or along the property line.

We can suggest types, sizes and spacing.

Thanks

Jeff

Jeff Tarling

City Arborist - City of Portland Maine

Parks, Recreation & Facilities Department

Forestry & Horticulture

[212 Canco Road](#)

[Portland, ME. 04103](#)

(207) 808-5446

jst@portlandmaine.gov



Shukria Wiar <shukriaw@portlandmaine.gov>

128 North Street PL-000791-2019

Jason Grant <jgrant@portlandmaine.gov>

Wed, May 20, 2020 at 1:08 PM

To: Shukria Wiar <shukriaw@portlandmaine.gov>

The Fire Department approves the site plan for 128 North Street with the following condition. The construction of the rear unit may begin and be completed with the existing site access. However before the Certificate of Occupancy for the rear unit is issued, the existing unit shall be demolished and the proposed access lane (driveway) for the rear unit shall be completed.

Jason Grant CFI-2, CFPE
Life Safety CEO / Plan Reviewer
Permitting and Inspections Department
City of Portland
[389 Congress Street Rm 315](#)
[Portland, Maine 04101](#)
Phone:(207) 756-8187

Planning and Urban Development Department Planning Division



Subject: R-6 Small Infill/Multi-family Design Review – 128R North Street

Written by: Caitlin Cameron, Urban Designer

Date of Review: Wednesday, December 4, 2019

A design review according to the *City of Portland Design Manual* Standards was performed for the revised proposal for new construction of a multi-family dwelling at 128 North Street. The review was performed by Caitlin Cameron, Urban Designer, Shukria Wiar, Planner, and Deb Andrews, Historic Preservation Program Manager. The project was reviewed against the *R-6 Small Infill Development Design Principles & Standards* (Appendix 7 of the Design Manual).

Findings of the Design Review:

The proposed design **passes** all of the criteria of the R6 Design Standards.

- The predominant characteristics of the neighborhood include simple forms, material selection and placement, and limited window types and articulation methods used consistently throughout the building with regular rhythm of patterns. Multi-family buildings typically have a vertically proportioned façade with a flat roof line, massing variation with bay windows or stacked porches integrated into the form.
- This project has massing that is more complex and larger in footprint and scale than the neighborhood context and especially as it relates to the adjacent residential buildings. Therefore, in order to be contextual, massing variation, scale, and other design elements must break the building into proportions and scales that relate to the multi-family context nearby.
- The building should be treated like one building with attention to being consistent, cohesive, but also recessive.
- Because the building is a rear lot, the relationship to the street and neighboring buildings is evaluated differently given the anomalous and less visible context.

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

Appendix 7: R-6 Infill Development

Principle A Overall Context –Met – see below.

- *A-1 Scale and Form:* The context is predominantly single and two-family buildings with simple forms, one and a half to two and half stories in height, vertical proportions, and masonry bases with clapboard siding. Larger multi-family buildings typically are 3 stories, use balconies or bay windows, flat roofs, and vertical proportions. In those rare instances where a larger scale, wider building has been built, the scale is mitigated by keeping setbacks as a buffer and through massing variation with elements such as bay windows and porches, and scaling elements such as canopies, material variation, and balconies. The overall building scale and form is larger and more complex than those found in the context. Some scale mitigation has been achieved by varying the massing at the front, maintaining a flat roof, and varying materials. The design creates façade

- compositions reminiscent of triple-deckers at the corners of the building to create a relatable scale and form. In this situation, a building is found to meet the standard because the massing is manipulated to relate to the context buildings and create perceived massing and scale that relate. Staff find that the current iteration of massing relationships and proportions are now related enough to the context buildings to mitigate the scale and complexity. This is especially the case given the rear lot relationship to the street and the mitigation of scale and width being set back from the street and behind other residential buildings.
- *A-2 Composition of Principal Facades:* The façade composition in some ways relates to those in context – staff find it appropriate as a large, rear lot building, to be quiet, recessive and simple in the façade composition. The facade is treated with a consistent language but with color and massing variation to create positive scale and proportional relationships. The fenestration patterns, roof lines, materials are consistent throughout with a cohesive façade with a single roof line, consistent window type and placement, integration of balconies, and simple material placement. Predominantly, traditional façade compositions include vertical proportions and narrower buildings – the massing variation and façade composition were revised to better reflect these patterns. The façade composition is also impacted by placement of circulation at the front façade and the overall width of the building, which is much wider than the buildings with which it shares the streetscape.
 - *A-3 Relationship to the Street:* The project has an anomalous relationship with the street as a rear lot and is not expected to directly relate to the street in the same way as a project with frontage. The building orients to the street and has visible entrances.

Principle B Massing – Met – The building is larger in scale than what is found in the context in both height and width of the building. In that situation, projects must use massing variation to elicit references to the proportions, forms, and massing found in traditional multi-family buildings and to mitigate the scale impact of this larger building adjacent to small, single family buildings. In this case, the building massing results in perceived masses that relate to the context in the scale, proportion, and relationships found in the triple-decker buildings.

- *B-1 Massing:* The proposed massing is complex in a context where buildings have simple form and massing. The scale and massing of this new project is taller, wider and more complex than the residential context – in order to be considered to meet the standard to be harmonious with the massing of existing buildings, the proposed massing variation breaks down the perceived scale and relates in proportion. In this case, the balconies, three-story flat roof, massing variations define portions of the building into smaller, vertical proportions that are harmonious with the massing of the existing buildings.
- *B-2 Roof Forms:* The proposed flat roof form is in keeping with the traditional multi-family building types found in the context. This form is emphasized with a strong, overhanging cornice line.
- *B-3 Main Roofs and Subsidiary Roofs:* The roof was revised to have one main roof form.
- *B-4 Roof Pitch:* The roof is flat.
- *B-5 Façade Articulation:* The project employs a covered entry, balconies.
- *B-6 Garages:* The garage is attached with living space above, door is recessed from facade.

Principle C Orientation to the Street – Met – This project has an anomalous relationship to the street as a rear lot. The building is oriented towards the street with street-oriented entrances

though the building is set back from the street and the lot does not have a direct relationship with the sidewalk.

- *C-1 Entrances:* The main entries are oriented towards the street and are emphasized by special materials, canopy. The hierarchy of the entrances was addressed by bringing more emphasis to the “main” entrance and down-playing the single unit entrance.
- *C-2 Visual Privacy:* Visual privacy is adequately addressed; all living spaces are elevated or set back from the street.
- *C-3 Transition Spaces:* The transition from the sidewalk to the building entrance is significant given the rear lot placement of the building.

Principle D Proportion and Scale – Met – The proportion and massing of the front façade was revised to feel more cohesive and consistent with proportions that reference the traditional multi-family buildings in the context. The individual building elements are human-scaled.

- *D-1 Windows:* The majority of windows are rectangular and have a vertical proportion. The proportional relationship of the fenestration to the façade is appropriate to the context.
- *D-2 Fenestration:* The project appears to meet the 12% fenestration requirement and appropriately scaled to the massing of the building. Appropriately scaled openings are provided on all sides of the building.
- *D-3 Porches:* The balconies meet the size requirement.

Principle E Balance – Met – The façade uses local symmetry and alignment as described in the standards below, the overall project with an overall sense of balance with the massing, façade proportions, and fenestration patterns. As a rear lot, the front façade is not viewed from the front and is best treated to be recessive.

- *E-1 Window and Door Height:* The majority of window and door head heights align along a common horizontal datum.
- *E-2 Window and Door Alignment:* The majority of windows shall stack so that centerlines of windows are in vertical alignment.
- *E-3 Symmetry:* Primary window compositions are arranged symmetrically around discernable vertical axes.

Principle F Articulation –

- *F-1 Articulation:* The design uses balconies, a strong roof line, and the texture of the material to provide surface articulation and visual interest.
- *F-2 Window Types:* Two window types are used with consistency with the window types, rhythm, and placement.
- *F-3 Visual Cohesion:* The visual cohesion of the façade was improved with simple materials, limited window types, consistent roofline. The massing variation and proportions were revised to be referential to the triple-decker proportions, massing relationships, and stacked balcony treatment. The project, though a different footprint and scale than the traditional triple-deckers, creates visual cohesion – material selection, placement, consistent details and window patterns throughout.
- *F-4 Delineation between Floors:* The balconies provide the most apparent floor delineation. The entry canopy also makes this distinction.
- *F-5 Porches, etc.:* The entrances were revised to integrate into the overall design. The articulation methods used – change in material, canopy, landscape wall – signify the entrances while keeping within the language of the overall building. The balconies now

have a more appropriate railing and the stacked porches are better integrated into the overall façade design and use the railings as an opportunity to introduce articulation detail.

- *F-6 Main Entries:* There are many entries – legibility of the entrances was improved. The main entry is visible from the street approach, emphasized with a canopy, material change, landscape wall, glazing. The single unit entry is now down-played as secondary but still includes planters and a canopy to signify the entrance.
- *F-7 Articulation Elements:* The rake of the roof meets the 6" requirement; no trim; offsets in the principal façade are at least 12", cornice line is pronounced.

Principle G Materials – Met – The material choice of clapboard is contextual and fine-grained. Material variation is appropriate at the entrances to assist with legibility and emphasis. Otherwise, material placement should be simple and consistent throughout the building.

- *G-1 Materials:* The residential context is predominantly clapboards with occasional shingle or brick. The clapboard is a fine-grain materials in keeping with the context. The residential entry is differentiated appropriately with an accent material.
- *G-2 Material and Façade Design:* The materials are appropriately placed according to their nature.
- *G-3 Chimneys:* Not applicable.
- *G-4 Window Types:* Two window types are used on the front façade. Where the building is predominantly circulation space, the windows could be a recessive but consistent pattern similar to the side elevations of neighborhood multi-family buildings. Detailing is consistent throughout.
- *G-5 Patios and Plazas:* n/a

Planning and Urban Development Department Planning Division



Subject: R-6 Small Infill/Multi-family Design Review – 126 North Street
Written by: Caitlin Cameron, Urban Designer

Date of Review: Friday, July 16, 2020

A design review according to the *City of Portland Design Manual* Standards was performed for the new construction of a multi-family dwelling at 126 North Street. The review was performed by Caitlin Cameron, Urban Designer, Shukria Wiar, Planner, and Deb Andrews, Historic Preservation Program Manager. The project was reviewed against the *R-6 Small Infill Development Design Principles & Standards* (Appendix 7 of the Design Manual).

Findings of the Design Review:

The proposed design passes all of the criteria of the R6 Design Standards – please refer to comments below.

- The predominant characteristics of the neighborhood include simple forms, material selection and placement, and limited window types and articulation methods used consistently throughout the building with regular rhythm of patterns. Multi-family buildings typically have a vertically proportioned façade with a flat roof line.
- This project sits at grade with living space and entries directly accessible from grade.
- The final submission addresses Board comment with regards to the privacy of the street-facing, ground floor living space as well as the emphasis for the primary entrance.

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

Appendix 7: R-6 Infill Development

Principle A Overall Context –Met – see below.

- *A-1 Scale and Form:* The context is predominantly single and two-family buildings with simple forms, one and a half to two and half stories in height, vertical proportions, and masonry bases with clapboard siding. Larger multi-family buildings typically are 3 stories, use balconies or bay windows, flat roofs, and vertical proportions. The design uses a form and proportions that relate to the neighborhood context. The scale is a story taller than typical multi-family buildings but staff find one story to be within an acceptable tolerance to meet the standard. The building uses a front-end gable rather than a flat roof which reduces the perceived scale. The building sits at grade which also minimizes the overall scale of the building.
- *A-2 Composition of Principal Facades:* The façade composition closely relates to those in context with a two-bay composition with a multi-story bay window. There is overall and local symmetry and vertical proportioned elements.
- *A-3 Relationship to the Street:* The project is slightly set back from the street, more so than the neighboring buildings – staff suggest that the applicant use the average of the two setbacks to establish the setback line and bring the building more in alignment with the neighboring facades.

Principle B Massing – Met – The building is one story taller than the typical multi-family triple-decker building – staff find this scale difference to be compatible and harmonious with the surrounding scale especially given the contextual proportions and roof form with the massing variation provided by the bay window. The front-end gable roof, vertical proportions, and bay window reinforce the traditional building character of the neighborhood.

- *B-1 Massing:* The proposed massing is simple and reflects the forms, building width, footprint, and proportions found in the context to which this building relates.
- *B-2 Roof Forms:* The proposed front-end gable roof form meets the zoning standard and is referential to traditional, simple roof forms.
- *B-3 Main Roofs and Subsidiary Roofs:* There is a clear primary roof form.
- *B-4 Roof Pitch:* Roof pitch on the elevations meets zoning requirements.
- *B-5 Façade Articulation:* The project employs a covered entry porch, bay window.
- *B-6 Garages:* The garage is attached but to the side and not visible from the street.

Principle C Orientation to the Street – Met – The building is oriented towards the street with one street-oriented entrance. However, the building is at grade which is anomalous with the traditional residential building relationship to the street – this might be considered to meet the principle if more is done to create a transition and relationship to the street similar to context (transition at the entry, visual privacy).

- *C-1 Entrances:* The main entry was revised to include a porch-like entrance oriented towards the street. This approach unifies the entry point and makes more legible the building entrances from the street. **More emphasis is now provided with different treatment of the support posts, material change, building number, lighting.**
- *C-2 Visual Privacy:* The ground floor living spaces are at grade and the windows are not raised at least 48” above grade. **The applicant proposes to meet this standard through small front-yard setback and landscape according to Planning Board direction.**
- *C-3 Transition Spaces:* There is a transition from the sidewalk to the building entrance through the front-yard setback/landscape buffer. The revised entry creates transition to the entrances from the at-grade entry point with a porch extending to the side entries.

Principle D Proportion and Scale – Met – The proportion and massing of the front façade is harmonious. The individual building elements are human-scaled.

- *D-1 Windows:* The majority of windows are rectangular and have a vertical proportion. The proportional relationship of the fenestration to the façade is appropriate to the context.
- *D-2 Fenestration:* The project appears to meet the 12% fenestration requirement and appropriately scaled to the massing of the building. Appropriately scaled openings are provided on all sides of the building.
- *D-3 Porches:* Currently no porches – however, a porch may resolve some of the concerns raised in other standards about the prominence and integration of the main entrance.

Principle E Balance – Met – The façade uses local symmetry and alignment as described in the standards below. The overall project creates a sense of balance with the massing, façade proportions, and fenestration patterns – the result is cohesion and balance to the overall project composition similar to the traditional buildings nearby.

- *E-1 Window and Door Height:* The majority of window and door head heights align along a common horizontal datum.
- *E-2 Window and Door Alignment:* The majority of windows shall stack so that centerlines of windows are in vertical alignment.
- *E-3 Symmetricality:* Primary window compositions are arranged symmetrically around discernable vertical axes.

Principle F Articulation – Met

- *F-1 Articulation:* The design uses a bay window, a strong roof line, and the texture of the material to provide surface articulation and visual interest.
- *F-2 Window Types:* Two window types are used with consistent placement, rhythm.
- *F-3 Visual Cohesion:* The visual cohesion of the façade is good with simple design.
- *F-4 Delineation between Floors:* The window alignment provide the most apparent floor delineation. The entry canopy also makes this distinction.
- *F-5 Porches, etc.:* The entrance was revised to be more integrated with the overall design and provide common entry point accessible from the street. A covered entry “porch” was introduced extending to the street and accessing the side-facing entries.
- *F-6 Main Entries:* The entrance is adequately integrated into the overall design. Whereas in the context, the entry is raised above the grade and includes a stoop or porch that visually relates to the elements of the façade. This project differs from the traditional buildings in that the ground floor is not elevated above grade. This creates an entry condition that is slightly anomalous from what is nearby. The “porch” extends to the street-facing façade providing a common entry point. **Since the entry is not indicated with steps to an elevated porch, more emphasis to this entry was achieved by differentiating the columns/supports, providing some kind of material or color differentiation, building numbers, lighting.**
- *F-7 Articulation Elements:* The rake of the roof meets the 6” requirement; trim must be at least 4”; offsets in the principal façade are at least 12”, cornice line is pronounced.

Principle G Materials – Met – The material choice of clapboard is contextual and fine-grained. Material variation is appropriate at the entrances to assist with legibility and emphasis. Otherwise, material placement should be simple and consistent throughout the building.

- *G-1 Materials:* The residential context is predominantly clapboards with occasional shingle or brick. The clapboard is a fine-grain materials in keeping with the context.
- *G-2 Material and Façade Design:* The materials are appropriately placed according to their nature.
- *G-3 Chimneys:* Not applicable.
- *G-4 Window Types:* Two window types are used on the front façade. Detailing is consistent throughout.
- *G-5 Patios and Plazas:* n/a



To: Shukria Wiar, Planner, Planning & Urban Development Department

From: Victoria Volent, Housing Program Manager, Housing & Community Development Division

Date: August 5, 2020

Subject: 126 and 128R North Street– Inclusionary Zoning Conditional Use and Munjoy Hill Neighborhood Conservation Overlay District

All developments of ten (10) units or more are conditional uses subject to Planning Board review on the condition that they comply with the requirements set forth in Division 30, Section 14-487 of the Zoning Ordinance.

Division 30, Section 14-487

Division 30, Section 14-487, Ensuring Workforce Housing, requires at least ten percent (10%) of the dwelling units in the development shall meet the definition of Workforce Housing units for sale or for rent. A fractional fee-in-lieu would result when the calculation of a project's inclusionary obligation results in a fractional unit. The fractional unit obligation will be provided in the form of a proportional fee-in-lieu. The in-lieu fee shall be calculated and paid into the Housing Trust Fund as defined in Sec. 14-489, on or before the date upon which a certificate of occupancy is issued. The ordinance under Section 14-487 e 3 also requires the number of bedrooms in the Workforce units shall be at least 10% of the total number of bedrooms made available as part of the development.

The development located at 126 and 128R North Street proposes to demolish the existing rental unit at 126 North and has already demolished the single family dwelling unit at 128R North Street and will replace 126 North with a six (6) unit rental building and will replace 128R North with a six (6) condominium unit building. As the construction of 128R North is conditioned upon the demolition of 126 North Street, this project is determined to be one development project. According to Section 14-487 e 1, "projects shall not be segmented or phased to avoid compliance with these provisions."

The six (6) dwelling units of rental housing at 126 North Street would consist of five (5) two-bedroom units and one (1) one-bedroom unit. The six (6) condominium units at 128R North Street would consist of three (3) one-bedroom units, two (2) two-bedroom units, and one (1) four-bedroom unit. The applicant may determine the location of the workforce unit (126 or 128R North Street). The unit must be a minimum of two-bedrooms. Per my conversation with the applicant, the workforce unit would be located 126 North Street. As a dwelling unit for rent,



the designated Workforce Unit will be restricted to a household earning up to 100% of Area Median Income (AMI). Based on the requirements outlined in Section 14-487, the applicant is required to either; provide a minimum of one (1) workforce unit consisting of a total of two (2) bedrooms and pay a fractional fee-in-lieu of \$21,757 (.2 X \$108,757) or, pay a fee-in-lieu for 1.2 units (or \$130,543). The Applicant has elected to provide one (1) two-bedroom workforce unit on-site, and pay a fractional fee-in-lieu of \$21,757 to satisfy the ordinance's minimum requirements. As such, the project has met the minimum requirements set forth in Section 14-487.

Section 14-140.5 c,

Section 14-140.5 c, Munjoy Hill Neighborhood Conservation Overlay District- height bonus, requires developments of three or more units on lots over 2000 sf, with a building height of greater than 35' to a maximum of 45' in height, include at least one workforce housing unit for rent or for sale. The Workforce unit shall be no smaller than 50% of the average size of the other units in the development and only be sold or rented to a household at or below the applicable income levels. The workforce unit shall be deed restricted for affordability for the longest term possible under the state and federal law.

The development at 128R North Street proposes the creation of a building that triggers the maximum height requirement within the Munjoy Hill Neighborhood Conservation Overlay District. Based on the requirements outlined in Section 14-140.5 c, the Applicant is required to create a housing unit that is no smaller than 50% of the average size of the other units (or 672 sf). The Applicant has elected to provide the first floor unit, a one (1) one-bedroom unit that is 672 sf. As such, the project has met the minimum requirements set forth in Section 14-140.5.

Staff Recommendation

Staff recommends the Board Approve the Inclusionary Zoning Conditional Use (Division 30, Section 14-487) provided the Applicant and the City enter into an Affordable Housing Agreement (AHA) for a two-bedroom workforce unit located at 126 North Street before a Building Permit may be issued.

Staff recommends, should the Board Approve the Munjoy Hill Neighborhood Conservation Overlay District height density bonus, the Board require the Applicant and the City to enter into an Affordable Housing Agreement (AHA) for the first floor unit located at 128R North Street before a Building Permit may be issued.

Portland, Maine



Yes. Life's good here.

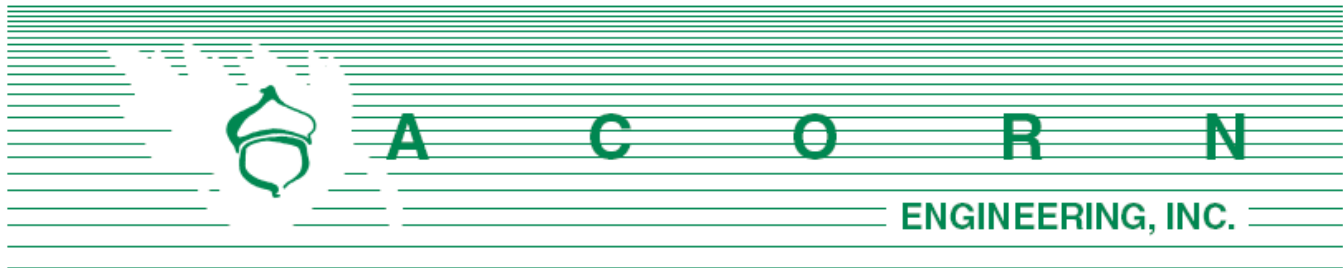
Planning & Urban Development Department

The Affordable Housing Agreement(s) will outline the details of the affordability restrictions placed on the workforce units and will be filed as a covenant to the 126 and 128R North Street property deeds with the Cumberland County Registry of Deeds before a certificate of occupancy may be issued.

Staff recommends the agreed upon fee-in-lieu of \$21,757 be paid into the City's Housing Trust Fund prior to issuance of the certificate of occupancy for 126 North Street.

Sincerely,

Victoria Volent
Housing Program Manager



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

August 2, 2019
Rev. October 29, 2019

Subject: Level III Final Site Plan/Subdivision Application – 126/128 North Street

Dear Shukria Wiar:

On behalf of Upright Properties, LLC, we are pleased to submit the accompanying package of submission materials related to the proposed redevelopment at 126 and 128R North Street. Based upon the discussions at the September 27th, 2019 meeting with you, Chief Thompson, the Applicant and design team the project was updated to include the future plans for 126 North St. As such the proposal has been updated as a phased project where Phase 1 would include the redevelopment of 128R into a four-story building with six condominiums and covered parking on the ground level. Phase 2 would include the redevelopment of 126 into a three-story building with five rental units. Overall, the phased project will result in a net increase of six dwelling units. The project site is located within the City's R-6 Zoning District as well as the Munjoy Hill Conservation Overlay District. This application package is intended to meet the City's Submission Requirements as outlined in the Level III Site Plan/Subdivision Application procedures.

The 128R site currently shares a driveway with the abutting 128F North Street property, achieving a public policy goal of the City's. Additionally, 126 would grant 128R an access easement to provide a 16'-wide access way, providing greater emergency access for three properties. We are pleased to submit this application which will increase the available housing stock by six units including one workforce unit on site and will also improve the area's stormwater management by implementing a high-flow rain garden and storm infrastructure resulting in a reduction in runoff.

The 128R infill lot is largely hidden from the public right-of-way; however, the building design has incorporated strategies to help the structure blend in with the surrounding character of the neighborhood. Prior to this formal application, the project architect has held extensive conversations with the City's Urban Planner to strategize on ways the building can fit into the neighborhood and provide an active front façade. Furthermore, the proposed 126 building features a three-story gable roof structure which compliments the neighboring 128F multi-family building.

If you have any questions regarding these materials or the completeness of the application materials, please contact us within the next five (5) days.

Sincerely,

William H. Savage, 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:

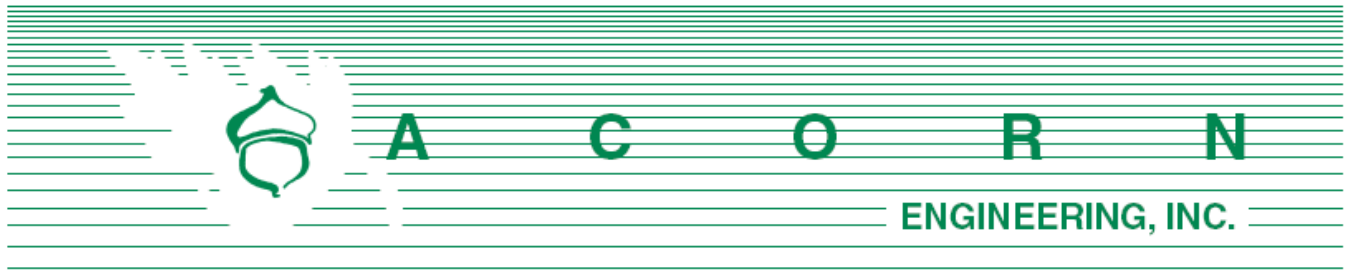
Documents:

- Section A: Cover Letter
- Section B: Level III Final Site Plan Application & Checklist
- Section C: Right, Title, Interest
- 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: Wastewater Capacity Letter
- Section N: Lighting
- Section O: Architectural Design Narrative
- Section P: Utility Cover
- Section Q: Construction Management Plan
- Section R: Solid Waste
- Section S: Parking Analysis
- Section T: Neighborhood Study & Project Renderings

Drawings:

- Civil Site Plan Set, Dated 10/29/19
- Architectural Plan Set, Dated 10/29/19





Shukria Wiar – City Planner
Planning Division, City of Portland
389 Congress Street
Portland, ME 04101

August 27, 2020

Subject: Final Submission and Lot Merge
126/128R North Street Redevelopment – Portland, Maine

Shukria:

In response to public comments, the Applicant has proposed to merge the two lots at 126 and 128R North St. Overall, the project design and proposed phasing has remained largely the same, simply with removal of the devising lot line between 126 and 128R and a 2 ft extension to the rear of the 126 building. We have provided an updated zoning analysis to demonstrate each structure's conformance with the R-6 Zoning District as well as the Munjoy Hill Conservation Overlay District. Each building and previous lot is able to stand on its own as a legal lot with six units proposed in each structure; however, if approved, the lot merge would eliminate the existing legal and buildable non-conforming lot. To this point, we have also analyzed the entire site as one for conformance with the Space & Bulk standards, which can be found on the Updated Site Plan and Subdivision Plan.

Additionally, the design maintains the eight proposed parking spaces. With 12 proposed units, nine parking spaces would normally be required given the R-6 exception of the first three spaces and a 1:1 parking ratio thereafter. However, we are requesting that the Planning Board exercises its authority under Portland's Land Use Code Sec. 14-332.2 (b) to set the 126 North St. on-site workforce housing unit's parking requirement to zero. With the Planning Board's agreement on this item, the site meets the total requirement of eight parking spaces.

We are pleased to advance this project which will provide two deed-restricted workforce units and ten market rate residential units, further providing a mix of housing opportunities in proximity to the Downtown core. Please let me know if you have any additional questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Will Savage", is placed above the typed name.

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

Dear Neighbor:

January 3, 2020

On behalf Upright Properties LLC and the families who will live in the residences, we are pleased to invite you to a second neighborhood meeting to discuss our revised plans for the proposed project at 128R and 126 North Street, which are located within the R-6 zoning (Munjoy Hill Overlay) district. The project includes a phased approach with first phase the redevelopment of the 128R lot into a 6 unit, 4-story residential building and the second phase the reconstruction of the 126 lot into a 3-story, 5 unit rental property. Ground-level parking at both locations will allow us to reduce the amount of parking spaces used on the street and storage space for bicycle parking will be provided as well. Both buildings will include modern fire/life safety systems and will exceed the state's energy efficiency requirements. Both buildings are designed to fair housing accessibility standards, providing 7 fully adaptable housing units. In addition to providing improved housing, the sidewalk will be rebuilt to City technical standards.

Meeting Location:	The Root Cellar – 94 Washington Ave., Portland, ME 04101
Meeting Date:	Thursday, January 16, 2020
Meeting Time:	5:30 p.m.

This notification supersedes the postcard dated December 27, 2019. There is no longer a meeting on January 9, 2020. This notification is being sent to all residents within 500 feet of the proposed development as well as those residents on the “interested parties list.” A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board. If you have any questions regarding the neighborhood meeting, please don’t hesitate to call me at 207-749-9656.

Sincerely,

Joshua Wojcik
Project Builder and Future Resident of 128R North St.



LEVEL II and LEVEL III APPLICATION SUBMISSION CHECKLIST

Please submit each document as a separate PDF file.

Please confirm by electronically checking the boxes to the left

General Application Documents

Checklist	Items to be Provided
Yes NA Plan ☒ ☐ ☐	PROJECT DESCRIPTION Cover Letter with detailed project description
Yes NA Plan ☒ ☐ ☐	COMPLETED CHECKLIST – LEVEL III APPLICATION
Yes NA Plan ☒ ☐ ☐	RIGHT, TITLE AND INTEREST Deeds, leases, or purchase and sales agreements
Yes NA Plan ☐ ☒ ☐	EVIDENCE OF STATE OR FEDERAL APPROVALS, if applicable Permits or letters of non-jurisdiction, if applicable
Yes NA Plan ☒ ☐ ☐	ZONING ASSESSMENT Table listing required and proposed uses and dimensional standards Zoning Assessment Table
Yes NA Plan ☒ ☐ ☐	EXISTING &/OR PROPOSED EASEMENTS OR COVENANTS, if applicable Evidence of existing easements and any proposed easements
Yes NA Plan ☒ ☐ ☐	WAIVER REQUESTS Written request for waiver describing request and reason. Waiver Table
Yes NA Plan ☒ ☐ ☐	FINANCIAL CAPABILITY Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
Yes NA Plan ☒ ☐ ☐	TECHNICAL CAPABILITY Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

LEVEL II AND LEVEL III SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.

Please submit each document as a separate PDF file.

TRANSPORTATION

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

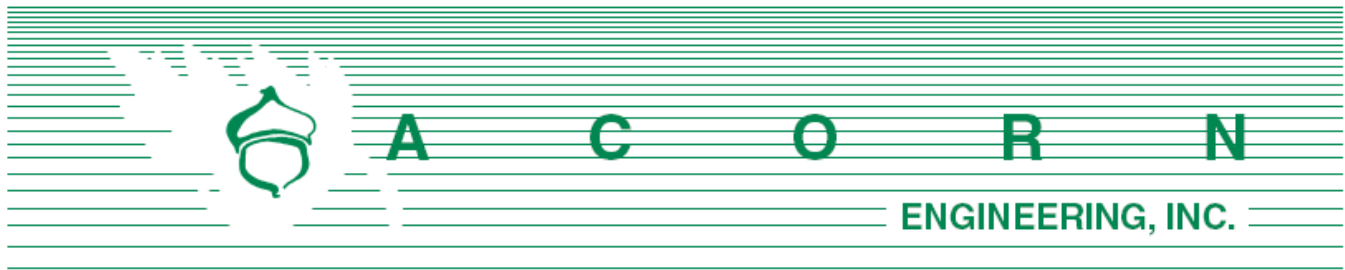
ENVIRONMENTAL AND LANDSCAPE FEATURES			
Check list			Assess/Provide/Document:
Yes	NA	Plan	Preservation of Significant Natural Features (14-526 (b) 1), if applicable • Trees, plants, habitats listed on State or Federal list of endangered or threatened • High and moderate value waterfowl and wading habitat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

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

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

Level II and Level III Site Plan Checklist	
Please upload the following drawings with the listed details into e-Plan as separate pdfs.	
✖ RECENT BOUNDARY SURVEY (stamped by Maine Licensed Surveyor)	
Must be in compliance with Technical Manual, Section 13	
✖ SITE PLAN(s) (stamped by Maine Licensed Engineer) including:	
✖ Existing Conditions - Approximate location of structures on abutting property - Topography - Locate water courses - Delineate wetlands - Zone lines	
✖ Proposed Site Plan Ground floor area, and grade elevations for all buildings	
✖ Access, Circulation, and Parking - Streets and intersections adjacent to site , any proposed geometric modifications - Location, dimensions and materials of all existing and proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines - Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas - Location and dimensions of proposed loading areas - Existing and proposed transit infrastructure with dimensions/ engineering specifications - Location of vehicle and bicycle parking with dimensions and engineering specifications	
✖ Site Considerations - Identify snow storage areas - Location of fire hydrants - Location of solid waste management facilities	
✖ UTILITY PLAN including:	
- Existing utilities on site and within public streets - Location, sizing, and directional flows of all existing and proposed utilities - Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site - Electric utility infrastructure	

✕ GRADING and DRAINAGE PLAN including:
- Existing grades and drainage - Proposed grades - Proposed stormwater management meeting Technical Manual (Section 5) standards - Location and proposed alteration of a water course - Preservation or alteration of wetlands
✕ EROSION CONTROL
Must be in compliance with Technical Manual, Section 5
✕ LANDSCAPE PLAN including:
- Existing vegetation to be preserved and preservation measures - Proposed landscaping and buffers - Planting schedule
Δ RECORDING PLAT, if applicable
IF SUBDIVISION: Must be in compliance with requirements of Section 14-496 (b)
✕ ARCHITECTURAL PLANS & RENDERINGS including:
- Exterior building elevations, color renderings, illustrations of all sides - Location and dimensions of all existing & proposed HVAC & mechanical equipment, all proposed screening - Provide context drawings, if applicable (Design Manual, page 1) - Floor plans



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

January 16, 2020

Subject: 126/128R North Street Neighborhood Meeting #2

I, Will Savage, hereby certify that a neighborhood meeting was held on January 16, 2020 at the Root Cellar at 5:30 pm.

I also certify that on January 6, 2020, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development.
2. Residents on the "interested parties" list.

Sincerely,

A handwritten signature in black ink, appearing to read 'Will Savage', is written over a light blue horizontal line.

Date: 1/16/20

William H. Savage, P.E.
Principal - Project Manager
Acorn Engineering, Inc.

Included with this certification are:

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

Section C

Right, Title, Interest



QUITCLAIM DEED WITH COVENANT

MARY ROY, of Portland, County of Cumberland and State of Maine, for consideration paid, grants to UPRIGHT PROPERTIES, LLC, a Maine limited liability company with its principal place of business in Portland, County of Cumberland and State of Maine and having a mailing address of P.O. Box 833, Wilton, Maine 04294, WITH QUITCLAIM COVENANT, a certain lot or parcel of land situated southwesterly of, but not adjacent to, the southwesterly sideline of North Street, in the City of Portland, County of Cumberland, and State of Maine, being more particularly bounded and described as follows:

Beginning at the northerly corner of the herein described parcel on the southwesterly line of land described in a deed from Gregory D. Kesich and Gail D. Kesich to Raymond T. Wojcik, Zetta A. Wojcik, and Joshua T. Wojcik, dated August 24, 2007 and recorded at the Cumberland County Registry of Deeds (CCRD) in Book 25418, Page 226, being S35°14'21"E along said land of Wojcik, a distance of twenty-four and fifty-six hundredths (24.56') feet from the westerly corner of said land of Wojcik;

Thence S52°38'46"W along land described in a deed from Redfern Munjoy, LLC to Upright Properties, LLC, dated January 31, 2014, recorded in CCRD Book 31318, Page 270, a distance of thirty-seven and eighty hundredths (37.80') feet to the westerly corner of the herein described parcel at land described in a deed from Raymond C. Maxwell to Redfern Munjoy, LLC, dated January 31, 2014, recorded in CCRD Book 31317, Page 116;

Thence S53°48'37"E along said land of Redfern Munjoy, LLC, a distance of fourteen (14') feet, more or less, to the southwesterly extension of the southeasterly sideline of said land of Wojcik;

Thence N52°38'46"E along remaining land of the herein grantor on the southwesterly extension of the southeasterly sideline of said land of Wojcik, a distance of thirty-three (33') feet, more or less, to the southerly corner of said land of Wojcik, and the westerly corner of land described in a deed from Hazel Brenerman to Peter J. DeTroy, III and Mary Roy (the herein grantor), dated November 21, 2003 and recorded in CCRD Book 20592, Page 111;

Thence N35°14'21"W along said land of Wojcik, a distance of thirteen and a half (13 1/2') feet, more or less, to the point of beginning.

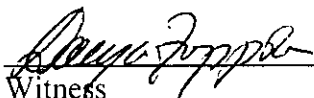
Total area of the herein described parcel equals 480 square feet, more or less. The bearings in this description are based on Grid North, MSPC NAD83, 1802 (West Zone).

The herein described property is depicted on "*Exhibit Sketch For Proposed Conveyance*", prepared by Nadeau Land Surveys, Job #2181902, dated May 29, 2018, attached to and made part of this deed. Meaning and intending to convey a portion of land described in a deed from Redfern Munjoy, LLC to Peter J. DeTroy, III and Mary Roy, dated January 31, 2014, recorded at the Cumberland County Registry of Deeds in Book 31318, Page 267.

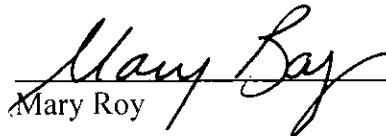
MAINE REAL ESTATE TAX PAID

Mary Roy derived her sole title to this property by being the surviving joint tenant of her late spouse, Peter J. DeTroy, III. Peter J. DeTroy, III died on May 28, 2016, a resident of Portland, Cumberland County, Maine. Reference is made to a Certificate and Abstract N-121, dated June 16, 2016 and recorded at the Cumberland County Registry of Deeds in Book 33213, Page 100.

Witness my hand and seal this 5 day of June, 2018.


Witness

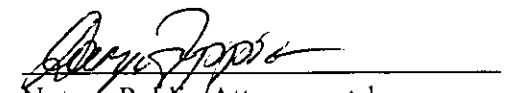
Darya I. Zappia


Mary Roy

STATE OF MAINE
Cumberland, ss.

June 5, 2018

Personally appeared the above-named MARY ROY and acknowledged the foregoing instrument to be her free act and deed. Before me,


Notary Public/Attorney-at-law
Printed Name: DARYA I. ZAPPIA
My Commission Exp.: Bar No 4717

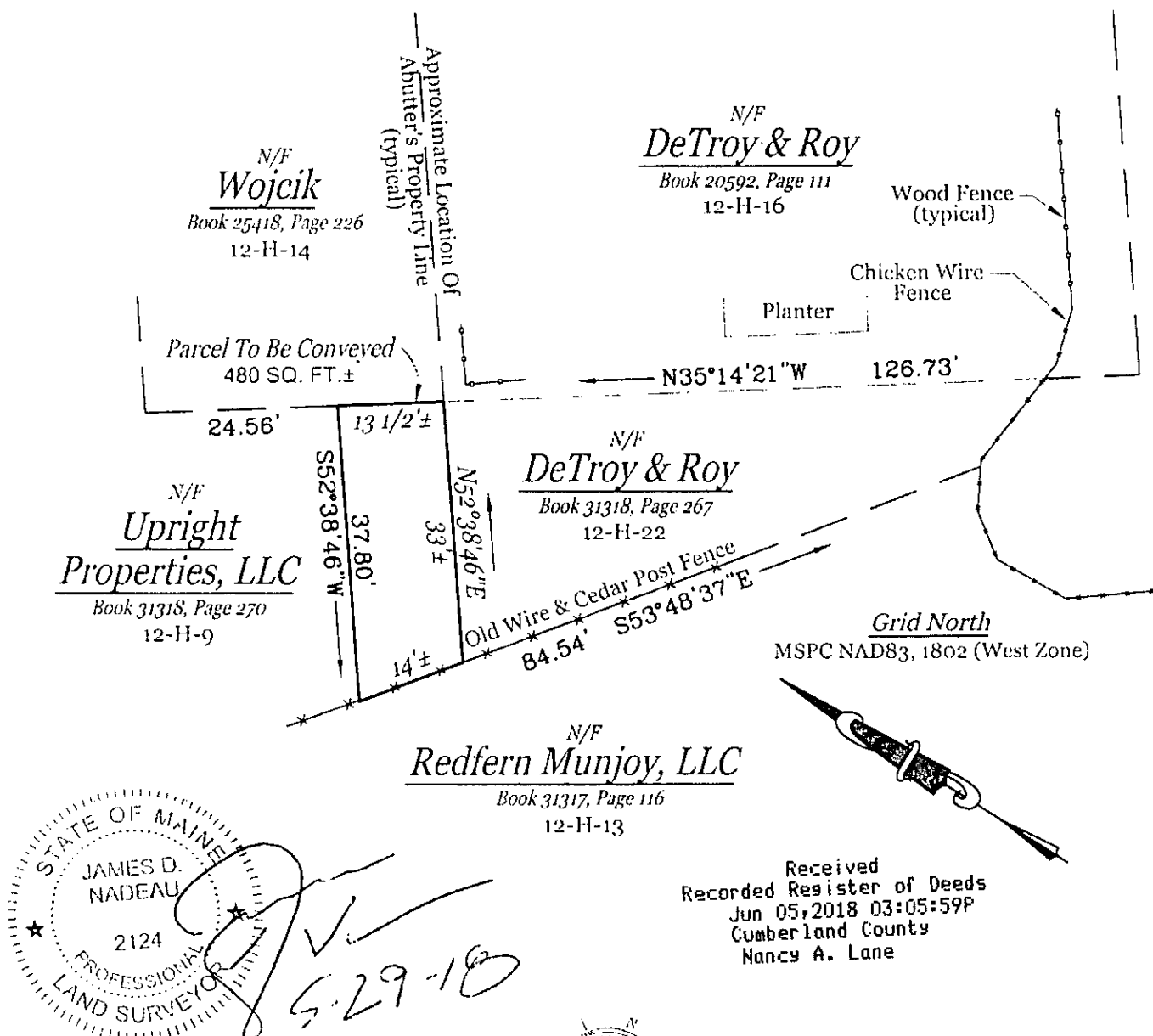
Nadeau Land Surveys

Professional Land Surveyors
Certified Floodplain Managers

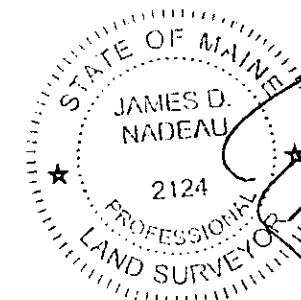
Exhibit Sketch For Proposed Conveyance

Mary Roy to Upright Properties, LLC
Between Sheridan Street & North Street, Portland, Maine
1" = 20' May 29, 2018 Job #2181902

Boundary lines based on "Exhibit Sketch For Proposed Conveyance", dated November 27, 2013, recorded in CCRD Book 31318, Page 267, and "Condominium Plat, Munjoy Heights, A Condominium, Sheridan Street, East Cove Street, And Walnut Street, Portland, Maine", dated April 21, 2015 by Nadeau Land Surveys, Portland, Maine, recorded in CCRD Plan Book 215, Page 143.



Received
Recorded Register of Deeds
Jun 05, 2018 03:05:59P
Cumberland County
Nancy A. Lane



Know all Men by these Presents, That

I, Elmore W. Ramsdell of Portland in the County of Cumberland and State of Maine,

in consideration of one dollar and other valuable considerations, paid by
Claire Bowden of said Portland,

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said Claire Bowden, her heirs and assigns forever, a certain lot or parcel of land on the easterly side of Sheridan Street, beginning at a point on said easterly side of Sheridan Street which point marks the southwesterly corner of land conveyed by A. J. Bernstein to Elmore W. Ramsdell by deed dated May 28, 1923, and recorded in Cumberland County Registry of Deeds in Book 1133, Page 466; thence running northerly by said easterly side line of Sheridan Street sixty-three and five tenths (63.5) feet, more or less, to the northwesterly corner of said land conveyed to Ramsdell as aforesaid; thence running easterly along the northerly line of said land one hundred and four and sixty-two one hundredths (104.62) feet to the northwest corner of land conveyed by said A. J. Bernstein to Joseph R. Murphy by deed dated May 28, 1923, recorded in Cumberland County Registry of Deeds, Book 1133, Page 465; thence running southerly by the westerly line of said Murphy land twenty and thirty-one one hundredths (20.31) feet to the southwesterly corner of said Murphy land; thence running easterly along the southerly line of said Murphy land fifteen (15) feet to a point; thence southerly in a line parallel with and fifteen (15) feet distant easterly from said westerly side line of said Murphy land extended southerly, about forty-three (43) feet to the southerly line of land first above mentioned as conveyed by Bernstein to Ramsdell, at a point ninety-one and ninety-three one hundredths (91.93) feet westerly from the westerly side line of North Street; thence running westerly by said southerly side line of said Ramsdell land about one hundred twenty-one and ninety-five one hundredths (121.95) feet to Sheridan Street and the point of beginning.

Being a part of land conveyed by Abraham J. Bernstein to me by deed dated May 28, 1923, recorded in Cumberland County Registry of Deeds, Book 1133, Page 466.
Together with a right of way across my land from the lot hereby conveyed to North Street.
Twelve words blotted out before signing. D.W.P.

On Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof to the said Claire Bowden, her heirs and assigns, to her and their use and behoof forever. And I do covenant with the said Grantee, her heirs and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances; except as aforesaid; that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said Grantee, her heirs and assigns forever, against the lawful claims and demands of all persons. except as aforesaid.

U.S.I.R.
\$2.00
E.W.R.
7/25/23

In Witness Whereof, I, the said Elmore W. Ramsdell, and I, Amy S. Ramsdell, wife of the said Elmore W. Ramsdell, joining in this deed as Grantor, and relinquishing and conveying my right by descent and all other rights in the above described premises

my hand- and seal -this 25th, day of July have hereunto set
one thousand nine hundred and twenty-three. in the year of our Lord
Signed, Sealed and Delivered
in presence of

D. W. Philbrick Elmore W. Ramsdell Seal
Everett W. Fowler Amy S. Ramsdell Seal

State of Maine, CUMBERLAND, ss. July 25, 1923. Personally appeared
the above named Elmore W. Ramsdell
and acknowledged the above instrument to be his free act and deed.
Before me, Donald W. Philbrick Justice of the Peace.

Received July 27, 1923, at 9 o'clock 40 m. A. M., and recorded according to the original.

EXHIBIT A

RELEASE AND EASEMENT AGREEMENT

This Release and Easement Agreement (the “Agreement”) is by and between **REDFERN MUNJOY, LLC**, a Maine limited liability company (“Redfern”), with a place of business in Portland, Maine and a mailing address of PO Box 8816, Portland, Maine 04104, owner of premises (the “Redfern Land”) described in deeds recorded in the Cumberland County Registry of Deeds set forth on Exhibit A attached hereto and made a part hereof, and **UPRIGHT PROPERTIES, LLC** (“Upright”), a Maine limited liability company with a mailing address of PO Box 833, Wilton, Maine 04294, owner of premises (the “Upright Parcel”) conveyed by corrective deed from Redfern dated January 31, 2014 and recorded in said Registry in Book 31318, Page 270 (the “Upright Deed”).

Whereas, in the Upright Deed, Redfern reserved Easement Rights in the Easement Area, all as defined and more fully described therein, which Easement Rights are for the benefit of portions of the Redfern Land that Redfern is developing as residential condominium/subdivision (“Munjoy Heights”).

Whereas, the conditions of the Easement Area requires modifications that were not anticipated at the time the Upright Deed was delivered.

Whereas, Upright and Redfern desire to amend the Easement Rights and reduce the square footage of the Easement Area and to clarify their respective ownership rights and easement rights.

Now Therefore, Redfern and Upright, for one dollar and other sufficient consideration paid and received including the grants and covenants hereinafter set forth, do hereby make the following grants of real property interests and agreements, which agreements are intended to run with the land that is Munjoy Heights and the Upright Parcel:

1. Redfern releases to Upright all interest in the easterly portion of the Easement Area, being a strip of land ten (10) feet wide more particularly bounded and described as follows:

Commencing at a #5 steel rebar with survey cap #2124 to be set at the southerly corner of the Upright Parcel;

Thence N 52° 38' 46" E along the Redfern Land, a distance of ten and one one-hundredth (10.01) feet to the southerly corner of the land to be released from the Easement Area and the Point of Beginning;

Thence from said Point of Beginning N 52° 38' 46" E along the Redfern Land and land conveyed to Peter J. DeTroy, III and Mary Roy by corrective deed dated January 31, 2014 and recorded in the Cumberland County Registry of Deeds in Book 31318, Page 267, a distance of ten and one hundredth (10.01) feet;

Thence N 35° 18' 27" W through the Upright Parcel, a distance of forty-nine and sixty-nine hundredths (49.69) feet;

Thence N 17° 29' 52" W continuing through the Upright Parcel, a distance of forty and sixty-one hundredths (40.61) feet to the northwesterly line of the Upright Parcel at the Redfern Land;

Thence S 52° 38' 46" W along the Redfern Land a distance of ten and sixty-three hundredths (10.63) feet;

Thence S 17° 29' 52" E a distance of thirty-eight and fifty-seven hundredths (38.57) feet;

Thence S 35° 18' 27" E a distance of fifty-one and sixty-two hundredths (51.62) feet to the Point of Beginning.

Total area of the herein described parcel equals 902 square feet (0.02 acre). The bearings in this description are based on Grid North, MSPC NAD83, 1802 (West Zone).

2. The Revised Easement Area is a strip of land ten (10) feet wide, being more particularly bounded and described over the following portion of the property:

Beginning at a #5 steel rebar with survey cap #2124 to be set at the southerly corner of the Upright Parcel;

Thence N 52° 38' 46" E along the Redfern Land a distance of ten and one hundredth (10.01) feet to the southerly corner of the land to be released from the Easement Area;

Thence N 35° 18' 27" W along a line ten (10) feet easterly of the Redfern Land, a distance of fifty-one and sixty-two hundredths (51.62) feet;

Thence N 17° 29' 52" W along a line ten (10) feet easterly of the Redfern Land, a distance of thirty-eight and fifty-seven hundredths (38.57) feet to the northwesterly line of the Upright Parcel at the Redfern Land;

Thence S 52° 38' 46" W along the Redfern Land, a distance of ten and sixty-three hundredths (10.63) feet to a #5 steel rebar with survey cap #2124 to be set at the westerly corner of the Upright Parcel;

Thence S 17° 29' 52" E continuing along the Redfern Land, a distance of thirty-six and fifty-three hundredths (36.53) feet to a #5 steel rebar with survey cap #2124 to be set;

Thence S 35° 18' 27" E continuing along the Redfern Land, a distance of fifty-three and fifty-four hundredths (53.54') feet to the point of beginning.

Total area of the herein described parcel equals 901 square feet (0.02 acre). The bearings in this description are based on Grid North, MSPC NAD83, 1802 (West Zone).

3. The Easement Rights are hereby amended as follows and the description of the rights and obligations herein supersede and replace the Easement Rights reserved in the Upright Deed:

Upright grants to Redfern, its successors and assigns, the right and easement to enter upon the Revised Easement Area with at least 120 days of advance notice (except in the case of emergency) to the Grantee, its successors and assigns, with men and equipment, including heavy equipment, to maintain, repair, shore-up and replace a retaining wall between the adjacent properties of the Grantor and the Grantee (the "Revised Easement Rights"), provided that in the exercise of the Revised Easement Rights Grantor, its successor and assigns, shall (a) ensure all work is done properly and promptly; (b) ensure that no vehicles or construction equipment whatsoever are left overnight or otherwise stored within the Easement Area except when easement work is underway; (c) exercise best efforts to limit any inconvenience to the Grantee, its successors and assigns, or to any other lawful occupier of the Upright Parcel; (d) promptly and reasonably restore the Revised Easement Area to its former condition before the exercise of the Revised Easement Rights; and (e) defend and indemnify the Grantee, its successors and assign, of and from all losses, damages and expenses arising from the exercise of the Revised Easement Rights, including all losses, damages and expenses (including death) arising from the exercise of the Revised Easement Rights for which any third parties seek to hold the Grantee, its successors and assigns, liable.

4. The terms of this Agreement, including all obligations and rights of the parties hereto, are intended to run with ownership of the Upright Parcel and the Redfern Land (the "Affected Lands"). The acceptance of a deed or mortgage to any portion of the Affected Lands, or the entering into a lease or other occupancy of any such portion shall constitute an agreement that the covenants and restrictions set forth in this Agreement are accepted and ratified by such grantee, mortgagee, tenant, or occupant. All of such provisions shall be covenants running with the land and shall bind any persons having at any time any

interest or estate in the Affected Lands or any portion thereof as though such provisions were recited and stipulated at length in each and every deed, conveyance, mortgage or lease thereof.

5. Each owner of all or any portion of the Affected Lands and its heirs, successors and assigns shall be liable for the performance of all covenants, obligations and undertakings set forth in this Agreement, but only to the extent such covenants, obligations or undertakings accrue during the period in which such party owns the affected lands or any portion thereof.
6. Invalidation of any of the provisions contained in this Agreement, or of the application thereof to any person by judgment or court order shall in no way affect any of the other provisions hereof or the application thereof to any other person and the same shall remain in full force and effect.

(Signature Pages follow this page)

IN WITNESS WHEREOF, the said Redfern Munjoy, LLC has caused this instrument to be executed by Jonathan Culley, its Manager, hereunto duly authorized, as of the 30th day of April, 2015.

Redfern Munjoy, LLC, a Maine limited liability company

Witness: Mary Lea Clifford

By:



Jonathan Culley
Its Manager

STATE OF MAINE
COUNTY OF CUMBERLAND

4/30, 2015

Then personally appeared Jonathan Culley, Manager of Redfern Munjoy, LLC, and acknowledged the foregoing instrument to be his free act in his said capacity and the free act and deed of the limited liability company.

Before me,

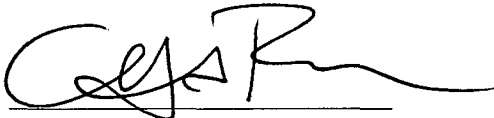
Mary Lea Clifford
Notary Public/Attorney at Law

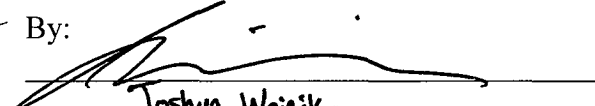
MARY LEA CLIFFORD
Notary Public, Maine
My Commission Expires February 5, 2016

SEAL

IN WITNESS WHEREOF, the said Upright Properties, LLC has caused this instrument to be executed by Joshua Wojcik, its Manager, hereunto duly authorized, as of the 30 day of April, 2015.

Upright Properties, LLC, a Maine limited liability company

Witness: 
Cliff Ruprecht

By: 
Joshua Wojcik
Its Manager

STATE OF MAINE
COUNTY OF CUMBERLAND

April 30, 2015

Then personally appeared Joshua Wojcik, Manager of Upright Properties, LLC, and acknowledged the foregoing instrument to be his free act in his said capacity and the free act and deed of the limited liability company.

Before me,


Notary Public/~~Attorney at Law~~



SEAL

Exhibit A
Source Deeds for Redfern Munjoy LLC
The Redfern Land

1. Deed from Four Sills LLC to Redfern Munjoy, LLC dated December 4, 2013 and recorded in the Cumberland County Registry of Deeds in Book 31207, Page 48.
2. Deed from Francis O'Connor and Nelson Nadeau to Redfern Munjoy, LLC dated December 4, 2013 and recorded in the Cumberland County Registry of Deeds in Book 31207, Page 50.
3. Deed from Craig G. Coffin, Trustee of the North Street Realty Trust to Redfern Munjoy, LLC dated December 11, 2013 and recorded in the Cumberland County Registry of Deeds in Book 31222, Page 224.
4. Deed from Katherine P. Richman and Nikki Lee Green to Redfern Munjoy, LLC dated December 30, 2013 and recorded in the Cumberland County Registry of Deeds in Book 31262, Page 266.
5. Deed from Dennis E. Lovejoy and Gladys A. Lovejoy to Redfern Munjoy, LLC dated January 10, 2014 and recorded in the Cumberland County Registry of Deeds in Book 31281, Page 281.
6. Deed from Raymond C. Maxwell to Redfern Munjoy, LLC dated January 31, 2014 and recorded in the Cumberland County Registry of Deeds in Book 31317, Page 116.
7. Deed from Raymond H. Waterhouse and Alina Waterhouse to Redfern Munjoy, LLC dated January 23, 2014 and recorded in the Cumberland County Registry of Deeds in Book 31302, Page 177.

Received
Recorded Register of Deeds
Apr 30, 2015 01:41:03P
Cumberland County
Nancy A. Lane

M E M O R A N D U M
O F
U N D E R S T A N D I N G

Redevelopment of 126 & 128R North Street

This Memorandum of Understanding ("MOU") is entered into as of October 21, 2019 by Joshua T. Wojcik, an individual residing in Portland, Maine ("Wojcik"), and Upright Properties, LLC, a Maine limited liability Company ("Upright").

WHEREAS, Wojcik is the owner of record of 126 North Street, Portland, Maine ("126 North"); and

WHEREAS, Upright is the owner of record of 128R North Street, Portland, Maine ("128R North"); and

WHEREAS, Upright and Wojcik are submitting a joint application to the Planning and Urban Development Department of the City of Portland proposing the redevelopment of 126 North and 128R North.

IT IS THEREFORE UNDERSTOOD AND AGREED that:

- A. Wojcik shall, upon the request of Upright, and provided all appropriate permits have been issued by all relevant State and City authorities, reconstruct the existing building located at 126 North prior to the substantial completion of the building to be built at 128R North.
- B. Wojcik shall situate any structure at 126 North such that a sixteen foot (16') access corridor is available to accommodate pedestrian and vehicular traffic between 128R North and the nearest public way (North Street).
- C. Wojcik shall execute and deliver to Upright, prior to the commencement of any reconstruction at 126 North or earlier upon the request of Upright, a deed implementing the terms of this MOU as an easement appurtenant and delineating the pedestrian and vehicular access rights to be provided in perpetuity to 128R North as the dominant estate.

IN WITNESS WHEREOF, Joshua T. Wojcik and Upright Properties, LLC, have executed this MOU and thereby bind themselves to the conditions set forth within this MOU on the day and year first above written.

UPRIGHT PROPERTIES, LLC



Joshua T. Wojcik
126 North Street
Portland, Maine

By: 

Joshua T. Wojcik
Its Manager
128R North Street
Portland, Maine

REAL ESTATE PURCHASE AND SALE AGREEMENT

THIS AGREEMENT, dated this 1st day of September, 2020 (the "Contract Date"), is by and between **Joshua T. Wojcik**, an individual with an address in 47 Lafayette Street #1, Portland, Maine ("Seller") and **Upright Properties, LLC**, a Maine limited liability company with a place of business in Portland, Maine ("Purchaser").

1. Purchase and Sale of Property.

Subject to the terms and conditions set forth herein, Seller hereby agrees to sell and convey to Purchaser and Purchaser hereby agrees to purchase from Seller and pay for all of the Seller's right, title and interest the following described property owned by Seller (collectively, the "Premises"):

That certain lot or parcel of real property known as 126 North Street, Portland, Maine, and more particularly described in that certain deed recorded in the Cumberland County Registry of Deeds in Book 53783, Page 210, together with all fixtures and improvements situated thereon owned by Seller.

2. Purchase Price.

The purchase price for the Premises shall be \$285,000 and shall, subject to usual and customary adjustments for taxes, fees, and transaction expenses, and shall be paid by cash, bank check, or wire.

3. Prorations, Adjustments and Costs.

Seller and Purchaser shall prorate as of the date of Closing (the "Closing Date"):

(a) real estate taxes and assessments assessed against the Premises for the tax year in which the Closing occurs. Seller is responsible for any unpaid real estate taxes for prior years;

(b) charges for heat, oil, sewer, water or any other utility services provided to the Premises for which tenants are not separately liable for payment; and

4. Conveyance: Title.

(a) Seller shall convey the Premises to Purchaser by good and sufficient Quitclaim Deed with Covenant (the "Deed"). Title to the Premises shall be good and

marketable and shall be free and clear of all liens and encumbrances except (i) zoning restrictions and land use matters; (ii) current taxes and assessments; (iii) the Leases; and (iv) any "Defects of Title" as (defined below) accepted or waived by Purchaser pursuant to Section 4(b).

(b) On or before the Closing Date, Purchaser shall notify Seller of any defects in title that would make Seller unable to give title to the Premises as herein stipulated (any of which is called herein a "Defect of Title"). Seller shall have a period of not more than 30 days after receipt of notice of such defect within which to remedy or cure any such Defect of Title, and the Closing shall be extended to the date that is five (5) business days after the expiration of such 30-day period. If such Defects of Title are not corrected or remedied within such 30-day period, then Purchaser shall elect, by written notice to Seller on or before the Closing Date, as the same may be extended, either (i) to accept title to the Premises subject to the uncured Defects of Title without reduction of the Purchase Price and without any right to damages and without any other liability on the part of Seller, or (ii) to terminate this Agreement, whereupon the Deposit shall be returned to Purchaser and all obligations of the parties hereunder shall cease and neither party shall have any claim against the other by reason of this Agreement, except with respect to any provision hereof that expressly survives the termination of this Agreement.

5. Due Diligence Waived.

The Property is purchased AS IS, and any due diligence period is hereby waived.

6. Financing Contingency.

This Agreement is not subject to a financing contingency.

7. Closing.

(a) The Closing shall take place on a date that is not more than ninety (90) days after the Contract Date, at 10 a.m. at 47 Lafayette Street, Portland Maine, or at such other place as shall be mutually agreed to by both Purchaser and Seller, unless extended as provided herein. TIME IS OF THE ESSENCE.

(b) The following shall occur at the Closing, each being a condition precedent to the others and all being considered as occurring simultaneously:

(1) Seller shall execute, have acknowledged and deliver to Purchaser the Deed describing the Premises, such Deed to be subject only to

those matters set forth in Section 4(a) and to any Defects of Title accepted or waived by Purchaser pursuant to Section 4(b); and

(2) Purchaser shall deliver to Seller the payment required by Section 2, evidenced by an amended LLC agreement with adjusted Schedule A reflecting the new allocation of LLC membership interest; and

(3) Each party shall deliver to the other such other documents, certificates and the like as may be required herein or as may be necessary to carry out their obligations under this Agreement or as may be required by law; and

(4) Seller shall deliver full possession of the Premises to the Purchaser, subject to all leases currently in effect, copies of said leases shall also be delivered to Purchaser at Closing.

8. Risk of Loss.

The risk of loss to the Premises prior to the Closing Date shall be on Seller.

9. No Brokers.

The parties affirm that no brokers have been utilized for this transaction and no brokerage fees are due.

10. Default.

In the event of default by either party the non-defaulting party shall retain all remedies at law and equity.

11. Notices.

All notices, demands or other communications made pursuant to this Agreement shall be in writing and shall be either hand delivered or sent by certified or registered mail, return receipt requested. Such notice shall be deemed effective upon the earlier of (a) actual receipt or (b) two days following its deposit in the United States mail, postage prepaid, and addressed as follows:

If intended to Seller, to:

Joshua Wojcik
47 Lafayette Street #1
Portland Maine, 04101

If intended to Purchaser, to:

Upright Properties LLC
c/o Joshua Wojcik
47 Lafayette Street #1
Portland Maine, 04101

With a copy to:

Sage M. Friedman, Esq.
Murray, Plumb & Murray
P.O. Box 9785
Portland, ME 04104-5085

12. Miscellaneous.

(a) Seller and Purchaser shall each pay their portion of the Maine State Transfer Tax.

(b) Seller hereby certifies that Seller is a resident of the State of Maine. Seller hereby acknowledges Purchaser's requirement to withhold 2½% of the purchase price pursuant to 36 M.R.S.A. §5250-A if Seller is not a resident of the State of Maine, unless Seller presents to Purchaser at closing a Certificate of Exemption or Certificate of Reduction from the State of Maine Bureau of Taxation.

(c) By signing this Contract, Purchaser acknowledges that Purchaser has been notified of the State of Maine's withholding tax requirement pursuant to 36 M.R.S.A. §5250-A.

(d) Seller hereby certifies that Seller is a resident of the United States of America and is not subject to the 10% withholding tax imposed upon "foreign persons" by Section 1445(a) of the Internal Revenue Code of 1954.

(e) This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, personal representatives, successors in interest and permitted assigns.

(f) It is understood and agreed that all understandings, agreements, warranties or representations, either oral or in writing, including without limitation any letters of intent or prior agreements, heretofore between the parties hereto are merged in and superseded by this Agreement, which document alone fully and completely expresses the parties' agreement with respect to the transactions covered hereby. This Agreement may not be modified in any manner except by a subsequent instrument in writing signed by Seller and Purchaser.

(g) This Agreement may be simultaneously executed in any number of counterparts, each of which when so executed and delivered shall be an original; but such counterparts shall constitute but one and the same instrument.

(h) If the date for performance of any obligation hereunder, or the giving of any notice hereunder, falls on a Saturday, Sunday or a legal holiday in the State of Maine, the period for such performance, or the giving of any notice hereunder, shall be extended to the next business day.

(i) This Agreement shall be construed and enforced in accordance with and governed by the laws of the State of Maine.

{signatures follow}

IN WITNESS WHEREOF, the parties have executed this Agreement as a sealed instrument as of the date set forth below their respective signatures, to be effective as of the Contract Date.

SELLER:

Dated: _____

Joshua T. Wojcik

PURCHASER:
UPRIGHT PROPERTIES, LLC

Dated: _____

By: Joshua T. Wojcik
Its: Manager

128R & 126 North St Neighborhood Meeting Notes (Second Meeting) 1/16/2020 5:30pm at the Root Cellar on Washington Ave, Portland, ME.

Applicant Joshua Wojcik thanked everyone for attending, introduced the two development projects and the design team including civil engineer Will Savage from Acorn Engineering and architect Tracie Reed from Dextrous Creative.

Will Savage's Presentation covered the following:

- Notification that the planning board workshop for the two projects had been tentatively set for January 28th, 2020. All attendees were encouraged to go to the workshop;
- The purpose of the second meeting was to cover the various changes to the plan;
- The reason two development projects were being submitted under one application was to provide transparency to all parties and to avoid confusion;
- The zoning context of the project is R-6, Munjoy Hill Overlay;
- Site plan for both properties was presented;
- Site is fairly flat, with 126 sloping slightly towards the street and 128R sloping towards Munjoy Heights;
- Parking plan: 6 covered spaces at 128R; 2 covered parking spaces at 126. Each includes an ADA space and access lane;
- The plan for plantings;
- The plan for underground utilities;
- The storm water plan, including collection and storage systems and highlighted the point that less storm water will runoff towards Munjoy Heights as a result of this project;
- Clarified that the same engineering team (civil, geotechnical and structural) was being used for these projects as was used for the Munjoy Heights development project in order to ensure continuity of analysis and approach to make sure the retaining wall was fully understood and protected during all phases of the project.

Tracie Reed's Presentation covered the following:

- A description of the neighborhood;
- A discussion of the changes that were made to the rear building;
- A discussion of the changes that are being proposed for the 126 property;
- Presentation of revised renderings showing 128R as well as new renderings showing 126;
- Discussion of locations of compressors for heating/cooling systems;
- Described size and width and heights of both buildings;

Questions and Comments from the Public Attendees:

Questions about the timelines for both projects were raised. It was explained that each project will take approximately 12+ months to substantial completion and that 128R will be first. It was noted that 126 will be demolished after 128R is substantially completed, but before the CO for 128R is issued. It was explained that the order of the project was for several reasons, including that two of the prospective owners at 128R are currently residents of 126 North but also from a construction management perspective that it makes the most sense to “build your way out of a job site.”

Questions were raised several times about how it was possible the storm water runoff towards Munjoy Heights would be reduced. The storm water plan was explained in greater detail, including how both the proposed development and Munjoy Heights stormwater system had been designed for a 100 year storm event. The snow removal and storage plan for both properties was also described.

Questions were raised about whether the garage could be enclosed to protect the residents of Munjoy Heights from having to look at parked cars and to shield them from the fumes that may result from the parking garage. It was explained that the zoning ordinance requires parking to be located in the rear of all properties to provide for an activated frontage. Difference in the zoning setbacks for buildings vs parking areas vs. decks meant that fully enclosing the garage was not possible. Examples of extruded metal screen that will be used at the rear of the garage to support vine growth was requested and the design team agreed to bring images to the planning board workshop. It was also questioned whether additional plantings could be installed between the garage and Munjoy Heights. The team noted that the root structure of plantings in the 10’ strip between the garage and the property line could jeopardize the integrity of the retaining wall. It was questioned whether anything else could be done to reduce the potential for idling of vehicles within the garage that residents of Munjoy Heights believe would impact them. The design team agreed to explore ideas.

The idea of an underground parking garage was proposed by an attendee. It was explained that this would conflict with fair housing accessibility requirements and that it would present numerous engineering problems both to the retaining wall and to surrounding buildings.

A rendering from Sheridan Street taken at a small opening of the Munjoy Heights buildings looking up towards the retaining wall was requested. The team noted that renderings take significant time and resources to complete and a view from this area would not be possible before the workshop.

A question was raised about what would happen if the owner of 126 decided to not re-develop his property once the building was demo’d. It was explained that he would have to pay a significant fine to cover the elimination of housing units. It was emphasized that the owners of

both properties are very much interested in helping the City address its housing crisis by adding units. It was questioned what the rental prices will be for the units at 126 North St. It was explained that these units would be relatively affordable (rental prices from \$1850 - \$2,000) compared to other two bedroom units in the market, since the units were modest in size. Attendees didn't feel like those were affordable prices. It was explained that the current price of a two bedroom Work Force unit was about \$1,860. An attendee commented that she thought that number was unaffordable.

Concerns was raised that emergency vehicles wouldn't be able to reach the rear property. The team noted that the building would have a 16' wide fire lane for emergency vehicles in addition to the sprinkler and fire alarm system.

Questions were raised about the front, side and rear setbacks. Several attendees commented that they felt like the zoning setbacks were too small. The neighbors who live next to the proposed projects feel like the side setback is too small. The neighbors who live in Munjoy Heights feel like the rear setbacks are too small.

It was asked whether a shadow / shading analysis was done by a Munjoy Heights resident. The team confirmed this is not required for the application but noted that Munjoy Heights is to the south and west of the property, which means the building will have a minimal impact on the amount of sun shining on Munjoy Heights.

It was asked whether this would be the tallest building visible from I-295. It was explained that Promenade East Condominiums will remain visibly taller.

It was clarified that 126 North St does not have a 4th floor. The window above the third floor is an attic window. It was further explained that the stairwell inside will not reach the attic.

A few attendees commented that the building is too large.

One attendee commented that he believed the project would reduce property values.

With no further questions raised or comments offered, the team thanked attendees for their time and thoughtful comments and the meeting was closed at 7pm.

Meeting minutes by Joshua Wojcik & Reviewed by Will Savage and Tracie Reed.

Att. D

Section D

Zoning Assessment



ZONING ANALYSIS

Relevant Zone: R-6

All Projects:

	Required	Proposed – 128R
Lot Size	2,000 sf	6,142 sf
Area Per Dwelling Unit	725 sf	1,024 sf
Minimum Street Frontage	20'	N/A
Front Yard Minimum	5'	5.25'
Front Yard Maximum	N/A	N/A
Rear Yard	15'	15.11'
Yard Right	5'	11.90'
Yard Left	5'	8.56'
Side Street Setback	N/A	N/A
Step Back	10' @ 35'	> 10'
Maximum Lot Coverage	60%	57%
Minimum Lot Coverage	N/A	N/A
Maximum Height	45'	44.6'
Open Space	20%	40%
Maximum Impervious Area	80%	60%
Pavement Setback	N/A	N/A
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces	3	6
Loading Bays		
Other 1		
Other 2		
Other 3		

	Required	Proposed – 126
Lot Size	2,000 sf	3,645 sf
Area Per Dwelling Unit	725 sf*	607 sf*
Minimum Street Frontage	20'	38'
Front Yard Minimum	3.7'	4'
Front Yard Maximum	N/A	N/A
Rear Yard	15'	16.49'
Yard Right	5'	5'
Yard Left	5'	9.76'
Side Street Setback	N/A	N/A
Step Back	10' @ 35'	> 10'
Maximum Lot Coverage	60%	47%
Minimum Lot Coverage	N/A	N/A
Maximum Height	45'	33.3'
Open Space	20%	20%
Maximum Impervious Area	80%	80%
Pavement Setback	N/A	N/A
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces	2	2
Loading Bays		
Other 1		
*25% density bonus allowed per Section 14-488		

126 & 128R North Street

Neighborhood Meeting

January 16, 2020

[illegible]

126 & 128R North Street

Neighborhood Meeting

January 16, 2020

Name	Organization	Address	Phone	Email
Liz Hays		107 North St.		lizchays@gmail.com
ANN CASADY		205 Sheridan		anncasady@yahoo.com
Peter Pitegoff		205 Sheridan		ppitegoff@gmail.com
Betty Lober		225 Sheridan St		Betty.lobner@gmail.com
Pam Kaufman		137 North St.		
Andrew Kaufman		137 NORTH ST		kaufmanandrew1@gmail.com
Leslie Hart		215 Sheridan		blestiehart@gmail.com
Kevin Schochat		215 Sheridan		kevinkevinchochat.com
Sue Robins		206 Sheridan		suerobins@twc.com
Richard Marino		226 Sheridan		RMARINO04102@Yahoo
Trace J Rand	Dext. center	77 Numbury		
Joshua Wojcik	Upright Properties	PO Box 833 Witten, ME		JWojcik@UprightFrameworks.com
Will Savage	Acorn Engineering	65 Hanover St. Portland, ME		WSAVAGE@Acorn-engineering.com

E. Summary of Written Easements

Existing

There are two easements as identified by the Surveyor:

- Permanent right-of-way with 128F North Street (includes the rights to use the corridor for utilities). Reference CCRD Bk 1143, Pg 307.
- Permanent retaining wall maintenance easement with Munjoy Heights. Reference CCRD Bk 32237, Page 104.

Proposed

There is currently one proposed easement.

- Access/Utility easement from 126 to 128R (includes rights to use the 4.58' brick walkway for access/utilities and the turnaround)



M E M O R A N D U M

TO: Planning Board, City of Portland, Maine

FROM: Sage M. Friedman, Esq.

DATE: August 27, 2020

RE: Easement Rights Erroneously Asserted by the Board of the Munjoy Heights Condominium Association

At the request of our client, Upright Properties, LLC (“Upright”), and the staff of the Planning & Urban Development Department of Portland I have reviewed the assertions made by the Board of the Munjoy Heights Condominium Association (“Munjoy Heights”) in a letter dated August 12, 2020, regarding easements over the property located at 128R North Street, Portland, Maine (the “Subject Property”), as well as the deeds referenced therein. In the letter, Munjoy Heights asserts that it has somehow acquired an access easement from North Street, across 128F North Street (the “Neighbor’s Property”), across the Subject Property in order to access a maintenance easement reserved in the corrective deed from Munjoy Heights’ developer, Redfern Munjoy LLC, conveying the Subject Property to Upright (the “Deed”).¹

Munjoy Heights’ assertion is factually and legally incorrect. Munjoy Heights holds no right to traverse, access or otherwise use the Subject Property except for those rights explicitly contained within the plain language of the easement reserved in the Deed. Moreover, Munjoy Heights’s rights to the maintenance easement will not be infringed by the project proposed by Upright.

The Deed Does Not Reserve Any Rights Beyond the Maintenance Easement Area

The language in the Deed reserves a specific easement area along the western edge of the Subject Property to “maintain, repair, shore-up and replace a retaining wall” subject to a variety of notice and use limitation and requirements. The easement language allows for access to the easement area for these purposes but does not provide any rights to any part of the Subject Property not contained within the clearly defined easement area.

The Deed and easement rights contained therein were the subject of negotiation between Redfern Munjoy and Upright prior to the conveyance. The language used, drafted by Redfern Munjoy, reflects the full scope of their agreement regarding the reserved easement area and access rights. Had Redfern Munjoy intended to seek access rights from North Street across other parts of the Subject Property such language would most assuredly be contained in the Deed. Munjoy Heights did not seek such access rights because they are not necessary, as discussed below.

¹ A copy of the Deed is attached hereto as Exhibit A, but was also was recorded in the Cumberland County Registry of Deeds on February 3, 2014 in Book 31318 at Page 270.

The Easement Rights In The 1923 Deed Encumber Only The Neighbor's Property

In making its assertion of rights over the Subject Property, Munjoy Heights has confabulated easement rights that it may still hold across the Neighbor's Property (a separate lot, held by Kremer) with access rights across the Subject Property, which it does not hold. Although its argument is confused, Munjoy Heights appears to assert that its retained easements rights across the Neighbor's Property to the eastern edge of the Subject Property and the maintenance easement in the Deed interact to somehow grant it rights to cross the Subject Property from the right of way across the Neighbor's Property in order to access the defined maintenance easement area.

Respectfully, this argument is simply nonsensical. Munjoy Heights holds only those rights over the Subject Property which are enumerated in the Deed. The 1923 deed² referenced in Munjoy Heights' letter contains only the following granting language "[t]ogether with a right of way across my land [(now the Neighbor's Property)] from the lot hereby conveyed to North Street." It is simply not within the principles of easement and property law that this language provides a right of way across the Subject Property.

Munjoy Heights Has Access To The Maintenance Easement From Its Own Land

While Munjoy Heights does not explicitly assert an easement by necessity, it seems to be implying one by claiming, erroneously, that there are no other ways for it to access the reserved maintenance easement area.

This claim is factually incorrect.

Even a casual examination of the land itself, or a cursory review of relevant plans and current satellite maps, amply demonstrate that Munjoy Heights has unobstructed access to the maintenance easement directly from its own land. This access will allow for any retaining wall maintenance or replacement projects that may be necessary.

Summary

In summary, Munjoy Heights' claim of interference with its rights is erroneous. Munjoy Heights holds only the rights to the Subject Property that are enumerated in the plain language of the Deed. The 1923 deed encumbers only the Neighbor's Property, and does not, and could not, grant any rights over the Subject Property. The proposed project on the Subject Property will not interfere with any rights actually held by Munjoy Heights, which has ample access to the maintenance easement from its own land.

² Recorded on July 27, 1923 in the Cumberland County Registry of Deeds in Book 1143 at Page 307.

Corrective
QUITCLAIM DEED WITH COVENANT

KNOW ALL PERSONS BY THESE PRESENTS THAT, REDFERN MUNJOY, LLC, a Maine Limited Liability Company of Portland, Maine, for consideration paid, grants to **UPRIGHT PROPERTIES, LLC, a Maine Limited Liability Company of Portland, Maine,** whose mailing address is: PO Box 833 Wilton, ME 04294, with **QUITCLAIM COVENANT**, the premises situated on or about 128R North Street in the City of Portland, County of Cumberland and State of Maine, more particularly bounded and described as follows:

A certain lot or parcel of land, with the buildings thereon, situated southwesterly of, but not adjacent to, the southwesterly sideline of North Street, in the City of Portland, County of Cumberland, and State of Maine, being more particularly bounded and described as follows:

Beginning at a #5 steel rebar with survey cap #2124 to be set at the easterly corner of the herein described parcel, also being the southerly corner of land described in a deed from Ann S. Kremer (f/k/a Ann S. Lambert) to Ann S. Kremer and Steven E. Kremer, dated February 21, 2003, and recorded at the Cumberland County Registry of Deeds (CCRD) in Book 18907, Page 180, and on the northwesterly line of land described in a deed from Gregory D. Kesich and Gail D. Kesich to Raymond T. Wojcik, Zetta A. Wojcik, and Joshua T. Wojcik, dated August 24, 2007 and recorded in CCRD Book 25418, Page 226;

Thence N35°14'21"W along the southwesterly line of said land of Kremer, a distance of forty-three and five hundredths (43.05') feet to a #5 steel rebar with survey cap #2124 to be set at the westerly corner of said land of Kremer, and on the southeasterly line of land described in a deed from JHA Services, Inc. to Portland VOA Elderly Housing, Inc., dated August 30, 1995, and recorded in CCRD Book 12088, Page 261;

Thence S52°38'46"W along said land of Portland VOA Elderly Housing, Inc., a distance of fifteen and no hundredths (15.00') feet to a found #6 steel rebar;

Thence N35°14'21"W continuing along said land of Portland VOA Elderly Housing, Inc., a distance of twenty and thirty-one hundredths (20.31') feet to a #5 steel rebar with survey cap #2124 to be set at the northerly corner of the herein described parcel;

Thence S52°38'46"W continuing along said land of Portland VOA Elderly Housing, Inc., and along remaining land of the herein grantor, a distance of forty-two and ninety-two hundredths (42.92') feet to a #5 steel rebar with survey cap #2124 to be set at the westerly corner of the herein described parcel;

Thence S17°29'52"E continuing along remaining land of the herein grantor, a distance of thirty-six and fifty-three hundredths (36.53') feet to a #5 steel rebar with survey cap #2124 to be set;

Thence S35°18'27"E continuing along remaining land of the herein grantor, a distance of fifty-three and fifty-four hundredths (53.54') feet to a #5 steel rebar with survey cap #2124 to be set at the southerly corner of the herein described parcel;

Thence N52°38'46"E continuing along remaining land of the herein grantor, and land conveyed or to be conveyed to Peter J. DeTroy, III and Mary Roy, a distance of fifty-three and ninety-nine hundredths (53.99') feet to a #5 steel rebar with survey cap #2124 to be set on the southwesterly line of said land of Wojcik;

Thence N35°14'21"W along said land of Wojcik, a distance of twenty-four and fifty-six hundredths (24.56') feet to a #5 steel rebar with survey cap #2124 to be set at the westerly corner of said land of Wojcik;

Thence N52°38'46"E continuing along said land of Wojcik, a distance of fifteen and no hundredths (15.00') feet the point of beginning.

Total area of the herein described parcel equals 5,202 square feet (0.12 acre). The bearings in this description are based on Grid North, MSPC NAD83, 1802 (West Zone).

The above described parcel is subject to a reserved retaining wall maintenance easement for the purposes set forth below and for the benefit of Grantor's adjacent land, said easement being twenty (20') feet wide, being more particularly bounded and described over the following portion of the above-described property (the "Easement Area"):

Beginning at a #5 steel rebar with survey cap #2124 to be set at the southerly corner of the herein described parcel, also being the southerly corner of the above described parcel;

Thence N52°38'46"E along remaining land of the herein grantor, and land conveyed or to be conveyed to Peter J. DeTroy, III and Mary Roy, a distance of twenty and one hundredth (20.01') feet to the easterly corner of the herein described parcel;

Thence N35°18'27"W through the above described parcel, a distance of forty-nine and sixty-nine hundredths (49.69') feet;

Thence N17°29'52"W continuing through the above described parcel, a distance of forty and sixty-one hundredths (40.61') feet to the northwesterly line of the above described parcel;

Thence S52°38'46"W along remaining land of the herein grantor, a distance of twenty-one and twenty-six hundredths (21.26') feet to a #5 steel rebar with survey cap #2124 to be set at the westerly corner of the herein described parcel;

Thence S17°29'52"E continuing along remaining land of the herein grantor, a distance of thirty-six and fifty-three hundredths (36.53') feet to a #5 steel rebar with survey cap #2124 to be set;

Thence S35°18'27"E continuing along remaining land of the herein grantor, a distance of fifty-three and fifty-four hundredths (53.54') feet to the point of beginning.

Total area of the herein described parcel equals 1,803 square feet (0.04 acre). The bearings in this description are based on Grid North, MSPC NAD83, 1802 (West Zone).

Grantor hereby reserves the right and easement to enter upon the Easement Area with at least 120 days of advance notice (except in the case of emergency) to the Grantee, its successors and assigns, with men and equipment, including heavy equipment, to maintain, repair, shore-up and replace a retaining wall between the adjacent properties of the Grantor and the Grantee (the "Easement Rights"), provided that in the exercise of the Easement Rights Grantor, its successors and assigns, shall (a)

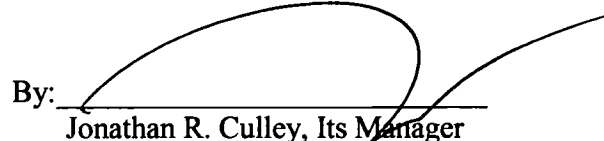
ensure all work is done properly and promptly; (b) ensure that no vehicles or construction equipment whatsoever are left overnight or otherwise stored within the Easement Area except when easement work is underway; (c) exercise best efforts to limit any inconvenience to the Grantee, its successors and assigns, or to any other lawful occupier of the property; (d) promptly and reasonably restore the Easement Area to its former condition before the exercise of the Easement Rights; and (e) defend and indemnify the Grantee, its successors and assigns, of and from all losses, damages and expenses associated with the exercise of the Easement Rights, including all losses, damages and expenses (including death) incurred by third parties seeking to hold the grantee, its successors and assign, liable therefor.

Meaning and intending to describe a portion of land described in a deed from Raymond C. Maxwell to Redfern Munjoy, LLC, dated January 31, 2014, recorded herewith at the Cumberland County Registry of Deeds, and a portion of land described in a deed from Four Sills, LLC to Redfern Munjoy, LLC, dated December 4, 2013, recorded at the Cumberland County Registry of Deeds in Book 31207, Page 48, and being depicted as Unit 30 – "To Be Conveyed To Upright Properties, LLC", including "Easement #5", on a plan entitled "*Plan Depicting A Proposed Subdivision Made For Redfern Munjoy LLC, P.O. Box 8816, Portland, ME 04104, Munjoy Heights, Sheridan Street, East Cove Street, And Walnut Street, Portland, Maine*", dated December 6, 2013, to be revised by Nadeau Land Surveys, Portland, Maine.

IN WITNESS WHEREOF, the said **REDFERN MUNJOY, LLC**, has caused this instrument to be signed by Jonathan R. Culley, Its Manager, hereunto duly authorized, this 31st day of January, 2014.


Witness

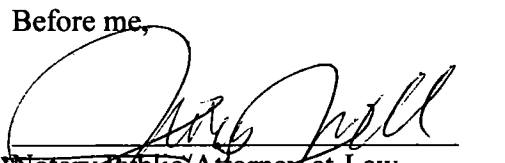
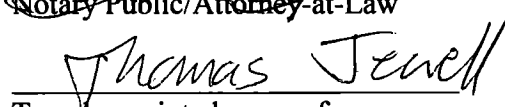
~~MUNJOY~~
~~PROPERTIES~~
REDFERN ~~PROPERTIES~~, LLC

By: 
Jonathan R. Culley, Its Manager

STATE OF MAINE
COUNTY OF CUMBERLAND

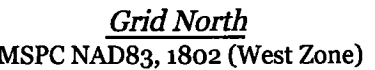
January 31, 2014

~~MUNJOY~~
~~PROPERTIES~~
Then personally appeared the above-named Jonathan R. Culley, Manager of Redfern ~~PROPERTIES~~, LLC, who acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of Redfern ~~PROPERTIES~~, LLC.

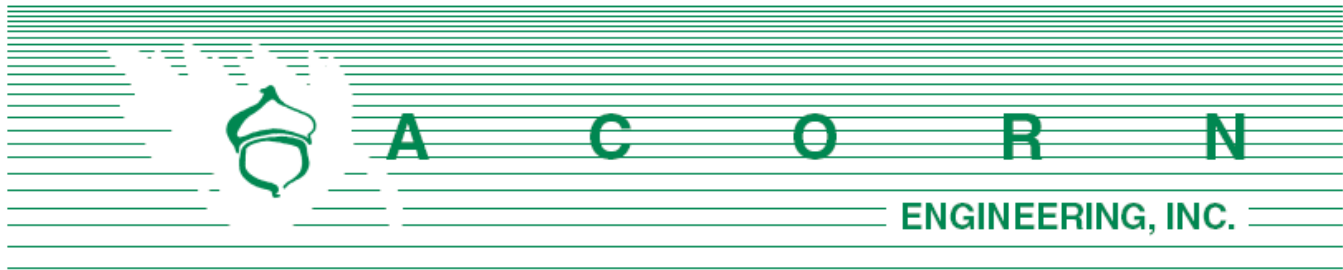
Before me,

Notary Public/Attorney-at-Law

Typed or printed name of person
taking acknowledgment

Redfern Munjoy, LLC to Upright Properties, LLC
Between Sheridan Street & North Street, Portland, Maine
1" = 20' November 27, 2013 Job #2131381

1990 年 12 月 1 日



Received
Recorded Register of Deeds
Feb 03, 2014 02:12:11P
Cumberland County
Pamela E. Lovley



Shukria Wiar – City Planner
 Planning Division, City of Portland
 389 Congress Street
 Portland, ME 04101

February 24, 2020

Subject: Comment Response Letter 2
 126/128R North Street Redevelopment – Portland, Maine

Shukria:

In response to the Planning Board workshop held on January 28th, a meeting between the development team and Planning Department held on February 4th, and the City Staff comments within the planning memo, we have developed this response letter which also outlines the notable changes within the application, which include:

- Removal of the 126 North Street covered parking area and addition of a 6th unit to the building as allowed within Section 14-488 (g) of the City's ordinance for a density bonus based upon on-site workforce housing.
- Addition of project renderings including new perspectives, clarification of the screening at the back of the site, and a section view between Washington Avenue and North Street to illustrate the topography and spatial relationships between neighboring properties.
- Addition of documents such as the draft condo docs and an approximate overall project schedule.

Please see below for responses to the second round of comments. Also included within this submission is the architectural response letter from Dextrous Creative.

Mike Tremblay, DPW

Comment – *The Applicant did not implement the suggested shared driveway treatment between the two properties. One of the stated reasons is that no easement currently exists for 126 North Street to access and use the driveway. It should be noted that such an easement could be created if desired, as the two properties are currently under common ownership.*

Response – The two properties are not under common ownership. The owner of 128F North St., who is unaffiliated with this project, owns the existing driveway and is not willing to grant an access easement to 126 North St. 128R has an existing access and utility easement over the driveway, making it the only parcel that has rights to use the driveway (besides 128F).

Comment – *The Applicant does not have a standard width driveway accessing the parking spaces at 126 North Street. They have alleviated this by providing a wider-than-required parking space so*

that vehicles can more easily maneuver into the parking space. However, AutoTURN runs provided show that it is still very difficult for a vehicle to exit this space, coming very close to the wall of the building, the wall along the edge of the driveway, and the adjacent handicap parking space. This configuration likely requires that vehicles back into the driveway; it does not look possible for a vehicle to pull into the driveway and eventually exit head-out. While this configuration may be suitable assuming the occupants of 126 North Street do not have overly large vehicles, always back into the driveway, and have the skill and acuity to maneuver a vehicle into and out of the parking spaces. This may not always be the case however. This configuration requires a waiver for parking area drive aisle.

Response – The 126 North covered parking area has been eliminated and the driveway revised to accommodate tandem parking for two vehicles (including one for an ADA van space) as encouraged within the Munjoy Hill Overlay District.

Comment – *The handicap space in 126 North Street does not need to be marked as such, as it is located in a parking area with 4 spaces or less. The space must be accessible (as designed), but anyone can park there. The applicant may choose to keep it marked as a handicap space if they choose.*

Response – Signage is not proposed in the new scheme, but the ADA compliance has remained part of the plan.

Comment – *Space 4 in 128 North Street does not appear to meet the dimensional requirements for a compact space (8x15), and therefore should not be counted as a parking space for the purposes of meeting zoning requirements. Since only 3 spaces are required per zoning, this is acceptable; however, this space should not be shown as a parking space in the site plan.*

Response – Based upon our AutoTurn analysis and associated dimensional limitations set forth in the Site Plan and condominium docs, Space #4 is functional for the defined vehicle. Given that this space will be deeded to a homeowner within the condo association, the familiarity with the parking space paired with the vehicle size restrictions will result in a usable parking space, despite the fact that the length is less than 15' for a portion of the space. We would also note the drive aisle is 24 ft wide adjacent to all spaces including Space #4.

Comment – *Space 2, Space 5, and Space 6 in 128 North Street are compact spaces. The Applicant requires a waiver for the proportion of parking spaces (67%, assuming Space 4 is retained as an allowable compact space, vs 20% allowed).*

Response – As is customary in small residential infill projects such as this, we are requesting a waiver to provide over 20% compact spaces. Vehicle limitations have been set for maximum wheelbase, turning radius, etc. and homeowners will be accustomed to the maneuvering in and out of the parking area. We have updated the waiver table within this submission to reflect this request. We would also note the drive aisle is 24 ft wide adjacent to all the spaces within 128R.

Lauren Swett, 3rd Party Civil Engineering Review

Comment – *The Applicant has provided erosion and sedimentation control locations, details, and a written plan in accordance with the Basic Standards. The erosion and sedimentation control*



measures have been shown on the Construction Management Plan. It is suggested that perimeter erosion controls also be shown on the grading and drainage plan, for clarity during construction on this very tight site.

Response – We have added the erosion control barrier to the Grading & Drainage Plan.

Comment – *The Applicant is proposing a Focal Point rain garden system to provide treatment in accordance with the General Standards. Focal Point details have been provided. The actual Focal Point system components should be drawn on the grading plan, including the R-tanks. It is not clear on the plan as shown what the extent of the subsurface system will be. The system is in close proximity to the property line as well as the proposed building, so clear extents should be provided to ensure that the system can be constructed properly.*

Response – Please refer to the grading and drainage plan, sheet C-30. Within the inset, the extents of the stone perimeter are shown. We have since added an offset to represent the chambers within the stone for clarity.

Comment – *The Applicant has noted that flows will not be increasing, in accordance with the Flooding Standard. It is noted, however, that the project will be redirecting flows, and stormwater flow to the rear of the site will be reduced, but stormwater flow to the combined sewer in North Street will be increasing in the 10-year and 25-year storm events. The acceptability of this increase to the combined sewer will need to be verified by the Department of Public Works.*

Response – A 3.25" orifice has been added to the plans and hydrocad model such that the peak 10 and 25 year flowrates to North Street will remain the same down to the hundredth of a cubic foot per second. The overall runoff leaving the site will be notably lower than the existing conditions.

Comment – *Additional information should be provided on snow storage. The snow storage area currently shown overlaps with a landscaped area. Snow storage should be considered for both driveways.*

Response – The existing driveway currently functions in a similar manner as the proposed condition. Landscaped areas are generally acceptable locations for snow storage as long as a stormwater system does not exist within this space. During large or prolonged storms without any thaw, snow may need to be removed from the site as is customary on tight urban projects such as this.

Comment – *Consideration should be made for landscaping conflicts with utilities. In particular, consider the oak and blue point juniper proposed to the southeast of the southern building. These trees are located over a bank of proposed subsurface utility lines.*

Response – We have removed the proposed woody vegetation from the utility areas and relocated less root-intensive shrubs on the property line to maintain a buffer.

Jeff Tarling, City Arborist

Comment – *The North Street project should include some type of landscape treatment, after looking at the site they may want to consider smaller scale trees / shrubs like Amelanchier, which*



can be a small tree or shrub depending on the cultivar selected. Lilacs or viburnums could also work. Plantings can be in groves or along the property line.

Response – We have added an Amelanchier to the proposed Landscape Plan. In general, the project has aimed to provide as much landscaping as possible. Certain site conditions such as utility lines and the existing retaining wall maintenance area have restricted areas from otherwise being fully landscaped.

Bill Scott, Chief Surveyor

Comment – *Various comments on the subdivision plat, utility plan, and grading & drainage plan per 2/12/2020 list of comments.*

Response – All comments have been resolved/revised within the plan set. Please note that two subdivision plats were created because of the phased approach. The properties are under distinct ownership (128R will result in a Homeowner's Association and 126 will result in multifamily rentals); however, the project is being reviewed/designed as one to create a cohesive and well-planned project.

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

Sincerely,



Samuel J. Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



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





February 20, 2019

Caitlin Cameron, AICP, Associate AIA, LEED AP
Urban Designer
Planning & Urban Development Department
389 Congress Street
Portland, ME 04101

Re: 128R and 126 North Street

Caitlin, Attached, please find revised submission materials as a result of feedback from neighbors, board members and staff at the planning workshop last month.

The following is a summary of changes made to our designs and their intent:

- As the result of feedback from neighbors, the board and staff concerning the location of 126's primary entrance we revised our floorplan to create an entrance directly off North Street. We have maintained the existing drive, providing two tandem off-street parking spots for the building, including an accessible space with recessed access aisle integrated under our structure.
- The new recessed access aisle, level with the driveway also functions as a covered entry for the building's central stair. We have confirmed with technical experts at the International Code Council and Access Design that this solution is an acceptable means of providing a parking aisle for the building.
- On sheet A-1.6 you will note that we have added another housing unit, bringing the total for 126 North to six units. The new two-bedroom rear unit allows us to help alleviate Portland's housing crisis and better-meet section 14-487. As a result of the new front hall and access aisle the front unit on the building's first floor will become a one-bedroom unit.
- 126 North been brought closer to North Street to better meet A-3 'Relationship to the Street'. The building's roof pitch (B-4) does meet zoning requirements.
- In reworking the first floor plan of 126 North we have sought to improve upon the design as it relates to elements in 'Section C, orientation to the street.' Our building now has its principal entrance along North Street (C-1), with a small canopy. The building's windows have been switched to double-hung windows. This allows us to meet (C-2), the visual privacy design guidelines on the first floor by frosting the lower sash while maintaining the building's accessibility.
- Changing the building's entrance also helps the building better meet Section F 'Articulation'. Note that our trim detail is greater than 4" (F-7) and we have sought to

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dextrouscreative.com
traciereed@dextrouscreative.com
Portland, ME 04101

provide a transition space at the front of the building utilizing vegetation and brick pavers while maintaining the accessibility of the entrance as required by ICC Chapter 11 and Fair Housing.

- The floor plan of 128R North remains unchanged. However, the lattice previously mentioned in the planning board workshop is now included in the model as is the wheel stop in the first-floor parking area. This wall has been raised to provide screening of car headlights. Screening is also provided via the extruded metal lattice. On the building sides a similar lattice would be utilized taking the form of fencing to continue the pattern and provide screening along the sides of the parking area.
- The parking area at 128R North is required per ASHRAE standards to be mechanically ventilated. Exhaust from the garage would be directed mechanically up through the roof of the building in accordance with best engineering practices. The mechanical components of the system is equivalent in size to a heat pump compressor, likely to be roof-mounted.
- Also included in our packet is a new sheet, A-3.2 Site Section. As requested by the board, this section spans approximately 610'-0" in length from North Street to Washington Avenue. The site section was developed with spot elevations along Washington Avenue taken from ongoing construction projects, our site survey, Portland's GIS system, the Assessor's database (which provides rough widths of building's), and Google Street view. The section is cut facing the back of buildings at East Cove Street. Our project features many of the same design professionals as the Munjoy Heights project along Sheridan Street, who provided a site section of their project. Based on the spot elevations along Washington Avenue and the elevation of our site, taken from our survey, the building is minimally visible when viewed at the far sidewalk of Washington Avenue.

This vantage is 435'-0" to our site and in areas without vegetation may render the top 9'-4" of our building visible. This said, based on my photos of the site there are treetops along East Cove Street which may obscure the building. The same is true further down Washington Avenue near Northern Burner Supply where trees planted between Washington and Munjoy Heights extend above their project's roofline. The Northern Burner Supply photo is included on page 26 of my neighborhood survey submitted in August 2019 and a view from Cove Street was included in my slides at the planning board workshop in January.

- While the distance between the back of 128R and Munjoy Heights varies the narrowest gap between the structures is 25'-0" to 32'-0" from the face of their building to the outermost part of the back deck. As noted on the drawing the distance between the buildings at the location of the section from face-to-face is 28'-0".
- On sheet A-5.2 you will note a new perspective line drawing. This drawing illustrates the view of an individual inside a private unit within the Munjoy Heights complex looking

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traciereed@dextrouscreative.com
Portland, ME 04101

towards 128R North. Clearly, providing renderings from within private dwelling units is not required and the voluntary inclusion of one does give me pause especially considering the value of those units. Do we let those with significant resources make demands otherwise not required of applicants? None-the-less we have included the perspective to clarify concerns and comments, understanding the unease of having construction nearby. Note that we chose to provide a rendering from the building's fourth floor window because the complex's third floor window views our project through a chain-link fence owned by their association and the second-floor windows look out directly onto their retaining wall.

Thank you, Shukria and Deb for your thoughtful and thorough design review. We look forward to presenting our revised plans to you and the board at another workshop soon.

Regards,

A handwritten signature in black ink that reads "Tracie J. Reed". The signature is fluid and cursive, with the first and last names being more prominent.

Tracie J. Reed, Maine Licensed Architect, LEED AP, NCARB
Principal

CC: William Savage, P.E, and Sam Lebel, Acorn Engineering
Josh Wojcik, Upright Properties

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dextrouscreative.com
traciereed@dextrouscreative.com
Portland, ME 04101

Section F

Request For Waivers



Standard to be Waived: Cite Ordinance or Technical Manual Standard	Cite Standard Language: Cite specific language of applicable Ordinance or Technical Manual Standard	Waiver Being Sought: Describe waiver being sought. Ex. – We are requesting a two-way parking lot drive aisle width of 20' feet.	Justification for Waiver: Address specific waiver criteria, if applicable, and document reasons for the waiver request.
Technical Manual 1.14	20% Compact Space allowance	We are requesting that 50% of the proposed 8 parking space be compact.	Due to the constrained space on site and the nature of residential ownership, the parking spaces have been tailored to site with set dimensional vehicle limitations. All spaces are functional and will be familiar low turnover spaces.
Technical Manual I-27	Standard parking = 18' in length	To reduce the 18' dimension to 16.5'	Given the site constraints, the waiver is necessary to facilitate parking.

DECLARATION OF CONDOMINIUM

of

**RIFUGIO, A CONDOMINIUM
Portland, Maine**

**Upright Properties, LLC
Portland, Maine
Declarant**

Recorded: Cumberland County Registry of Deeds

Book _____, Page _____ - Date: _____, 2020

DECLARATION
RIFUGIO, A CONDOMINIUM

THIS DECLARATION (the “Declaration”) is executed by Upright Properties, LLC (the “Declarant”), pursuant to the Maine Condominium Act, Chapter 31 of Title 33 of the Maine Revised Statutes, as amended (the “Act”).

ARTICLE I
CREATION OF CONDOMINIUM; DEFINED TERMS

1.1. Declaration of Property. The Declarant, owner of that certain lot or parcel of land situated at 126 and 128R North Street, Portland, Cumberland County, Maine, more particularly described in Schedule A, and of all buildings and improvements constructed thereon and all easements, rights, privileges and appurtenances related thereto (collectively the “Property”) hereby submits the Property to the provisions of the Act and creates with respect to the Property a condominium under the Act (the “Condominium”). The name of the Condominium is Rifugio, a Condominium, and its address is 128R North Street, Portland, Maine 04101. The name of the Association is Rifugio Condominium Owners Association and its address is 128R North Street, Portland, Maine 04101.

The Property is depicted on a plat of said land entitled “Condominium Plat, Rifugio, a Condominium,” dated _____, by _____, and on floor plans of such buildings and improvements constructed thereon, entitled “Horizontal & Vertical Boundaries, Rifugio, a Condominium,” dated _____, by _____, (collectively, the “Plans” or “Plats and Plans”), which Plans are recorded in the Cumberland County Registry of Deeds, Plan Book ___, Pages ___ through ___.

Initially, the Condominium consists of the land located at 126 and 128R North Street, as described in Exhibit A. As shown on the plats and plans this shall include one (1) building containing six (6) units numbered 1 through 6, accessible from North Street, and unit number 7, an additional building to be constructed, containing six (6) rental apartments, also accessible from North Street.

1.2. Defined Terms. As provided in Section 1601-103 of the Act, capitalized terms not otherwise defined in this Declaration, as it may be amended from time to time, or on the Plat and Plans, shall have the same meanings as specified in the Act. The following terms which are not otherwise defined in this Declaration shall have the following specific meanings in this Declaration.

1.2.1. “Allocated Interests” mean (a) the Common Element Interest, and (b) the Common Expense Liability, allocated to each Unit pursuant to this Declaration.

1.2.2. “Association” means the association of the Unit Owners of the Condominium organized pursuant to Section 1603-101 of the Act as a nonprofit corporation under the Maine Non Profit Corporation Act. The name of the Association is Rifugio Condominium Owners Association.

1.2.3. “Building” means the building erected on the Property shown on the Plat and Plans containing four (4) levels (including the parking level) and six (6) units. Unit 1 occupies the first floor of the Building, except for parking area, common entrances, halls, elevator and stairs as shown on the Plans. Unit 2 and Unit 3 occupy the second floor of the Building, except for the common halls, elevator and stairs as shown on the Plans. Unit 4 and Unit 5 occupy the third floor of the Building, except for the common halls, elevator and stairs as shown on the Plans. Unit 6 occupies the fourth floor of the Building, except for the common halls, elevator and stairs as shown on the Plans. The travel lanes of the parking area and bike storage on the first floor, as shown on the Plans, is a Common Element. The decks located off of Units 2, 3, 4, 5, and 6 are allocated to such units as Limited Common Elements.

1.2.4. “By-Laws” means such governing regulations for the Association as are adopted pursuant to the Act and this Declaration for the regulation and management of the Condominium, including such amendments thereof as may be adopted from time to time.

1.2.5. “Common Elements” mean all portions of the Condominium other than the Units and shall further include, without limitation, the outside walls and roof of the Building, the land, walkways, chimneys, elevator, other common facilities or equipment, common porches, stairways or hallways, landscaping, pipes, wires, conduits, foundation, columns, girders, beams, concrete joists, supports, exterior walls, and any central installations and equipment for power, light, air conditioning, heating, ventilation, elevator, door bells and electronic door opener/intercom system (if any), and other service and utility lines which are not defined as a part of the Units. The Common Elements are sometimes referred to as the “Common Areas”.

1.2.6. “Common Element Interest” means the percentage of undivided interest in the Common Elements appurtenant to each Unit.

1.2.7. “Common Expenses” mean and include, but are not limited to, (a) the cost of maintenance, management, operation, repair, renovation, restoration and replacement of the Common Elements and such Limited Common Elements and such parts of the Units as to which pursuant to this Declaration it is the responsibility of the Association to maintain, repair and replace; (b) the cost of all insurance premiums on all policies of insurance required to be or which have been obtained by the Executive Board

pursuant to the provisions of this Declaration; (c) such amounts as the Executive Board may deem necessary to provide for general operating reserve funds, reserve funds for replacements and contingencies, reserve funds in the amount of the applicable deductibles on property insurance policies carried by the Association, and such other reserve funds as may be required by the By-Laws or as the Executive Board may periodically establish; (d) sums that the Executive Board may deem necessary to compensate for any deficits in receipts over expenses for the previous fiscal year; (e) the charges and fees for energy, electricity, heat, water, gas and sewer services, and all other utilities furnished to the Condominium to the extent not separately metered to individual Units and charged to individual Unit Owners; (f) costs and fees for legal and accounting services for the Condominium procured by the Association; and (g) such other costs and expenses that may be declared by the Act, this Declaration, the By-Laws, or resolution or agreement by the Executive Board, to be Common Expenses of the administration, operation, maintenance and repair of the Condominium and Property and the rendering to Unit Owners of all related services.

1.2.8. “Common Expense Liability” means the allocation to each Unit of the respective liability for Common Expenses. The Common Expense Liability allocated to the Unit is a percentage equal to the Common Element Interest appurtenant to the respective Unit.

1.2.9. “Condominium Documents” mean this Declaration, the Plans, the By-Laws and any Rules and Regulations adopted pursuant thereto by the Executive Board, and all amendments to each of the same.

1.2.10. “Eligible Mortgage Holder” means the holder of record of a recorded first Mortgage encumbering a Unit in the Condominium which has delivered written notice to the Association by prepaid United States Mail, return receipt requested, or by delivery in hand securing a receipt therefor, stating the name and address of the said holder of the Mortgage, the name and address of the Owner of the Unit encumbered by such Mortgage, the identifying number of such Unit, and containing a statement that such Mortgage is a recorded first Mortgage.

1.2.11. “Limited Common Elements” mean those portions of the Common Elements the exclusive use of which is reserved as an appurtenance to one or more, but fewer than all, of the Units as indicated and allocated pursuant to this Declaration.

1.2.12. “Limited Common Expenses” include (a) the Common Expenses associated with the maintenance, repair or replacement of a Limited Common Element which shall be assessed exclusively against the Units to which that Limited common Element is assigned in proportion to the relative Common Expense Liabilities of such Units as between themselves, as the Executive Board may periodically determine, and (b)

the Common Expenses for services benefiting fewer than all the Units, which are assessed exclusively against the Units benefited in accordance with the use of such services as permitted by Section 1603-115(c) of the Act.

1.2.13. “Mortgage” means a recorded mortgage or deed of trust encumbering a Unit in the Condominium held by a Mortgagee or an Eligible Mortgage Holder.

1.2.14. “Mortgagee” means the holder of a Mortgage.

1.2.15. “Recorded” means that an instrument has been duly entered of record in the Registry of Deeds in and for Cumberland County, Maine.

1.2.16. “Rules and Regulations” mean such Rules and Regulations as may be adopted by the Executive Board pursuant to Article 9.1 of the By-Laws.

1.2.17. “Unit” means a part of the Property designated for any type of separate ownership or occupancy, which has a direct exit to a public street or way, or to a Common Element or Common Elements leading to a public street or way, the boundaries of which Unit are established in Article III.

1.2.18. “Votes” mean the Votes in the Association allocated to the Units set forth in Schedule B.

1.2.19. “Unit 7” means the to be constructed building designated on the Plats and Plans as Unit 7, which shall contain six (6) rental apartments, designated 7-A (1 bedroom), 7-B (income restricted rental, 2 bedroom), 7-C (2 bedroom), 7-D (2 bedroom), 7-E (2 bedroom), 7-F (2 bedroom).

1.3. Interpretation. In the event of any conflict or discrepancy between this Declaration, the By-Laws, and the Plans, the provisions of this Declaration shall govern the By-Laws and the Plans.

ARTICLE II

DESCRIPTION OF PROPERTY & UNITS; CONSTRUCTION OF UNIT 7

2.1. Description of the property. A legally sufficient description of the Property included in the Condominium is set forth in Schedule A and the location and dimensions of the Property included in the Condominium are depicted on the Plans referred to in Paragraph 1.1. All easements, licenses, rights or encumbrances, if any, to which the Condominium shall be subject to are described in Exhibit A.

2.2. Location and Dimensions of Building and Unit 7. The location and dimensions of the Building and Unit 7 (to be constructed) and improvements erected on the Property, and of the Common Elements, are depicted on the Plans.

2.3 Driveways. The Building is served by a driveway from North Street approaching from the northeasterly side of the Building, which serves the parking area. The Building's driveway is a Common Element, and the Unit Owner's share of the cost of maintenance (including snow removal), repair and replacement of the driveway is a Common Expense. Unit 7 is served by a separate driveway, also from North Street. Unit 7's driveway and the parking space to be constructed thereupon are limited common elements serving only Unit 7.

2.4 Stormwater Maintenance System. The Stormwater Maintenance System shall include the culverts, drains, pipes, focal point gardens, and other systems necessary to meet the drainage and stormwater management needs of the Condominium as documented in the Stormwater Maintenance Agreement, dated _____, 2020, and attached hereto as Exhibit B.

2.5 Development of Unit 7. In accordance with and subject to the Act, the Declarant reserves, on behalf of the Owner of Unit 7, the right, but not the obligation, until seven (7) years from the date of the recording of this Declaration:

A. To construct Unit 7 in accordance with the Plats and Plans and all municipal approvals and permits received as of _____, 20____, as revised or amended, including the site plan and subdivision plat approval dated _____, 2020.

B. If necessary to exercise any rights reserved under this Section 2.5, the Owner of Unit 7 shall prepare, execute and record an amendment to the Declaration pursuant to the Act, which amendment shall include a plat and plans as required by the Act to the extent not previously recorded, and a revised allocation of Common Expense Liability and Common Element Interest that accurately reflects the expected usage of Common Elements and association expenses attributable to residents of Unit 7, as constructed. Said amendment shall become effective without the consent of any other person. Until completion of Unit 7 and the recording of the above discussed amendment, Unit 7 shall be allocated Common Expense Liability and Common Element Interest as described below in Schedule B.

C. Notwithstanding any other provisions of this Declaration, the provisions of this Section 2.5 may not be amended without the written consent of the Owner of Unit 7.

ARTICLE III
DESCRIPTION OF UNITS, ETC.

3.1. Number of Units. The Declarant has created pursuant to this Declaration the seven (7) Units identified in Schedule B.

3.2. Creation of Units. Reference is made to Schedule B for the identifying number of each Unit created by this Declaration and to the Plans for a description of each Unit created by this Declaration including each Unit's identifying number, the locations and dimensions of the vertical boundaries and horizontal boundaries of each Unit, the Common Elements to which the Unit has direct access, the Limited Common Elements which serve each Unit, and any other information necessary to identify the Unit.

3.2.1 Condominium Unit Subject to Eligibility Restrictions. In accordance with Division 30 of Chapter 14 of the City of Portland's Code of Ordinances, Unit 1 (the "Workforce Unit") shall be designated as Workforce Housing Unit for Sale, as that term is defined at Section 14-485. Therefore, the Workforce Unit shall be (i) sold at a purchase price which is affordable to a household earning 120% or less of average median income ("AMI") for greater Portland; (ii) sold only to a household earning 120% or less of AMI; and (iii) these restrictions shall be recorded in the deed from Declarant conveying the Workforce Unit and/or in other legally binding agreements, as may be required by the City of Portland, including the Affordable Housing Agreement, dated _____, 2020. Declarant and the Association shall cooperate with the City of Portland's verification processes, and shall, together with any prospective buyer, provide the City with sufficient information to determine any prospective buyer's eligibility, as well as meet any additional requirements as put forth in the Affordable Housing Agreement.

3.2.2 Rental Unit Subject to Eligibility Restrictions. In accordance with Division 30 of Chapter 14 of the City of Portland's Code of Ordinances, the rental apartment designated as 7-B (the "Income Restricted Rental"), contained with Unit 7, shall be designated as Workforce Housing Unit for Rent, as that term is defined at Section 14-485. Therefore, the Income Restricted Rental shall be (i) rented at a rate which is affordable to a household earning 100% or less of AMI for greater Portland; (ii) rented only to a household earning 100% or less of AMI; and (iii) these restrictions shall be recorded in the deed from Declarant conveying the Unit 7 and/or in other legally binding agreements, as may be required by the City of Portland, including the Affordable Housing Agreement, dated _____, 2020. Declarant and the Association shall cooperate with the City of Portland's verification processes, and shall, together with any prospective renter, provide the City with sufficient information to determine any prospective renter's eligibility, as well as meet any additional requirements as put forth in the Affordable Housing Agreement.

In accordance with the Affordable Housing Agreement, if Unit 7 is ever subdivided under Section 3.5 below, then the Owner of Unit 7 shall have the option to convert the Income Restricted Rental to a Workforce Housing Unit for Sale, as that term is defined at Section 14-485 of the City of Portland's Code of Ordinances

3.3. Unit Boundaries. The boundaries of each Unit created pursuant to this Declaration are situated as shown on the Plans and shall consist of:

3.3.1. Upper and Lower (horizontal) Boundaries: The upper and lower boundaries of each Unit shall be the following boundaries extended to an intersection with the vertical (perimetric) boundaries:

3.3.1.1. Upper Boundary: The planes formed by the bottom side of the ceiling rafter stud line.

3.3.1.2. Lower Boundary: The horizontal plane of the top surface of the structural flooring of the Unit.

3.3.2. Vertical (perimetric) Boundaries: The vertical boundaries of each Unit are the vertical planes, extended to intersections with each other and with the Unit's upper and lower boundaries, of the inner or Unit side surface of the studs which support the dry wall, plaster, wallboard or other materials forming the perimeter walls bounding the Unit. Boundary lines shall also be the exterior surfaces of doors, windows and glass walls, and their frames, sills and thresholds, where applicable.

3.3.3. The Unit shall include the following items exclusively serving the Unit, whether or not located within the boundaries of the Unit: heating, hot water, solar panels, gas lines, telecommunications wiring and components, electrical and air conditioning components and apparatus, and all partitions which are wholly contained within the Unit including interior doors, door frames, hardware, electrical outlets and wiring, and devices in such partitions serving only the Unit.

3.3.4. The Unit shall include all lath, furring, wallboard, wall materials, plasterboard, plaster, paneling, tiles, wallpaper, paint, finished flooring and any other materials constituting any part of the finished surfaces thereon located within the boundaries of the Unit.

3.3.5. Subject to the provisions of subparagraphs 3.3.3 and 3.3.4 above, if any chute, flue, duct, wire, conduit, bearing wall, bearing column, stairway, or any other fixture lies partially within and partially outside the designated boundaries of a Unit, any portion thereof serving only that Unit is a Limited Common Element allocated solely to

that Unit, and any portion thereof serving more than one Unit or any portion of the Common Elements is a part of the Common Elements.

3.3.6. Subject to the provisions of subparagraphs 3.3.3, 3.3.4 and 3.3.5 above, all spaces, interior partitions and other fixtures and improvements within the boundaries of a Unit are a part of the Unit.

3.4. Allocated Interests. The Allocated Interests allocated to each Unit are listed and allocated to the Units in Schedule B.

3.5. Relocation of Unit Boundaries. Subject to applicable provisions of this Declaration and the By-Laws, and deed restrictions affecting the Property, and of law and environmental and land-use ordinances and regulations, the subdivision of Units horizontally or vertically and the relocation of horizontal and vertical boundaries between Units will be permitted at the expense of the Unit Owners of the Unit or Units to be so subdivided and the boundaries of which are to be so relocated, subject to compliance with the provisions therefor stated in Section 1602-112 and Section 1602-113 of the Act.

3.6. Alteration of Partitions. Subject to applicable provisions of this Declaration and the By-Laws, and any deed restrictions affecting the Property, and of law, ordinances and land-use regulations, a Unit Owner may, after acquiring a vertically or horizontally adjoining Unit or adjoining part of a vertically or horizontally adjoining Unit, remove or alter any intervening partition or create apertures therein, even if the partition in whole or in part is a Common Element, if such acts do not impair the structural integrity or mechanical systems of the Building or lessen the support of any portion of the Property. Removal of partitions or creation of apertures under this subparagraph is not alteration of boundaries.

3.7. Alterations by Unit Owner. Subject to any applicable provisions of this Declaration, the By-Laws or Rules and Regulations of the Association, a Unit owner may make nonstructural improvements and alterations to the interior of such owner's Unit but no Unit Owner may make any improvements or alterations or do any work whatsoever which would impair the structural integrity or mechanical systems of the Building or of a Unit owned by another Unit Owner, lessen the support of any portion of the Condominium, jeopardize the soundness or safety of the Property, or reduce the fire rating of any walls or violate any building or fire codes. Except as provided in this Declaration, no Unit Owner shall alter any of the Common Elements or paint or otherwise change the appearance of the Common Elements (including Limited Common Elements) or paint or otherwise change the exterior appearance of such owner's Unit (including, but not limited to, the exterior surface of doors) or any other portion of the Condominium without the prior written approval of the Executive Board.

3.8 Utilities. The utilities serving the Units and Common Areas of the Condominium are as follows:

3.8.1 Each Unit is separately metered for electricity.

3.8.2 Each Unit is served by its own separately metered natural gas line, and each unit owner is responsible for any cost related to the use thereof.

3.8.3 Each Unit shall be served by one or more heating or heating and cooling systems. Each unit owner is responsible for their own heating costs, including operating costs, repair, maintenance and replacement costs, if necessary, of heating and cooling systems serving such unit owner's Unit.

3.8.4 Each Unit shall be served by a heat-recovery ventilation system. Each unit owner is responsible for their own use of the heat-recovery ventilation system including operating costs, repair, maintenance and replacement costs, if necessary.

3.8.5 There is a separate electric meter for all Common Area lighting and other common area electric usage, including any central heating or ventilation systems.

3.8.6 There is a single shared water meter for the condominium. Water and sewer charges shall be shared by the Units based on the allocations of shared expenses defined in Schedule B.

ARTICLE IV
COMMON ELEMENTS, LIMITED COMMON ELEMENTS
AND APPLICABLE PROVISIONS

4.1. Common Elements. The Common Elements are shown on the Plans.

4.2. Allocation of Limited Common Elements. The location and dimensions of the Limited Common Elements, except for the portions of the Property described as Limited Common Elements pursuant to Sections 1602-102(2) and (4) of the Act, and the identification of the Unit or Units to which the Limited Common Elements are hereby allocated, are described in this Paragraph 4.2, and on the Plat and Plans. The allocation of Limited Common Elements to the Units cannot be altered except in compliance with Section 1602-108(b) of the Act at the expense of the Owners of the Units involved and with the written consent of the Owners and Eligible Mortgage Holders of record of the Units affected by the reallocation of Limited Common Elements. The following portions of the Common Elements serving fewer than all the Units, but located outside those Units' boundaries, are each allocated as a Limited Common Element to the Unit or Units which it serves:

4.2.1. The storage area depicted on the Plans as Limited Common Elements to the respective Unit served.

4.2.2. Any hallways, stairways, landings and doorways, waiting areas or reception areas, storage spaces, porches and decks depicted on the Plat and Plans as Limited Common Elements to the respective Unit served.

4.2.3. Doors leading from the Unit to the Common Elements or Limited Common Elements and any associated door paneling, frames, glassware, buck, trim, sills and hardware including lock, hinges and closure but not including the interior surface of the doors, which are part of the Unit.

4.2.4. Windows and any shutters, awnings, decorative grating and window boxes designed to serve the Unit.

4.3. Common Elements to Remain Undivided. The Common Element Interest of a Unit shall be inseparable from each Unit, and any conveyance, lease, devise or other disposition or mortgage or other encumbrance of any Unit shall extend to and include the Common Element Interest, whether or not expressly referred to in the instrument effecting such transfer. The Common Elements shall remain undivided and no action for partition or division of any part thereof shall be permitted, unless otherwise provided by law and permitted by this Declaration.

4.4. Use of Common Elements. Except as their use may otherwise be limited by this Declaration or the By-Laws or otherwise by the Executive Board pursuant to its powers, each Unit Owner, tenant and occupant of a Unit, and the guests, customers, clients, agents and employees of such Unit Owner, tenant and occupant, may use the Common Elements in common with all other Unit Owners and tenants or occupants of other Units, and their respective guests, customers, clients, agents and employees, in accordance with the purposes for which they are intended, without hindering or encroaching upon the lawful rights of the other Unit Owners, upon the following terms:

4.4.1. No signs of any character shall be erected, posted or displayed upon, in, from or about any Unit or Common Element without the prior written approval of the Executive Board.

4.4.2. No Unit Owner shall obstruct any of the Common Elements nor shall any Unit Owner place or cause anything to be placed on or in any of the Common Elements (except those areas designated for such storage by the Condominium Documents or the Executive Board) without the approval of the Executive Board.

4.4.3. The Executive Board, the Association and any Unit Owner shall not be considered a bailee of any personal property stored on the Common Elements, whether or not exclusive possession of the particular area is given to a Unit Owner, and shall not be responsible for the security of such personal property or for any loss or damage thereto, whether or not due to negligence, except to the extent covered by insurance in excess of any applicable deductible.

4.5 Stormwater Maintenance System. Notwithstanding anything else in this Declaration the individual components of the Stormwater Maintenance System are a Common Element.

ARTICLE V
EASEMENTS; RIGHTS OF WAY AND LICENSES; PARKING; STORMWATER
MAINTENANCE

5.1. Recorded Easements and Licenses. The Condominium benefits from the following recorded easements and licenses:

5.1.1 A right of way and utility easement across 128 North Street granted by Elmore W. Ramsdell to Claire Bowden, dated July 25, 1923, and recorded in the Cumberland County Registry of Deeds at Book 1143, Page 307.

5.2 Parking; ADA Compliant Parking. The Condominium shall initially include six (6) parking spaces for Unit Owners with one space assigned to Units 2-5, and two spaces assigned to Unit 6 as a Limited Common Element. “On-street” parking may also be available on the public streets nearby in accordance with the City of Portland ordinances, rules and regulations. Additional parking shall be added as part of Phase 2, and the allocation of such parking as limited elements shall be included in the amendment contemplated in Section 2.5(B).

A limited common element parking space, including the parking spaces which are designed to meet accessibility needs under the American’s with Disabilities Act, may be reassigned by an amendment to this Declaration in accordance with section 1602-108(b) of the Act. Any owner wishing to reassign a limited common element parking space shall submit to the Association the language of a proposed amendment and such additional details as the Association may reasonably require. The proposed amendment must be approved by vote or agreement of the owner of each unit particularly affected, and the owners of the units to which 70% of the votes of the association are allocated. If approved by unit owners, the amendment shall be recorded in the registry of deeds. The Association shall determine which unit or units are “particularly affected”. Unit owners

seeking approval under this paragraph shall pay a fee of \$500 and all costs incurred by the Association in connection with the application, including preparation of the amendment, recording costs and attorney's fees. The Association shall approve any amendment submitted to reassign a van accessible, ADA compliant, parking space from a person without a physical disability to a person with a condition or impairment that substantially limits his or her mobility who requires such an ADA compliant space. No fee shall be charged under such circumstances, but legal fees and other expenses shall be the responsibility of the applicant.

5.2.1 Parking Space Assignment; Vehicle Restrictions. The parking spaces are subject to the following restrictions and assigned to the following Units as limited common elements:

#	Maximum Vehicle Characteristics			Unit	Notes
	Wheel Base	Length	Width		
1	9.3'	16.5'	6.5'	6	ADA Compliant
2	8.6'	15.8'	6'	2	Mid-Size
3	8.5'	15.8'	6'	4	Mid-Size
4	8.5'	14.5'	5.8'	6	Compact
5	9.3'	16.5'	6.5'	3	Full-Size/SUV
6	9.3'	16.5'	6.5'	5	Full-Size/SUV

5.3 Stormwater Maintenance Agreement. The Association shall maintain the Stormwater Maintenance System and shall undertake as common expenses all costs necessary to meet the obligations of the Stormwater Maintenance Agreement, dated _____, 2020, and attached hereto as Exhibit B.

ARTICLE VI NOTICES TO UNIT OWNERS BY ASSOCIATION, ETC.

6.1. To Unit Owners. All notices, demands, bills, statements or other communications affecting the Condominium given to Unit Owners by the Association shall be in writing and shall be deemed to have been duly given if delivered personally securing a receipt therefor or sent by United States mail, postage prepaid, or if such notification is of a default or lien, sent by registered or certified United States mail, return receipt requested, postage prepaid, addressed to the Unit Owner at the address which the Unit Owner shall designate in writing and file with the Secretary of the Association or managing agent, or if no such address is so designated, the address of the Unit of such Unit Owner who is the record owner thereof.

6.2. To the Association. All notices, demands, statements or other communications affecting the Condominium given by the Unit Owners to the Association shall be in writing and shall be deemed to have been duly given to the Association if delivered personally securing a receipt therefor, or sent by United States mail, postage prepaid, return receipt requested, addressed to the Association at the principal office of the managing agent, or if there shall be no managing agent, then to the Secretary of the Association at the address of the Unit of which the Secretary is the record Unit Owner.

6.3. To Eligible Mortgage Holder. All notices, demands, statements or other communications affecting the Condominium given by the Association to any Eligible Mortgage Holder shall be in writing and shall be deemed to have been duly given by the Association if delivered personally securing a receipt therefor, or sent by United States mail, postage prepaid, addressed to the Eligible Mortgage Holder at the address identified pursuant to subparagraph 1.2.10 by virtue of which it became an Eligible Mortgage Holder.

ARTICLE VII EASEMENTS

The following easements and rights are hereby granted or reserved:

7.1. Utilities, Pipes and Conduits. Each Unit Owner shall have an easement in common with all other Unit Owners to use all pipes, wires, ducts, cables, conduits, public utility lines and other Common Elements serving such owner's Unit and located in any of the other Units. Each Unit shall be subject to an easement in favor of all other Unit Owners to use the pipes, ducts, cables, wires, conduits, public utility lines and other Common Elements serving such other Units and located in such Unit. The Association acting through its Executive Board shall have the right to grant to third parties additional permits, licenses and easements over and through the Common Elements for utilities, and other purposes reasonably necessary or useful for the proper maintenance and operation of the Condominium.

7.2. Ingress and Egress. Each Unit Owner, and the partners, guests, employees, tenants, sub-tenants, invitees, agents, contractors and licensees of the Unit Owner, shall have an easement, subject to the provisions of the Declaration and any Rules and Regulations established by the Executive Board, in common with all other Unit Owners, to use the entrances, exits, Common Element corridors, elevator, and hallways, Common Element stairways and other Common Elements as a means of ingress and egress to and from the Property and the adjoining public streets.

7.3. Condominium Association and Executive Board Access. The Association and its Executive Board, officers, agents and employees, and the managing agent and

every other person authorized by the Executive Board shall have the irrevocable right and easement to have access to each Unit as provided in Section 1603-107(a) of the Act as may be necessary for the inspection, maintenance, repair or replacement of any of the Common Elements and Limited Common Elements therein or accessible therefrom for the making of any additions or improvements thereto, or to make repairs to any Unit, Common Elements or the Limited Common Elements if such repairs are reasonably necessary for public safety or to prevent damage to any other Unit or Units, the Common Elements or Limited Common Elements, or to abate any violation of law, orders, rules or regulations of the Association or of any governmental authorities having jurisdiction thereof. In case of an emergency, such right of entry shall be immediate whether or not the Unit Owner is present at that time.

7.4. Encroachments. Each Unit shall have an easement to the extent necessary for structural and subjacent support over every other Unit and over the Common Elements, and each Unit and the Common Elements shall be subject to an easement for structural and lateral support in favor of every other Unit. If any portion of the Common Elements or Limited Common Elements hereafter encroaches upon any Unit, or if any Unit hereafter encroaches upon any other Unit or upon any portion of the Common Elements or Limited Common Elements, as a result of settling or shifting of the Building or otherwise than as a result of the purposeful or negligent act or omission of the Owner of the encroaching Unit, or of the Association in the case of encroachments by the common Elements or Limited Common Elements, a valid easement appurtenant to the encroaching Units, Common Elements or Limited Common Elements for the encroachment and for the maintenance of the same shall exist for so long as the encroachment shall exist. In the event that the Building shall be partially destroyed as a result of fire or other casualty or as a result of a taking by the power of, or in the nature of, eminent domain or by an action or deed in lieu of condemnation, and then is rebuilt, encroachments of a portion or portions of the Common Elements or Limited Common Elements upon any Unit or of any Unit upon any other Unit or upon any portion of the Common Elements or Limited Common Elements, due to such rebuilding, shall be permitted, and valid easements appurtenant to the encroaching Units, Common Elements or Limited Common Elements for such encroachments and the maintenance thereof shall exist so long as the Building as so rebuilt shall stand.

7.5. Common Elements Easement in Favor of Unit Owners.

The Common Elements (including, but not limited to, the Limited Common Elements) shall be and are hereby made subject to the following easements in favor of the Units benefited:

7.5.1. For the installation, repair, maintenance, use, removal and/or replacement of pipes, ducts, heating and air conditioning systems, electrical, telephone

and other wiring and cables for communication, intelligence, information storage, retrieval or processing, computer operations, and word processing and all other utility lines and conduits which are a part of or serve any Unit and which pass across or through a portion of the Common Elements.

7.5.2. For the installation, repair, maintenance, use, removal and/or replacement of lighting fixtures, electrical receptacles, panel boards and other electrical installations which are a part of or serve any Unit but which encroach into a part of the Common Elements adjacent to such Unit; provided that the installation, repair maintenance, use, removal or replacement of any such item does not unreasonably interfere with the common use of any part of the Common Elements, adversely affect either the thermal or acoustical character of the Building or impair or structurally weaken the Building.

7.5.3. For driving and removing nails, screws, bolts and other attachment devices into the Unit side surface of the studs which support the dry wall or other perimeter walls bounding the Unit, the bottom surface of floor joists above the Unit and the top surface of the floor joists below the Unit to the extent such nails, screws, bolts and other attachment devices may encroach into a part of the Common Elements adjacent to such Unit; provided that any such action will not unreasonably interfere with the common use of any part of the Common Elements, adversely affect either the thermal, aesthetic or acoustical character of the Building or impair or structurally weaken the Building.

ARTICLE VIII ASSESSMENTS FOR COMMON EXPENSES AND MAINTENANCE OF PROPERTY

8.1. Allocation and payment of Assessments of Common Expenses. The total amount of Common Expenses shall be assessed against the Units in the following proportions:

8.1.1. The Common Expenses that are not assessed as Limited Common Expenses shall be assessed against all the Units in proportion to the relative Common Expense Liabilities of all the Units.

8.1.2. (a) If a Limited Common Expense benefits more than a single Unit, that Limited Common Expense shall be assessed solely against all the Units benefited in proportion to the relative Common Expense Liabilities of such Units as between themselves, as the Executive Board shall periodically determine, (b) if a Limited Common Expense only benefits a single Unit, that Limited Common Expense shall be assessed solely against the Unit benefited, as the Executive Board shall periodically

determine, (c) to the extent that utilities are not separately metered to the Units and notwithstanding anything to the contrary contained herein or in the By-Laws, the costs of utilities may be assessed against the Units in proportion to usage as the Executive Board may periodically determine, and (d) any additional costs of insurance shall be assessed against Units as a Limited Common Expense on the basis of any additional premiums charged due to the contents, characteristics or features of a particular Unit as more particularly provided in Paragraph 14.2., which additional costs the Executive Board shall periodically determine on the basis of the advice of the insurance company described in Paragraph 14.2., provided, however, (e) if a Limited Common Expense is associated with the maintenance, repair or replacement of a Limited Common Element, that Limited Common Expense shall be assessed solely against all the Units to which that Limited Common Element is allocated in proportion to the relative Common Expense Liabilities of such Units as between themselves, as the Executive Board shall determine.

8.1.3. The cost of utilities serving the Condominium not individually metered to a Unit shall be Common Expenses or Limited Common Expenses assessed pursuant to subparagraphs 8.1.1. and 8.1.2.

8.2. Payment of and Lien for Assessments.

8.2.1. Commencing no later than sixty (60) days after the first unit is conveyed, each unit owner, including the Declarant, shall pay to the Association or its authorized representative (1) on the first day of each month, or on such other date that the Association may determine in writing, one-twelfth (1/12th) of the Common Expenses including Limited Common Expenses, and revised Common Expenses including revised Limited Common Expenses, assessed on an annual basis against such owner's Unit in the proportions required in Paragraph 8.1. and (2) all special assessments, any other sum duly levied against the Unit pursuant to this Declaration, the By-Laws or the Act, including Limited Common Expenses assessed against Unit Owners for maintenance, repair or replacement of a Limited Common Element pursuant to Paragraph 8.4., all interest thereon and charges for late payment thereof and legal fees and other costs of collection thereof, and fines, penalties and fees as provided by this Declaration, the By-Laws or the Act, on the first day of the next month which begins more than ten (10) days after delivery to the Unit Owner of notice of such special assessment or levy or on such other date that the Association may determine in writing. If for any reason the Association shall revise the annual budget of the Association whereby the Common Expenses or any component thereof may be increased, then commencing on the first day of the first month subsequent to the adoption of such revised budget each Unit Owner shall pay to the Association or its authorized representative such revised annual Common Expenses including Limited Common Expenses assessed against his Unit in the proportions required in Paragraph 8.1.

8.2.2. The total annual assessment levied against each Unit for Common Expenses including Limited Common Expenses, revised Common Expenses including revised Limited Common Expenses, or any special assessment, and any other sums duly levied against the Unit pursuant to this Declaration, the By-Laws, or the Act, including Limited Common Expenses assessed against Units for maintenance, repair or replacement of a Limited Common Element pursuant to Paragraph 8.4., all interest thereon and charges for late payment thereof, legal fees and other costs of collection thereof, and fines, penalties and fees as provided in this Declaration or the By-Laws shall constitute the personal liability of the Owner of the Unit so assessed and also shall, until fully paid, constitute a lien against the Unit in favor of the Association as provided in Section 1603-116 of the Act. Such lien shall, with respect to annual assessments and revised annual assessments, be effective on the first day of each fiscal year of the Association as to the full amount of the annual assessment or revised annual assessment, and, as to special assessments and other sums duly levied including Limited Common Expenses assessed against a Unit Owner for maintenance, repair or replacement of a Limited Common Element pursuant to Paragraph 8.4., interest, charges for late payment, legal fees, costs of collection, fines, penalties and fees as described in subparagraph 8.2.1., on the first day of the next month which begins more than ten (10) days after delivery to the Unit Owner of notice of such special assessment or levy. In any case where an assessment against a Unit Owner is payable in installments, upon a default by such Unit Owner in the timely payment of any two consecutive installments, the maturity of the remaining total of the unpaid installments of such assessments may be accelerated at the option of the Executive Board, and the entire balance of the assessment may be declared due and payable in full by the service of notice to such effect upon the defaulting Unit Owner by the Executive Board or its representative. Such lien is prior to all other liens and encumbrances on a Unit except (a) liens and encumbrances recorded before the recordation of this Declaration, (b) a first Mortgage recorded before or after the date which the assessment sought to be enforced becomes delinquent, and (c) liens for real estate taxes and other governmental assessments or charges against the Units; provided, however, that such lien is not subject to the provisions of 14 M.R.S.A. Section 4651 or 4651-A and 18-A M.R.S.A. Section 2-201, et seq., as they or their equivalents may be amended or modified from time to time.

8.2.3. The lien for assessments described in subparagraph 8.2.2. may be enforced and foreclosed by the Association in like manner as a mortgage on real estate as provided in Section 1603-116(a) of the Act or by any other means presently or hereafter provided by law or in equity. A suit to recover a money judgment for unpaid assessments, interest, penalties, and costs of collection may be maintained against the Unit Owner personally without foreclosing or waiving the lien securing such assessments and a foreclosure may be maintained notwithstanding the pendency of any suit to recover a money judgment. During the pendency of any such suit, the Unit Owner shall be required

to pay a reasonable rental for the Unit for any period prior to sale pursuant to any judgment or order of any court having jurisdiction over such sale.

8.2.4 In addition to the regular monthly payments of Common Expenses as set forth herein, each purchaser of a Unit from the Declarant shall pay to the Association a special assessment at the time of closing equal to two (2) times the estimated monthly assessment to provide a working capital reserve fund for the Association.

8.3. Reduction of Expenses and Surplus Funds. All receipts from payments, fees or charges for the use, rental or operation of any and all Common Elements shall be applied first to reduce the Common Expense relating to the use of that Common Element giving rise to such Common Expense and any excess thereof shall be applied to Common Expenses generally; and all receipts from any assessments for Limited Common Expenses shall be applied first to reduce the Limited Common Expense relating to the service afforded to the Unit benefited and any excess shall then be applied to reduce until exhausted the subsequent monthly installments of Common Expenses assessed against the Unit benefited. Any amounts accumulated from assessments for Common Expenses, income from interest on reserves, and income from the operation of the Common Elements to which such Common Expenses pertain in excess of the amount required for actual Common Expenses and provision for Common Expenses and any payment of reserves shall be credited to each Unit Owner in proportion to their respective Common Expense Liabilities to reduce until exhausted the next monthly installments due from Unit Owners.

8.4. Limited Common Elements, Maintenance. Each Unit Owner shall be solely responsible for the maintenance and repair of the portion of the Building allocated to such Unit Owner's Unit as a Limited Common Element, including without limitation the respective portions of the basement, storage areas and garage. Notwithstanding the foregoing, the Association may maintain, repair and replace any Limited Common Elements if the Association determines such repair and replacement is necessary to maintain the safety, integrity and value of the Building and the Units. In such event, the Association shall assess as a Limited Common Expense expenses associated with the maintenance, repair or replacement of such Limited Common Element against the Units to which the Limited Common Element is assigned or appurtenant in proportion to the relative Common Expense Liabilities of such Units as between themselves, provided that the Association shall also have the right to assess an individual Unit for Limited Common Expenses associated with said purposes applicable to such Unit if the Limited Common Expense shall be incurred due to the negligence, neglect or misconduct of the Owner of such Unit or if the item giving rise to the expense shall be for the benefit of that Unit only.

8.5. Maintenance of Common Elements. The Association shall be responsible for the maintenance, repair and replacement (unless, if in the opinion of the Executive Board such expense was necessitated by the negligence, misuse or neglect of a Unit Owner) of all of the Common Elements (subject to Paragraph 8.4. regarding the Limited Common Elements) whether located inside or outside of the Units, the cost of which shall be charged to the Unit Owners as a Common Expense except as otherwise provided in Paragraph 8.4. with regards to Limited Common Elements. The maintenance, repair and replacement of Common Elements located within a Unit, or for which the Unit Owner is otherwise responsible, to the extent required for the functioning of or for connecting utilities to the Property and Units shall be furnished by the Association as part of the Common Expenses or, if fewer than all of the Units are benefited, the Limited Common Expenses. Any Unit Owner permitted by the Executive Board to use a specific portion of the Common Elements for storage is responsible for the maintenance and care of such portion and shall use the same in a safe and sanitary manner.

8.6. Maintenance of Unit. Each Unit Owner shall keep and maintain such unit owner's Unit and the Limited Common Elements allocated to each Unit Owner's Unit, if any, and its equipment, appliances and appurtenances in good order, condition and repair and in a clean and sanitary condition, whether such maintenance and repair shall be structural or nonstructural, ordinary or extraordinary, and shall do all redecorating, painting and varnishing which may at any time be necessary to maintain the good appearance and condition of the Unit or such Limited Common Element, provided, however, no Unit Owner shall change the appearance of the exterior of the Building without the prior written consent of the Executive Board. The Unit Owner shall maintain the interior surfaces of windows in the Units including periodic washing. No Unit Owner shall sweep or throw, or permit to be swept or thrown, from the Unit any dirt, debris or other substance. In addition, each Unit Owner shall be responsible for all damage to any other Units or to the Common Elements resulting from such owner's failure or negligence to make any of the repairs required by this Article. Each Unit Owner shall perform such owner's responsibility in such manner as shall not unreasonably disturb or interfere with the other Unit Owners. Each Unit Owner shall promptly report to the Executive Board or the managing agent any defect or need for repairs for which the Association is responsible.

8.7. Liability of Owner. Each Unit Owner shall be liable, and the Association shall have a lien against such Owner's Unit for, the expense of maintenance, repair or replacement of any damage to the Common Elements including Limited Common Elements or of another Unit caused by such Unit Owner's act, neglect or carelessness or by that of such Unit Owner's guests, employees, agents, or lessees which the Association shall have the right to cure, correct, maintain, repair or replace. Such liability shall include any increase in fire insurance rates occasioned by use, misuse, occupancy, or abandonment of any Unit or its appurtenances. Nothing herein contained, however, shall

be construed so as to modify any waiver by insurance companies of rights of subrogation against such Unit Owner.

8.8. Maintenance Responsibilities. Notwithstanding the ownership of the various portions of the Common Elements and the Units by virtue of the descriptions of the boundaries of Units provided in this Declaration, the Units and Common Elements shall be maintained and repaired by each Unit Owner and the Association in accordance with the provisions of Section 1603-107(a) of the Act, except as expressly set forth to the contrary in this Declaration.

ARTICLE IX ASSOCIATION OF UNIT OWNERS; VOTING

9.1. The Association, Powers. The membership of the Association at all times shall consist exclusively of all Unit Owners, or, following any termination of the Condominium as provided in Section 1602-118 of the Act, of all former Unit Owners entitled to distributions of proceeds under said Section 1602-118, or their heirs, successors or assigns, but shall not include persons having an interest in a Unit solely as security for an obligation. Each Unit Owner shall automatically become and be a member of the Association as long as such owner continues as a Unit Owner and upon the termination of the interest of the Unit Owner in the Condominium such owner's membership and any interest in the common funds of the Association shall thereupon automatically terminate and transfer and inure to the next Unit Owner or Owners succeeding in interest. Except as otherwise provided in Section 1603-103(b) of the Act, the Association shall have all the powers granted pursuant to Section 1603-102 of the Act.

9.2. Executive Board. The affairs of the Association shall be governed by an Executive Board composed of three (3) natural persons, all of whom shall be Unit owners or spouses of Unit Owners or in the case of a Unit Owner which is a corporation, partnership, limited liability company, trust or estate, a designated agent thereof. Notwithstanding the above requirements, the initial Executive Board shall be elected by the incorporator of the Association and shall serve until the earlier of (i) at least two (2) units have been sold, or (ii) the third annual meeting.

9.3. Votes. The Votes in the Association allocated to each Unit are stated in Schedule B. Unless by express provisions of the Act, the By-Laws or this Declaration a different vote is required, each question presented at a meeting of the Association shall be determined by the affirmative vote of Owners of Units to which are allocated no less than sixty-six percent (66%) of the Votes in the Association. Provided, however, that notwithstanding any provision to the contrary contained in the By-Laws or this

Declaration, the affirmative vote of one hundred percent (100%) of all of the Unit Owners shall be required for the Association to act on any of the following matters: termination of the Condominium pursuant to Section 1602-118 of the Act; merger or consolidation of the Condominium with another condominium; conveyance or subjection to a security interest of any portion of the Common Elements; use of any proceeds of insurance required to be maintained by the Association pursuant this Declaration or any eminent domain awards or proceeds for purposes other than repair and restoration of the damaged Property in accordance with the Condominium Documents, the original elevation thereof and the original building plans and specifications therefor; and amendments to the Condominium Documents which govern or regulate (a) voting, (b) assessments, assessment liens or subordination of such liens, (c) reserves for replacement, repair and replacement of the Common Elements or Units, if applicable, (d) insurance or fidelity bonds, (e) responsibility for maintenance and repair of the Common Elements and the Units, (f) leasing of Units, or (g) imposition of any right of first refusal or similar restriction on the right of a Unit Owner to sell, transfer, or otherwise convey or lease an owner's Unit.

9.4. Voting. The Votes in the Association allocated to a Unit can only be cast as a unit and cannot be split. If a Unit is owned of record by one person, that Unit owner's right to cast all the Votes allocated to that Unit shall be established by the record title to the Unit, provided, however, that such person's spouse or designated agent may cast the Votes allocated to such Unit if authorized to do so in a certificate executed by the Unit Owner and filed with the Secretary of the Association, which certificate shall be valid until revoked by a subsequent certificate similarly executed and filed with the Secretary of the Association. If ownership of a Unit is in more than one person, the person who shall be entitled to cast all the Votes allocated to that Unit shall be the person named in a certificate executed by all of the Owners of such Unit and filed with the Secretary of the Association. If ownership of a Unit is in a corporation, partnership, limited liability company, limited liability partnership, trust or estate, the officer or employee of that corporation, general partner of that partnership, member of that limited liability company, or partner of that limited liability partnership, trustee of that trust, or agent of that estate, entitled to cast for the corporation, partnership, limited liability company, limited liability partnership, trust or estate the Votes allocated to such Unit shall be designated in a certificate for that purpose executed by the president or a vice president of that corporation, and attested to by the secretary, assistant secretary or clerk of that corporation, executed by all the general partners of that partnership, executed by all the managing members or members with sufficient authority of that limited liability company, executed by the managing partner or partners with sufficient authority of that limited liability partnership, executed by all the trustees of that trust, or executed by either all the devisees of that estate or by order of the probate court and filed with the Secretary of the Association. Such certificates of multiple owners, corporations, partnerships, limited liability companies, limited liability partnerships, trusts or estates shall be valid until

revoked by a subsequent certificate similarly executed and filed with the Secretary of the Association. Wherever the vote, approval or disapproval of a Unit Owner is required by this Declaration or the Act, such vote, approval or disapproval shall be made only by the person who would be entitled pursuant to such certificate to cast at any meeting of the Association the Votes allocated to such Unit. If the person named or designated in said certificate for a particular Unit shall be absent from a meeting of the Association, no person may cast the Votes allocated to that Unit at the meeting although the presence at the meeting of a non-named or non-designated co-Owner or member, officer, employee, agent or designee of such Owner shall be counted in determining whether a quorum is present. If a multiple Owner of a Unit that is not a corporation, partnership, limited liability company, limited liability partnership, trust or estate has failed to file said certificate with the Secretary of the Association and only one of the multiple Owners is present at a meeting of the Association, he shall be entitled to cast at the meeting all the Votes allocated to that Unit without establishing the concurrence of the absent Owners just as though that person were the sole Owner of the Unit. If a multiple Owner of a Unit that is not a corporation, partnership, limited liability company, limited liability partnership, trust or estate has failed to file said certificate with the Secretary and if more than one Owner of that Unit is present at the meeting, the Votes allocated to that Unit may be cast only in accordance with the agreement of a majority of the multiple Owners present at the meeting. Such majority agreement shall be conclusively presumed if any one of those multiple Owners shall cast the Votes allocated to the Unit without protest being promptly made to the person presiding over the meeting by any other Owners of that Unit. No Votes allocated to a Unit owned by the Association may be cast.

ARTICLE X

RESTRICTIONS ON USE, OCCUPANCY AND ALIENATION OF UNITS

10.1. Use and Occupancy Restrictions on Units. Each Unit shall be occupied and used subject to the following restrictions:

10.1.1. All Units are restricted to residential use, which shall not preclude leasing or rental, subject, however, to the requirement that rentals or leases of any nature (including, without limitation, any rentals facilitated through any third-party/online services such as Airbnb, Homeaway.com or VRBO) shall comply with the restrictions contained in this Declaration, the By-Laws of the Association, and any Rules & Regulations promulgated by the Association in accordance with its By-Laws.

10.1.2. Nothing shall be done or kept in any Unit or in the Common Elements which will increase the rate of insurance for the Property or any part thereof without the prior written consent of the Executive Board. No Unit Owner shall permit anything to be done or kept in such Owner's Unit or in the Common Elements which will result in the cancellation of insurance on the Property or any part thereof or which would

be in violation of any law, regulation or administrative ruling. No waste will be committed on the Common Elements.

10.1.3. No Unit shall be used so as to create a nuisance or an unreasonable interference with the peaceful possession and occupation or proper use of any other Unit or the Common Elements.

10.1.4. No Owner or occupant of any Unit shall carry on, or permit to be carried on, any practice which unreasonably interferes with the quiet enjoyment and proper use of another Unit or the Common Elements by the Owner or occupant of any other Unit, or which creates or results in a hazard or nuisance on the Property.

10.1.5. The Association shall have the power to regulate the keeping of pets and animals in such manner as may be prescribed from time to time in any Rules and Regulations established by the Executive Board.

10.1.6. No Unit Owner shall remove any of the acoustical, sound-deadening, or fire-resistant material from the walls, floors or ceilings of such owner's Unit without replacing the same with acoustical, sound-deadening, or fire resistant materials of equal or greater sound-deadening or fire-resistant ratings or qualities. No Unit Owner shall remove any of the acoustical, sound-deadening, or fire-resistant materials from the Common Elements surrounding such owner's Unit without the prior written consent of the Executive Board.

10.1.7. Trash, garbage and other waste shall be kept only in sanitary containers and shall be disposed of in such manner as may be prescribed from time to time in any Rules and Regulations established by the Executive Board.

10.1.8. No Unit Owner shall overload the electrical wiring in the Building or operate any machinery, appliances, accessories or equipment in such a manner as to cause, in the reasonable judgment of the Executive Board, any unreasonable disturbance or make any alterations, repairs or modifications to or connections with the electrical or plumbing systems without the prior written consent of the Executive Board.

10.1.9. Each Unit Owner shall maintain sufficient heat inside his Unit to prevent the pipes running through the Unit from freezing or cracking from the effects of cold weather. The Unit Owner shall be liable to the Association for the costs and expenses of repairing all damage inflicted on another Unit or the Common Elements due to freezing, breaking, or cracking of pipes caused by the Unit Owner's failure to comply with the requirements of this subparagraph.

10.2. Leasing Restrictions. No Unit Owner shall lease a Unit other than on written form of lease requiring the lessee to comply with the Condominium Documents. The Owner of a Unit shall, promptly following the execution of any lease of that Unit, notify the Association in writing of the name of the tenant and the term of the lease and any options in the lease to renew extend or purchase.

10.3. Voluntary Resale of Units. The following provisions apply to the sales of Units:

10.3.1. No Unit Owner shall be liable for the payment of any part of the Common Expenses assessed against such owner's Unit subsequent to the date of recordation of a conveyance in fee of such Unit by the Owner. In a voluntary transfer of a Unit, the grantee of the Unit shall be jointly and severally liable with the grantor for all unpaid assessments and special assessments for Common Expenses made by the Executive Board against the latter up to the time of the recordation of grantor's transfer, without prejudice to the grantee's right to recover from the grantor the amounts paid by the grantee therefor. However, any person who shall have entered into an agreement to purchase a Unit from a Unit Owner shall be entitled to a certificate from the Executive Board as provided by Section 1604-108(b) of the Act prepared at the expense of the person so requesting the same, and the grantee shall not be liable for, nor shall the Unit conveyed be subject to a lien for, any assessments or unpaid special assessments made by the Executive Board against the grantor for Common Expenses in excess of those disclosed on such certificate. A voluntary transfer for the purpose of this subparagraph 10.3.1. shall be considered any sale, lease, gift, testate or intestate distribution, or the transfer of ownership of a corporation owning a Unit.

10.3.1. In contemplating and executing any voluntary resale or transfer of the Workforce Unit (Unit 1), the owner of the Workforce Unit and the Association will cooperate with the City of Portland to ensure compliance with the eligibility restrictions imposed on the Workforce Unit, as well as to comply with the City's implementing regulation for income verification and any additional terms contained in the Affordable Housing Agreement between the City and the Declarant dated _____, 2020.

ARTICLE XI

MORTGAGES OF UNITS; RIGHTS OF MORTGAGEES

11.1. Right to Mortgage. Each Unit Owner shall have the right to mortgage or encumber such owner's Unit together with its appurtenant Allocated Interests. Except as otherwise permitted by Section 1603-112 of the Act and subject to this Declaration, no Unit Owner shall have the right or authority to mortgage or otherwise encumber in any manner whatsoever the Common Elements or any part thereof.

11.2. Identification of Mortgagee. A Unit Owner who mortgages his Unit shall notify the Executive Board in writing of the name and address of such owner's Mortgagee(s). Failure to provide such notice, however, shall not affect in any way any Mortgage or the validity or enforceability thereof.

11.3. Mortgage Foreclosure. Any Mortgagee holding a recorded first Mortgage on a Unit that obtains title to the Unit pursuant to the remedies provided in the Mortgage, or through a completed foreclosure of the Mortgage, or through deed (or assignment) in lieu of foreclosure, shall take the Unit with the Allocated Interests appurtenant thereto free of any claims or liens for unpaid assessments for Common Expenses, interest and costs levied against such Unit which accrue prior to the acquisition of title to such Unit by the Mortgagee, other than the proportionate share of the Common Expenses which become due and payable from and after the date on which the Mortgagee shall acquire title to the Unit through a completed foreclosure or deed (or assignment) in lieu of foreclosure.

11.4. Notices to Eligible Mortgage Holder. The Association shall send reasonable prior written notice by prepaid United States mail to each Eligible Mortgage Holder of the following proposed actions or events either within a reasonable period prior to the taking of any of such proposed actions or at the time that notice thereof is given to the Unit Owner or Owners:

11.4.1. The termination of the Condominium pursuant to Section 1602-118 of the Act.

11.4.2. A change in the Allocated Interests of a Unit, or a change in the boundaries of a Unit or a subdivision of a Unit;

11.4.3. The merger or consolidation of the Condominium with another condominium;

11.4.4. The conveyance or subjection to a security interest of any portion of the Common Elements;

11.4.5. The proposed use of any proceeds of hazard insurance required to be maintained by the Association pursuant to the Declaration or the By-Laws for purposes other than the repair or restoration of the damaged property;

11.4.6. Any default in the performance or payment by a Unit Owner of any obligations under the Declaration or By-Laws, including, without limitation, default in the

payment of Common Expense Liability, which default continues for a period exceeding sixty (60) days;

11.4.7. Any condemnation or casualty loss that affects either a material portion of the Condominium or the Unit securing the Mortgage;

11.4.8. A lapse, cancellation or material modification of any insurance policy or fidelity bond maintained by the Association, and

11.4.9. Any proposed action that requires the consent of a specified percentage of the Eligible Mortgage Holders as specified in Paragraph 11.5.

In the event of any proposed actions described in subparagraphs 1, 2, 3, 4, or 5 above, an Eligible Mortgage Holder shall have the right, but not the obligation, in place of the Unit Owner, to cast the Votes allocated to that Unit or give or withhold any consent required of the Unit Owner for such action by delivering written notice to the Association with a copy to the Unit Owner prior to or at the time of the taking of the proposed action, which notice shall be sent by prepaid United States mail, return receipt requested, or by delivery in hand. Failure of the Eligible Mortgage Holder to so exercise such rights shall constitute a waiver thereof and shall not preclude the Unit Owner from exercising such right. In the event of any default described in subparagraph 6 above, the Eligible Mortgage Holder shall have the right, but not the obligation, to cure such default.

In addition, an Eligible Mortgage Holder or its representative shall have the right to attend Association and Executive Board meetings for the purposes of discussing the matters described in subparagraphs 1 through 5 above.

11.5. Mortgagee Approval Rights. Except as may be otherwise set forth in this Declaration or in the By-Laws, where approval by a specified percentage of Eligible Mortgage Holders is required, such approval shall be based upon one (1) vote for each Unit on which a Mortgage is held.

11.5.1. The prior written approval of sixty (60%) percent of the Eligible Mortgage Holders shall be required to: (a) terminate or abandon the Condominium for reasons other than substantial destruction or condemnation of the Condominium and (b) abandon, partition, subdivide, encumber, sell or transfer any of the Common Elements (except for granting easements for utilities or other public purposes consistent with the intended use of the Common Elements) by act or omission.

11.5.2. The prior written approval of at least sixty (60%) percent of the Eligible Mortgage Holders shall be required for the termination or abandonment of the

Condominium as a result of condemnation or substantial loss to the Units, Common Elements, or both.

11.5.3. The prior written approval of at least sixty (60%) percent of the Eligible Mortgage Holders shall be required to use property insurance and eminent domain proceeds for losses to any Condominium Property (whether to Units or to Common Elements) for other than the repair, replacement restoration of the Property substantially in accordance with this Declaration, the By-Laws, the Plat and Plans, and the original elevation thereof and the original building plans and specifications.

11.5.4. The prior written approval of at least sixty percent (60%) of the Eligible Mortgage Holders shall be required to add or amend any material provisions of the Declaration or the By-Laws which establish, provide for, govern or regulate any of the following:

- (a) Voting rights;
- (b) Assessments, assessment liens or the priority of assessment liens;
- (c) Reserves for maintenance, repair and replacement of Common Elements;
- (d) Responsibility for maintenance and repairs;
- (e) Reallocation of interests in the Common Elements or Limited Common Elements, or rights to their use;
- (f) Redefinition of any Unit boundaries;
- (g) Convertibility of Units into Common Elements or common Elements into Units;
- (h) Expansion or contraction of the Condominium, or the addition, annexation or withdrawal of property to or from the Condominium;
- (i) Insurance or fidelity bonds;
- (j) Leasing of Units;
- (k) Imposition of any restrictions on a Unit Owner's right to sell or transfer his Unit;

- (1) A decision by the Association to establish self-management when professional management had been required previously by the Declaration or the By-laws;
- (m) Restoration or repair of the Condominium (after a hazard damage or partial condemnation) in a manner other than as specified in the Declaration or the By-laws;
- (n) Any action to terminate the legal status of the Condominium after substantial destruction or condemnation occurs; or
- (o) Any provisions that expressly benefit Eligible Mortgage Holders.

An addition or amendment to the Declaration or the by-laws shall not be considered material if it is for the purpose of correcting technical errors.

An Eligible Mortgage Holder who receives a written request to approve additions or amendments to the Declaration or the By-Laws who does not deliver to the requesting party a negative response within thirty (30) days after the giving of notice shall be deemed to have approved such request in writing provided written notice of this provision is included in any such request.

11.6. Rights of First Refusal. Notwithstanding anything to the contrary elsewhere contained in this Declaration, the By-Laws or any Rules and Regulations of the Association, in the event that this Declaration or the By-Laws contain, or the Unit owners in the future amend the Condominium Documents to adopt any right of first refusal in the case of the sale of any Unit, such right of first refusal shall not impair the right of any Mortgagee to: (a) foreclose or take title to the Unit pursuant to the remedies provided in the Mortgage; (b) accept a deed (or assignment) in lieu of foreclosure in the event of a default by a mortgagor; or (c) sell or lease a Unit acquired by the procedures hereinabove set forth.

11.7. Mortgagee Priority. No provision of the Condominium Documents shall be deemed or construed to give a Unit owner, or any other person, priority over the rights of any Eligible Mortgage Holder pursuant to its Mortgage in the case of a distribution to Unit Owners of insurance proceeds or condemnation awards for losses to or a taking of Units, Common Elements, or both.

11.8. Books and Records. The Association shall maintain current copies of the Condominium Documents as well as its books, records and financial statements available during normal business hours for inspection and copying by Eligible Mortgage Holders upon reasonable prior written request and payment by such Eligible Mortgage Holder of

any costs associated therewith. The Association, upon reasonable prior written request of any Eligible Mortgage Holder, shall furnish such Eligible Mortgage Holder with a financial statement of the Association for the preceding fiscal year, provided that any costs associated with the preparation and furnishing of such statement shall be paid by such Eligible Mortgage Holder.

ARTICLE XII AMENDMENTS

Except in cases of amendments to this Declaration that may be unilaterally executed and recorded by the Association as described in Sections 1601-107, Eminent Domain, 1602-108(c), Allocation of Limited Common Elements, Section 1602-112(a), Relocation of Boundaries Between Adjoining Units, Section 1602-113, Subdivision of Units, and 1602-117(a), Amendment of Declaration, of the Act and cases of amendments to this Declaration by certain Unit Owners, as described in Sections 1602-108(b), Reallocation of Limited Common Elements, Section 1602-112(a), Relocation of Boundaries Between Adjoining Units, Section 1602-113, Subdivision of Units, or 1602-118(b), Termination of Condominium, and subject to the other provisions of this Declaration including, but not limited to, Paragraph 9.3, and of the Act, this Declaration and the Plat and Plans may be amended as follows:

12.1. Before Any Conveyance. Prior to the conveyance of any Unit by the Declarant to a Unit Owner other than as security for an obligation, the Declarant shall have the right to amend and reamend this Declaration in any manner that the Declarant may deem appropriate.

12.2. After First Conveyance. After the first conveyance of a Unit by a Declarant as contemplated in the preceding Paragraph, the terms of the following subparagraphs shall apply to the amendment of this Declaration:

12.2.1. Notice. Notice of the subject matter of a proposed amendment shall be included in the notice of any meeting of the Executive Board or Association in which a proposed amendment is considered, and shall be served upon all Unit Owners and upon all Eligible Mortgage Holders.

12.2.2. Resolution. An amendment may be proposed by either the Executive Board or by Unit Owners holding in the aggregate no less than thirty percent (30%) of the Votes in the Association. No resolution of the Executive Board adopting a proposed amendment or the proposed amendment itself shall be effective unless it has been adopted at a meeting of the Association duly called and held in accordance with the By-Laws by

the affirmative vote of at least sixty-six percent (66%) in voting interest of all of the Unit Owners and then executed and recorded as provided in subparagraph 12.2.5.

12.2.3. Agreement. In the alternative, an amendment may be made by an agreement signed by the record Owners of Units to which are allocated one hundred percent (100%) of the Votes in the Association in the manner required for the execution of a deed and acknowledged by at least one of them, and such amendment shall be effective when certified and recorded as provided in subparagraph 12.2.5.

12.2.4. Proviso. Provided, however, that except as otherwise permitted by the Act and provided in this Declaration, no amendment may increase the number of Units or change the boundaries of any Unit, the Allocated Interests allocated to a Unit, or the uses to which any Unit is restricted without the unanimous consent of the Unit Owners and the consent of at least sixty percent (60%) of the Eligible Mortgage Holders.

12.2.5. Execution and Recording. A copy of each amendment shall be attached to or included with a certificate, certifying that the amendment was duly adopted, which certificate shall be executed and acknowledged by such officer or officers of the Association and/or member or members of the Executive Board designated for that purpose by the By-Laws. The amendment shall be effective when such certificate and copy of the amendment are recorded.

12.2.6. Notice and Challenge. No action to challenge the validity of an amendment to this Declaration adopted by the Association pursuant to this Article may be brought more than one year after such amendment is recorded. After each amendment to this Declaration adopted pursuant to this Article has been recorded, notice thereof shall be sent to all Unit Owners and to all Eligible Mortgage Holders at the address last furnished to the Executive Board, but failure to send such notices shall not affect the validity of such amendment.

ARTICLE XIII TERMINATION OF CONDOMINIUM

13.1. Termination. The Condominium shall not be terminated except as provided in, and subject to, Section 1602-118 of the Act, by agreement of Unit Owners of Units to which one hundred percent (100%) of the Votes in the Association are allocated and of the percentage of Eligible Mortgage Holders provided in Paragraph 11.5. Termination provided for in Section 1602-118 of the Act shall not bar the subsequent re-creation of the Condominium or another condominium with respect to the Property.

ARTICLE XIV INSURANCE

14.1. Policies. Commencing no later than the time of the first conveyance of a Unit other than as security for an obligation to a person other than the Declarant, the Executive Board on behalf of the Association shall obtain, or cause to be obtained, and shall maintain as a Common Expense, the policies of insurance described in Paragraphs 14.2., 14.4. and 14.5. to the extent such policies shall be reasonably available from reputable insurance companies. To the extent that said insurance described in Paragraphs 14.2., 14.4. and 14.5. is not reasonably available as described in the preceding sentence, the Executive Board on behalf of the Association shall give written notice of that fact to the Unit Owners and the Eligible Mortgage Holders of Mortgages of their Units by hand delivery securing a receipt therefor, or by prepaid United States mail, return receipt requested. To the extent that any of the insurance described in Paragraphs 14.2., 14.4. and 14.5. shall become in the future no longer available, the Association shall obtain in substitution therefor such comparable insurance as shall then be available. The Executive Board is hereby irrevocably appointed as attorney-in-fact for each Unit Owner and for each Mortgagee and Eligible Mortgage Holder and for each owner of any other interest in the Property for the purpose of purchasing and maintaining the insurance described in Paragraphs 14.2., 14.4. and 14.5., the collection and appropriate disposition of the proceeds thereof as trustee for all Unit Owners and their Mortgagees as their respective interests may appear to hold any insurance proceeds in trust for disbursement as provided in Paragraph 14.3. and subparagraphs 14.2.4., the By-Laws and Section 1603-113(e) of the Act, the negotiation of losses and execution of releases of liability, and the execution of all documents, and the performance of all other acts necessary to accomplish such purposes.

14.2. Property Insurance. The Executive Board shall obtain and maintain as a Common Expense a blanket-type or master standard form of “all-risk” fire insurance policy with extended coverage, vandalism, malicious mischief, windstorm, sprinkler leakage (if applicable), debris removal, cost of demolition endorsements in a reasonable amount and a water damage endorsement issued by an insurance company authorized to do business in the State of Maine insuring as a single entity the entire Property (exclusive of land, foundations, excavations, and other similar items customarily excluded from property insurance policies), including the Units (including the unfinished floor slab or basement floor, as the case may be, roof and roof rafters, wall studs, joists, columns, studs or beams, and all exterior windows and doors; but not including the sheetrock forming the perimeter walls of the Units, any floorcovering (such as tile; wood flooring and carpeting) and any wallcovering (such as paint, wallpaper, paneling or tiles), furniture, fixtures (such as cabinets, built-in closets or bookshelves, vanities, lamps and chandeliers) furnishings, appliances or other personal property owned by Unit Owners), Limited Common Elements and other Common Elements together with all service equipment and machinery contained in the Property and the fixtures, supplies and common personal property belonging to the Association and covering the interests of and naming as named insured,

the Association, the Executive Board and all Unit Owners and their Mortgagees and their Mortgagees' successors and assigns, as their insurable interests may appear. Such blanket or master policy shall be in an amount equal to one hundred percent (100%) of the then current full replacement cost of the Property (exclusive of the land, excavations, foundations and other similar items customarily excluded from such coverage), without deduction for depreciation (such amount to be predetermined annually by the Executive Board with the assistance of the insurance company affording such coverage) and shall contain a standard Maine Mortgage Clause in favor of each Mortgagee of a Unit whether or not named therein with provisions that the proceeds of loss, if any, shall first be payable to each Mortgagee, its successors and assigns, as its insurable interest may appear, subject, however, to the loss payment and adjustment provisions in favor of the Association contained in Paragraph 14.3., subparagraph 14.2.3, the By-Laws and Section 1603-113(e) of the Act. Since subparagraph 8.1.2., clause (d), requires that additional costs of insurance shall be assessed against each Unit as a Limited Common Expense in an amount equivalent to the additional premiums charged due to the particular contents, characteristics or features of that Unit which are insured pursuant to this Paragraph, the Executive Board shall obtain annually from the insurance company affording such coverage its opinion as to the monetary amounts by which the costs of insuring that Unit pursuant to this Paragraph are higher than the costs of insuring a Unit of comparable “size” which does not contain or have those particular contents, characteristics or features and the identification of those contents; characteristics or features and the identification of those contents, characteristics and features. The Executive Board shall use this opinion as the basis for its computation of Limited Common Expense assessments against the Unit for additional costs of insurance. This blanket or master hazard insurance policy may, at the option of the Executive Board, contain such “deductible” as the Executive Board shall reasonably deem appropriate, but not exceeding the lesser of Ten Thousand Dollars (\$10,000.00) or one percent (1%) of the face amount of the policy, and shall also contain the following provisions:

14.2.1. The following endorsements (or their equivalent): (a) “no control” (to the effect that coverage shall not be prejudiced by any act or neglect of any occupant or Unit Owner or their agents when such act or neglect is not within the control of the insured, or the Unit Owners collectively; nor by any failure of the insured, or the Unit Owners collectively, to comply with any warranty or condition with regard to any portion of the Condominium over which the insured, or the Unit Owners collectively, have no control); (b) “Construction Code Endorsement”, “increased cost of construction”, (c) “agreed amount” or “limitation of co-insurance clause”; and

14.2.2. That any “no other insurance” clause expressly exclude individual Unit Owners' policies from its operation so that the physical damage policy purchased by the Executive Board shall be deemed primary coverage and any individual Unit Owners' policies shall be deemed excess coverage, and in no event shall the insurance coverage

obtained and maintained by the Executive Board hereunder provide for or be brought into contribution with insurance purchased by individual Unit Owners or their Mortgagees.

14.3. Losses; Adjustment and Payment. Any loss covered by the insurance policy described in Paragraph 14.2. shall be adjusted with the Association by its Executive Board, and the insurance proceeds for said loss shall be payable to the Association, and not to any Mortgagee. The Association shall hold any insurance proceeds in trust for Unit Owners, Mortgagees and other lien holders as their interests may appear. Subject to the Provisions of this Paragraph, the By-Laws and Section 1603 113(e) of the Act, the proceeds shall be disbursed first for the repair or restoration of the damage to the Property, and Unit Owners, Mortgagees and other lien holders are not entitled to receive payment of any portion of the proceeds unless there is a surplus of proceeds after the damaged Common Elements and Units have been repaired or restored, the decision has been made not to repair or restore the damage as provided in Section 1603-113(h) of the Act, or the Condominium is terminated.

14.4. Liability Insurance. The Executive Board shall obtain and maintain as a Common Expense comprehensive general public liability insurance (including medical payments insurance) and property damage insurance in such limits as the Board may from time to time determine, insuring each Executive Board member, the managing agent, and each Unit Owner against any liability to the public or to the Unit Owners (and their invitees, agents and employees) covering all occurrences commonly insured against for death, bodily injury or property damage arising out of, or incident to, the maintenance, ownership or use of the Common Elements and/or relating to any legal liability resulting from suits or actions related to employment contracts to which the Association is a party. Such insurance shall be issued on a comprehensive liability basis and shall contain: (a) a cross liability endorsement under which the rights of a named insured under the policy shall not be prejudiced with respect to his action against another named insured; (b) a “Severability of interest” endorsement which shall preclude the insurer from denying liability to a Unit Owner because of negligent acts of the Association or of another Unit Owner. The Executive Board shall review such limits once each year, but in no event shall such insurance be less than one million dollars (\$1,000,000.00) covering all claims for bodily injury or property damage arising out of one occurrence.

14.5. Other Insurance. The Executive Board shall obtain and maintain as a Common Expense:

14.5.1. Workmen's compensation insurance if and to the extent necessary to meet the requirements of law;

14.5.2. Adequate fidelity coverage to protect against dishonest acts on the part of officers, members of the Executive Board, trustees and employees of the

Association, and all others who handle, or are responsible for handling, funds of the Association, including the managing agent. Such fidelity bonds shall: (a) name the Association as an obligee; (b) be written in an amount not less than the greater of (i) one-quarter of the total annual assessments for Common Expenses plus the Association's reserve funds for the fiscal year or (ii) the maximum funds in the custody of such persons handling the funds of the Association; and (c) contain waivers of any defense based upon the exclusion of persons who serve without compensation from the definition of "employee" or similar expression; and

14.5.3. Such other insurance as the Executive Board may determine or as may be requested from time to time by a Unit Owners holding in the aggregate no less than sixty-six percent (66%) voting interest in the Association including, to the extent available, directors' and officers' liability insurance to satisfy indemnification obligations of the Association provided in Paragraph 17.2.

14.6. Memoranda; Cancellation; Additional Required Provisions. All insurers that shall issue an insurance policy or policies under this Article shall issue certificates or memoranda of insurance to the Association, and, upon request, to any Unit owner or Mortgagee. All such insurers issuing the policy may not cancel (including cancellation for non-payment of premium), substantially modify or refuse to renew such policy or policies until twenty (20) days after notice of the proposed cancellation or non-renewal has been mailed to the Association, the managing agent, each Unit Owner and each Mortgagee to whom a certificate or memorandum of insurance has been issued at their respective last known addresses. All policies under Paragraph 14.2 and 14.4 shall in addition contain the following Provisions or features:

14.6.1. The insurer waives any right to claim by way of subrogation against the Declarant, the Association, the Executive Board, the managing agent or the Unit Owners, and their respective agents, employees, guests and, in the case of the Unit Owners, the members of their households;

14.6.2. Each Unit Owner is an insured person under the policy with respect to liability arising out of his ownership of an undivided interest in the Common Elements or membership in the Association;

14.6.3. The insurer waives its right to subrogation under the policy against any Unit Owner of the Condominium;

14.6.4. No act or omission by any Unit owner, unless acting within the scope of his authority on behalf of the Association, will void the policy or be a condition to recovery under the policy; and

14.6.5. If, at the time of a loss under the policy, there is other insurance in the name of a Unit Owner covering the same risk covered by the policy, the Association's policy Provides primary insurance.

14.7. Separate Insurance. Each Unit Owner shall have the right, at the owner's own expense, to obtain insurance for the owner's Unit and for the owner's own benefit and to obtain insurance coverage upon the owner's personal property and for the owner's personal liability as well as upon any improvements made by the owner's to the owner's Unit under coverage normally called "improvements and betterment's coverage" and for such other risks as are normally insured against, provided, however, that no Unit Owner shall be entitled to exercise its right to acquire or maintain such insurance coverage so as to decrease the amount which the Executive Board, on behalf of all Unit Owners, may realize under any insurance policy maintained by the Board or to cause any insurance coverage maintained by the Board to be brought into contribution with insurance coverage obtained by a Unit Owner. All such policies shall contain waivers of subrogation. Any Unit Owner which obtains an individual insurance policy covering any portion of the Condominium, other than improvements and betterment's made by such Owner at its expense and personal property belonging to such Owner, shall file a copy of such individual policy or policies with the Executive Board within thirty (30) days after the purchase of such insurance. Such Unit Owner shall also promptly notify the Executive Board in writing in the event such policy is canceled. Each Unit owner shall notify the Executive Board in writing of all structural improvements made by the Unit Owner to the owner's Unit; provided, however, that this sentence shall not be construed as an authorization to Unit Owners to make structural improvements to Units otherwise than in accordance with this Declaration, the By-Laws and Rules and Regulations promulgated by the Executive Board. Any premium increase caused by such improvements may be assessed to the Owner of the improved Unit.

ARTICLE XV

APPLICABILITY: COMPLIANCE AND DEFAULT; ARBITRATION; EMINENT DOMAIN; SELF HELP

15.1. Applicability. This Declaration shall be applicable to the Condominium. All present and future Owners and tenants, their guests, licensees, servants, agents, employees and any other person or persons that shall be permitted to use the Common Elements shall be subject to this Declaration, the By-Laws and to such Rules and Regulations as may be issued by the Executive Board from time to time to govern the conduct of its members and the use and occupancy of the Property. Ownership, rental or occupancy of any of the Units in the Condominium shall be conclusively deemed to mean that said Owner, tenant or occupant has accepted and ratified this Declaration, the By-Laws and the rules and regulations of the Association and will comply with them. The acceptance of a deed or conveyance (other than as security) or the entering into of a lease

or the entering into of occupancy of any Unit (other than possession by a Mortgagee prior to either of the completion of foreclosure or the acceptance of a deed to the Unit subject to the Mortgage held by such Mortgagee) shall signify that the provisions of this Declaration and the by-laws, the Rules and Regulations of the Association and the decisions of the Executive Board are accepted and ratified by such Owner, tenant or occupant, and all of such provisions shall be deemed and taken to be covenants running with the land and shall bind any person having at any time any interest or estate in such Unit, as though such provisions were recited and stipulated at length in each and every deed or conveyance or lease thereof.

15.2. Compliance and Governance:

15.2.1. Each Unit Owner shall be governed by and shall comply strictly with the terms, covenants, conditions and restrictions of this Declaration, the By-Laws and the Rules and Regulations adopted pursuant thereto, and the same as they may be amended from time to time.

15.2.2. The Executive Board shall have the power to adopt, amend and enforce compliance with, such reasonable Rules and Regulations relative to the operation, use and occupancy of the Units and the Common Elements consistent with the provisions of this Declaration and the Act, including, but not limited to the appointment of such committees and the enactment and enforcement of such enforcement procedures and penalties for violations as the Executive Board shall deem appropriate. Any such Rules and Regulations shall be adopted or amended, from time to time, by means of appropriate resolutions duly approved by the Executive Board in accordance with this Declaration and the By-Laws. A copy of such Rules and Regulations and copies of any amendments thereto shall be delivered or mailed to each Owner or occupant of a Unit promptly after the adoption thereof and shall become binding upon all Owners, their successors in title and assigns, and occupants.

15.2.3. The failure of the Declarant, or the Executive Board, or any Unit Owner to enforce any covenant, restriction or other provision of the Act, the Condominium Documents or the Rules and Regulations adopted pursuant thereto, shall not constitute a waiver of the right to do so thereafter.

15.3. Arbitration:

15.3.1. All claims, disputes, controversies and other matters in question between the Association or any Unit Owners, on one hand, and a Unit Owner, on the other hand, arising out of or relating to the Condominium, the Condominium Documents or the deed to any Unit, shall be decided and settled by private arbitration in Portland, Maine, in accordance with the Construction Industry Arbitration Rules of the American

Arbitration Association then obtaining unless the parties mutually agree otherwise. This agreement to arbitrate shall be specifically enforceable under the prevailing arbitration law.

15.3.2. A party requesting arbitration shall do so by written notice to the other party. The arbitration shall be conducted by a private three person arbitration panel chosen as follows: each party shall designate an arbitrator and the two designated arbitrators shall select a third arbitrator. The decision shall then be rendered by a majority vote of the panel. Any dispute brought to arbitration must be decided by the arbitrators within ninety (90) days from the date of notice from one party to the other party requesting the arbitration and the decision of the panel shall be final and binding and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

15.3.3. Each party shall be responsible for the cost of its own arbitrator and for one-half (1/2) of the cost of the jointly selected arbitrator, unless the arbitration panel rules to the contrary.

15.3.4. Notwithstanding anything in Sections 15.3.1., 15.3.2. and 15.3.3. to the contrary, in the event that the Unit owners and/or Association either (i) are unable to agree upon the expenses, budget or the performance of the maintenance, repair and replacement of the common elements in accordance with the standards specified herein, which deadlock continues for 30 days after a Unit Owner and/or Director of the Association sends written notice to the other parties in interest indicating the decisions and dispute, or (ii) are so divided with respect to maintenance and upkeep of the Property that the Property is suffering or will suffer irreparable injury, in either such event, the Association shall elect in accordance with the provisions of the Bylaws an independent professional property manager to handle such duties in dispute. If the Association is unable to agree on the selection of such a property manager, the issue on selection of a professional manager shall be referred to, decided and settled by private arbitration as set forth in Paragraphs 15.3.1, 15.3.2. and 15.3.3. above.

15.4. Eminent Domain. If all or part of the Common Elements shall be taken or condemned by any authority having the power of eminent domain, the Association shall notify the Owners and Eligible Mortgage Holders of the Units affected and shall represent the Unit Owners in any condemnation proceedings or in negotiations, settlements and agreements with the condemning authority, and the award shall be paid to the Association for the use and benefit of the Unit Owners and their Mortgagees as their interests may appear. The Association shall divide any portion of the award not used for any restoration or repair among the Unit Owners and their Mortgagees, as their interests may appear, in proportion to their Allocated Interests in the Common Elements prior to such taking or condemnation, but the portion of the award attributable to the acquisition of any Limited

Common Element shall be equally divided among the Owners of the Units to which such Limited Common Element was allocated at the time of such taking or condemnation and their Mortgagees, as their interests may appear. Each Unit Owner appoints the Association as attorney-in-fact for the purposes described in this paragraph. Notwithstanding anything to the contrary in this Paragraph 15.4., lien holders on any Unit, Common Element or Limited Common Element, shall have a lien on any such awards in order of priority of their respective liens.

15.5. Self Help. If the Association shall default in its obligations to maintain, repair, and replace the portions of the Limited Common Elements or Common Elements appurtenant to or serving any Unit, or the portions of any Unit as to which pursuant to this Declaration it is the responsibility of the Association to maintain, repair and replace, and such failure or default is not cured within thirty (30) days after notice from the Owner of that Unit to the Association specifying the default, or the Association shall not within said period commence to cure the default and thereafter prosecute the curing of such default to completion with due diligence, the owner of said Unit may, at the owner's option, without waiving any claims for breach, at any time thereafter cure such default for the account of the Association and shall be entitled to set off against subsequent assessments for Common Expenses the amounts paid and expenses or contractual liabilities incurred in an amount that shall not exceed two (2) months' installments of assessments against that Unit for Common Expenses; provided, however, that such Unit Owner may cure any such defaults as aforesaid prior to the expiration of said waiting period after notice to the Association if it is necessary to protect his Unit or its appurtenant Limited Common Elements or other interests, or to prevent injury or damage to persons or property. The Unit Owner that cures such default shall have the benefit of the rights and easements reserved to the Association pursuant to Paragraph 7.3. to enable it to cure the defaults. The rights provided Unit Owners in this Paragraph 11.5. shall extend to Eligible Mortgage Holders.

ARTICLE XVI LIMITATION OF LIABILITY

16.1. Limited Liability of the Executive Board. The Executive Board, and its members in their capacity as members, officers and employees:

16.1.1. Shall not be liable for the failure of any service to be obtained by the Executive Board and paid for by the Association, or for injury or damage to persons or property caused by the elements or by another Unit Owner or person on the Property, or resulting from electricity, gas, water, rain, dust or sand which may leak or flow from the outside or from any part of the Buildings, or from any of its pipes, drains, conduits, appliances, or equipment, or from any other place unless in each such instance such injury

or damage has been caused by the willful misconduct or gross negligence of the Association or the Executive Board;

16.1.2. Shall not be liable to the Unit Owners as a result of the performance of the Executive Board members' duties for any mistake of judgment, negligence or otherwise, except for the Executive Board members' own willful misconduct or gross negligence;

16.1.3. Shall have no personal liability in contract to a Unit Owner or any other person or entity under any agreement, check, contract, deed, lease, mortgage, instrument or transaction entered into by them on behalf of the Executive Board or the Association in the performance of the Executive Board members' duties;

16.1.4. Shall not be liable to a Unit Owner, or such Unit Owner's tenants, employees, agents, customers or guests, for loss or damage caused by theft of or damage to personal property left by such Unit Owner or his tenants, employees, agents, customers or guests in a Unit, or in or on the Common Elements or Limited Common Elements, except for the Executive Board members' own willful misconduct or gross negligence;

16.1.5. Shall have no personal liability in tort to a Unit Owner or any other person or entity, direct or imputed, by virtue of acts performed by or for them, except for the Executive Board members' own willful misconduct or gross negligence in the performance of their duties; and

16.1.6. Shall have no personal liability arising out of the use, misuse or condition of the Building, or which might in any other way be assessed against or imputed to the Executive Board members as a result of or by virtue of their performance of their duties, except for the Executive Board members' own willful misconduct or gross negligence.

16.2. Indemnification. Each member of the Executive Board, in his or her capacity as an Executive Board member, officer or both, shall be indemnified by the Association against all expenses and liabilities, including attorney's fees, reasonably incurred by or imposed upon him or her in connection with any proceeding in which he or she may become involved by reason of being or having been a member and/or officer of the Executive Board, or any settlement of any such proceeding, whether or not he or she is an Executive Board member, officer or both at the time such expenses are incurred, except in such cases wherein such Executive Board member and/or officer is adjudged guilty of willful misconduct or gross negligence in the performance of duties; provided that indemnification hereunder with respect to any criminal action or proceeding is permitted only if such Executive Board member and/or officer had no reasonable cause to believe his or her conduct was unlawful. The indemnification by the Unit Owners set

forth in this Paragraph shall be paid by the Association on behalf of the Unit Owners and shall constitute a Common Expense and shall be assessed and collectible as such. Such right of indemnification shall not be deemed exclusive of any other rights to which such Executive Board member and/or officer may be entitled as a matter of law or agreement or by vote of the Unit Owners or otherwise.

16.3. Defense of Claims. Complaints brought against the Association, the Executive Board or the officers, employees or agents thereof in their respective capacities as such, or the Condominium as a whole, shall be directed to the Executive Board of the Association, which shall promptly give written notice thereof to the Unit Owners and the Eligible Mortgage Holders, and such complaints shall be defended by the Association. The Unit Owners shall have no right to participate in such defense other than through the Association.

ARTICLE XVII GENERAL PROVISIONS

17.1. Captions. The headings in this Declaration are for purposes of reference only and shall not limit or otherwise affect the meaning hereof. Any tables of contents or indices attached to this Declaration are for purposes of reference and convenience only and shall neither limit nor otherwise affect the meaning hereof nor be deemed as part of this Declaration. References in this Declaration to Articles, Paragraphs, subparagraphs and Schedules without references to the document in which they are contained are references to this Declaration. Schedules are attached to and incorporated by reference into this Declaration and are an integral part of this Declaration.

17.2. Gender Number. Etc. The use of the singular number in this Declaration shall be deemed to include the plural, the plural the singular, and the use of any one gender shall be deemed applicable to all gender.

17.3. Severability. The invalidity of any provisions of this Declaration shall not be deemed to impair or affect in any manner the validity, enforceability or effect of the remainder of this Declaration, and in such event, all of the other provisions of this Declaration shall continue in full force and effect as if such invalid Provision had never been included herein.

{Remainder of page intentionally left blank. Signatures follow.}

IN WITNESS WHEREOF, Declarant has caused this Declaration to be executed
this ____ day of _____, 2020.

UPRIGHT PROPERTIES, LLC

By: _____
Joshua Wojcik, Manager

STATE OF MAINE
CUMBERLAND, SS.

_____, 2020

Personally appeared the above-named, Joshua Wojcik, who acknowledged the
foregoing instrument to be his free act and deed.

Before me,

Notary Public/Attorney at Law

Print Name

**SCHEDULE A
TO
DECLARATION OF CONDOMINIUM
OF
RIFUGIO, A CONDOMINIUM**

PROPERTY DESCRIPTION

[METES AND BOUNDS DESCRIPTION TO BE INSERTED FROM DEEDS – 128R
and 126]

**SCHEDULE B
TO
DECLARATION OF CONDOMINIUM
FOR
RIFUGIO, A CONDOMINIUM**

<u>Unit Number</u>	<u>Share of Common Expense Interest and Common Expense Liability</u>	<u>Votes in Association</u>
Unit 1 (Workforce, 1 bedroom)	7.00%	1
Unit 2 (1 bedroom)	11.00%	1
Unit 3 (2 bedroom)	16.00%	2
Unit 4 (1 bedroom)	13.00%	1
Unit 5 (2 bedroom)	18.00%	2
Unit 6 (3 bedroom)	25.00%	3
Unit 7* (to be constructed: 6 rental unit building)	<u>10.00%</u>	<u>3</u>
	1 (100%)	13

* Unit 7's allocation of Common Interest and Expense Liability shall be adjusted, per Section 2.5 above, upon completion of Unit 7, and this schedule, and this Declaration, shall be amended accordingly at the sole cost and expense of the Owner of Unit 7. The expected allocation, post construction, is 26%.

**EXHIBIT A
TO
DECLARATION OF CONDOMINIUM
FOR
RIFUGIO, A CONDOMINIUM**

EASEMENTS

[EASEMENT INFORMATION TO BE INSERTED FROM DEEDS]

**EXHIBIT B
TO
DECLARATION OF CONDOMINIUM
FOR
RIFUGIO, A CONDOMINIUM**

STORMWATER MAINTENANCE AGREEMENT

[ATTACH STORMWATER MAINTENANCE AGREEMENT]

RIFUGIO, A CONDOMINIUM **RULES AND REGULATIONS**

General

It should be understood by all unit owners that the exteriors of the buildings and all the land area and facilities outside the individual units are common property. Certain parts of the common property, including decks and parking areas, are “limited common areas” reserved for the exclusive use of the associated unit owners. The maintenance, alteration, improvement, general appearance and use of the common property, including the limited common areas, are under the control of the Association through its Executive Board. Attention is called to the Declaration of Rifugio, a Condominium (the “Declaration”) and to the By-Laws of the Rifugio Condominium Owners Association (the “By-Laws”) for specific definition of the common property and for the general responsibilities of unit owners with respect to the common property and to their units.

As provided in the Declaration and the By-Laws, in order to assure the peaceful and orderly use and enjoyment of the buildings and common area and facilities, the following Rules and Regulations have been adopted.

Use and Occupancy

A) COMMON AREAS

Use, maintenance and operation of common areas shall not be obstructed, damaged or subject to interference by any unit owner.

B) UNIT USE AND MAINTENANCE

1. Each owner shall maintain his or her unit in good condition, good order and repair at their own expense as specified in the Declaration.
2. No noxious or offensive activity shall be carried on in any Unit or on the Common Elements, nor shall anything be done therein which may be or become an annoyance or nuisance to the other Unit owners and occupants. No Unit owner shall make or permit any disturbing noises in the building or do or permit anything which will interfere with the rights, comforts or convenience of other Unit owners. All Unit owners shall keep the volume of any radio, television or musical instrument in their Units sufficiently limited at all times so as not to disturb other Unit owners.

3. Commercial Activity - No commercial activity of any nature shall be permitted in or about any unit. Notwithstanding the foregoing, a home office is allowed provided such home office use does not create a nuisance or an unreasonable interference with the peaceful possession and occupation or proper use of any other Unit or the Common Elements. To the extent that Unit 7 is operated as a residential rental property, such activity shall be allowed.
4. Parking; Snow Removal - The parking areas consist of six covered spaces which are Limited Common Elements to be used only by the assigned Unit Owners. The parking areas are for licensed and fully operable vehicles only. Motor homes, boats and trailers shall not be left in the parking area. Members, their family, lessees and guests shall cooperate, as directed by the Association or its chosen snow removal contractor/vendor, to move their cars from the parking spaces to facilitate timely snow removal. Vehicles in violation of these provisions are subject to towing at the owner's expense.
5. Decks; Snow Removal – Unit owners shall maintain their decks in good condition and shall avoid using their decks for unsightly storage. If owners remove snow from their decks they shall do so in a manner that avoids pushing the snow onto any other owner's decks, and any snow removed shall be shoveled delicately towards the sides of Rifugio's property, not towards Munjoy Heights or its retaining wall.
6. Garbage, Trash and Recycling - Trash, garbage and other waste shall be kept only in sanitary covered containers as provided by the Association or the City of Portland. All trash left for pick up on the appropriate day must be properly divided between the container provided for recyclable materials and all other trash must be placed in mandated City of Portland Trash Bags.
7. Personal Property - Articles of personal property belonging to any unit owner or his/her guest may be stored in the unit's designated storage area. All personal property placed in any portion of the building or any place appurtenant thereto, including, but without limitation, the storage areas, shall be at the sole risk of the unit owners, and the Association shall in no event be liable for the loss, destruction, theft or damage to such property.
8. Hazardous Materials - No gasoline or other flammable substances, explosives, or toxic material may be kept in any unit or any storage area designated to any unit.
9. No Smoking in Common Areas - Smoking of tobacco, cannabis, or any other consumable flammable material is not permitted within the common interior areas of the Condominium.

C) ALTERATIONS OR IMPROVEMENTS

1. General - Alterations or modifications in the limited common areas, which involve structural change, additions or painting shall not be undertaken by the unit owner, and such alterations or modifications shall be done by the Association, unless otherwise approved in writing. This includes walls, driveways, porches, etc. Permanently installed play equipment is not permitted without the written consent of all the owners.
2. Screen and Storm Windows - Only those types approved by the Board are allowed. Approval for each installation shall be requested in writing and must receive prior written Board approval.
3. Unit Integrity - No unit owner shall do or have done any work which may jeopardize the soundness or safety of the property, reduce the value thereof or impair any easement, rights, appurtenances or other hereditament consisting of common elements without the unanimous written consent of all other unit owners.
4. Propane Storage Tanks - No propane tanks shall be allowed at the property, except small propane tanks for exterior gas grills which must be used and stored in accordance to the applicable section of the City of Portland, Maine, Code of Ordinances.

D) LANDSCAPING

1. Approval and Responsibility - Any change or addition to plantings (shrubs and bushes) must receive written Board approval, and shall be subject to City of Portland approval, if applicable. Care and maintenance thereafter is the responsibility of the Association.
2. Special Restrictions - Landscaping must not impede mowing or the placement of snow removed from driveways and walks.

E) PETS

1. Pets are either dogs or cats. Any other species must receive written approval of the Board. Pets over forty-five (45) pounds in weight must receive written approval of the Board.
2. Total Number of Indoor/Outdoor Pets - Not more than two pets per unit.
3. Small Indoor Pets such as caged birds, hamsters, turtles, fish, etc., will not count as part of the pet quota.

4. Dogs are not allowed outside of their unit except on a leash or under control of a responsible person. Pet owners are responsible for any property damage, injury or disturbance their pets may cause or inflict. No animal shall be permitted to bark, howl, or make other loud noises for such time as disturbs neighbors' rest or peaceful enjoyment of their unit and adjacent common areas. No breeding of animals is allowed. Pet owners are responsible for the removal and proper disposal of animal wastes in all areas – both limited and common.

F) MISCELLANEOUS

1. Garage Sales - No unit owner shall hold a garage sale or any other type of outside sale without the prior written consent of the Board.
2. Clotheslines – Clotheslines are allowed in designated areas, as provided by the Board.
3. Exterior Lights - No additional spotlights or floodlights are permitted on the exterior of any unit.
4. Leasing - Members who lease must obtain a signed, written lease agreement from their tenant including provisions requiring the tenant to abide by all restrictions and obligations contained in the Condominium's Declaration, the Association's By-Laws, and all Rules & Regulations adopted by the Board. Such agreement must provide for termination of the lease on fourteen (14) days notice from the Board for failure to comply. A copy of the lease also must be filed with the Board within seven (7) days of its execution. A lease or other rental, including, without limitation, any rentals facilitated through any third-party/online services such as Airbnb, Homeaway.com or VRBO, shall be for a minimum of three (3) months.
5. Occupancy - A unit may be occupied by any number of individuals related by blood, marriage, adoption or domestic partnership. Unless the occupancy is governed by a written lease, a unit may be occupied by no more than two non-family members as roommates of the unit owner, provided that the unit owner is one of the other adult occupants. All occupants of the units shall be subject to the restrictions and obligations contained in the Condominium's Declaration, the Association's By-Laws, and all Rules & Regulations adopted by the Board, and shall execute a written agreement to such effect to be filed with the Board.
7. Periods of Absence – Members shall be responsible for ensuring that their units, and all equipment serving their unit, function properly during any extended period of absence, especially during winter months, to reduce the possibility of damage to any other units or common areas of the building. Members shall arrange for their

units to be checked regularly during their absence, and shall provide emergency contact information to the Board.

8. Vehicle Idling – Members, their tenants and invitees, shall take reasonable care to limit vehicle idling in the parking area. Signage shall be provided in the parking area to discourage idling.

G) COMPLAINTS, REMEDIES & CONCLUSION

1. All Complaints or Suggestions regarding maintenance, nuisances or general welfare must be submitted in writing to the Executive Board together with, if desired, a request for a hearing. If the matter is too urgent for this procedure to be practical, a member of the Board should be advised by telephone. Any group of unit owners wishing to make a complaint or suggestion may follow the above procedure nominating one or two spokespersons to represent it.

Rifugio, a Condominium, Fines Schedule & Policy

Goal of Rules and Fines -The goal of rules and fines is to promote the quality of life in the Condominium. Rules and fines should help to encourage harmony among Unit Owners and Board Members.

Unit Owners' Rights Regarding Fines -With the exception of monthly assessments, unit owners will be given oral notice of a violation. The owner has ten (10) days in which to request a hearing. If the infraction persists, written notice will be sent. The unit owner will be provided an opportunity to be heard at a specific time and place if he/she requests it. The owner's defense and any mitigating circumstances will be given a fair hearing by the Board.

Unit Owners' Grace Period - A fine will not be imposed until after a minimum of ten (10) days from the time of a hearing if one is scheduled. If no hearing is requested, the fine shall be imposed only after ten (10) days from postmark date of written notice.

Legal Status of Fines - Under the Maine Condominium Act, any fines imposed by the Board of Directors represent a lien on the unit owner's property. By law, the Board shall establish the fine schedule and impose fines for any new rules.

Schedule of Fines

1. General - A fine of \$50.00 will be levied for violations of all Rules from A through F, and \$5.00 per diem is added until the infraction is corrected.

2. Monthly Assessments - A charge of \$20.00 will be levied if the monthly assessment is not postmarked by the tenth (10th) day of the month in which it is due.

If the monthly assessment remains unpaid, interest at the rate of eighteen (18%) percent per annum will accrue on the unpaid amount.

Any money received on delinquent accounts will be applied to the oldest unpaid assessment.

There will be a \$25.00 charge for a returned check.

After 60 days of unpaid assessments, a lien will be placed on the property.

Other Types of Penalties - When necessary and appropriate, the Board of Directors may choose another type of penalty (such as removal of an obstacle), as provided in the Declaration.

RIFUGIO, A CONDOMINIUM **RULES AND REGULATIONS**

General

It should be understood by all unit owners that the exteriors of the buildings and all the land area and facilities outside the individual units are common property. Certain parts of the common property, including decks and parking areas, are “limited common areas” reserved for the exclusive use of the associated unit owners. The maintenance, alteration, improvement, general appearance and use of the common property, including the limited common areas, are under the control of the Association through its Executive Board. Attention is called to the Declaration of Rifugio, a Condominium (the “Declaration”) and to the By-Laws of the Rifugio Condominium Owners Association (the “By-Laws”) for specific definition of the common property and for the general responsibilities of unit owners with respect to the common property and to their units.

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B) UNIT USE AND MAINTENANCE

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2. No noxious or offensive activity shall be carried on in any Unit or on the Common Elements, nor shall anything be done therein which may be or become an annoyance or nuisance to the other Unit owners and occupants. No Unit owner shall make or permit any disturbing noises in the building or do or permit anything which will interfere with the rights, comforts or convenience of other Unit owners. All Unit owners shall keep the volume of any radio, television or musical instrument in their Units sufficiently limited at all times so as not to disturb other Unit owners.

3. Commercial Activity - No commercial activity of any nature shall be permitted in or about any unit. Notwithstanding the foregoing, a home office is allowed provided such home office use does not create a nuisance or an unreasonable interference with the peaceful possession and occupation or proper use of any other Unit or the Common Elements. To the extent that Unit 7 is operated as a residential rental property, such activity shall be allowed.
4. Parking; Snow Removal - The parking areas consist of six covered spaces which are Limited Common Elements to be used only by the assigned Unit Owners. The parking areas are for licensed and fully operable vehicles only. Motor homes, boats and trailers shall not be left in the parking area. Members, their family, lessees and guests shall cooperate, as directed by the Association or its chosen snow removal contractor/vendor, to move their cars from the parking spaces to facilitate timely snow removal. Vehicles in violation of these provisions are subject to towing at the owner's expense.
5. Decks; Snow Removal – Unit owners shall maintain their decks in good condition and shall avoid using their decks for unsightly storage. If owners remove snow from their decks they shall do so in a manner that avoids pushing the snow onto any other owner's decks, and any snow removed shall be shoveled delicately towards the sides of Rifugio's property, not towards Munjoy Heights or its retaining wall.
6. Garbage, Trash and Recycling - Trash, garbage and other waste shall be kept only in sanitary covered containers as provided by the Association or the City of Portland. All trash left for pick up on the appropriate day must be properly divided between the container provided for recyclable materials and all other trash must be placed in mandated City of Portland Trash Bags.
7. Personal Property - Articles of personal property belonging to any unit owner or his/her guest may be stored in the unit's designated storage area. All personal property placed in any portion of the building or any place appurtenant thereto, including, but without limitation, the storage areas, shall be at the sole risk of the unit owners, and the Association shall in no event be liable for the loss, destruction, theft or damage to such property.
8. Hazardous Materials - No gasoline or other flammable substances, explosives, or toxic material may be kept in any unit or any storage area designated to any unit.
9. No Smoking in Common Areas - Smoking of tobacco, cannabis, or any other consumable flammable material is not permitted within the common interior areas of the Condominium.

C) ALTERATIONS OR IMPROVEMENTS

1. General - Alterations or modifications in the limited common areas, which involve structural change, additions or painting shall not be undertaken by the unit owner, and such alterations or modifications shall be done by the Association, unless otherwise approved in writing. This includes walls, driveways, porches, etc. Permanently installed play equipment is not permitted without the written consent of all the owners.
2. Screen and Storm Windows - Only those types approved by the Board are allowed. Approval for each installation shall be requested in writing and must receive prior written Board approval.
3. Unit Integrity - No unit owner shall do or have done any work which may jeopardize the soundness or safety of the property, reduce the value thereof or impair any easement, rights, appurtenances or other hereditament consisting of common elements without the unanimous written consent of all other unit owners.
4. Propane Storage Tanks - No propane tanks shall be allowed at the property, except small propane tanks for exterior gas grills which must be used and stored in accordance to the applicable section of the City of Portland, Maine, Code of Ordinances.

D) LANDSCAPING

1. Approval and Responsibility - Any change or addition to plantings (shrubs and bushes) must receive written Board approval, and shall be subject to City of Portland approval, if applicable. Care and maintenance thereafter is the responsibility of the Association.
2. Special Restrictions - Landscaping must not impede mowing or the placement of snow removed from driveways and walks.

E) PETS

1. Pets are either dogs or cats. Any other species must receive written approval of the Board. Pets over forty-five (45) pounds in weight must receive written approval of the Board.
2. Total Number of Indoor/Outdoor Pets - Not more than two pets per unit.
3. Small Indoor Pets such as caged birds, hamsters, turtles, fish, etc., will not count as part of the pet quota.

4. Dogs are not allowed outside of their unit except on a leash or under control of a responsible person. Pet owners are responsible for any property damage, injury or disturbance their pets may cause or inflict. No animal shall be permitted to bark, howl, or make other loud noises for such time as disturbs neighbors' rest or peaceful enjoyment of their unit and adjacent common areas. No breeding of animals is allowed. Pet owners are responsible for the removal and proper disposal of animal wastes in all areas – both limited and common.

F) MISCELLANEOUS

1. Garage Sales - No unit owner shall hold a garage sale or any other type of outside sale without the prior written consent of the Board.
2. Clotheslines – Clotheslines are allowed in designated areas, as provided by the Board.
3. Exterior Lights - No additional spotlights or floodlights are permitted on the exterior of any unit.
4. Leasing - Members who lease must obtain a signed, written lease agreement from their tenant including provisions requiring the tenant to abide by all restrictions and obligations contained in the Condominium's Declaration, the Association's By-Laws, and all Rules & Regulations adopted by the Board. Such agreement must provide for termination of the lease on fourteen (14) days notice from the Board for failure to comply. A copy of the lease also must be filed with the Board within seven (7) days of its execution. A lease or other rental, including, without limitation, any rentals facilitated through any third-party/online services such as Airbnb, Homeaway.com or VRBO, shall be for a minimum of three (3) months.
5. Occupancy - A unit may be occupied by any number of individuals related by blood, marriage, adoption or domestic partnership. Unless the occupancy is governed by a written lease, a unit may be occupied by no more than two non-family members as roommates of the unit owner, provided that the unit owner is one of the other adult occupants. All occupants of the units shall be subject to the restrictions and obligations contained in the Condominium's Declaration, the Association's By-Laws, and all Rules & Regulations adopted by the Board, and shall execute a written agreement to such effect to be filed with the Board.
7. Periods of Absence – Members shall be responsible for ensuring that their units, and all equipment serving their unit, function properly during any extended period of absence, especially during winter months, to reduce the possibility of damage to any other units or common areas of the building. Members shall arrange for their

units to be checked regularly during their absence, and shall provide emergency contact information to the Board.

8. Vehicle Idling – Members, their tenants and invitees, shall take reasonable care to limit vehicle idling in the parking area. Signage shall be provided in the parking area to discourage idling.

G) COMPLAINTS, REMEDIES & CONCLUSION

1. All Complaints or Suggestions regarding maintenance, nuisances or general welfare must be submitted in writing to the Executive Board together with, if desired, a request for a hearing. If the matter is too urgent for this procedure to be practical, a member of the Board should be advised by telephone. Any group of unit owners wishing to make a complaint or suggestion may follow the above procedure nominating one or two spokespersons to represent it.

Rifugio, a Condominium, Fines Schedule & Policy

Goal of Rules and Fines -The goal of rules and fines is to promote the quality of life in the Condominium. Rules and fines should help to encourage harmony among Unit Owners and Board Members.

Unit Owners' Rights Regarding Fines -With the exception of monthly assessments, unit owners will be given oral notice of a violation. The owner has ten (10) days in which to request a hearing. If the infraction persists, written notice will be sent. The unit owner will be provided an opportunity to be heard at a specific time and place if he/she requests it. The owner's defense and any mitigating circumstances will be given a fair hearing by the Board.

Unit Owners' Grace Period - A fine will not be imposed until after a minimum of ten (10) days from the time of a hearing if one is scheduled. If no hearing is requested, the fine shall be imposed only after ten (10) days from postmark date of written notice.

Legal Status of Fines - Under the Maine Condominium Act, any fines imposed by the Board of Directors represent a lien on the unit owner's property. By law, the Board shall establish the fine schedule and impose fines for any new rules.

Schedule of Fines

1. General - A fine of \$50.00 will be levied for violations of all Rules from A through F, and \$5.00 per diem is added until the infraction is corrected.

2. Monthly Assessments - A charge of \$20.00 will be levied if the monthly assessment is not postmarked by the tenth (10th) day of the month in which it is due.

If the monthly assessment remains unpaid, interest at the rate of eighteen (18%) percent per annum will accrue on the unpaid amount.

Any money received on delinquent accounts will be applied to the oldest unpaid assessment.

There will be a \$25.00 charge for a returned check.

After 60 days of unpaid assessments, a lien will be placed on the property.

Other Types of Penalties - When necessary and appropriate, the Board of Directors may choose another type of penalty (such as removal of an obstacle), as provided in the Declaration.

September 4, 2020

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

RE: 126 North St.

To Whom It May Concern:

Josh Wojcik, Upright Properties and its affiliates are well known to Bangor Savings Bank. We have worked with Josh for over 10 years and have been directly involved in the financing of numerous successful projects. All accounts have been handled as agreed.

Bangor Savings Bank is providing financing for 128 R North St. The Bank is interested in entertaining financing for merged lots on North St. Josh has the financial capacity to successfully complete the proposed project. We are looking forward to more substantive conversations as this project materializes.

Please feel free to contact me should you need any additional information. I can be reached at (207) 974-4154; rick.fournier@bangor.com.

Sincerely,

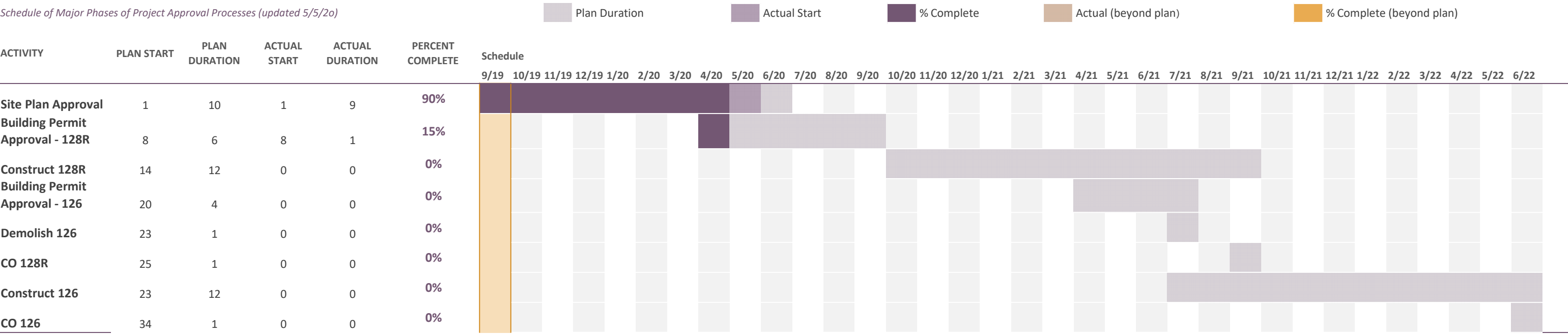


Richard L. Fournier, II
Vice President

128R & 126 North St

Att. GG

Schedule of Major Phases of Project Approval Processes (updated 5/5/2o)



NOTE: This schedule is for planning purposes only. This schedules carries with it the same inherent uncertainties involved in any project schedule relying on multiple parties and spanning 34 months. Factors including (but not limited to) the following may impact the actual timeline: Timings of City approvals and inspections; Availabilities of sub-contractors and materials; Labor shortages; Weather - specifically the severity of winter, which varies widely in Portland from year to year.

Section H

Technical Capacity

H. Technical Capacity

Acorn Engineering, Inc. has successfully permitted and engineered over 15 level II/III projects in Portland in the past 5 years, many of which have been constructed. Some examples include:

- Eldredge Lumber Expansion
- 127 York Street – Harborview Townhomes
- Munjoy Heights
- 89 Anderson St. – East Bayside Lofts
- 667 Congress St – The Hiawatha
- 121 Washington Ave Redevelopment
- 31 Fore Street Condominiums

Additionally, the rest of the design team is outlined below.

- Dextrous Creative (Architect – Tracie Reed) – Tracie Reed is a Maine Licensed, LEED AP and NCARB certified architect based in Portland. Her work encompasses a wide variety of commercial, residential and construction builds. In addition, she performs field work for High Performance Building Model Assessments in accordance with ASHRAE Level 2 Energy Audits guidelines, with the aim of reducing energy and water consumption. Tracie has received awards from the American Institute of Architects and has appeared in publications for the Journal of Green Building and Young Architect Forum Connection.





March 10, 2020

Caitlin Cameron, AICP, Associate AIA, LEED AP
Urban Designer
Planning & Urban Development Department
389 Congress Street
Portland, ME 04101

Re: 128R North Street Deck

Caitlin, Yesterday Civil Engineer Will Savage, our client Joshua Wojcik and I met with Shukria Wiar and Ann Machado. At the meeting we discussed Ann's zoning analysis of the site plan with a new color-coded site plan that makes the dimensioned setbacks easier to read.

To summarize our discussion:

- Based on our December 2018 pre-application meeting with city staff, our team was told that our project is required to meet all of the same conditions as front lots because the current overlay language does not distinguish between front and rear lots. It is for this reason that we revised our plans to comply with the 50% active street front provisions at that time. This is also why we have proposed offset side setbacks, which are largely prevalent in the neighborhood. It is this built-pattern flexibility that we seek to keep the back-deck side setback in this 4'-7" area at 8'-6". This still maintains the cumulative 20'-0" setback required in zoning. It also allows us to align the decks with the edge of our building, maintaining more traditional massing than offsetting the deck from the edge of the building by 2'-0". The area in question is bubbled on sheet A/A-1.1 to clarify.
- While our client's attorney notes that the maintenance easement does not address air rights we agreed to align upper decks with the 10'-0" maintenance easement with Munjoy Heights.
- In keeping with the built pattern at the street we pushed the circulation tower (stair/elevator) at the front of 128R North so it aligns with 126 North. The building was pushed 1.64' East which now makes the side setback in that area 10.2'
- Ann agreed that the 2'-0" eave at the second level is allowable under zoning to extend into the side setback. During the meeting she noted our team had been measuring the side setback along the diagonal to the face of our building incorrectly. She noted that we should have taken the measurement to the side of our building in a perpendicular line which means the face of our building as drawn is more than 10'-0" from the property line. The only area that is under 10'-0" (drawn at a 8.5' setback) is at the rear deck where the site narrows. This condition exists for approximately 4'-7".
- Note that elevations have been renamed in the attached set.
- We also shared the site section that was submitted as part of our revised packet.

Dextrous Creative
dextrouscreative.com
traciereed@dextrouscreative.com
Portland, ME 04101

We look forward to discussing the deck side setback with you and sharing our design revisions with the Planning Board on April 14th.

Regards,

A handwritten signature in black ink that reads "Tracie J. Reed". The signature is fluid and cursive, with the first name "Tracie" and last name "Reed" clearly legible.

Tracie J. Reed, Maine Licensed Architect, LEED AP, NCARB
Principal

CC: William Savage, P.E, and Sam Lebel, Acorn Engineering
Josh Wojcik, Upright Properties
Ann Machado, Zoning Administrator
Shukria Wair, Planner

Dextrous Creative
dextrouscreative.com
traciereed@dextrouscreative.com
Portland, ME 04101

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, Article V Section 14-526.

OVERVIEW

The proposed project includes a two-phase approach where Phase 1 would include the redevelopment of 128R into a four-story building with six condominiums and covered parking on the ground level. Phase 2 would include the redevelopment of 126 into a three-story building with six rental units. The demolition of 126 would occur prior to occupancy of 128R to allow for 16' wide of vehicular access to 128R as requested by the Fire Department.

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

The site is located at 126 and 128R North Street. North Street is classified as a local street and currently supports a low traffic volume. A negligible traffic increase along North Street is expected for this project due to the low turnover of the proposed land use.

2. Access and Circulation:

a. Site Access and Circulation:

- (i) The development will provide safe access and internal circulation for both pedestrians and vehicles as seen on the Site Plan.
- (ii) The proposed driveways will be in the same location as the existing driveways. Turning movements and traffic flows will not be conflicted.
- (iii) The site does not feature drive up services as mentioned in this requirement.

b. Loading and Servicing:

- (i) There are no anticipated loading and servicing needs.

c. Sidewalks:

- (i) An existing bituminous sidewalk exists on the westerly side of North Street.
- (ii) The small portion of sidewalk along the driveway will be rebuilt per the City's latest detail and specifications on driveway aprons and sidewalks.
- (iii) An internal sidewalk from the public ROW to the proposed site of 128R North Street will be constructed as seen on the Site Plan. The sidewalk would be subject to an access easement, providing pedestrian access for both sites.

3. Public Transit Access:

- a. Not applicable.



- b. Not applicable.
 - c. Not applicable.
4. Parking:
- a. Location and Required Number of Vehicle Parking Spaces:
 - (i) The proposed project on 126 & 128R North Street will provide 2 & 6 parking spaces respectively, which meets the requirement.
 - (ii) A parking study is not required.
 - (iii) The amount of parking exceeds the minimum requirement by more than 10% on 128R North Street. The proposed 6 spaces exceed the requirement by 3 spaces. This is to provide one space per unit which is the industry standard for condominiums. Given the recent development boom and an overall higher demand for on-street parking, decreasing the demand for on-street parking will benefit the end users as well as the entire neighborhood. For more information, please refer to section S. Parking Analysis.
 - (iv) A waiver has been requested to reduce the required stall length of 18' to 16.5' on 128R North Street.
 - (v) The driveways and parking areas will be constructed with bituminous pavement which will drain water without eroding.
 - b. Location and Required Number of Bicycle Parking Spaces:
 - (i) The site plan includes interior bicycle storage room. This will allow for the minimum storage of 2 bicycles on each site to be parked in a secure location, with the potential for additional storage within each owner's individual unit.
 - c. Motorcycles and Scooter Parking:
 - (i) There are no areas designated for motorcycles or scooters at this time; however, adequate room exists for the storage of these motor vehicles should an owner decided to use his/her deeded space for motorcycles or scooters.
 - d. Snow Storage:
 - (i) Given the parking areas will be covered in their entirety, snow removal is not required. In general, snow will be stored in green space. Snow storage for 126 North Street will be located on the southeast edge of the lot. See site plan C-10.
 - (ii) The snow storage has not been located where it will adversely impact the functionality of any part of the site.
5. Transportation Demand Management (TDM):
- a. A TDM plan is not required for this project.
 - b. A TDM plan is not required for this project.
 - c. A TDM plan is not required for this project.



(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:
 - a. Not applicable.
 - b. Not applicable.
2. Landscaping and Landscaping Preservation:
 - a. Landscape Preservation.
 - (i) The disturbance of trees and vegetation that are not proposed to be removed as part of the project will be limited as much as possible – namely along the side and rear property lines.
 - (ii) There are no trees 10 inches DBH or greater identified by the Surveyor within the setbacks.
 - (iii) It is not anticipated that the project will necessitate any tree protection.
 - (iv) A waiver is not requested.
 - (v) Not applicable.
 - b. Site Landscaping.
 - (i) Landscaped Buffers:
 - a. Solid waste will be handled internally and out of site from the public ROW.
 - b. The project at 128R has 0 linear feet of frontage along North Street; however, a multitude of plantings will be provided on site as outlined on the Landscape Plan. The 126 site also meets the landscaping requirement based on its minimal street frontage.
 - c. Not applicable.
 - d. Screening has been provided as outlined in the Landscape Plan.
 - (ii) Parking Lot Landscaping:
 - a. Not applicable – all parking is covered.
 - b. There is no proposed area with greater than 40 parking spaces without interrupted pavement.
 - c. Not applicable.
 - d. Not applicable.
 - e. Not applicable.
 - f. Not applicable.



(iii) Street Trees:

- a. The two existing street trees are proposed to remain. Given the minimal street frontage and existing trees, the Applicant will pay into the tree fund for the net deficit of nine street trees.
- b. Not applicable.

3. Water Quality, Stormwater Management and Erosion Control:

a. Stormwater:

- (i) The site drainage will not be directed to flow or pond onto adjacent lots. The drainage patterns will be altered to intercept the roof runoff as well as the driveway runoff, with the addition of stormwater best management practices to attenuate the flows.
 - (ii) Any stormwater that flows onto adjacent lots will not exceed the pre-development flows.
 - (iii) The runoff from the site into the City property will not increase from the pre-development condition.
 - (iv) Not applicable.
- b. A site-specific Stormwater Management Plan has been developed for the project to show compliance with Section 5 of the Technical Manual, including the basic standards of MEDEP Chapter 500. Please refer to sections J and K, the Stormwater Management and Erosion & Sedimentation Control Plans, respectively, for more information.
 - c. The project is not located in a watershed of an urban impaired stream as listed by the MEDEP.
 - d. Not applicable.
 - e. 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.
 - f. The development will provide for adequate and sanitary disposal of sewage in accordance with Section 2 of the Technical Manual.

(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. Not applicable.

2. Public Safety and Fire Prevention:

- a. The site has been designed to promote safe and inviting public access.



- b. Access is available to both buildings via the proposed 16' entrance to 128R North Street which will be constructed in Phase 1. The building will be sprinkled with a full NFPA 13 system.
 - c. A fire hydrant is located about 215' away located on 146 North street in front of the Island View Apartments. Another fire hydrant is located approximately 175' away on the corner of Walnut Street and North Street.
3. Availability and Adequate Capacity of Public Utilities:
- a. Public utilities in the vicinity of the site have capacity to serve the project. Ability to Serve letters have been sent to the respective companies. Responses have been included in the submission and any remaining responses will be submitted upon receipt.
 - b. The electrical service will be wired underground.
 - c. The new sewer and stormwater infrastructure will meet the provisions of the Technical Manual.
 - d. The projects will be served by connection to the public sewer system within North Street.
 - e. The sanitary sewer collection system meets all applicable sections of the Technical Manual. The stormwater management system is designed to meet the standards of Chapter 500.
 - f. Although not required, the project anticipates providing internal solid waste storage with private hauling of the waste.

(d) Site Design Standards

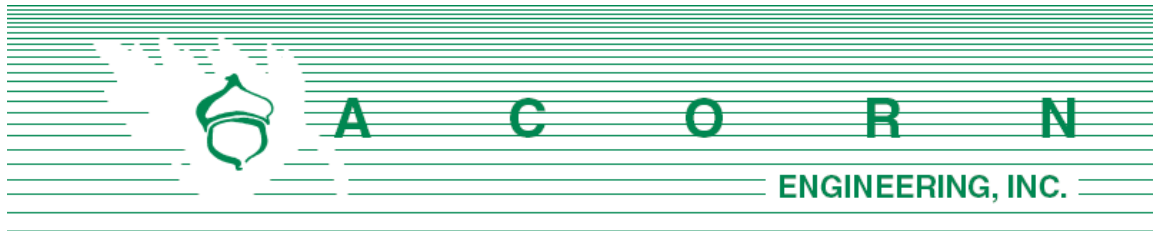
1. Massing, Ventilation and Wind Impact:
- a. Not applicable.
 - b. Not applicable.
 - c. Not applicable.
2. Shadows:
- a. The shadows created by the building will not influence public open spaces.
3. Snow and Ice Loading:
- a. The structures will not distribute snow and ice onto adjacent properties.
4. View Corridors:
- a. The project site is located outside the Downtown Vision View Corridor Protection Plan.
5. Historic Resources:
- a. The development is not located in a historic district, historic landscape district or City designated landmark.
 - b. The development is not located adjacent to designated landmarks, historic district, or historic



landscape district. The pending Munjoy Hill historic district may abut the project in the future.

- c. There are no known archaeological resources on the site.
6. Exterior Lighting:
- a. Site Lighting.
 - (i) Exterior lighting will be designed to meet the requirements of Section 12 of the Technical Manual. A photometric plan has been included with this submission.
 - (ii) Any lighting that may adversely impact the abutting residential properties will feature house-side shielding.
 - b. Architectural and Specialty Lighting.
 - (i) No architectural or specialty lighting is proposed.
 - (ii) No up-lighting is proposed.
 - c. Street Lighting.
 - (i) No new street lights are proposed.
7. Noise and Vibration:
- a. The HVAC system will meet the applicable state and federal emissions requirements and will also be screened and directed away from abutters.
8. Signage and Wayfinding:
- a. All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.
 - (i) The project is not located in a historic district or subject to Article IX.
 - (ii) Not applicable.
 - (iii) All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.
9. Zoning Related Design Standards:
- a. The project has been designed to meet the standards set forth in the R-6 zone. Please refer to the Site Plan for more information on the Space & Bulk Standards.





STORMWATER MANAGEMENT **REPORT**

Prepared For:

Upright Properties, LLC

Prepared By:

Acorn Engineering, Inc.

P.O. Box 3372

65 Hanover Street Portland, Maine 04101



December 2019

Rev. October 2019

Rev. February 2020

INTRODUCTION

Acorn Engineering, Inc., has been retained by Upright Properties, LLC to provide civil engineering services for the proposed development at 126 and 128R North Street. The existing structures would be demolished and replaced with a six-unit condominium and a six-unit rental. The project will increase the site's impervious area by greater than 1,000 square feet and as such is subject to water quality standards.

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.

EXISTING CONDITIONS

The proposed project site is located at 126/128R North Street. A boundary plan has been prepared by Nadeau Land Surveys from Portland, Maine dated August 22, 2018. All abutting uses are residential.

Both properties are currently accessed by bituminous driveways off North Street. The majority of the subject parcel's impervious area is attributed to the main structure and the driveway. Smaller areas are made up of walkways and a shed. The site slopes down significantly towards the southwest. The steep slope runs towards a concrete block retaining wall constructed as part of the Munjoy Heights project in 2015. A 10' maintenance easement runs along the rear property line which would provide future access for the Munjoy Heights Homeowner's Association to repair or replace the wall when necessary. Approximately half of the single-family's roof runoff is directed toward this wall and site.

The project team is not aware of the presence of any existing significant natural features located on the site. Given the urban setting, existing free-draining soils and steep slopes a field inventory of significant natural feature was not undertaken. The project is not located within a watershed classified as an Urban Impaired Stream.

PROPOSED DEVELOPMENT

The proposed redevelopment includes the demolition of the existing structures and construction of two structures, both with open-air/covered parking. A series of impermeable decks supported by columns will protrude from the rear of the structure. The columns on 128R will be placed on piers set below the angle of influence to the downgradient retaining wall. Furthermore, a proposed cast-in-place retaining wall up to 5' is proposed on the subject parcel to facilitate the parking. The wall will be designed and constructed in conjunction with the main structure's foundation as well as the supporting columns.

Through a series of roof drains, gutters, and a downspout, the entirety of the roof and deck runoff (which is essentially the extent of the 128R parking) are proposed to be routed to a



proprietary high-flow media rain garden at the northerly corner of the site. The design is based off a Focal Point system manufactured by ACF Environmental. The footprint of the filter media is 21 square feet and has an infiltration rate of 100 inches per hour. Below the media, 48 maintenance modules will sit above crushed stone to provide storage of the filtered water before being collected by the underdrain and piped to the street. To provide further attenuation and reduce peak flowrates to North Street, a 3.25" orifice will be provided on the outlet of the 4" underdrain.

Above the media, the garden will allow for 6 inches of ponding before overflowing into an overflow beehive grate which bypasses the filter media. The runoff generated by the building and driveway at 126 will be routed to a catch basin and storm drain lateral directed to the sewer main.

The development will be served by the Portland Water District, underground power/cable/communications, natural gas and the municipal sewer system. The project anticipates incorporating Maine DEP approved stormwater Best Management Practices (BMP) to meet the General and Flooding Standards.

GENERAL STANDARDS - WATER QUALITY

The development shall provide water quality treatment for no less than 95% of the new impervious area and 80% of the developed area. The project includes the redevelopment of existing impervious area including rooftops, asphalt driveways, and walkways. Water quality treatment shall be provided through the use of a proprietary high-flow filter media rain garden. The proposed system is a Focal Point rain garden with maintenance modules. This system is manufactured by ACF Environmental.

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

The treatment of the impervious surface is as follows:

Table 1 – Impervious Treatment Area Table				
Existing Impervious Area (SF)	Total Proposed Impervious Area (SF)	New Impervious Area (SF)	Proposed Impervious Area with Treatment (SF)	Overall New Imp. Area Treated
5,705*	7,713*	2,008	3,558	177%

*Areas include shared driveway

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

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

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

Table 2 – Water Quality Volume			
Tributary Impervious Area (SF)	Tributary Pervious Area (SF)	Water Quality Volume Required (CF)	System Storage Volume Provided (CF)
3,558	223	304	319

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

FLOODING STANDARD – WATER QUANTITY

The proposed project was modeled using HydroCAD to verify that the post-development conditions do not exceed the pre-development conditions. A 24-hour SCS Type III storm distribution for the 2, 10, and 25-year storm events were used. The corresponding rainfall amounts for these storms are 3.10”, 4.60”, and 5.80” respectively.

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

Time of Concentration (T_c)

Within the pre-development, calculating a T_c using site specific flow paths yielded less than 5 minutes. A consistent time of concentration (T_c) of 5 minutes was applied to each subcatchment for both the pre and post-development conditions.

Pre-development Calculations

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

- Subcatchment 1 – This tributary includes the front half of the 128R pitched roof, a portion of the concrete walk, the driveway between the existing house and North St., and green space., 126 North structure and driveway.
- Subcatchment 2 – This tributary includes the rear half of the pitched roof, the shed, a portion of the concrete walk, and the embankment upgradient of the Munjoy Heights retaining wall.

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

Peak flow rates for the storm events are as follows:



Table 3 – Pre-Development Peak Stormwater Flows			
Drainage Area	2 – Year Storm Event (cfs)	10 – Year Storm Event (cfs)	25 – Year Storm Event (cfs)
Total Runoff	0.5	0.9	1.2

Post-development Calculations:

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

- Subcatchment 1.1 – This tributary includes the entirety of the 128 R roof, the decks, and a small amount of green space all flowing to the high-flow rain garden.
- Subcatchment 1 – This tributary includes green space on both properties flowing to field inlets and a catch basin, the brick walkways, the proposed 126 structure, and the two driveways.
- Subcatchment 2 – This tributary includes a portion of the proposed retaining wall as well as green space and the embankment upgradient of the existing retaining wall on the Munjoy Heights site.

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

It should be noted that the existing driveway was modeled in both the pre and post conditions. Despite the property lines, it is functionally part of the site and tributary to North Street along with a portion of the subject parcel. Therefore, its hydrology and contribution to stormwater runoff was included within both models.

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

Table 4 – Comparison of Peak Flows						
Drainage Area	2 – Year Storm Event (cfs)		10 – Year Storm Event (cfs)		25 – Year Storm Event (cfs)	
Total Runoff	Pre	Post	Pre	Post	Pre	Post
	0.5	0.4	0.9	0.6	1.2	0.8

As shown in Table 4 the net impact of the post development peak flows will remain at or below the predevelopment levels. A post-development watershed map developed for this project can be viewed in Attachment B, and a copy of the HydroCAD calculations is included within Attachment C of this report.

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. 6/17/12 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
Hinckley	.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.

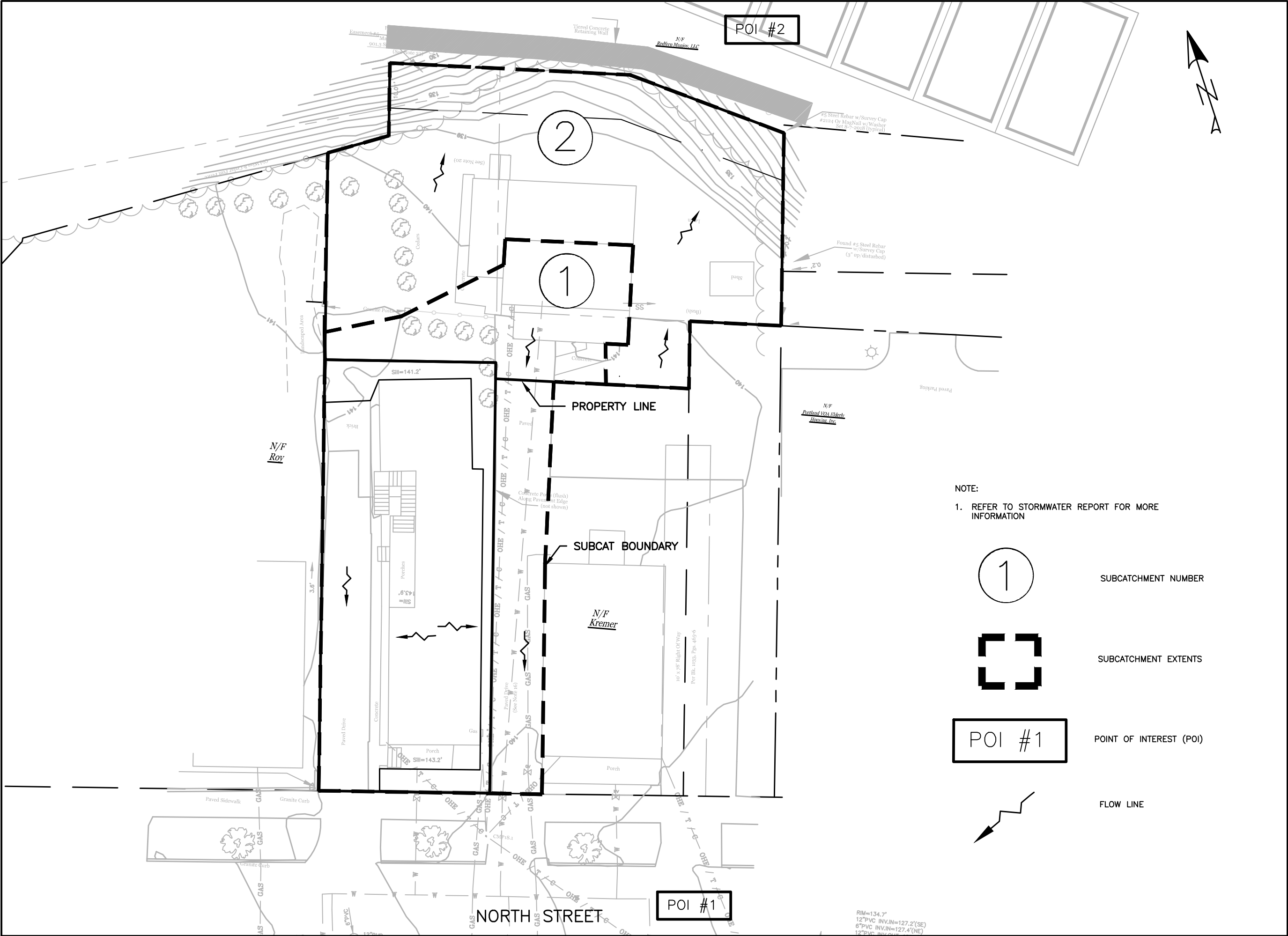
Conclusion

The proposed 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. As a result, the design of the proposed development and stormwater system, the project does not anticipate to create erosion, drainage or runoff problems either in the development or with respect to adjoining properties. The existing flows will be maintained, but redirected to the stormwater system through LID techniques rather than the abutting property.

Attachments

Attachment A: Pre Development Watershed Map
Attachment B: Post Development Watershed Map
Attachment C: HydroCAD Calculations





ISSUED FOR	BY DATE
FINAL APP.	WHS 6/7/19
PHASE II UPDATE	WHS 10/29/19
REVISION	REV. DATE

DRAWING NAME:	PRE-DEVELOPMENT WATERSHED MAP
PROJECT NAME:	128R NORTH STREET
CLIENT:	UPRIGHT FRAMEWORKS, LLC PORTLAND, ME



65 HANOVER ST PORTLAND,
MAINE 04101
(207) 775-2655

FILE: 1116_CIVIL

JN: 1116

SCALE: 1"=20'

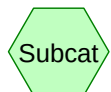
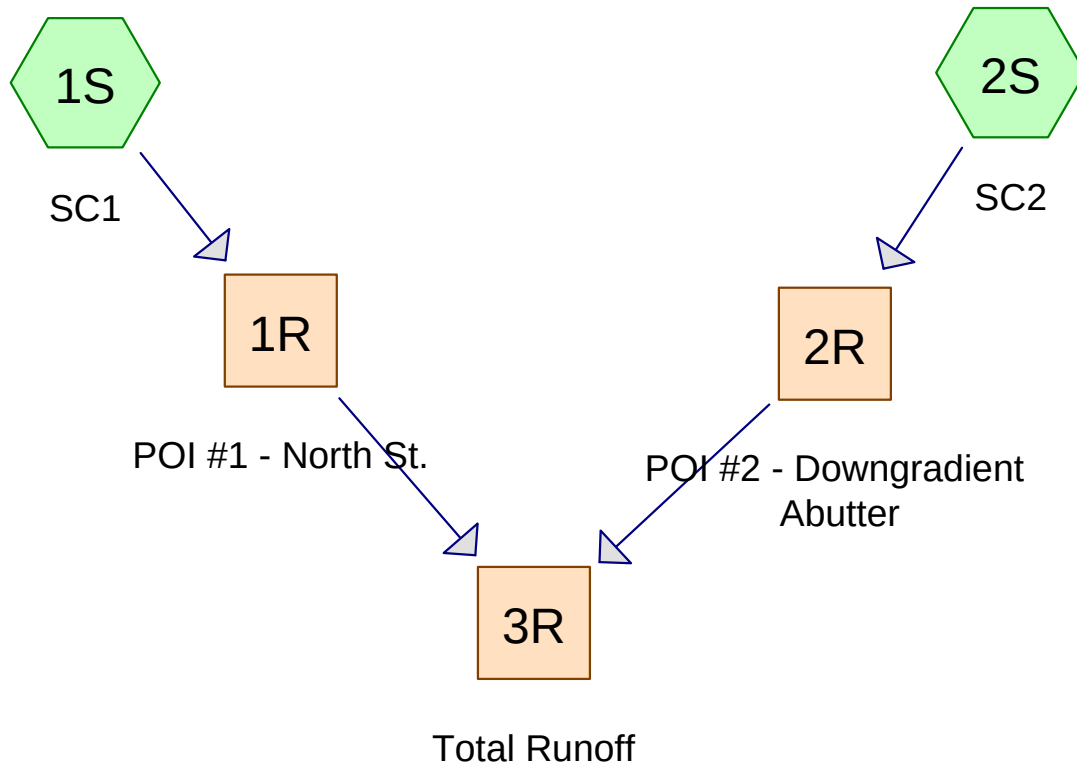
DESIGN BY: SJL

DRAWN BY: SJL

CHECKED BY: WHS

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.

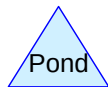
DRAWING NO.
PRE



Subcat



Reach



Pond



Link

Routing Diagram for Pre Development 10-29

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Pre Development 10-29

Prepared by Acorn Eng

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.016	98	(2S)
0.118	74	>75% Grass cover, Good, HSG C (1S, 2S)
0.090	98	Pavement, roof, concrete (1S)
0.025	98	shared driveway (1S)
0.249	87	TOTAL AREA

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Soil Listing (all nodes)

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

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.000	0.016	0.016		2S
0.000	0.000	0.118	0.000	0.000	0.118	>75% Grass cover, Good	1S, 2S
0.000	0.000	0.000	0.000	0.090	0.090	Pavement, roof, concrete	1S
0.000	0.000	0.000	0.000	0.025	0.025	shared driveway	1S
0.000	0.000	0.118	0.000	0.131	0.249	TOTAL AREA	

Pre Development 10-29

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

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Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: SC1

Runoff Area=6,051 sf 82.73% Impervious Runoff Depth=2.45"

Tc=5.0 min CN=94 Runoff=0.40 cfs 0.028 af

Subcatchment2S: SC2

Runoff Area=4,811 sf 14.53% Impervious Runoff Depth=1.14"

Tc=5.0 min CN=77 Runoff=0.15 cfs 0.011 af

Reach 1R: POI #1 - North St.

Inflow=0.40 cfs 0.028 af

Outflow=0.40 cfs 0.028 af

Reach 2R: POI #2 - Downgradient Abutter

Inflow=0.15 cfs 0.011 af

Outflow=0.15 cfs 0.011 af

Reach 3R: Total Runoff

Inflow=0.54 cfs 0.039 af

Outflow=0.54 cfs 0.039 af

Total Runoff Area = 0.249 ac Runoff Volume = 0.039 af Average Runoff Depth = 1.87"
47.48% Pervious = 0.118 ac 52.52% Impervious = 0.131 ac

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

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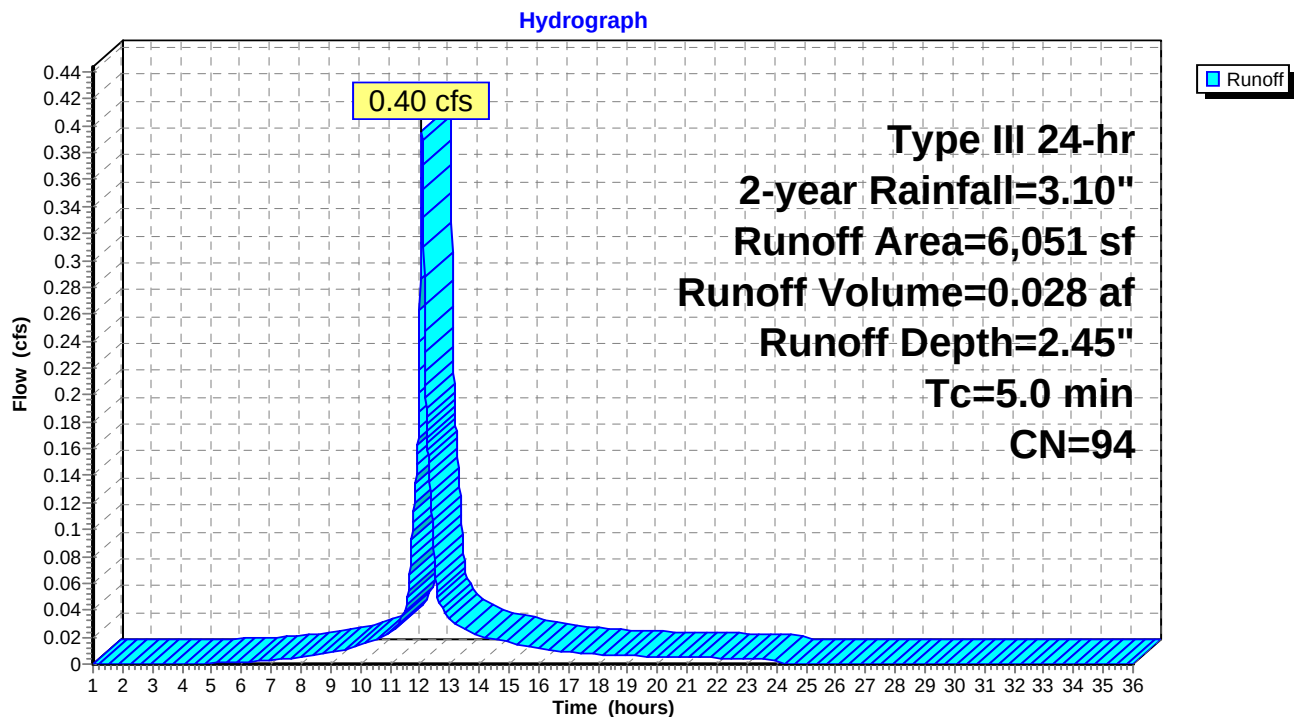
Summary for Subcatchment 1S: SC1

Runoff = 0.40 cfs @ 12.07 hrs, Volume= 0.028 af, Depth= 2.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
	1,045	74	>75% Grass cover, Good, HSG C
*	3,929	98	Pavement, roof, concrete
*	1,077	98	shared driveway
	6,051	94	Weighted Average
	1,045		17.27% Pervious Area
	5,006		82.73% Impervious Area

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

Subcatchment 1S: SC1

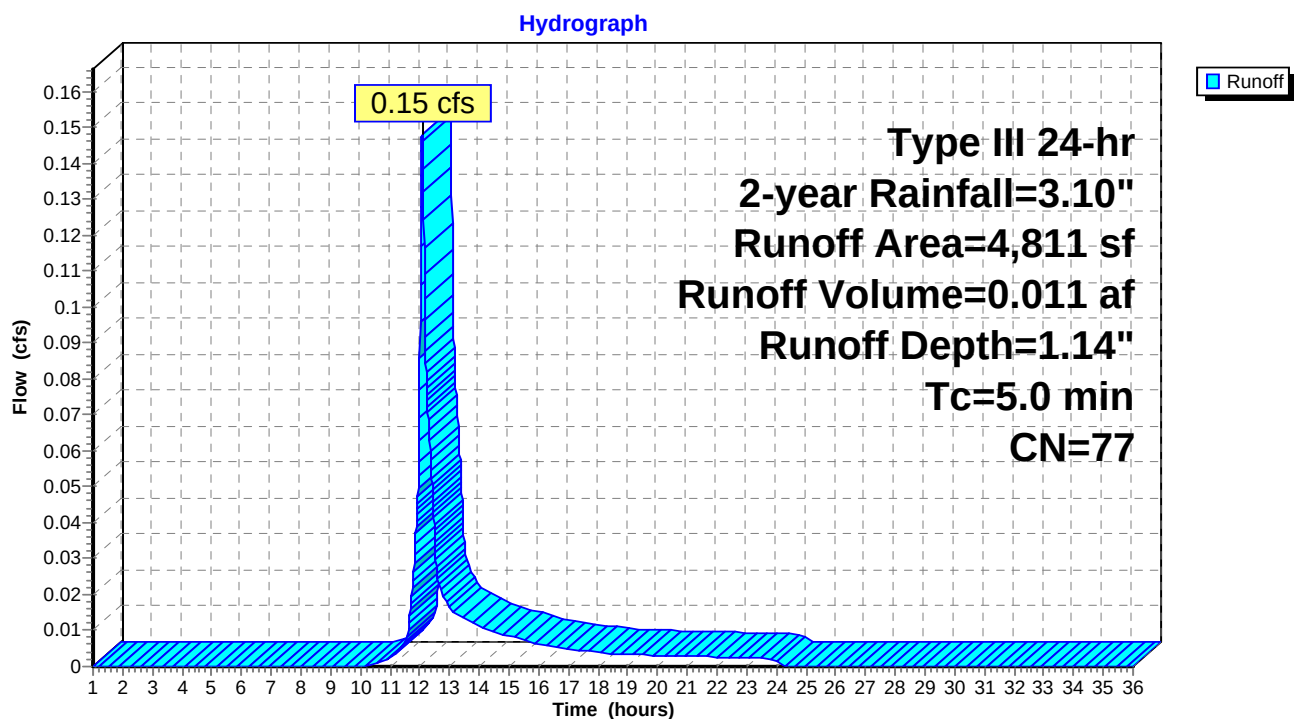
Summary for Subcatchment 2S: SC2

Runoff = 0.15 cfs @ 12.08 hrs, Volume= 0.011 af, Depth= 1.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	699	98	
	4,112	74	>75% Grass cover, Good, HSG C
	4,811	77	Weighted Average
	4,112		85.47% Pervious Area
	699		14.53% Impervious Area

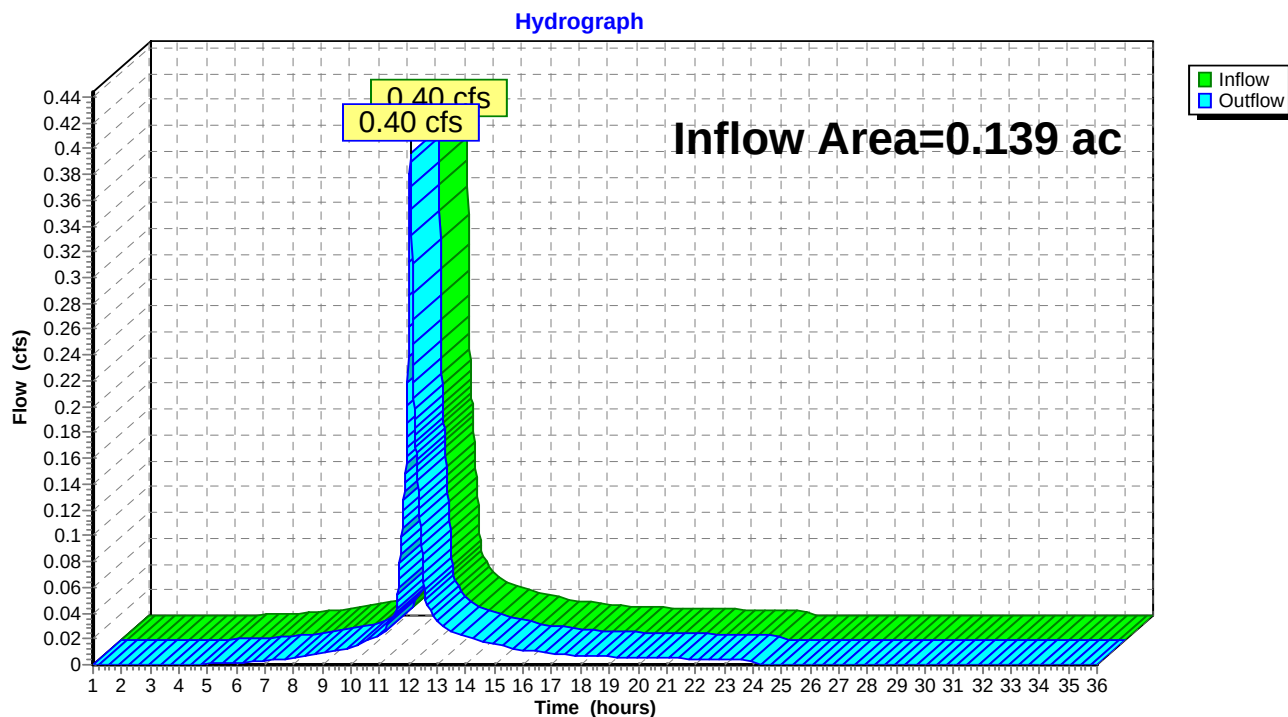
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Direct Urban Environment

Subcatchment 2S: SC2

Summary for Reach 1R: POI #1 - North St.

Inflow Area = 0.139 ac, 82.73% Impervious, Inflow Depth = 2.45" for 2-year event
Inflow = 0.40 cfs @ 12.07 hrs, Volume= 0.028 af
Outflow = 0.40 cfs @ 12.07 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min

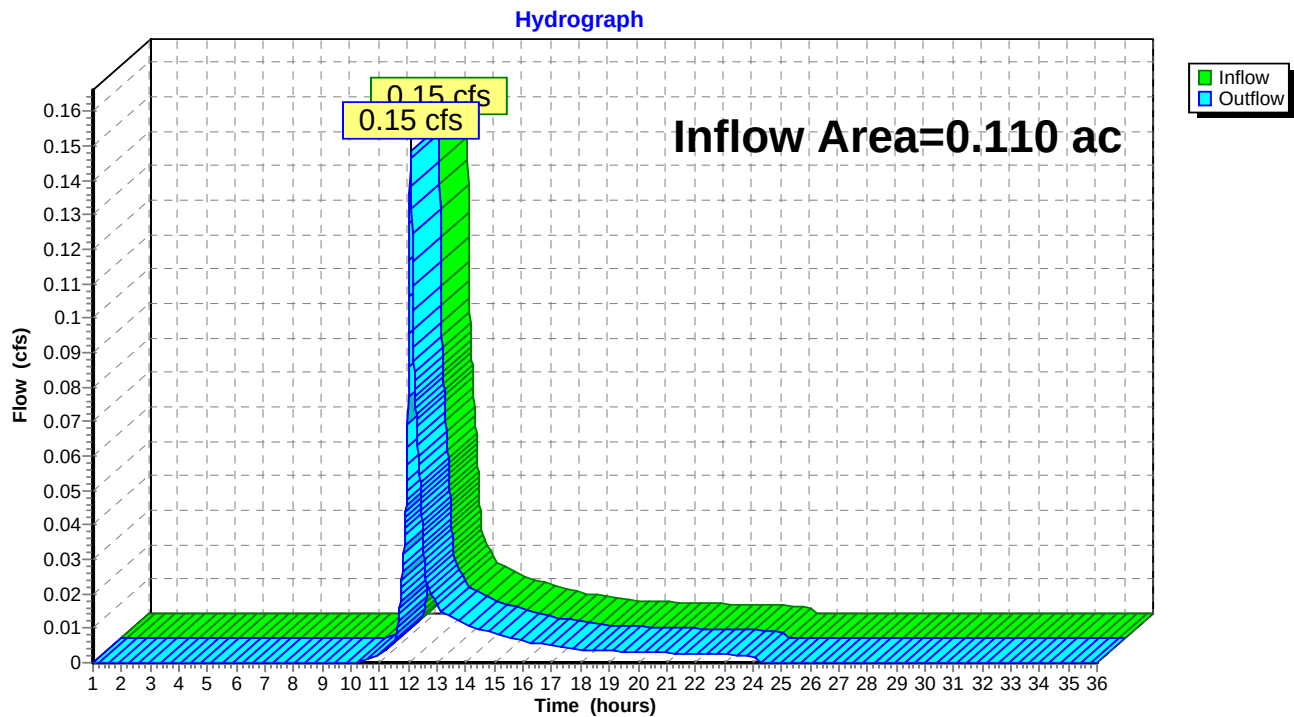
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 1R: POI #1 - North St.

Summary for Reach 2R: POI #2 - Downgradient Abutter

Inflow Area = 0.110 ac, 14.53% Impervious, Inflow Depth = 1.14" for 2-year event
Inflow = 0.15 cfs @ 12.08 hrs, Volume= 0.011 af
Outflow = 0.15 cfs @ 12.08 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min

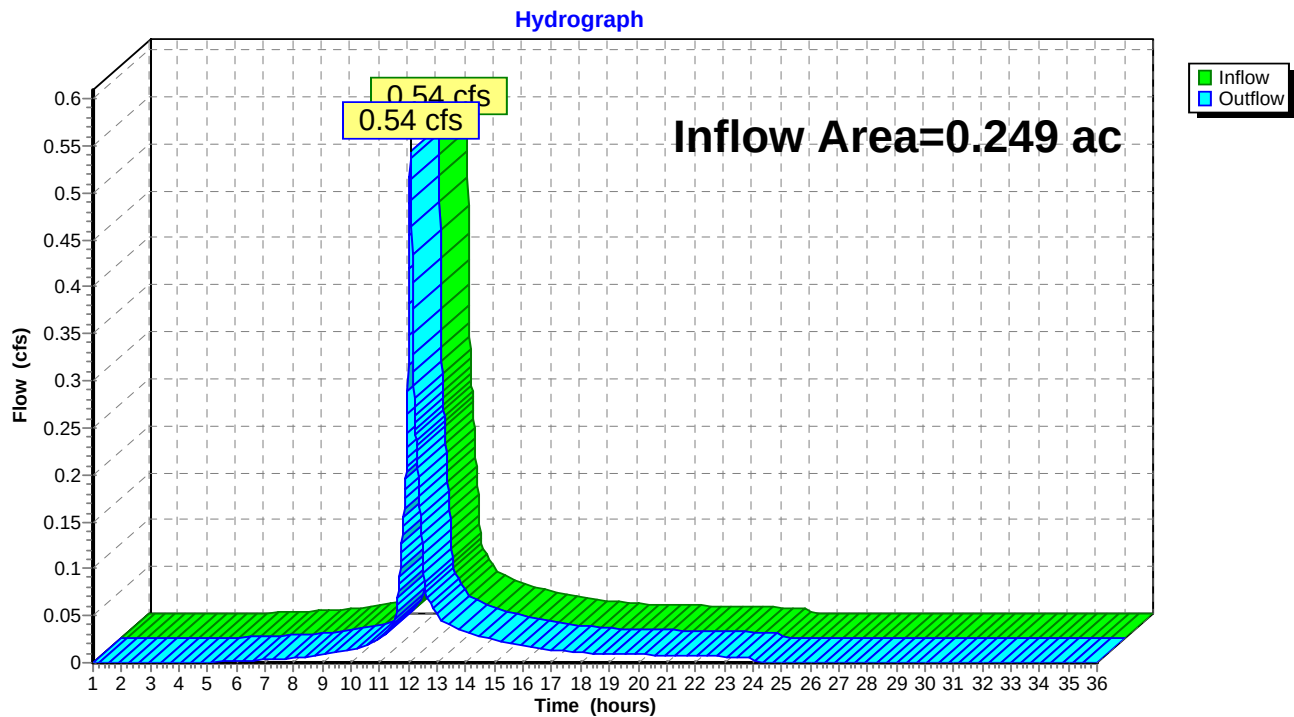
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 2R: POI #2 - Downgradient Abutter

Summary for Reach 3R: Total Runoff

Inflow Area = 0.249 ac, 52.52% Impervious, Inflow Depth = 1.87" for 2-year event
Inflow = 0.54 cfs @ 12.07 hrs, Volume= 0.039 af
Outflow = 0.54 cfs @ 12.07 hrs, Volume= 0.039 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 3R: Total Runoff

Pre Development 10-29*Type III 24-hr 10-year Rainfall=4.60"*

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Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: SC1

Runoff Area=6,051 sf 82.73% Impervious Runoff Depth=3.91"

Tc=5.0 min CN=94 Runoff=0.62 cfs 0.045 af

Subcatchment2S: SC2

Runoff Area=4,811 sf 14.53% Impervious Runoff Depth=2.29"

Tc=5.0 min CN=77 Runoff=0.31 cfs 0.021 af

Reach 1R: POI #1 - North St.

Inflow=0.62 cfs 0.045 af

Outflow=0.62 cfs 0.045 af

Reach 2R: POI #2 - Downgradient Abutter

Inflow=0.31 cfs 0.021 af

Outflow=0.31 cfs 0.021 af

Reach 3R: Total Runoff

Inflow=0.92 cfs 0.066 af

Outflow=0.92 cfs 0.066 af

Total Runoff Area = 0.249 ac Runoff Volume = 0.066 af Average Runoff Depth = 3.20"
47.48% Pervious = 0.118 ac 52.52% Impervious = 0.131 ac

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

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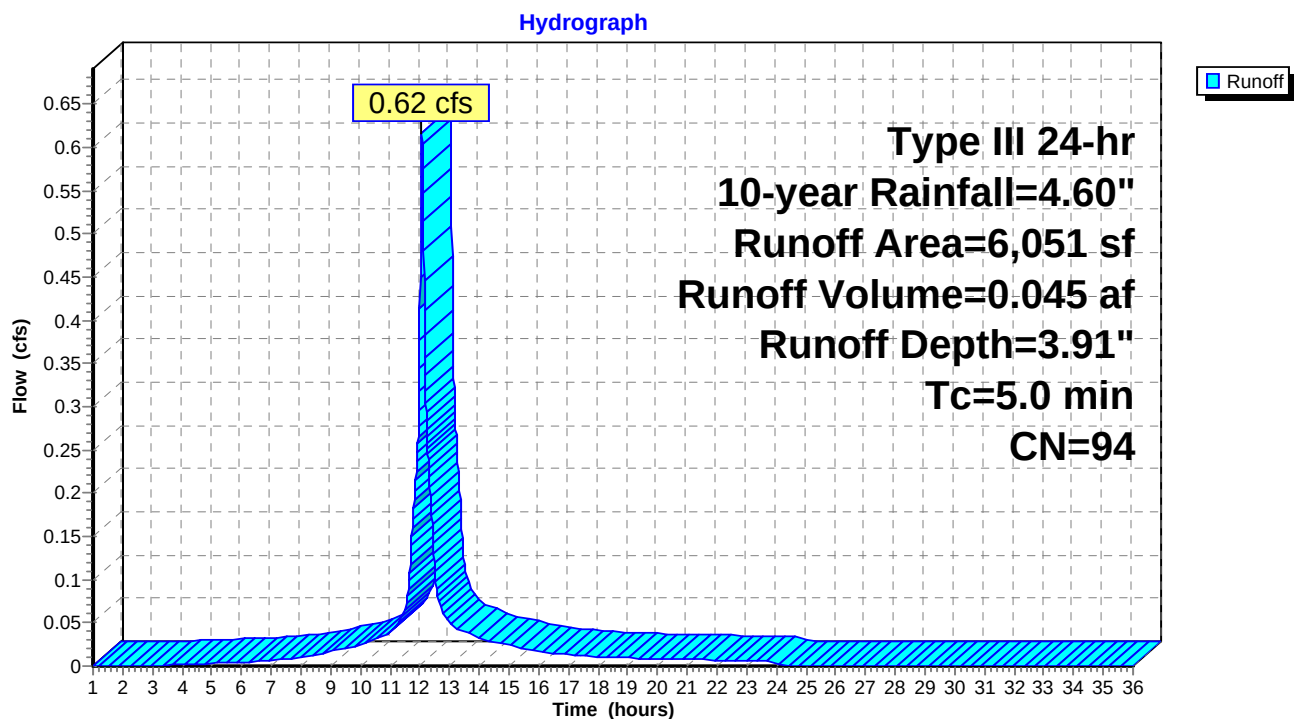
Summary for Subcatchment 1S: SC1

Runoff = 0.62 cfs @ 12.07 hrs, Volume= 0.045 af, Depth= 3.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
	1,045	74	>75% Grass cover, Good, HSG C
*	3,929	98	Pavement, roof, concrete
*	1,077	98	shared driveway
	6,051	94	Weighted Average
	1,045		17.27% Pervious Area
	5,006		82.73% Impervious Area

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

Subcatchment 1S: SC1

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

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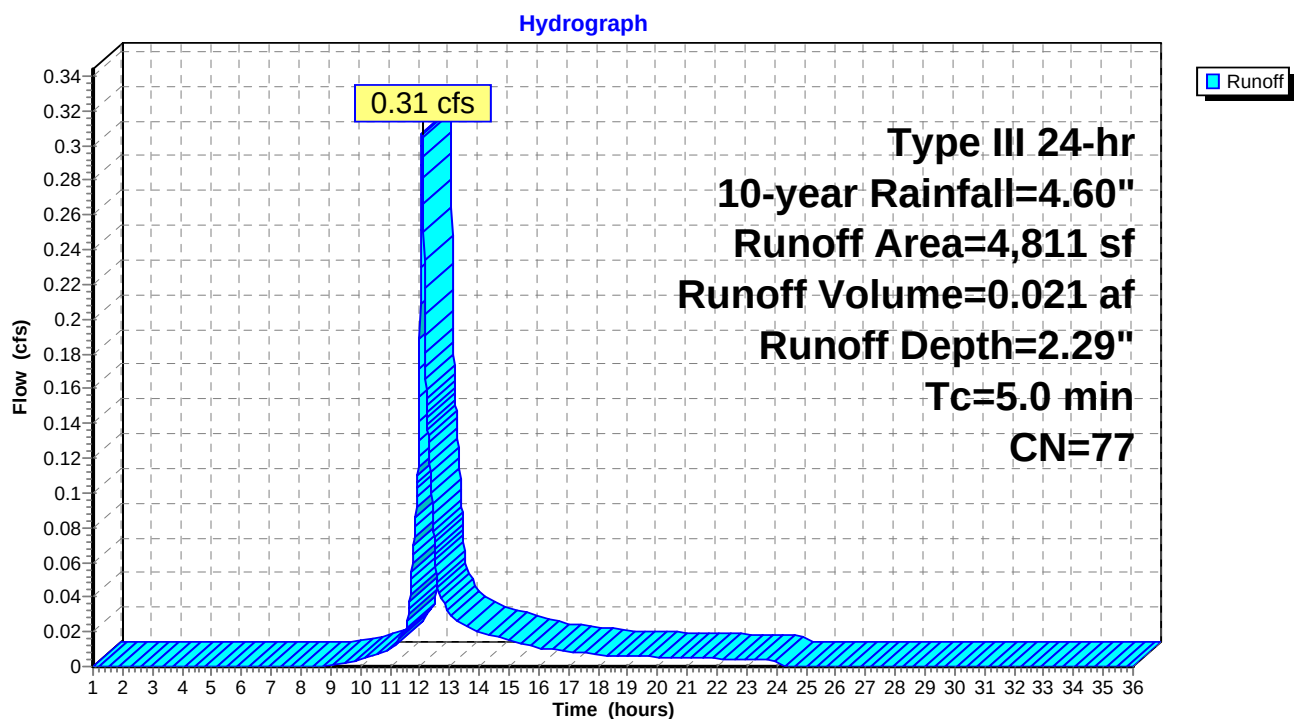
Summary for Subcatchment 2S: SC2

Runoff = 0.31 cfs @ 12.08 hrs, Volume= 0.021 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	699	98	
	4,112	74	>75% Grass cover, Good, HSG C
	4,811	77	Weighted Average
	4,112		85.47% Pervious Area
	699		14.53% Impervious Area

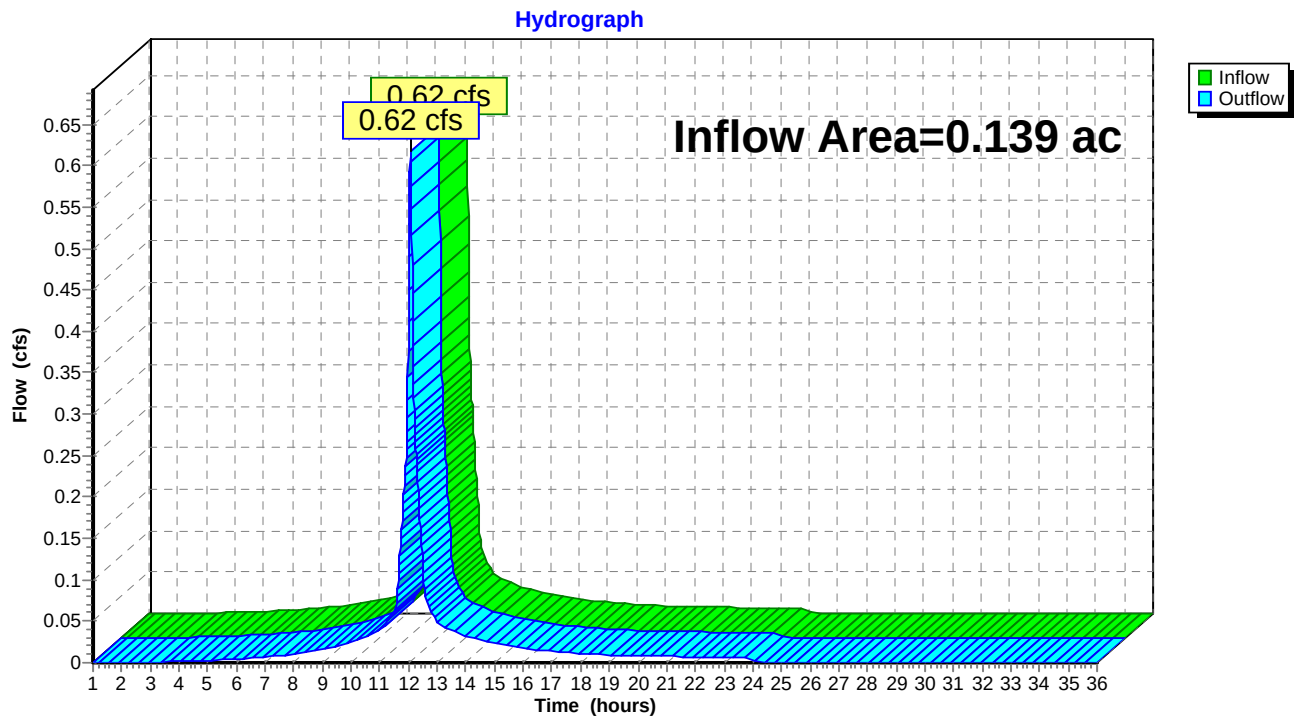
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Direct Urban Environment

Subcatchment 2S: SC2

Summary for Reach 1R: POI #1 - North St.

Inflow Area = 0.139 ac, 82.73% Impervious, Inflow Depth = 3.91" for 10-year event
Inflow = 0.62 cfs @ 12.07 hrs, Volume= 0.045 af
Outflow = 0.62 cfs @ 12.07 hrs, Volume= 0.045 af, Atten= 0%, Lag= 0.0 min

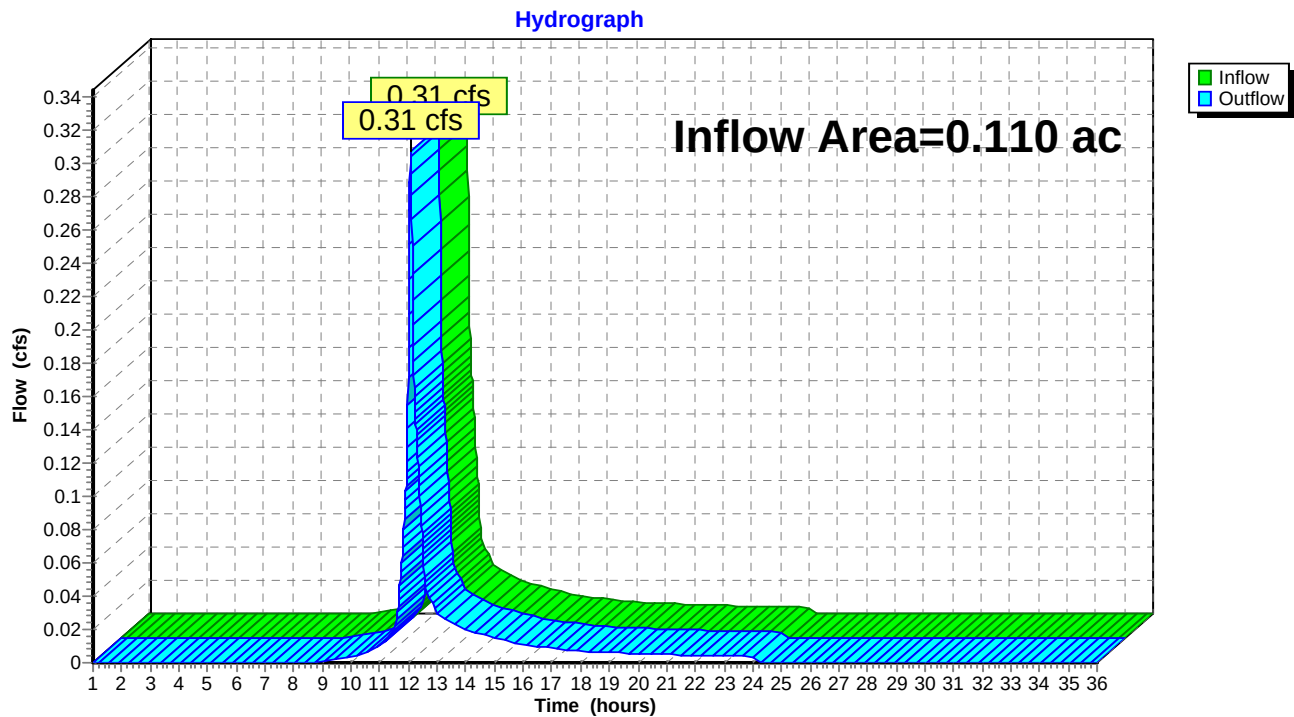
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Reach 1R: POI #1 - North St.

Summary for Reach 2R: POI #2 - Downgradient Abutter

Inflow Area = 0.110 ac, 14.53% Impervious, Inflow Depth = 2.29" for 10-year event
Inflow = 0.31 cfs @ 12.08 hrs, Volume= 0.021 af
Outflow = 0.31 cfs @ 12.08 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

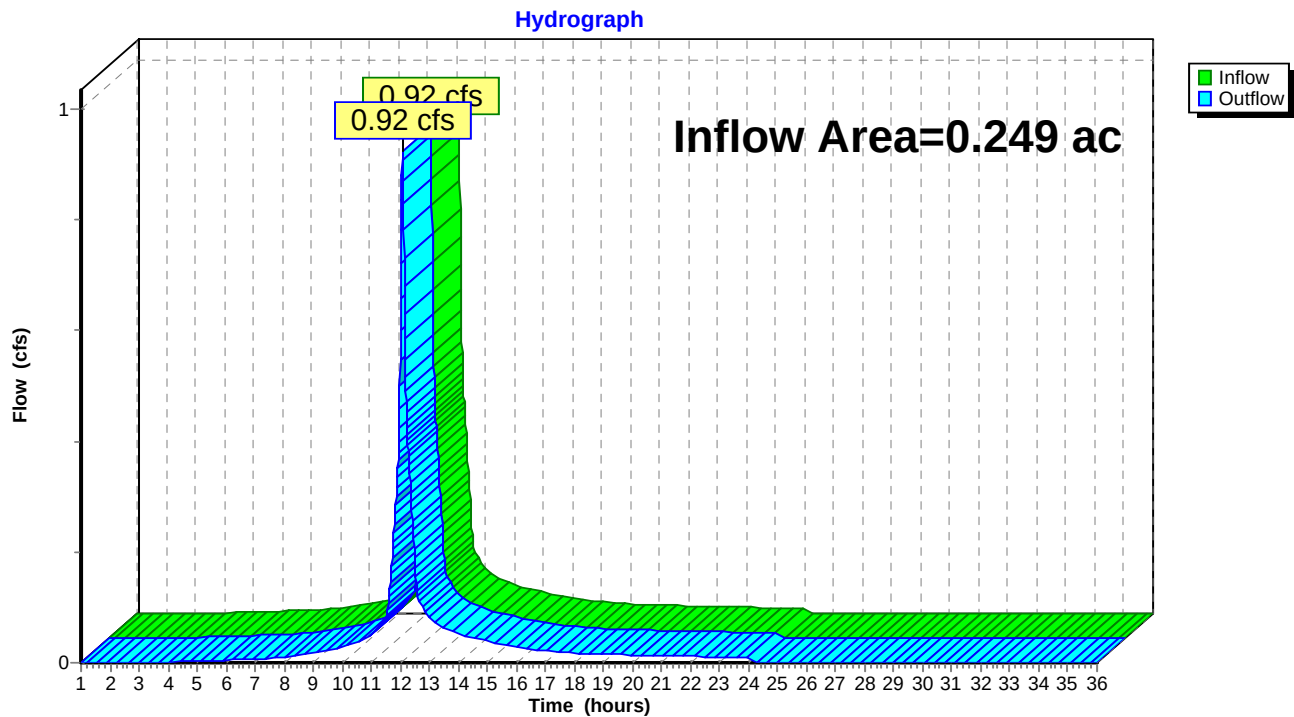
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 2R: POI #2 - Downgradient Abutter

Summary for Reach 3R: Total Runoff

Inflow Area = 0.249 ac, 52.52% Impervious, Inflow Depth = 3.20" for 10-year event
Inflow = 0.92 cfs @ 12.07 hrs, Volume= 0.066 af
Outflow = 0.92 cfs @ 12.07 hrs, Volume= 0.066 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 3R: Total Runoff

Pre Development 10-29*Type III 24-hr 25-year Rainfall=5.80"*

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Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: SC1

Runoff Area=6,051 sf 82.73% Impervious Runoff Depth=5.10"

Tc=5.0 min CN=94 Runoff=0.79 cfs 0.059 af

Subcatchment2S: SC2

Runoff Area=4,811 sf 14.53% Impervious Runoff Depth=3.31"

Tc=5.0 min CN=77 Runoff=0.44 cfs 0.030 af

Reach 1R: POI #1 - North St.

Inflow=0.79 cfs 0.059 af

Outflow=0.79 cfs 0.059 af

Reach 2R: POI #2 - Downgradient Abutter

Inflow=0.44 cfs 0.030 af

Outflow=0.44 cfs 0.030 af

Reach 3R: Total Runoff

Inflow=1.24 cfs 0.089 af

Outflow=1.24 cfs 0.089 af

Total Runoff Area = 0.249 ac Runoff Volume = 0.089 af Average Runoff Depth = 4.30"
47.48% Pervious = 0.118 ac 52.52% Impervious = 0.131 ac

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

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Summary for Subcatchment 1S: SC1

Runoff = 0.79 cfs @ 12.07 hrs, Volume= 0.059 af, Depth= 5.10"

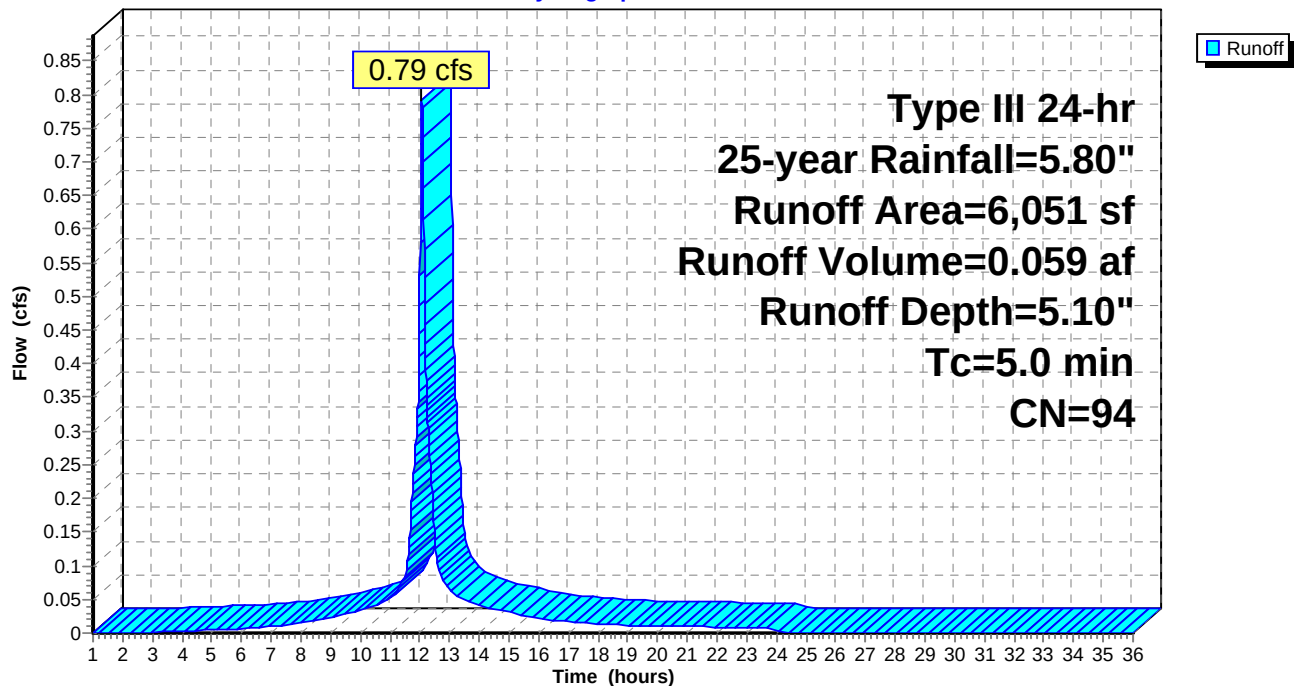
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
	1,045	74	>75% Grass cover, Good, HSG C
*	3,929	98	Pavement, roof, concrete
*	1,077	98	shared driveway
	6,051	94	Weighted Average
	1,045		17.27% Pervious Area
	5,006		82.73% Impervious Area

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

Subcatchment 1S: SC1

Hydrograph



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

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Summary for Subcatchment 2S: SC2

Runoff = 0.44 cfs @ 12.07 hrs, Volume= 0.030 af, Depth= 3.31"

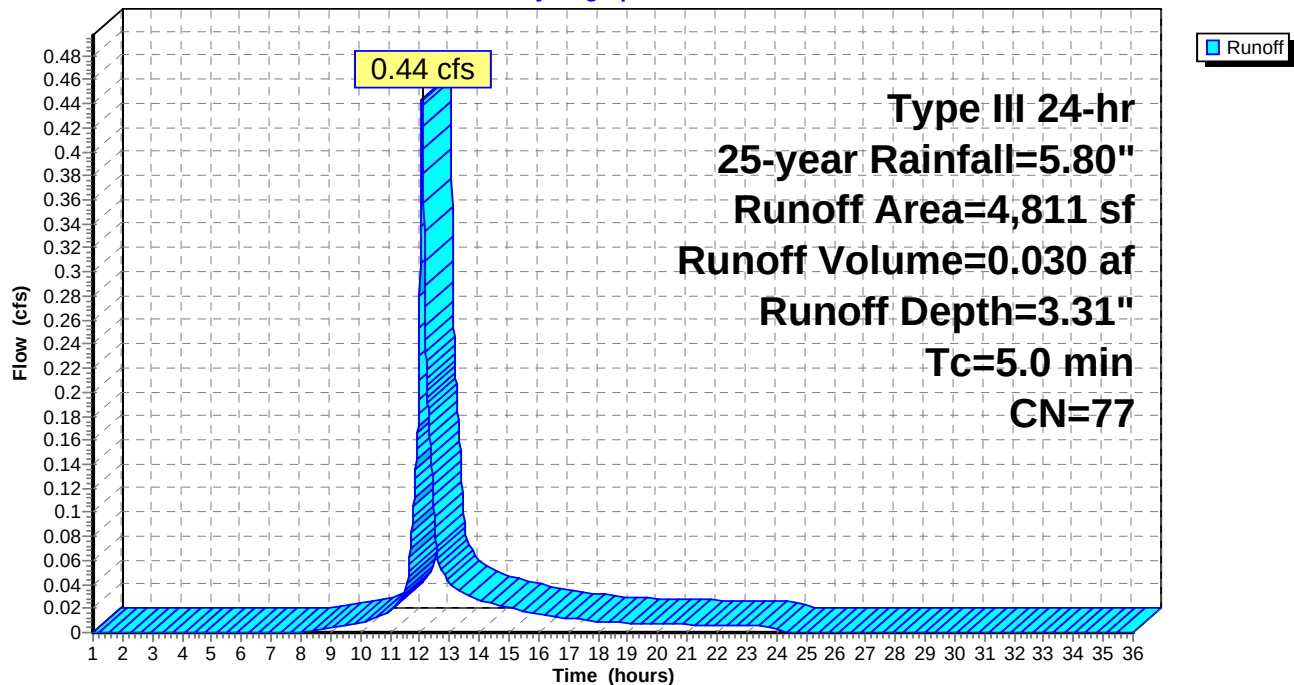
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	699	98	
	4,112	74	>75% Grass cover, Good, HSG C
	4,811	77	Weighted Average
	4,112		85.47% Pervious Area
	699		14.53% Impervious Area

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

Subcatchment 2S: SC2

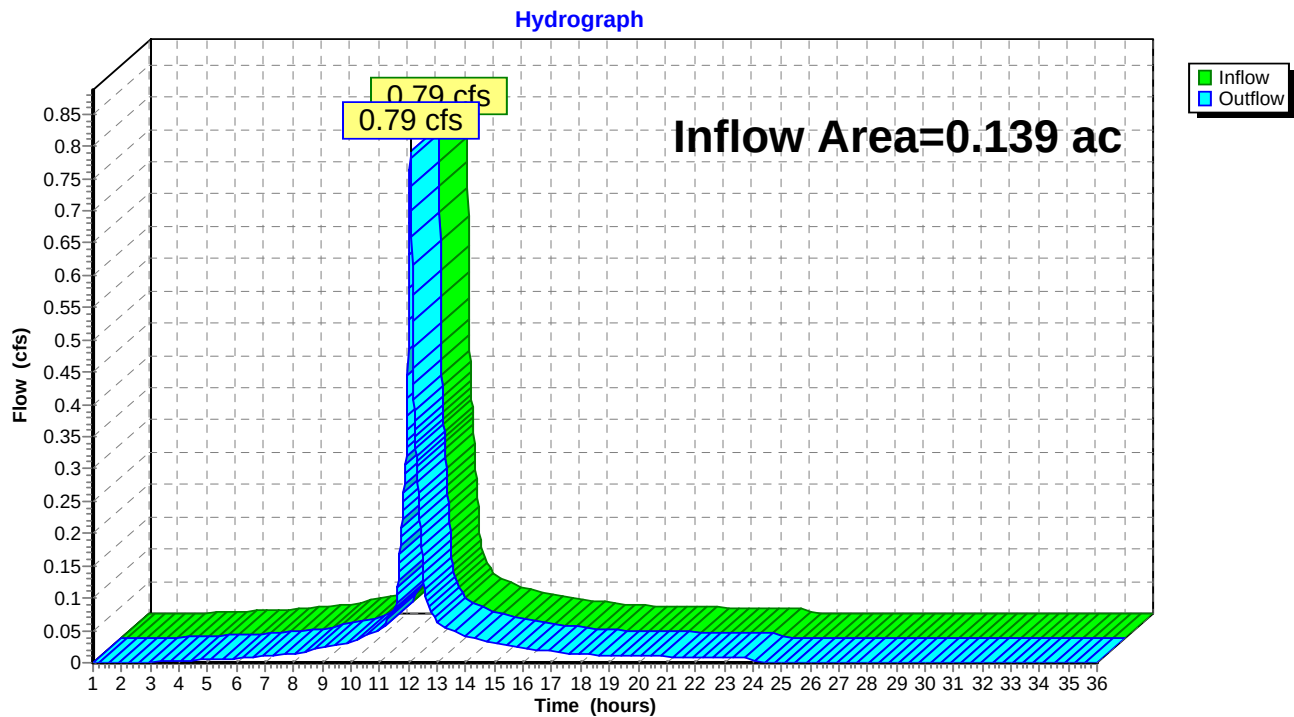
Hydrograph



Summary for Reach 1R: POI #1 - North St.

Inflow Area = 0.139 ac, 82.73% Impervious, Inflow Depth = 5.10" for 25-year event
Inflow = 0.79 cfs @ 12.07 hrs, Volume= 0.059 af
Outflow = 0.79 cfs @ 12.07 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min

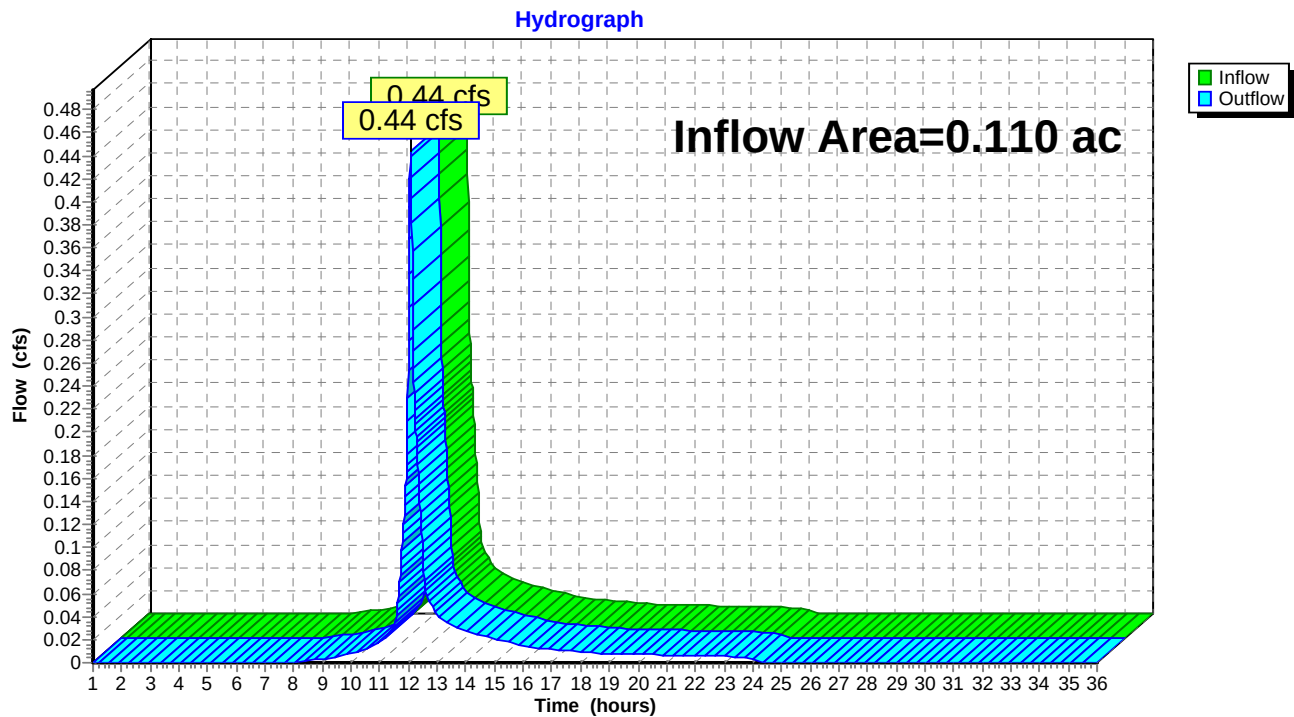
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 1R: POI #1 - North St.

Summary for Reach 2R: POI #2 - Downgradient Abutter

Inflow Area = 0.110 ac, 14.53% Impervious, Inflow Depth = 3.31" for 25-year event
Inflow = 0.44 cfs @ 12.07 hrs, Volume= 0.030 af
Outflow = 0.44 cfs @ 12.07 hrs, Volume= 0.030 af, Atten= 0%, Lag= 0.0 min

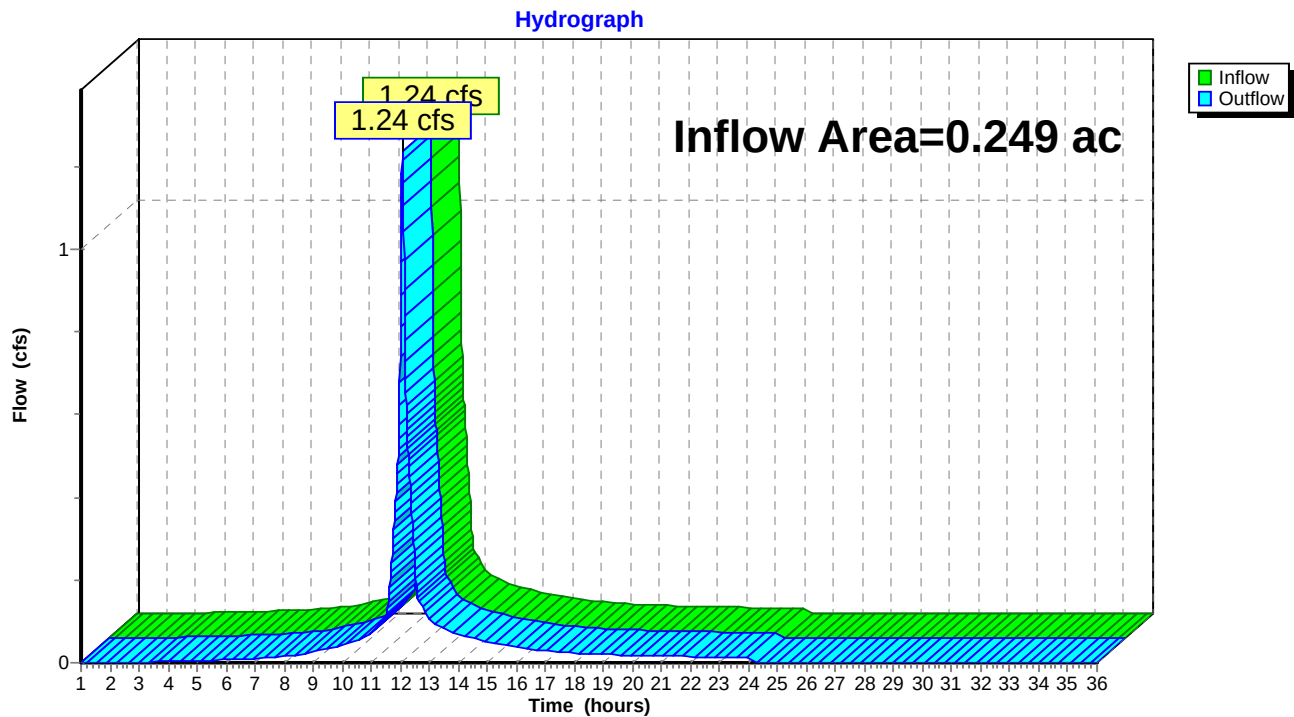
Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

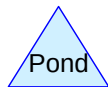
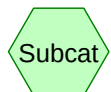
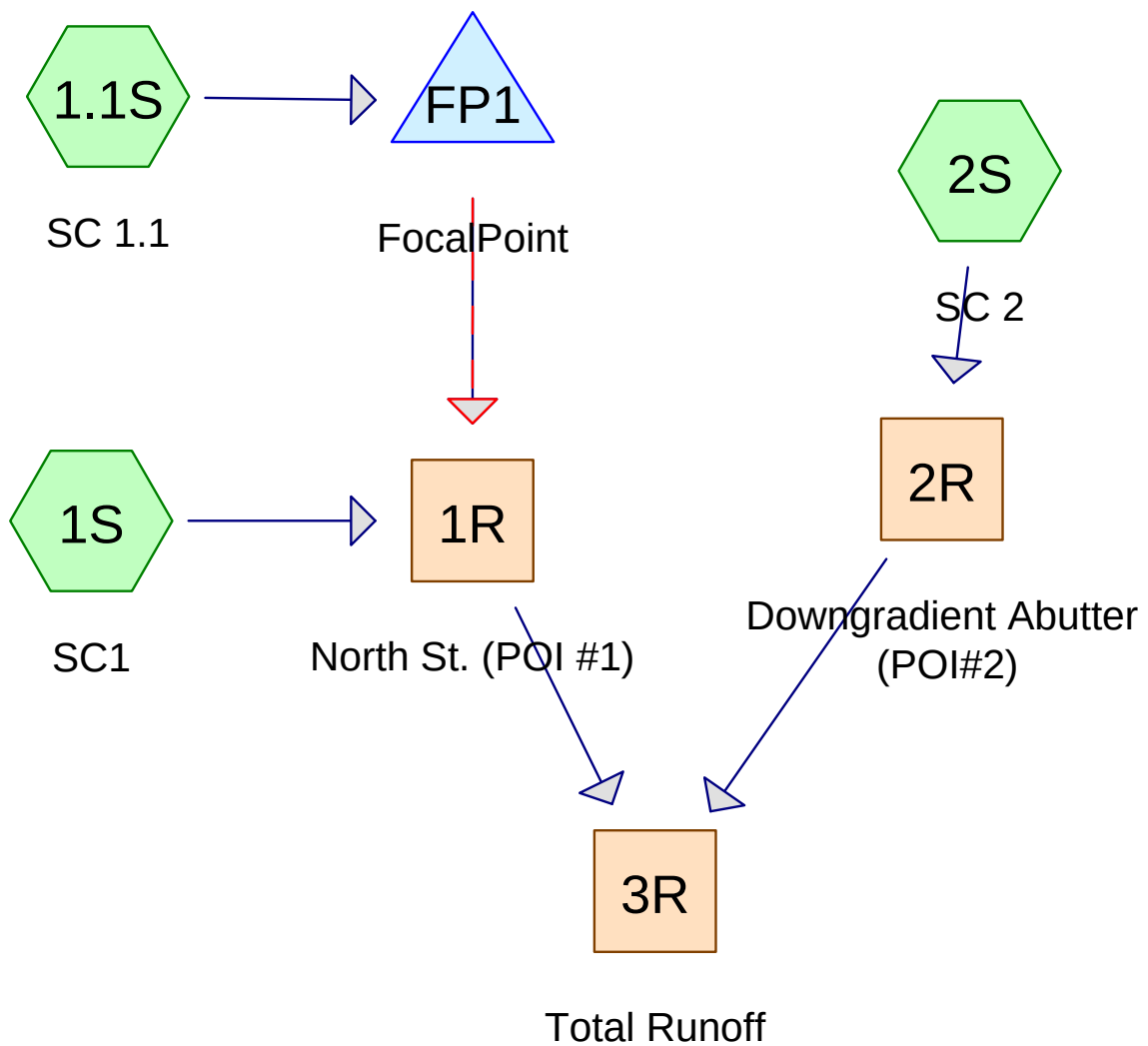
Reach 2R: POI #2 - Downgradient Abutter

Summary for Reach 3R: Total Runoff

Inflow Area = 0.249 ac, 52.52% Impervious, Inflow Depth = 4.30" for 25-year event
Inflow = 1.24 cfs @ 12.07 hrs, Volume= 0.089 af
Outflow = 1.24 cfs @ 12.07 hrs, Volume= 0.089 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 3R: Total Runoff



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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.067	98	126 roof,walk,drive (1S)
0.003	98	128R walk/drive (1S)
0.037	39	>75% Grass cover, Good, HSG A (1.1S, 2S)
0.035	39	Field inlets trib/landscaping (1S)
0.001	98	Misc impervious (2S)
0.082	98	Roof, decks (1.1S)
0.025	98	shared drive (1S)
0.249	81	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.037	HSG A	1.1S, 2S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.212	Other	1.1S, 1S, 2S
0.249		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.000	0.067	0.067	126 roof,walk,drive	1S
0.000	0.000	0.000	0.000	0.003	0.003	128R walk/drive	1S
0.037	0.000	0.000	0.000	0.000	0.037	>75% Grass cover, Good	1.1S, 2S
0.000	0.000	0.000	0.000	0.035	0.035	Field inlets trib/landscaping	1S
0.000	0.000	0.000	0.000	0.001	0.001	Misc impervious	2S
0.000	0.000	0.000	0.000	0.082	0.082	Roof, decks	1.1S
0.000	0.000	0.000	0.000	0.025	0.025	shared drive	1S
0.037	0.000	0.000	0.000	0.212	0.249	TOTAL AREA	

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	FP1	133.70	132.70	150.0	0.0067	0.010	3.3	0.0	0.0

Post Development1-2-20*Type III 24-hr 2-year Rainfall=3.10"*

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Time span=1.00-50.00 hrs, dt=0.01 hrs, 4901 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1.1S: SC 1.1Runoff Area=3,781 sf 94.10% Impervious Runoff Depth=2.55"
Tc=5.0 min CN=95 Runoff=0.25 cfs 0.018 af**Subcatchment1S: SC1**Runoff Area=5,648 sf 72.98% Impervious Runoff Depth=1.46"
Tc=5.0 min CN=82 Runoff=0.23 cfs 0.016 af**Subcatchment2S: SC 2**Runoff Area=1,433 sf 2.30% Impervious Runoff Depth=0.00"
Tc=5.0 min CN=40 Runoff=0.00 cfs 0.000 af**Reach 1R: North St. (POI #1)**Inflow=0.36 cfs 0.034 af
Outflow=0.36 cfs 0.034 af**Reach 2R: Downgradient Abutter (POI#2)**Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af**Reach 3R: Total Runoff**Inflow=0.36 cfs 0.034 af
Outflow=0.36 cfs 0.034 af**Pond FP1: FocalPoint**Peak Elev=134.84' Storage=80 cf Inflow=0.25 cfs 0.018 af
Outflow=0.15 cfs 0.018 af**Total Runoff Area = 0.249 ac Runoff Volume = 0.034 af Average Runoff Depth = 1.64"**
28.99% Pervious = 0.072 ac 71.01% Impervious = 0.177 ac

Post Development1-2-20

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

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Summary for Subcatchment 1.1S: SC 1.1

Runoff = 0.25 cfs @ 12.07 hrs, Volume= 0.018 af, Depth= 2.55"

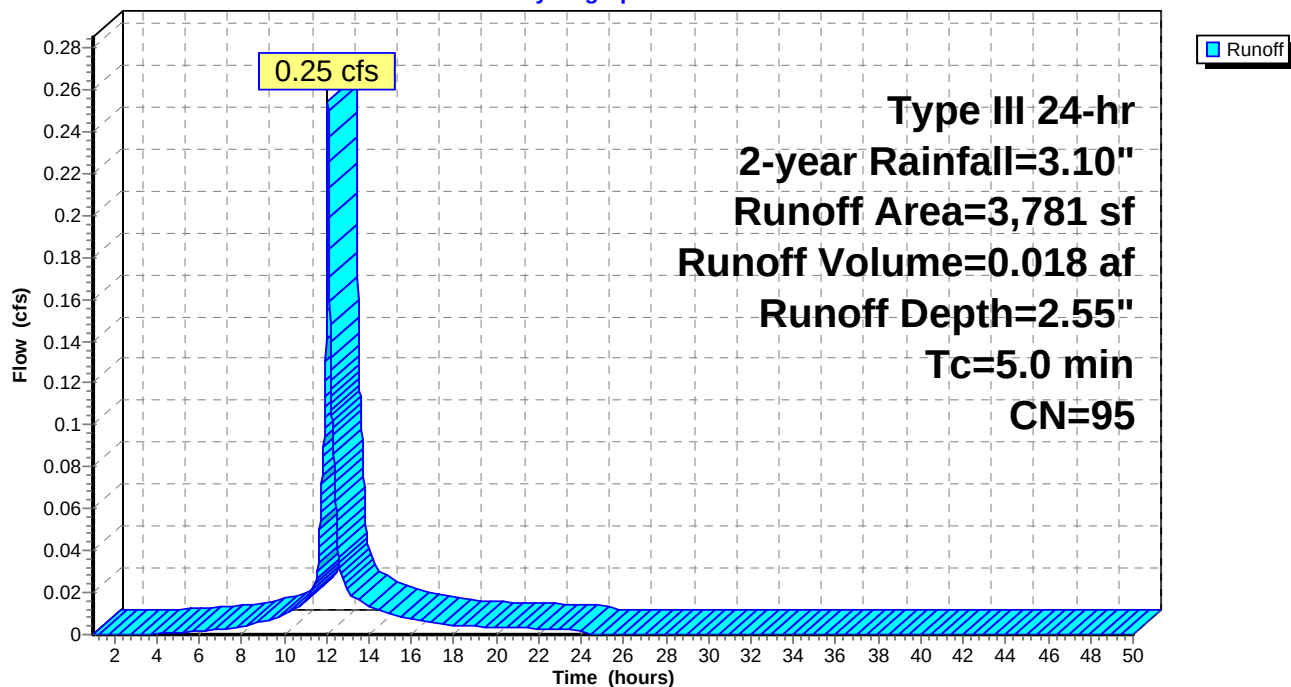
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	3,558	98	Roof, decks
	223	39	>75% Grass cover, Good, HSG A
	3,781	95	Weighted Average
	223		5.90% Pervious Area
	3,558		94.10% Impervious Area

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

Subcatchment 1.1S: SC 1.1

Hydrograph



Post Development1-2-20

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

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Summary for Subcatchment 1S: SC1

Runoff = 0.23 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 1.46"

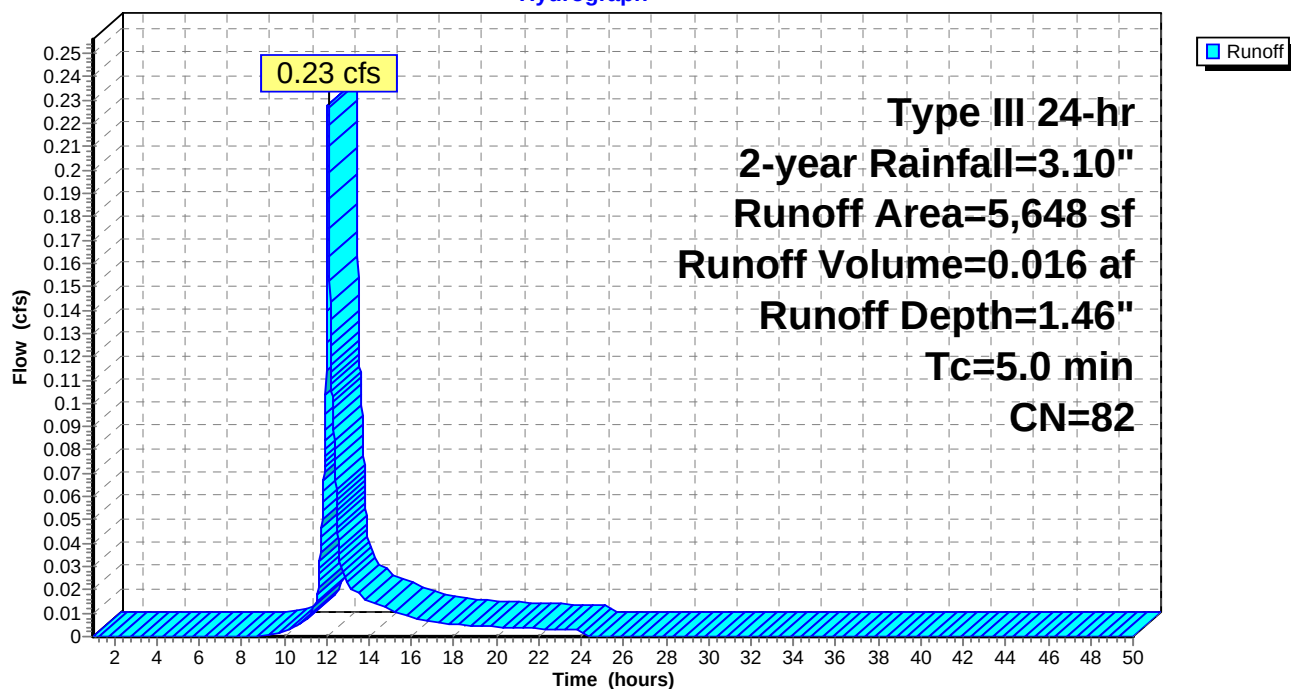
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	1,526	39	Field inlets trib/landscaping
*	122	98	128R walk/drive
*	1,077	98	shared drive
*	2,923	98	126 roof,walk,drive
	5,648	82	Weighted Average
	1,526		27.02% Pervious Area
	4,122		72.98% Impervious Area

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

Subcatchment 1S: SC1

Hydrograph



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

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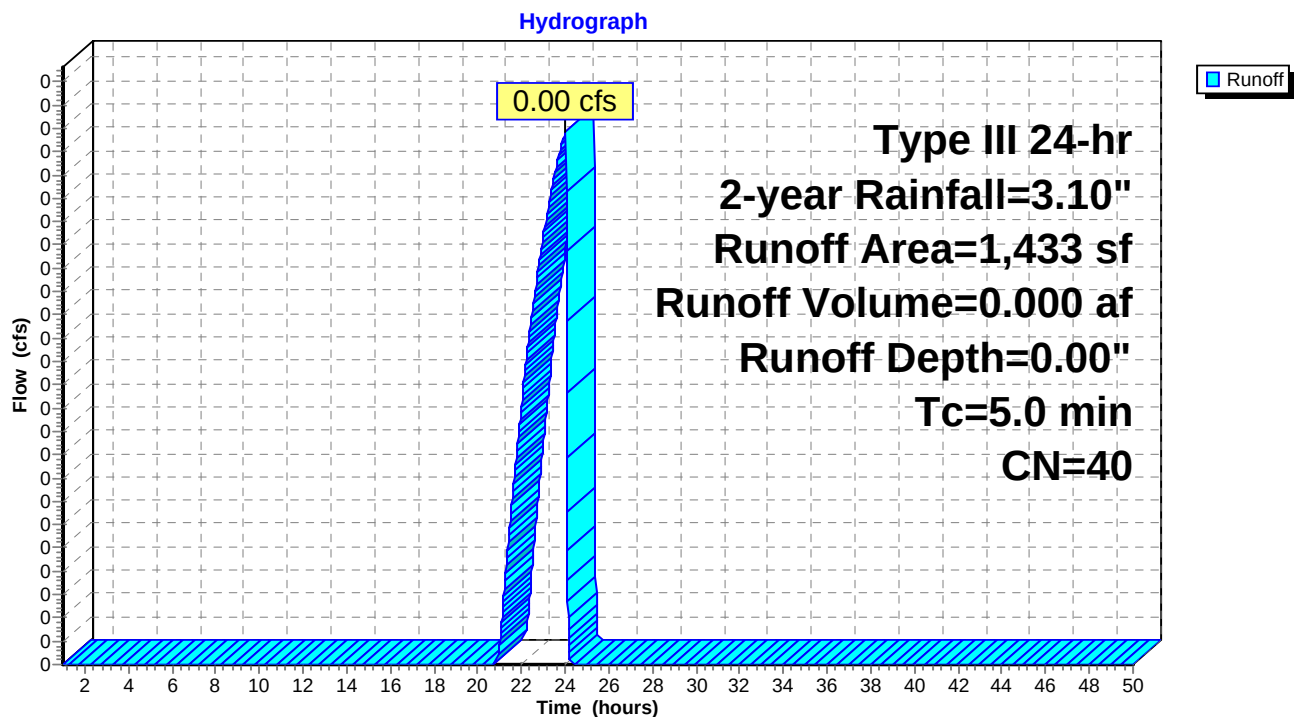
Summary for Subcatchment 2S: SC 2

Runoff = 0.00 cfs @ 24.01 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
1,400	39	>75% Grass cover, Good, HSG A
* 33	98	Misc impervious
1,433	40	Weighted Average
1,400		97.70% Pervious Area
33		2.30% Impervious Area

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

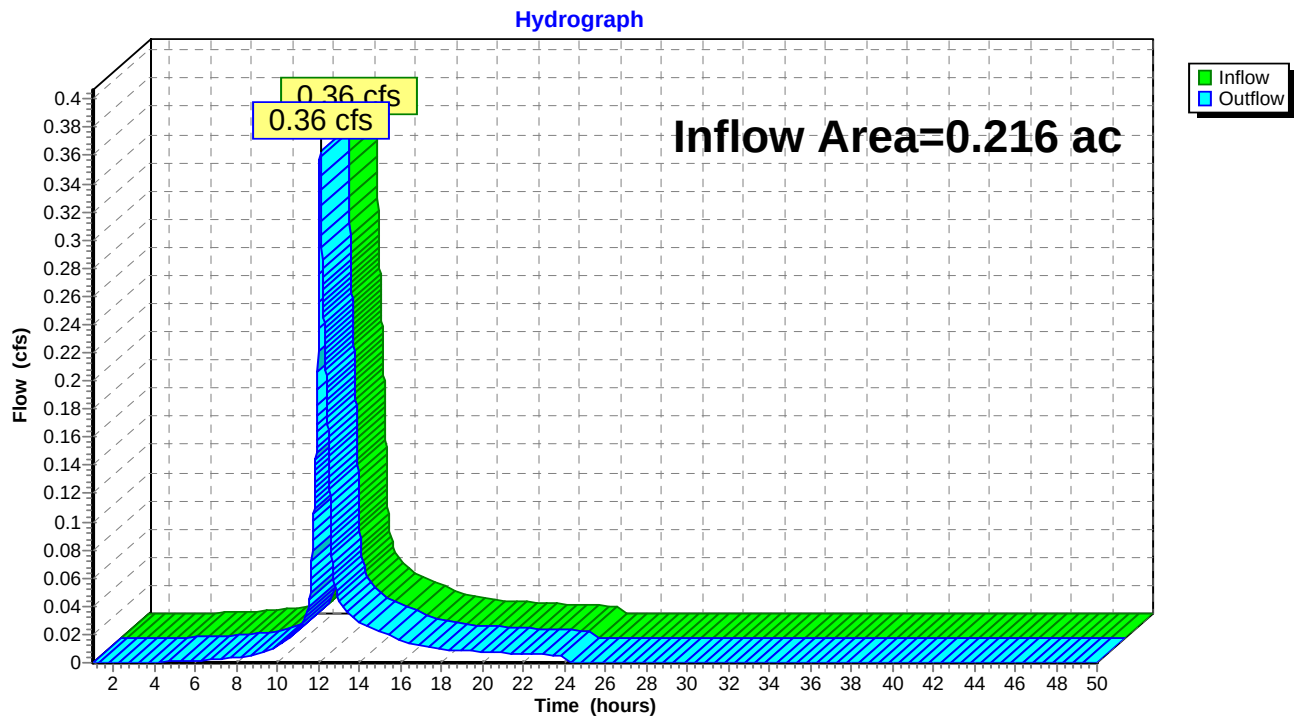
Subcatchment 2S: SC 2

Summary for Reach 1R: North St. (POI #1)

Inflow Area = 0.216 ac, 81.45% Impervious, Inflow Depth = 1.89" for 2-year event
 Inflow = 0.36 cfs @ 12.09 hrs, Volume= 0.034 af
 Outflow = 0.36 cfs @ 12.09 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs

Reach 1R: North St. (POI #1)

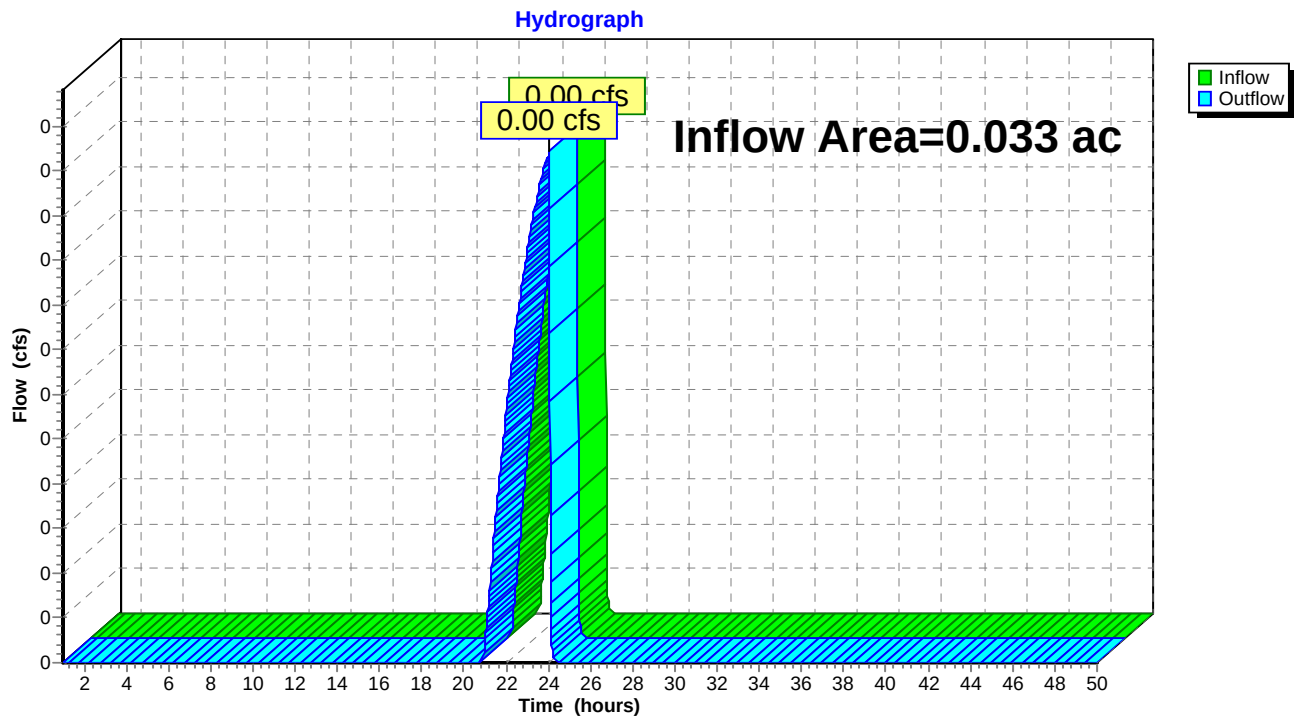


Summary for Reach 2R: Downgradient Abutter (POI#2)

Inflow Area = 0.033 ac, 2.30% Impervious, Inflow Depth = 0.00" for 2-year event
 Inflow = 0.00 cfs @ 24.01 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 24.01 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs

Reach 2R: Downgradient Abutter (POI#2)

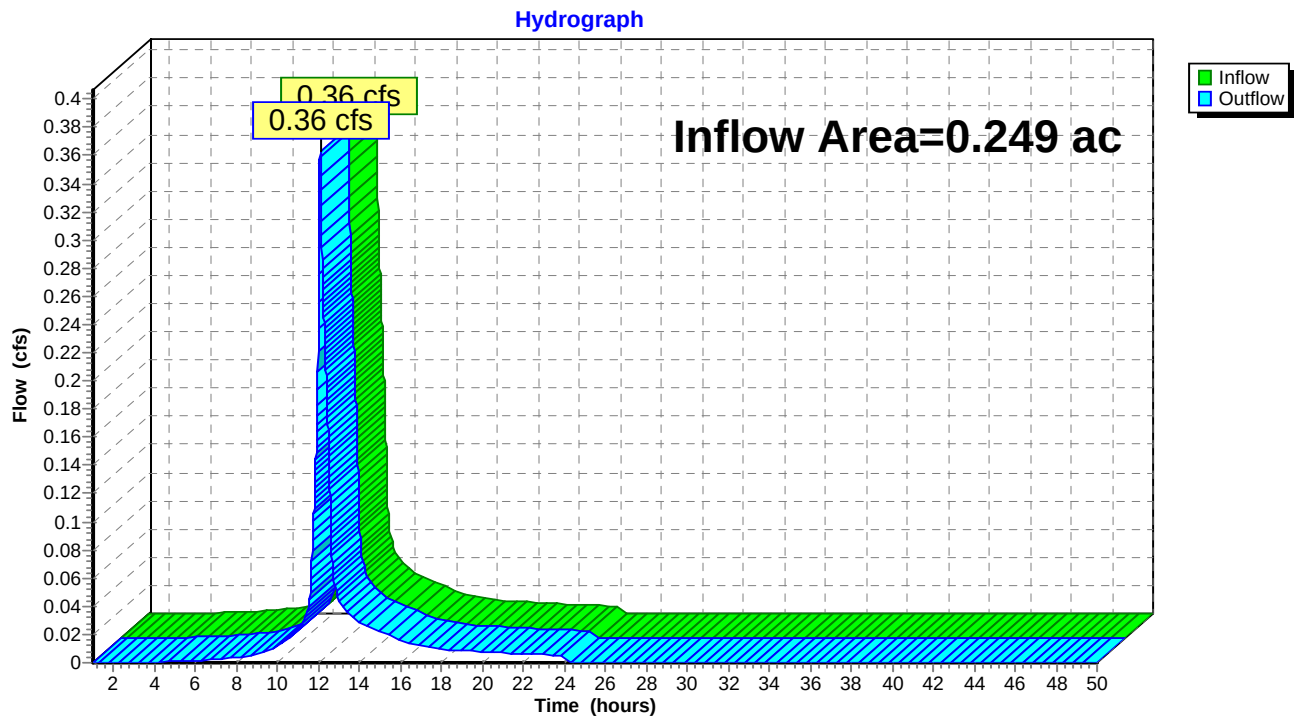


Summary for Reach 3R: Total Runoff

Inflow Area = 0.249 ac, 71.01% Impervious, Inflow Depth = 1.64" for 2-year event
 Inflow = 0.36 cfs @ 12.09 hrs, Volume= 0.034 af
 Outflow = 0.36 cfs @ 12.09 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs

Reach 3R: Total Runoff



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

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Summary for Pond FP1: FocalPoint

Inflow Area = 0.087 ac, 94.10% Impervious, Inflow Depth = 2.55" for 2-year event
 Inflow = 0.25 cfs @ 12.07 hrs, Volume= 0.018 af
 Outflow = 0.15 cfs @ 12.17 hrs, Volume= 0.018 af, Atten= 41%, Lag= 5.8 min
 Primary = 0.15 cfs @ 12.17 hrs, Volume= 0.018 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 134.84' @ 12.17 hrs Surf.Area= 116 sf Storage= 80 cf

Plug-Flow detention time= 4.3 min calculated for 0.018 af (100% of inflow)
 Center-of-Mass det. time= 4.3 min (785.3 - 781.0)

Volume	Invert	Avail.Storage	Storage Description
#1	133.75'	89 cf	3/4 Stone (Prismatic) Listed below (Recalc) 435 cf Overall - 213 cf Embedded = 222 cf x 40.0% Voids
#2	134.12'	202 cf	1.31'W x 2.35'L x 2.88'H Tanks x 24 Inside #1 213 cf Overall x 95.0% Voids
#3	137.00'	9 cf	3.00'W x 7.00'L x 2.25'H FocalPoint 47 cf Overall x 20.0% Voids
#4	139.25'	61 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		362 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.75	116	0	0
137.50	116	435	435

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
139.25	21	0	0
139.50	37	7	7
139.75	55	12	19
140.00	85	18	36
140.25	115	25	61

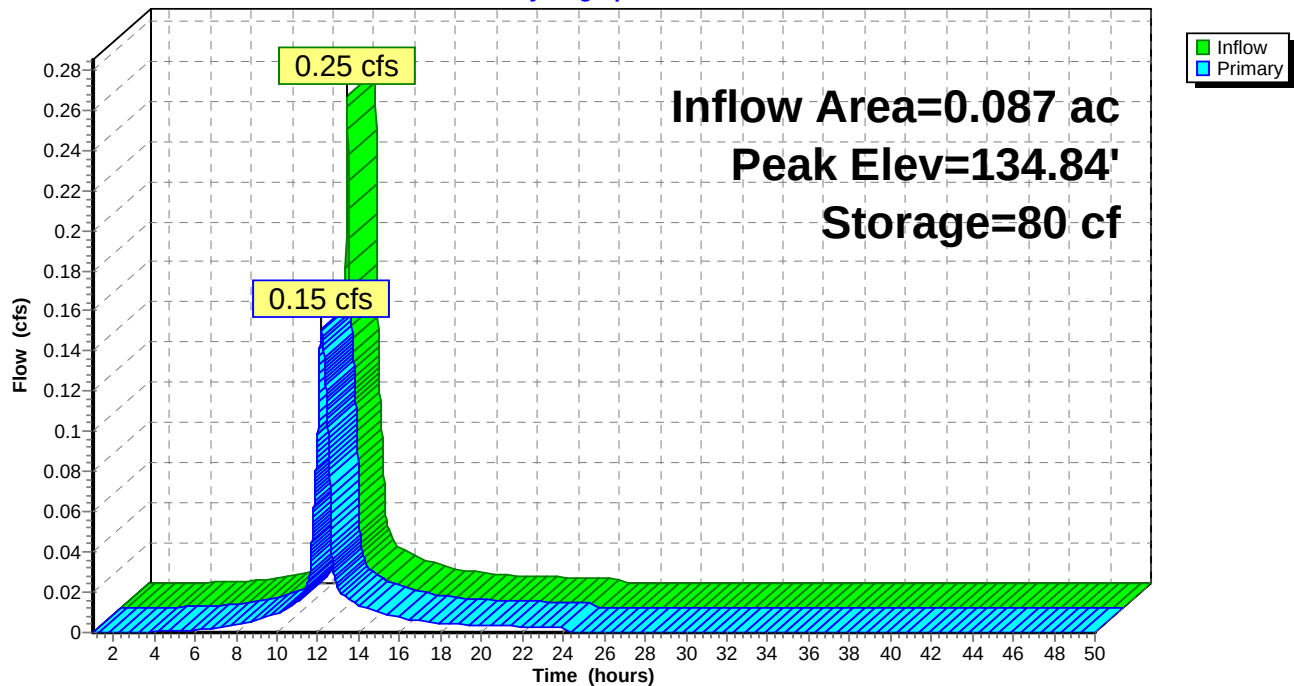
Device	Routing	Invert	Outlet Devices
#1	Primary	133.70'	3.3" Round 4" UD w/ orifice L= 150.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 133.70' / 132.70' S= 0.0067 ' / Cc= 0.600 n= 0.010 PVC, smooth interior, Flow Area= 0.06 sf
#2	Device 1	133.75'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#3	Device 1	139.75'	8.0" Horiz. Overflow Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.15 cfs @ 12.17 hrs HW=134.84' TW=0.00' (Dynamic Tailwater)

1=4" UD w/ orifice (Inlet Controls 0.15 cfs @ 2.54 fps)
 2=Exfiltration (Passes 0.15 cfs of 0.27 cfs potential flow)
 3=Overflow Grate (Controls 0.00 cfs)

Pond FP1: FocalPoint

Hydrograph



Post Development1-2-20*Type III 24-hr 10-year Rainfall=4.60"*

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Time span=1.00-50.00 hrs, dt=0.01 hrs, 4901 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1.1S: SC 1.1Runoff Area=3,781 sf 94.10% Impervious Runoff Depth=4.02"
Tc=5.0 min CN=95 Runoff=0.39 cfs 0.029 af**Subcatchment1S: SC1**Runoff Area=5,648 sf 72.98% Impervious Runoff Depth=2.72"
Tc=5.0 min CN=82 Runoff=0.43 cfs 0.029 af**Subcatchment2S: SC 2**Runoff Area=1,433 sf 2.30% Impervious Runoff Depth=0.15"
Tc=5.0 min CN=40 Runoff=0.00 cfs 0.000 af**Reach 1R: North St. (POI #1)**Inflow=0.60 cfs 0.059 af
Outflow=0.60 cfs 0.059 af**Reach 2R: Downgradient Abutter (POI#2)**Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af**Reach 3R: Total Runoff**Inflow=0.60 cfs 0.059 af
Outflow=0.60 cfs 0.059 af**Pond FP1: FocalPoint**Peak Elev=135.77' Storage=160 cf Inflow=0.39 cfs 0.029 af
Outflow=0.19 cfs 0.029 af**Total Runoff Area = 0.249 ac Runoff Volume = 0.059 af Average Runoff Depth = 2.84"**
28.99% Pervious = 0.072 ac 71.01% Impervious = 0.177 ac

Post Development1-2-20

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

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Summary for Subcatchment 1.1S: SC 1.1

Runoff = 0.39 cfs @ 12.07 hrs, Volume= 0.029 af, Depth= 4.02"

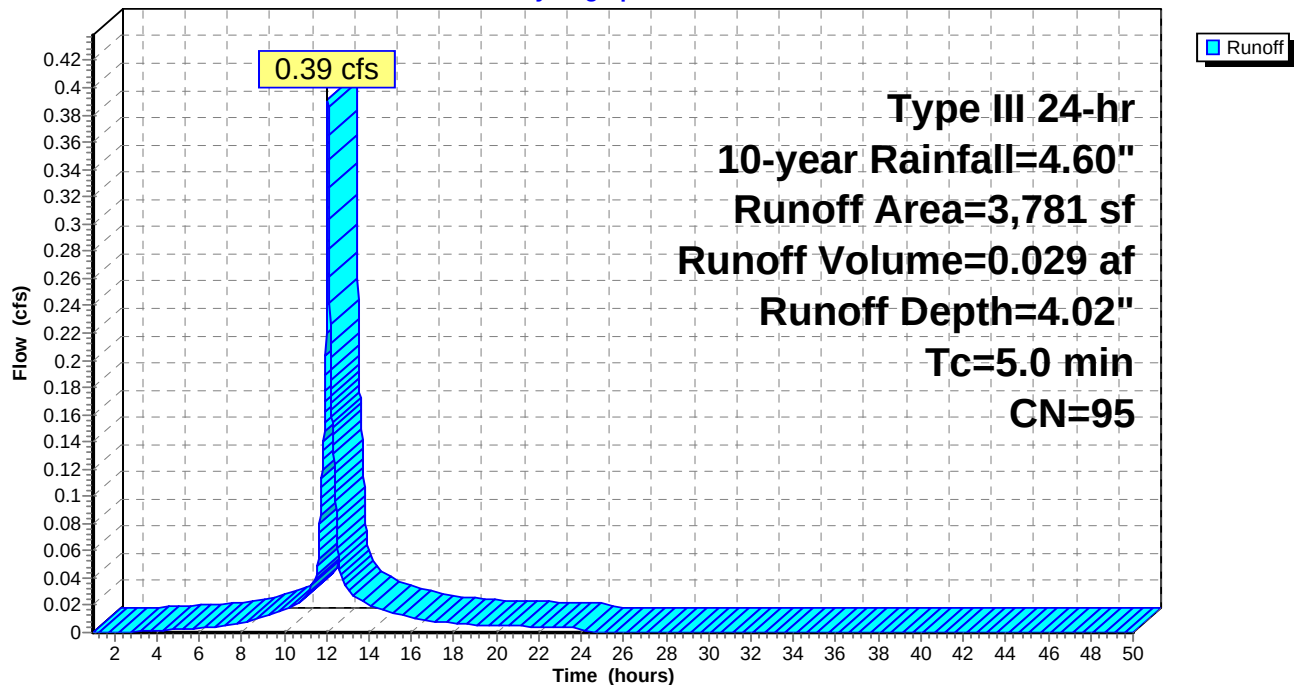
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	3,558	98	Roof, decks
	223	39	>75% Grass cover, Good, HSG A
	3,781	95	Weighted Average
	223		5.90% Pervious Area
	3,558		94.10% Impervious Area

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

Subcatchment 1.1S: SC 1.1

Hydrograph



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

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Summary for Subcatchment 1S: SC1

Runoff = 0.43 cfs @ 12.07 hrs, Volume= 0.029 af, Depth= 2.72"

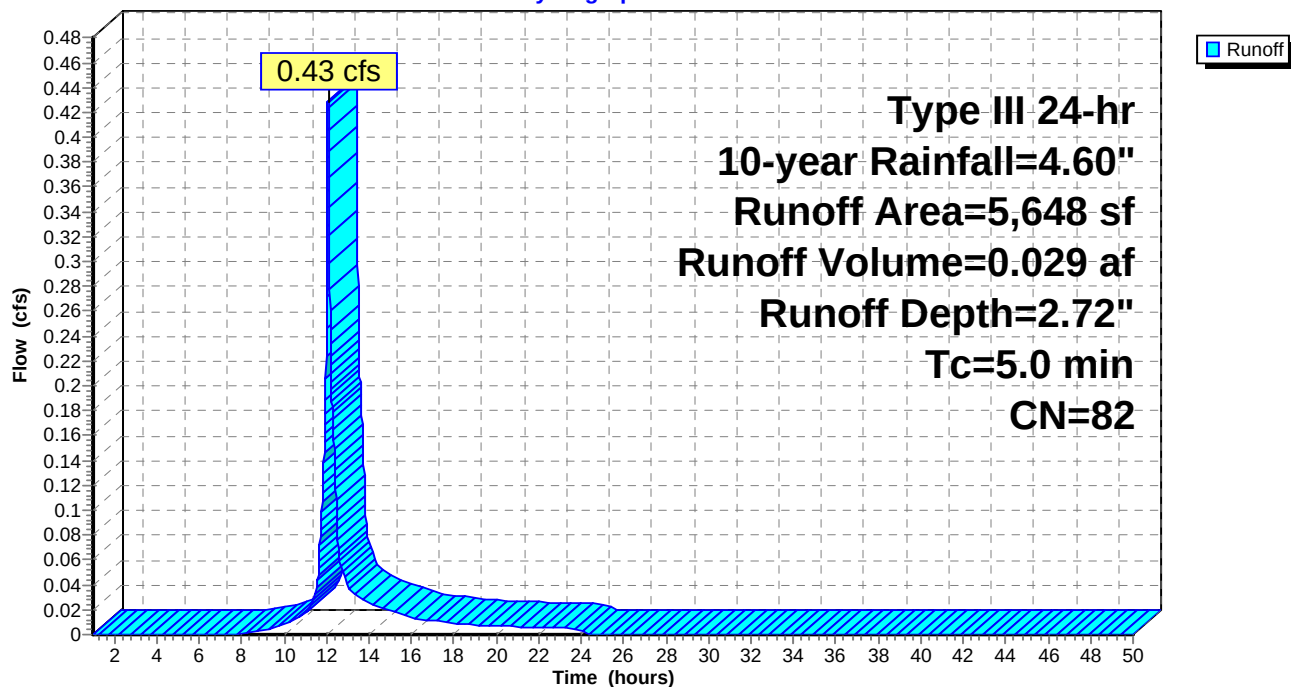
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	1,526	39	Field inlets trib/landscaping
*	122	98	128R walk/drive
*	1,077	98	shared drive
*	2,923	98	126 roof,walk,drive
	5,648	82	Weighted Average
	1,526		27.02% Pervious Area
	4,122		72.98% Impervious Area

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

Subcatchment 1S: SC1

Hydrograph



Summary for Subcatchment 2S: SC 2

Runoff = 0.00 cfs @ 13.66 hrs, Volume= 0.000 af, Depth= 0.15"

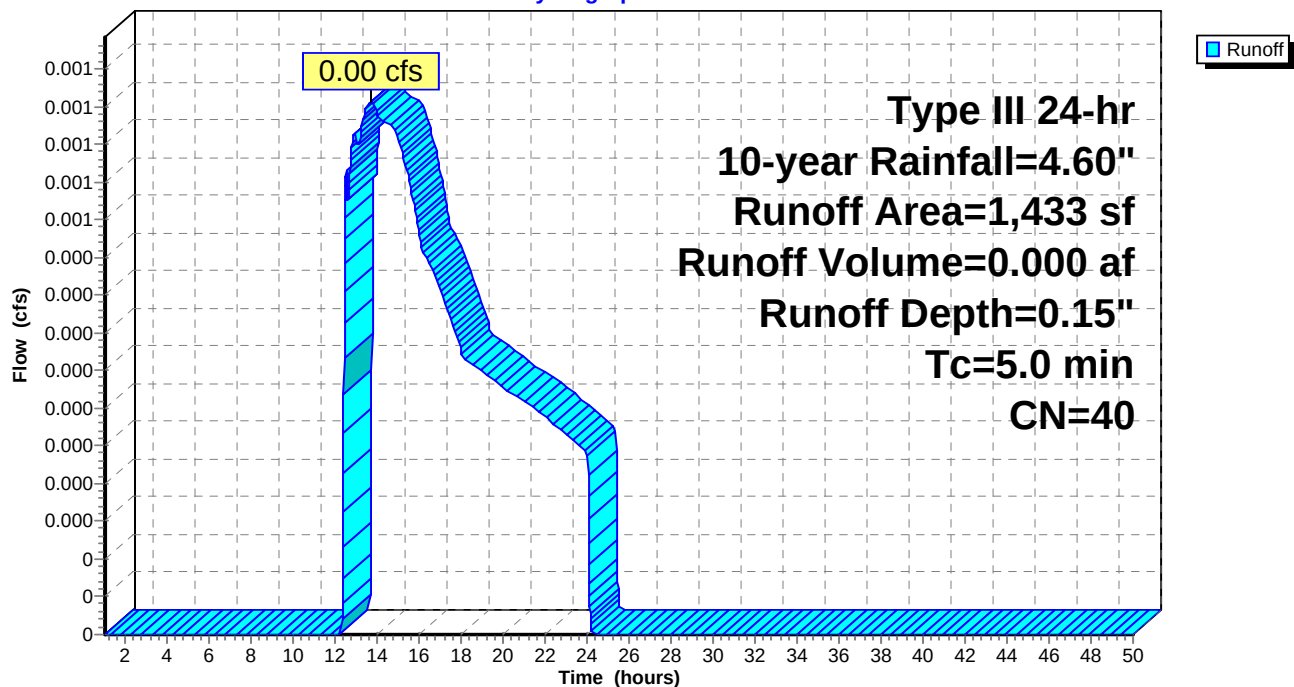
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

Area (sf)	CN	Description
1,400	39	>75% Grass cover, Good, HSG A
* 33	98	Misc impervious
1,433	40	Weighted Average
1,400		97.70% Pervious Area
33		2.30% Impervious Area

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

Subcatchment 2S: SC 2

Hydrograph

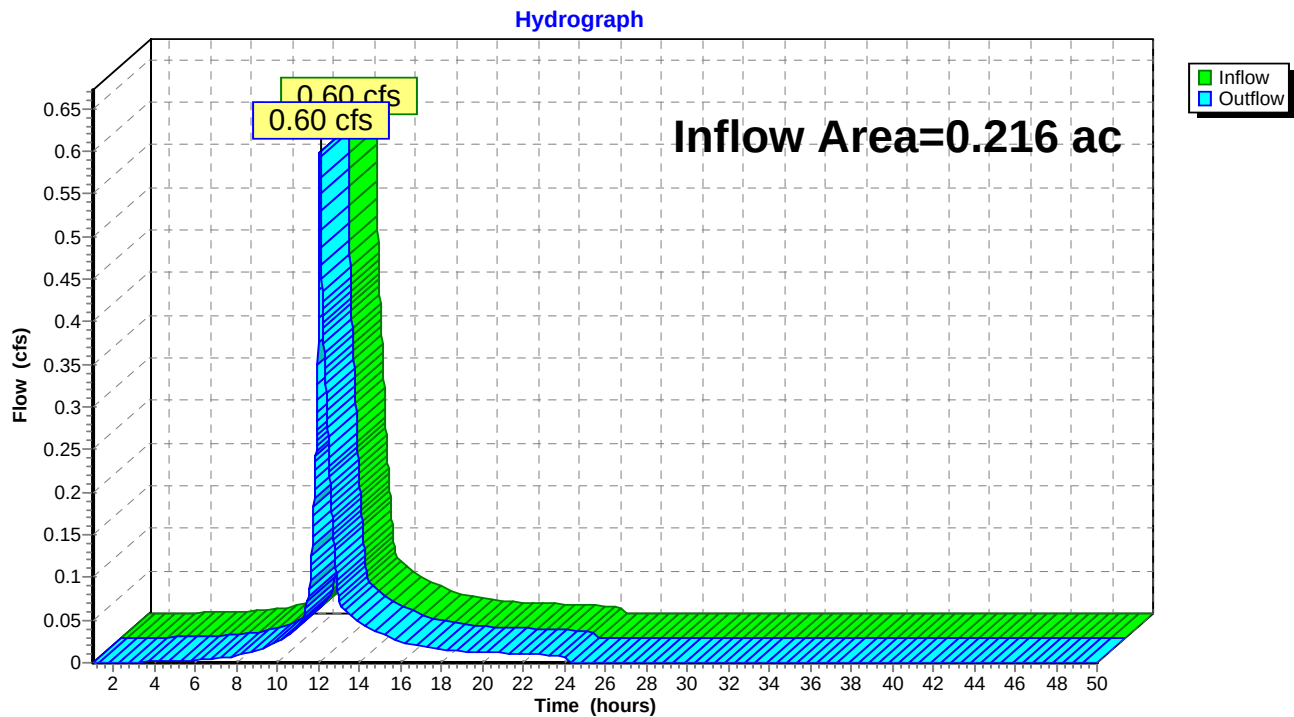


Summary for Reach 1R: North St. (POI #1)

Inflow Area = 0.216 ac, 81.45% Impervious, Inflow Depth = 3.25" for 10-year event
 Inflow = 0.60 cfs @ 12.08 hrs, Volume= 0.059 af
 Outflow = 0.60 cfs @ 12.08 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs

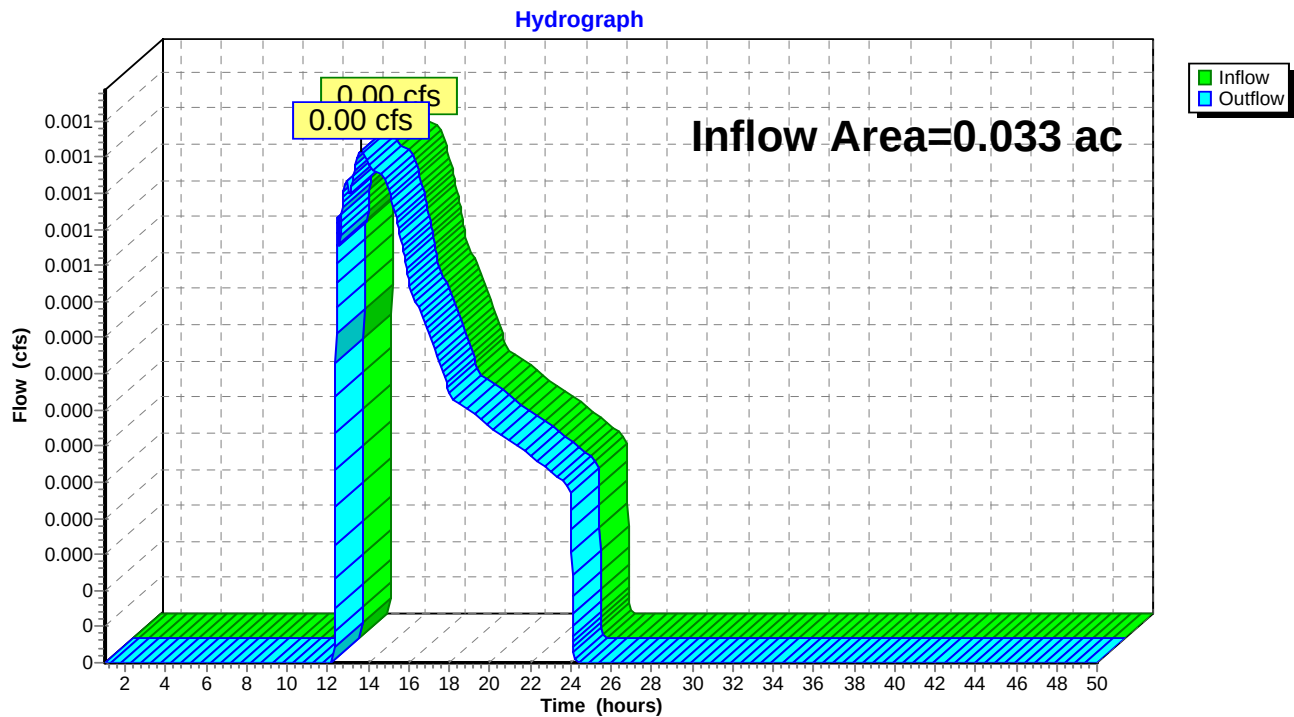
Reach 1R: North St. (POI #1)



Summary for Reach 2R: Downgradient Abutter (POI#2)

Inflow Area = 0.033 ac, 2.30% Impervious, Inflow Depth = 0.15" for 10-year event
Inflow = 0.00 cfs @ 13.66 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 13.66 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs

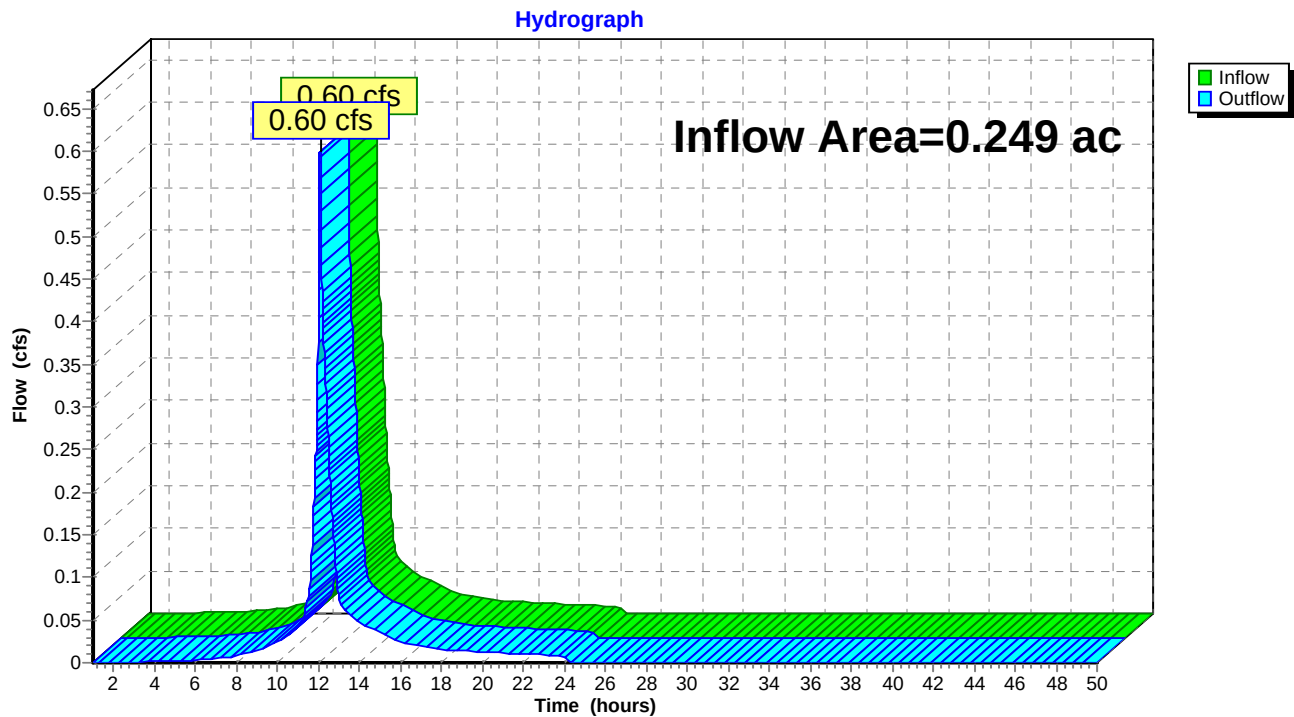
Reach 2R: Downgradient Abutter (POI#2)

Summary for Reach 3R: Total Runoff

Inflow Area = 0.249 ac, 71.01% Impervious, Inflow Depth = 2.84" for 10-year event
 Inflow = 0.60 cfs @ 12.08 hrs, Volume= 0.059 af
 Outflow = 0.60 cfs @ 12.08 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs

Reach 3R: Total Runoff



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

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Summary for Pond FP1: FocalPoint

Inflow Area = 0.087 ac, 94.10% Impervious, Inflow Depth = 4.02" for 10-year event
 Inflow = 0.39 cfs @ 12.07 hrs, Volume= 0.029 af
 Outflow = 0.19 cfs @ 12.20 hrs, Volume= 0.029 af, Atten= 51%, Lag= 8.0 min
 Primary = 0.19 cfs @ 12.20 hrs, Volume= 0.029 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 135.77' @ 12.20 hrs Surf.Area= 116 sf Storage= 160 cf

Plug-Flow detention time= 6.0 min calculated for 0.029 af (100% of inflow)
 Center-of-Mass det. time= 6.0 min (775.6 - 769.5)

Volume	Invert	Avail.Storage	Storage Description
#1	133.75'	89 cf	3/4 Stone (Prismatic) Listed below (Recalc) 435 cf Overall - 213 cf Embedded = 222 cf x 40.0% Voids
#2	134.12'	202 cf	1.31'W x 2.35'L x 2.88'H Tanks x 24 Inside #1 213 cf Overall x 95.0% Voids
#3	137.00'	9 cf	3.00'W x 7.00'L x 2.25'H FocalPoint 47 cf Overall x 20.0% Voids
#4	139.25'	61 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		362 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.75	116	0	0
137.50	116	435	435

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
139.25	21	0	0
139.50	37	7	7
139.75	55	12	19
140.00	85	18	36
140.25	115	25	61

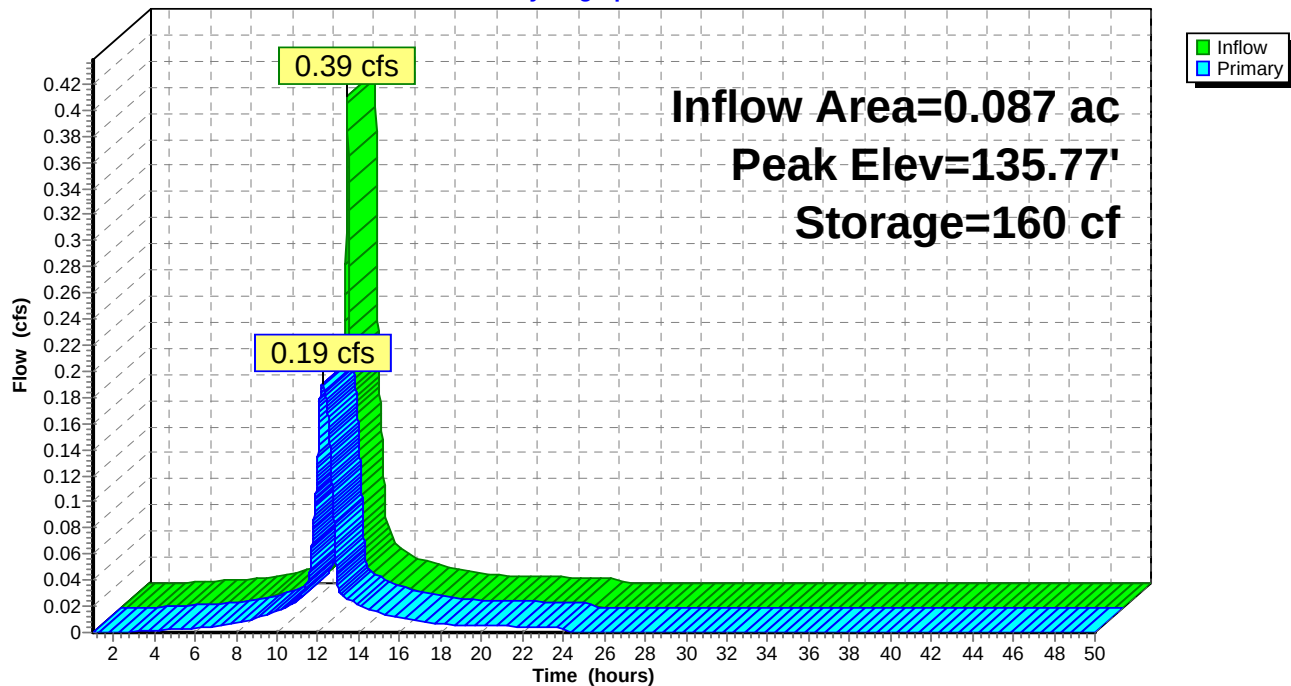
Device	Routing	Invert	Outlet Devices
#1	Primary	133.70'	3.3" Round 4" UD w/ orifice L= 150.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 133.70' / 132.70' S= 0.0067 ' / Cc= 0.600 n= 0.010 PVC, smooth interior, Flow Area= 0.06 sf
#2	Device 1	133.75'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#3	Device 1	139.75'	8.0" Horiz. Overflow Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.19 cfs @ 12.20 hrs HW=135.77' TW=0.00' (Dynamic Tailwater)

1=4" UD w/ orifice (Barrel Controls 0.19 cfs @ 3.21 fps)
 2=Exfiltration (Passes 0.19 cfs of 0.27 cfs potential flow)
 3=Overflow Grate (Controls 0.00 cfs)

Pond FP1: FocalPoint

Hydrograph



Post Development1-2-20*Type III 24-hr 25-year Rainfall=5.80"*

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Time span=1.00-50.00 hrs, dt=0.01 hrs, 4901 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1.1S: SC 1.1Runoff Area=3,781 sf 94.10% Impervious Runoff Depth=5.21"
Tc=5.0 min CN=95 Runoff=0.50 cfs 0.038 af**Subcatchment1S: SC1**Runoff Area=5,648 sf 72.98% Impervious Runoff Depth=3.80"
Tc=5.0 min CN=82 Runoff=0.59 cfs 0.041 af**Subcatchment2S: SC 2**Runoff Area=1,433 sf 2.30% Impervious Runoff Depth=0.44"
Tc=5.0 min CN=40 Runoff=0.01 cfs 0.001 af**Reach 1R: North St. (POI #1)**Inflow=0.79 cfs 0.079 af
Outflow=0.79 cfs 0.079 af**Reach 2R: Downgradient Abutter (POI#2)**Inflow=0.01 cfs 0.001 af
Outflow=0.01 cfs 0.001 af**Reach 3R: Total Runoff**Inflow=0.79 cfs 0.080 af
Outflow=0.79 cfs 0.080 af**Pond FP1: FocalPoint**Peak Elev=136.64' Storage=236 cf Inflow=0.50 cfs 0.038 af
Outflow=0.22 cfs 0.038 af**Total Runoff Area = 0.249 ac Runoff Volume = 0.080 af Average Runoff Depth = 3.85"**
28.99% Pervious = 0.072 ac 71.01% Impervious = 0.177 ac

Post Development1-2-20

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

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Summary for Subcatchment 1.1S: SC 1.1

Runoff = 0.50 cfs @ 12.07 hrs, Volume= 0.038 af, Depth= 5.21"

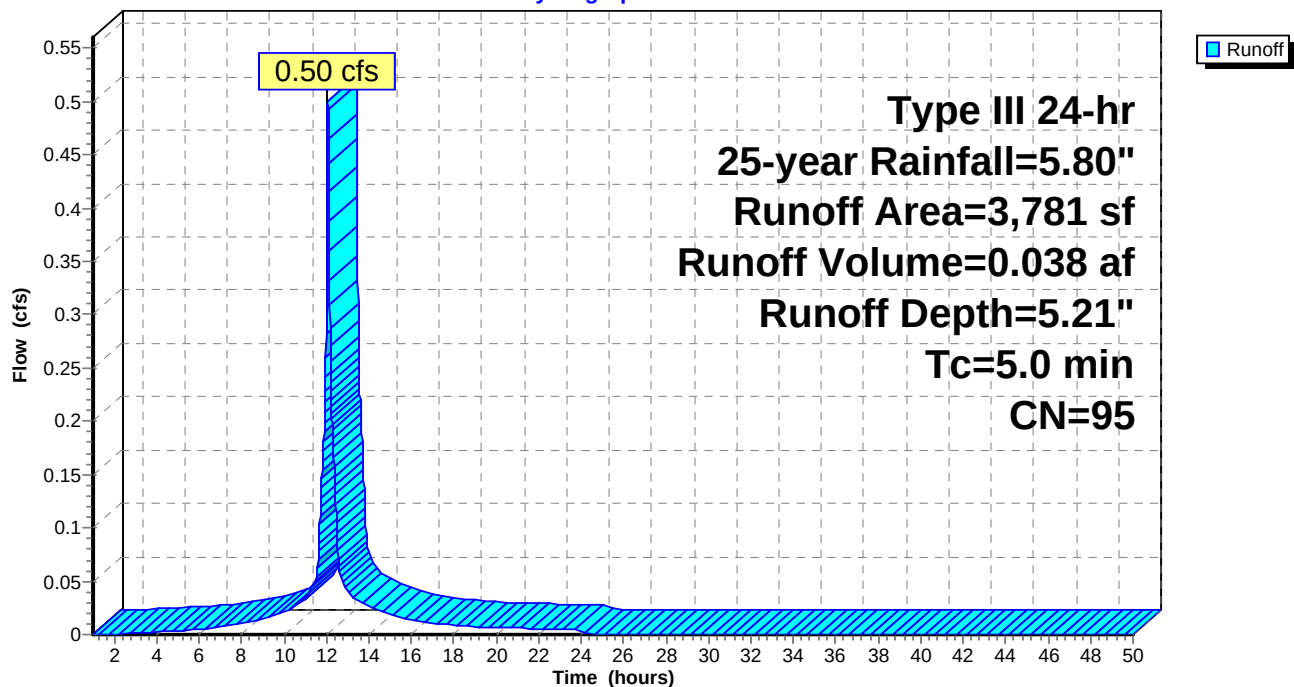
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	3,558	98	Roof, decks
	223	39	>75% Grass cover, Good, HSG A
	3,781	95	Weighted Average
	223		5.90% Pervious Area
	3,558		94.10% Impervious Area

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

Subcatchment 1.1S: SC 1.1

Hydrograph



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

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Summary for Subcatchment 1S: SC1

Runoff = 0.59 cfs @ 12.07 hrs, Volume= 0.041 af, Depth= 3.80"

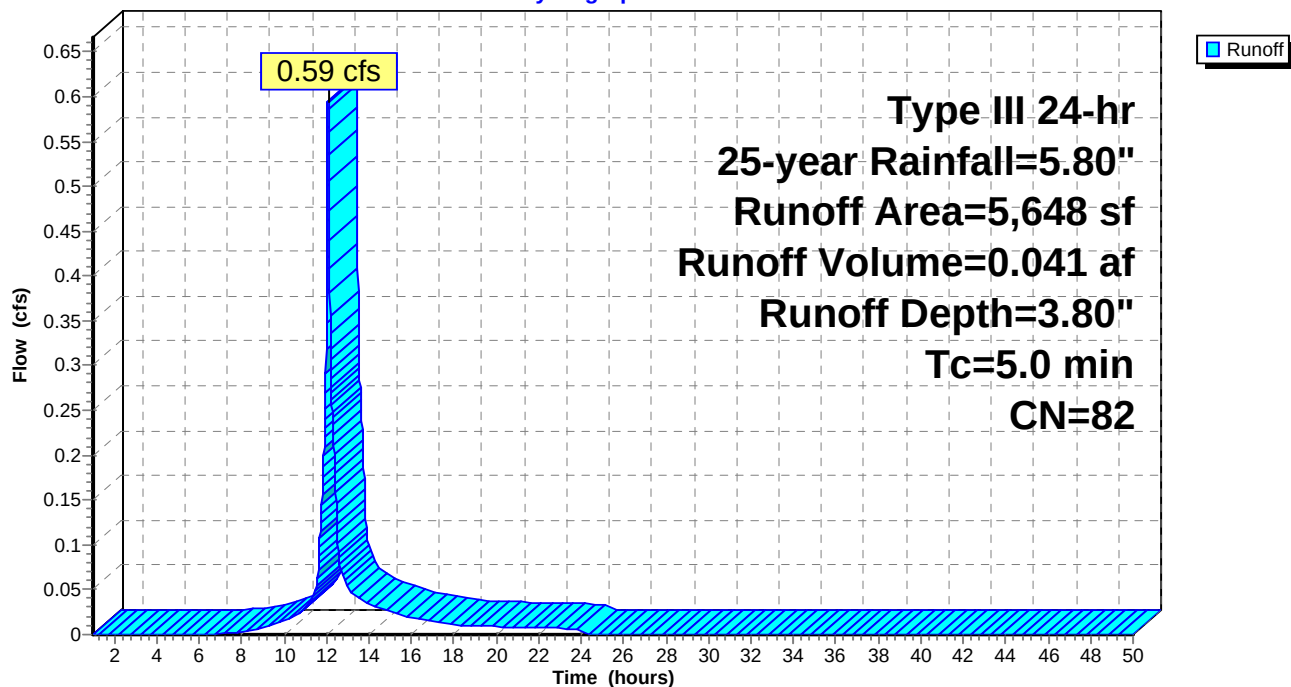
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	1,526	39	Field inlets trib/landscaping
*	122	98	128R walk/drive
*	1,077	98	shared drive
*	2,923	98	126 roof,walk,drive
	5,648	82	Weighted Average
	1,526		27.02% Pervious Area
	4,122		72.98% Impervious Area

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

Subcatchment 1S: SC1

Hydrograph



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

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Summary for Subcatchment 2S: SC 2

Runoff = 0.01 cfs @ 12.32 hrs, Volume= 0.001 af, Depth= 0.44"

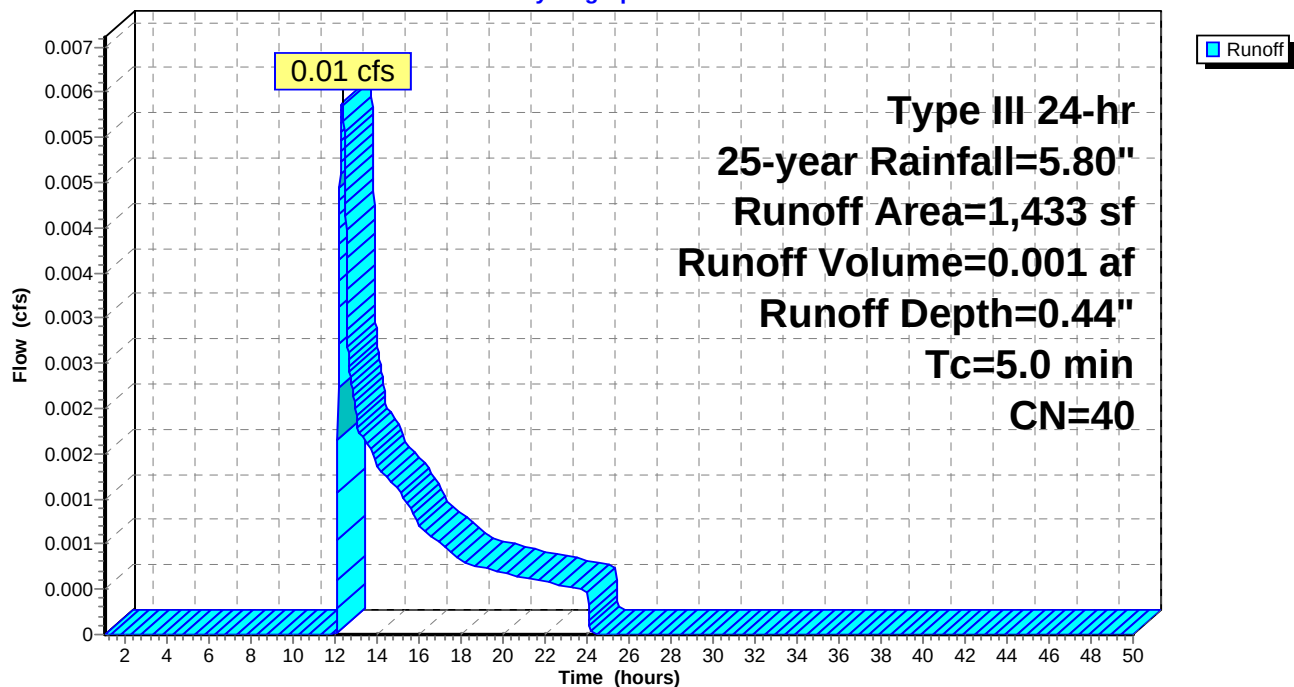
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
1,400	39	>75% Grass cover, Good, HSG A
* 33	98	Misc impervious
1,433	40	Weighted Average
1,400		97.70% Pervious Area
33		2.30% Impervious Area

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

Subcatchment 2S: SC 2

Hydrograph

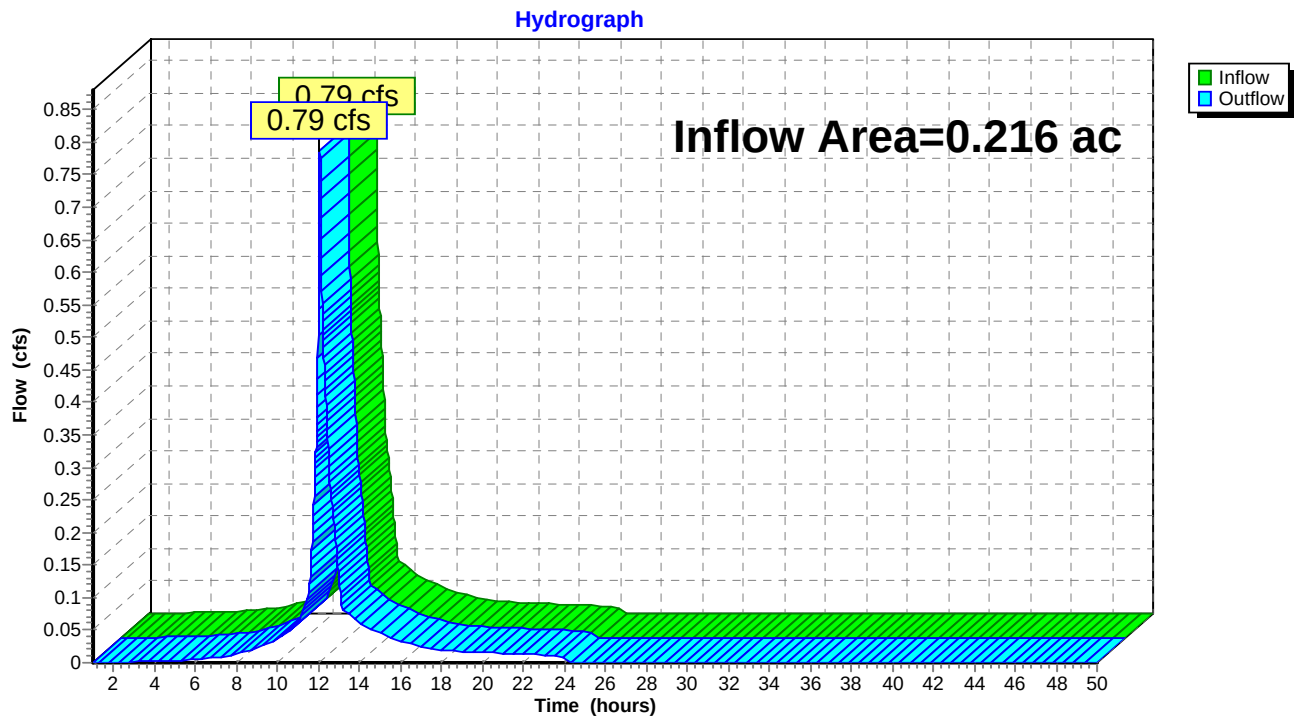


Summary for Reach 1R: North St. (POI #1)

Inflow Area = 0.216 ac, 81.45% Impervious, Inflow Depth = 4.37" for 25-year event
 Inflow = 0.79 cfs @ 12.08 hrs, Volume= 0.079 af
 Outflow = 0.79 cfs @ 12.08 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs

Reach 1R: North St. (POI #1)

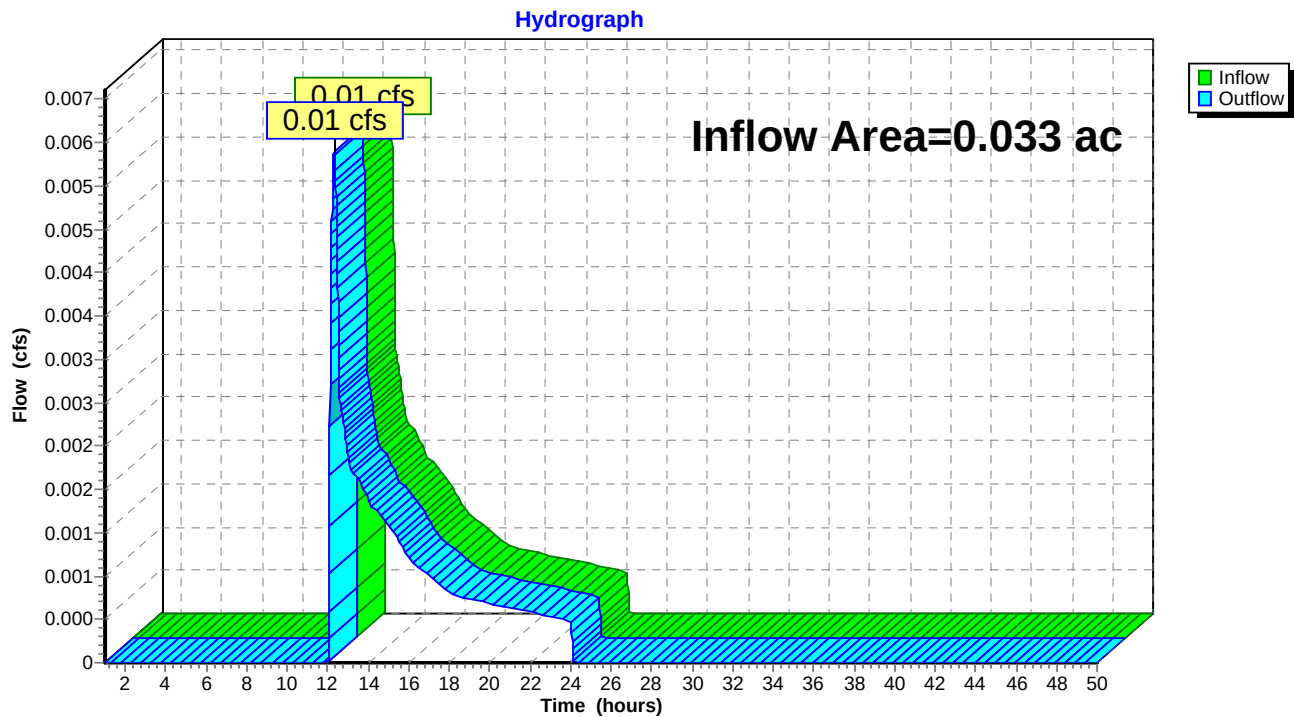


Summary for Reach 2R: Downgradient Abutter (POI#2)

Inflow Area = 0.033 ac, 2.30% Impervious, Inflow Depth = 0.44" for 25-year event
 Inflow = 0.01 cfs @ 12.32 hrs, Volume= 0.001 af
 Outflow = 0.01 cfs @ 12.32 hrs, Volume= 0.001 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs

Reach 2R: Downgradient Abutter (POI#2)

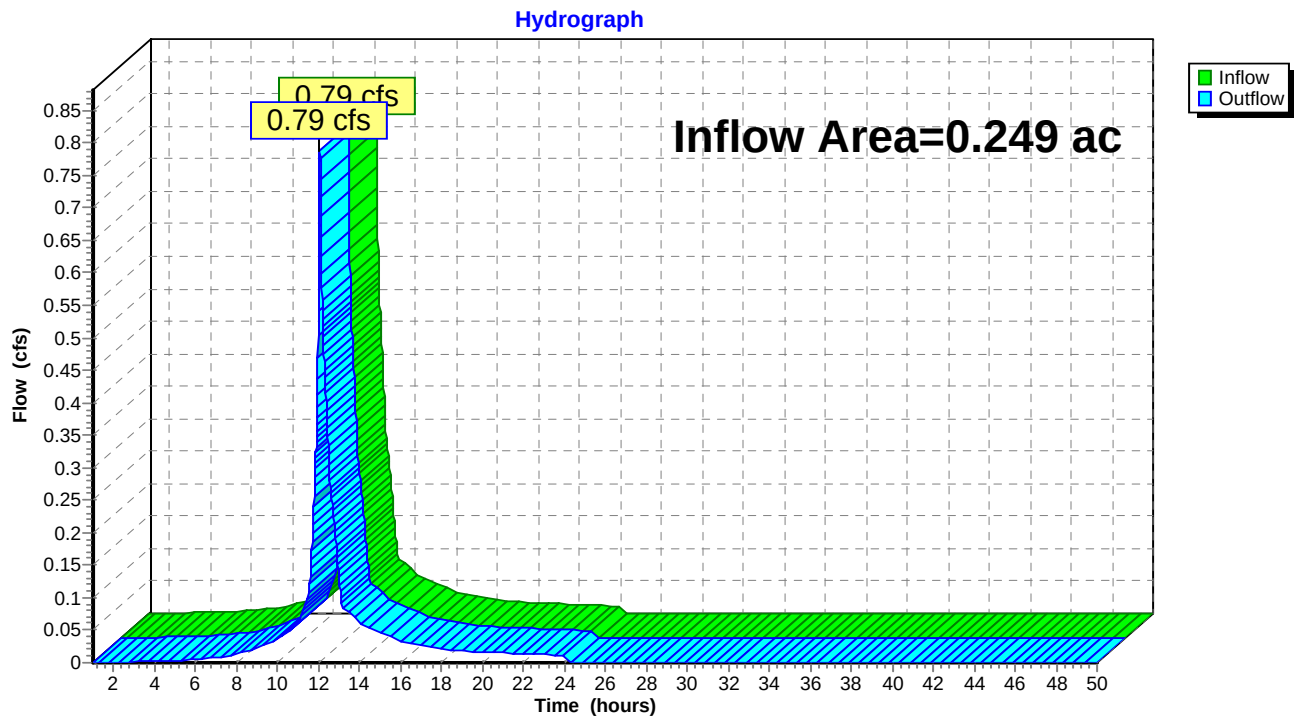


Summary for Reach 3R: Total Runoff

Inflow Area = 0.249 ac, 71.01% Impervious, Inflow Depth = 3.85" for 25-year event
 Inflow = 0.79 cfs @ 12.08 hrs, Volume= 0.080 af
 Outflow = 0.79 cfs @ 12.08 hrs, Volume= 0.080 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs

Reach 3R: Total Runoff



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

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Summary for Pond FP1: FocalPoint

Inflow Area = 0.087 ac, 94.10% Impervious, Inflow Depth = 5.21" for 25-year event
 Inflow = 0.50 cfs @ 12.07 hrs, Volume= 0.038 af
 Outflow = 0.22 cfs @ 12.23 hrs, Volume= 0.038 af, Atten= 56%, Lag= 9.8 min
 Primary = 0.22 cfs @ 12.23 hrs, Volume= 0.038 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 136.64' @ 12.23 hrs Surf.Area= 116 sf Storage= 236 cf

Plug-Flow detention time= 7.5 min calculated for 0.038 af (100% of inflow)
 Center-of-Mass det. time= 7.5 min (771.0 - 763.5)

Volume	Invert	Avail.Storage	Storage Description
#1	133.75'	89 cf	3/4 Stone (Prismatic) Listed below (Recalc) 435 cf Overall - 213 cf Embedded = 222 cf x 40.0% Voids
#2	134.12'	202 cf	1.31'W x 2.35'L x 2.88'H Tanks x 24 Inside #1 213 cf Overall x 95.0% Voids
#3	137.00'	9 cf	3.00'W x 7.00'L x 2.25'H FocalPoint 47 cf Overall x 20.0% Voids
#4	139.25'	61 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		362 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.75	116	0	0
137.50	116	435	435

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
139.25	21	0	0
139.50	37	7	7
139.75	55	12	19
140.00	85	18	36
140.25	115	25	61

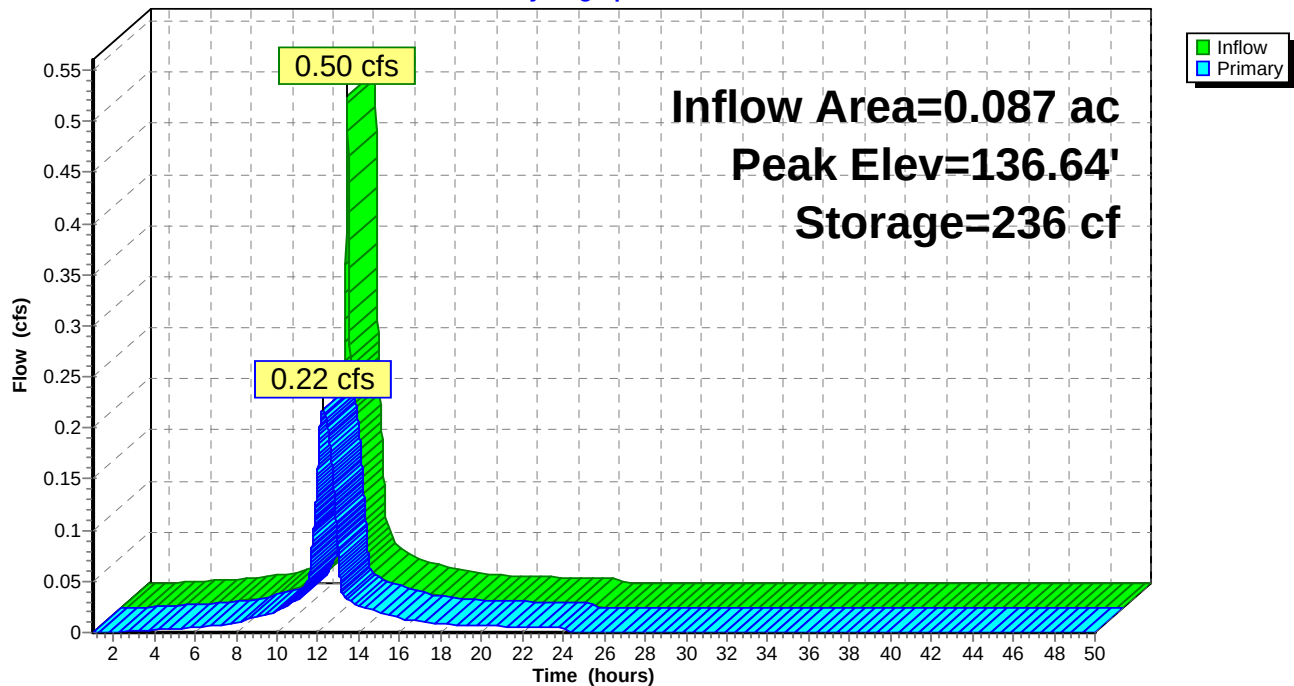
Device	Routing	Invert	Outlet Devices
#1	Primary	133.70'	3.3" Round 4" UD w/ orifice L= 150.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 133.70' / 132.70' S= 0.0067 ' / Cc= 0.600 n= 0.010 PVC, smooth interior, Flow Area= 0.06 sf
#2	Device 1	133.75'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#3	Device 1	139.75'	8.0" Horiz. Overflow Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.22 cfs @ 12.23 hrs HW=136.64' TW=0.00' (Dynamic Tailwater)

1=4" UD w/ orifice (Barrel Controls 0.22 cfs @ 3.67 fps)
 2=Exfiltration (Passes 0.22 cfs of 0.27 cfs potential flow)
 3=Overflow Grate (Controls 0.00 cfs)

Pond FP1: FocalPoint

Hydrograph



Post Development1-2-20*Type III 24-hr Custom Rainfall=0.95"*

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Time span=1.00-50.00 hrs, dt=0.01 hrs, 4901 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1.1S: SC 1.1Runoff Area=3,781 sf 94.10% Impervious Runoff Depth=0.52"
Tc=5.0 min CN=95 Runoff=0.05 cfs 0.004 af**Subcatchment1S: SC1**Runoff Area=5,648 sf 72.98% Impervious Runoff Depth=0.10"
Tc=5.0 min CN=82 Runoff=0.01 cfs 0.001 af**Subcatchment2S: SC 2**Runoff Area=1,433 sf 2.30% Impervious Runoff Depth=0.00"
Tc=5.0 min CN=40 Runoff=0.00 cfs 0.000 af**Reach 1R: North St. (POI #1)**Inflow=0.06 cfs 0.005 af
Outflow=0.06 cfs 0.005 af**Reach 2R: Downgradient Abutter (POI#2)**Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af**Reach 3R: Total Runoff**Inflow=0.06 cfs 0.005 af
Outflow=0.06 cfs 0.005 af**Pond FP1: FocalPoint**Peak Elev=133.94' Storage=9 cf Inflow=0.05 cfs 0.004 af
Outflow=0.05 cfs 0.004 af**Total Runoff Area = 0.249 ac Runoff Volume = 0.005 af Average Runoff Depth = 0.23"**
28.99% Pervious = 0.072 ac 71.01% Impervious = 0.177 ac

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Type III 24-hr Custom Rainfall=0.95"

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Summary for Subcatchment 1.1S: SC 1.1

Runoff = 0.05 cfs @ 12.08 hrs, Volume= 0.004 af, Depth= 0.52"

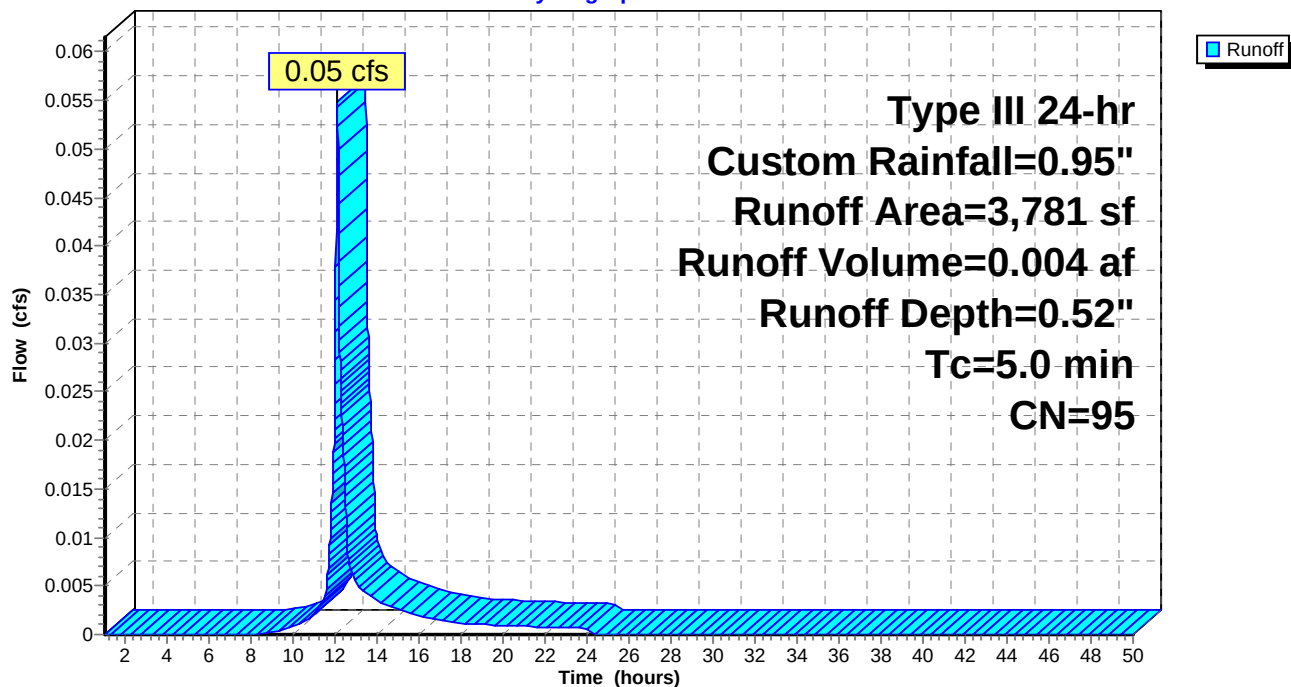
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr Custom Rainfall=0.95"

	Area (sf)	CN	Description
*	3,558	98	Roof, decks
	223	39	>75% Grass cover, Good, HSG A
	3,781	95	Weighted Average
	223		5.90% Pervious Area
	3,558		94.10% Impervious Area

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

Subcatchment 1.1S: SC 1.1

Hydrograph



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Type III 24-hr Custom Rainfall=0.95"

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Summary for Subcatchment 1S: SC1

Runoff = 0.01 cfs @ 12.13 hrs, Volume= 0.001 af, Depth= 0.10"

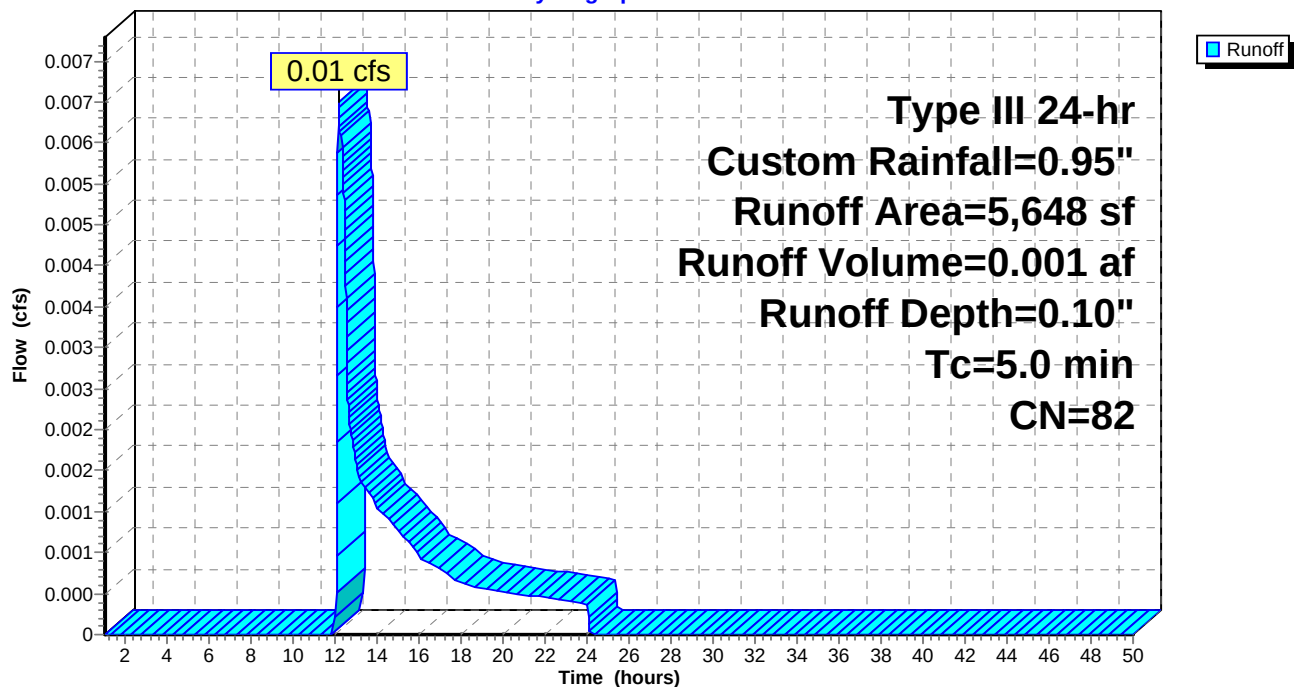
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr Custom Rainfall=0.95"

	Area (sf)	CN	Description
*	1,526	39	Field inlets trib/landscaping
*	122	98	128R walk/drive
*	1,077	98	shared drive
*	2,923	98	126 roof,walk,drive
	5,648	82	Weighted Average
	1,526		27.02% Pervious Area
	4,122		72.98% Impervious Area

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

Subcatchment 1S: SC1

Hydrograph



Summary for Subcatchment 2S: SC 2

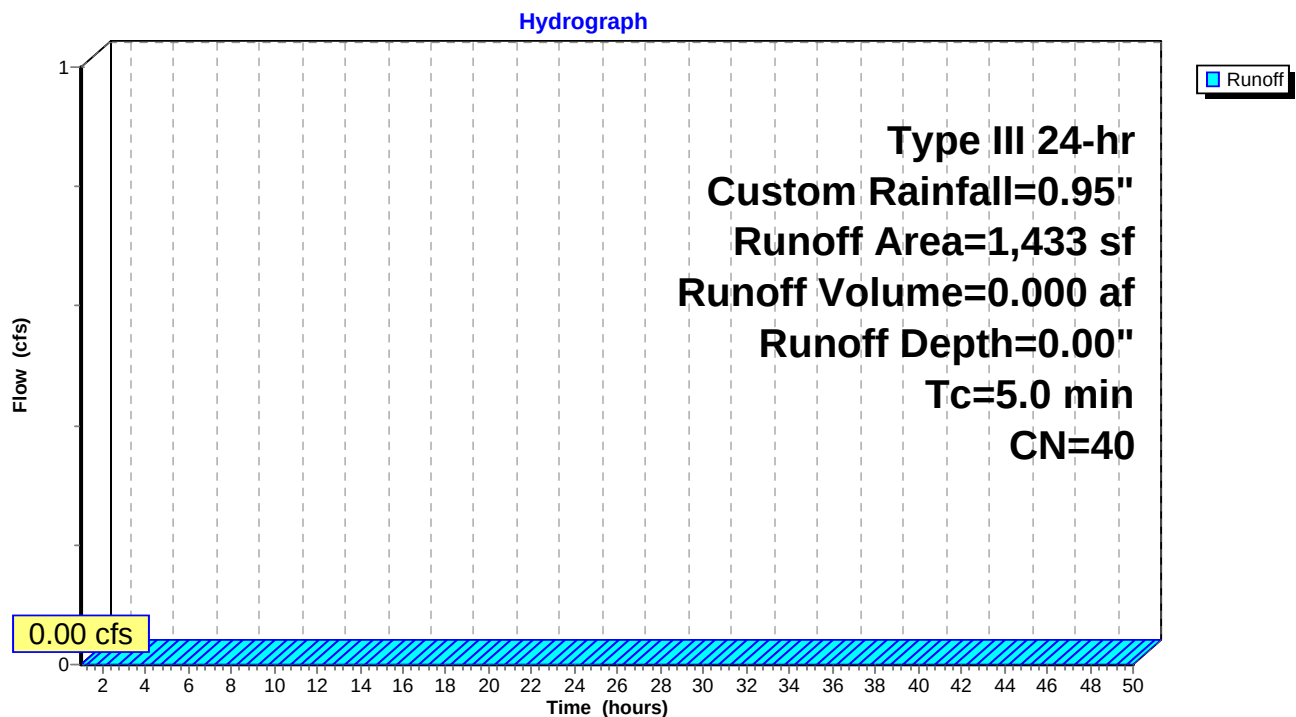
Runoff = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr Custom Rainfall=0.95"

Area (sf)	CN	Description
1,400	39	>75% Grass cover, Good, HSG A
* 33	98	Misc impervious
1,433	40	Weighted Average
1,400		97.70% Pervious Area
33		2.30% Impervious Area

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

Subcatchment 2S: SC 2

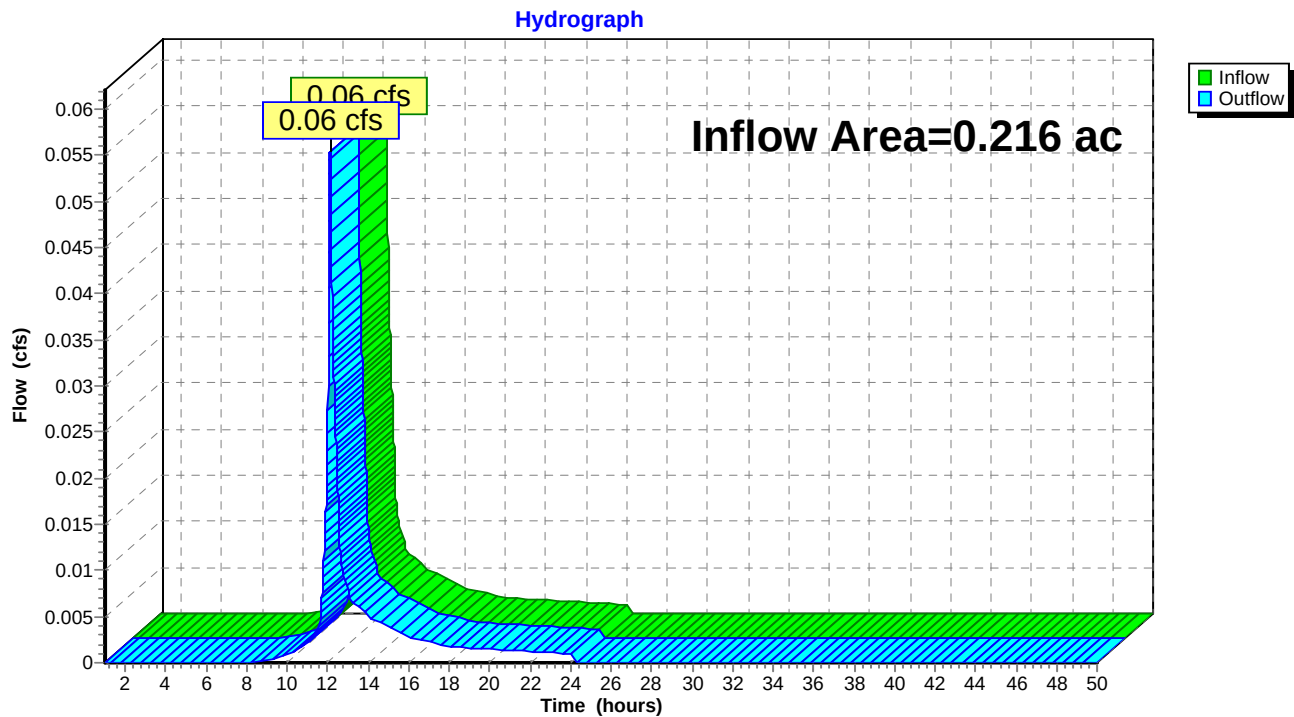


Summary for Reach 1R: North St. (POI #1)

Inflow Area = 0.216 ac, 81.45% Impervious, Inflow Depth = 0.27" for Custom event
 Inflow = 0.06 cfs @ 12.12 hrs, Volume= 0.005 af
 Outflow = 0.06 cfs @ 12.12 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs

Reach 1R: North St. (POI #1)

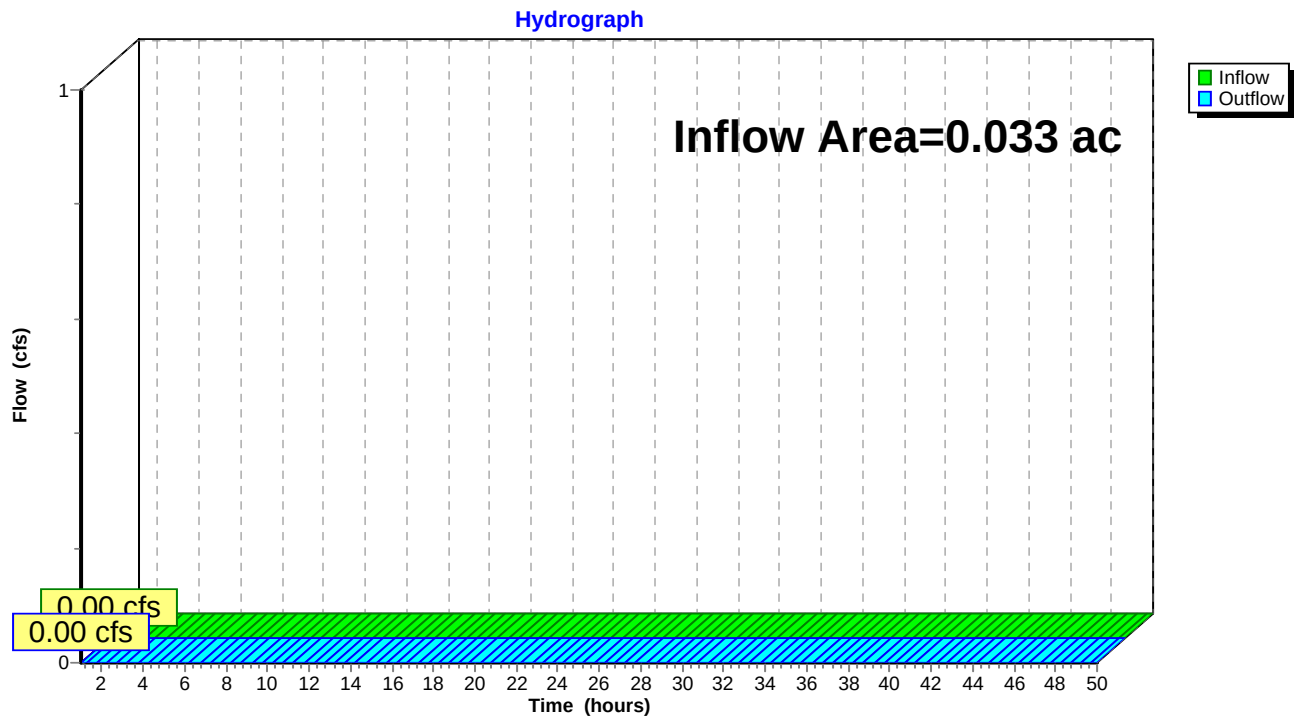


Summary for Reach 2R: Downgradient Abutter (POI#2)

Inflow Area = 0.033 ac, 2.30% Impervious, Inflow Depth = 0.00" for Custom event
 Inflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs

Reach 2R: Downgradient Abutter (POI#2)

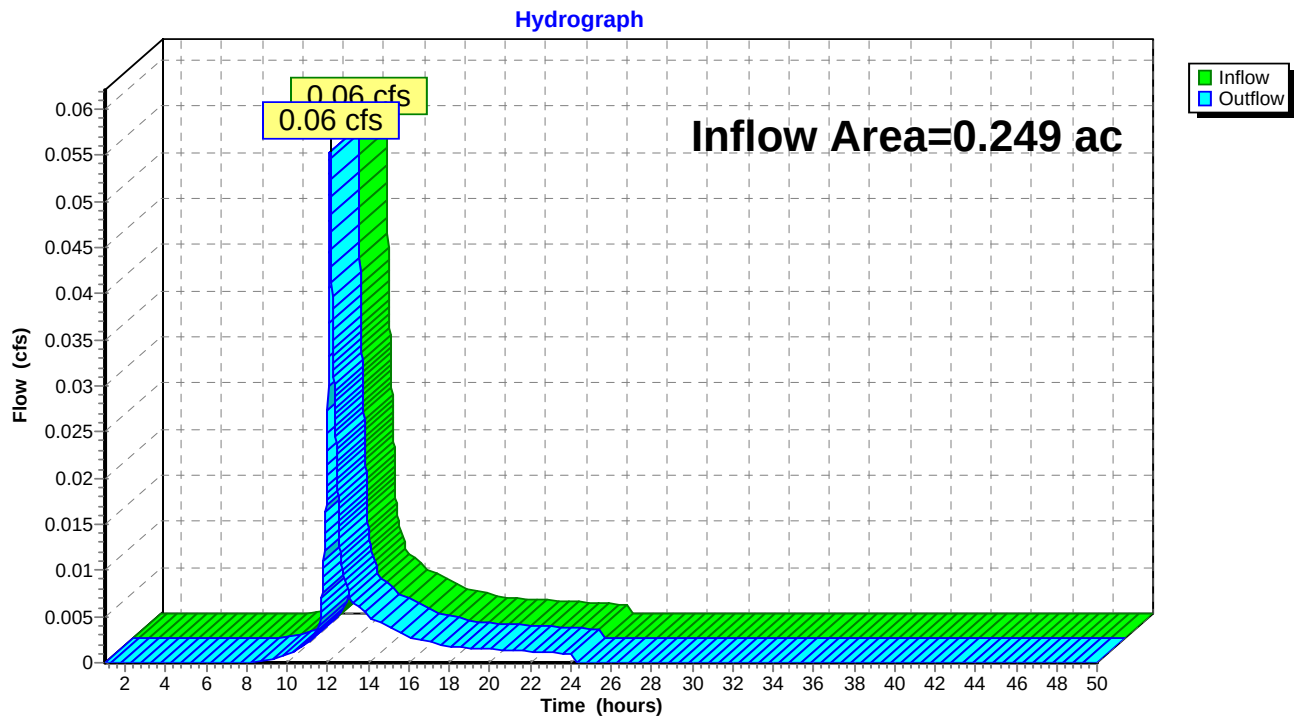


Summary for Reach 3R: Total Runoff

Inflow Area = 0.249 ac, 71.01% Impervious, Inflow Depth = 0.23" for Custom event
 Inflow = 0.06 cfs @ 12.12 hrs, Volume= 0.005 af
 Outflow = 0.06 cfs @ 12.12 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs

Reach 3R: Total Runoff



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Type III 24-hr Custom Rainfall=0.95"

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Summary for Pond FP1: FocalPoint

Inflow Area = 0.087 ac, 94.10% Impervious, Inflow Depth = 0.52" for Custom event
 Inflow = 0.05 cfs @ 12.08 hrs, Volume= 0.004 af
 Outflow = 0.05 cfs @ 12.11 hrs, Volume= 0.004 af, Atten= 11%, Lag= 2.3 min
 Primary = 0.05 cfs @ 12.11 hrs, Volume= 0.004 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 133.94' @ 12.11 hrs Surf.Area= 116 sf Storage= 9 cf

Plug-Flow detention time= 2.0 min calculated for 0.004 af (100% of inflow)
 Center-of-Mass det. time= 2.0 min (827.4 - 825.4)

Volume	Invert	Avail.Storage	Storage Description
#1	133.75'	89 cf	3/4 Stone (Prismatic) Listed below (Recalc) 435 cf Overall - 213 cf Embedded = 222 cf x 40.0% Voids
#2	134.12'	202 cf	1.31'W x 2.35'L x 2.88'H Tanks x 24 Inside #1 213 cf Overall x 95.0% Voids
#3	137.00'	9 cf	3.00'W x 7.00'L x 2.25'H FocalPoint 47 cf Overall x 20.0% Voids
#4	139.25'	61 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		362 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.75	116	0	0
137.50	116	435	435

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
139.25	21	0	0
139.50	37	7	7
139.75	55	12	19
140.00	85	18	36
140.25	115	25	61

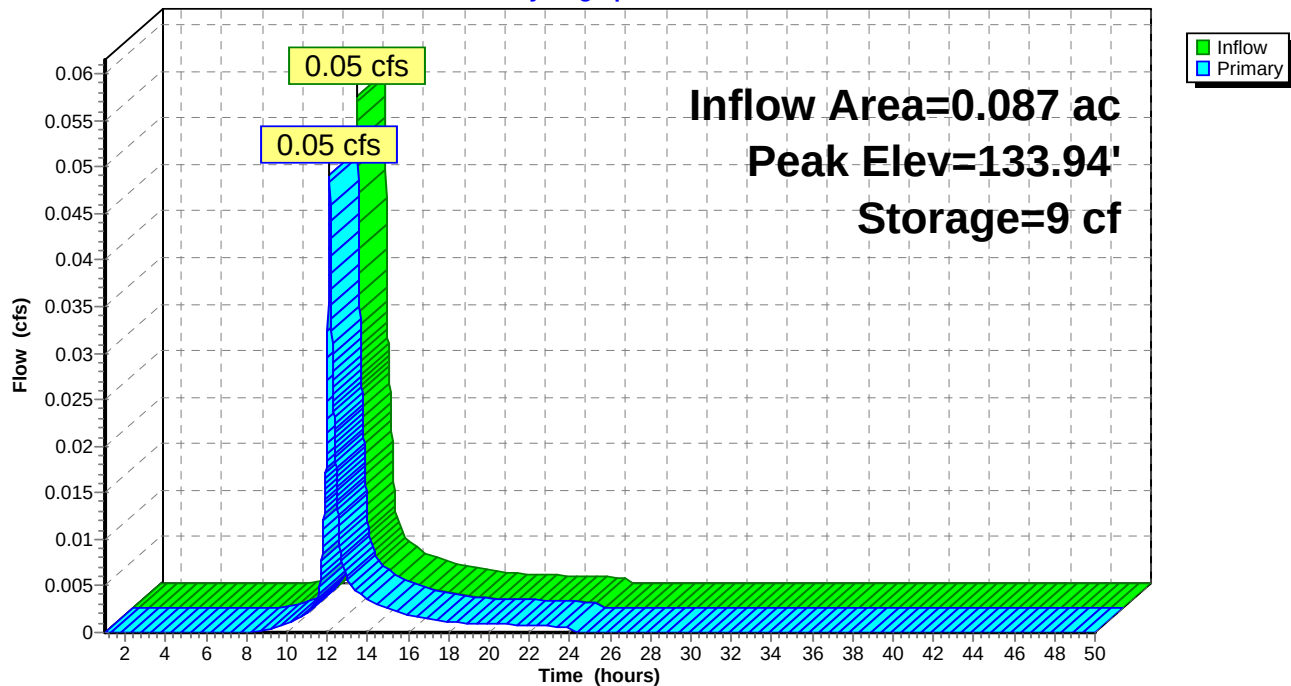
Device	Routing	Invert	Outlet Devices
#1	Primary	133.70'	3.3" Round 4" UD w/ orifice L= 150.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 133.70' / 132.70' S= 0.0067 ' / Cc= 0.600 n= 0.010 PVC, smooth interior, Flow Area= 0.06 sf
#2	Device 1	133.75'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#3	Device 1	139.75'	8.0" Horiz. Overflow Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.05 cfs @ 12.11 hrs HW=133.94' TW=0.00' (Dynamic Tailwater)

1=4" UD w/ orifice (Inlet Controls 0.05 cfs @ 0.88 fps)
 2=Exfiltration (Passes 0.05 cfs of 0.27 cfs potential flow)
 3=Overflow Grate (Controls 0.00 cfs)

Pond FP1: FocalPoint

Hydrograph



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Type III 24-hr WQ Rainfall=1.00"

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Time span=1.00-50.00 hrs, dt=0.01 hrs, 4901 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1.1S: SC 1.1Runoff Area=3,781 sf 94.10% Impervious Runoff Depth=0.56"
Tc=5.0 min CN=95 Runoff=0.06 cfs 0.004 af**Subcatchment1S: SC1**Runoff Area=5,648 sf 72.98% Impervious Runoff Depth=0.11"
Tc=5.0 min CN=82 Runoff=0.01 cfs 0.001 af**Subcatchment2S: SC 2**Runoff Area=1,433 sf 2.30% Impervious Runoff Depth=0.00"
Tc=5.0 min CN=40 Runoff=0.00 cfs 0.000 af**Reach 1R: North St. (POI #1)**Inflow=0.06 cfs 0.005 af
Outflow=0.06 cfs 0.005 af**Reach 2R: Downgradient Abutter (POI#2)**Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af**Reach 3R: Total Runoff**Inflow=0.06 cfs 0.005 af
Outflow=0.06 cfs 0.005 af**Pond FP1: FocalPoint**Peak Elev=133.96' Storage=10 cf Inflow=0.06 cfs 0.004 af
Outflow=0.05 cfs 0.004 af**Total Runoff Area = 0.249 ac Runoff Volume = 0.005 af Average Runoff Depth = 0.26"**
28.99% Pervious = 0.072 ac 71.01% Impervious = 0.177 ac

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Type III 24-hr WQ Rainfall=1.00"

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Summary for Subcatchment 1.1S: SC 1.1

Runoff = 0.06 cfs @ 12.07 hrs, Volume= 0.004 af, Depth= 0.56"

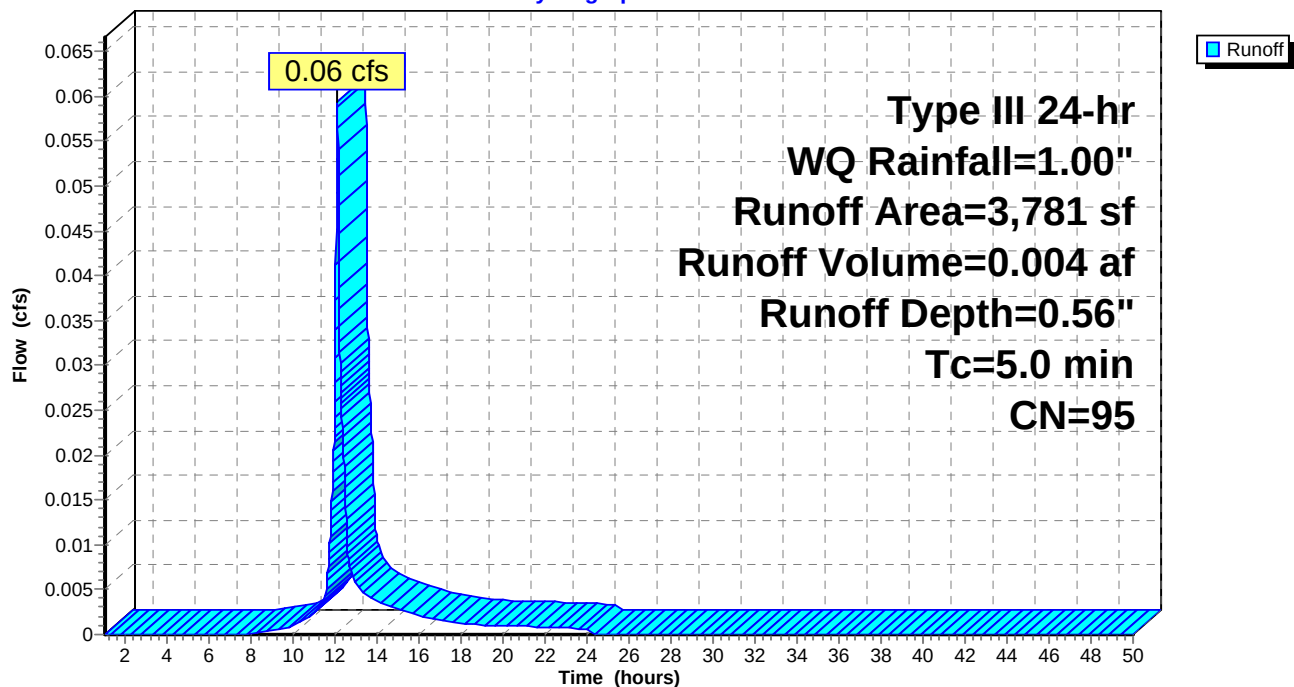
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr WQ Rainfall=1.00"

	Area (sf)	CN	Description
*	3,558	98	Roof, decks
	223	39	>75% Grass cover, Good, HSG A
	3,781	95	Weighted Average
	223		5.90% Pervious Area
	3,558		94.10% Impervious Area

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

Subcatchment 1.1S: SC 1.1

Hydrograph



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Type III 24-hr WQ Rainfall=1.00"

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Summary for Subcatchment 1S: SC1

Runoff = 0.01 cfs @ 12.12 hrs, Volume= 0.001 af, Depth= 0.11"

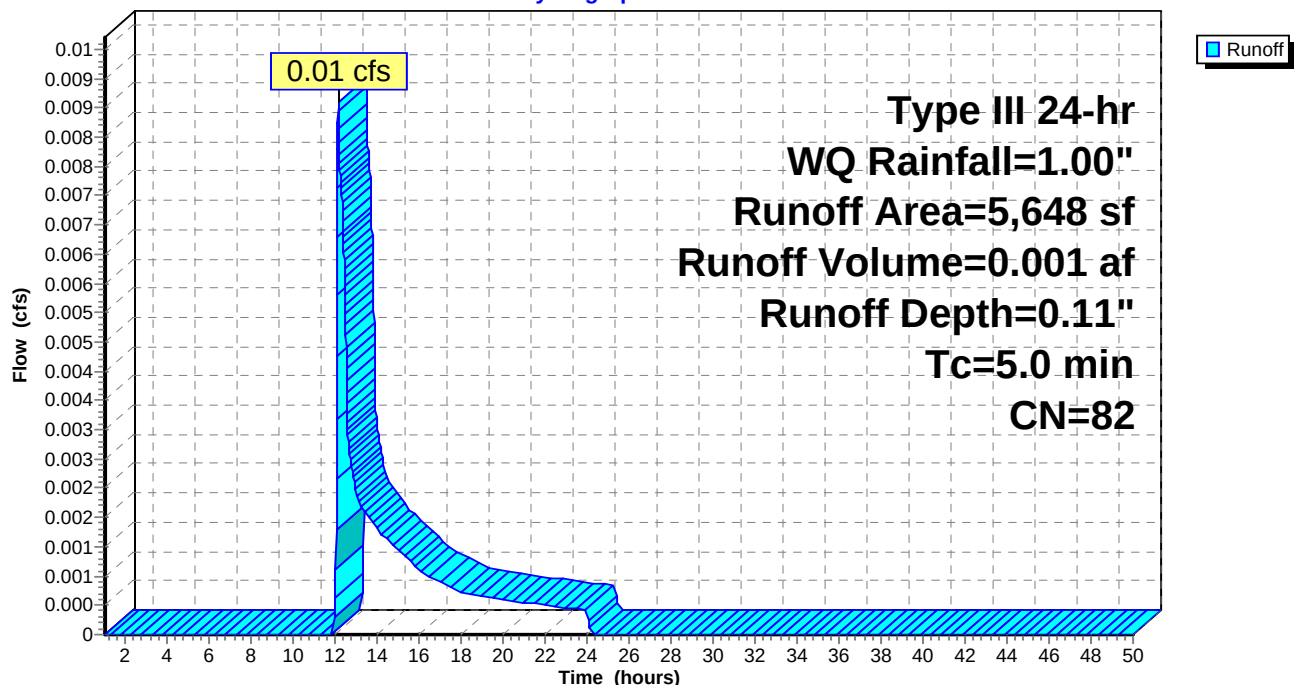
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr WQ Rainfall=1.00"

	Area (sf)	CN	Description
*	1,526	39	Field inlets trib/landscaping
*	122	98	128R walk/drive
*	1,077	98	shared drive
*	2,923	98	126 roof,walk,drive
	5,648	82	Weighted Average
	1,526		27.02% Pervious Area
	4,122		72.98% Impervious Area

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

Subcatchment 1S: SC1

Hydrograph



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Type III 24-hr WQ Rainfall=1.00"

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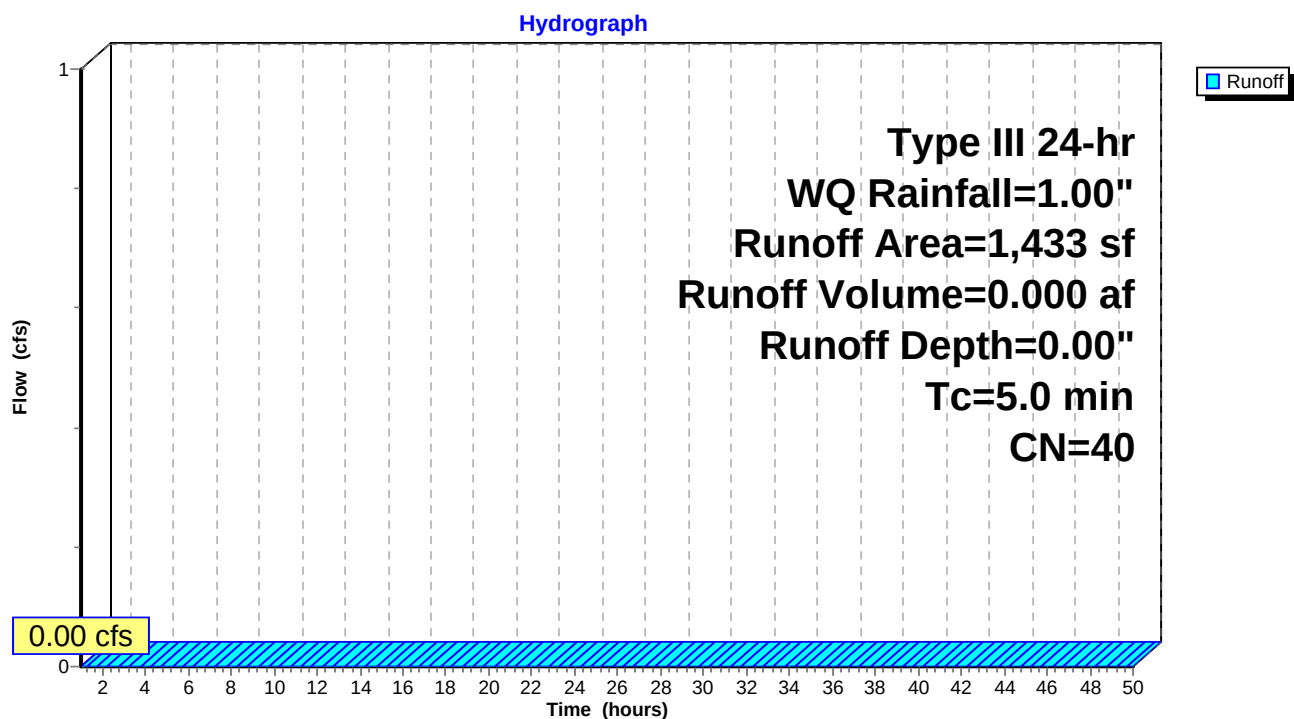
Summary for Subcatchment 2S: SC 2

Runoff = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
Type III 24-hr WQ Rainfall=1.00"

Area (sf)	CN	Description
1,400	39	>75% Grass cover, Good, HSG A
* 33	98	Misc impervious
1,433	40	Weighted Average
1,400		97.70% Pervious Area
33		2.30% Impervious Area

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

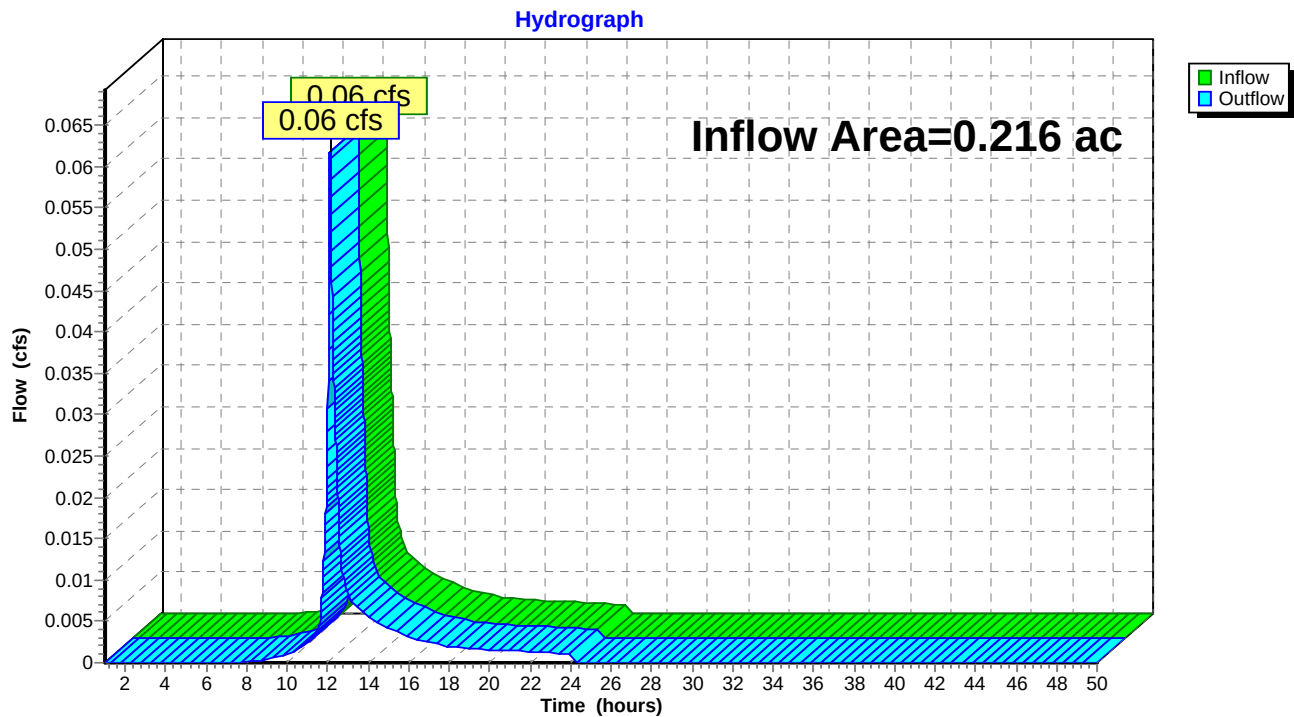
Subcatchment 2S: SC 2

Summary for Reach 1R: North St. (POI #1)

Inflow Area = 0.216 ac, 81.45% Impervious, Inflow Depth = 0.29" for WQ event
 Inflow = 0.06 cfs @ 12.12 hrs, Volume= 0.005 af
 Outflow = 0.06 cfs @ 12.12 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs

Reach 1R: North St. (POI #1)

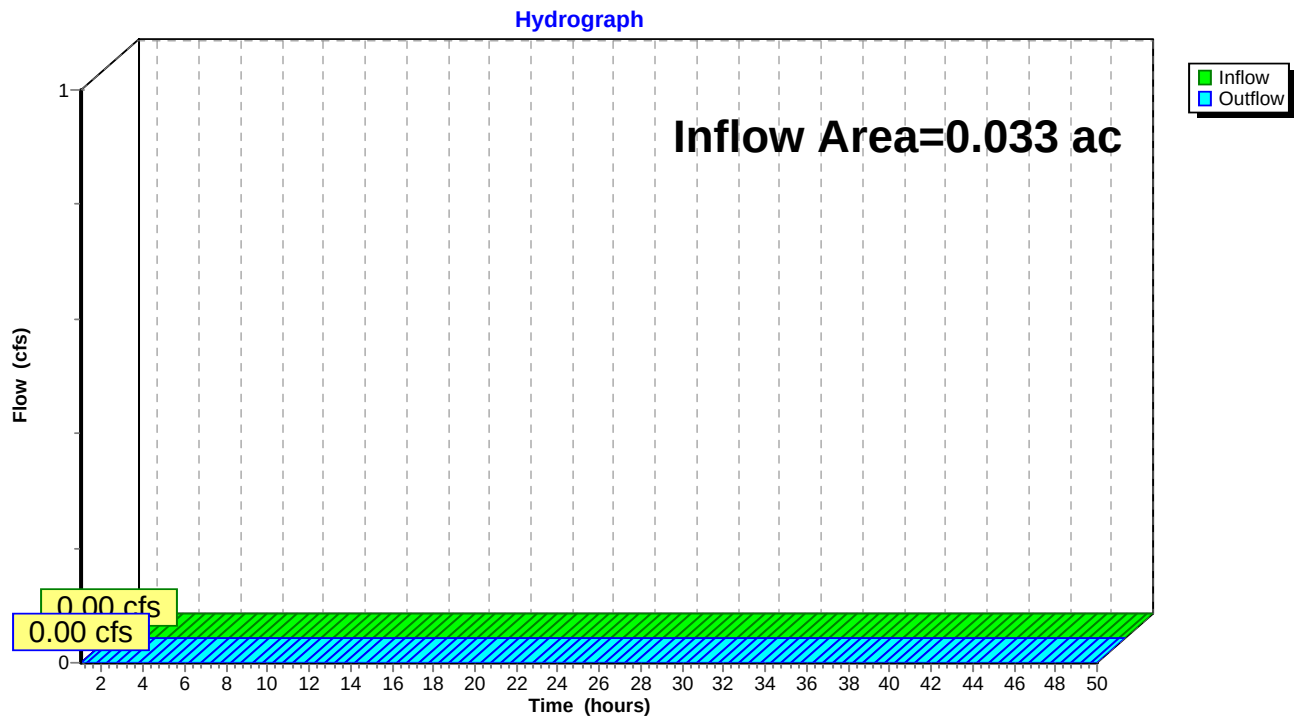


Summary for Reach 2R: Downgradient Abutter (POI#2)

Inflow Area = 0.033 ac, 2.30% Impervious, Inflow Depth = 0.00" for WQ event
 Inflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs

Reach 2R: Downgradient Abutter (POI#2)

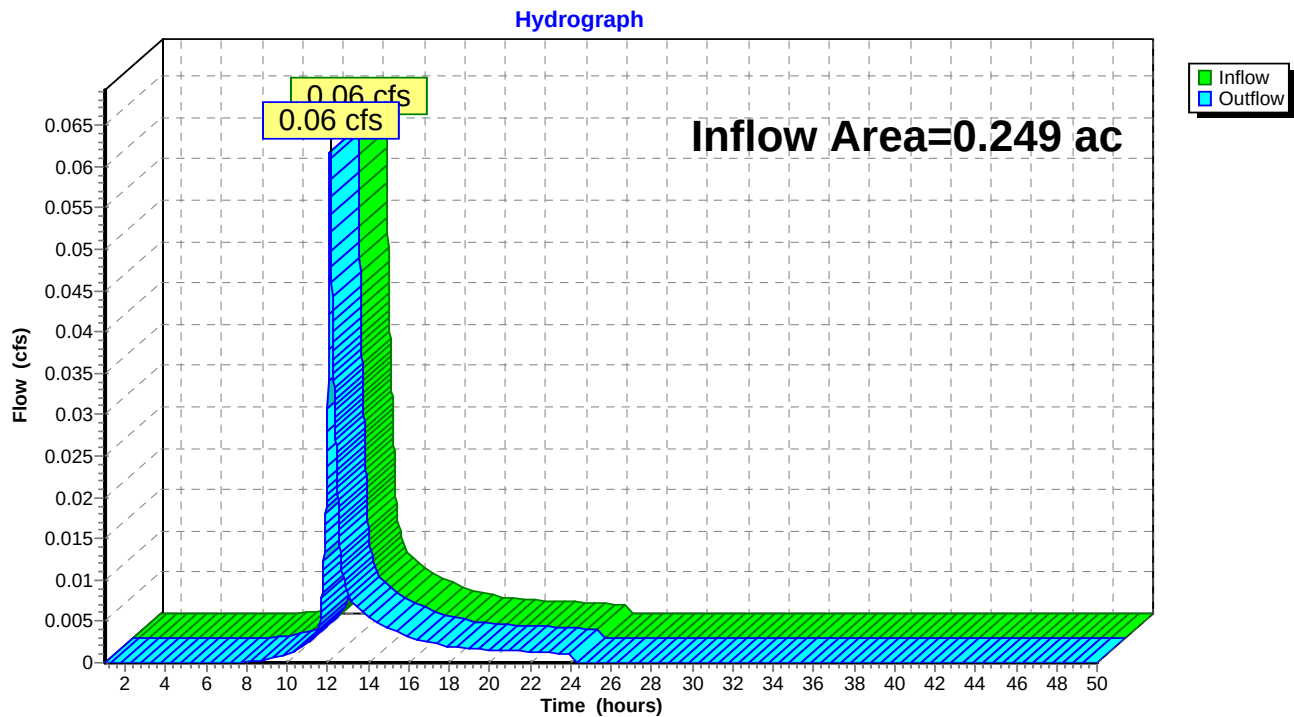


Summary for Reach 3R: Total Runoff

Inflow Area = 0.249 ac, 71.01% Impervious, Inflow Depth = 0.26" for WQ event
 Inflow = 0.06 cfs @ 12.12 hrs, Volume= 0.005 af
 Outflow = 0.06 cfs @ 12.12 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs

Reach 3R: Total Runoff



Post Development1-2-20

Prepared by Acorn Eng

HydroCAD® 10.00-24 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Type III 24-hr WQ Rainfall=1.00"

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Summary for Pond FP1: FocalPoint

Inflow Area = 0.087 ac, 94.10% Impervious, Inflow Depth = 0.56" for WQ event
 Inflow = 0.06 cfs @ 12.07 hrs, Volume= 0.004 af
 Outflow = 0.05 cfs @ 12.11 hrs, Volume= 0.004 af, Atten= 11%, Lag= 2.4 min
 Primary = 0.05 cfs @ 12.11 hrs, Volume= 0.004 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-50.00 hrs, dt= 0.01 hrs
 Peak Elev= 133.96' @ 12.11 hrs Surf.Area= 116 sf Storage= 10 cf

Plug-Flow detention time= 2.1 min calculated for 0.004 af (100% of inflow)
 Center-of-Mass det. time= 2.1 min (825.2 - 823.1)

Volume	Invert	Avail.Storage	Storage Description
#1	133.75'	89 cf	3/4 Stone (Prismatic) Listed below (Recalc) 435 cf Overall - 213 cf Embedded = 222 cf x 40.0% Voids
#2	134.12'	202 cf	1.31'W x 2.35'L x 2.88'H Tanks x 24 Inside #1 213 cf Overall x 95.0% Voids
#3	137.00'	9 cf	3.00'W x 7.00'L x 2.25'H FocalPoint 47 cf Overall x 20.0% Voids
#4	139.25'	61 cf	Custom Stage Data (Prismatic) Listed below (Recalc) -Impervious
		362 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.75	116	0	0
137.50	116	435	435

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
139.25	21	0	0
139.50	37	7	7
139.75	55	12	19
140.00	85	18	36
140.25	115	25	61

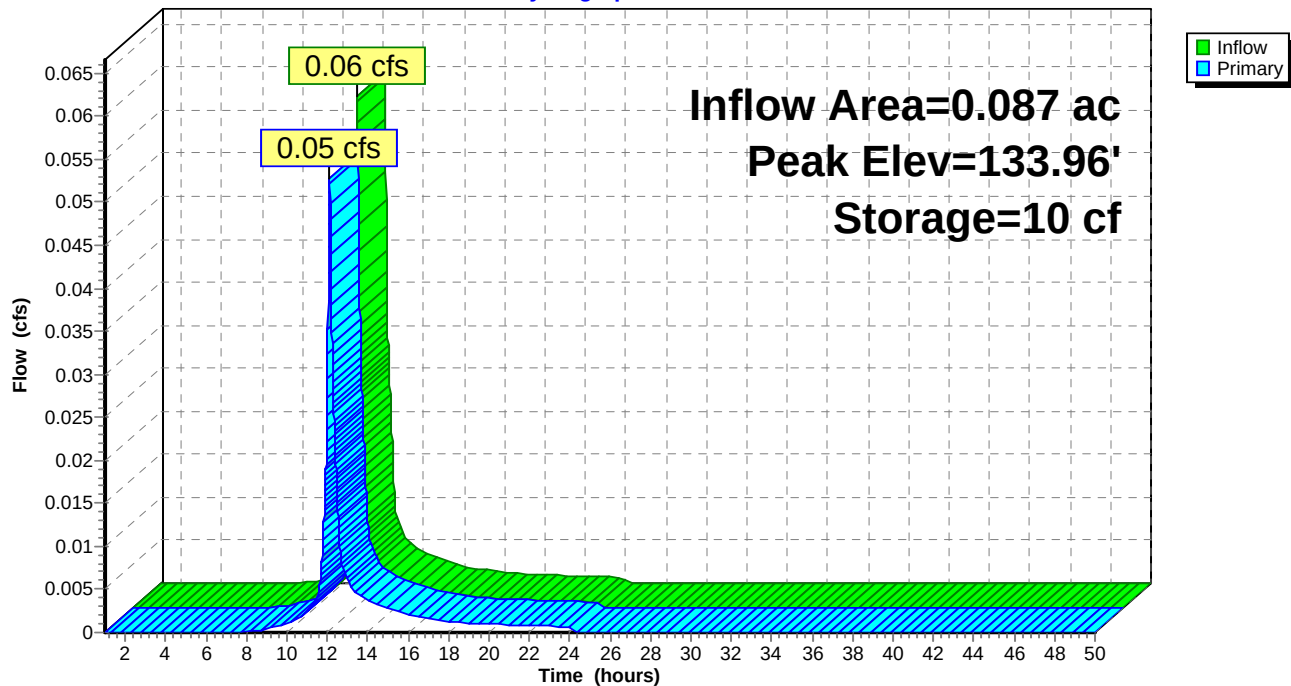
Device	Routing	Invert	Outlet Devices
#1	Primary	133.70'	3.3" Round 4" UD w/ orifice L= 150.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 133.70' / 132.70' S= 0.0067 ' S= 0.0067 ' Cc= 0.600 n= 0.010 PVC, smooth interior, Flow Area= 0.06 sf
#2	Device 1	133.75'	100.000 in/hr Exfiltration over Surface area Phase-In= 0.10'
#3	Device 1	139.75'	8.0" Horiz. Overflow Grate C= 0.600 Limited to weir flow at low heads

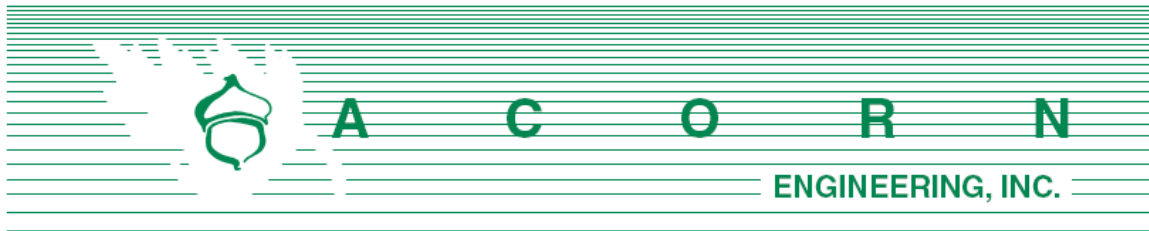
Primary OutFlow Max=0.05 cfs @ 12.11 hrs HW=133.96' TW=0.00' (Dynamic Tailwater)

1=4" UD w/ orifice (Inlet Controls 0.05 cfs @ 0.91 fps)
 2=Exfiltration (Passes 0.05 cfs of 0.27 cfs potential flow)
 3=Overflow Grate (Controls 0.00 cfs)

Pond FP1: FocalPoint

Hydrograph





Att. K

K. EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**Upright Properties, LLC
Portland, ME 04101
PO Box 833 Wilton, ME 04294**

Prepared By:

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



**March 2019
Rev. October 2019**

INTRODUCTION

Acorn Engineering, Inc. has been retained by Upright Properties, LLC to provide civil engineering services for the proposed redevelopment of 126 & 128R North Street. The proposed project includes a two-phase approach where Phase 1 would include the redevelopment of 128R into a four-story building with six condominiums and covered parking on the ground level. Phase 2 would include the redevelopment of 126 into a three-story building with five rental units.

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 North Street. A boundary plan has been prepared by Nadeau Land Surveys; Maine dated August 22, 2018.

Abutting Uses:

- | | |
|------------------|--------------------------|
| ➤ North R-6 Zone | Two-Unit Residential |
| ➤ East R-6 Zone | Multi Family Residential |
| ➤ South R-6 Zone | Multi Family Residential |
| ➤ West R-6 Zone | Multi Family Residential |

The site is currently occupied by a two-story single-family house. The South side of the lot has slopes that range from 15 to 25 percent toward the abutting condominium associations of Munjoy Heights.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County
- United States Department of Agriculture Web Soil Survey

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

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



Table 1 - "K" Value		
Soils Type	Subsurface	Substratum
Hinckley Loamy Sand	0.17	0.17

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 sustained slope throughout the site.

1.2 Existing Erosion Problems

There are no signs of erosion.

1.3 Critical Areas

The south side of the 128R lot has slopes that can range from 15 to 25 percent.

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 unless not feasible, 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 Siltation fence or erosion control berm shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The silt fence or erosion control berm shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam.
- 2.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.
- 2.1.4 At any time of the year, all slopes greater than 3:1 shall be stabilized with Double Net Erosion Control Blanket Bionet SC150BN by North American Green or Approved Equal, or Erosion Control Mix Slope Protection as detailed within the plans.
- 2.1.5 North Street shall be swept to control mud and dust from the construction site as necessary. Add additional stone to the stabilized construction entrance to minimize the tracking of material off the site and onto the surrounding roadways.



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

2.2 Permanent Erosion Control Measures

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

- 2.2.1 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4” of loam, limed, and mulched. Erosion



control blankets or mats shall be placed over the mulch in areas noted in paragraph 4.1 of this report.

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

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

3.0 EROSION AND SEDIMENTATION CONTROL PLAN

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

Qualifications:

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

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



7.0 IMPLEMENTATION SCHEDULE

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

1. Install a stabilized construction entrance in all locations where construction traffic will enter and exit the site.
2. Install perimeter 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.

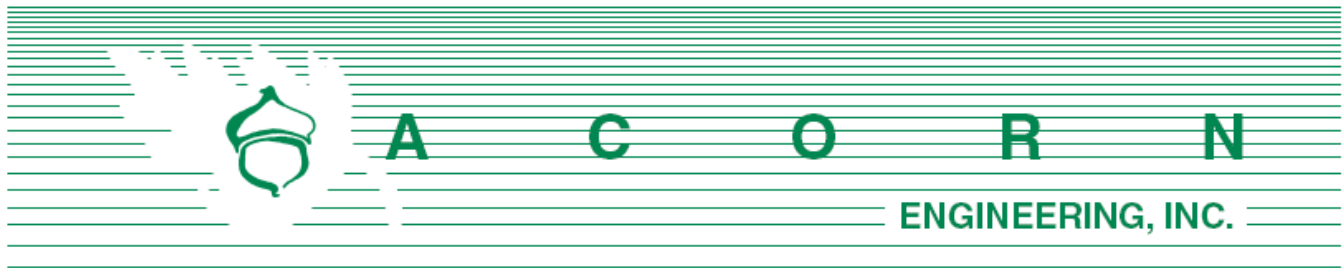
Recommendations

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

August 7, 2019
 Rev. October 29, 2019

Subject: 126 & 128R North Street – Fire Department Checklist
 Section L of Application

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

1. Name, address, telephone number of applicant

Upright Properties, LLC
 PO Box 833
 Wilton, ME 04294
 207-749-9656

2. Name address, telephone number of architect

Tracie Reed, Dextrous Creative Architecture
 traciereed@dextrouscreative.com
 Portland, Maine 04101
 207-409-0459

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

NFPA: Apartments / IBC: R-6

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

Existing Building – 128 R		
Total	1,448	sf

Proposed Building		
Basement	700	sf
1 st Floor	1,003	sf
2 nd Floor	2,370	sf
3 rd Floor	2,370	sf
4 th Floor	2,593	sf
Total	9,036	sf

Existing Building – 126		
Total	2,510	sf

Proposed Building		
1 st Floor	1,403	sf
2 nd Floor	1,403	sf
3 rd Floor	1,403	sf
Total	4,209	sf

5. Elevation of all structures

Based upon the average grade plane defined by the IBC, the proposed building height for 126 & 128R are 33.3' and 44.6' respectively. The height of each building is below the allowable limit in the R-6 zone. Please refer to the building elevations provided by the Architect for additional information.

6. Proposed fire protection of all structures

The buildings will each have a sprinkler system with additional protection 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

An existing hydrant is located approximately 175 ft southeast of the property at the corner of North Street and Walnut 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 128R redevelopment will be serviced by a new 6" sprinkler line and 1.5" domestic water line. The sprinkler line will be tapped from an existing 12" ductile iron main within North Street. A 6" fire service line will extend from the water main to the building fire suppression system. The building is expected to have internal sprinkler risers and a Fire Department pump connection on the street side of the building.

The 126 redevelopment will be serviced by a 4" sprinkler line off the 12" ductile iron main water main within North Street. A 1.5" domestic line is proposed to branch off the proposed sprinkler line.

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

Access to the structure is provided directly on North Street. Additionally, Phase I of the project will implement a 16' drive aisle to 128R North Street which will provide access for fire/emergency vehicles. The drive aisle will be developed by demolishing the 126 building prior to the certificate of occupancy at 128R.



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

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

The project site is located in a developed area and is fronted by a public street. The following pavement street width is currently available:

- North Street: 34 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

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

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

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

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

Response: The proposed development layout has contemplated and altered the plans for 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 buildings will be provided with exterior doors that will be within 50' of a Fire Department access route, namely North Street.

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

Response: Site access and driveway is clear of vertical obstructions.

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 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,



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



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: 3/16/2020

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

Site Address: 128R & 126 North Street, Portland, ME 04101

Chart Block Lot Number: 12 - H - 9

Proposed Use: Multi-Family Residential

Previous Use: Single-Family Residential

Existing Sanitary Flows: 1,110 GPD

Existing Process Flows: 0 GPD

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

Combined 12" sewer main in North 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: Upright Properties, LLC

Owner/Developer Address: PO Box 833 Wilton, ME 04294

Phone: 207-749-9656 Fax: E-mail: jwojcik@uprightframeworks.com

Engineering Consultant Name: Acorn Engineering

Engineering Consultant Address: 65 Hanover Portland, ME 04101

Phone: 207-317-1884 Fax: E-mail: wsavage@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: 2,100 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: N/A
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 ☐
Is the process wastewater termed categorical under CFR 40? Yes ☐ No ☐
OSHA Standard Industrial Code (SIC): _____
(<http://www.osha.gov/oshstats/sicser.html>)
Peaking Factor/Peak Process Times: _____

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

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

M. Calculation of Wastewater Flowrate for 126 & 128R North Street Redevelopment

The proposed project includes a two-phase approach where Phase 1 would include the redevelopment of 128R into a four-story building with six condominiums and covered parking on the ground level. Phase 2 would include the redevelopment of 126 into a three-story building with six rental units. Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules, the project anticipates the following daily flows:

Estimate of Anticipated Daily Flows – 128R North Street				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
Single-Family Unit	3-Bedroom	1	270	270
Total Gallons per Day (Existing)				270
Proposed Flow				
Residential Units	1-Bedroom	3	120	360
Residential Units	2-Bedroom	2	180	360
Residential Units	4-Bedroom	1	360	360
Total Gallons per Day (Proposed)				1080
Net Change				+810 GPD
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				

Based upon the table above, the 128R site is anticipated to increase its wastewater flows by nearly 810 gallons per day.

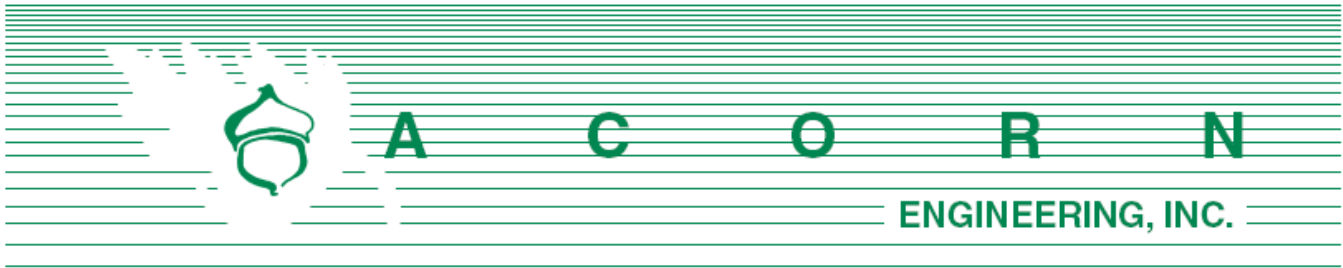


Estimate of Anticipated Daily Flows – 126 North Street				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
Multifamily	2-Bedroom	4	180	720
Total Gallons per Day (Existing)				720
Proposed Flow				
Multifamily	2-Bedroom	5	180	900
Multifamily	1-Bedroom	1	120	120
Total Gallons per Day (Proposed)				1,020
Net Change				+300 GPD
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				

Based upon the table above, the 126 site is anticipated to increase its wastewater flows by nearly 300 gallons per day.

The total increase for the project's wastewater flows is 1,110 gallons per day. This will largely be offset during wet weather events, because the stormwater management on site will improve considerably and provide separate stubs for when the separated storm system extends to this part of North Street.





N. Lighting

Please find attached the photometric plans and cut sheets.



Date: Aug 19, 2019

Swaney Lighting
PO Box 1597
Scarborough ME 04070
Phone: (207) 883-7100
Fax: (207) 885-9606

Job Name
128R NORTH STREET
SLA19-42917
WILTON ME

Bid Date
Aug 19, 2019

Submittal Date
Aug 19, 2019

Distributor:
SWANEY LIGHTING
15 PLEASANT HILL ROAD
SCARBOROUGH ME 04074



Transmittal

Swaney Lighting

PO Box 1597

Scarborough ME 04070

Phone: (207) 883-7100

From: Therese "TC" Freeman X-103

Project 128R NORTH STREET

Quote# SLA19-42917

Location WILTON ME

Contact:

ATTACHED WE ARE SENDING YOU 1 COPY OF THE FOLLOWING ITEM:

- | | | |
|-----------------------------------|--|--------|
| ☐ Drawings | ☐ Specifications | Other: |
| ☐ Prints | ☐ Information | |
| ☐ Plans | ☒ Submittals | |

THESE ARE TRANSMITTED FOR:

- | | | |
|--|---|---------------------------------|
| ☒ Prior Approval | ☐ Resubmittal for Approval | ☐ Record |
| ☐ Approval | ☐ Corrections | Bids due on: |
| ☐ Approval as Submitted | ☐ Your Use | Other: |
| ☐ Approval as Noted | ☐ Review and Comment | |

Type

WP
CY
CL

MFG

BEACON PRODUCTS
Architectural Area Lighting
PRESCOLITE

Part

TRV-D/24L-27/3K7/4/UNV/**
CY1-15-4K7-1-WG-UNV-**-R-FPP
LC6SL / 6LCSL18L35K8

**Job Name:**

128R NORTH STREET
Distributor: SWANEY LIGHTING
(SCARBOROUGH)

Catalog Number:

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

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

SLA19-42917

TRAVERSE SERIES

SURFACE/CEILING/GARAGE

Cat.#

Job

Type

Approvals


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

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

Construction:

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

LED/Optics:

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

Electrical:

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

Controls/Options:

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

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

Installation:

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

Finish:

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

Listings:

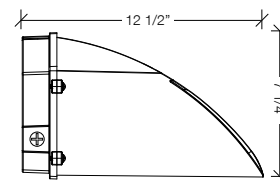
- The luminaire shall bear a CSA label and be marked suitable for wet locations (standard).
- This product is approved by the Florida Fish and Wildlife Conservation Commission. Separate spec available at: <http://www.beaconproducts.com/products/traverse>

Warranty:

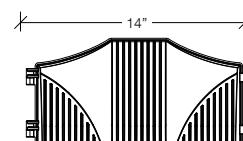
Five year limited warranty for more information visit: www.hubbellighting.com/resources/warranty

PRODUCT IMAGE(S)

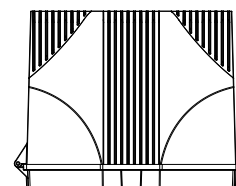
Shown with SiteSync™

DIMENSIONS

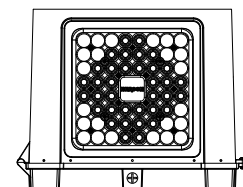
Side View



Front View



Top View



Bottom View

CERTIFICATIONS/LISTINGS

*3000K and warmer CCTs only



Beacon Products • 2041 58th Avenue Circle East Bradenton, FL 34203 • Phone: 800-345-4928

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

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

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

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

¹ Indoor use only

² Not available on 24L-27

³ Not available @ 347V or 480V input

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

⁵ Not available on 48L-110 or 60L-136

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

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

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

⁹ Specify time delay; dimming level and mounting height.

¹⁰ Not available with SWP or SWPM control options.

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

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

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

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

SiteSync only
SiteSync with Occupancy Sensor

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

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

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

Accessories and Services (Ordered Separately)

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

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

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



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



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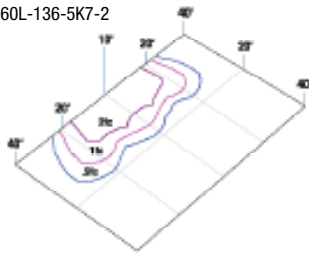
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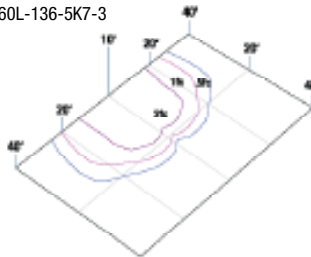
Submitted by Swaney Lighting	Job Name: 128R NORTH STREET Distributor: SWANEY LIGHTING (SCARBOROUGH)	Catalog Number: TRV-D/24L-27/3K7/4/UNV/** Notes:	Type: WP SLA19-42917
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PHOTOMETRICS

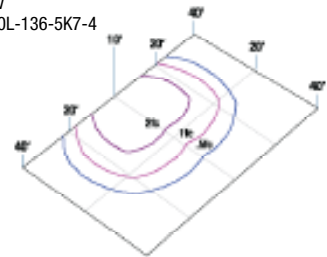
Type II
TRV-60L-136-5K7-2



Type III
TRV-60L-136-5K7-3



Type IV
TRV-60L-136-5K7-4



PERFORMANCE DATA

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

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



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

PROJECTED LUMEN MAINTENANCE

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

¹ Projected per IESNA TM-21-11

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

ELECTRICAL DATA

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

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

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



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

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

Type:

CY

Notes:

SLA19-42917

Cypher™ – CY1 Accent Scale

TYPE

FEATURES

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

Downlight only, 3000K
and warmer CCTs**ORDERING CODE**

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

SERIES-OUTPUT (Base)

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

CCT-CRI

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

MODEL (Light Engine)

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

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

MAIN DISTRIBUTION (Down)

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

SECONDARY DISTRIBUTION (Up, Sides)

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

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

VOLTAGE

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

BASE HOUSING FINISH**Standard Colors**

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

Specify standard finish**Premium Colors**

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

FASCIA FORM

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

LUMINOUS FRONT

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

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

FASCIA PANEL

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

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

CONTROL OPTIONS

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

OPTIONS

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

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



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JOB

TYPE

NOTES

| 1 |

TYPE

FASCIA

DISTRIBUTION

Fascia	Down Only	50 Down/50 Up	90 Down/10 Up	25/25/25/25 Split	70 Down 10/10/10 Split
Flat*	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB I, II, III, IV, SP, WG
Radius Curve	SP/WG	SP/WG SP/WG	SP/WG/PB SP/WG	SP/WG SP/WG SP/WG	SP/WG/PB SP/WG/PB I, II, III, IV, SP, WG
Cylinder Balanced	SP/WG	SP/WG SP/WG	SP/WG/PB SP/WG	SP/WG SP/WG SP/WG	SP/WG/PB SP/WG/PB SP/WG
Cylinder Tall	I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB I, II, III, IV, SP, WG	SP/WG SP/WG SP/WG	SP/WG/PB SP/WG/PB I, II, III, IV, SP, WG
Triangle Wedge*	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG		
Rounded Edge*	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG		
Circle/Curved	SP, WG	SP, WG SP, WG	SP/WG/PB SP, WG		
Ghost	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB I, II, III, IV, SP, WG

* ADA compliant for use in low mounting height applications (80 inches or less)

2 Down/Up distributions must match

4 Down/Up/Side distributions must match

5 Top/Side distributions must match

Contact factory for custom distributions

- * ADA compliant for use in low mounting height applications (80 inches or less)
- 2 Down/Up distributions must match
- 4 Down/Up/Side distributions must match
- 5 Top/Side distributions must match

Contact factory for custom distributions

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

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

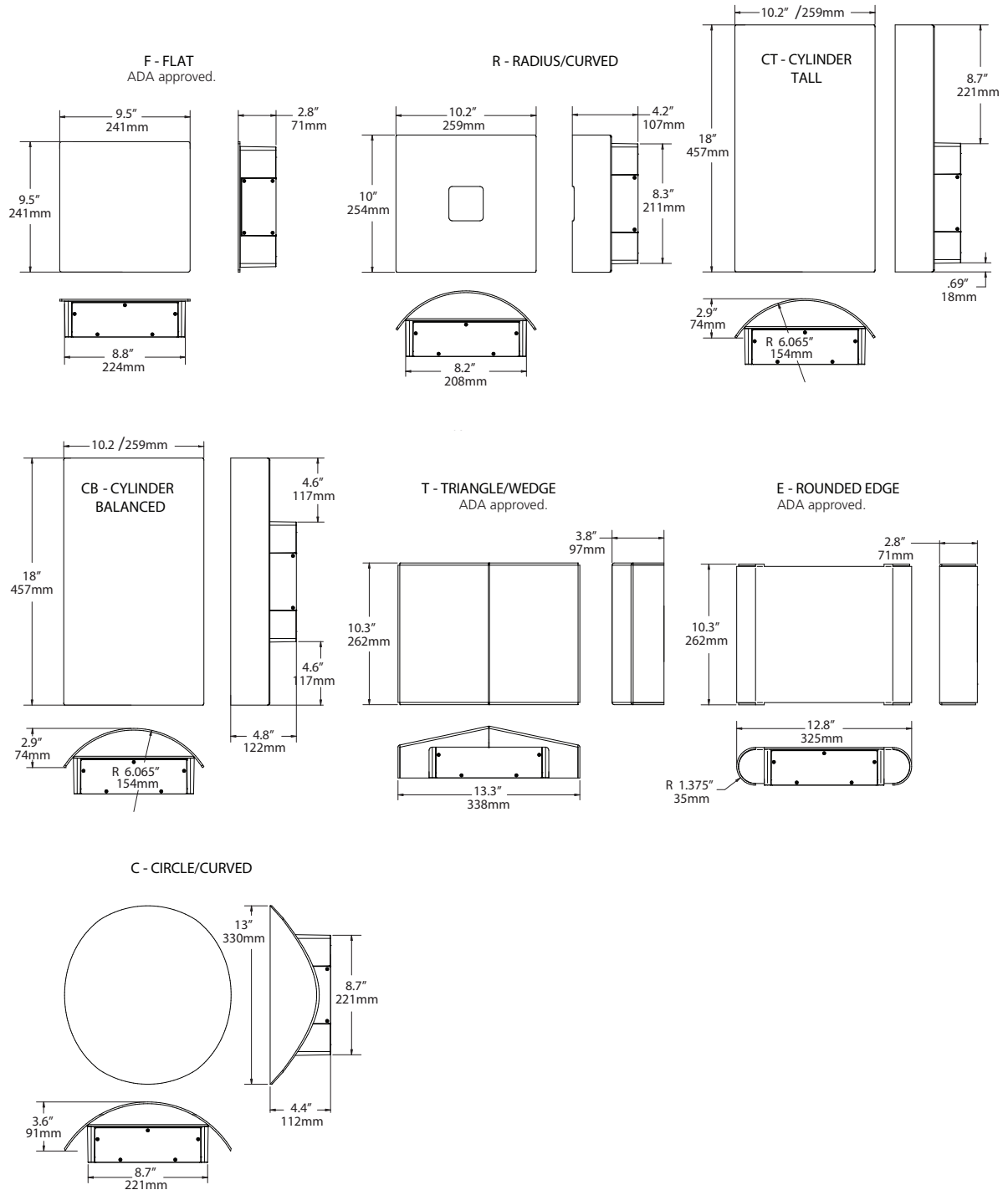
Notes:

Type:**CY**

SLA19-42917

Cypher™ – CY1 Accent Scale

TYPE

Drawings

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JOB

TYPE

NOTES

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

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

Notes:

Type:

CY

SLA19-42917

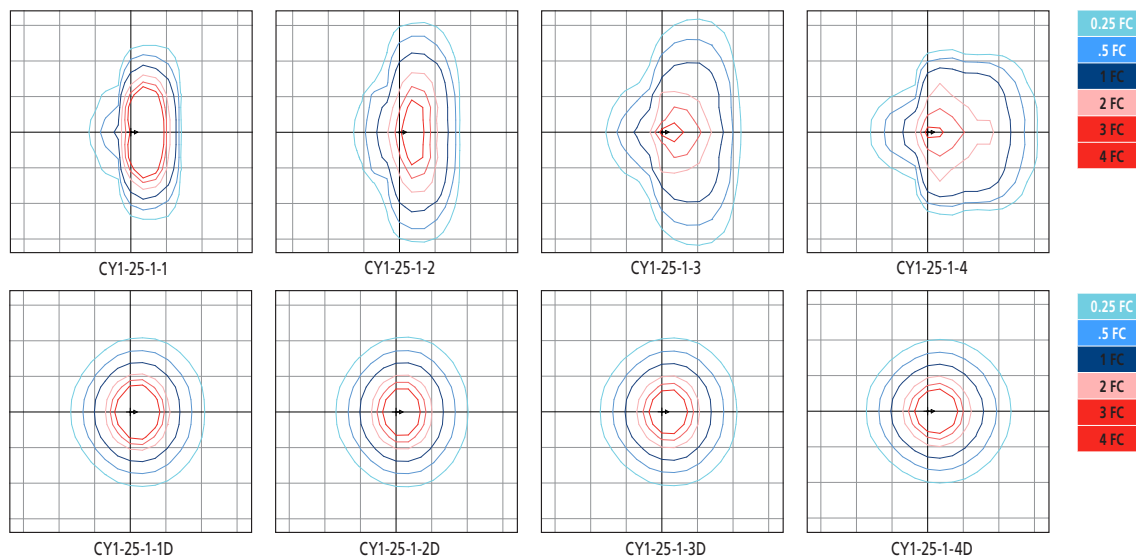
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LUMINAIRE PERFORMANCE

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

ISOLINE TEMPLATES 10' Mounting Height, 10' Grid Spacing



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

Cypher™ – CY1 Accent Scale

TYPE

ELECTRICAL CHARACTERISTICS

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

TM-21 LIFETIME CALCULATION (500mA)

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



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

Cypher™ – CY1 Accent Scale

TYPE

SPECIFICATIONS

HOUSING

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

OPTICAL ARRAY

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

ELECTRICAL

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

SPECIFICATIONS

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



CONTROLS

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

BLUETOOTH®

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

MOUNTING AND INSTALLATION

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

SERVICING

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

FINISH

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

CERTIFICATION

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

WARRANTY / TERMS AND CONDITIONS OF SALE

Download:

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

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JOB _____
 TYPE _____
 NOTES _____

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

LC6SL / 6LCSL18L35K8

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

SLA19-42917

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

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

HOUSING:

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

REFLECTOR:

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

LED LIGHT ENGINE:

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

LED DRIVER:

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

DIMMING:

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

INSTALLATION:

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

CERTIFICATIONS:

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

WARRANTY:

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

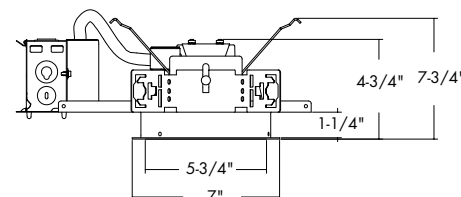
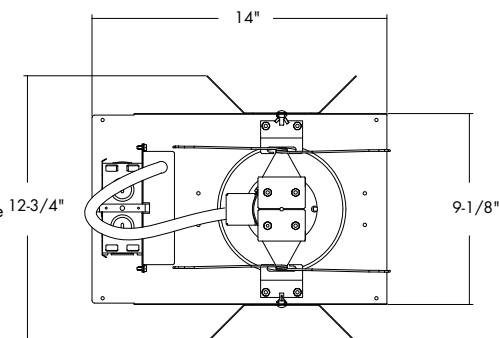
DATE: _____ TYPE: _____

FIRM NAME: _____

PROJECT: _____

LiteFrame

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

**LC6SL 10L & 14L**

*See page 4 for LC6SL 18L line art

*See page 4 for LC6SL EM line art

*See page 4 for LC6SL CP line art

*See page 4 for LC6SL WWCP line art

Order housing, reflector, and accessories separately

CATALOG NUMBER:

EXAMPLE: LC6SL-6LCSL14L35K9WT

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

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



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In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product.
Web: www.prescolite.com • Tech Support: (888) 777-4832

LFR-LED-041

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

LC6SL / 6LCSL18L35K8

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

SLA19-42917

PHOTOMETRIC DATA

LiteFrame - 6" LC6SL Downlight

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

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

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

Lumen Multiplier Table

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

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

LC6SL 6LCSL18L35K8

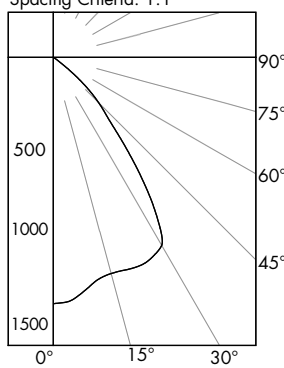
LED Light Engine: 3500K, 80+ CRI

System Wattage: 22.3W

Fixture Delivered Lumens: 1941

Fixture Efficacy: 87.0

Spacing Criteria: 1.1

**CANDELA DISTRIBUTION**

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

Test No. 16.03178

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-60	1935	99.7
0-90	1941	100.0
90-180	0	0.0
0-180	1941	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	27667
55°	2580
65°	648
75°	212
85°	0

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance											
	80%		70%		50%		30%		10%			
	20% Effective Floor Cavity Reflectance											
	% Wall Reflectance											
	70	50	30	10	70	50	30	10	70	50	30	10
1	113	110	107	105	110	108	105	103	104	102	100	98
2	106	101	97	93	104	99	95	92	96	93	90	88
3	100	93	87	83	98	92	86	82	89	85	82	80
4	94	86	79	75	92	84	79	74	82	77	73	72
5	89	79	73	68	87	78	72	67	76	70	66	65
6	83	73	66	62	82	72	66	61	71	65	61	60
7	78	68	61	56	77	67	61	56	66	59	55	55
8	74	63	56	52	72	62	56	52	61	55	51	51
9	70	59	52	48	68	58	52	48	57	51	47	47
10	66	55	48	44	65	54	48	44	54	48	44	44

LC6SL 6LCSL18L35K8

Test No. 16.03178

LC6SL 6LCSL14L35K8

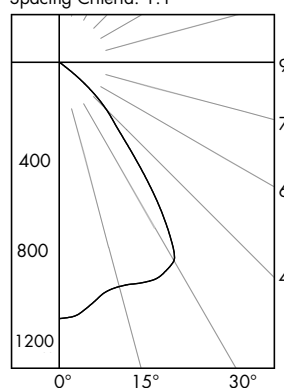
LED Light Engine: 3500K, 80+ CRI

System Wattage: 17.9W

Fixture Delivered Lumens: 1520

Fixture Efficacy: 84.9

Spacing Criteria: 1.1

**CANDELA DISTRIBUTION**

DEG	CANDELA
0	1072
5	1050
15	971
25	990
35	721
45	277
55	20
65	4
75	1
85	0
90	0

Test No. 16.03177

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-60	1515	99.7
0-90	1520	100.0
90-180	0	0.0
0-180	1520	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	21467
55°	1911
65°	519
75°	212
85°	0

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance									
	80%		70%		50%		30%		10%	
	20% Effective Floor Cavity Reflectance									
	% Wall Reflectance									
	100	75	50	30	10	100	75	50	30	10
1	113	110	107	105	103	104	102	100	98	97
2	106	101	97	93	89	95	91	87	83	80
3	100	93	87	83	79	86	82	78	74	71
4	94	86	80	75	72	82	77	73	69	66
5	89	79	73	68	64	76	71	67	64	70
6	83	73	66	62	58	71	65	61	58	64
7	78	68	61	56	52	66	60	55	52	58
8	74	63	56	52	48	61	55	51	48	54
9	70	59	52	48	44	57	51	47	44	50
10	66	55	48	44	40	53	47	43	40	46

LC6SL 6LCSL14L35K8

Test No. 16.03177

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**HUBBELL**
Lighting, Inc.

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

LC6SL / 6LCSL18L35K8

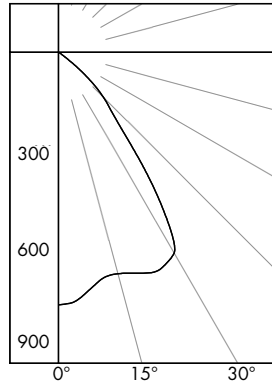
Notes:

Type:**CL**

SLA19-42917

PHOTOMETRIC DATA

LiteFrame - 6" LC6SL Downlight

LC6SL 6LCSL10L35K8LED Light Engine: 3500K, 80+ CRI
System Wattage: 13.5W
Fixture Delivered Lumens: 1106
Fixture Efficacy: 81.9
Spacing Criteria: 1.1**CANDELA DISTRIBUTION**

DEG	CANDELA
0	780
5	762
15	708
25	740
35	518
45	196
55	15
65	3
75	1
85	0
90	0

Test No. 16.03179

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-60	1103	99.7
0-90	1106	100.0
90-180	0	0.0
0-180	1106	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

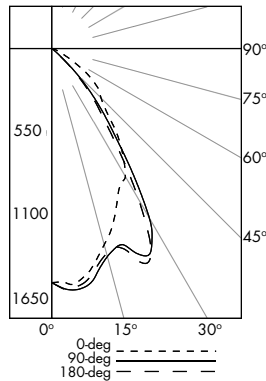
Angle in Vertical	Average
45°	15190
55°	1433
65°	389
75°	212
85°	0

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance									
	80%		70%		50%		30%		10%	
	20% Effective Floor Cavity Reflectance									
	% Wall Reflectance									
1	113	110	107	105	103	104	102	100	98	97
2	107	101	97	93	90	94	90	88	86	85
3	100	93	88	83	80	86	82	80	78	77
4	94	86	80	75	72	78	74	72	70	69
5	89	79	73	68	65	71	67	65	63	62
6	83	73	67	62	60	66	62	60	58	57
7	78	68	61	57	55	61	57	55	53	52
8	74	63	57	52	50	56	52	50	48	47
9	70	59	52	48	46	52	48	46	44	43
10	66	55	49	44	42	48	44	42	40	39

LC6SL 6LCSL10L35K8

Test No. 16.03179

LC6SL 6LCSL18L35K8 WWLED Light Engine: 3500K, 80+ CRI
System Wattage: 22.2W
Fixture Delivered Lumens: 1938
Fixture Efficacy: 87.3**CANDELA DISTRIBUTION**

DEG	0	90	180
0	1527	1527	1527
5	1545	1581	1565
15	1324	1404	1383
25	1030	1489	1517
35	792	780	670
45	454	219	189
55	273	8	8
65	64	2	2
75	9	1	1
85	0	0	0
90	0	0	0

Test No. 16.03309

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	0 DEG	90 DEG	180 DEG
45°	38311	18480	15949
55°	28400	832	832
65°	9036	282	282
75°	2075	231	231
85°	0	0	0

MULTIPLE UNITS				
1'	2'	3'	4'	
UNITS ON 3" CENTER	UNITS ON 4" CENTER			

2' DISTANCE FIXTURE MOUNTED OUT FROM WALLS
FOOTCANDLE DISTRIBUTION ON WALL SURFACE (DIRECT ONLY)

DISTANCE FROM CEILING IN FEET	15					15					15				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	40	36	26	13	5	41	27	41	40	10	40	36	22	36	40
2	36	35	28	18	11	33	39	33	25	27	25	20	25	20	20
3	22	22	22	19	13	24	22	24	16	19	16	14	14	14	14
4	14	14	14	14	13	19	18	19	12	11	12	10	9	10	10
5	10	10	9	9	9	15	15	15	12	13	12	10	9	10	10
6	7	7	6	6	6	12	13	12	10	9	10	10	9	10	10
7	5	5	5	4	4										
8	4	4	3	3	3										
9															

LC6SL 6LCSL18L35K8 WW

Test No. 16.03309

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**HUBBELL**
Lighting, Inc.



PHOTOMETRIC DATA

LiteFrame - 6" LC6SL Downlight

Dimming Compatibility Table

Dimming Ballast	Manufacturer	Web Link
DM/DM1	Lutron DTV	http://bit.ly/11jSvZg
DM/DM1	Leviton AWRMG-7xx, AWSMG-7xx, AWSMT-7xx	http://bit.ly/1BJn2R9

Central Inverters

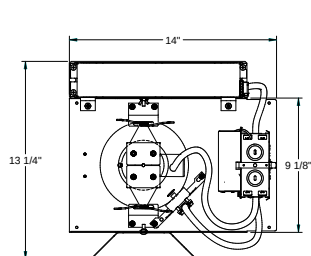
For full fixture output in back-up mode, we recommend you visit www.dual-lite.com for your Central Lighting Inverter options. Please contact your local Hubbell representative for any assistance with proper sizing and loading of your inverter selection. Central lighting inverters must be ordered separately.

LiteGear: www.dual-lite.com/products/litegear_lg_series

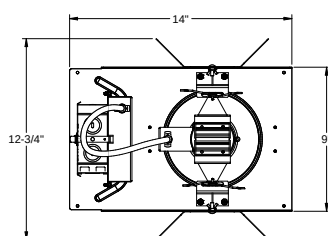
LPS Series: www.dual-lite.com/products/lps

SCA6D

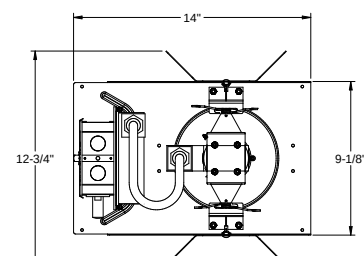
When ordering a sloped ceiling adapter, specify the degree of slope in 1° increments, maximum of 35°. For a more precise degree or wet ceiling applications, please contact factory. Sloped ceiling adapter and housing must be installed at the same time.



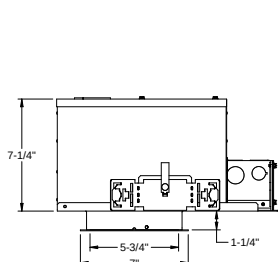
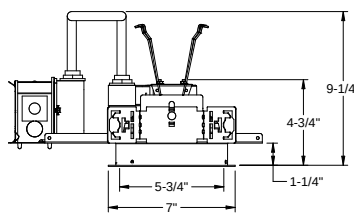
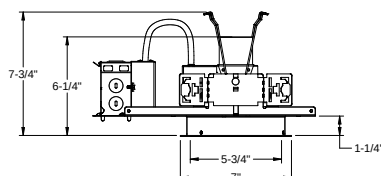
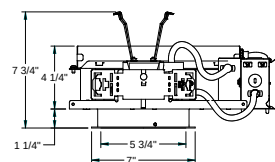
LC6SL EM



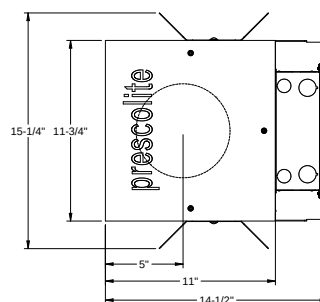
LC6SL 18L

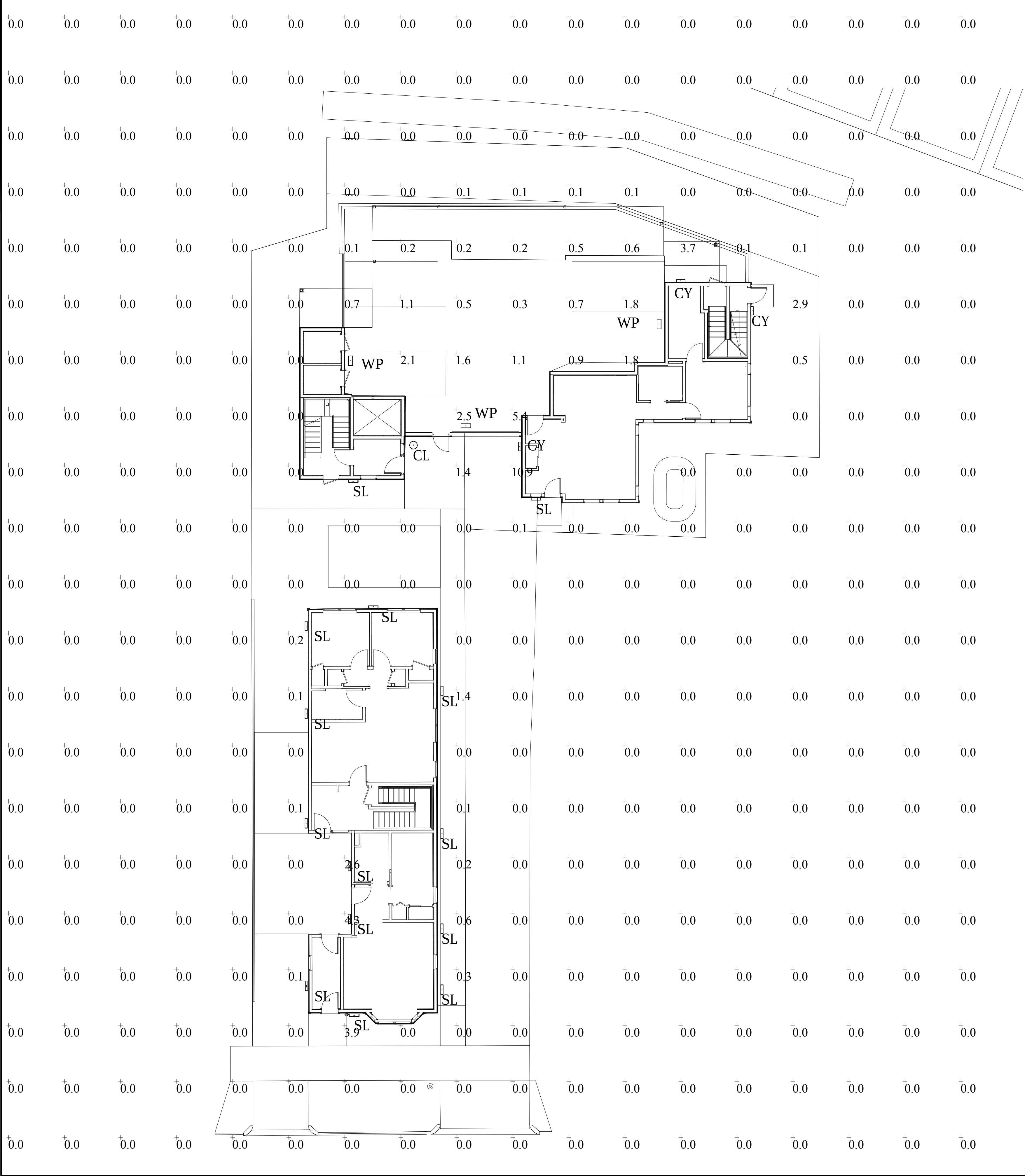


LC6SL CP



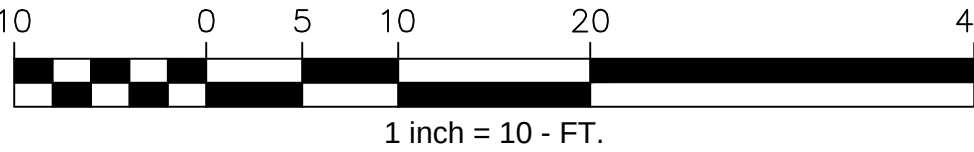
LC6SL WWCP





Luminaire Schedule							
Symbol	Qty	Label	Mounting Height	LLF	Lum. Lumens	Lum. Watts	Description
⌚	3	WP	8' - 0" AFG	0.900	849	13	LNC-5LU-3K-4-X
⌚	3	CY	8' - 0" AFG	0.900	1970	15	CY1-15-4K7-1-WG-WHT-R
⊙	1	CL	9' - 0" AFG	0.900	1938	23	LC6SLPH-6LCSL18L35K8WW
⌚	14	SL	2' - 0" AFG	0.900	64	5	EL807_3L3K_UNV

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Overall Site	Illuminance	Fc	0.13	10.9	0.0	N.A.	N.A.
Property Line	Illuminance	Fc	0.01	0.1	0.0	N.A.	N.A.



1. THIS LIGHTING DESIGN IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO HUBBELL LIGHTING. SITE DETAILS PROVIDED HEREON ARE REPRODUCED ONLY AS A VISUALIZATION AID. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC.) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT.

2. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS. OPERATING VOLTAGE AND NORMAL MANUFACTURING TOLERANCES OF LAMP, BALLAST, AND LUMINAIRE MAY AFFECT FIELD RESULTS.

3. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.

TITLE:

128R NORTH STREET
WILTON, ME
PARKING AREA LIGHTING PLAN

REVISED FROM DRAWING NUMBER(S):

R1: 08/13/19R2: 08/16/19R3: 08/20/19R4: 08/21/19R5: 08/22/19R6: 10/31/19R7: 11/04/19R8: 02/28/20



Hubbell Lighting, Inc.
701 MILLENIUM BLVD.
GREENVILLE, SC 29607

DN BY:
DHK

REV BY:
DHK

QUOTE:
N/A

DATE:
08/12/19

DATE:
02/28/20

DRAWING / DESIGN NO.:
1924759R9

CHK BY:
N/A

SCALE:
AS NOTED

O. Architectural Design Narrative

Please find attached the design narrative completed by Dexterous Creative.





October 29, 2019

Shukria Wiar
Planner
City of Portland Maine
389 Congress Street
Portland, Maine 04101

Re: 128R and 126 North Street

In Summer 2018 our team submitted an application for a four-story, six-unit condominium building at 128R North Street. The project features a workforce housing unit on the ground floor, five-FHA compliant units serviced via an elevator on upper floors and six parking spaces. This rear lot, previously housed a single-family home. The site is immediately adjacent to Bayview Heights senior apartments and is across the street from the Island View Apartment complex. In September our team held a neighborhood meeting to introduce this building to neighbors.

As a result of neighborhood feedback and staff comments, our team elected to add a plan to develop the front lot, 126 North Street, in addition to 128R North. This three-story building features five, two-bedroom apartments and two off-street parking spaces. The first-floor unit will be FHA compliant.

Development will begin with construction of the rear building at 128R. Prior to substantial completion the existing four-unit building at 126 will be demolished to allow for widening of the walk and driveway to this lot. The new building at 126 will share a pedestrian entrance with 128R with vehicles entering via the existing curb cut at 126. This widened driveway to 128R improves access for vehicles and increases visibility for pedestrians and cyclists visiting 128R and 126 via a brick walkway leading from North Street (walkway to be flush with drive).

In addition to improving access to 128R North, the three-story form of 126 is used to mitigate massing of the four-story building at 128R North when viewed from the streetscape. The three-story building creates a gradual stepping of roof-lines between the two-story building at 122 North, the 1 1/2 story building at 128 North (front lot) and the proposed four-story building at 128R North.

The building at 128R is minimally visible from the public way due to its position as a rear lot, 100'-0" from the street-front, and unique topography of the surrounding area, which includes a steep elevation change. This means that the four-story, six-unit building will only be visible from across the Bayview Heights parking lot, as viewed through a mature row of Pine Trees and at the driveway entrance to the site, viewed at a distance of 100'-0". The impact of this elevation change on building visibility is best illustrated on Washington Avenue looking up at the Munjoy Heights complex. Due to the elevation change the rear buildings of that four-story complex are not visible, except at a gap between the buildings (see photo on page 26).

Neighboring Munjoy Heights represents a recent example of a dense, four-story inner/rear lot re-development that increases density within the city, via a new access driveway off Sheridin Street. The footprint of 128R North is smaller than one of the six, four-story buildings of the Munjoy Heights complex providing precedent such density

within the neighborhood. A prominent feature between the 128R and Munjoy Heights site is a retaining wall designed by our team. Sensitivity to that wall is a major reason the civil, geotechnical and structural engineering team from Munjoy Heights was retained for our project. Additionally, the Island View Apartment complex across North Street and Bayview Heights complexes represent much larger and more complex masses than the proposed building at 128R North.

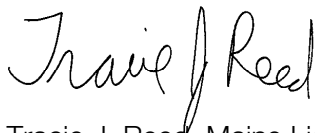
To break up the width of the 128R facade, the siding color is changed at the central extrusion. Both 126 and 128R feature two window types along front facades in a consistent pattern and rhythm. A difference in color/cladding at the main entrances of both buildings is utilized to improve way-finding.

The architectural styles of buildings immediately adjacent to and in immediate blocks surrounding the project are diverse, in scale, materiality and massing. There is little continuity amongst the structures which range from single-story flat-roofed masonry buildings, gable-roof structures with horizontal siding (clapboard, vinyl, composite and aluminum) to four-story masonry buildings with mansard roofs.

Neither proposed building features rooftop deck. Roof-mounted condensers are not visible from the street at 128R North. Mechanicals in 126 will be housed in the basement or mounted to the rear facade of the building. The elevator overrun on 128R is minimally visible from the public way. To reduce complexity of the massing at 128R the roof eave is consistent except for this element. Deck rails at the front of the building at 128R have been modified from previously submitted editions to minimize their presence/bulk.

These two projects will result in a net increase of six much-needed housing units for the city, including a work-force unit, and seven FHA compliant units increasing housing options for prospective residents of all mobility levels, housing that is sorely needed in our city and aging state.

Regards,

A handwritten signature in black ink that reads "Tracie J. Reed". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Tracie J. Reed, Maine Licensed Architect
Dextrous Creative, LLC

Dextrous Creative, LLC
Portland, Maine
traciereed@dextrouscreative.com
(207) 409-0459

P. Utilities

The proposed project will include installation of multiple utility services to the new buildings.

Water:

The existing 128R water service will be retired as part of this project. It is proposed to tap a 6" service line off the water main within North Street. The 6" line will serve as the sprinkler line with a 1.5" child connection for a domestic service.

For the project located at 126 North Street the existing water service will be retired as part of this project. It is proposed to tap a 4" service line off the water main within North Street. The 4" line will serve as the sprinkler line with a 1.5" child connection for a domestic service.

Sewer:

The existing sewer laterals are to be retired and plugged. A new 6" lateral for each site is proposed to accept the wastewater from each unit, and the garage sewer (after draining from the oil-water separator). The garage and elevator sump at 128R may be pumped internally to meet with the wastewater lines from the living levels before being fed via gravity to the sewer main within North Street.

Stormwater:

There is currently no drainage infrastructure on either site. The proposed measures to handle runoff include foundation drains and field inlets for both sites and a high-flow rain garden on 128R North Street. These systems will connect to a separated 6" storm drain line that ties in to the existing 12" combined sewer main within North Street. Please see the Stormwater Management Report for more information.

UGE/T/C:

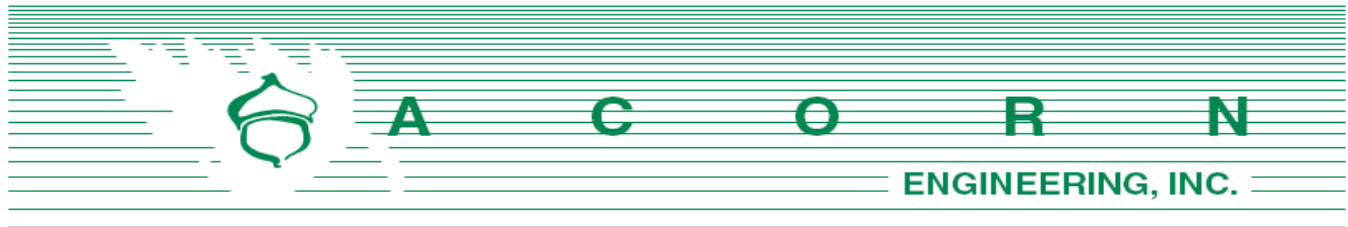
The sites are currently served by aerial services. These services are proposed to be routed underground from a proposed utility pole on North Street which will convey 3-phase power from an existing utility pole across North Street east.

Gas:

It is proposed to retire the existing services install new taps off the existing main in North Street for each site as seen on the Utility Plan, Sheet C-20. The 128R service will be coordinated with 128F North Street such that a branch can be spliced off the proposed service and routed to the neighboring property.

Ability to serve letters were sent out to the respective utility companies on July 1, 2019 in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use, Section 14-527(g)(7). Responses from the utility companies can be found attached to this section.





Charter Communications
Attn: Mr. Mark Pelletier
118 Johnson Road
Portland, Maine 04102

July 1, 2019

Subject: 128R North Street Redevelopment
Re: Ability to Serve

Dear Mr. Pelletier:

On behalf of Upright Properties, LLC, we are pleased to submit the following request for Charter's ability to serve the proposed development. The proposed project is located along 128R North Street, tax map 12-H-9 within the R-6 Residential Zoning District in Portland, Maine. The lot will be redeveloped into a four-story, six-unit residential building with an open-air ground level for parking. The site currently serves as two story single-family home.

It is proposed that a new underground conduit be dropped from the existing utility pole adjacent to the access drive off North Street.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within North Street.
2. Any easements for overhead services currently crossing the proposed development.
3. Alternative connection locations from the property to the existing communication system.
4. Charter's proposed infrastructure improvements within the project vicinity.
5. Charter's ability to serve the project.

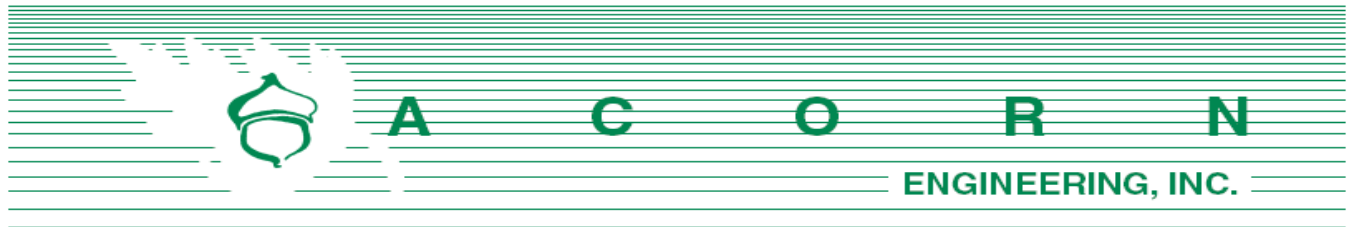
I have attached an existing conditions plan created by Nadeau Land Surveys from June 2018 as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104



Portland Water District
Attn: MEANS Department
225 Douglass Street
Portland, Maine 04104

July 1, 2019

Subject: 128R North Street Redevelopment
Re: Ability to Serve

To Whom It May Concern:

On behalf of Upright Properties, LLC, we are pleased to submit the following request for Portland Water District's (PWD) ability to serve the proposed development. The proposed project is located along 128R North Street, tax map 12-H-9 within the R-6 Residential Zoning District in Portland, Maine. The existing single-family structure will be demolished and the lot will be redeveloped into a four-story, six-unit residential building with the ground level serving as an open-air parking space.

The existing water service will be removed as part of the redevelopment. It is proposed to tap a 6" sprinkler line off the water main within North Street. A 2" domestic line is proposed to branch off the sprinkler line. Based upon Section 4 of the Maine Subsurface Wastewater Disposal Rules, the project anticipates the following design flows:

Estimate of Anticipated Daily Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
Single Family Dwelling	3-Bedroom	1	270	270
Total Gallons per Day (Existing)				270 GPD
Proposed Flow				
Residential Units	1-Bedroom	3	120	360
Residential Units	2-Bedroom	2	180	360
Residential Units	3-Bedroom	1	270	270
Total Gallons per Day (Proposed)				990 GPD



Net Change	+720 GPD
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition	

The proposed project is anticipated to increase the net flow by approximately 720 gallons per day (GPD). It should be noted that these values were developed using conservative estimates from the State of Maine Subsurface Wastewater Disposal Rules.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within North Street and confirmation of the location and size of the services to the existing property and the size and material of the water main.
2. Alternative connection locations from the property to the existing system.
3. PWD's proposed infrastructure improvements within the project vicinity.
4. Flow data for adjacent hydrant.
5. PWD's ability to serve the project.

I have attached a fixture count, an existing conditions plan created by Nadeau Land Surveys from June 2018, and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,



Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.





Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

November 27, 2019

Sam Lebel, E.I
Acorn Engineering, Inc.
PO Box 3372
Portland, ME 04104

Re: 128R North Street, PO
REVISED - Ability to Serve with PWD Water

Dear Mr. Lebel:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on October 30, 2019. Based on the information provided, we can confirm that the District will be able to serve the proposed project as further described in this letter. **Please note that this letter constitutes approval of the water system as currently designed. 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 6-inch fire service (parent) and 1.5-inch domestic service (child) with a 1-inch meter may be installed from the water main in North Street to serve **128R North Street**. The services should enter through the properties frontage on North Street at least 10-feet from any side property lines. An approved backflow prevention device must be installed on each service line directly after the meter/entrance to the building prior to service activation. 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.
- A new 4-inch fire service (parent) and 1.5-inch domestic service (child) with a 1-inch meter may be installed from the water main in North Street to serve **126 North Street**. The services should enter through the properties frontage on North Street at least 10-feet from any side property lines. An approved backflow prevention device must be installed on each service line directly after the meter/entrance to the building prior to service activation. 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.**



Prior to construction, the owner or contractor will need to make an appointment to complete a service application form and pay all necessary fees. The appointment shall be requested through MEANS@pwd.org or by calling 207-774-5961 ext. 3199. Please allow (3) business days to process the service application paperwork. PWD will guide the applicant through the new development process during the appointment.

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 a 12-inch diameter ductile iron water main in North Street and a public fire hydrant located approximately 200 feet from the site. The most recent static pressure reading was 48 psi on August 5, 2019.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

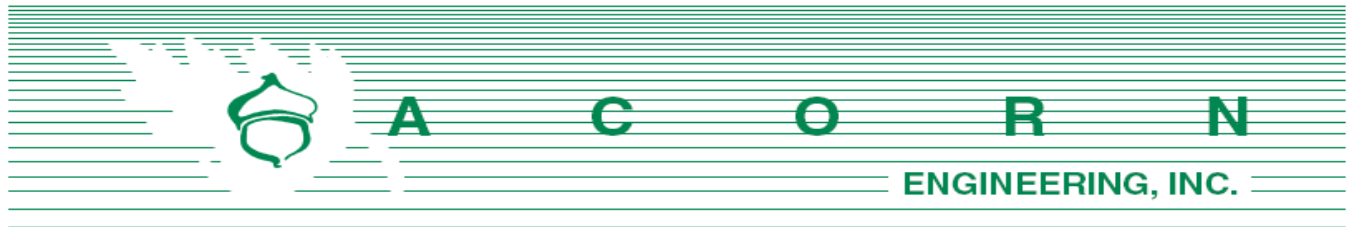
Should you disagree with this determination, you may request a review by the District's Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland 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



Unitil Service Corp.
Attn: Bridget Harmon
376 Riverside Industrial Parkway
Portland, Maine 04103

July 1, 2019

Subject: 128R North Street Redevelopment
Re: Ability to Serve

Dear Ms. Harmon:

On behalf of Upright Properties, LLC, we are pleased to submit the following request for Unitil's ability to serve the proposed development. The proposed project is located along 128R North Street, tax map 12-H-9 within the R-6 Residential Zoning District in Portland, Maine. The lot will be redeveloped into a four-story, six-unit residential building with the first level including a parking area. The site currently serves as two story single-family home.

We are not aware of any existing gas services to the property. The new gas line is proposed to tap off the main and run parallel to an abutting gas line. Modifications are proposed to the neighbor's gas line to facilitate the redevelopment. The Owner will be responsible for coordinating with the landowner of 128F North Street as well as Unitil and Neuco.

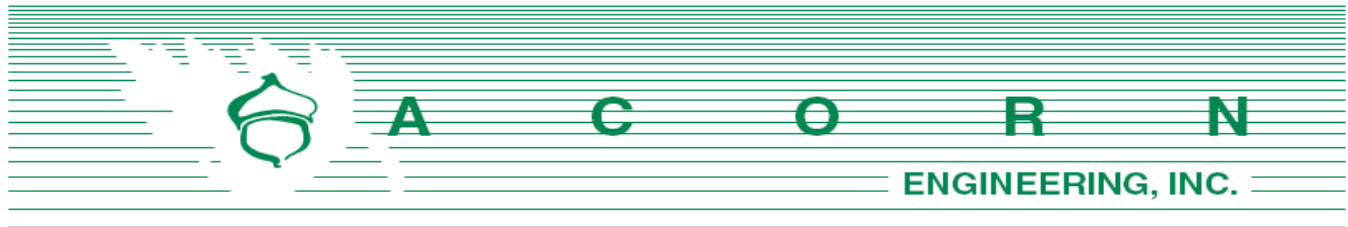
On behalf of the client, we are requesting the following information:

1. Any additional utility mapping such as gas lines within North Street.
2. Unitil's proposed infrastructure improvements within the project vicinity.
3. Unitil's ability to serve the project.

I have attached an existing conditions plan created by Nadeau Land Surveys from June 2018, and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



Central Maine Power Company
Attn: Mr. Paul DuPerre
162 Canco Road
Portland, Maine 04103

July 1, 2019

Subject: 128R North Street Redevelopment
Re: Ability to Serve

Mr. DuPerre:

On behalf of Upright Properties, LLC, we are pleased to submit the following request for Central Maine Power's (CMP) ability to serve the proposed development. The proposed project is located along 128R North Street, tax map 12-H-9 within the R-6 Residential Zoning District in Portland, Maine. The lot will be redeveloped into a four-story, six-unit residential building with the first level including a parking area. The site currently serves as two story single-family home.

It is proposed that a new underground conduit be dropped from the existing utility pole along North Street with the potential for a pole-mounted transformer to be installed on this pole. 3-phase power appears to be available from the pole across the street. I look forward to our July 10th on-site meeting to discuss options for serving this redevelopment.

On behalf of the client, we are also requesting the following information:

1. Any easements for overhead services currently crossing the proposed development.
2. Alternative connection locations from the development to the existing system.
3. CMP's proposed infrastructure improvements within the project vicinity.
4. CMP's ability to serve the project.
5. Access requirements to the CMP meters.

I have attached an existing conditions plan created by Nadeau Land Surveys from June 2018 as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.





July 5, 2019

Acorn Engineering, Inc.
C/O Mr. Sam Lebel, E.I.
PO Box 3372
Portland, Maine 04104

RE: 128R North Street, Portland, Maine

Dear Mr. Lebel,

This letter is to advise you Central Maine Power has sufficient three phase electrical capacity in the area to serve the subject project.

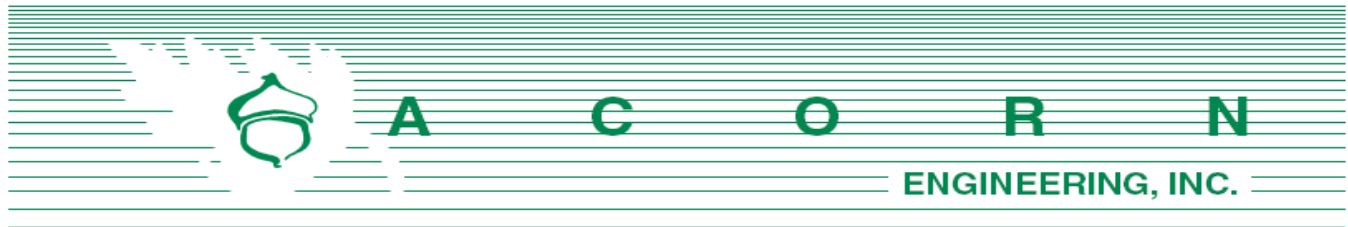
Once the project is accepted by the City of Portland, the owner will need to call our Customer Service Center at 1-800-565-3181 to sign up for a New Account and a SAP Work Request Order so we may provide an actual cost.

If you have any questions please feel free to call me at 629-1487.

Sincerely,

Paul DuPerre
Energy Service Specialist





Charter Communications
Attn: Mr. Mark Pelletier
118 Johnson Road
Portland, Maine 04102

October 29, 2019

Subject: 126 North Street Redevelopment
Re: Ability to Serve

Dear Mr. Pelletier:

On behalf of Joshua Wojcik, we are pleased to submit the following request for Charter's ability to serve the proposed development. The proposed project is located along 126 North Street, tax map 12-H-14 within the R-6 Residential Zoning District in Portland, Maine. The existing four-unit structure will be demolished, and the lot will be redeveloped into a three-story, five-unit residential building with the ground level serving as an open-air parking space.

It is proposed that a new underground conduit be dropped from the utility pole adjacent to the access drive off North Street. The utility pole is proposed to be replaced as part of this project.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within North Street.
2. Any easements for overhead services currently crossing the proposed development.
3. Alternative connection locations from the property to the existing communication system.
4. Charter's proposed infrastructure improvements within the project vicinity.
5. Charter's ability to serve the project.

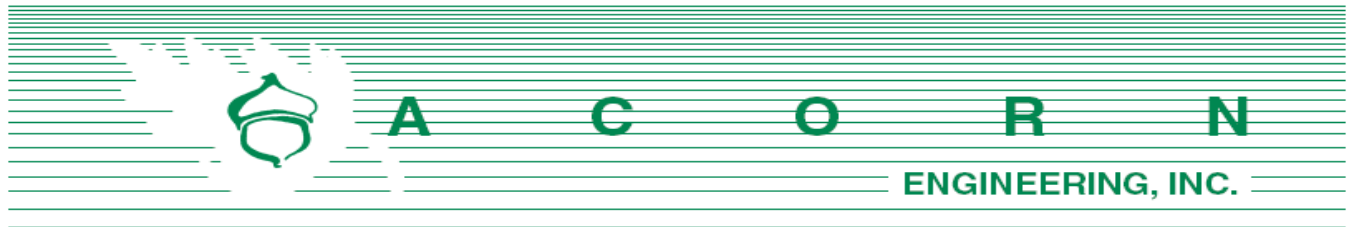
I have attached an existing conditions plan created by Nadeau Land Surveys from June 2018 as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104



Portland Water District
 Attn: MEANS Department
 225 Douglass Street
 Portland, Maine 04104

October 21, 2019

Subject: 126 North Street Redevelopment
 Re: Ability to Serve

To Whom It May Concern:

On behalf of Joshua Wojcik, we are pleased to submit the following request for Portland Water District's (PWD) ability to serve the proposed development. The proposed project is located along 126 North Street, tax map 12-H-14 within the R-6 Residential Zoning District in Portland, Maine. The existing four-family structure at 126 will be demolished to facilitate construction of the related project at 128R North Street. The 126 lot will then be redeveloped into a three-story, five-unit residential building.

The existing water service will be removed as part of the redevelopment. It is proposed to tap a 4" sprinkler line off the water main within North Street. A 1.5" domestic line is proposed to branch off the sprinkler line. Based upon Section 4 of the Maine Subsurface Wastewater Disposal Rules, the project anticipates the following design flows:

Estimate of Anticipated Daily Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
Multifamily	2-Bedroom	4	180	720
Total Gallons per Day (Existing)				720 GPD
Proposed Flow				
Multifamily	2-Bedroom	5	180	900
Total Gallons per Day (Proposed)				900 GPD
Net Change				+180 GPD
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				

The proposed project is anticipated to increase the net flow by approximately 180 gallons per day (GPD). It should be noted that these values were developed using conservative estimates from the State of Maine Subsurface Wastewater Disposal Rules.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within North Street and confirmation of the location and size of the services to the existing property and the size and material of the water main.
2. Alternative connection locations from the property to the existing system.
3. PWD's proposed infrastructure improvements within the project vicinity.
4. Flow data for adjacent hydrant.
5. PWD's ability to serve the project.

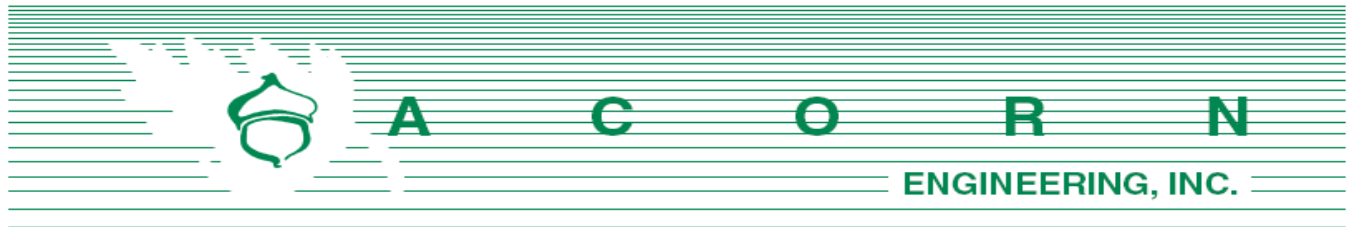
I have attached a fixture count, an existing conditions plan created by Nadeau Land Surveys from June 2018, and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,



Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.





Unitil Service Corp.
Attn: Bridget Harmon
376 Riverside Industrial Parkway
Portland, Maine 04103

October 29, 2019

Subject: 126 North Street Redevelopment
Re: Ability to Serve

Dear Ms. Harmon:

On behalf of Joshua Wojcik, we are pleased to submit the following request for Unitil's ability to serve the proposed development. The proposed project is located along 126 North Street, tax map 12-H-14 within the R-6 Residential Zoning District in Portland, Maine. The existing four-unit structure will be demolished, and the lot will be redeveloped into a three-story, five-unit residential building with the ground level serving as an open-air parking space.

We are not aware of any existing gas services to the property. The new gas line is proposed to tap off the main and run underneath the proposed driveway of 126 North Street.

On behalf of the client, we are requesting the following information:

1. Any additional utility mapping such as gas lines within North Street.
2. Unitil's proposed infrastructure improvements within the project vicinity.
3. Unitil's ability to serve the project.

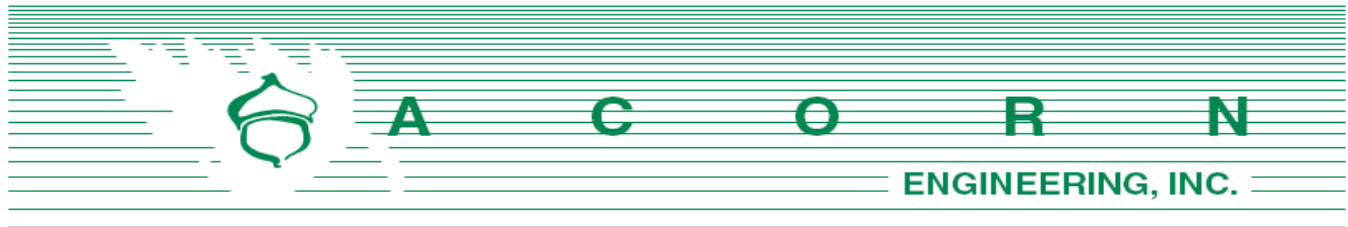
I have attached an existing conditions plan created by Nadeau Land Surveys from June 2018, and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
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Acorn Engineering, Inc.



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207-775-2655 • PO Box 3372 • Portland • Maine • 04104



Central Maine Power Company
Attn: Mr. Paul DuPerre
162 Canco Road
Portland, Maine 04103

October 29, 2019

Subject: 126 North Street Redevelopment
Re: Ability to Serve

Mr. DuPerre:

On behalf of Joshua Wojcik, we are pleased to submit the following request for Central Maine Power's (CMP) ability to serve the proposed development. The proposed project is located along 126 North Street, tax map 12-H-14 within the R-6 Residential Zoning District in Portland, Maine. The existing four-unit structure will be demolished, and the lot will be redeveloped into a three-story, five-unit residential building with the ground level serving as an open-air parking space.

It is proposed that a new underground conduit be dropped from the utility pole that is proposed to be replaced in front of the existing 126 North Street structure. This pole would provide underground connections to both 126 and 128R.

On behalf of the client, we are also requesting the following information:

1. Any easements for overhead services currently crossing the proposed development.
2. Alternative connection locations from the development to the existing system.
3. CMP's proposed infrastructure improvements within the project vicinity.
4. CMP's ability to serve the project.
5. Access requirements to the CMP meters.

I have attached an existing conditions plan created by Nadeau Land Surveys from June 2018 as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



ACORN Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104

Q. Construction Management Plan

Att. Q

Project Address: 126 & 128R North Street

Project Description:

The proposed project includes a two-phase approach where Phase 1 would include the redevelopment of 128R into a four-story building with six condominiums and covered parking on the ground level. Phase 2 would include the redevelopment of 126 into a three-story building with six rental units. Phase 2 would include the demolition of 126 prior to the certificate of occupancy of 128R such that the proposed 16' driveway can be built.

Project Team Summary:

Owner:	Upright Properties, LLC
General Contractor:	TBD
Civil Engineer:	Acorn Engineering, Inc.
Architect:	Dextrous Creative
Structural Engineer:	Structural Integrity Consulting Engineers, Inc.

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 the measures to be taken during construction.

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

A. Construction Management Principles

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

B. Development Review of Construction Management Plan

Logistics and safety program shall be submitted at or prior to the 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 the North 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:

Josh Wojcik
Upright Properties, LLC
(207)-749-9656

GC and Subcontractor information will be posted along the North 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>128R Project Start:</u>	Fall 2020
<u>126 Project Start:</u>	Summer 2021
<u>Project End Date:</u>	Summer 2022

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City. In the interim, a more in depth of an approximate timeframe has been provided within the application materials by the Applicant.

F. Security

1. The Construction Management Plan, Sheet C-03, depicts all proposed fencing and other barriers, with the intent of separating pedestrian and vehicle circulation from the construction site. Construction entrances per detail shall be installed.
2. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16. *Safeguarding Construction, Alteration, and Demolition Operations*.
3. Fire Safety Program: Prior to construction, an overall construction and demolition fire safety program shall be developed. Essential items to be emphasized include the following:
 - o Good Housekeeping
 - o On-site security
 - o Installation of new fire protection systems as construction progresses
 - o Preservation of existing systems during demolition
 - o Organization and training of an on-site fire brigade
 - o Development of a pre-fire plan with the local fire department
 - o Rapid communication
 - o Consideration of special hazards resulting from previous occupancies
 - o 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 North 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 North 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 North Street during utility connections and/or detour a mode of traffic when absolutely necessary for safety. All requests shall be subject to City approval. MOT plans shall employ the appropriate techniques and devices as called for in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:

- Construction speed signing may be used as needed to slow traffic.
- Traffic Control signs shall not be placed where they would create any obstructions to bicycles or pedestrians.
- Flaggers will be utilized when necessary.

All existing modes of travel in the work zone area shall be accommodated if impacted by the activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning and laying out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works. The MOT should also address on-street parking impacts, including deliveries and parking for adjoining businesses and property owners, analysis of



roadway capacity or diversion capacity if street closure or change to roadway capacity is required, and coordination with other on-going or future construction or utility projects in the vicinity.

- Traffic control bicycle and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready for safe operation. Traffic control will not be removed to allow auto travel at the expense of bicycle and pedestrians.
- Barrier systems utilized to separate the construction activity from the public street and /or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.
- ADA compliance in all capacities shall be maintained.

The blockage of any portion of sidewalk for the purpose of construction activity shall require an occupancy permit and appropriate fee as assessed by the Department of Public Works.

H. Site Management and Controls

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

I. Erosion & Sedimentation Control

1. The Contractor shall install all erosion and sedimentation controls as depicted on the approved Construction Management Plan, C-03, and the approved erosion and sedimentation control report, prior to the pre-construction meeting for inspection by the City. The Contractor shall regularly inspect the control measures, no less than weekly



and after storm events (0.5" or more in 24 hours). Additionally, temporary or permanent stormwater management systems shall be inspected and maintained to ensure working order. The Contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection (MDEP) or the U.S. Environmental Protection Agency (EPA) upon request.

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

J. Construction Staging Area

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

K. Parking During Construction

1. Adequate parking for construction workers shall be provided along North Street or arrangements for off-street parking at an off-site location shall be provided.
2. Truck Routes and Volumes: The following quantities are estimated as part of the reconstruction:
 - Gravel & Stone – 350 CY. Earthwork subcontractor(s) pit to project site.
 - Hot Mix Asphalt – 115 tons. Paving subcontractor(s) pit to project site.

L. Special Measures as Necessary

No special measures are necessary for the proposed reconstruction.



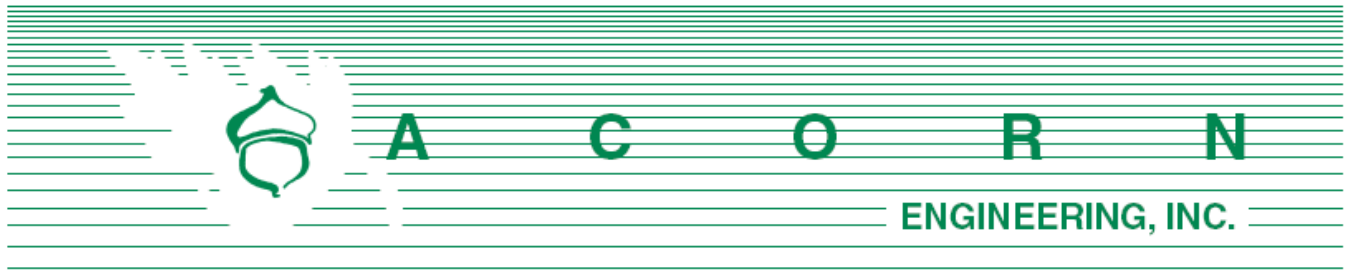
Att. R

R. Solid Waste Disposal

The property management company or Owner shall be responsible for locating the solid waste and recyclable material to the space allocated for solid waste storage determined by the Property Manager.

The solid waste containers will be fully enclosed and screened from the public view on both properties.





S. Parking Analysis

The proposed project at 128R North Street proposes to utilize the existing shared driveway, build 6 condominium units, and provide one open air parking space per unit on the ground level of the structure. This proposal accomplishes a public policy goal of the City in that the proposed driveway will allow off-street parking for the new development as well as existing neighboring properties.

The 6 parking spaces exceed the required 3 by more than 10%. We see off street parking as an advantage for the neighborhood which is experiencing an increase in development activity. The industry standard for condominium units is to provide a 1:1 ratio for parking, which is a common occurrence in the R-6. This project proposes a 1:1 ratio of spaces to units which will free up space on North Street and the surrounding street network for others to park on-street.

The proposed project at 126 North Street proposes to reutilize the existing driveway, build 6 rental units, and provide two surface parking spaces on the ground level which meets the City of Portland Land Use requirements. Furthermore, the tandem parking approach is “strongly preferred” within the Munjoy Hill Conservation Overlay District by the City of Portland.

Overall, 8 parking spaces will be provided for the 12 units. Of the 8 proposed parking spaces, 6 spaces will be constructed as part of the Phase 1 condominium (6 units) portion of the project at 128R. In Phase II, during the construction of the Phase 2 rental (6 units) portion of the project, 2 parking spaces will be constructed.



December 23, 2019

Re: Side setback 128R North Street

Buildings in the vicinity of 126 and 128R North Street feature side setbacks that predominantly are shifted towards one side. The proposed building at 128R North features a setback that is 8.56' on one side and 12.13' on the opposite side providing the required 20'-0" cumulative setback required.

The pattern supports vehicular traffic and off-street parking, which our projects do as well. The wider setback was also positioned in our project to provide a larger buffer to the single-family houses on the South side of our project.

Neighborhood examples of this development pattern include:

- 1) 116 North Street: approximate 5'-0" setback on one side and 15'-0"* on the opposite (facing Walnut Street).
- 2) 104 North Street: approximately 4'-6" setback on one side and 12'-0" on the opposite
- 3) 91 Walnut Street: approximately 3'-0" setback on one side and 9'-0" on the opposite
- 4) 94 Walnut Street: approximately 13'-0" setback on one side and 17'-0" on the opposite



City of Portland GIS Map of Neighborhood (128R North is outlined in blue)

*Setbacks are estimated using the 'measuring tape' tool in the Portland GIS database with satellite image and parcel boundaries as underlays. For visual clarity the satellite image was not used on the map above.



- 1: Bayview Heights (60 units)
- 2: Island View Apartments (70 units)
- 3: Munjoy Heights (29 units)
- 4: Northern Burner Supply
- 5: Forage Market

North Street represents the high point on Munjoy Hill. Sheridan Street, below is approximately 30'-0" lower than North Street. Washington Avenue is approximately 50'-0" lower than North Street. As a result even the upper section of Munjoy Heights is not visible from Washington Avenue.

The only vantages the site is visible from are from the Bayview Heights parking lot to the North of the site and the end of the driveway leading to the rear lot. A row of mature pine trees acts as a buffer between the site and Bayview Heights parking lot.

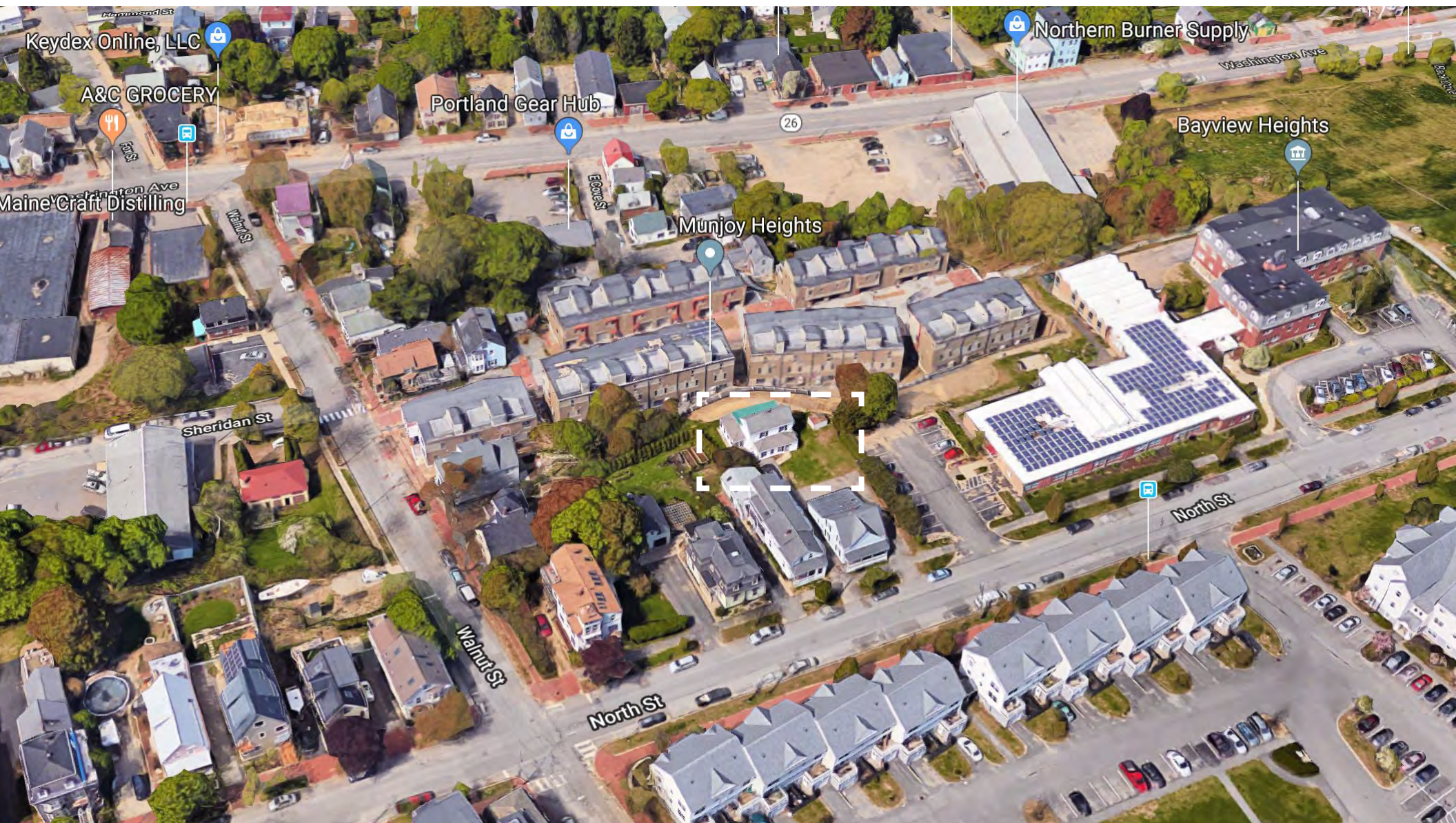
128R North Street

is a rear lot immediately adjacent to Bayview Heights senior apartments and across the street from the Island View Apartment complex. To the West the parcel is bounded by Munjoy Heights Condominium project.

The unique topography of the surrounding area, with steep elevation change means the proposed four-story, six-unit building will only be visible from across the Bayview Heights parking lot, as viewed through a mature row of Pine Trees and at the driveway entrance to the site, viewed at a distance of 100'-0".

The project will house six condominiums and six parking spaces. The building includes a first floor workforce housing unit. All units will be FHA compliant. The owner-occupied building has several pre-buyers (long-time friends) and Munjoy Hill residents who are looking forward to calling this building home.

No rooftop decks are proposed and none of the roof-mounted condensers are visible from the street.



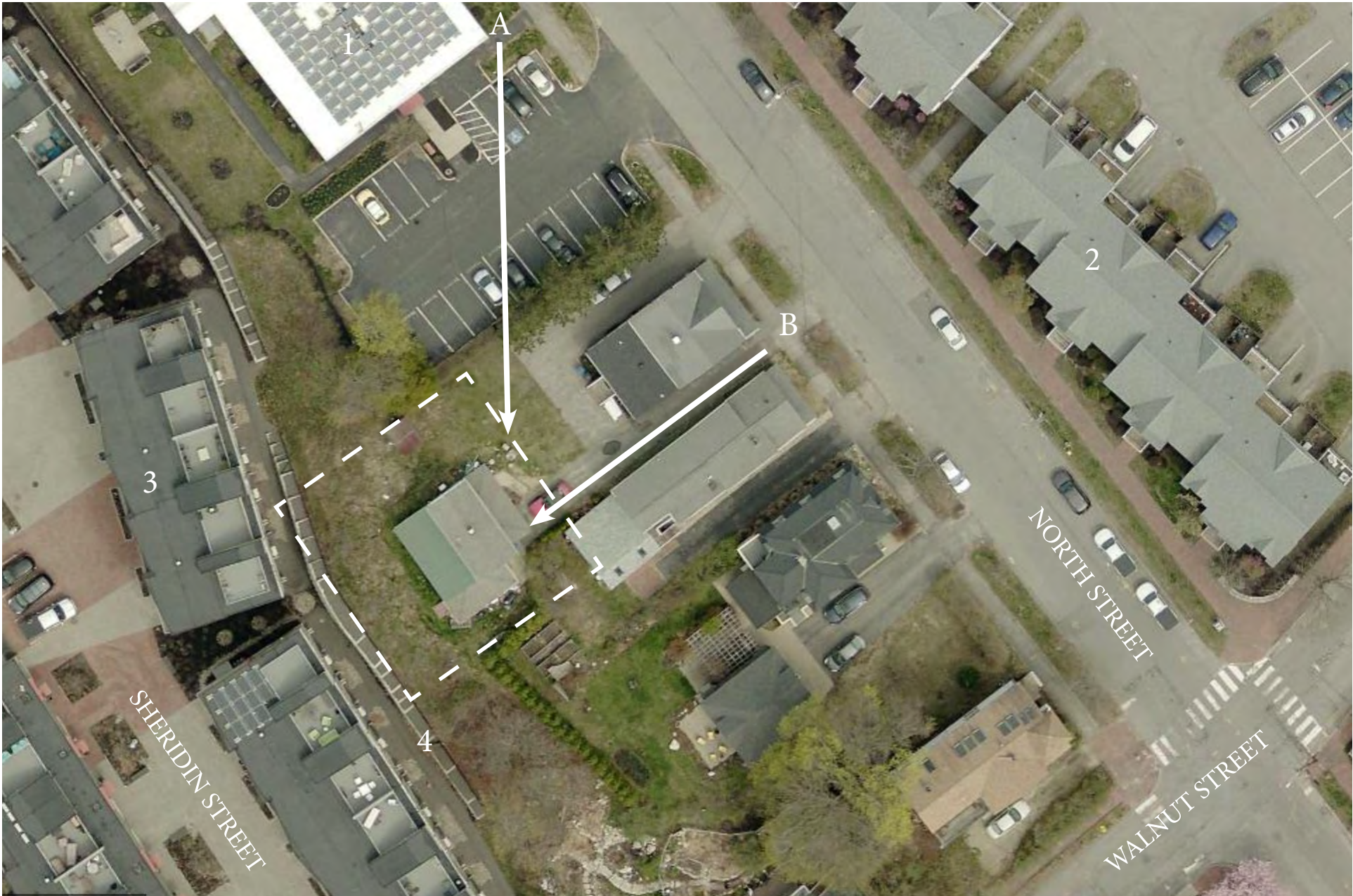
Bird's eye view of site looking towards Back Cove. Bayview Heights at right, Island View Apartments at bottom and Munjoy Heights at center.



Bird's eye view of site looking towards Falmouth. Munjoy Heights at Center, Bayview Heights at top and Island Avenue at top right.



Bird's eye view of site with Washington Avenue at bottom, Bayview Heights at top left, Island View Apartments at top center and Munjoy Heights at center.



A: Rendering location at sidewalk
 B: Rendering location at driveway

- 1: Bayview Heights (60 units)
- 2: Island View Apartments (70 units)
- 3: Munjoy Heights (29 units)
- 4: Retaining Wall



126 North Street (left) also owned by applicant driveway at center to be utilized for accessing rear lot. Existing two-story building on rear parcel (128R North). 128 North at right.



Rendering Location B: 128R North parcel as viewed from existing/proposed driveway



Rendering Location A: sidewalk adjacent to Bayview Heights senior housing parking lot. Note existing Pine Tree buffer is not on applicants parcel.



128R North Street as viewed from within parking lot at Bayview Terrace. Note Munjoy Heights extending above the retaining wall past the smoking area at right.



Munjoy Heights as viewed from parcel



A section of Island View Apartments across the street. The complex has a mixture of single and mulled windows and is clad in clapboard-style lap siding. Parts of the complex are three stories high and some sections are four stories.



Bayview Heights Apartments, immediately adjacent to the site, features buildings that are four-stories high with a mansard roof and a one-story section adjacent to the parcel with a flat roof.



Two houses on the corner of North Street and Walnut showing the character of the neighborhood. The fascia and frieze board of the house, at right, inspired the design of our project.





The window trim, corner board, frieze and eave detail of the house on North Street (at left) were utilized as sources that inspired the trim details on our project. At right, the triple-decker on Walnut Street has a broad eave, flat roof and corner boards similar to that utilized in our project.



A three-story building with small punched openings on North Street and triple-decker with lap siding and flat roof, also along North Street.



Two adjacent buildings on Walnut Street, a triple decker with flat roof and clapboard lap siding and a two-story building with gable roof.



Elevated flat-roofed building at left and Munjoy Heights complex as seen from Walnut Street on right.



Munjoy Heights at Right at Sheridan Street entrance illustrating steep grade change



Munjoy Heights which borders the site to the West



New flat-roofed four-story building along Washington Avenue (at right) and new three story building along Walnut Street.

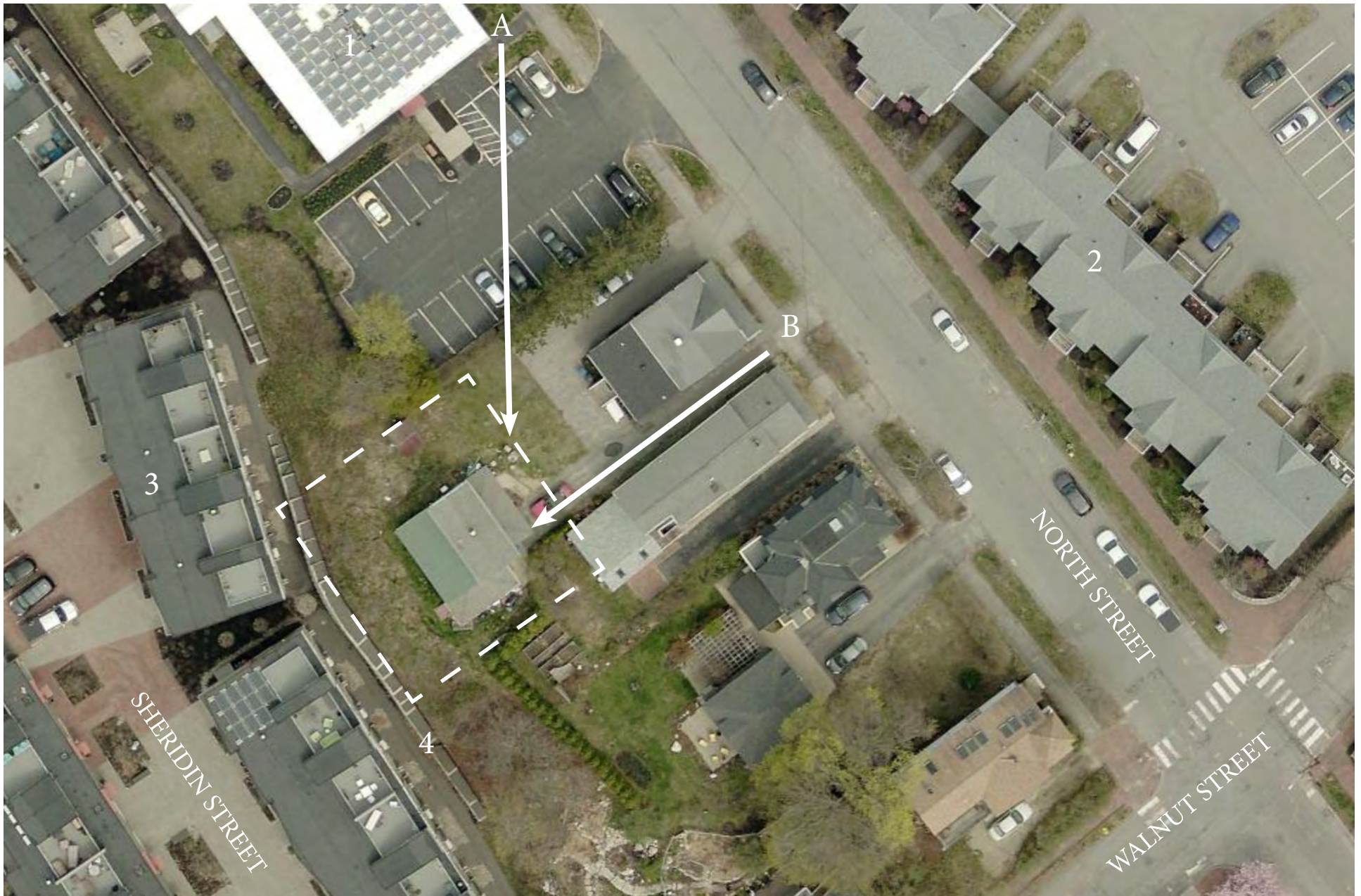


Looking towards site from corner of Walnut and North Street.



Looking up towards Munjoy Heights from Washington Avenue near the Northern Burner Supply parking lot. Houses along North Street are not visible due to the elevation change.

[Intentionally blank]



A: Rendering location at sidewalk
B: Rendering location at driveway

1: Bayview Heights (60 units)
2: Island View Apartments (70 units)
3: Munjoy Heights (29 units)
4: Retaining Wall













Dear Neighbor:

September 7, 2019

On behalf of Upright Properties LLC and the families who will live in the residences, I am pleased to invite you to a neighborhood meeting to discuss our plans for the proposed project at 128R North Street within the R-6 zoning (Munjoy Hill Overlay) district. The project includes the redevelopment of this rear lot into a 4-story residential building. As this is primarily a project to provide housing for 5 known households, the Developer has elected to only build 6 units, instead of the allowable 8. Moreover, 90% of the building will be substantially shorter than the allowable maximum height and over 40% of the site will be dedicated to greenspace and gardens. A ground-level parking garage will allow for one parking space per unit with additional storage space for bicycle parking. Because the site sits about 100 feet from the street, the building will have a minimal impact on the streetscape but the entrance will be re-built, improving the sidewalk to City standards.

Meeting Location: The Root Cellar – 94 Washington Ave., Portland, ME 04101
Meeting Date: Wednesday, September 18, 2019
Meeting Time: 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. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board. If you have any questions regarding the neighborhood meeting, please don’t hesitate to call me at 207-749-9656.

Sincerely,
Joshua Wojcik
Project Builder and (Future Resident of 128R North St)



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

September 20, 2019

Subject: 128R North Street Neighborhood Meeting

I, Tracie Reed, hereby certify that a neighborhood meeting was held on September 18, 2019 at the Root Cellar at 5:30 p.m.

I also certify that on Friday, September 6th 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.
3. A digital copy of the notice was also provided to the Planning Division (jmy@portlandmaine.gov and ldobson@portlandmaine.gov) and the assigned planner to be forwarded to those on the interested citizen list who receive e-mail notices.

Sincerely,

A handwritten signature in black ink that reads "Tracie J. Reed". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Tracie J. Reed, Maine Licensed Architect, NCARB
Project Architect
Dextrous Creative, LLC

Attached to this certification are:

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

**128R North Street
Neighborhood Meeting Minutes**

Att. W

Date: September 18, 2019

Time: 5:30-8:15 p.m.

Location: Root Cellar

Attachments: Presentation materials and attendance sign-in sheet

The Meeting started at approximately 5:35 p.m.

Applicant Josh Wojcik of Upright Properties welcomed neighbors and introduced his family and project architect, Tracie Reed. Josh provided an overview of the project for neighbors, introducing them to pre-sale buyers, a history of the site and project goals of pooling the family's resources together to develop an energy-efficient building in the neighborhood the applicants currently reside.

The presentation was frequently interrupted by neighbors who posed a variety of questions, expressed concerns about the specific project and general land use policies in the neighborhood.

-A neighbor on North Street expressed uncertainty with the boundary of the proposed historic preservation district and its implication on the project review.

-Neighbors asked for details regarding membership of the LLC which owns and will develop the property. Josh clarified that the LLC only owns 128R North Street. He declined to provide specific details as to the owners out of respect for their privacy. The LLC will build the properties, the five friends are pre-sale buyers who are prequalified to purchase the units. Architect Tracie Reed explained to neighbors that the planning board applicants are required to demonstrate financial capacity as part of their application.

-Neighbors expressed concerns the group may not be able to complete the project financially if unexpected expenses occur such as damage to the retaining wall during construction. Architect Tracie Reed explained that the project's design team included the geotechnical, civil and structural engineers who designed the wall. If the wall is damaged during excavation or construction the wall will be repaired. Reed explained that the city has a list of pre-qualified excavators who are able to do work in the city. The team has conducted geotechnical borings and analyzed bearing on the wall as part of the project's feasibility. Josh explained that the project budget includes contingency funds. Without them the bank would not have offered terms.

-Numerous participants expressed concerns over the height of the building. Several Munjoy Hill residents are concerned about views from their roof decks and kitchen windows. They expressed concerns that units may sell and the pre-sale buyers introduced may eventually move, leaving neighbors they may not like. Josh and Tracie explained that due to the recently passed Munjoy Hill Overlay the side setback is increased by 10'-0" overall which allows the fourth floor, and that the building includes a work force unit as required by the new regulations. The 13'-0" elevator overrun is the only section of the building that reaches the 45'-0" maximum in the zone.

-A North Street neighbor expressed disapproval that the existing building was being demolished. She recommended that the applicant instead renovate the front of 126 North St, a building owned by Wojcik, without altering the exterior and build a two-unit on the rear site. The neighbor also noted that she felt the building is too big for the site, that it is out of proportion with neighboring buildings and should be smaller with outside parking similar to that of other Munjoy Hill residents. She questioned whether the building received special variances due to being a rear lot to which the applicant clarified it still met and was required to meet all the requirements of front lots in the overlay including the 50% active

**128R North Street
Neighborhood Meeting Minutes**

living space requirement added last year by the overlay language. Tracie clarified that if the building had surface parking it would be required to be at the back of the building facing Munjoy Heights and would be difficult to screen due to easement restrictions. Neighbors from Munjoy Heights expressed that they do not want to look out the rear of their building at parked cars.

-Several participants suggested the applicant consider underground parking so the building would appear to be three stories from the street.

-Josh clarified that a decorative screen to support climbing vegetation at the rear of the building is intended to screen vehicles parked under the building from Munjoy Heights. Josh showed a possible concept for screening the garage level and several of the participants from Munjoy Heights noted the screening improved the concept. Tracie clarified that the 10'-0" maintenance easement existing between Munjoy Heights and the property prohibits any structures or plantings like shrubs or trees with roots that may damage the retaining wall's integrity.

-Several neighbors were concerned that shrubs on the property will be removed as part of construction and are highly valued by Munjoy Heights residents who overlook that section of the property. Other neighbors pointed out that pointed out that most of the larger trees behind Munjoy Heights would not be impacted by the project, since the rear of the property is currently mostly clear of trees. Tracie explained that the project would be planting new trees as required by the city, and that our vegetation plan would be reviewed by the city's horticulturist as part of our application. She reminded residents that restrictions by the neighbors own easement prohibits many plant types in the rearmost 10'-0" of the property to protect the structural integrity of their retaining wall. Neighbors asked for a current satellite image of the site that would clearly delineate which shrubs would be removed. The satellite image underlay shows the Munjoy Heights complex nearing the end of construction and seeding has not occurred at this time. Josh reminded neighbors that any plants installed after construction would be quite young and should not be within the easement.

-Neighbors inquired about lot coverage. Josh explained that coverage is 57% leaving 43% open space, more than the 20% requirement in the zone.

-Some neighbors expressed disappointment that the application was not for a two-story home. Many had made the assumption when they first heard about the project that it was going to be a single-family residence and only realized the property was a six-family after receiving the postcard. Josh stated that he met with or repeatedly tried to schedule meetings with all adjacent individual homeowners and the Munjoy Heights Condo Association. Some neighbors declined the opportunity and some in Munjoy Heights neighbors were unable to attend the organized site walk with their Association. A neighbor clarified that, after receiving the demolition notification letter, he had called Josh and that Josh had been clear that the project was going to be possibly be a 5 or 6-unit building.

-Neighbors asked where trash would be stored. Josh clarified that it would be under the building and screened from view.

-Adjacent neighbors on North Street are concerned about windows overlooking their yard and asked how many in the stair/elevator tower would face their property. Josh explained that no windows in the stair tower face their yard and asked if they wanted any to face their yard. Their response was "no." Munjoy Heights residents expressed concerns over residents of the condo being able to look at their roof decks. Munjoy Heights neighbors expressed concern over not wanting to view a solar array if one was added in the future from their roof decks or property. Tracie explained that

**128R North Street
Neighborhood Meeting Minutes**

they would not be able to see them from their buildings due to their proximity and OSHA requirements that the panels be located 10'-0" from the roof edge (to avoid fall protection screening) if added at a future date.

-Munjoy Heights residents were interested in a comparison to the height of their roof decks relative to the building. Josh clarified that the roof decks of the Munjoy Heights complex will be approximately at the second-floor level of the proposed project. It was also explained that their buildings ground floor is 30 feet lower, due to the sloping topography.

-Residents challenged the architect's assertion that the building is minimally visible, if at all, from the corner of Walnut and North Street and not visible from Washington Avenue due to the long distances and elevation changes. She did note that it is likely visible from some points in Bayside or driving along I-295. She clarified that photos taken from Washington Avenue illustrated that the second tier of Munjoy Heights is not even visible and the photo was included in the planning packet. A photo of the Walnut Street intersection was also included.

-A new resident of Portland and Munjoy Heights was upset that a rear infill project of the scale is being proposed and asked the applicant to provide examples of this in the city. The architect said she had done a three-story, single-family home on a rear lot in the zone. Josh suggested that although he wasn't certain, Munjoy Heights was possibly the most recent infill project that was mostly sited in the rear of other properties. The Munjoy Heights neighbors did not agree that this was comparable.

-Several Munjoy Heights residents expressed concern that the building would completely shade their units and block sunlight. Other neighbor participants noted that minimal shading should occur based on the sun's path.

-Neighbors recognized that the meeting was emotional for all with Josh and his family excited about their project and neighbors concerned about changes to their neighborhood.

-Josh thanked everyone for taking the time to attend the meeting and for their feedback. He apologized for any confusion about the number of units.

Meeting concluded at approximately 8:15 pm.

The above-mentioned 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:



Tracie J. Reed, Maine Licensed Architect, NCARB
Project Architect
Dextrous Creative
traciereed@dextrouscreative.com

128 R North Street

Neighborhood Meeting
September 18, 2019

Name	Organization	Address	Phone	Email
Terry Robins	Murphy Heights	206 Sheridan	424-333-5443	trobins2023@gmail.com
Kevin Schoch	"	215 "	917.587.4154	kevin@kevin.schoch.com
Bessie Hart	"	215 Sheridan	917 364 3682	blesieharta@gmail.com
Peter Back	"	199 SHERRIDAN	207-318-0792	petrobac1@gmail.com
Martha Emerson		340 E.P.	207-871-8900	
Munira Dargui	"	203 Sheridan	207-838-1267	mo - -
Africa Back	"	199 Sheridan	207.253.5156	PTBACK@SMITH.COM
A-NAEHL	"	203 Sheridan St.	207-838-8740	He. No. C. Yal. x
Yama Cannon		105 North	207 420-6962	vanacannon@gmail.com
Betty Forber	Murphy Heights	225 Sheridan		BettyForber@gmail.com
Bud Pollak	Murphy Heights	225 Sheridan	203-984-1833	BPollak64@yahoo.com
Paul Marino	Trurot A.	226		marino OY102@yahoo.com
Peter A. Davis	Murphy HTS	201		DAVID DAVIS-Davis.com
Michael Kennedy	"	201	917-940-2509	Michael.Kennedy@bucklin.com
Mark		122 North		lindsey.mearns@bucklin.com

Save
Friedman MPM 47 Lafayette #2 207-233 5888 St. Michael @ mpmhouse.com
Raisa (Raisa Dett. Carver) 77 Newbury

128R

128R North Street

Once upon a time

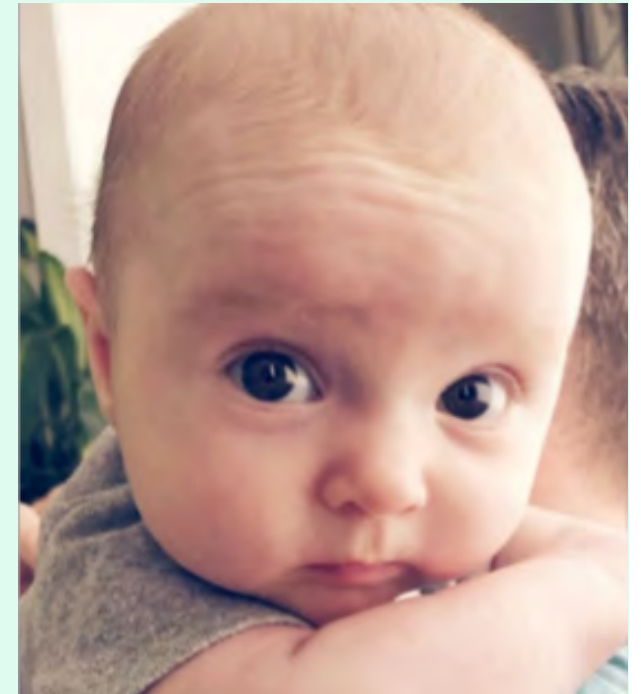
there was a group of friends who wanted to figure out a way to live an affordable life on Munjoy Hill.



Some had known
each other for
decades.



Others were
more recent
additions.



Munjoy Hill had gotten so expensive

that this group quickly realized the only way to make their dream work was to pool their resources. By doing so, they could create a home together that would be enjoyable and that would have minimal, **predictable** operating costs.

This second part is especially important to those in the group who are on a **fixed income.**

To Buy or Build?

Buy

Accomplishing **Net Zero** with a large existing structure would be **prohibitively expensive**.

Build

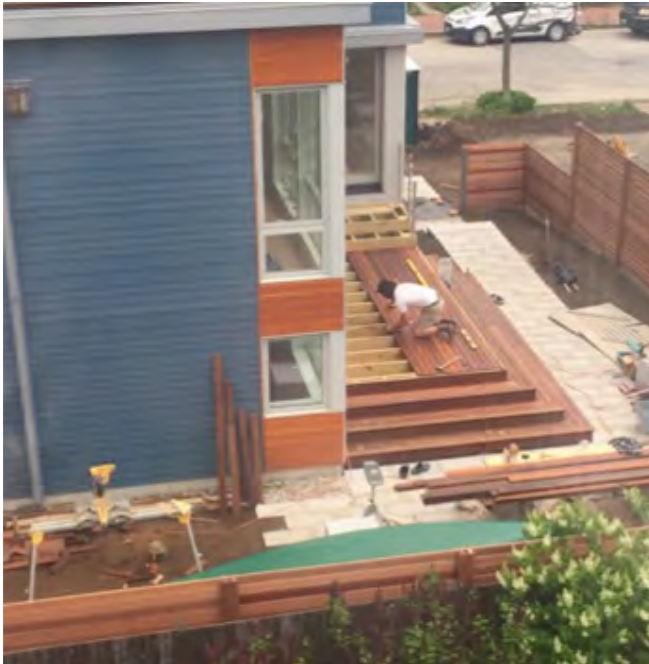
Super Insulated Building
+ Energy Efficient Heating and Cooling
+ Space on Roof for PVs
= **Net Zero Capable Building**

Some place a high value on the aesthetic flourishes of the Victorian style;
This group highly values **energy efficiency** and a **small carbon footprint**.



So they found

a property that was on the edge of the neighborhood, away from the proposed historic district, and which was set back far enough from the street that their building would be quite hard to see from most vantage points.



They were aware

that many in the neighborhood were tired of deep-pocketed developers changing the neighborhood and causing a racket.

And, having lived through the construction of such projects in their own back yards, they understood these concerns only too well...

And they came up with a design that fits them all, which is actually shorter than many of the existing homes on the street.



And given how far from the street it will sit, their new space will appear smaller than most of the buildings on North Street.

We hope you like it!





The Design

pulls inspiration
from the
surrounding
buildings in the
neighborhood.



The Design

features street-facing decks, which will help keep eyes on the street.

The Design

features on-site parking for each unit to help minimize congestion on the streets.



We are working with the City
to determine the most appropriate color scheme.

1



2





White clapboards are prevalent in the neighborhood.

But dark colors tend to make buildings look smaller.

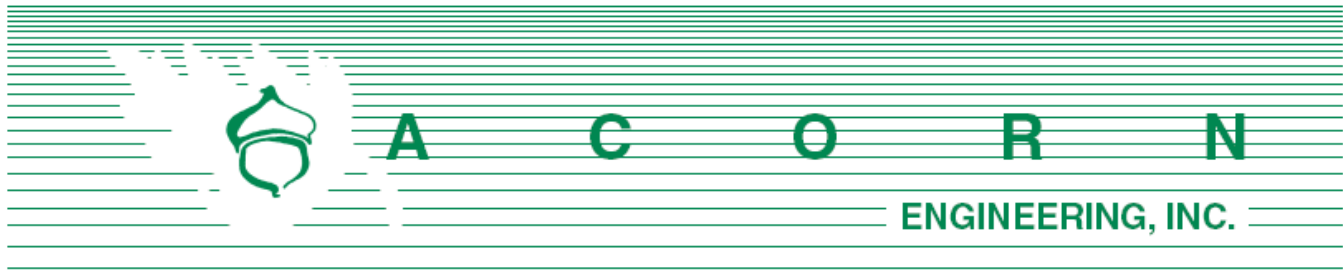




We think both look attractive,
but we appreciate your input, too.

This is the only perspective
from which you can see most of the building from the street.





Shukria Wiar – City Planner
 Planning Division, City of Portland
 389 Congress Street
 Portland, ME 04101

December 18, 2019

Subject: Comment Response Letter
 126/128R North Street Redevelopment – Portland, Maine

On behalf of Upright Properties, LLC we are pleased to respond to the comments that we've received thus far.

Shukria Wiar, Planning Comments

Comment – *The applicant will need to submit a copy of the actual easements for the ones below to establish what restrictions (if any) as it impacts scope for site plan standards to be addressed:*

- *Permanent right-of-way with 128F North Street (includes the rights to use the corridor for utilities). Reference CCRD Bk 1143, Pg 307.*
- *Permanent retaining wall maintenance easement with Munjoy Heights. Reference CCRD Bk 32237, Page 104.*

Response – Please refer to Document C for this information.

Comment – *Evidence of utilities' capacity to serve the development.*

Response – Please refer to Document P for this information which includes the updated ability to serve letter from Portland Water District.

Comment – *Manufacturer's verification that HVAC and manufacturing equipment meets applicable state and federal emissions requirements - Show locations of HVAC and mechanical equipment.*

Response – The architect will provide this information once a model is selected. The selected model will comply with the applicable state and federal emissions requirements.

Comment – *Is the project utilizing heat pumps, and if so, where will you be locating the compressors?*

Response – Yes, the project will utilize heat pumps for the 128R building at a minimum. The compressors will be located on the roof (set back from the street towards the middle of the building) and under the rear decks.

Comment – *Provide cut sheets and photometric plan for all proposed exterior lights.*

Response – Please refer to Document N for this information that was included with the updated Site Plan submission.

Comment – *Minimum Side Yard Setback (8.59 on the easterly side of the property). Please document how it is being met: Buildings more than 35': 10' for all side yards, except that a side yard no less than 5' is permitted when used to continue a documented built pattern of the surrounding streetscape, in which case a proportional increase in another side yard must be provided.*

Response – The cumulative side setbacks are a minimum of 20' as required. One side setback is less than 10' due to the documented built pattern of the neighborhood. Please refer to the revised Document T. for further analysis.

Comment – *Condo Docs need to be submitted.*

Response – Because the condo docs are partially contingent on how the project progresses through the first workshop, the draft condo docs are anticipated to be submitted prior to the Final Hearing.

Chief Mike Thompson, Fire Department Comments/Recommendations

Comment – *A sixteen-foot (16") access road, capable of supporting fire apparatus, shall be required to provide emergency vehicle access to this building (See additional comment added 11/27/2019)*

Response – A sixteen-foot (16') access road, capable of supporting fire apparatus has been provided within the revised plan set.

Comment – *The Fire Department approves the site plan as shown in: Site Plan.pdf V3*

Response – Thank you for your review and approval.

Victoria Violent, Housing Program Manager

Comment – *It appears that both buildings will be greater than the maximum allowable height of 35', subsequently both buildings trigger Section 14-140.5 (c) Munjoy Hill Neighborhood Conservation District maximum height dimensional standards.*

Response – The proposed 126 North St. property is below the 35' height threshold. Please refer to sheet C-30 for these calculations which show the building height at 33.3'.

Comment – *Based on the floor plans provided for 128 R North, the workforce unit meets the requirements of Section 14-140.5 (c).*

Response – Thank you for your review.

Comment – *Has the applicant submitted floor plans for Phase II (126 North Street)? As a separate building, 126 North also needs to meet the requirements of Section 14-140.5 (c).*



Response – The 126 North Street building is not anticipated to provide a workforce unit given its height is below the 35' threshold and the unit count is less than 10'.

Mike Tremblay, DPW

Comment – *The driveway serving 126 North Street is unacceptably narrow in the vicinity of the parking spaces. There is only 14 feet of maneuvering room behind the parking spaces, which would likely require multiple maneuvers to enter and exit. The Applicant should explore providing access to these parking spaces via the driveway serving 128 North Street; turning this driveway into a shared driveway and allowing 16+ feet of maneuvering space for vehicles. This would allow the driveway serving 126 North Street to be closed, which is desirable. It may also allow additional options for the design of 126 North Street, including (but not necessarily limited to) shifting the building eastward, allowing for a wider shared driveway.*

Response – Please refer to the attached AutoTurn analyses. Because of the extra width provided for the parking spaces, the drive aisle is sufficient for the typical architectural design vehicle to cleanly pull in and out without the need for multi-point turns.

Comment – *While closure of the 126 North Street driveway is not required, as it exists today, the spacing between the 126 North Street and 128 North Street driveways are not optimal. As there is not enough separation to achieve a legal parking space, since parking is restricted within 5 feet of any driveway. Closure of the 126 North Street driveway could, therefore, add two additional legal on-street parking spaces.*

Response – The project as designed maintains the typical built pattern and rhythm along North Street of driveway, structure, driveway, structure while providing the requested 16'+ feet of emergency access width to the 128R building, therefore no change to the historical built pattern is proposed.

Furthermore, 126 North Street does not have an existing access easement across 128F North Street.

Comment – *The accessible parking space in the 126 North Street parking area should be designed as 11 feet wide with a 5-foot clear area, or 8 feet wide with an 8-foot clear area, in order to accommodate a van as required by ADA. As such, the accessible space should be shifted toward the back of the building at least 3 feet, in order to provide 8 feet of clear width adjacent to the main entrance.*

Response – We have revised the Site Plan to provide 16' of width for an accessible van space.

Comment – *There are a significant number of service connections. Trench repair for these services should be conducted as one. Storm drain, sewer, and water connections should be repaired as one, uniformly extending all the way to the centerline of the roadway. Gas service trenches should be repaired as one, extending for the full curb-to-curb width of the roadway. I have attached a rough sketch of this.*

Response – We have revised the proposed pavement cut to provide more continuity in the



patching; however, the separation of pavement cuts between phases has been maintained due to various utility companies' requirements, phasing requirements and existing utility easements.

Comment – *The Applicant proposes an overhead electric/telecom service across North Street from a proposed utility pole #17H, before converting to underground at an existing-to-be-replaced pole #18.1. While an underground service to the development sites is desirable, the Applicant should explore moving these utilities underground before crossing North Street, rather than proposing a new overhead crossing of North Street. Applicant should confirm whether the existing overhead connection will be removed.*

Response – We will explore this option with CMP; however certain horizontal separations may not be feasible. The existing overhead lines will be removed prior to demolition of each respective building.

Comment – *Confirm that the reconstructed sidewalk along the frontage is designed to a 1.5% cross slope (2% maximum). One set of spot grades appears to confirm that this is the case, but additional spot grades at the bottom and top of driveway and back of sidewalk may be helpful.*

Response – We have added additional spot grades to further illustrate the proposed cross slope of 1.5%.

Comment – *The electric meter for 126 North is proposed for the front of the house. This should be relocated to the side if at all possible.*

Response – The meters have been relocated to the side of the building.

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

Sincerely,

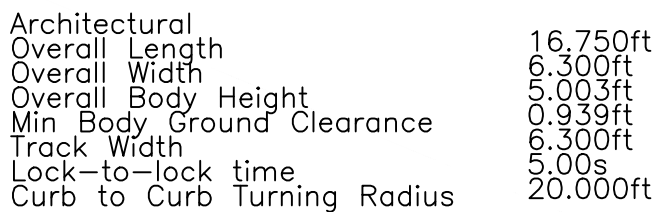


Samuel J. Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



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





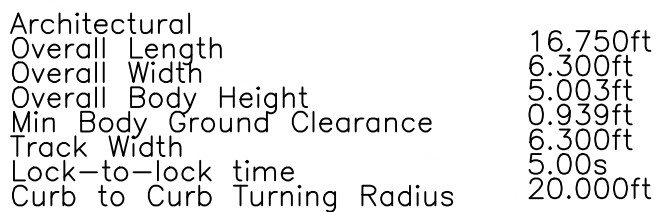
N/F
Roy

N/F
Kremer

10' x 78' Right Of Way

Per Bk. 1133, Pgs. 465-6

ISSUED FOR	BY
COMMENT	DATE
RESPONSE	WHS
	11/26/19
	REV.
	DATE



N/F
Roy

N/F
Kremer

10' x 78' Right Of Way
Per Bk. 1133, Pgs. 465-6

FILE:	1116_CIVIL
DATE:	12/17/19
JN:	1116
SCALE:	AS NOTED
DESIGN BY:	SJL
DRAWN BY:	ZMS
CHECKED BY:	WHS



DRAWING NAME:
INTERNAL PARKING EXHIBIT
PROJECT NAME:
126 NORTH STREET REDEVELOPMENT
CLIENT:
UPRIGHT FRAMEWORKS, LLC
PORTLAND, MAINE 04101

ISSUED FOR	BY
COMMENT	DATE
RESPONSE	WHS
	11/26/19
	REV.
	DATE



December 17, 2019

Caitlin Cameron, AICP, Associate AIA, LEED AP
Urban Designer
Planning & Urban Development Department
389 Congress Street
Portland, ME 04101

Re: 128R and 126 North Street

Caitlin,

Below please find comments in response to the design reviews dated December 4, 2019 for 128R North and December 16, 2019 for 126 North.

Many of the comments below relate to 126 North's entrance reflect a larger policy issue outlined in the city's Design Manual that suggest design principals in conflict with best practices for inclusive design. We understand these guidelines are beyond the purview of this review but wish to bring the issue to staff and the board's attention.

Guidelines in the city's manual for the R-6 zone, on page 109 under C-2, state suggested guidelines for creating visual privacy on first floors. A suggested means for creating this privacy includes elevating a building's first floor to at least 24" above grade, and articulating it with porches. This characteristic is also emphasized in the IS-FBC zone on page 120 of the manual.

Page 120 includes an illustrative illustration of an 'exemplary streetscape' designers should emulate. However, the illustration includes no visible curb-cuts and the multi-family residences depicted clearly do not meet both IBC 2015 Chapter 11 (accessibility) and Federal Fair Housing Standards which require accessible building entrances at the streetscape. Both buildings depicted show multiple steps, an impossible moat for someone using a rollator, wheelchair and even difficult for a young parent pushing a stroller. To further emphasize the barrier as acceptable; bullet three of this page states 'entry is emphasized with stair and canopy.'

Our team feels these images are contrary to the City's objectives in creating housing for all Portlanders, regardless of mobility impairments, and urge the City to address this issue. Violation of Fair Housing Standards and IBC puts clients, the city and designers at risk for discrimination suits and fails our most vulnerable residents.

Dextrous Creative
dextrouscreative.com
traciereed@dextrouscreative.com
Portland, ME 04101

128R Design Review Comments

Memo notes that the design passes all design standards. Thanks for your review.

126 Design Review Comments

A-3 Relationship to the Street: My client is happy to pull the building closer to the street using the average of the two adjacent side setbacks which, according to Acorn Engineering, will result in a 3.7' front setback. Acorn has suggested a revised site plan showing a 4'-0" setback to reflect this change.

B-4 Roof Pitch: The roof pitch meets the Portland Land Use Ordinance for the Munjoy Hill Overlay which articulates that a front-end gable pitch should be between 10:12 and 12:12 per 14-140.5(d). The proposed front-end gable roof is 11:12. The height of a building per the ordinance is measured from the mid-point of the gable roof which puts the height of the building at 33'-6" as measured on drawing A/A-2.3.

C-1 Entrances: Our building seeks to meet the active streetscape requirements of the Munjoy Hill Overlay as articulated in 14.140.5(h). The main entrance for our first-floor unit is located along North Street, satisfying this requirement. Our unique site has a sidewalk shared with 128R North Street along the length of the building. The entrance to upper units will be situated along this walkway providing an increased to the streetscape with the rear parcel, 128R North.

C-2 Visual Privacy: The ground floor living spaces are at grade to satisfy IBC 2015 1104.1 'Site arrival points' which require the entrance of our Type B accessible unit to be accessible from the public sidewalk. This project is required to meet both IBC 2015 and Fair Housing requirements since it contains four-or-more units. Elevating the building would expose my client, the city and our design team to a housing discrimination suit. Relegating mobility-impaired residents or visitors to a secondary 'back door' entrance is considered discriminatory according to HUD'. Our team feels strongly that the city should take strides to create expanded housing opportunities for all Portlanders, including the elderly and those with mobility impairments who many-times have difficulty finding accessible housing. We believe the city should re-examine and revise the design standard C-2 to avoid such liability. It currently reads:

'Ensure the visual privacy of occupants of dwellings through such means as placing the window sill at least 48" above the adjoining sidewalk grade; providing the finished floor elevation of a residence at a minimum of 24" above the sidewalk elevation; incorporating porches along the front side of the building façade design; or other measures.'

On a narrow lot such as are predominant in-town fitting an approximately 34'-0" long ramp (including bottom and top landing) would be impracticable. Instead, our team will provide double-hung windows with first floor translucent glazing on the bottom pane, below 48". This will allow our team to meet the intensions of visual privacy without creating 34'-0" of icy ramps to traverse or exposing us all to a discrimination suit.

Dextrous Creative
dextrouscreative.com
traciereed@dextrouscreative.com
Portland, ME 04101

C-3 Transitional Spaces: See above response to C-2. Our project is required to meet both IBC chapter 11 and Fair Housing which requires our entrances from the sidewalk to be at grade. We have provided a covered entry at both entrances.

F-6 Porches, etc.: See response to C-2.

F-6 Main Entries: See response to C-2. Raising the porch above grade would put my client and the city at risk for a housing discrimination suit.

F-7 Articulation: The rake of the roof will be over 6" and the rake trim detail is over 9" in depth overall.

Sincerely,

A handwritten signature in black ink that reads "Tracie J. Reed". The signature is written in a cursive, flowing style.

Tracie J. Reed, Maine Licensed Architect, LEED AP, NCARB
Principal

CC: William Savage, P.E., Acorn Engineering
Sam Lebel, Acorn Engineering
Josh Wojcik, Upright Properties
Jill S. Johanning, AIA
Jeanie Bourke, Plan Review Team Leader, City of Portland Maine Building Inspections

¹ HUD provided design commentary on its site arrival points standard, noting: "HUD requires that an accessible route not be hidden, remote, circuitous or require people with disabilities to travel long distances. It also requires that use of an accessible route not place requirements, like a special key, an attendant, or additional waiting periods, on people with disabilities. Providing an accessible route that has different and less favorable conditions for people with disabilities than for people without disabilities may violate the Fair Housing Act because it amounts to a difference in terms and conditions of housing based on disability."
<https://www.fairhousingfirst.org/faq/accessibleroutes.html>

Proposal for building at 128R north St

Betty Lorber <betty.lorber@gmail.com>

Sep 15, 2019 12:03 PM

Posted in group: **Planning Board**

To the Planning Board of Portland Maine:

We are Portland residents. Our address is 225 Sheridan St. We live in the condo development known as Munjoy Heights, directly in front of the proposed building at 128R North Street. We have the following concerns about this plan:

1. Construction of the proposed building will eliminate precious green space behind Munjoy Heights. We have seen no plans for new landscaping and other measures that will screen the rear and sides of the building, nor have we received any assurance that trash cans, boats, bicycles, and other material will not be situated or stored behind the proposed building. Moreover, given the apparently tight budget and limited financing for the project, we fear that sufficient green space preservation and improvement might be "lost in the shuffle" and never be completed.

1. The proposed building will be only 15 feet from the fence behind Munjoy Heights. On the first story, it will include outdoor covered parking extending to the rear end of the building, potentially resulting in intrusive car noise, exhaust, and sight pollution affecting our units. We need further information and assurances regarding the installation and adequacy of fire suppression and warning systems.

[Note: We understand that the Munjoy Heights property line extends five feet from the fence adjacent to the retaining wall, and an easement extends a further ten feet to allow for maintenance of our retaining wall. The rear of the proposed building thus extends as close to Munjoy Heights as permissible.]

1. The new building is about 4 times the size of the existing single family home, resulting potentially in additional stress on the retaining wall that is only 15 feet away. We need to see an engineering assessment of the proposed project and its impact on the integrity of the Munjoy Heights retaining wall, as well as its impact on drainage and stormwater flow.

1. The height of the proposed building and its proximity to Munjoy Heights, particularly with extensive outdoor balcony and deck space, will severely compromise the privacy of the roof decks and rear windows in multiple units at Munjoy Heights. It appears that the height of the building on the street side elevation is just below the 45-foot restriction (to be clarified by examination of the site plan).

1. The proposed building is a very large structure that is out of scale with nearby houses and that sits on a footprint substantially larger than the existing structure. It is likely that the proposed building will reduce sunlight exposure to surrounding neighbors. A daylighting study might "shed more light" on this issue. As a related matter, we are concerned about the negative impact of light pollution emitted by both the interior and exterior of such a large structure with six units.

1. From our perspective, the architectural design of the proposed building falls short of acceptable standards.

1. We are concerned about the ability of the developer to fully finance the project and have no assurance of his adequate access to capital for construction, inevitable delays and adjustments, zoning variances, landscaping, and ongoing maintenance of the property. We also should explore a mechanism to assure payment for any repairs or restoration of Munjoy Heights property as a result of the construction process. Josh repeatedly reminded us that he is a builder, and not an experienced developer.

We ask that you consider all of these concerns before issuing permits for this project.
We believe that our quality of life and the value of our property is at stake.

Thank you for your attention to this matter.

Betty Lorber
Bernard E Pollak
225 Sheridan St
Portland Maine

development at 128R North St.

Eldon Mayer <vixenskipper@gmail.com>

Sep 22, 2019 8:41 AM

Posted in group: **Planning Board**

Our rear windows are so close to the proposed 6 condo building that we surely will be able to hear conversations and other noise taking place in that building (noise pollution) and fumes from the vehicles parked in the open air parking garage on the first floor of that building will contaminate the environment in our condo and those of our neighbors.. Also, utilizing the first floor of 128R as a parking garage causes the building to be four stories high, which would be unnecessary if an underground garage were used for parking. A four story building is much higher than any other buildings on North Street, and in our condo and those of our neighbors, blocks our sunlight.

Another concern is that excavation of the project site will loosen the soil thereon, increasing the flow of gravity-fed stormwater down the sharp slope to our condo and those of our neighbors.

We thank you for paying attention to our concerns.

Eldon Mayer, 211 Sheridan Street

Plan Number PL-000791-2019 at 128R North Street

Peter Pitegoff <ppitegoff@gmail.com>

Sep 22, 2019 3:02 PM

Posted in group: **Planning Board**

Dear Members of the Planning Board:

We have serious concerns about a proposal to demolish and remove the two-story house at 128R North Street on Munjoy Hill in Portland and to construct a four-story, six-unit condominium development in its place – Plan Number PL-000791-2019. We are homeowners living at 205 Sheridan Street (Munjoy Heights) immediately adjacent to the 128R North Street property. This email outlines some of the negative neighborhood impacts of this project, which is located within an R6 Zone and the Munjoy Hill Neighborhood Conservation Overlay District.

1. The proposed building is a large and boxy structure that is out of scale and character with nearby houses and that sits on a footprint substantially larger than the existing structure. The architectural design of the proposed building falls short of acceptable standards of quality and accountability for its North Street neighborhood on Munjoy Hill.
2. The proposed building is about four times the size of the existing single family home that it would replace. This will cause additional stress on the deep retaining wall that is only 15 feet away and will affect drainage and storm-water flow. With climate change and increasingly severe weather events, we fear erosion, mud slides, and compromise to the retaining wall.
3. The proposed driveway is 11.25 feet wide, substantially narrower than the standard requirement of a 20-foot width, and is squeezed between two houses in front of the proposed building. This has dangerous implications for limiting access by fire engines, ambulances, and other emergency vehicles and arguably is inadequate for daily use by cars entering and exiting the proposed building.
4. The proposed building, only 15 feet from the retaining wall behind Munjoy Heights, will extend over the steep slope between the two buildings. On the first story, it will include an open covered parking area for six cars, extending to the rear end of the building. As a result, we will suffer intrusive car noise and exhaust fumes immediately outside our kitchen window, with similarly negative impact on other neighbors as well.
5. There are no firm plans for new landscaping and other measures that will screen the rear and sides of the building. The new building dimensions bump up against and even exceed setback requirements, leaving little room for green space, and the project appears to avoid minimum required road frontage.

We strongly urge the Planning Board to consider these issues. We believe that any a new structure should be built *within* the footprint of the existing building. We also insist that any new building reflect a high degree of architectural integrity and compatibility with the surrounding neighborhood. Thank you for your consideration.

Ann Casady & Peter Pitegoff
205 Sheridan Street
Portland, Maine

ann@casadydesign.com
ppitegoff@gmail.com

Google Groups

128 North Street R

Richard Marino <marino04102@gmail.com>

Sep 23, 2019 11:01 AM

Posted in group: **Planning Board**

I am writing to state my concerns about the planned six unit building at 128 North Street R. It seems like an overwhelming building to site in a rear lot with no street frontage. I am not sure what variances may be necessary. I would object to any that may be required.

Respectfully

Richard Marino

226 Sheridan St.

Portland 04101

Sent from my iPad

Plan Number PL-000791-2019 at 128R North St.

Leslie Hart <blesliehart@gmail.com>

Sep 26, 2019 8:58 AM

Posted in group: **Planning Board**

Dear Planning Board members

I am an abutter who lives directly below the proposed project Plan Number PL-000791-2019 at 128R North St. and writing to urge the Board not to approve this project as proposed. It is too large and will negatively affect the neighborhood. Among my chief concerns are:

Safety hazard. City ordinance requires a minimum 20 ft. wide driveway, yet the developer is requesting for a waiver to maintain the existing width of only 11.25 feet. A narrow driveway would be a safety hazard, impeding access for fire trucks and ambulances. The board should not approve this waiver. The developer maintains that "Due to the existing conditions and low turnover of residential uses, the driveway is anticipated to be functional serving the proposed 6 spaces and existing 2-unit 128F property." However, the evidence is that there will not be a "low turnover of residential uses." The new condo could add as many as 12 cars, two per unit. Plus additional traffic from guests and deliveries.

Negative daylight impact. The proposed project would double the height of the structure now on the property from a small 2-story single family home to a massive 4-story, six-unit condo, and almost double the footprint of the building now on the lot. The large proposed structure will certainly block the daylight into my home for at least half the day. And it will do the same for at least 10 of my neighbors. The developer should be required to do a daylight impact study.

The proposed structure is too large, with an insufficient and dangerously narrow driveway, and should not be approved.

Thank you in advance for your consideration.

Leslie Hart
215 Sheridan St.
Portland ME 04101
917.364.3682

Plan Number PL-000791-2019 at 128R North St.

Kevin Schochat <kevin@kevinschochat.com>

Sep 26, 2019 9:44 AM

Posted in group: **Planning Board**

Members of the Planning Board:

As a homeowner who lives directly below the proposed project Plan Number PL-000791-2019 at 128R North St. I strongly believe this project should not be approved.

I am very concerned about the damage to our Munjoy Heights retaining wall and property during construction and afterwards.

The developer is planning to remove 10 cedar trees on the site (per his Construction Management Plan). What's more, the proposed new structure slightly exceeds side yard setbacks, deck setbacks and rear yard setbacks. So the entire site will be torn up during construction with no vegetation to stop erosion, subjecting my own property and neighbors, plus the Munjoy Heights retaining wall, to damage from run off and mudslides. Especially in a era of increasingly severe weather events.

We have not seen a landscape plan for the proposed project. Or a timetable. Given how little vegetation will remain after construction, our property and the Munjoy Heights retaining wall will still be exposed to damage.

I am also very concerned about the visual impact and exposure to car exhaust from the open parking that will be visible from our house. The developer is asking for a waiver from the required 18' parking space to a smaller 16.5'. I believe he should have to meet the town's requirements and not compromise.

Thank you.

Kevin Schochat
215 Sheridan Street
Portland, Maine 04101

T: 917.597.4154

Google Groups

Oppose the Redevelopment Proposal at 128 North Street

Liz Hays <lizchays@gmail.com>

Sep 27, 2019 8:43 PM

Posted in group: **Planning Board**

Dear Planning Board of the City of Portland

My name is Liz Hays and I own a home at 107 North Street.

I am writing you to oppose the existing redevelopment proposal at 128-R North Street, PL-000791-2019. My home is across the street and at a diagonal corner to the redevelopment project.

I feel the mass and height of the proposed building is significantly out of proportion to the abutting historic homes on the North Street side of the building. This mass and height will have a detrimental impact on the values to all the abutting properties to the project because there is no street frontage to the building.

I also concerned about the erosion impact this property will have during construction and after completion to the Munjoy Heights condominium properties due its very close, up hill proximity.

I am concerned about the safety and increase noise implications of 6 or more vehicles, of different sizes, passing between residences to access the building on a narrow driveway.

I feel this project is trying to over maximize its wealth potential to have six condominiums within a small, boxed in piece of property with no regards to the negative impact on its neighbors. There are surrounding properties in the neighborhood of both modern and historic design, but the intent of the R6 Zone Conservation Overlay District is to maintain the historic character of Munjoy Hill, which this building does not.

Thank you for considering my concerns.

Liz Hays
107 North Street
Portland
207-441-4653

Google Groups

128R North Street

Sue Robins <suerobins@twc.com>

Sep 30, 2019 9:13 PM

Posted in group: **Planning Board**

Monday, September 30, 2019

Regarding Plan Number PL-000791-2019, 128R North St, Portland

Dear Portland Planning Board,

We write to you today to share my concern regarding plans to build an enormous condominium building at the top of Munjoy Hill. Our concerns are primarily in the areas of ground instability due to the proposed new construction and the significant negative visual impact to the hill community.

First, I understand that there has been a cursory geotechnical assessment, but our understanding is that this assessment does not consider the dramatic increases in rainfall that we know from climate scientists will occur in the near future. A structure of the magnitude proposed atop a hill being significantly impacted by dramatic increases in rain runoff is of great concern to those of us in homes below it.

Second, this is an enormous structure and, as I understand it, will equal the visual height of the Shailer School/Avesta building. They skyline we all see from the Old Port and Casco bay is already marred by the two tall apartment buildings on Eastern Promenade and Walnut Streets. Another enormous building at the top of the hill is a commitment to a significant change in the visual scape of the hill. With community concern for preservation of the culture of the neighborhood and our attraction as a vacation destination, I urge the planning board to be thoughtful about the impact that such an enormous structure at the top of Munjoy Hill would have on the skyline of the eastern part of the Peninsula.

Finally, we are also very concerned about the number of variances required to achieve approval of this project. Any project with this many code variances, pushing the limits of building codes in so many areas must be questioned further. Is it really a good idea to allow a project with a driveway well below code requirements, no plan for landscaping or erosion protection, significant impact on the sun exposure, and air quality of neighboring homes, and insufficient frontage and setbacks? Finally, while the project is just barely outside of the historic overlay, its enormity and proximity to homes that ARE within the overlay district, should give the committee pause.

I strongly urge the Planning Board NOT to approve this plan in its current state.

Sincerely,

Susanne and Terry Robins

206 Sheridan St.

Portland, ME 04101

Sent from Mail for Windows 10

To Portland City Planning Board: planningboard@portlandmaine.gov

Re: Plan number PL-000791-2019

From: Deborah Cole, Portland resident at 71 Walnut St

Date: October 2, 2019

To Portland City Planning Board members,

I have lived at 71 Walnut St for over 40 years. I purchased my home in 1980. I am in favor of infill housing on the peninsula and I did not oppose the major influx of 29 condominiums (Munjoy Heights) at Sheridan and Walnut which are two doors down from my home.

The view I see from my back windows and back yard, looking north towards the proposed development by Joshua Wojcik at 128R North Street, is of a single family two story white clapboard house, which was built long ago in the back lot of a four unit building at 124 North St, also owned by Joshua Wojcik. There is a house sized driveway which provides access to the back lot where the single family house is situated.

Because this is an odd placement of single family house on a back lot, I would recommend retaining a single family house footprint on that site to maintain integrity of scale and neighborhood character. The proposed condominium complex would be four times the size of the existing house, dwarfing the scale of the houses on the block.

Munjoy Hill has a well-earned reputation as a multi income; multi-use, multi-scale neighborhood which we are pleased to learn is being considered for historical districting on the peninsula.

This project is out of scale and character with the Hill. My additional concerns include the following:

- It is poorly designed and fails to meet the standards of quality and accountability in this vibrant and sought after neighborhood.
- Its planned location adjacent to a hill with poor drainage and poor retaining walls raises drainage, storm water and erosion concerns.
- The narrow single family driveway leading back to the site appear insufficient for regular cars, snow removal and emergency vehicle access.

Given the outlined concerns above, as well as those concerns expressed by other worried neighbors I recommend that the house lot in the back of 124 North Street retain its odd configuration and continue to provide a single family option on North St.

Thank you,

Deborah Cole

Home owner

71 Walnut St, Portland, Me 04101

207 754 3859

Fwd: Plan Number PL-000791-2019 At 128R North Street

Nancy Machesney <dmaches101@aol.com>

Oct 8, 2019 4:36 PM

Posted in group: **Planning Board**

October 8, 2019

Nancy Machesney
213 Sheridan St.
Portland, ME 04101

Portland Planning Board
389 Congress Street
4th Floor
Portland, ME 04101

To Whom It May Concern:

I am writing to express my concerns regarding the proposed development at 128R North Street (PL 000791-2019). I believe the building as designed, is too massive in size and scope for its plot of land and will have negative consequences for neighboring properties, Munjoy Hill, and the city at large.

I live in Munjoy Heights directly below where this project is planned. There is currently a single-family residence on the site. The proposed construction potentially could be ten times the size of the existing structure and would effectively block all sunlight from any building downslope of it. It would loom three stories above the current home and vastly change the landscape of Munjoy Hill.

The planned structure would utilize almost every square inch of the property as presented, leading the developers to cut corners on the size of planned parking spaces, pave over existing green spaces, and impinge on the privacy of neighboring residents. They have requested to keep a 11.5 foot wide driveway when the City requires a minimum width of 20 feet for two way ingress and egress. I fear that this driveway will not be wide enough for fire trucks to reach the building in an emergency situation, posing danger to all buildings and people in the vicinity.

This building would be built atop a steep hill. A retaining wall currently exists at the base of the property. However, this retaining wall was not designed to accommodate a development of this size. The potential environmental impacts from this proposal during the building phase and then after development are alarming. Abutters, particularly those below, need assurances of how construction, water runoff, snow removal and soil erosion will be addressed. We need guarantees against long term impact and potential damage to our properties

I question given the plot of land if it is safe or prudent to build much more than currently exists. The topography is risky and what currently is proposed will significantly reduce all neighbors' privacy and sunlight and compromise safety. The developer is putting forth too large a proposal and requesting unsafe easements.

I urge you to not support this plan.

Sincerely,

Nancy Machesney

Google Groups

Project # PL-000791-2019 concerns

Annie Frye <fryenh@comcast.net>

Oct 16, 2019 11:27 AM

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

shukriaw@portlandmaine.gov

amachado@portlandmaine.gov

Planning Board of Portland Maine

Re: Project # PL-000791-2019

128R North Street

Dear Ms. Wiar and Ms. Machado and members of the Planning Board-

We are abutters to the project PL-000791-2019 and would like to express our concerns about the proposed development. Our home is 217 Sheridan Street.

In reviewing the R-6 zoning requirements and the Munjoy Hill Conservation Overlay District we had concerns about the development and zoning violations.

- Lot 128 R is a small completely "land locked" parcel. It has no frontage of its own, it shares a driveway easement. R-6 requires 20' of frontage. This lot has 0' frontage. After speaking with Ms. Wiar, I understand that the zoning administrator decided that the frontage issue could be overlooked by deeming it a non conforming lot. We are concerned that this is not an appropriate measure. Among other issues, the emergency access to the proposed housing could be compromised.
- The Munjoy Hill Conservation Overlay requires the 1st floor of a multi-floor development must be living area. The drawing indicates parking at this level.
- As a rear abutter we are concerned about the retaining wall. The capacity for it to retain this 6 unit development is a question. Was it designed to accommodate such a load? We already experience substantial water running through our garage from the base of the wall. Engineering is a concern.
- I understand by providing the work force housing unit the development can maximize the height of the building to 45', the R-6 zone is normally 35' max height.

It seems this small, back lot on the edge of a huge slope has maximized its coverage and density using every loophole and exception. This doesn't make sense. Zoning is established to protect the neighborhood and safety of community.

Please take these concerns into consideration when deciding on this development.

Thank you.

Annette and Steven Frye

217 Sheridan Street

Portland Maine

fryenh@comcast.net

Planning Board of the City of Portland Maine
C/O Shukria Wiar, Planner
Department of Planning and Urban Development
City Hall - 389 Congress St
Portland, ME 04101

10/31/2019

To the Honorable Members of the Portland Planning Board,

My name is Peter Roehrig and I am writing in support of the proposed development at 128R North Street.

I decided to move to Maine in September 2019 to live and work in large part thanks to the quality of life and affordability benefits of Portland. My career is in building energy efficient schools and public buildings, so it is an important priority for me as I look for a new home. However, finding an energy efficient and affordable place in Portland has been rather challenging, especially given the housing stock on peninsula.

I jumped at the opportunity to join a group of friends to buy a unit in the proposed 128R North Street property. The camaraderie we share will help to enhance the community-based contributions of this project. Upright Frameworks has an established track record of quality craftsmanship and customer satisfaction, utilizing modern technology, smart design and energy efficiency. Josh and his team build quality structures with high standards that will help to ensure long-term value and in harmony with the neighborhood.

Thank you for your consideration.

With warm regards,



Pete

Future Resident of 128R North St.

Planning Board of the City of Portland Maine
C/O Shukria Wiar, Planner
Department of Planning and Urban Development
City Hall - 389 Congress St
Portland, ME 04101

10/30/2019

To the Honorable Members of the Portland Planning Board,

My name is Elizabeth Helming and I am writing in support of the proposed development at 128R North St.

The project furthers the goals outlined in the "Portland's Plan 2030" document, but more importantly, the proposed building will be a home for me. I have lived on Munjoy Hill for the last five and a half years. As a retired teacher, living on a fixed income, one of the most difficult challenges for me is figuring out how to keep my costs from increasing every year. To manage my rising rents, I have tried everything from subletting a room to taking on a part-time job. The super energy efficient, work force unit I will be purchasing is going to help me keep these costs under control.

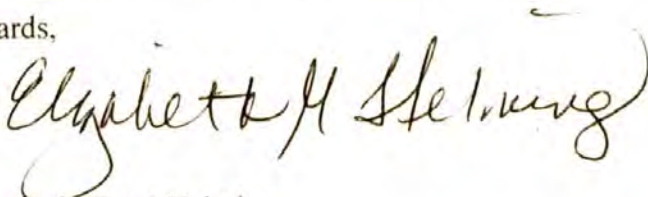
I love this neighborhood and I'm the kind of person who does her part to keep it sparkling. No matter where I've rented, I've always made a point of helping to keep the trash and recycling organized and I will confess that I'm also one of those people who will pick up a piece of trash on the sidewalk and find a trash can for it, if I'm out on a walk.

I intend to live in my unit full time. In addition to the predictable (and low) energy costs, I am excited about my new home for other reasons too. First – as I get older, it is increasingly difficult to shovel out my car after a snow storm and having a garage will be a game changer in that regard. The idea of being able to age in place is also super appealing and with a ground-level ADA accessible space, there are few scenarios in which I would not be comfortable in my new home. More than that, I genuinely like the other people who will live in the building. I do have family in the area, but knowing that I have neighbors in my actual building who I care about (and who care about me) is incredibly reassuring.

Finally – I know that when I move out of my current home, my apartment will be made available to others seeking an affordable, long term lease. And such space are extremely rare on the Hill.

Thank you for your consideration.

Regards,

A handwritten signature in black ink that reads "Elizabeth Helming". The signature is written in a cursive, flowing style.

Elizabeth (Bets) Helming
Resident of 126 North St. & Future Resident of 128R North St

Planning Board of the City of Portland Maine
 C/O Shukria Wiar, Planner
 Department of Planning and Urban Development
 City Hall
 389 Congress St
 Portland, ME 04101

To The Honorable Members of the Portland Planning Board,

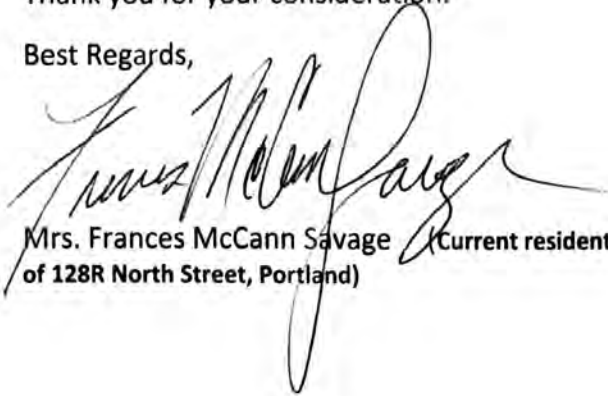
I am pleased to offer my support for the Redevelopment Plan at 128R North Street. My husband and I will both soon retire and want to purchase our "final" forever home in Portland. We have been renting an apartment on Munjoy Hill for the past two years in order to get a "feel" for what life would be like as home owners in this dynamic, multi-cultural Portland neighborhood. From the very first days of living here, I felt that I had found my "place". For the past two years, thanks to my daily walks to the area's museums, shops, restaurants, music and art venues, parks, and trails, I've developed friendships and relationships with the great people who live, work, and visit this neighborhood. These connections play a big part in why I now KNOW I need to live in this part of Portland. Being witness to how the City Council's and Planning Board's recent housing development decisions are guided by the Portland 2030 plan (A great plan that syncs with my beliefs about the necessity to address issues of climate change, sustainability, community connectedness, and fiscal responsibility!) gives me hope that this project will soon be approved, and we can purchase a home on Munjoy Hill. That "home" waits for us, our children, grandchildren, and friends, and happily, it's just a few blocks away at 128R North Street! Please help us get there by approving the development plan you have before you.

My story of finding magic on Munjoy Hill continues because of Upright Properties. The building they are proposing to build is PERFECT for us. As a retired teacher, I pay close attention to my budget and idea of a super energy-efficient home with low operating costs is very appealing. My husband and I intend to live in our unit full time. We are excited about the energy efficiency of the space, but also excited to have a home that that will allow us to grow older in a comfortable space. The building's garage and elevator will allow us to get around, no matter what the conditions outdoors. The unit itself is laid out in a way that allows for a wheelchair if that ever becomes necessary. I do have family in the area, but even a short drive can be daunting in the winter, so knowing that we will be living in a building which also houses friends eases worries about becoming isolated. An added bonus is the fact that a Greater Portland Metro (I use it often!) stop is just steps away from the building, as is East End Community School, where I hope to volunteer. My retirement from teaching became official on July 1, 2019 and I am happy to say that the volunteering opportunities I've taken part in have added much joy to my life. Also, as a gardener, I am super excited to take advantage of all of the green space that our property at 128R North Street will include. I can't wait to welcome bees, birds, and my little family of visiting grandSavages to a home I know will be built to the highest of standards and will provide a safe haven for our family for the next 20+ years.

Finally, I know that my landlord only rents to long term tenants, so my current apartment will be available to someone else who wants to live (rather than vacation) in the neighborhood. (Hopefully that "somebody" will be my daughter who wants to return to Maine from Brooklyn to raise her family here, near her sister, nephews, and parents. A mother can dream.....) I foresee only positive outcomes for my family and the residents of Munjoy Hill due to the construction of this amazingly beautiful building. I hope you agree. Please contact me if you have further questions.

Thank you for your consideration.

Best Regards,

A handwritten signature in black ink, appearing to read 'Frances McCann Savage', written over the printed name and address.

Mrs. Frances McCann Savage (Current resident on Lafayette Street, Portland and hopeful future resident of 128R North Street, Portland)

Planning Board of the City of Portland Maine
 C/O Shukria Wiar, Planner
 Department of Planning and Urban Development
 City Hall - 389 Congress St
 Portland, ME 04101

10/31/2019

To the Honorable Members of the Portland Planning Board,

Family. Community. Environmental Impact. These are my priorities as a new mother and a years-long resident of Portland, and they are the reasons I am writing to voice my support of the proposed development at 128R North St.

My name is Katharine Wojcik and I moved to Portland seven years ago to start a business and new life path more consistent with my personal values. In short time, I happily formed a network in the community and created a family of my own, and I continue to live in Portland as a working mother. With my design company, Adept Creative, I am able to offer work at lower costs to local nonprofits, and often provide pro bono work for a number of organizations in Portland. This work continues to be an important arm of my company; one that I am proud to offer to neighbors and friends in the city.

Portland was a gracious landing pad for me and I found this community to be open, collaborative and welcoming. As a business owner and community member I hope to extend this spirit through my work. I am disheartened to see this spirit diminished, by a vocal minority of my neighbors on the Hill who have chosen to spend their time attempting to block progressive building projects. I believe that everyone should have an opportunity to voice their opinion, but I do not agree with an ideology that seeks to halt forward progress. There is too much at stake.

As a mother, there is nothing more important to me than the safety and wellbeing of my child, future children - and every child for that matter. We need well-built homes that provide families with safe spaces free of lead, asbestos and fire hazards. We need buildings that offer affordable options for families of all income levels and that promote a communal atmosphere living side by side (this is a city, after all). We need, now more than ever, to prioritize cutting the energy waste, budgetary uncertainty and poor environmental impacts from older buildings.

This proposed building will be a year-round home for my family and a number of close friends who have become my "Maine family." Munjoy Hill is where I want to raise my children. My husband, Joshua Wojcik, and his project team have taken much time and measure to design a building that adheres to the City's building code and rules and is consistent with the City's 2030 Vision. We are not seeking to max out the number of allowable units of the amount of buildable space, but instead to build a home for our family and friends, together. We are maximizing the amount of green space on the property, doubling the 20% requirement to 40% green space. Our design is based on styles from surrounding neighborhood buildings and reflects our values of saving energy and conserving green space while maximizing the livable space on the property so as not to waste a large city lot.

I am looking forward to living in a building with a small carbon footprint, and my husband and I intend to teach our children what that will mean for the planet's future.

Thank you for your consideration.

Regards,

A handwritten signature in cursive script, reading "Katharine H. Wojcik". The signature is fluid and elegant, with the first name being the most prominent.

-Katharine Wojcik

Designer (and Future Resident) of 128R North St

**Meagan Sway & Sage Friedman
47 Lafayette Street # 2
Portland, Maine 04101**

Dear Portland Planning Board:

Our names are Sage Friedman and Meagan Sway, and we write in support of the proposed development at 128R North Street.

We are current residents of Munjoy Hill and have been renting there for most of the past decade. Sage is a new lawyer at a downtown law firm, and Meagan is a civil rights lawyer. Because of our life paths, owning a home on Munjoy Hill is nearly cost-prohibitive. The proposed development at 128R North Street, because it is an investment of pooled resources by a group of friends, is likely the only way we can afford to own a home in our neighborhood.

Living at 128R North would mean a great deal to us. We want to stay on Munjoy Hill. The building will be net-zero capable, which is increasingly important as we each try to do our part to keep climate change from getting worse. The property's location and under-building parking will enable us to reduce or even remove our impact on congested Hill parking.

Most importantly, it will enable us to stay close to our dear friends (Peter, Fran & Jim, and Bets) and our chosen family. Sage and Josh have known each other for 41 years. We babysit Josh and Katharine's daughter and have Sunday family dinners together most weeks. To us, this will not just be an attractive new building where we happen to have awesome neighbors, it will mean the solidification of deeply-rooted community.

We very much look forward to the next phase of our lives at 128R North Street and thank you for your time and consideration.

Sincerely,

Meagan Sway & Sage Friedman



Caitlin Cameron <ccameron@portlandmaine.gov>

The Problem with 128 North Street

1 message

Lindsay Steven Mann <lindsaymann@gmail.com>

Tue, Sep 10, 2019 at 12:19 PM

To: Lindsay Mann <lindsaymann@gmail.com>

Bcc: ccameron@portlandmaine.gov

Dear Council members,

My name is Lindsay Mann. My wife, Susan, and I bought 122 North Street on Munjoy Hill one year ago. We instantly fell in love with the old charm, the architectural details, and the back yard. We have two young children who will grow up here, attend the East End Community School, and be part of the fabric of this city.

We were notified in July that our house has been included in the Historical Preservation Board's recommended historic district. **However, we were also recently notified that a 4-story, 6-unit condo building will be built at 128 North Street, right in our back yard.**

We are surrounded on all four sides by construction that would not be included in the historic zone. We would literally be the only house on the block that is designated historical - an island of one house. I am opposed to the zone for myriad reasons, but it seems particularly unfair to cherry pick our house.

I am, however, **more** opposed to the scale and scope of the proposed condo building at 128 North Street. It's height and design is in stark contrast to the neighborhood aesthetic (especially my house, which the city deems historic). The developer claims the building "blends in with the surrounding character of the neighborhood" and is "hidden from the public right-of-way." This is completely false. The building will dwarf our house and others.

We are, quite literally, stuck in the middle. The city wants to control what I build on my property, what materials I use, and limit my options if I ever sell. Meanwhile, if they allow 128 North Street to go through as proposed, they are allowing a developer to demolish a late 1800's house (and part of the building next to it), block the sun with cheap modern materials, and add traffic to an overly busy school zone, all with complete disregard for the rich architectural design that makes Munjoy Hill unique.

You may have recently received an email from our neighbor, Josh Wojcik, the developer of 128 North Street (if not, I can forward it). In it, he claims: *"The district is unnecessary. Many who are pushing this are hoping that it will stop developers from buying and tearing down buildings to build giant condos for out of town buyers. This issue was already addressed by the Munjoy Hill overlay vote. The rules already put in place are more than adequate."* The fact is, **he is a developer. He is tearing down a building to build a giant condo.**

Wojcik misrepresents our overall feelings in that email. If it comes to this, we will have to choose the lesser of two evils and support a historic district. While I feel the historic district adversely effects those much less fortunate than my family, if the district (and it's 100 foot proximity rule) will prevent a monster 4-story building from blacking out what's left of the evening sky on North Street, then that's the position we will have to take.

Wojcik is right about one thing: we are not crazy. We are lovers of fine architecture. We are taxpaying citizens. We are young and energetic members of this diverse and vibrant community. We bought our house on North Street because it is the first place we ever felt at home. We plan to raise our kids here, cherish and preserve the beautiful architecture of the building, and never sell to a developer who would knock it down in order to build something new and awful. We are not opposed to progress. We are not opposed to new construction. We are opposed to being treated unfairly, and we are opposed to the scale and design of the proposed building at 128 North Street.

Please reach out to me if you are interested in hearing more.

Thank you for your time and consideration,

Lindsay & Susan Mann
122 North Street
(207) 613-4066

To Portland Planning Board

From Deborah Cole

Re: PL-000791-2019- Condo development proposal for 128R North St

I have been a resident of Walnut Street on Munjoy Hill for over 40 years and have seen major growth and change in our neighborhood. I purchased my home at 71 Walnut St in 1980 and am probably the longest living neighbor in the vicinity of this condo proposal. Our Munjoy Hill neighborhood has thrived and grown in popularity over the years with its unique character and vibrancy. Munjoy Hill is now the number one neighborhood in popularity city wide.

Our small triangle of Munjoy Hill, bordered by Walnut Street, North Street, the East End School, the community gardens and Mount Joy Orchard has already absorbed more than its fair share of infill housing including Island View Apartments developed by Roger Gendron and Munjoy Heights developed by Jonathan Culley.

This proposed project would be overkill. It is out of scale with the neighborhood and does not harmonize with the surrounding streetscape. It would monopolize an already non conforming backyard that originally housed a small cape cod style one family home.

We run the risk of destroying the very cache which Munjoy Hill now enjoys if the city allows infill development to run amuck. This project would be an unfortunate tipping point for our neighborhood and should not be built.

For me personally, when looking west from my home, from my garden, or from my orchard, I would only see "Wojcik Heights" squeezed in and towering above my single family home. Please do not approve this project.

Thank you,

Deborah Cole

71 Walnut St

dcole1030@gmail.com

207 754 3859

Google Groups

PL-000791-2019

Peter Pitegoff <ppitegoff@gmail.com>

Jan 23, 2020 5:13 PM

Posted in group: **Planning Board**

Dear Members of the Planning Board:

As Munjoy Hill residents, we express our continuing alarm regarding recent demolition of a single family home in a rear lot (128R North Street) adjacent to our home, with the developer's intention to replace it with a large 4-story, 6-unit condominium building. We are further troubled by the developer's plan to demolish a second building, an existing 4-unit building at 126 North Street (in front of 128R), and to construct a new 5-unit building in its place. The developer submitted the 126 North Street plan as a revision of a previous site plan at 128R North Street -- Plan Number PL-000791-2019. This letter presents several specific concerns that supplement questions we have raised previously.

The proposed building at 128R is very close to the 15 foot high retaining wall behind Munjoy Heights, with a steep slope between the new building, the retaining wall, and the Munjoy Heights buildings immediately to the rear of 128R. The Munjoy Heights Condominium Association holds a 10 foot wide sloped easement on the 128R property to enable access, with "...equipment, including heavy equipment, to maintain, repair, shore-up and replace a retaining wall between the adjacent properties...." It appears that the expanded and expansive footprint of the new structure would limit and possibly preclude such necessary access to the easement area for maintenance of the retaining wall.

We also learned at a recent neighborhood meeting with the developer that the proximity of the new building to the retaining wall precludes the planting of trees or plants with a deep root system behind the building, as they would compromise the integrity of the retaining wall. The first story of the new structure immediately behind Munjoy Heights will be an open covered parking area for six cars, extending to the rear end of the building. This will result in intrusive car exhaust fumes immediately outside our and our neighbors' kitchen, bathroom, and bedroom windows and is likely to invade our air circulation systems. The plan is to build a 2 1/2 foot high knee wall at the rear of the first-floor parking area, with some sort of mesh screen above the partial wall. We have urged the developer to enclose the parking area, or at least to build a higher rear wall, and to provide for landscaping behind the building. Aside from the possibility of vines above the partial wall, the developer suggested that landscaping in the back will consist only of grasses planted behind the building.

The developer's rationale for demolishing the 126 North Street building is in part to widen the narrow driveway to 128R North, now squeezed between two buildings, in order to meet fire code standards for a 16 foot wide driveway and enable access by emergency vehicles. We are troubled by the developer's intention to begin construction of the rear building *before* widening the driveway, heightening risk to neighboring homes behind and adjacent to the proposed rear building during the construction period. The developer estimated that the construction period for the 128R structure will be roughly twelve months. Throughout that period, the current narrow 11 1/2 foot wide driveway will remain in place, as the 126 North Street building remains standing, which would impede access for fire engines if required on the construction site.

These properties are within the Munjoy Hill Neighborhood Conservation Overlay District and immediately adjacent to the prospective Munjoy Hill Historic District. As we and other neighbors have noted previously, these proposed developments are out of scale and character with nearby North Street homes and are ill-advised. The proposed building at 128R North Street expands way beyond the footprint of the demolished home on the site, it strains the setback requirements on all sides, and it towers four stories above the top of the 15-foot high retaining wall that sits behind it. We urge the Planning Board to

insist upon a new site plan that is smaller in scale and that reflects a high degree of architectural integrity and compatibility with the surrounding Munjoy Hill neighborhood.

Thank you for your consideration.

Ann Casady & Peter Pitegoff
205 Sheridan Street
Portland, Maine

Google Groups

128R and 126 North St

Vana Carmona <vanacarmona@gmail.com>

Jan 24, 2020 9:46 AM

Posted in group: **Planning Board**

In addition to all the other demos taking place on Munjoy Hill, we are again concerned about yet another. This will be the third one within a block from our home in the last few months.

The house at 128R North was torn down in November. At about the same time, the neighbors received notices that 126 North was also going to be scheduled for demolition.

This was deemed necessary so that the 128R project could be completed.

As neighbors—who do not want any of these enormous mass-and-scale projects on the Hill—we have to ask: why were the developers given permission to tear down a house for a project that was not even approved?

If the 128R depended on the destruction of 126, why was that plan not included and the demo halted?

I did attend a workshop at Root Cellar last fall about the 128R project and no mention was made at all about 126. Yet, the developers certainly knew at the time that they would have to address the issue of access and the building at 126.

That meeting, by the way, was attended by many abutters who were angry that the developers had not been clear with them about their intentions.

I suspected at the time that 126 was doomed and shared that thought with several people in the days following the workshop.

When we received the notification, we were surprised only that we were getting it sooner rather than later.

As you know from the recent workshops, the residents of the Hill are alarmed at these types of projects. You need to listen to us before it is too late.

The 128R project is designed as a multi-family 5 story condo, towering 8 feet from a (hopefully) future historic district. It is already too big for the neighborhood in general, and certainly too large for its location abutting much smaller residences.

I also want to point out that, after the workshop in the Fall and prior the demolition of 128R, I took the images of the proposed project showing how it would ultimately look from North St. I went to the locations and tried to compare these renderings to the buildings currently there. The mock-up were entirely misleading! The perspective that was used was incorrect and in reality, the new building will tower over the buildings along the street.

These projects are suffering from the same problems that are being created with many other projects on the Hill. They are just too big!!!

Please reconsider what you are planning to approve on these. Please encourage these developers of 128R and 126 to come up with a new plan that better serves our neighborhood.

Thank you.
Vana Carmona

Google Groups

126/128R North Street

Lindsay Steven Mann <lindsaymann@gmail.com>

Jan 24, 2020 11:22 AM

Posted in group: **Planning Board**

To the Planning Board Members concerning project PL-000791-2019.

My name is Lindsay Mann. My wife, Susan, and I bought 122 North Street on Munjoy Hill in July of 2018. We have two young children who will grow up here. Our daughter will attend the East End School in the fall.

We fell in love with the spirit of this house - the architecture, the character, the beautiful back yard. The yard looks onto the lot at 128R North, which is set back from the street and sandwiched in between many different buildings. It was previously home to a single family residence. It is simply too small to absorb a building of the size proposed. There is an easement between 126 and 128 North Street that allows access to the building at 128R. The driveway is not wide enough for a 6-unit building. There is an easement for the Munjoy Heights retaining wall on this property that allows maintenance for that wall. These are all signs that the proposed building is too large for the lot. The solution, however, is not to demolish another 4-unit apartment building (126) and replace it with a structure nearly equal in height to 128R. This does not hide the scale and massing of the rear building, it only adds to the enormity of the project.

Our 1890's house is one the city deems historic: "a remarkable example of the Second Empire style on Munjoy Hill, retaining a significant amount of defining ornamentation and stylistic features." If the city wants to protect the charm of Munjoy Hill that makes it a popular destination, then it should not allow new construction to dwarf and diminish that very charm. For the most historically significant building on the block, it is very noticeable how little our house has been included in the developer's drawings and documents. At the neighborhood meeting, we asked for renderings from our point of view - those were not provided. We asked if the building could be shifted towards Bayview Heights so the setback to a single family back yard was greater than it is to a parking lot - we were told that isn't possible due to the building's footprint. The developer has used renderings from very specific locations to claim the building will be hidden from the public way. This simply is not true. Overhead site plans and drawings are one thing, but the real impact on our neighborhood, our lives, and our back yard is impossible to overstate. In the attached PDF, you will find images that much more accurately reflect the sheer size of the building, they are temporary, but will give you a much more accurate sense of the scale of this building.

Density should not mean suffocation. We support smart growth, we support affordable housing, we support protection of open spaces, and preservation of this city's history and architecture. But we do not support this project. It is incompatible with the neighborhood and threatens to divide this community. The people surrounding this project have spoken clearly: this building does not belong.

Lindsay Mann
122 North Street

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LINDSAY STEVEN MANN
Director / Cinematographer
office: (347) 640-4488
mobile: (207) 613-4066
www.beechwoodfilm.com





drone @ 38 ft.

ELEVATOR
OVERHANG
TO
UNDERLINE OF
ROOF BEAM

Roof
30-10

44-6"





drone @ 38 ft.

drone @ 45 ft

128R and 126 North Street development proposal

Leslie Hart <blesliehart@gmail.com>

Jan 24, 2020 10:22 AM

Posted in group: **Planning Board**

I am writing to express my concerns regarding these proposed developments. They are unacceptable under the R-6 Design Standards which require new construction to maintain the existing character of a neighborhood including scale.

The proposed developments are much too large and will overwhelm the neighborhood. They should be reduced in size, mass and scale.

Thank you

Leslie Hart
215 Sheridan Street

Sent from my iPhone

Google Groups

128R and 126 North Street Development Proposal

Kevin Schochat <kevin@kevinschochat.com>

Jan 24, 2020 11:49 AM

Posted in group: **Planning Board**

To Whom It May Concern,

I am writing to let you know my concerns in regards to the above referenced proposed developments. They are totally unacceptable under the R-6 Design Standards which require new construction to maintain the existing character of a neighborhood including scale.

These proposed developments are much too large and will overwhelm the neighborhood. They should be reduced in size, mass and scale.

I hope you will do the right thing and what is best for all the citizens of Portland.

All the best,

Kevin Schochat

P.S. Please note that this email was submitted before 12:00 noon today - 1/24/2020

Kevin Schochat
215 Sheridan Street
Portland, Maine 04101

T: 917.597.4154

Google Groups

128R and 126 North Street-Opposite Letter

Tracy Davis <tdavis@urban-dwell.com>

Jan 24, 2020 11:54 AM

Posted in group: **Planning Board**

To whom it may concern:

We, Tracy Davis and Michael Kennedy in residence at 201 Sheridan Street, are in staunch opposition to the proposed housing development suggested for 128R and 126 North Street.

Mr. Josh Wojcik, wholly and intentionally mislead neighbors when proposing that he was “building a home for his family”. What was presented was not a single family home but rather a monolithic four story multiplex box, inclusive of open, above ground open air parking. The proposed design of this property would tower over neighboring buildings, punctuate North Street from lower elevations and highway views, and will negatively impact the neighboring Historic Residence.

As residents of Munjoy Heights, our concerns are how this proposal negatively and physically impacts our property and neighborhood, our right to privacy, and the evolving Historic R7 District.

This development has already permitted the demolition and removal of a small single family home, a short of neighborhood inventory. Mr. Wojcik purposefully let the residence at 128R fall into ruin over a period of 12 months after evicting his tenants, turning off the heat, and opening the buildings windows inviting the mix of seasonal elements, only later to claim that the building was irreparable and condemned as a result. A strategic piece of his manipulation to deceive abutters as he ramped up to execute a plan that has now gone from “building a home for his family” to a multiplex, now doubled in size that occupies TWO existing lots, since he conducted the first neighborhood meeting.

Throughout the process, Mr. Wojcik has claimed that he does not have money to complete the project as illustrated in his first neighborhood meeting (a single multiplex). He has publicly stated, once the building was complete, landscape would happen as he could afford. Mr. Wojcik repeatedly commented that he did not have the funds for redesign.

Suddenly, Mr. Wojcik has fiscally committed not only to the redesign the original building but has added ANOTHER building to his proposal. This amended proposal will demolish a SECOND existing building, to affect and effect his goal of an income stream (to provide a college fund for his children-yes he actually said this). Adding this building also provided him the ability to add width between two buildings (126 which Mr. Wojcik currently owns and the neighboring residence that he does not own) for Emergency Equipment, but still falls short of what is required by current code.

Concerns/Impact:

1. Fiscally responsible to complete in whole
2. Air quality and impact

3. Snow removal
4. Proximity
5. Rainwater run off
6. Erosion of the retaining wall
7. Fire
8. Meeting requirements for emergency equipment
9. Greenspace
10. Light Pollution
11. Impact on R7
12. Parking requirements for additional units at 128

As the City of Portland evolves, Planners need to consider cause and effect. The need to preserve the character of our neighborhoods must be in collaboration with progress. The impact of change is a constant. We ask the board to consider our concerns as they process Mr. Wojcik's request to built an income producing multiplex in this small multicultural, mixed income neighborhood.

Respectfully submitted,

Tracy Davis and Michael Kennedy



DISCLAIMER:

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Google Groups

128R and 126 North Street Planning Board workshop

David Machesney <dmachesney@prattabbott.com>

Jan 24, 2020 12:05 PM

Posted in group: **Planning Board**

To the Planning Board:

As an abutter to the proposed project I am concerned with the size and scope of this project. I feel the size and scope is not in line with the R-6 design standards and I am concerned with the scale and massing and architectural compatibility that is not compatible with the neighborhood.

Sincerely

David Machesney

213 Sheridan Street

Portland, Maine 04101

Google Groups

128 R and 126 North Street

Richard Marino <marino04102@yahoo.com>

Jan 28, 2020 1:57 PM

Posted in group: **Planning Board**

Good Afternoon,

I am writing in support to my neighbors' opposition to the plans for the North Street project. I would stress that there should be no relaxation in the interpretation of zoning rules and design. The buildings overwhelm the site to the detriment of all abutters.

Respectfully

Richard Marino
226 Sheridan St.
Portland

Sent from my iPad

FEDERLE LAW

--Sent Electronically--

February 10, 2020

Ann Machado, Zoning Coordinator

Shukria Wair, Planning Staff

Brandon Mazer, Planning Board Chair

**RE: Level III Site Plan/Subdivision Application
128R North Street/ 126 North Street**

Dear Ann, Shukria and Brandon:

At the January 28, 2019 workshop on the above matter there were several questions raised about the proposed development. I am writing now on behalf of the owners of 122 North Street to outline for you several fundamental ways in which I believe that the project fails to comply with Portland's Land Use Ordinance. Some of the shortcomings are so fundamental, like failure to adhere to basic setback requirements, that they are fatal. Note that this letter does not include all arguments in opposition to this proposed project but outlines several of its more glaring failures.

I. The foundation of the proposed structure at 128R North Street encroaches into required Rear Yard setbacks.

The proposed Master Site Plan (**Drawing C-10 attached**) shows a proposed concrete wall located about 2' from the property line in the south rear corner of the site and 10' from the property line for most of the rest of it. The proposed First Floor Plan (**Drawing A-1.1 attached**) notes that the concrete wall is exposed a foot and a half above the asphalt parking area and shows six posts set in the concrete wall to support the structure above. The posts are also depicted in the attached rendering but are depicted as hovering off the ground instead of showing the concrete foundation wall supporting them (**Rendering A-5.2 labeled "Hovering Posts" attached**).

Portland's Land Use Ordinance defines a foundation as follows: "The supporting substructure of a building or other structure, excluding wooden sills and post supports, but including basements, slabs, frost walls, or other base consisting of concrete, block, brick or

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similar material.” See **LUO at §14-47**. What is being proposed is a supporting substructure wall made of concrete. Inarguably, a structure’s concrete foundation wall is required to meet setback requirements.

The dimensional requirements of the R-6 Zone, as modified by the Munjoy Hill Neighborhood Conservation Overlay District, requires that a building over 35’ in height must maintain a 15’ Rear Yard Setback. See **LUO at §14-140.5**. That setback can be relaxed to 7.5’ for “rear decks, porches, or similar unenclosed space.” **LUO at §14-140.5**. The concrete foundation wall is not a “rear deck, porch, or similar unenclosed space.” The foundation wall is itself a structure that needs to meet the 15’ setback (as well as the 10’ Sideyard Setback).

Planning Board member Sean Dundon asked the question at the Planning Board workshop “why not enclose the parking garage?” It is by leaving the parking garage unenclosed that the developer is trying to take advantage of the relaxation of the Rear Yard Setback requirement that is available for decks, porches or “similar unenclosed space.” A parking garage is not similar to a deck or a porch and is not made similar by leaving it partially exposed. Had the City intended to allow parking garages to encroach into the setback, it would have said so. To cram a parking garage into a narrow exception that expressly refers only to decks and porches, would allow for the unreasonable exploitation of the zoning language that would be replicated by almost every developer in the Munjoy Hill Neighborhood Conservation District. Both the foundation wall and the parking garage are impermissibly encroaching into the required setback.

II. The proposed structure at 128R North Street encroaches into required Side Yard setbacks.

The proposed structure at 128R North Street is located 8.56’ from the single family residential property to its south (122 North Street). A 10’ Minimum Side Yard Setback is required in the R-6 Zone as modified by the Munjoy Hill Neighborhood Conservation Overlay for a building over 35’. This setback can be relaxed down to 5’ “when used to continue a documented built pattern of the surrounding streetscape.” 128R North Street is a rear lot not located on, nor contributing to, North Street or any other streetscape. There is no documented pattern of rear lot development that skews closer to one sideline versus the other.

In a one page summary at Section T of the developer’s Site Plan/Subdivision application dated August 2, 2019 and revised October 29, 2019, the developer points to 4 street facing homes to argue for a relaxation of the side yard setback for a rear-lot development. No documentation of a rear lot built pattern was provided. Incorrectly, the summary states that “the wider setback was also positioned in our project to provide a larger buffer to the single-family houses on the South side of our project.” (**Section T attached**). Just the opposite is true: the developer is proposing a narrower setback with the single family home

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immediately to its South—it is this setback line that it is seeking to reduce from 10' to 8.56'. Importantly, the single family home to the South is a historic home that the City recently determined was so worthy of inclusion in the proposed Munjoy Hill Historic District that the proposed District was extended beyond Walnut Street for the purpose of capturing, and presumably protecting, this historic asset. It is from this very house that the developer is seeking to reduce the setback. In short, the proposed development fails to comply with the minimum side yard setback.

III. The proposed structure at 128R North Street encroaches into a maintenance easement owned by the residents of Munjoy Heights and no permission has been given to the developer to protrude into the easement.

The owners of the units at Munjoy Heights are the owners and beneficiaries of a 10' wide easement on the property located at 128R North Street. This easement right provides the Munjoy Heights owners with rights to enter upon the easement area "with men and equipment, including heavy equipment, to maintain, repair, shore up and replace a retaining wall between the adjacent properties of [Munjoy Heights and 128R North Street.] **See Easement Attached.** Upright Properties, LLC, the owner of 128R North Street did not retain or reserve any rights to construct a building that protrudes into the 10' wide easement area. Such right would need to be granted by the holders of the easement (the owners of the units at Munjoy Heights) and such request has neither been made nor granted.

Beginning at about 8' off the ground, the second, third, and fourth floor decks protrude into the maintenance easement such that it is narrowed down to 7.61' wide rather than the 10' wide as granted. **See the attached Drawing A-1.1 and Master Plan C-10 with area of protruding decks circled.** Given the size and the significance of the retaining wall separating 128R North Street and the Munjoy Heights development, Upright Properties, LLC does not have the right unilaterally to narrow the maintenance easement and thereby constrain the maneuverability of heavy equipment as contemplated by the easement. As such, the applicant is proposing a development that exceeds the developer's rights to the property.

IV. The proposed development does not meet dimensional requirements for a fire access lane (access lane needs to be sufficient during construction or surrounding properties are at risk).

There was much confusion at the Planning Board Workshop, and inconsistency in the Planning Staff Report, relating to the proposed phasing of the project generally and the timing of the proposed demolition of 126 North Street in particular. Without a condition

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that demolition of 126 North Street must precede the issuance of a building permit for 128R North Street, there is a wholly inadequate fire access lane for response to a fire at 128R during construction.

Even if demolition of 126 North Street does occur, the proposed fire access is a vehicular lane serving 128R that is still only 11.42' wide. The developer is seeking a maximum waiver down to 16' and only getting to that if the City agrees to include in the 16' an almost 5' wide proposed pedestrian sidewalk. Only by combining the two can the developer achieve a width that, in turn, requires the Planning Board to grant an access lane width waiver to the greatest extent of the Planning Board's waiver authority.

V. The 128R parking garage cannot accommodate proposed parking.

Space #4 as presented fails to meet requirements even for compact car parking. Moreover, most spaces fail when the building is properly situated to comply with setback requirements. Finally, the developer is requesting an aggressive waiver allowing for 67% of the spaces to be designated as compact spaces vs. the 20% allowed.

VI. Drive aisle south of 126 is only 13.91 feet wide.

The City Engineer reported that the drive aisle proposed to serve two new parking spaces on 126 North Street struggles with "Auto-Turn runs" because of the narrow drive and tight turning radius to enter the garage. **See Comments of City Senior Engineer attached.** The City Engineer concluded that this would require driving into or out of the driveway and garage in reverse.

The developer would like for the Planning Board to assume that the tenants in 126 North Street will drive small vehicles when that assumption cannot be made. The developer suggested that condominium documents could address the size of vehicles allowed in the garage at 128R but there will be no condominium documents governing 126 North which is proposed as a for-rent apartment building.

The City Engineer concluded that even with small vehicles, pulling in and out of parking would be "very difficult." This does not form the basis for supporting the request for a waiver of the drive aisle width.

VII. The proposed project makes no real provision for snow removal.

What little snow storage is shown is insufficient for a Portland winter and the snow storage area overlaps with landscaped areas, which, in turn, overlaps with the proposed location of utilities.

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VIII. The proposed project fails to comply with the Design Manual.

The design review analysis finds several standards not satisfied.

The design review analysis fails to take into consideration, or acknowledge, that this development abuts a proposed Historic District and recommended by the Historic Preservation Commission for approval.

The design review analysis fails to take into consideration, or acknowledge, that this project abuts a building deemed a contributing building to the character that warrants the establishment of the Historic District.

If this is one cohesive project, there should be one comprehensive design review, not two separate, distinct reviews. Notably, the Design Review Team concluded that the mass and scale of the building at 128R will be mitigated by keeping setbacks or a buffer. However, as proposed, the setbacks are not being kept.

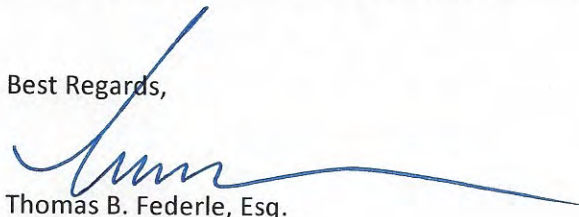
Finally, the Design Review Team concluded that the building scale and form is larger and more complex than those found in the neighborhood context but concludes that it is "related enough to the context to mitigate scale and complexity.... especially given its....being behind other residential buildings." If this is not one project, then 128R must be reviewed as though 126 North Street never gets constructed. If 126 North Street does not get constructed then the majority of the mass of 128R will not be behind a residential building.

IX. The developer has not demonstrated the Financial Capacity to build an 11 unit project vs. the 6 unit as originally proposed.

The developer's financial capacity letter submitted addresses only construction of the 6 unit project on 128R. A subsequent letter from Bangor Savings Bank suggests that the project at 126 North Street remains speculative. The bank concludes that "[w]e are looking forward to more substantive conversations as this project materializes." I guess, in closing, I would offer that so are we.

Thank you for your time in analyzing these zoning problems with the application before the City.

Best Regards,



Thomas B. Federle, Esq.

Master Plan C-10

Foundation wall

2nd, 3rd, 4th floor decks

N/F
Radford & Hester, LLC

10' RETAINING WALL MAINTENANCE EASEMENT ALONG REAR PL. BRK 32237 PG 104

PROPOSED CAST IN PLACE RETAINING WALL WITH SAFETY RAIL REFER TO GEOTECHNICAL AND STRUCTURAL PLANS

13 LF PROPOSED VERTICAL GRANITE CURB

PROPOSED COLUMN PER ARCHITECT AND STRUCTURAL ENGINEER, TYP.

DECK ABOVE TYP.

STRUCTURE SETBACK, TYP.

PROPOSED PROPERTY LINE SEE NOTE 3

PROPOSED PROPERTY PIN, TYP.

LANDSCAPING PER SHEET L-1

SNOW STORAGE

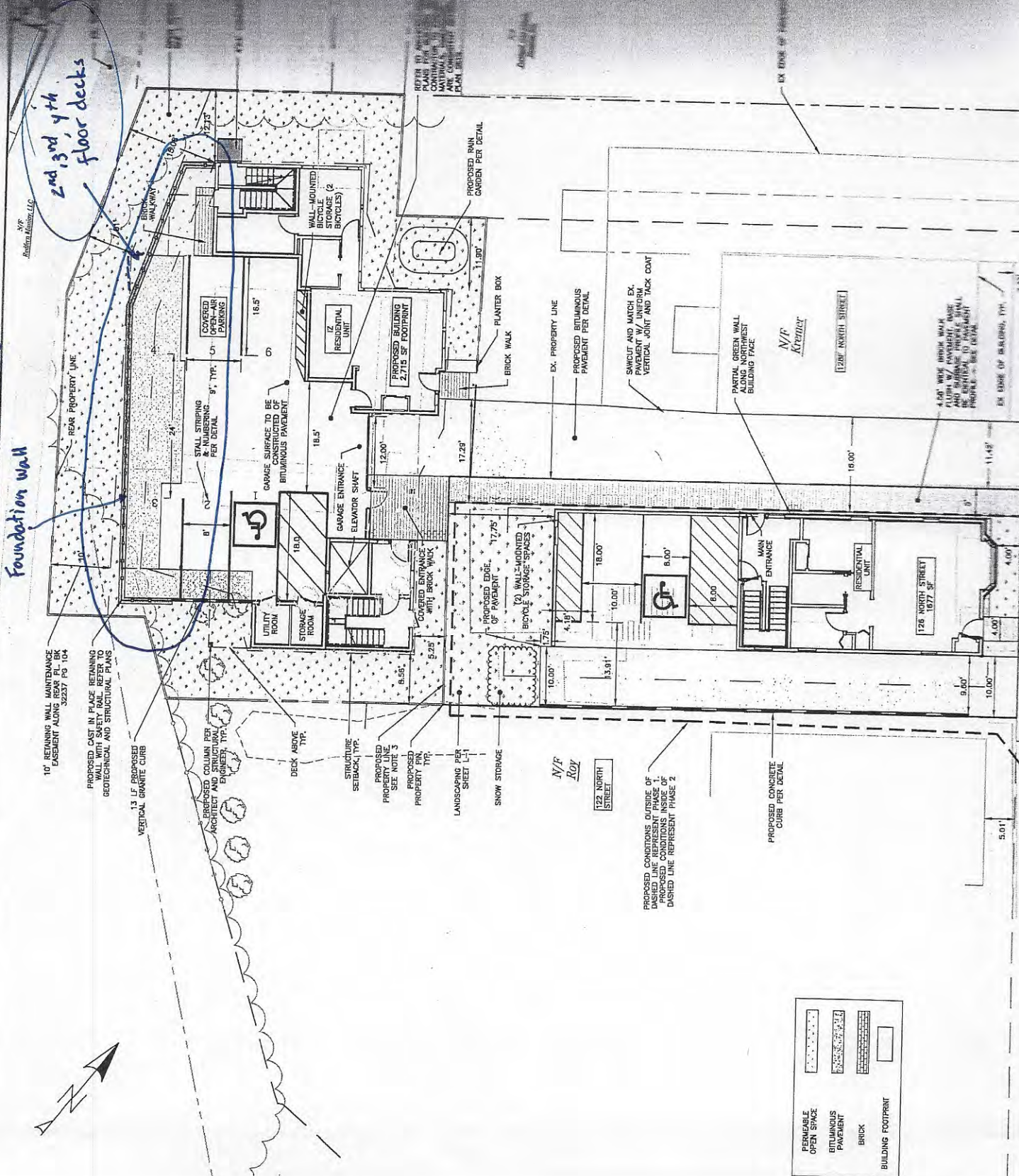
N/F
Roy

122 NORTH STREET

PROPOSED CONDITIONS OUTSIDE OF DASHED LINE REPRESENT PHASE 1. DASHED LINE REPRESENT PHASE 2.

PROPOSED CONCRETE CURB PER DETAIL

	PERMEABLE OPEN SPACE
	BITUMINOUS PAVEMENT
	BRICK
	BUILDING FOOTPRINT



This architectural site plan illustrates a residential development layout. The plan includes several key features and handwritten annotations:

- Handwritten Annotations:**
 - Supporting Posts*: A note with arrows pointing to circular markers along the parking area's edge.
 - Deck above on 2nd, 3rd & 4th floors.*: A note with an arrow pointing to a specific area in the parking lot.
- Parking Area:**
 - Contains six car stalls, three of which are labeled #3, #4, and #5.
 - Includes a designated **ADA #1** accessible parking space.
 - Adjacent to the stalls is an **ADA LOADING** zone.
- Building Footprint:**
 - The main building includes a **Garage House Elevator** and a **Workforce Housing Unit** (1 Bedroom, 1 Bath, 672 SF).
 - Other labeled areas include **2nd Floor Access**, **Basement Access**, and a **12'0" Wide Sl. External Overhead Door**.
- Technical Details:**
 - Notes specify: **Decorative Metal Trellis as Guard. Note Reinforced Wall @ Edge of Parking to Extend 12" Above Asphalt** and **Edge of Building Area (Parking Extends Beyond)**.
 - Dimensions for the parking stalls are given as **12'0" x 20'0"**.

EDGE OF ROOF EXTENSION
BEYOND BUILDING

EDGE OF BUILDING ABOVE
(PARKING EXTENDS BEYOND)

DECORATIVE METAL TRELLIS AS GUARD. NOTE
REINFORCED WALL @ EDGE OF PARKING TO
EXTEND 18" ABOVE ASPHALT

Deck above on
2nd, 3rd & 4th floors.



22ND FLOOR
FOR FOUR
E CO-UNIT

BASEMENT ACCESS

ADA #1

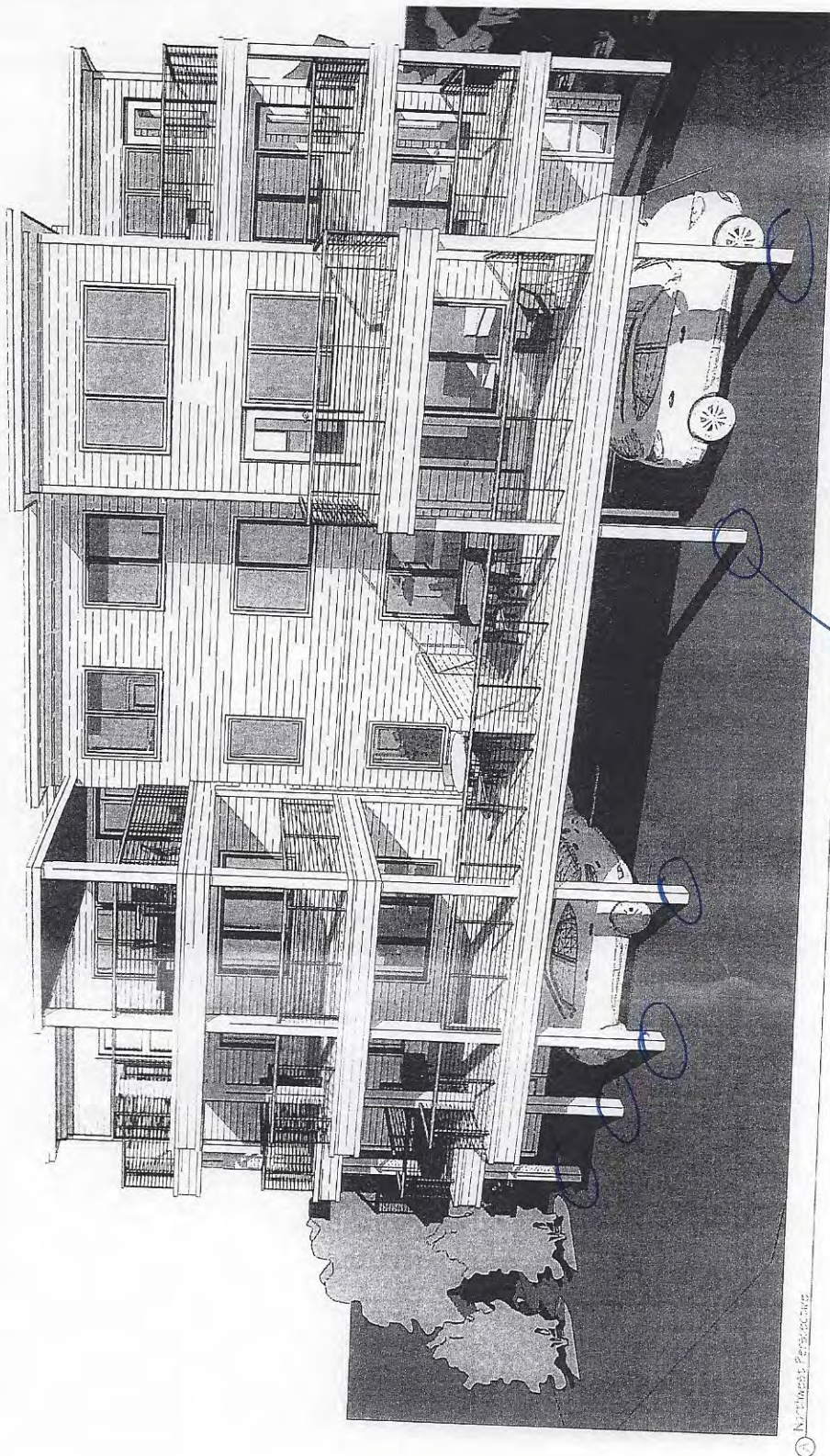
270000

12'-0" WIDE SECTIONAL OVERHEAD DOOR

WORKFORCE HOUSING UNIT
1 BEDROOM, 1 BATH
679 CE

2000 POLYMER

Hovering Posts



Foundation wall not shown

Site Plan App. 3T



December 23, 2019

Re: Side setback 128R North Street

Buildings in the vicinity of 126 and 128R North Street feature side setbacks that predominantly are shifted towards one side. The proposed building at 128R North features a setback that is 8.56' on one side and 12.13' on the opposite side providing the required 20'-0" cumulative setback required.

The pattern supports vehicular traffic and off-street parking, which our projects do as well. The wider setback was also positioned in our project to provide a larger buffer to the single-family houses on the South side of our project.

(Review)

Neighborhood examples of this development pattern include:

- 1) 116 North Street: approximate 5'-0" setback on one side and 15'-0"* on the opposite (facing Walnut Street).
- 2) 104 North Street: approximately 4'-6" setback on one side and 12'-0" on the opposite
- 3) 91 Walnut Street: approximately 3'-0" setback on one side and 9'-0" on the opposite
- 4) 94 Walnut Street: approximately 13'-0" setback on one side and 17'-0" on the opposite

All setbacks are in feet



City of Portland GIS Map of Neighborhood (128R North is outlined in blue)

*Setbacks are estimated using the 'measuring tape' tool in the Portland GIS database with satellite image and parcel boundaries as underlays. For visual clarity the satellite image was not used on the map above.

EXHIBIT A

RELEASE AND EASEMENT AGREEMENT

This Release and Easement Agreement (the "Agreement") is by and between **REDFERN MUNJOY, LLC**, a Maine limited liability company ("Redfern"), with a place of business in Portland, Maine and a mailing address of PO Box 8816, Portland, Maine 04104, owner of premises (the "Redfern Land") described in deeds recorded in the Cumberland County Registry of Deeds set forth on Exhibit A attached hereto and made a part hereof, and **UPRIGHT PROPERTIES, LLC** ("Upright"), a Maine limited liability company with a mailing address of PO Box 833, Wilton, Maine 04294, owner of premises (the "Upright Parcel") conveyed by corrective deed from Redfern dated January 31, 2014 and recorded in said Registry in Book 31318, Page 270 (the "Upright Deed").

Whereas, in the Upright Deed, Redfern reserved Easement Rights in the Easement Area, all as defined and more fully described therein, which Easement Rights are for the benefit of portions of the Redfern Land that Redfern is developing as residential condominium/subdivision ("Munjoy Heights").

Whereas, the conditions of the Easement Area requires modifications that were not anticipated at the time the Upright Deed was delivered.

Whereas, Upright and Redfern desire to amend the Easement Rights and reduce the square footage of the Easement Area and to clarify their respective ownership rights and easement rights.

Now Therefore, Redfern and Upright, for one dollar and other sufficient consideration paid and received including the grants and covenants hereinafter set forth, do hereby make the following grants of real property interests and agreements, which agreements are intended to run with the land that is Munjoy Heights and the Upright Parcel:

1. Redfern releases to Upright all interest in the easterly portion of the Easement Area, being a strip of land ten (10) feet wide more particularly bounded and described as follows:

Commencing at a #5 steel rebar with survey cap #2124 to be set at the southerly corner of the Upright Parcel;

Thence N 52° 38' 46" E along the Redfern Land, a distance of ten and one one-hundredth (10.01) feet to the southerly corner of the land to be released from the Easement Area and the Point of Beginning;

Thence from said Point of Beginning N 52° 38' 46" E along the Redfern Land and land conveyed to Peter J. DeTroy, III and Mary Roy by corrective deed dated January 31, 2014 and recorded in the Cumberland County Registry of Deeds in Book 31318, Page 267, a distance of ten and one hundredth (10.01) feet;

Thence N 35° 18' 27" W through the Upright Parcel, a distance of forty-nine and sixty-nine hundredths (49.69) feet;

Thence N 17° 29' 52" W continuing through the Upright Parcel, a distance of forty and sixty-one hundredths (40.61) feet to the northwesterly line of the Upright Parcel at the Redfern Land;

Thence S 52° 38' 46" W along the Redfern Land a distance of ten and sixty-three hundredths (10.63) feet;

Thence S 17° 29' 52" E a distance of thirty-eight and fifty-seven hundredths (38.57) feet;

Thence S 35° 18' 27" E a distance of fifty-one and sixty-two hundredths (51.62) feet to the Point of Beginning.

Total area of the herein described parcel equals 902 square feet (0.02 acre). The bearings in this description are based on Grid North, MSPC NAD83, 1802 (West Zone).

2. The Revised Easement Area is a strip of land ten (10) feet wide, being more particularly bounded and described over the following portion of the property:

Beginning at a #5 steel rebar with survey cap #2124 to be set at the southerly corner of the Upright Parcel;

Thence N 52° 38' 46" E along the Redfern Land a distance of ten and one hundredth (10.01) feet to the southerly corner of the land to be released from the Easement Area;

Thence N 35° 18' 27" W along a line ten (10) feet easterly of the Redfern Land, a distance of fifty-one and sixty-two hundredths (51.62) feet;

Thence N 17° 29' 52" W along a line ten (10) feet easterly of the Redfern Land, a distance of thirty-eight and fifty-seven hundredths (38.57) feet to the northwesterly line of the Upright Parcel at the Redfern Land;

Thence S 52° 38' 46" W along the Redfern Land, a distance of ten and sixty-three hundredths (10.63) feet to a #5 steel rebar with survey cap #2124 to be set at the westerly corner of the Upright Parcel;

Thence S 17° 29' 52" E continuing along the Redfern Land, a distance of thirty-six and fifty-three hundredths (36.53) feet to a #5 steel rebar with survey cap #2124 to be set;

Thence S 35° 18' 27" E continuing along the Redfern Land, a distance of fifty-three and fifty-four hundredths (53.54') feet to the point of beginning.

Total area of the herein described parcel equals 901 square feet (0.02 acre). The bearings in this description are based on Grid North, MSPC NAD83, 1802 (West Zone).

3. The Easement Rights are hereby amended as follows and the description of the rights and obligations herein supersede and replace the Easement Rights reserved in the Upright Deed:

Upright grants to Redfern, its successors and assigns, the right and easement to enter upon the Revised Easement Area with at least 120 days of advance notice (except in the case of emergency) to the Grantee, its successors and assigns, with men and equipment, including heavy equipment, to maintain, repair, shore-up and replace a retaining wall between the adjacent properties of the Grantor and the Grantee (the "Revised Easement Rights"), provided that in the exercise of the Revised Easement Rights Grantor, its successor and assigns, shall (a) ensure all work is done properly and promptly; (b) ensure that no vehicles or construction equipment whatsoever are left overnight or otherwise stored within the Easement Area except when easement work is underway; (c) exercise best efforts to limit any inconvenience to the Grantee, its successors and assigns, or to any other lawful occupier of the Upright Parcel; (d) promptly and reasonably restore the Revised Easement Area to its former condition before the exercise of the Revised Easement Rights; and (e) defend and indemnify the Grantee, its successors and assign, of and from all losses, damages and expenses arising from the exercise of the Revised Easement Rights, including all losses, damages and expenses (including death) arising from the exercise of the Revised Easement Rights for which any third parties seek to hold the Grantee, its successors and assigns, liable.

4. The terms of this Agreement, including all obligations and rights of the parties hereto, are intended to run with ownership of the Upright Parcel and the Redfern Land (the "Affected Lands"). The acceptance of a deed or mortgage to any portion of the Affected Lands, or the entering into a lease or other occupancy of any such portion shall constitute an agreement that the covenants and restrictions set forth in this Agreement are accepted and ratified by such grantee, mortgagee, tenant, or occupant. All of such provisions shall be covenants running with the land and shall bind any persons having at any time any

interest or estate in the Affected Lands or any portion thereof as though such provisions were recited and stipulated at length in each and every deed, conveyance, mortgage or lease thereof.

5. Each owner of all or any portion of the Affected Lands and its heirs, successors and assigns shall be liable for the performance of all covenants, obligations and undertakings set forth in this Agreement, but only to the extent such covenants, obligations or undertakings accrue during the period in which such party owns the affected lands or any portion thereof.
6. Invalidation of any of the provisions contained in this Agreement, or of the application thereof to any person by judgment or court order shall in no way affect any of the other provisions hereof or the application thereof to any other person and the same shall remain in full force and effect.

(Signature Pages follow this page)

IN WITNESS WHEREOF, the said Redfern Munjoy, LLC has caused this instrument to be executed by Jonathan Culley, its Manager, hereunto duly authorized, as of the 30th day of April, 2015.

Redfern Munjoy, LLC, a Maine limited liability company

Witness: Mary Lea Clifford

By:



Jonathan Culley
Its Manager

STATE OF MAINE
COUNTY OF CUMBERLAND

4/30, 2015

Then personally appeared Jonathan Culley, Manager of Redfern Munjoy, LLC, and acknowledged the foregoing instrument to be his free act in his said capacity and the free act and deed of the limited liability company.

Before me,

Mary Lea Clifford
Notary Public/Attorney at Law

MARY LEA CLIFFORD
Notary Public, Maine
My Commission Expires February 5, 2016

SEAL

IN WITNESS WHEREOF, the said Upright Properties, LLC has caused this instrument to be executed by Joshua Wojcik, its Manager, hereunto duly authorized, as of the 30 day of April, 2015.

Upright Properties, LLC, a Maine limited liability company

Witness:

Cliff Ruprecht

By:

Joshua Wojcik
Its Manager

STATE OF MAINE
COUNTY OF CUMBERLAND

April 30, 2015

Then personally appeared Joshua Wojcik, Manager of Upright Properties, LLC, and acknowledged the foregoing instrument to be his free act in his said capacity and the free act and deed of the limited liability company.

Before me,

Brittany Handcock
Notary Public/Attorney at Law

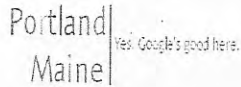


SEAL

Exhibit A
Source Deeds for Redfern Munjoy LLC
The Redfern Land

1. Deed from Four Sills LLC to Redfern Munjoy, LLC dated December 4, 2013 and recorded in the Cumberland County Registry of Deeds in Book 31207, Page 48.
2. Deed from Francis O'Connor and Nelson Nadeau to Redfern Munjoy, LLC dated December 4, 2013 and recorded in the Cumberland County Registry of Deeds in Book 31207, Page 50.
3. Deed from Craig G. Coffin, Trustee of the North Street Realty Trust to Redfern Munjoy, LLC dated December 11, 2013 and recorded in the Cumberland County Registry of Deeds in Book 31222, Page 224.
4. Deed from Katherine P. Richman and Nikki Lee Green to Redfern Munjoy, LLC dated December 30, 2013 and recorded in the Cumberland County Registry of Deeds in Book 31262, Page 266.
5. Deed from Dennis E. Lovejoy and Gladys A. Lovejoy to Redfern Munjoy, LLC dated January 10, 2014 and recorded in the Cumberland County Registry of Deeds in Book 31281, Page 281.
6. Deed from Raymond C. Maxwell to Redfern Munjoy, LLC dated January 31, 2014 and recorded in the Cumberland County Registry of Deeds in Book 31317, Page 116.
7. Deed from Raymond H. Waterhouse and Alina Waterhouse to Redfern Munjoy, LLC dated January 23, 2014 and recorded in the Cumberland County Registry of Deeds in Book 31302, Page 177.

Received
Recorded Register of Deeds
Apr 30, 2015 01:41:03P
Cumberland County
Nancy A. Lane



Shukria Wiar <shukriaw@portlandmaine.gov>

126-128 North Street comments*Comments of Senior Engineer*

Mike Tremblay <mtremblay@portlandmaine.gov>
To: Shukria Wiar <shukriaw@portlandmaine.gov>

Wed, Jan 22, 2020 at 3:26 PM

Shukria,

Most of my comments have been addressed in Acorn's latest comment response letter. Some outstanding issues and necessary waivers:

- The Applicant did not implement the suggested shared driveway treatment between the two properties. One of the stated reasons is that no easement currently exists for 126 North Street to access and use the driveway. It should be noted that such an easement could be created if desired, as the two properties are currently under common ownership.
- The Applicant does not have a standard width driveway accessing the parking spaces at 126 North Street. They have alleviated this by providing a wider-than-required parking space so that vehicles can more easily maneuver into the parking space. However, AutoTURN runs provided show that it is still very difficult for a vehicle to exit this space, coming very close to the wall of the building, the wall along the edge of the driveway, and the adjacent handicap parking space. This configuration likely requires that vehicles back into the driveway; it does not look possible for a vehicle to pull into the driveway and eventually exit head-out. While this configuration may be suitable assuming the occupants of 126 North Street do not have overly large vehicles, always back into the driveway, and have the skill and acuity to maneuver a vehicle into and out of the parking spaces. This may not always be the case however. This configuration requires a waiver for parking area drive aisle.
- The handicap space in 126 North Street does not need to be marked as such, as it is located in a parking area with 4 spaces or less. The space must be accessible (as designed), but anyone can park there. The applicant may choose to keep it marked as a handicap space if they choose.
- Space 4 in 128 North Street does not appear to meet the dimensional requirements for a compact space (8x15), and therefore should not be counted as a parking space for the purposes of meeting zoning requirements. Since only 3 spaces are required per zoning, this is acceptable; however, this space should not be shown as a parking space in the site plan.
- Space 2, Space 5, and Space 6 in 128 North Street are compact spaces. The Applicant requires a waiver for the proportion of parking spaces (67%, assuming Space 4 is retained as an allowable compact space, vs 20% allowed).

Let me know if you need anything else.

-Mike

Mike Tremblay, P.E.
Senior Engineer
Engineering Division
Department of Public Works
City of Portland, ME
mtremblay@portlandmaine.gov
P. 207.874.8881 F. 207.874.8852



Public Comment - North Street Development: Portland Continues to Shrink Its Future and Deny Its Past

George Rheault <george.rheault@gmail.com>

May 26, 2020 3:32 PM

Posted in group: **Planning Board**

I am generally in favor of the proposed project. It is profoundly embarrassing that a modest development like this must be dragged through incredible obstacles just to deliver fairly modest housing product in a high-opportunity, walkable peninsula neighborhood. But our politicians and the affluent NIMBYs they serve would have it no other way. Certainly our planning department has no choice but to go along with the charade that any part of this hum-drum project is deeply problematic and deserves the ridiculous skepticism and third-degree review it has received to date (contrast that with other recent projects that sailed through without much fuss like 104 Grant Street or the West Commercial Parking Project (with an attached medical clinic)).

What makes the timing of this workshop so perfect is last Thursday, the US Census Bureau released its latest city-level data for the 2018-2019 period and, as expected, Portland continues to SHRINK! According to the census figures, Portland had 190 fewer people on July 1, 2019 than it did on July 1, 2018.

So for the third straight year, Portland has LOST population. Now, again according to the Census Bureau, it has achieved statistically ZERO growth from its 2010 census baseline.

What little growth happening in Southern Maine right now is for the most part bubbling in the surrounding suburbs (very unsustainable from Mother Earth's POV).

Portland, despite having many advantages coming out of the Great Recession, continues to allow incumbent homeowner interests to trump newcomers and renters with predictable results: it is shedding renters and only affluent newcomers who can pay the NIMBY ransoms are allowed in. I spoke out about this almost one year ago and my points then remain as salient now (see attached). Of course if you subscribed to the Press Herald, you would hear a dramatically different but completely wrong analysis in silly NIMBY-coddling pieces like this: <https://www.pressherald.com/2019/12/31/decade-of-dramatic-change-leaves-portland-facing-challenges/> (the whole piece deserves a good shellacking but that will have to happen under separate cover outside of this project application)

City tables with Portland data: <https://www.census.gov/data/tables/time-series/demo/popest/2010s-total-cities-and-towns.html>

See here for Census press release: <https://www.census.gov/newsroom/press-releases/2020/south-west-fastest-growing.html>

It does NOT have to be this way. Between the 1900 census (when the recently annexed Deering (1898) was fully incorporated into Portland's census totals) and the 1920 census, Portland grew its population by almost 20,000 people. Basically more than the entire population of present-day Falmouth, ME.

How did Portland do it? By building a LOT of housing (not enough but still a lot). Indeed, we actually have a great historical precedent right nearby of that process in real-time: 104 North Street and its neighbors

<https://www.mainememory.net/artifact/65994>



Here is what it looked from the Walnut Street side:
<https://www.mainmemory.net/artifact/82917>



Earle Shettleworth Jr. in his "Portland" book co-written with Joyce Bibber describes the history of 104 North Street on page 83 (attached): "A long-time real estate agent, Ingram B. Wheelock, was first listed at this location at 104 North Street in

1882 in what appeared to be a two-family dwelling. In 1911, Wheelock decided to maximize the financial return on his narrow Munjoy Hill lot by constructing a four-story apartment house, with corner tower, where he lived along with his tenants until his death in 1923." [Not sure Mr. Shettleworth has enough proof of what was going on in Mr. Wheelock's head in 1911 but clearly a growing city needed more housing and rapidly redeveloping existing parcels with denser housing forms is a logical idea whether or not it was a financial success in Mr. Wheelock's case.]

The apartment house and its Walnut Street neighbor didn't make it to 2020. The automobile and the fact that raw sewage continued to swirl around Munjoy Hill's shores until the late 1970s marooned the neighborhood into isolation until it was rescued by the real estate mania of late-stage American capitalism (sorry poor people, time to move out!) and hundreds of millions of dollars in publicly-financed waste-water infrastructure (privatize the profits, socialize the costs!). I am sure if either housing complex had survived, they would be richly venerated today as part of "old Munjoy Hill" but not surprisingly, making room for more people on Munjoy Hill with denser housing LIKE WHAT WAS DONE IN 1911 is fiercely opposed now - doesn't matter if they are rich, poor or middle-class.

The biggest question for the Planning Board and City Council is why they permit this opposition to flourish and receive government support to artificially inflate property values for those who recently purchased new housing but now refuse to let others join the party - to the detriment of everyone who might make Portland a more dynamic and economically healthy place (if housing did not swallow up a hugely unfair percentage of one's income)?

Does the Planning Board have any other mission besides protecting the property values of their cocktail buddies? Does a shrinking Portland and no-growth economy (all made worse now by the pandemic) suggest to our city government it has to do anything differently before Portland stagnates further into a somnolent baby-boomer retirement home (which may not even be a viable option now that we have entered the COVID-19 era)?



George Rheault <george.rheault@gmail.com>

The Plan is Working! Shrinking Portland...from US Census Bureau (7-1-17 to 7-1-18)

1 message

George Rheault <george.rheault@gmail.com>

Tue, Jun 4, 2019 at 9:38 AM

To: jduson <jduson@portlandmaine.gov>, Nicholas Mavodones <nmm@portlandmaine.gov>, Councilor Belinda Ray <bsr@portlandmaine.gov>, Justin Costa <jcosta@portlandmaine.gov>, Brian Batson <bbatson@portlandmaine.gov>, Kim Cook <kcook@portlandmaine.gov>, Pious Ali <pali@portlandmaine.gov>, Spencer Thibodeau <sthibodeau@portlandmaine.gov>, Ethan Strimling <estrimling@portlandmaine.gov>
 Cc: "Randy W. Billings" <rbillings@pressherald.com>, Gregory Kesich <gkesich@pressherald.com>, "J. Craig Anderson" <canderson@pressherald.com>, Christine Grimando <cdg@portlandmaine.gov>, Jeff Levine <jlevine@portlandmaine.gov>

The policy activism of the Cheryl Leeman School of Urban Planning continues to bear fruit! Who wants more people in a city anyway?

Out of 776 incorporated municipalities of 50,000 or more, Portland comes in pretty close to the bottom. The good news is we shrank more slowly than Flint, Michigan or Baltimore, Maryland. The bad news is we shrank faster than places like Detroit, Michigan or Hartford, Connecticut.

Annual Estimates of Resident Population Change for Incorporated Places of 50,000 or More in 2017, Ranked by Percent Change: July 1, 2017 to July 1, 2018 - United States -- Places of 50,000+ Population

682	Portland city, Maine	66,723	66,417	-306	-0.5
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Source: cities ranked by growth rates

<https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>

Data home page

<https://www.census.gov/programs-surveys/popest/data/tables.html>

Press Release

<https://www.census.gov/newsroom/press-releases/2019/subcounty-population-estimates.html>

I have been noting to the City Council for the last several years that Portland's population trajectory is downward and the 2020 census results will shock a lot of the people who continue to perpetuate the myth that Portland is experiencing any kind of explosive growth (it is NOT).

But we don't even have to wait that long to see what our policy legacy of long-term exclusionary zoning, recent full embrace of short-term rental greed, out-of-control historic preservation and rampant NIMBY politics is delivering (all of which are the direct drivers of the gentrification/housing insecurity that is swallowing up Portland's recent past, present and future).

A longtime real estate agent, Ingram B. Wheelock was first listed in this location at 104 North Street in 1882 in what appears to have been a two-family dwelling. In 1911, Wheelock decided to maximize the financial return on his narrow Munjoy Hill lot by constructing a four-story apartment house, with corner tower, where he lived along with tenants until his death in 1923.



Elegant early-1900s, single-family homes lined the Western Promenade, including the brick Colonial Revival residence that Frederick A. Thompson designed for Adam P. Leighton in 1902. Leighton had managed Chisholm Brothers when it introduced postcards and was a partner in the firm that published this card. He was also a three-term mayor of Portland.

Google Groups

126/128R Development Plan Number: PL-000791-2019

Tracy Davis <tdavis@urban-dwell.com>

May 28, 2020 2:58 PM

Posted in group: **Planning Board**

Shakria, Christine, Belinda, and members of the Portland Planning Board:

I am writing to extend my deep disappointment in the lack of proper notification of the required Planning Board Workshop that is to have taken place on May 26th. No notification was received or posted on website.

<https://egweb.portlandmaine.gov/energovprod/selfservice#/plan/7b51007d-85ae-4449-90a8-76839068ebb4?tab=meetings>

It is also to be noted here that there is a lack of accurate information regarding this project.

I would like to request, that protocol be followed to the "T" before moving this project forward in any manner. Please call a new Neighborhood Meeting, provide neighbors with proper notification and accurate project details.

Regards,

Tracy Davis and Michael Kennedy

DISCLAIMER:

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this email in error please notify the system manager. This message contains confidential information and is intended only for the individual named. If you are not the named addressee you should not disseminate, distribute or copy this e-mail. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited

Failure to notify

Leslie Hart <blesliehart@gmail.com>

May 28, 2020 4:44 PM

Posted in group: **Planning Board**

Dear members of the planning board

I'm writing to express my extreme concern and dismay that as an abutter, I was not notified in advance about the May 26 workshop regarding Plan Number: PL-000791-2019, the 126/128R development. We have a right to know about these meetings in a timely fashion.

I understand there were revised plans presented on May 26. However, these are not available on the website and so I have no idea what was presented.

It certainly appears as though I am intentionally being kept in the dark about issues that directly affect me.

I believe this workshop should be held again, with proper notification and with current information posted so that I and others who are affected can react.

Thank you

Leslie Hart
215 Sheridan St.
Portland ME 04101
917.364.3682

Google Groups

126/128R Development

Marianna Pratt <mariannapratt@hotmail.com>

May 28, 2020 12:31 PM

Posted in group: **Planning Board**

Please be advised that I am an owner of condo 224 at Munjoy Heights and was not informed of the Planning Board Workshop held last Tuesday, May 26 for the 126/128R Development nor was there any notice posted for this meeting on the website. This was the meeting for Plan Number: PL-000791-2019.

Also, none of the new plans have been updated on the website so I have no way of looking at what was presented on Tuesday!

Marianna Pratt
Unit 224

Fwd: No notification of a Planning Board workshop on 126/128 North St. (PL-000791-2019)

Nancy Machesney <dmaches101@aol.com>

Jun 9, 2020 10:30 PM

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

Dear Planning Board and Counselor Ray,

I wrote this original letter on 5/30/20 and wanted to make sure each of you had it for your records. There are too many issues with this project to date that have red flags.

Unfortunately, neighbors concerns have not been fairly addressed to date. We are not getting informed on workshops and meetings and approvals are happening without full and valid information. Please when analyzing this project walk the property, particularly looking up from Munjoy Heights. The gradient the developer wants to build on is unlike any other on Munjoy Hill. It is a severe and steep slope which cannot be depicted in drawings.

The developer claims the development won't be visual from North St but has not disclosed its significant impact from the south and west. This development will dramatically alter the vista from Bayside , 295 and the waterfront and loom over its neighbors behind the development. It is a project that is too big for the the lot and is not mindful of its abutters in terms of setbacks, scope, light, privacy, and easements.

Given the unique plot of land with its severe pitch , this property truly should not be allowed a structure much bigger than what was previously there.

Thank you for your thoughtful consideration,

Nancy Machesney
213 Sheridan St

Begin forwarded message:

From: Nancy Machesney <Dmaches101@aol.com>

Date: May 30, 2020 at 2:42:51 PM EDT

To: cdg@portlandmaine.gov

Subject: No notification of a Planning Board workshop on 126/128 North St. (PL-000791-2019)

Dear Director Grimando,

My husband and I are just now getting word from our neighbors that a Planning Board workshop was held on 5/26/20 on a property that directly abuts us. (PL 000791-2019 126/128 North St) How does this happen? There was absolutely no notice given. Isn't it the city's and the developer's responsibility to inform it's neighbors? I think it is only fair to have another workshop ,with proper notice, before this project is allowed to move forward.

There are some fundamental structural and legal issues that need to be brought up. The Planning Board and the Planning Department should walk this site to get a full visualization of what the developer wants to do. Architectural drawings do not fully demonstrate how this project is too ambitious for its topography , especially given the pitch of the land.

Thank you for your consideration and assistance .

Respectfully ,

Nancy Machesney
213 Sheridan Street

Notification failure for Plan Number: PL-000791-2019

Lindsay Steven Mann <lindsaymann@gmail.com>

May 31, 2020 10:29 AM

Posted in group: **Planning Board**

Members of the board,

Neither we nor our surrounding neighbors were notified by the city of the most recent planning board workshop involving the development at 126/128R North St. (Plan Number: PL-000791-2019) We only discovered this meeting one hour prior from a neighbor who was kind enough to tell us about it. We received nothing in the mail, and it was never posted on the city's website. Many of our neighbors spoke out against this project at the first workshop and they were not given the opportunity to have their voices heard on the 26th as they did not know about the meeting. The revised plans are still unavailable on the city's self service portal. The city planner in charge of this project has told me that the delay in plan revisions being posted is a "software issue," which is unacceptable.

For a developer who claims cooperation and transparency with neighbors, the process has been dishonest, contradictory, and obscure from the beginning. This project has changed multiple times: increasing unnecessary demolition, adding project phases, adding units, and other details that neighbors (after TWO neighborhood meetings) only learned during the workshop phase.

Our house is one that would be included in the potential Munjoy Hill historic district. As the planning board delayed a vote on the historic district, our hands are now tied until you make a decision. Meanwhile, you are advancing 126/128R North St. without transparency, without proper community notification, and without acknowledging this proposal's glaring excess. Our concerns are not with car exhaust, not with headlights, not with whether a window is frosted glass or not. That is ignoring the combined 12,000 square foot gorilla in the room. The proposed building at 128R North St. is simply too large for a tiny back lot. The team has done a fine job misleading you with regards to this building's visibility, but I invite you to our backyard to see it in person. Please contact me to setup a time to stop by, masks encouraged.

The proposal is claiming to create affordable units that are walkable to downtown Portland, yet they are squeezing more than the required amount of car parking into the ground floor. If anything, the ReCode suggests fewer parking spots for cars, though here they are requesting a waiver on parking space size in order to cram more in. If parking were minimized, this building could be smaller.

There are still significant unanswered legal questions about this building's setbacks, not to mention the legality of it being a buildable lot in the first place. In June of 2018, the previous owner of 122 North St. sold Upright Properties, LLC the 400 square foot section of land that makes construction of a building the size of 128R possible. The city code states that, "a lot may be considered a buildable lot of record if the lot existed in its current form as of June 5, 1957, and if the lot has at least 40 feet of road frontage." The lot in question not only lacks road frontage, but was altered on June 5th, 2018 when Mary Roy sold Upright Properties, LLC this piece of property. Wojcik combined lots in order to increase the size of the building.

The project phasing is opaque and open-ended. This project is one phase when it's convenient, and two phases when it is not. We are facing more than two years of construction. As the closest neighbor to this site, neighbors that have repeatedly tried in vain to obtain realistic renderings from our perspective, we ask that this project go back to a workshop to address the serious issues we've raised.

Lindsay & Susan Mann
122 North St.

Google Groups

Fwd: Joshua Wojcik condo proposal at 128R/126 North St planning board meeting

Shukria Wiar <shukriaw@portlandmaine.gov>

Jun 1, 2020 7:54 PM

Posted in group: **Planning Board**

----- Forwarded message -----

From: **Deborah Cole** <debcole1030@gmail.com>

Date: Mon, Jun 1, 2020, 4:35 PM

Subject: Joshua Wojcik condo proposal at 128R/126 North St planning board meeting

To: <Shukriaw@portlandmaine.gov>

Hi Shukria Wiar,

I did not receive notification in the mail about the planning board meeting last week regarding the above condominium proposal.

I would like to request a rescheduling of this meeting so that a fair and equitable process including neighborhood input may occur.

thank you,

Deborah Cole

71 Walnut St

754-3859

126 and 128R North Street, Plan Number PL-000791-2019

Linda Englert <linenglert@gmail.com>

Jun 1, 2020 12:18 PM

Posted in group: **Planning Board**

Dear Chairman Mazer and members of the Planning Board, Ms. Grimando, and Ms. Ray,

Because there was no updated information available to the public and no notice given for the May 26 workshop regarding 126 & 128R North Street, we'd ask that the workshop be re-scheduled to allow for proper notice so that neighbors and interested parties can review the current proposal and express their concerns.

We'd also urge the Planning Board members to visit the site of these proposed buildings so that you have an opportunity to experience the magnitude of this development and the impact it would have on the nearby homes in the neighborhood.

Thank you.

Linda Englert
193 Sheridan Street, Portland

written comments and a complaint regarding proposed developement 126 and 128 North Street

betts mayer <bettsmayer@gmail.com>

Jun 3, 2020 6:40 PM

Posted in group: **Planning Board**

To the Portland Planning Board:

I would like to register a complaint about not receiving prior advanced notice of the second Workshop on May 26 regarding the proposed development at 126 and 128 North Street.

I am registering my continuing opposition to this project. This plan for the 126 and 128 North Street envisions a huge multi-unit development whose rear building site slopes down significantly to the concrete restraining wall built for the Munjoy Heights development. The rear of this unit is not within the regulated distance of the retaining wall and additionally it is too few feet away from Munjoy Height Condominiums. It is important to note that the visual presentation the developer presented does not in any way show how totally out of scale and problematic this construction project is.

Other concerns of mine:

1. The limited access to the site for ambulances and especially for fire trucks. Allowing a building permit when there is not the required 20-ft-wide driveway access to the site creates a safety and emergency hazard. If a fire broke out in the rear building, the potential for fire spreading to the close proximity of Munjoy Heights is palpable. Alternative access through the VOA parking lot, as allowed by the fire chief, doesn't take into consideration that the VOA parking lot will be full often and no one knows when those times will be. This is a gamble, not legitimately factual.

2. The 18-inch "wheel stop" wall at the rear of the 126R building is in fact a foundation wall supporting the balcony structures and the perimeter of the building. It is a fact that the setback requirement for a foundation wall is 15 feet; the existing plan envisions only a 10 feet setback.

I encourage and welcome the members of the Planning Board and City Staff to visit the site in order to appreciate in person how severely out of place and intrusive this development is.

Please consider these serious comments. The project is not in line with this historic and beautiful and charming area of Portland.

Sincerely,
Betts Mayer
211 Sheridan Street
A Munjoy Heights Condominium owner

Google Groups

128R and 126 North Street

Sue Robins <suerobins@twc.com>

Jun 3, 2020 6:35 PM

Posted in group: **Planning Board**

Dear Planning Board members,

I was so disappointed to hear that a workshop was scheduled regarding the development of these properties on May 26, but no notices were sent either by the developer or planning department staff. I certainly did want to speak about this development and would have attended, had I known. I hope this was a simple oversight, but given the way this project has been shown the green light in spite of a significant number of variances, its hard not to wonder if there was a desire to avoid hearing the opinions of neighbors. That said, I'll express my thoughts in this email.

First, I urge the planning board members to visit the site and look up at its location FROM the Munjoy Heights neighborhood. The developers only show their attempts to mask the massing of this behemoth from North Street. There have been no renderings or elevations shown regarding the enormity of it from below the structure on the hill. I urge you to look from Munjoy Heights, and then Washington Blvd. This building will be massive from that perspective and be the single largest structure noticeable on the hill from below, and most likely, from most points south. I remember the architect saying it was so much smaller than the Promenade East Condominiums, but I am certain that from the south, 128R will blot out that building.

Additionally, I urge you to question the array of variances required to build a structure that reaches and exceeds the boundaries in nearly every dimension and creates a situation such that automobiles are exhausting directly into neighbors windows.

Bottom line, this building does not belong in the BACK YARD of an existing home, on a very steep hill with no real plan for landscaping to control erosion, no real plan for snow removal and storage, and no consideration for the health of the very near neighbors. It is just not a realistic, neighborly plan.

Please, come and see.

Susanne Robins

206 Sheridan St.

Portland, ME 04101

310-529-7673

Sent from Mail for Windows 10

May 26 workshop

Eldon Mayer <vixenskipper@gmail.com>

Jun 3, 2020 2:17 PM

Posted in group: **Planning Board**

We object strenuously to have not been provided notice of this meeting. We are immediate abutters to the proposed development, which is entirely inappropriate in size and style to this neighborhood. Had we been given notice of the meeting we and many of our neighbors would have participated. As we have mentioned in the past, we are all extremely opposed to this development, for many reasons.

Eldon and Betts Mayer
211 Sheridan St.
Portland ME 04101
Vixenskipper@gmail.com

Google Groups

126/128 R North St

mary morse <mrs1359@outlook.com>

Jun 3, 2020 2:24 PM

Posted in group: **Planning Board**

Portland Planning Board and Belinda Ray:

We would like to know why we were not given prior notice for the 5/26 workshop on this abutting property? Who is responsible to see that this happens? Is this not mandate? We hope no decisions will be made until all concerned parties are heard. We are distressed by the variances that seem to be so freely given out. We are opposed to the project not adhering to the 20 foot driveway and the rear 10 foot setback. We look forward to your response. Thank you, Robert and Mary Morse

.

Sent from my iPad

Google Groups

126 and 128R North St

Vana Carmona <vanacarmona@gmail.com>

Jun 7, 2020 4:03 PM

Posted in group: **Planning Board**

As a resident living only a half block from the proposed developments of 126 and 128R North St., I want to put in writing some serious concerns I have.

First, as you are now all aware, very few people, if anyone, ever received the notice for the meeting on May 26th. Luckily, I heard about it only a few minutes before and was able to log in. This really is unacceptable for a project of this magnitude. Please be sure that this does not happen in the future as these buildings will impact us directly.

Another thing I noticed at the meeting was that this project already seems to be approved. Not officially, of course, because you still have many processes and procedures to execute. But clearly every member of the Board is absolutely in favor of this as it currently stands. This is alarming. Many of us are waiting to make our complaints and concerns heard in the workshops.

Workshops should not just be exercises one needs to perform. They should be genuine vehicles for the neighbors to voice their concerns and have them heard. The idea that everyone is in agreement before we speak is very unsettling.

As I pointed out in the Zoom meeting, many of the claims of the developers are inaccurate.

1. The rendering that were presented are misleading. They are not accurately showing the mass and scale. The 128R is a virtual wall across the back of the property and towers over the complex directly below it.
2. That this is a "benefit to Munjoy Hill" escapes me (and everyone else). There is no "benefit" of having this building constructed to anyone except the developers.
3. That there are many "who are eager" to see it built. No one that I know. In fact, to the contrary. No one is eager, except again, the developers.
4. That the "neighborhood has contributed to the plans." No, the developers still have not adequately addressed our concerns (mass, scale, set backs, parking, access, lighting, etc.)
5. That street parking is abundant. At times, yes, but there are times when it is particularly tricky, especially on days when school is open, special events are being held at the School, or street cleaning is being performed.

Yes, the people living directly below 128R have a clear right to be concerned. I know they are concerned about air quality. I know they are alarmed about such a large project being built on the steep grade behind them. There was also much discussion about a screen at the back of the parking area to alleviate headlights coming into their homes. There is also a "wheel wall". But this wall also appears to be a foundation wall. Can a foundation wall be used as a wheel wall? That sounds dangerous. For one, a foundation wall needs a larger set back. That is not being properly addressed.

Like many others here, we would like to see renderings (more accurate ones) that show the project from the Walnut St side. I have yet to see those.

As I have stressed in a number of meetings for a number of projects, once something is destroyed and these enormous projects are constructed, we cannot go back and make amends. What you are deciding is permanent.

Taking a closer look at the extended future impact is critical; and minds should stay open to the issues that we, as neighbors, are rightfully presenting. Major changes to this project need to be made.

Please take my comments into consideration.

Thank you.

Respectfully,
Vana Carmona
105 North St Apt 1
Portland ME 04101
207 420 6962

126 and 128R North Street, Plan Number PL-000791-2019

Michael Englert <michaeljenglert@gmail.com>

Jun 17, 2020 12:14 PM

Posted in group: **Planning Board**

Dear Chairman Mazer and Members of the Planning Board,

Attached is our submission to the Planning Board regarding the impermissibility of the proposed project at 128R North Street because the site lacks street frontage in violation of the City of Portland Land Use Code.

Thank you for your consideration,

Michael Englert
123 Sheridan Street
Portland, ME 04101
MichaelJEnglert@gmail.com

cc: Christine Grimando, Director Planning and Urban Development
Ann Machado, Zoning Director
Shukria Wiar, Planner
Danielle West-Chuta, Corporation Counsel
Jen Thompson, Associate Corporation Counsel
Hon. Belinda Ray, City Councilwoman

MICHAEL & LINDA ENGLERT
193 SHERIDAN STREET
PORTLAND, ME 04101
TELEPHONE: (518) 527-1804

June 17, 2020

Via Email: planningboard@portlandmaine.gov

Planning Board of the City of Portland
Brandon Mazer, Chair
389 Congress Street, 4th Floor
Portland, ME 04101

RE: PL-000791-2019; 126 and 128R North Street, Josh Wojcik and Upright Properties, LLC

Dear Chairman Mazer and Members of the Portland Planning Board,

This application for review of a Level III Site Plan for a large building to be constructed on a “land-locked” parcel located at 128R North Street is neither in compliance with the City Land Use Code nor complete. Accordingly, the Planning Board must terminate its review of the application. *See* City of Portland Code of Ordinances [hereinafter “City Code”] § 14-524(a)3.a.(iv) (providing that such application shall contain all items required and shall comply with Article III (Zoning) of the Land Use Code, and that no review will be conducted until all items are determined to be complete and in compliance.)

In particular, the 128R property fails to comply with the City’s requirement for the lot to have minimum street frontage of twenty feet. *See* City Code § 14-139(a) (applicable to lots located within the R-6 Zoning District.) Because the applicant Upright Properties, LLC [hereinafter “Upright”] acquired this lot on January 31, 2014 — which was newly-subdivided from three separate tax parcels — and merged it with another newly-subdivided parcel on June 5, 2018, applicant can make no claim for the so-called “grandfathering” of a non-conforming lot. The requirement of street frontage is embodied in the City Code as a matter of fundamental public policy, and only the City Council itself would be authorized to allow any variance from the requirement, but even then only if the lot existed in its current form as of June 5, 1957 (which it undoubtedly did not). But regardless of whether the applicant’s lot would qualify as lawfully nonconforming, the Planning Board simply has no authority to set aside or waive the street frontage requirement. It therefore must reject Upright’s application to develop a multi-unit residential project located on a lot formed as a result of two deed conveyances in 2014 and 2018.¹

¹ This letter is limited to that aspect of the application pertaining to the lot of Upright Properties, LLC located at the address of 128R North Street and designated as tax parcel number 012 H009, and whether it is eligible for review because it lacks street frontage. The application is actually for two lots and includes a proposed building at 126 North Street owned separately by Josh Wojcik.

I. Factual History of Upright's Parcel: Two Separate "Lots of Record," Described in Deeds Filed February 3, 2014 and June 5, 2018, Form the Area of Land for the Proposed Project at 128R North Street.

Upright's first lot consisting of 5,202 square feet was acquired from Redfern Munjoy LLC by deed dated January 31, 2014, and filed in the Cumberland County Clerk's Office on February 3, 2014 in Book 31317 at Page 121 (corrective deed filed in Book 31318 at Page 270). *See Exhibit A, Page 3, attached hereto.* This first lot acquired by Upright was created from portions of three separate Tax Parcels: 012 H009, 012 H022, and 012 H013. Nevertheless, the resulting parcel created by this conglomeration was significantly smaller than the prior 128R lot, and no longer extended to Sheridan Street, thus losing all street frontage. The newly-configured lot contained an older single-family residential structure, which Upright demolished during November-December 2019.

Upright's second lot consisting of 480 square feet was acquired from Mary Roy by deed dated June 5, 2018, and filed in the Cumberland County Clerk's Office on June 5, 2018 in Book 34890 at Page 304. *See Exhibit A, Page 4 attached hereto.* This lot was carved out of Tax Parcel 012 H022. Neither of Upright's lots has any street frontage, and therefore does not meet the dimensional requirements for the R-6 zone. *See City Code § 14-139.* None of these divisions of property, all occurring within a five-year period, was reviewed or approved by the Planning Board. *See Article IV of the City Code. §§ 14-493 and 504.*

Finally, for the applicant's proposed building to fit on the property, applicant is apparently dependent upon further dividing property: now, from Tax Parcel 012 H014, which is the lot designated as 126 North Street owned by Josh Wojcik. The details of this proposed conveyance to Upright have not been disclosed (*see, e.g., Applicant's Submission, Drawings C-3 & C-10 (southeast corner of Upright Lot), noting "Proposed Property Line" and referencing incomplete Note 3).* *See Exhibit A, pages 5 & 7.*

II. The City Code Offers No Basis for Claiming That the Requirement of Street Frontage in the R-6 Zone Can Be Ignored.

The flaw in the application began with the applicant's "Zoning Analysis" in Section D of the application, wherein the applicant noted in its table that the Minimum Street Frontage requirement is 20 feet, but inexplicably marked its proposed compliance as "N/A." During the course of two subsequent workshops, the Planning Division staff repeated the failing, noting on page 4 of the January 24, 2020 memo, and again on page 5 of the May 22, 2020 memo, that the required Minimum Street Frontage is 20 feet, but that the proposed frontage for 128R is "n/a." We assume that "n/a" in all of these cases means "not applicable," but neither the Planning Division staff nor the Planning Board itself has ever offered any explanation, reason or justification for proceeding with the review of this application in clear contravention of the City's requirement for street frontage. The Planning Board and staff have vaguely suggested that the lot may be "grandfathered," but have offered no explanation whatsoever as to such concept or cited any provision in the City Code authorizing such treatment.

A. *The Proposed Development Site Is Not a Buildable Lot of Record.*

The only apparent provisions within the Code allowing for the development of long-existing, non-conforming lots are § 14-433 pertaining to “Lots of Record,” and §§ 14-382 and 14-385 of the ordinance governing the replacement of nonconforming structures. Section 14-433 states in relevant part:

Sec. 14-433. Lots of record and accessory structure setbacks for existing buildings.

(a) Lots of Record.

Lots of record that meet the minimum standards provided below shall be considered buildable lots.

1. ***Lots of record as of June 5, 1957, may be considered a buildable lot in any residential zone provided the applicable yard dimensions can be met; provided that a minimum street frontage of forty (40) feet can be met,*** or to which a means of access has been previously approved by the city council as provided elsewhere in this article; and provided such lots have a minimum lot size of five thousand (5,000) square feet, ***or the applicable minimum lot size and frontage in that zone, whichever is less*** [emphasis added].
2. A lot in the R-1, R-2, R-3, R-4, R-5, R-5A or R-6 zones that was described in a subdivision plat approved by the Planning Board after June 5, 1981, or a lot of record that conformed to the applicable lot size requirement, lot width and street frontage as of June 5, 1984, shall be considered a buildable lot, provided that the applicable yard dimensions can be met.

* * * * *

In the matter before the Planning Board, it is thus clear that the lot now known as 128R North Street and as described by the merging of land conveyed in the February 3, 2014 and June 5, 2018 deeds to applicant Upright *did not exist* as of June 5, 1957. *This lot only came into existence on February 3, 2014 (and as amended on June 5, 2018), and was not a “lot of record” as of June 5, 1957.* As the City of Portland’s information sheet entitled “Zoning Frequently Asked Questions (FAQ)” explains, a lot may be considered a buildable “lot of record” only if it *“existed in its current form as of June 5, 1957, as demonstrated by a recorded deed or plan from prior to that date.”* (Emphasis added.) Here, there is simply no recorded deed or plan demonstrating that to be the case as of June 5, 1957. (Note also that despite the applicant’s apparent intention of yet another conveyance in an effort to accommodate the proposed oversized structure, the lot will remain non-compliant with no street frontage.)

If this were a “lot of record” as of June 5, 1957, it would still not be buildable pursuant to § 14-433(1), which unequivocally requires the lesser of 40 feet of street frontage, or the minimum street frontage for the applicable zoning district – in this case, 20 feet for the R-6 zone. Section 14-433 thus provides *no basis for arguing that the Upright property is in any way “grandfathered”* such as to permit the development of a six-unit, four-story structure on this

modest back lot lacking frontage to a public street. The Planning Board thus lacks jurisdiction over this application.

B. The Proposed Development Violates Restrictions Applicable to Legally Existing Non-Conforming Structures.

Even if Upright's property consisting of a lot and structure had been "legally existing" when the zoning ordinance was adopted, and thus could be continued under § 14-381 of the City Code, the related provisions in the Code governing the replacement of nonconforming structures make it absolutely clear that Upright's lot would *not* be eligible for the proposed development subject of this application. Section 14-382(a), for instance, provides that "a lawful nonconforming residential structure" "may be maintained, repaired, or reconstructed in kind within a two (2) year period ..., but no alterations, modifications or additions shall be made to it, except as provided in this division, and as permitted in 14-436, Building extensions." Sections 14-382 and 14-385 provide detailed guidance as to the replacement of nonconforming structures, and are summarized by the City's FAQ sheet as follows:

Generally, if a legally existing, non-conforming structure is torn down, it can be replaced with building permit approval within one year of the demolition [or per 14-382(a) as set forth above, two years for a residential structure]. ***The replacement structure must be exactly the same as the previous structure, including footprint, height, and shell.*** (Emphasis added.)

Subsection (e) of § 14-382 goes on to state that

[n]othing within this section shall be construed to permit an increase in the number of nonconforming units in a building which is nonconforming as to the number of dwelling units or will become nonconforming as a result of such alteration, modification or addition.

And, specifically applicable to the R-6 zone, the code provides under § 14-385:

- (f) A nonconforming building located in the R-6 which is destroyed by fire, explosion, flood, riot, act of the enemy, or accident may be rebuilt under the small residential lot development provisions of the R-6 zone as if the lot were vacant as of January 1, 2005 and such reconstruction shall meet the setback requirements contained therein to the extent practicable; otherwise the building shall be reconstructed within the footprint of the previously existing building such that any nonconformity will not be enlarged.

Hence, and again, even if the single-family residence on the 128R lot that the applicant demolished during November-December 2019 were considered a legally existing, non-conforming structure predating June 5, 1957, there would be no basis for accepting Upright's application proposing the construction of a project hugely expanded into a towering multi-unit residential structure. Indeed, the Code specifically prohibits any "increase in the number of nonconforming units in a building which is nonconforming as to the number of dwelling units."

§ 14-382(e). Ironically, the lot and house “legally existing at the time of its creation and made nonconforming by the” ordinance did have street frontage to Sheridan Street, as described in the 1951 deed from Miller to Maxwell and shown on the Tax Assessor’s Map dated April 1, 2012, *see* Exhibit A, pages 1 & 2 (notwithstanding that this portion of Sheridan may have only been plotted and not yet constructed). With the acquisition by Upright on January 31, 2014, a new lot lacking street frontage was created for the first time. In short, even if the single-family home formerly existing in the location of Upright’s newly-created non-conforming lot could qualify for replacement pursuant to §§ 14-382 and 14-385 of the City Code, the Code is absolutely clear, as stated in the City’s own FAQ sheet, that “[t]he replacement structure must be exactly the same as the previous structure, including footprint, height, and shell.” (Emphasis added.)

C. Portland’s Public Policy Regarding the Requirement of Street Frontage Is Consistent With State Policy and Can Be Altered Only By the City Council.

The requirement of street frontage set forth in the City Code is a matter of public policy legislatively established by the City Council. Notably, the City Council has not provided any authority to Planning Division staff nor the Planning Board itself to disregard or waive this fundamental requirement of street frontage for newly developed lots. Section § 14-433, pertaining to “lots of record” as of June 5, 1997, specifically allows variance from the frontage requirement *only* where a “means of access has been previously approved by the city council” itself. In this case, there has been no such approval, and neither City staff nor the Planning Board has the authority to disregard the frontage requirement.

Portland’s policies regarding street frontage are consistent with generally recognized planning principles. Unregulated private ways raise many problems, including inaccessibility to emergency vehicles and large delivery trucks, and place public safety and private property at risk. There may be no provisions for maintenance of the private road or way, while the dominant and servient parcel owners may face uncertainties as to their rights and responsibilities. In this case much of the controversy thus far has pertained to exactly these concerns and the inadequacy of the vague, undescribed right-of-way that is physically limited to approximately 11 feet in width due to the location of the residential structure on the servient parcel at 128F North Street. *See* Ex. A, page 6 (Deed, Ramsdell to Bowden, July 25, 1923, filed in the Cumberland County Clerk’s Office in Book 1143 at Page 307). Thus, as recommended to municipalities by the Maine State Planning Office, land use ordinances should provide that for non-conforming lots of record, if more than one residential dwelling unit is built, “the frontage requirements of the district shall be met.” This is exactly the advice that the City of Portland has followed by unequivocally requiring that even with a non-conforming lot as of June 5, 1957, the applicable street frontage of the zone (or 40’, whichever is less) shall be required. *See* HOW TO PREPARE A LAND USE ORDINANCE, A Manual for Local Officials, Maine State Planning Office, August 2011. (But in this case, of course, there is no lot of record as of June 5, 1957, as the lot in question derived from two deeds filed in 2014 and 2018, respectively.)

D. The Proposed Project Would Block the Adjoining Owner’s Legal Right of Access.

Finally, Upright’s proposal is in derogation of the rights of the owner of the property (now known as Munjoy Heights), which was divided from the lot created and conveyed to Upright on January 31, 2014, and constituting the western portion of the property that was the

former tax parcel number 012 H009 and running to Sheridan Street. In such case, the easement from North Street benefitting the former entire dominant estate “passes with that estate regardless of whether the easement is expressly mentioned in later conveyances, and regardless of whether later conveyances divide the dominant estate.” *Edwards v. Blackman*, 129 A.3d 971, 982, 2015 ME 165 (Sup. Jud. Ct. of Maine 2015) (citations omitted). Thus, the portion of 128R that is now encompassed in the Munjoy Heights development retains its right-of-way to North Street. As a matter necessity, protection of this right-of-way is especially important to accommodate the “Retaining Wall Maintenance Easement” included in the conveyance from Redfern Munjoy to Upright, attached hereto in Ex. A, page 3. The only access available for specified equipment to maintain the retaining wall would be over this right-of-way from North Street as recited in the 1923 deed from Ramsdell to Bowden. As shown in Ex. A, page 7, Upright’s proposed multi-unit project subject of this application would completely block Munjoy Heights’ rightful access to North Street.

Conclusion

Portland’s City Code unequivocally requires a minimum of twenty feet street frontage for this Level III Site Plan Application to be accepted and reviewed by the Planning Board. This is true whether the proposed development lot is considered to be a nonconforming lot of record as of June 5, 1957, or a lot subsequently formed by deed conveyances on January 31, 2014 and June 5, 2018. In the first scenario hypothesized as a pre-existing lot of record, only the City Council would have the legislative authority to approve a means of access as an alternative to requiring street frontage. It is absolutely clear, however, that the proposed development lot did not exist in its current form until June 5, 2018. Regardless, in no case is the Planning Division nor the Planning Board authorized to ignore or waive the requirement for street frontage. For these reasons, the Planning Board must reject the application of Upright Properties, LLC to develop a multi-unit residential project located on the property described in two deeds dated January 31, 2014 and June 5, 2018.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael Englert", with a long horizontal flourish extending to the right.

Michael Englert

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Quoting statement to be his free act and deed, and the free act and deed of said Corporation.

RECORDED 100,
Charles L. Miller
Notary Public, Notarial Seal;
Received September 28, 1951 at 10h 10m A. M., and recorded according to the original.

Miller SHOW ALL MEN BY THESE PRESENTS, THAT I, Charles L. Miller of Portland, in the County of Cumberland and State of Maine, in consideration of the Dollar and other valuable considerations paid by Earl Maxwell and Cecelia Maxwell, both of said Portland, unto the said Earl Maxwell and Cecelia Maxwell, as joint tenants, and not as tenants in common, to them and their assigns, and to the survivors, and the heirs and assigns of the survivor forever, the following described property:

A certain lot or parcel of land, with the buildings thereon, situated on the westerly side of Sheridan Street, in said City of Portland bounded and described as follows:

Beginning at a point on said easterly side of Sheridan Street which point marks the southwest corner of land conveyed by A. J. Bernstein to Elmore W. Randall by deed dated May 28, 1923, and recorded in Cumberland County Registry of Deeds in Book 1137, Page 466; thence running northwesterly by said easterly side line of Sheridan Street sixty-three and five tenths (63.5) feet more or less to the northwest corner of said land conveyed to Randall as aforesaid; thence running easterly along the northerly line of said land one hundred and four and sixty-two one hundredths (104.62) feet to the northeast corner of land conveyed by said A. J. Bernstein to Joseph B. Murphy by deed dated May 28, 1923, recorded in Cumberland County Registry of Deeds; Book 1137, Page 465; thence running southerly by the westerly line of said Murphy land twenty and thirty-one one hundredths (20.31) feet to the southwest corner of said Murphy land; thence running easterly along the southerly line of said Murphy land fifteen (15) feet to a point; thence southerly in a line parallel with and fifteen (15) feet distant westerly from said westerly side line of said Murphy land extending southerly, about forty-three (43) feet to the southerly line of land first above mentioned as conveyed by Bernstein to Randall, at a point ninety-one and ninety-three one hundredths (91.93) feet westerly from the westerly side line of North Street; thence running westerly by said southerly side line of said Randall land about one hundred twenty-one and ninety-five one hundredths (121.95) feet to Sheridan Street and the point of beginning.

Being the same premises conveyed to me by Jerrall W. Miller et aln. by deeds dated December 27, 1944 and recorded in Cumberland County Registry of Deeds Book 1768 Page 14 together with a right of way across my land from lot hereby conveyed to North Street.

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Also a certain lot or parcel of rear land lying easterly of Sheridan Street, in said City of Portland, in the County of Cumberland and State of Maine, and bounded and described as follows:

Beginning at a point on the northerly side of lot #73 as shown on Division of Little, Weeks and Moody Land as recorded in Cumberland County Registry of Deeds in Book 14, Page 247, said point being distant fifty-seven (57) feet southerly of the northerly side line of Sheridan Street; thence southerly by said northerly side line of lot #73 as shown on said plan and by land of C. L. Miller forty-one and eight tenths (40.8) feet, more or less, to the Division line between lots #73 and #79; thence southerly by the westerly line of lots #73 and #79; one hundred twenty-six and ninety-two one hundredths (126.92) feet, more or less, to the northeasterly corner of lot #21; thence southerly by the northerly side line of lot #21; eighteen and fifty-five hundredths (18.55) feet, more or less, to a point which is ninety-two and fifty-seven hundredths (92.57) feet southerly of the easterly side line of Sheridan Street, measured on the northerly side line of lot #21; thence southerly in a straight line and by land of said Grantor one hundred twenty-one and thirty-five hundredths (121.35) feet to land of said Miller and the point of beginning.

Being the same premises conveyed to me by H. Raymond Harris by deed dated October 3, 1946 and recorded in Cumberland County Registry of Deeds, Book 1841, Page 282.

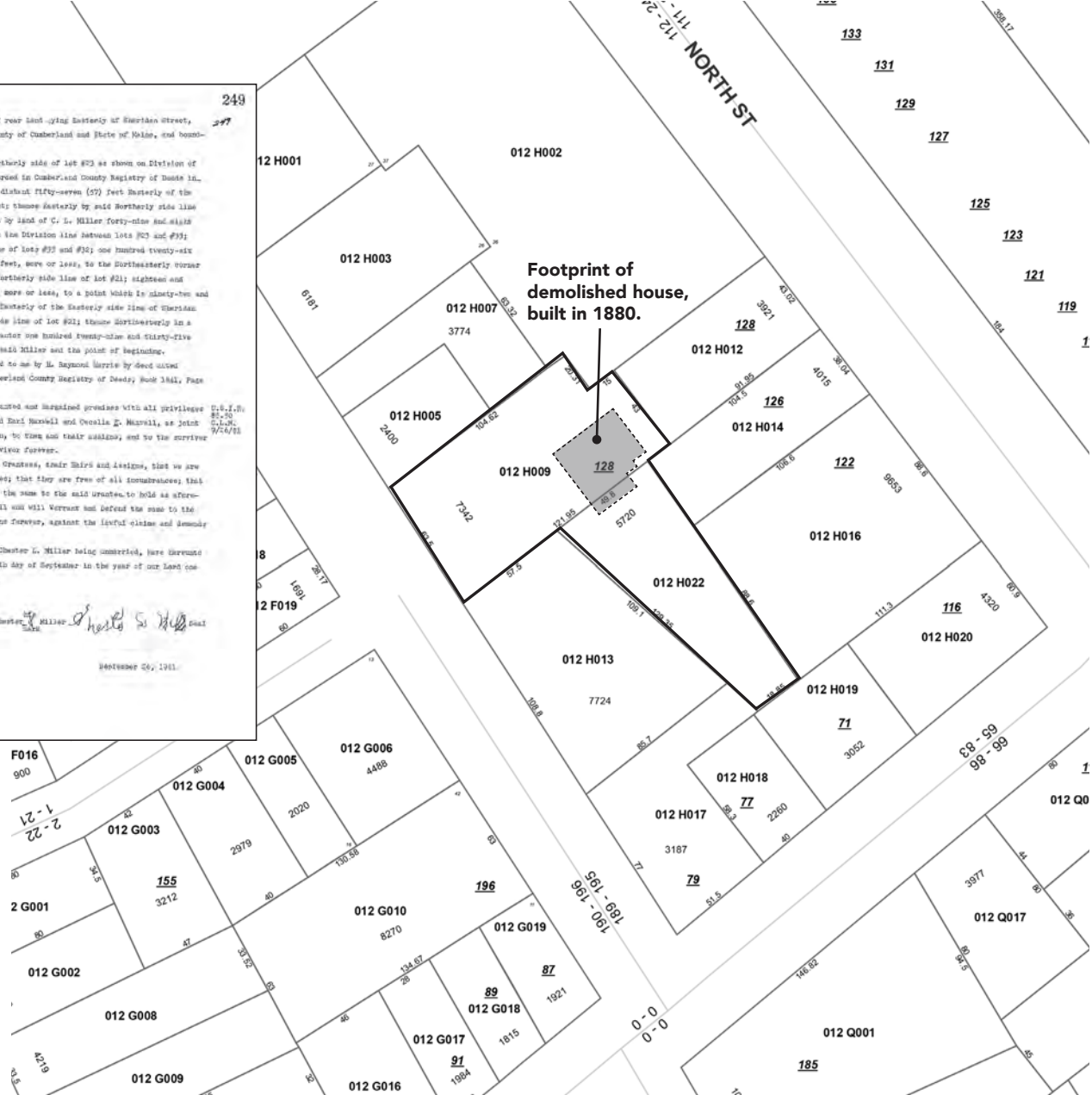
TO HAVE AND TO HOLD the abovegranted and herein granted premises with all privileges and appurtenances thereof to the said Earl Maxwell and Cecelia J. Maxwell, as joint tenants, and not as tenants in common, to them and their assigns, and to the survivor and the heirs and assigns of the survivor forever.

AND I do COVENANT with the said Grantees, their heirs and assigns, that we are lawfully seized in fee of the premises; that they are free of all incumbrances; that I have good right to sell and convey the same to the said Grantees to hold as aforesaid; and that we and our heirs, shall well and lawfully defend the same to the said Grantees, their heirs and assigns forever, against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, I the said Charles L. Miller being unmarried, here sheweth and up land and seal this twenty-eighth day of September in the year of our Lord one thousand nine hundred and fifty-one.

Witness, Read and Delivered
In presence of
Charles L. Miller
Earl Maxwell
Cecelia J. Maxwell
Notary Public
Cumberland Co.

September 26, 1951.



The 1951 Deed, which for the first time conveyed tax parcels H009 and H022 together as a single conveyance. The deed clarifies that the H022 land was acquired by the Grantor in 1946.

Outlined property:
Property 012 H009 and H022,
128 R North Street.

 Properties purchased by Redfern to build Munjoy Heights

Doc# 4586 8x13171 Pgs: 117

SCHEDULE A
Estate of Earl Maxwell to Raymond C. Maxwell

A certain lot or parcel of land, with the buildings thereon, situated on the easterly side of Sheridan Street, in the City of Portland, County of Cumberland, and State of Maine and more particularly described as follows:

Beginning at a point on said easterly side of Sheridan Street, which point marks the southerly corner of land conveyed by A.J. Bernstein to Elmore W. Ramsdell by deed dated May 28, 1923, and recorded in Cumberland County Registry of Deeds in Book 1133, Page 466; thence running northerly by said easterly side line of Sheridan Street sixty-three and five tenths (63.5) feet more or less to the northwesterly corner of said land conveyed to Ramsdell as aforesaid; thence running easterly along the northerly line of said land one hundred and four and sixtieth-one hundredths (104.82) feet to the northwest corner of land conveyed by said A.J. Bernstein to Joseph R. Murphy by deed dated May 28, 1923, recorded in said Registry of Deed, Book 1133, Page 465; thence running southerly by the westerly line of said Murphy land twenty and thirteen-one hundredths (20.31) feet to the southerly corner of said Murphy land; thence running easterly along the southerly line of said Murphy land fifteen (15) feet to a point; thence southerly in a line parallel with and fifteen (15) feet distant easterly from said westerly side line of said Murphy land southerly one hundred and forty-three (43) feet to the southerly line of land first above mentioned as conveyed by Bernstein to Ramsdell; at a point ninety-one and ninety-three one hundredths (91.93) feet westerly from the westerly side line of North Street; thence running westerly by said southerly side line of said Ramsdell land about one hundred twenty-one and ninety-five one hundredths (121.95) feet to Sheridan Street and the point of beginning.

ALSO a certain lot or parcel of rear land lying Easterly of Sheridan Street, in said City of Portland, County of Cumberland, and State of Maine, and bounded and described as follows:

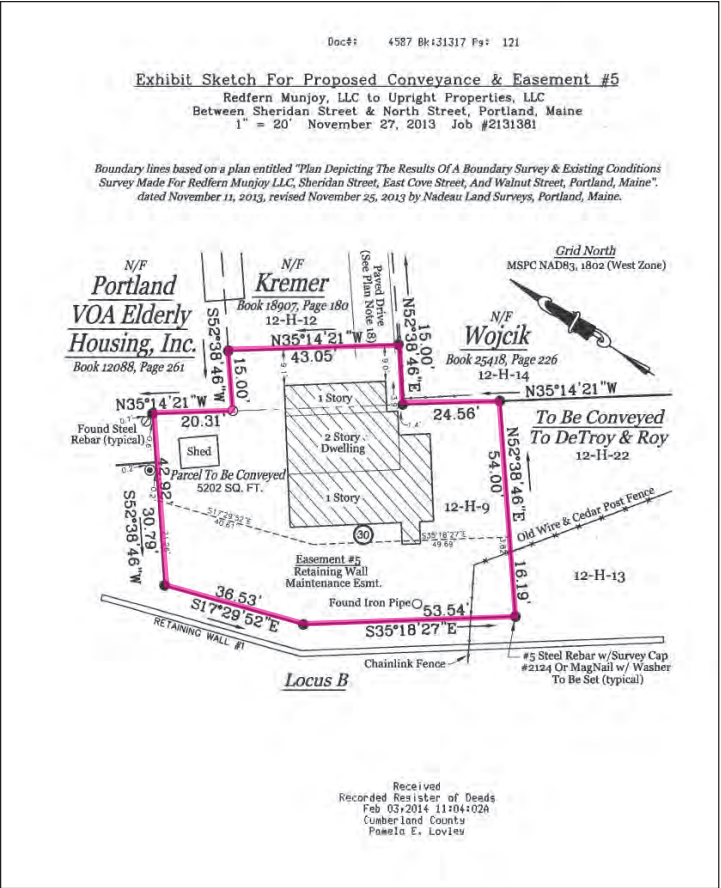
Beginning at a point on the Northerly side of Lot #23 as shown on Division of Little, Weeks, and Moody Land as recorded in Cumberland County Registry of Deeds in Plan Book 3, Page 247, said point being distant fifty-seven (57) feet Easterly of the easterly side line of Sheridan Street; thence easterly by said Northerly side line of Lot #23 as shown on said plan and by land now or formerly of C.L. Miller forty-nine and eight tenths (49.8) feet, more or less, to the Division line between Lots #23 and #3; thence Southerly by the Westerly line of Lots #33 and #32 one hundred twenty-six and seventy-two hundredths (126.72) feet, more or less, to the Northerly corner of Lot #21; thence Westerly by the Northerly side line of Lot #21 eighteen and eighty-five hundredths (18.85) feet, more or less, to a point which is ninety-two and fifty-seven hundredths (92.57) feet Easterly of the Easterly side line of Sheridan Street, measured on the Northerly side line of Lot #21; thence Northwesterly in a straight line and four feet distant from the Northerly corner of Lot #21 twenty-nine and thirty-five hundredths (29.35) feet to land of said Miller and the point of beginning.

The above described premises are conveyed together with any and all easements, rights, or restrictions of record.

Being the same premises conveyed to Earl Maxwell and Cecelia Maxwell by deed of Chester L. Miller dated December 26, 1951. Earl Maxwell was the surviving joint tenant, as Cecelia Maxwell died on December 14, 1974.

Received
Recorded Register of Deeds
Feb 03/2014 11:01:44A
Cumberland County
Pamela E. Lovley





Property 012 H009/128 R North Street



See applicant's drawing labeled C-03.



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Know all Men by these Presents, That

I, Elmore W. Ramsdell of Portland in the County of Cumberland and State of Maine,

in consideration of one dollar and other valuable considerations,
Claire Bowden of said Portland,

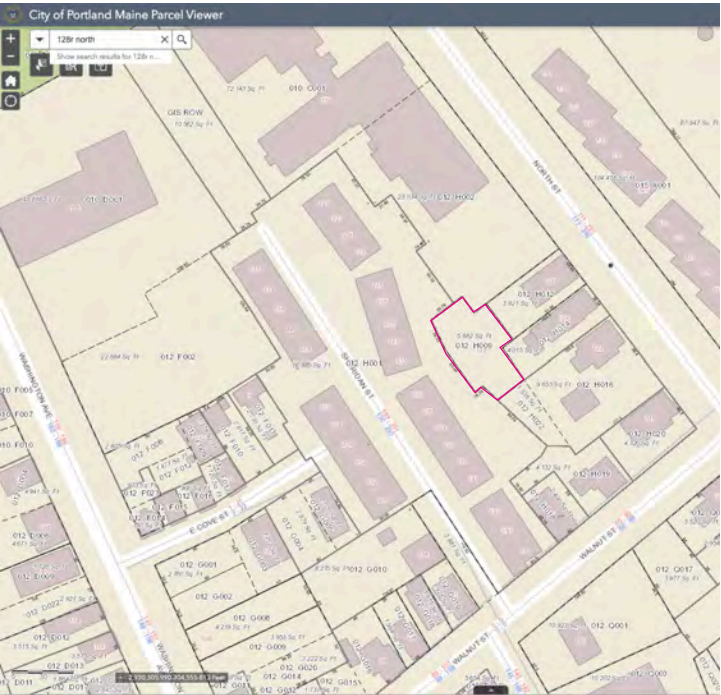
the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said Claire Bowden, her heirs and assigns forever, a certain lot or parcel of land on the easterly side of Sheridan Street, beginning at a point on said easterly side of Sheridan Street which point marks the southwesterly corner of land conveyed by A. J. Bernstein to Elmore W. Ramsdell by deed dated May 28, 1923, and recorded in Cumberland County Registry of Deeds in Book 1153, Page 466; thence running northerly by said easterly side line of Sheridan Street sixty-three and five tenths (63.5) feet, more or less, to the northwesterly corner of said land conveyed to Ramsdell as aforesaid; thence running easterly along the northerly line of said land one hundred and four and sixty-two one hundredths (104.62) feet to the northwest corner of land conveyed by said A. J. Bernstein to Joseph R. Murphy by deed dated May 28, 1923, recorded in Cumberland County Registry of Deeds, Book 1183, Page 466; thence running southerly by the westerly line of said Murphy land twenty and thirty-one one hundredths (20.31) feet to the southwesterly corner of said Murphy land; thence running easterly along the southerly line of said Murphy land fifteen (15) feet to a point; thence southerly in a line parallel with and fifteen (15) feet distant easterly from said westerly side line of said Murphy land extended southerly, about forty-three (43) feet to the southerly line of land first above mentioned as conveyed by Bernstein to Ramsdell, at a point ninety-one and ninety-three one hundredths (91.93) feet westerly from the westerly side line of North Street; thence running westerly by said southerly side line of said Ramsdell land about one hundred twenty-one and ninety-five one hundredths (121.95) feet to Sheridan Street and the point of beginning.

Being a part of land conveyed by Abraham J. Bernstein to me by deed dated May 28, 1923, recorded in Cumberland County Registry of Deeds, Book 1183, Page 466.
Together with a right of way across my land from the lot hereby conveyed to North Street.

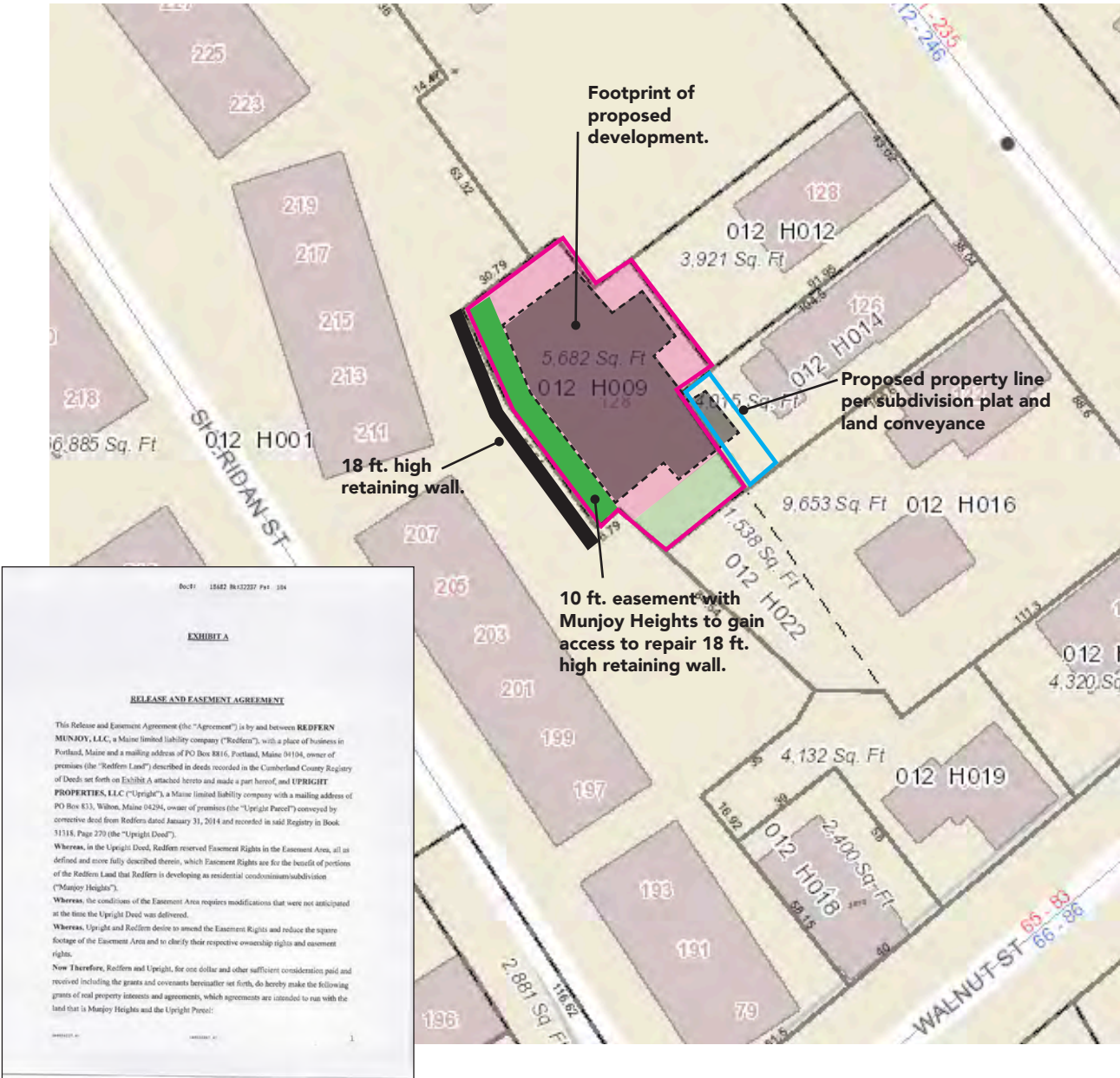
Twelve words blotted out before signing. D.W.P.

Deed, Ramsdell to Bowden, July 25, 1923,
filed in the Cumberland County Clerk's
Office in Book 1143 at Page 307.





City of Portland, Maine Parcels map, June, 2018
Completely reconfigured property lines with an easement to Munjoy Heights for repair of the retaining wall. Map does not show the steep grade making it impossible to gain access with heavy equipment with the proposed building.



Doc# 15842 04/22/2017 Pgs. 1/4

EXHIBIT A

RELEASE AND EASEMENT AGREEMENT

This Release and Easement Agreement (the "Agreement") is by and between REDFERN MUNJOY, LLC, a Maine limited liability company ("Redfern"), with a place of business in Portland, Maine and a mailing address of PO Box 8316, Portland, Maine 04104, owner of premises (the "Redfern Land") described in deeds recorded in the Cumberland County Registry of Deeds set forth on Exhibit A attached hereto and made a part hereof, and UPRIGHT PROPERTIES, LLC ("Upright"), a Maine limited liability company with a mailing address of PO Box 831, Wilton, Maine 04294, owner of premises (the "Upright Parcel") conveyed by corrective deed from Redfern dated January 31, 2014 and recorded in said Registry in Book 31315, Page 270 (the "Upright Deed").

Whereas, in the Upright Deed, Redfern reserved Easement Rights in the Easement Area, all as defined and more fully described therein, which Easement Rights are for the benefit of portions of the Redfern Land that Redfern is developing as residential condominiums/subdivision ("Munjoy Heights").

Whereas, the conditions of the Easement Area requires modifications that were not anticipated at the time the Upright Deed was delivered.

Whereas, Upright and Redfern desire to amend the Easement Rights and reduce the square footage of the Easement Area and to clarify their respective ownership rights and easement rights.

Now Therefore, Redfern and Upright, for one dollar and other sufficient consideration paid and received including the grants and covenants hereinafter set forth, do hereby make the following grants of real property interests and agreements, which agreements are intended to run with the land that is Munjoy Heights and the Upright Parcel:

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Google Groups

Opposed to the Development at 128R North Street

Liz Hays <lizchays@gmail.com>

Jun 22, 2020 9:11 PM

Posted in group: **Planning Board**

Dear Planning Board

My name is Liz Hays, and a home owner at 107 North Street, in close proximity to this proposed development at 128R North Street.

I continue to be strongly against this development project.

I first want to complain that I received no notification of a workshop on this project held on May 26, 2020 despite the fact that I live 500 feet from the project. I would have attended, to express my opposition, if I had known about the meeting.

I feel, one argument against the project is that the proposed structure is severely out of scale compared to the building site and that it is dangerously problematic as it is being built on a steep slope.

My other argument against this project is its limited access to emergency vehicles which creates a safety issue. The proposed alternative access through the Volunteer of America parking lot does not take into consideration the problem if the parking lot is full with VOA resident's vehicles.

My last concern is with the new plans feature of an 18-inch "wheel stop" wall at the rear of the building. This in fact a foundation wall, not only supporting the balcony structures but also wrapping the perimeter of the building. The setback requirement for a foundation wall is 15 feet. The existing plan envisions a setback of only 10 feet.

I hope before you make any decision on this project, that you visit the site and take in to consideration my concerns.

Sincerely,

Liz Hays
107 North St.
Portland, ME 04101
207-441-4653

126 and 128R North Street Workshop

Ann Casady <ann@casadydesign.com>

Jul 16, 2020 10:25 AM

Posted in group: **Planning Board**

To: Chairman Mazer and Shukria Wiar

I hope this finds you both well and safe. I am so proud of Maine for keeping this virus in check so far.

I am submitting a visual aid to be viewed by all participants for the workshop on July 21 for 126 and 128R North Street (Plan Number PL-000791-2019)

when the public comment time is available and requested by Tom Federle and/or Michael Englert.

128R North Street-Exhibit-A.pdf

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Quoting statement to be his free and clear, and the free and clear of said Corporation.

RECORDED 100,

Charles L. Miller

Notary Public, Notarial Seal;

Received September 28, 1951 at 10h 10m A. M., and recorded according to the original.

Miller

SHOW ALL MEN BY THESE PRESENTS, THAT I, Charles L. Miller of Portland, in the County of Cumberland and State of Maine, in consideration of the Dollar and other valuable considerations paid by Earl Maxwell and Cecilia Maxwell, both of said Portland, unto the said Earl Maxwell and Cecilia Maxwell, as joint tenants, and not as tenants in common, to them and their assigns, and to the survivors, and the heirs and assigns of the survivor forever, the following described property:

A certain lot or parcel of land, with the buildings thereon, situated on the westerly side of Sheridan Street, in said City of Portland bounded and described as follows:

Beginning at a point on said easterly side of Sheridan Street which point marks the southeasterly corner of land conveyed by A. J. Bernstein to Elmore W. Randall by deed dated May 28, 1923, and recorded in Cumberland County Registry of Deeds in Book 1137, Page 466; thence running southerly by said easterly side line of Sheridan Street sixty-three and five tenths (63.5) feet more or less to the southeasterly corner of said land conveyed to Randall as aforesaid; thence running easterly along the southerly line of said land one hundred and four and sixty-two one hundredths (104.62) feet to the northeast corner of land conveyed by said A. J. Bernstein to Joseph B. Murphy by deed dated May 28, 1923, recorded in Cumberland County Registry of Deeds; Book 1137, Page 465; thence running southerly by the westerly line of said Murphy land twenty and thirty-one one hundredths (20.31) feet to the southwest corner of said Murphy land; thence running easterly along the southerly line of said Murphy land fifteen (15) feet to a point; thence southerly in a line parallel with and fifteen (15) feet distant westerly from said westerly side line of said Murphy land extending southerly, about forty-three (43) feet to the southerly line of land first above mentioned as conveyed by Bernstein to Randall, at a point ninety-one and ninety-three one hundredths (91.93) feet westerly from the westerly side line of North Street; thence running westerly by said southerly side line of said Randall land about one hundred twenty-one and ninety-five one hundredths (121.95) feet to Sheridan Street and the point of beginning.

Being the same premises conveyed to me by Merrill W. Miller et aln. by deeds dated December 27, 1944 and recorded in Cumberland County Registry of Deeds Book 1768 Page 14 together with a right of way across my land from lot hereby conveyed to North Street.

249

Also a certain lot or parcel of rear land lying easterly of Sheridan Street, in said City of Portland, in the County of Cumberland and State of Maine, and bounded and described as follows:

Beginning at a point on the southerly side of lot #73 as shown on Division of Little, Weeks and Moody Land as recorded in Cumberland County Registry of Deeds in Book 14, Page 247, said point being distant fifty-seven (57) feet southerly of the southerly side line of Sheridan Street; thence southerly by said southerly side line of lot #73 as shown on said plan and by land of C. L. Miller forty-one and eight tenths (40.8) feet, more or less, to the Division line between lots #73 and #79; thence southerly by the southerly line of lots #73 and #79; one hundred twenty-six and ninety-two one hundredths (126.92) feet, more or less, to the southeasterly corner of lot #21; thence southerly by the southerly side line of lot #21; eighteen and fifty-five hundredths (18.55) feet, more or less, to a point which is ninety-two and fifty-seven hundredths (92.57) feet southerly of the southerly side line of Sheridan Street, measured on the southerly side line of lot #21; thence southeasterly in a straight line and my land of said Grantor one hundred twenty-one and thirty-five hundredths (121.35) feet to land of said Miller and the point of beginning.

Being the same premises conveyed to me by H. Raymond Harris by deed dated October 3, 1946 and recorded in Cumberland County Registry of Deeds, Book 1341, Page 282.

TO HAVE AND TO HOLD the abovegranted and herein granted premises with all privileges and appurtenances thereof to the said Earl Maxwell and Cecilia E. Maxwell, as joint tenants, and not as tenants in common, to them and their assigns, and to the survivor and the heirs and assigns of the survivor forever.

AND I do COVENANT with the said Grantees, their heirs and assigns, that we are lawfully seized in fee of the premises; that they are free of all incumbrances; that I have good right to sell and convey the same to the said Grantees to hold as aforesaid; and that we and our heirs, shall well and lawfully defend the same to the said Grantees, their heirs and assigns forever, against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, I the said Charles L. Miller being unmarried, here shew and set up hand and seal this twenty-eighth day of September in the year of our Lord one thousand nine hundred and fifty-one.

Witness, Read and Delivered

In presence of

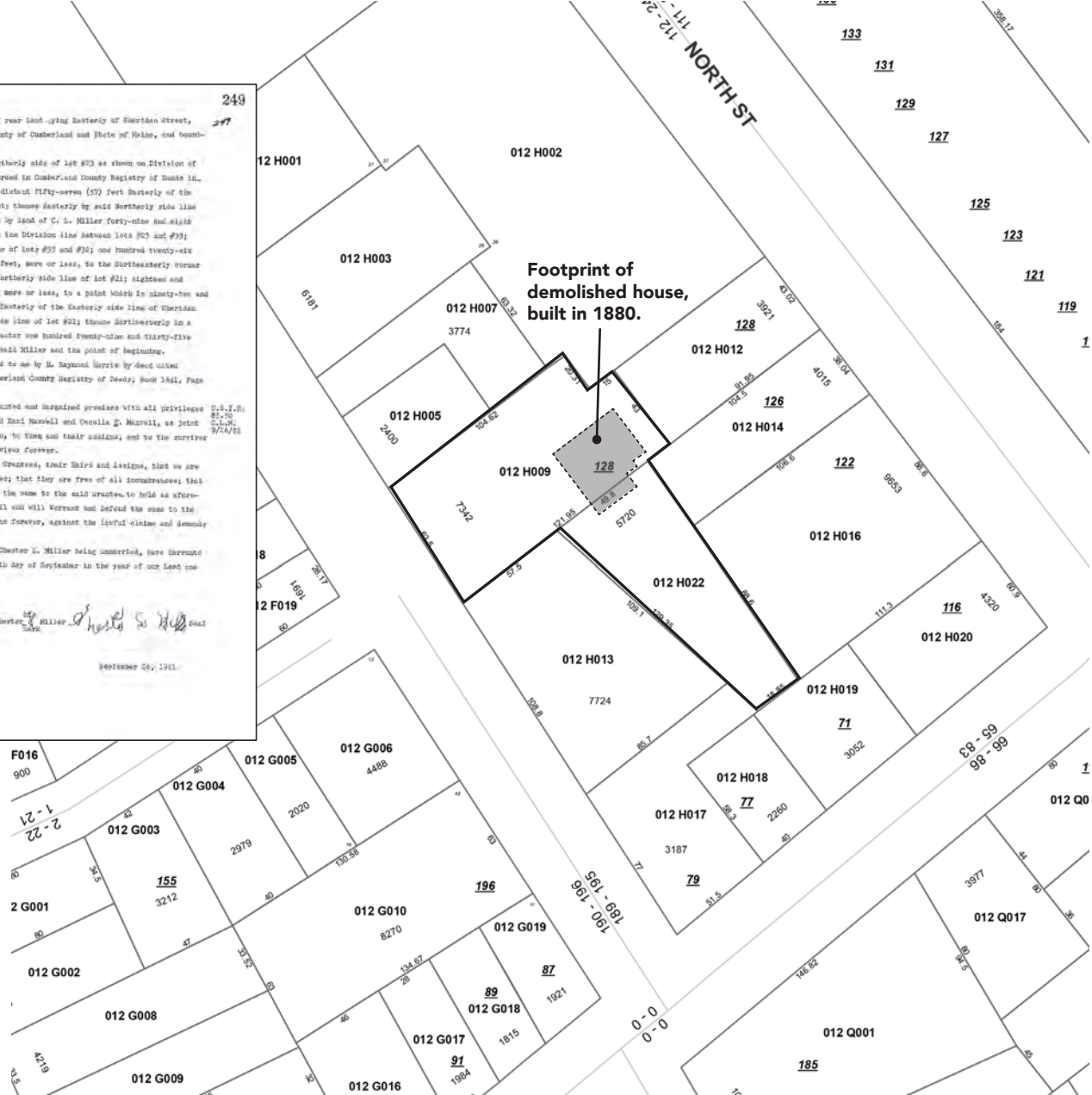
Charles L. Miller

Earl Maxwell

Cecilia E. Maxwell

Cumberland Co.

September 26, 1951.



The 1951 Deed, which for the first time conveyed tax parcels H009 and H022 together as a single conveyance. The deed clarifies that the H022 land was acquired by the Grantor in 1946.



April 1, 2012 fy 2013
Portland, Maine Tax
Assessors Map

Outlined property:
Property 012 H009 and H022,
128 R North Street.

 Properties purchased
by Redfern to build
Munjoy Heights

Doc#: 4586 Bk+31317 Ps: 117

SCHEDULE A
Estate of Earl Maxwell to Raymond C. Maxwell

A certain lot or parcel of land, with the buildings thereon, situated on the easterly side of Sheridan Street, in the City of Portland, County of Cumberland, and State of Maine and more particularly described as follows:

Beginning at a point on said easterly side of Sheridan Street, which point marks the southwesterly corner of land conveyed by A.J. Bernstein to Elmore W. Ramsdell by deed dated May 28, 1923, and recorded in Cumberland County Registry of Deeds in Book 1133, Page 466; thence running northerly by said easterly side line of Sheridan Street sixty-three and five tenths (63.5) feet more or less to the northwesterly corner of said land conveyed to Ramsdell as aforesaid; thence running easterly along the northerly line of said land one hundred and four and sixty-two one hundredths (104.62) feet to the northwest corner of land conveyed by said A.J. Bernstein to Joseph R. Murphy by deed dated May 28, 1923, recorded in said Registry of Deed, Book 1133, Page 465; thence running southerly by the westerly line of said Murphy land twenty and thirty-one one hundredths (20.31) feet to the southwesterly corner of said Murphy land; thence running easterly along the southerly line of said Murphy land fifteen (15) feet to a point; thence southerly in a line parallel with and fifteen (15) feet distant easterly from said westerly side line of said Murphy land extending southerly, about forty-three (43) feet to the southerly line of land first above mentioned as conveyed by Bernstein to Ramsdell, at a point ninety-one and ninety-three one hundredths (91.93) feet westerly from the westerly side line of North Street; thence running westerly by said southerly side line of said Ramsdell land about one hundred twenty-one and ninety-five one hundredths (121.95) feet to Sheridan Street and the point of beginning.

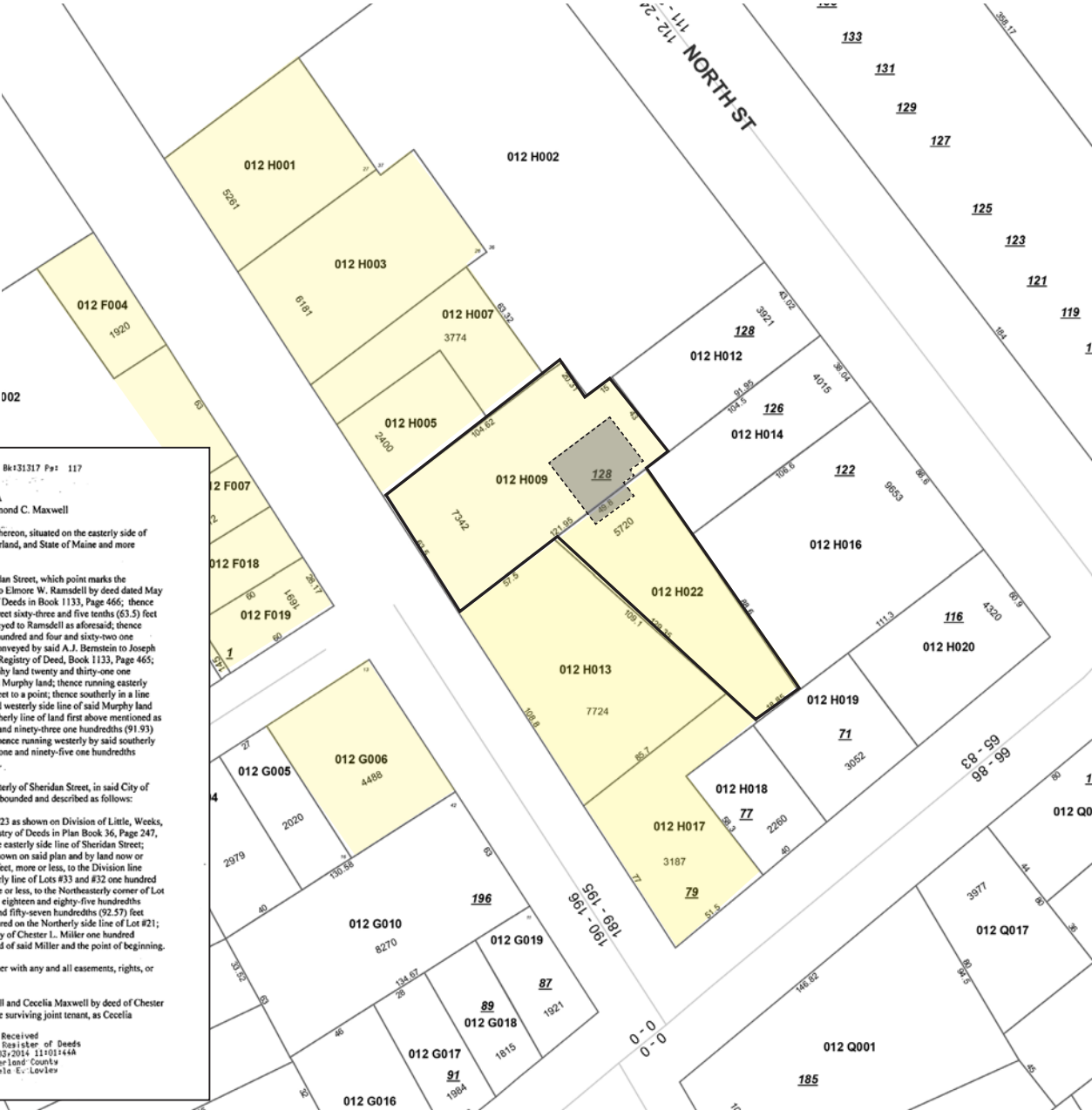
ALSO a certain lot or parcel of rear land lying Easterly of Sheridan Street, in said City of Portland, County of Cumberland, and State of Maine, and bounded and described as follows:

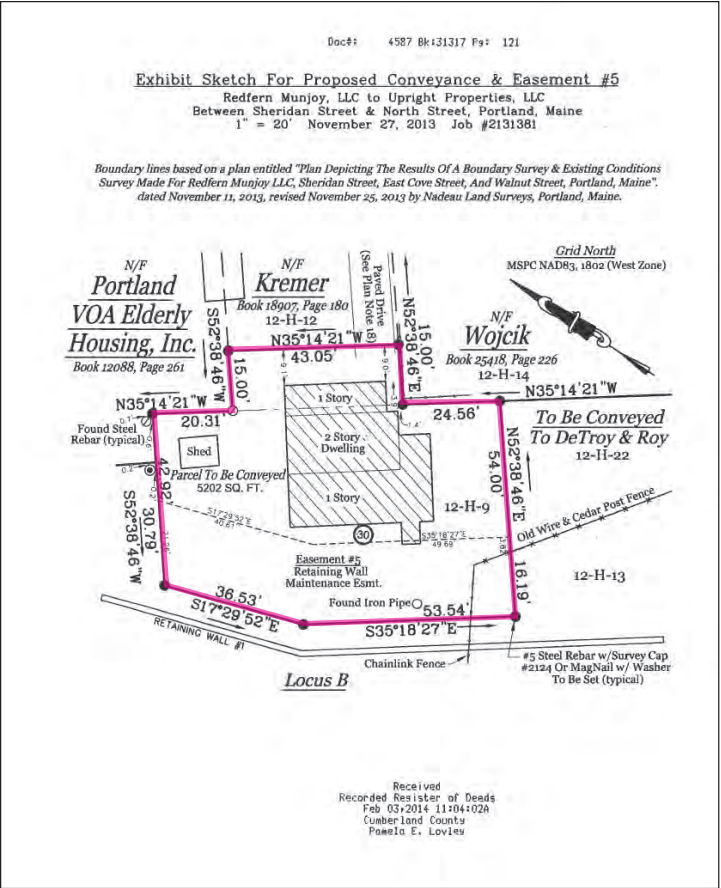
Beginning at a point on the Northerly side of Lot #23 as shown on Division of Little, Weeks, and Moody Land as recorded in Cumberland County Registry of Deeds in Plan Book 36, Page 247, said point being distant fifty-seven (57) feet Easterly of the easterly side line of Sheridan Street; thence easterly by said Northerly side line of Lot #23 as shown on said plan and by land now or formerly of C.L. Miller forty-nine and eight tenths (49.8) feet, more or less, to the Division line between Lots #23 and #33; thence Southerly by the Westerly line of Lots #33 and #32 one hundred twenty-six and seventy-two hundredths (126.72) feet, more or less, to the Northeastly corner of Lot #21; thence Westerly by the Northerly side line of Lot #21 eighteen and eighty-five hundredths (18.85) feet, more or less, to a point which is ninety-two and fifty-seven hundredths (92.57) feet Easterly of the Easterly side line of Sheridan Street, measured on the Northerly side line of Lot #21; thence Northwesterly in a straight line and by land formerly of Chester L. Miller one hundred twenty-nine and thirty-five hundredths (129.35) feet to land of said Miller and the point of beginning.

The above described premises are conveyed together with any and all easements, rights, or restrictions of record.

Being the same premises conveyed to Earl Maxwell and Cecelia Maxwell by deed of Chester L. Miller dated September 26, 1951. Earl Maxwell was the surviving joint tenant, as Cecelia Maxwell died on December 14, 1974.

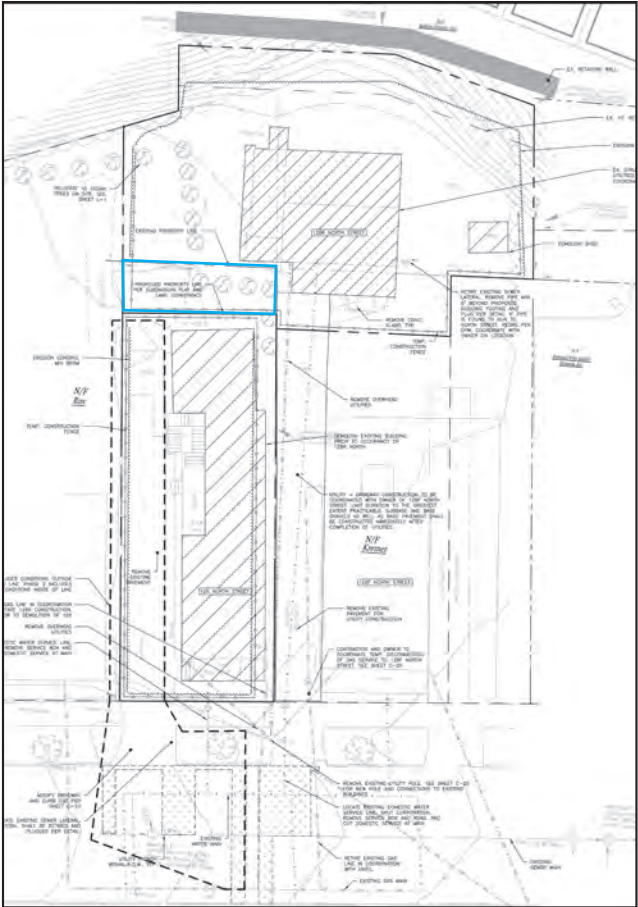
Received
Recorded Register of Deeds
Feb 03/2014 11:01:44A
Cumberland County
Pamela E. Lovley





Property 012 H009/128 R North Street





Additional proposed conveyance by applicant to aggregate additional land to proposed development lot.

See applicant’s drawing labeled C-03.



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Know all Men by these Presents, That

I, Elmore W. Ramsdell of Portland in the County of Cumberland and State of Maine,

in consideration of one dollar and other valuable considerations,
Claire Bowden of said Portland,

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said Claire Bowden, her heirs and assigns forever, a certain lot or parcel of land on the easterly side of Sheridan Street, beginning at a point on said easterly side of Sheridan Street which point marks the southwesterly corner of land conveyed by A. J. Bernstein to Elmore W. Ramsdell by deed dated May 28, 1923, and recorded in Cumberland County Registry of Deeds in Book 1153, Page 466; thence running northerly by said easterly side line of Sheridan Street sixty-three and five tenths (63.5) feet, more or less, to the northwesterly corner of said land conveyed to Ramsdell as aforesaid; thence running easterly along the northerly line of said land one hundred and four and sixty-two one hundredths (104.62) feet to the northwest corner of land conveyed by said A. J. Bernstein to Joseph R. Murphy by deed dated May 28, 1923, recorded in Cumberland County Registry of Deeds, Book 1183, Page 466; thence running southerly by the westerly line of said Murphy land twenty and thirty-one one hundredths (20.31) feet to the southwesterly corner of said Murphy land; thence running easterly along the southerly line of said Murphy land fifteen (15) feet to a point; thence southerly in a line parallel with and fifteen (15) feet distant easterly from said westerly side line of said Murphy land extended southerly, about forty-three (43) feet to the southerly line of land first above mentioned as conveyed by Bernstein to Ramsdell, at a point ninety-one and ninety-three one hundredths (91.93) feet westerly from the westerly side line of North Street; thence running westerly by said southerly side line of said Ramsdell land about one hundred twenty-one and ninety-five one hundredths (121.95) feet to Sheridan Street and the point of beginning.

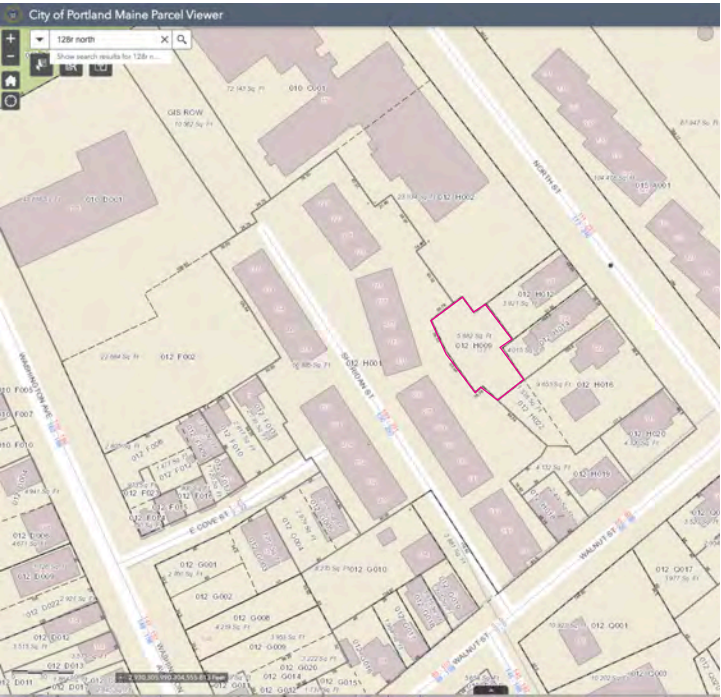
Being a part of land conveyed by Abraham J. Bernstein to me by deed dated May 28, 1923, recorded in Cumberland County Registry of Deeds, Book 1183, Page 466.

Together with a right of way across my land from the lot hereby conveyed to North Street.

Twelve words blotted out before signing. D.W.P.

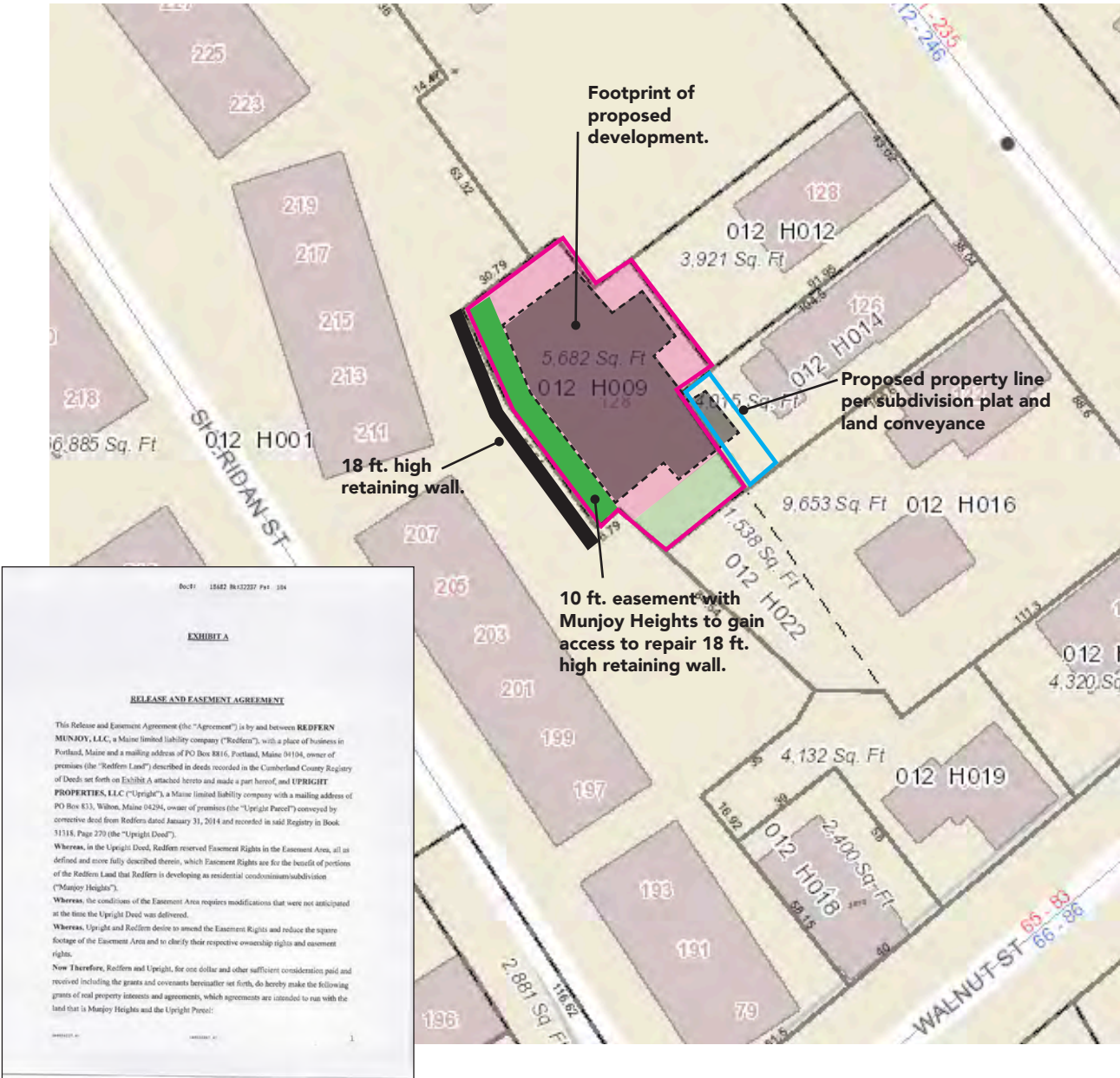
Deed, Ramsdell to Bowden, July 25, 1923,
filed in the Cumberland County Clerk's
Office in Book 1143 at Page 307.





City of Portland, Maine Parcels map, June, 2018

Completely reconfigured property lines with an easement to Munjoy Heights for repair of the retaining wall. Map does not show the steep grade making it impossible to gain access with heavy equipment with the proposed building.



Doc# 15842 04/22/2017 Pgs. 1/4

EXHIBIT A

RELEASE AND EASEMENT AGREEMENT

This Release and Easement Agreement (the "Agreement") is by and between REDFERN MUNJOY, LLC, a Maine limited liability company ("Redfern"), with a place of business in Portland, Maine and a mailing address of PO Box 8316, Portland, Maine 04104, owner of premises (the "Redfern Land") described in deeds recorded in the Cumberland County Registry of Deeds set forth on Exhibit A attached hereto and made a part hereof, and UPRIGHT PROPERTIES, LLC ("Upright"), a Maine limited liability company with a mailing address of PO Box 831, Wilton, Maine 04294, owner of premises (the "Upright Parcel") conveyed by corrective deed from Redfern dated January 31, 2014 and recorded in said Registry in Book 3131S, Page 270 (the "Upright Deed").

Whereas, in the Upright Deed, Redfern reserved Easement Rights in the Easement Area, all as defined and more fully described therein, which Easement Rights are for the benefit of portions of the Redfern Land that Redfern is developing as residential condominiums/subdivision ("Munjoy Heights").

Whereas, the conditions of the Easement Area requires modifications that were not anticipated at the time the Upright Deed was delivered.

Whereas, Upright and Redfern desire to amend the Easement Rights and reduce the square footage of the Easement Area and to clarify their respective ownership rights and easement rights.

Now Therefore, Redfern and Upright, for one dollar and other sufficient consideration paid and received including the grants and covenants hereinafter set forth, do hereby make the following grants of real property interests and agreements, which agreements are intended to run with the land that is Munjoy Heights and the Upright Parcel:

1

Google Groups

Fwd: 128R North Street; Level III Site Plan Review

Shukria Wiar <shukriaw@portlandmaine.gov>

Jul 16, 2020 12:05 PM

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

Please add to public comments.

----- Forwarded message -----

From: **Tom Federle** <tom@federlelawmaine.com>

Date: Thu, Jun 18, 2020 at 12:29 PM

Subject: 128R North Street; Level III Site Plan Review

To: Shukria Wiar <shukriaw@portlandmaine.gov>, Jennifer Thompson <jlt@portlandmaine.gov>, <bmazer@perkinsthompson.com>

Cc: Tom Federle <Tom@federlelawmaine.com>

Shukria, Jen and Brandon—

Please see the attached. I would be happy to discuss with Shukria and Jen at any time and with Brandon at the public hearing on the above referenced application should one be scheduled though I would suggest one should not be scheduled.

Best Regards,

Tom Federle

FEDERLE LAW

254 Commercial Street, Ste. 103

Portland, ME 04101

207.899.0155 (direct)

Tom@federlelawmaine.com

www.federlelawmaine.com

--

Shukria Wiar, Planner

Planning & Urban Development Department

389 Congress Street 4th Floor

Portland, ME 04101

Phone 207.756.8083

Fax 207.756.8258

<http://www.portlandmaine.gov/planning>

FEDERLE LAW

--Sent Electronically--

June 18, 2020

Shukria Wiar, Planning Staff
Brandon Mazer, Planning Board Chair
Jennifer Thompson, Corporation Counsel
City of Portland
Portland, Maine 04101

**RE: Level III Site Plan/Subdivision Application;
Upright Properties; 128R North Street**

Shukria, Brandon and Jen-

I offer this memorandum on behalf of my clients, Lindsay and Susan Mann who are owners of property at 122 North Street and who abut the land addressed as 128R North Street, the subject of the above application. In a February letter to staff I asserted several arguments as to how the above referenced application fails to satisfy the requirements of Portland's Land Use Ordinance. While preserving all of those prior arguments which to date have gone largely unaddressed, I now submit an additional argument that is so foundational that it ought to stop this application from being processed any further. The applicant simply does not have a lawful lot upon which to build.

I. The Applicant's Land Addressed as 128R North Street is Not a Lot That Can Be Built Upon.

A threshold determination that the planning staff has seemingly overlooked is whether the applicant owns a lot upon which he can develop. The applicant does not.

Portland's Land Use Ordinance defines a lot as: "[a] *parcel or area of land that is designated as an individual unit for use, development or ownership that is either a) a lot of record, recorded in the*

Cumberland County Registry of Deeds; or b) a contiguous combination of such lots of record under common ownership; or c) a newly established parcel meeting all the dimensional requirements of the zone in which it is located. **Portland Land Use Ordinance §14-47.**

FEDERLE LAW

Upright Properties (“Upright”) apparently is relying upon a claim that he has a lot of record (sub “a” above) as clearly he does not have “a contiguous combination of such lots of record under common ownership” (sub “b” above) or “a newly established parcel meeting all the dimensional requirements of the zone in which it is located” (sub “c” above) since 128R North Street lacks required road frontage.

A. Upright’s Land Addressed as 128R North Street Was Not a Lot of Record in 1957.

Portland’s Land Use Ordinance establishes that notwithstanding a piece of land’s non-conformity with dimensional requirements under Portland’s zoning, it may still be buildable if it was a “lot of record as of June 5, 1957.” **Portland Land Use Ordinance §14-433.** The land at 128R North Street was not created until 2014 and thus was not a lot of record in 1957.

In 2014, Redfern Properties (“Redfern”) purchased the 128R property. Redfern did not rely upon any claim that the land was a lawfully nonconforming lot but instead divided the property using a portion as part of its aggregation of land into a newly merged parcel that met all dimensional requirements of a lot in the R-6 zone. On this land, Redfern constructed Munjoy Heights. Redfern sold the remainder of the 128R land, with a single family house on it, to Upright.

Thus, the land addressed as 128R North Street, as configured and presented in Upright’s application before the Planning Board, was first created by a deed from Redfern to Upright in 2014, fifty-seven years after Portland adopted its Land Use Ordinance. Four years later, in 2018, Mary Roy sold to Upright another piece of land that was appended onto that which Upright purchased from Redfern. The land at 128R North Street, in its current configuration, was thus formed in 2014 and 2018, well over a half century after Portland adopted zoning. The land at 128R North Street is merely a remnant piece of a lot of record that existed in 1957. **A depiction of the lot as it existed in 1957 and its permutations leading to its current configuration is attached hereto as Exhibit A.**

B. The 128R Property is Not a Lawfully Nonconforming Lot.¹

Portland’s Land Use Ordinance, like all land use ordinances in Maine, strives to bring coherence to land use patterns throughout the city through certain zoning requirements. In acknowledgement that zoning is in derogation of common law property rights, Portland’s Land Use Ordinance, like all land use ordinances, provides for the continuation of lots, buildings and uses lawfully existing at the time of the adoption of the zoning. In this way, new lots, uses and buildings must conform and old

¹ The term “lawfully non-conforming” in land use parlance is often used interchangeably with the more generally recognized term “grandfathered.” The derivation of the term “grandfathered” relates to Jim Crow era voting laws that had the intended effect of disenfranchising black voters and is thus a term innocently used by myself and others for decades ignorant of its deeply racist origin.

FEDERLE LAW

nonconformities needn't end abruptly but are intended to fade away over time. In this way, zoning gets to its intended goals.

As stated by Maine's Supreme Court in *Day v. Town of Phippsburg*, 110 A.3rd 645 (Me. 2015), "[t]he policy of zoning is to abolish non-conformities as speedily as justice will permit." Citing *Town of Windham v. Sprague*, 219 A.2d 548, 552-53 (Me. 1996). "In light of this policy, zoning provisions that restrict nonconformities are liberally construed, and zoning provisions that allow nonconformities are strictly construed." Citing *Brackett v. Town of Rangeley*, 2003 Me 109, 831 A.2d 422.

Portland's nonconformity provision is found in §14-381. It reads that "[a]ny building, structure, lots, or use, that were legally existing at the time of its creation and made nonconforming by the provisions of this ordinance or any amendment thereto may be continued although such use does not conform with the provisions of this ordinance."

The land at 128R North Street, as currently configured in Upright's application, was not a "lot" and was not "legally existing" at the time of the creation of Portland's zoning ordinance. As such, §14-381 does not apply to Upright's land created by deeds in 2014 and 2018. §14-381 does not bestow upon this recently created lot any rights that might have applied to a legally existing lot in 1957. Any such rights were lost when the lawfully nonconforming lot of record was divided and altered in 2014.

Upright might argue that the land at 128R North Street is a piece of a lawfully nonconforming lot and therefor enjoys the same rights that the lawfully nonconforming lot once enjoyed. Maine's Supreme Court has already rejected this very argument. See *Viles v. Town of Embden*, 905 A.2d 298 (Me.2006). In *Viles*, a landowner claimed that a piece of land that was created from a portion of a lawfully nonconforming lot was itself a lawfully nonconforming lot. On law and facts materially identical to those here, Maine's Supreme Court held that a lot created out of a lawfully nonconforming lot, and created after the zoning was in place, was not itself a lawfully nonconforming lot. "The Vileses would have us conclude that any small parcel of land that is carved out of a larger nonconforming lot of record also becomes a nonconforming lot of record. Their interpretation of a "lot of record" would defeat the overall purpose of [a zoning ordinance]." *Viles*, at 304. The Court held that the lot was not a buildable lot. The *Viles* holding is good law in Maine. I can find no case law contradicting it. I can find no reason to believe that the Law Court, if presented with another such case, would conclude any differently

In light of Portland's Land Use Ordinance's express provisions establishing what constitutes a buildable lot; in light of the policy of zoning and the Supreme Court's articulation of how nonconformity provisions are to be construed; in light of clear, un-contradicted Maine Supreme Court precedent that a remnant piece of land carved out of a lot of record does not enjoy the lawful non-conforming status of the original lot of record; and given the uncontestable history of the evolution of Upright's land at 128R North Street, the planning staff and the planning board have no choice but to conclude that 128R is not a buildable lot. As such, the application currently pending before the planning board must be denied.

FEDERLE LAW

Respectfully,

A handwritten signature in black ink, appearing to read 'T. Federle', followed by a long horizontal flourish.

Thomas B. Federle

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Quoting statement to be his free act and deed, and the free act and deed of said Corporation.

RECORDED 100,

Charles L. Miller

Notary Public, Notarial Seal;

Received September 28, 1951 at 10h 10m A. M., and recorded according to the original.

Miller

KNOW ALL MEN BY THESE PRESENTS, THAT I, Charles L. Miller of Portland, in the County of Cumberland and State of Maine, in consideration of the Dollar and other valuable considerations paid by Earl Maxwell and Cecilia Maxwell, both of said Portland, the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey, unto the said Earl Maxwell and Cecilia Maxwell, as joint tenants, and not as tenants in common, to them and their assigns, and to the survivors, and the heirs and assigns of the survivor forever, the following described property:

A certain lot or parcel of land, with the buildings thereon, situated on the westerly side of Sheridan Street, in said City of Portland bounded and described as follows:

Beginning at a point on said easterly side of Sheridan Street which point marks the southwest corner of land conveyed by A. J. Bernstein to Elmore W. Randall by deed dated May 28, 1923, and recorded in Cumberland County Registry of Deeds in Book 1137, Page 466; thence running northwesterly by said easterly side line of Sheridan Street sixty-three and five tenths (63.5) feet more or less to the northwest corner of said land conveyed to Randall as aforesaid; thence running easterly along the northerly line of said land one hundred and four and sixty-two one hundredths (104.62) feet to the northeast corner of land conveyed by said A. J. Bernstein to Joseph B. Murphy by deed dated May 28, 1923, recorded in Cumberland County Registry of Deeds; Book 1137, Page 465; thence running southerly by the westerly line of said Murphy land twenty and thirty-one one hundredths (20.31) feet to the southwest corner of said Murphy land; thence running easterly along the southerly line of said Murphy land fifteen (15) feet to a point; thence southerly in a line parallel with and fifteen (15) feet distant westerly from said westerly side line of said Murphy land extending southerly, about forty-three (43) feet to the southerly line of land first above mentioned as conveyed by Bernstein to Randall, at a point ninety-one and ninety-three one hundredths (91.93) feet westerly from the westerly side line of North Street; thence running westerly by said southerly side line of said Randall land about one hundred twenty-one and ninety-five one hundredths (121.95) feet to Sheridan Street and the point of beginning.

Being the same premises conveyed to me by Jerrall W. Miller et al. by deeds dated December 27, 1944 and recorded in Cumberland County Registry of Deeds Book 1768 Page 14 together with a right of way across my land from lot hereby conveyed to North Street.

249

Also a certain lot or parcel of rear land lying easterly of Sheridan Street, in said City of Portland, in the County of Cumberland and State of Maine, and bounded and described as follows:

Beginning at a point on the northerly side of lot #73 as shown on Division of Little, Weeks and Moody Land as recorded in Cumberland County Registry of Deeds in Book 14, Page 247, said point being distant fifty-seven (57) feet southerly of the southerly side line of Sheridan Street; thence southerly by said northerly side line of lot #73 as shown on said plan and by land of C. L. Miller forty-one and eight tenths (40.8) feet, more or less, to the Division line between lots #73 and #79; thence southerly by the westerly line of lots #73 and #79; one hundred twenty-six and ninety-two one hundredths (126.92) feet, more or less, to the northeasterly corner of lot #21; thence southerly by the southerly side line of lot #21; eighteen and fifty-five hundredths (18.55) feet, more or less, to a point which is ninety-two and fifty-seven hundredths (92.57) feet southerly of the southerly side line of Sheridan Street, measured on the southerly side line of lot #21; thence southerly in a straight line and by land of said Grantor one hundred twenty-one and thirty-five hundredths (121.35) feet to land of said Miller and the point of beginning.

Being the same premises conveyed to me by H. Raymond Harris by deed dated October 3, 1946 and recorded in Cumberland County Registry of Deeds, Book 1841, Page 282.

TO HAVE AND TO HOLD the abovegranted and herein granted premises with all privilege and appurtenances thereto to the said Earl Maxwell and Cecilia J. Maxwell, as joint tenants, and not as tenants in common, to them and their assigns, and to the survivor and the heirs and assigns of the survivor forever.

AND I do COVENANT with the said Grantees, their heirs and assigns, that we are lawfully seized in fee of the premises; that they are free of all incumbrances; that I have good right to sell and convey the same to the said Grantees to hold as aforesaid; and that we and our heirs, shall well and lawfully defend the same to the said Grantees, their heirs and assigns forever, against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, I the said Charles L. Miller being unmarried, here shew and set up hand and seal this twenty-eighth day of September in the year of our Lord one thousand nine hundred and fifty-one.

Witness, Read and Delivered

In presence of

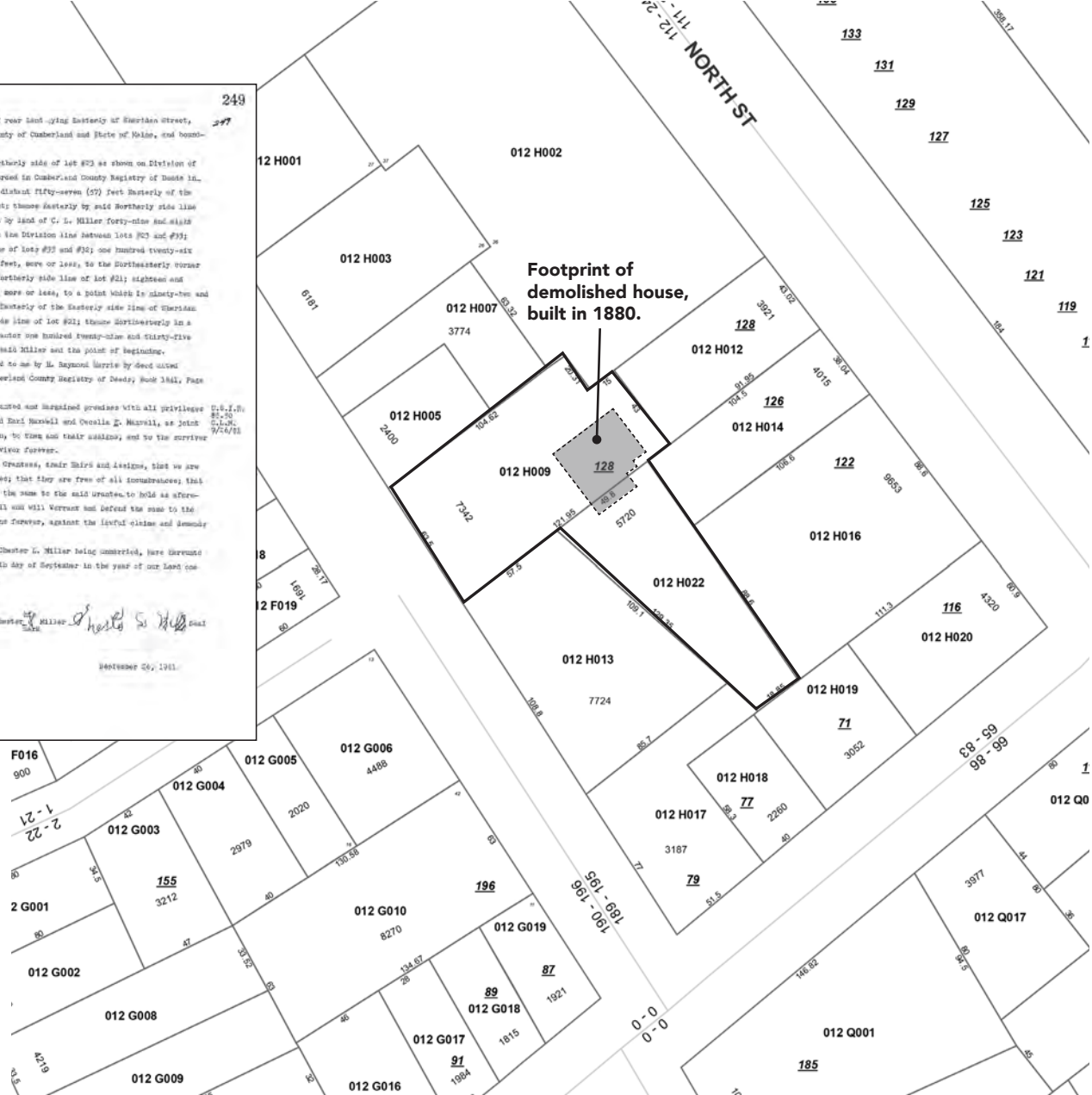
Charles L. Miller

Earl Maxwell

Cecilia J. Maxwell

Cumberland Co.

September 26, 1951.





April 1, 2012 fy 2013
Portland, Maine Tax
Assessors Map

Outlined property:
Property 012 H009 and H022,
128 R North Street.

 Properties purchased
by Redfern to build
Munjoy Heights

Doc#: 4586 Bk+31317 Ps: 117

SCHEDULE A
Estate of Earl Maxwell to Raymond C. Maxwell

A certain lot or parcel of land, with the buildings thereon, situated on the easterly side of Sheridan Street, in the City of Portland, County of Cumberland, and State of Maine and more particularly described as follows:

Beginning at a point on said easterly side of Sheridan Street, which point marks the southwesterly corner of land conveyed by A.J. Bernstein to Elmore W. Ramsdell by deed dated May 28, 1923, and recorded in Cumberland County Registry of Deeds in Book 1133, Page 466; thence running northerly by said easterly side line of Sheridan Street sixty-three and five tenths (63.5) feet more or less to the northwesterly corner of said land conveyed to Ramsdell as aforesaid; thence running easterly along the northerly line of said land one hundred and four and sixty-two one hundredths (104.62) feet to the northwest corner of land conveyed by said A.J. Bernstein to Joseph R. Murphy by deed dated May 28, 1923, recorded in said Registry of Deed, Book 1133, Page 465; thence running southerly by the westerly line of said Murphy land twenty and thirty-one one hundredths (20.31) feet to the southwesterly corner of said Murphy land; thence running easterly along the southerly line of said Murphy land fifteen (15) feet to a point; thence southerly in a line parallel with and fifteen (15) feet distant easterly from said westerly side line of said Murphy land extending southerly, about forty-three (43) feet to the southerly line of land first above mentioned as conveyed by Bernstein to Ramsdell, at a point ninety-one and ninety-three one hundredths (91.93) feet westerly from the westerly side line of North Street; thence running westerly by said southerly side line of said Ramsdell land about one hundred twenty-one and ninety-five one hundredths (121.95) feet to Sheridan Street and the point of beginning.

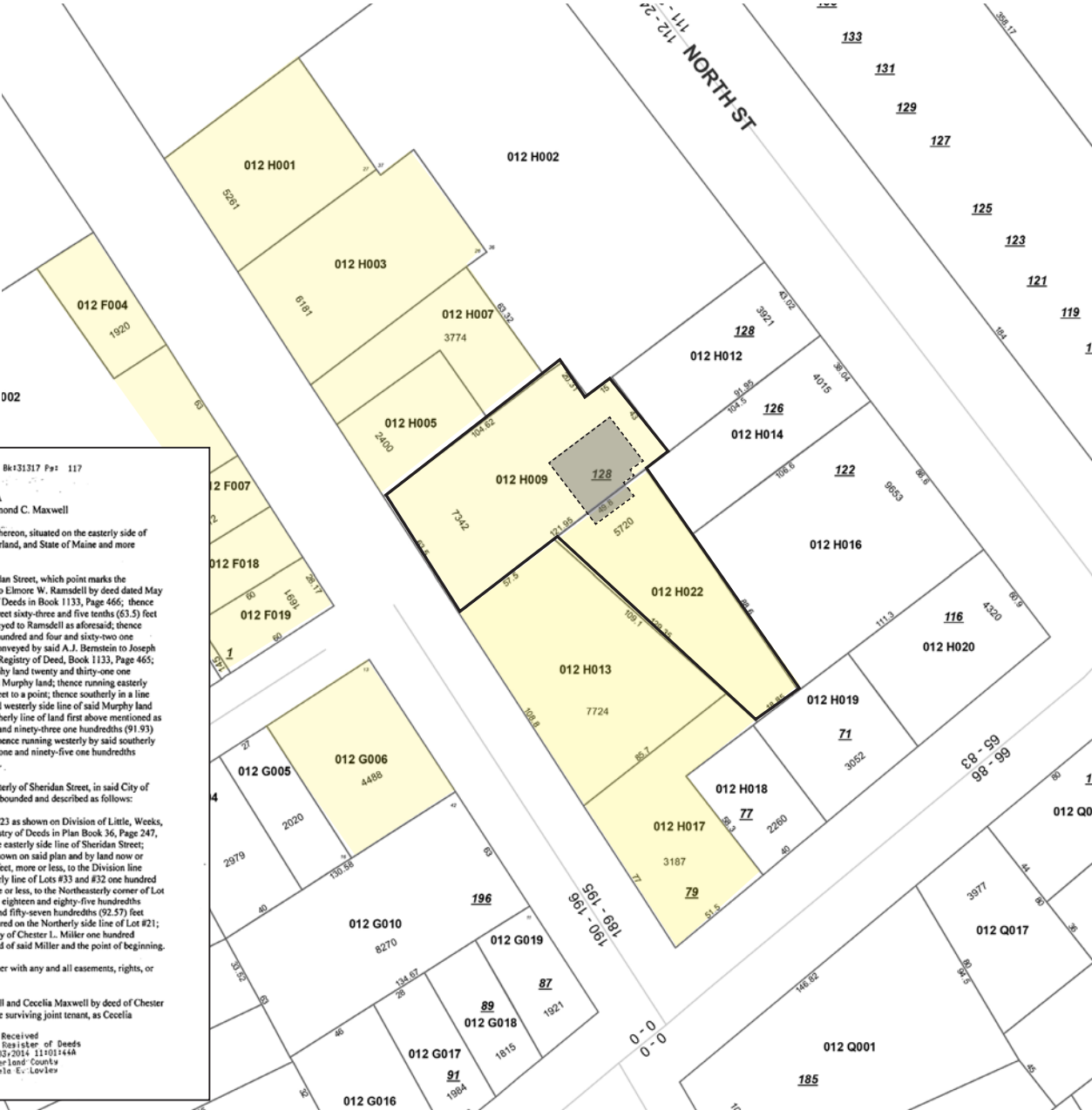
ALSO a certain lot or parcel of rear land lying Easterly of Sheridan Street, in said City of Portland, County of Cumberland, and State of Maine, and bounded and described as follows:

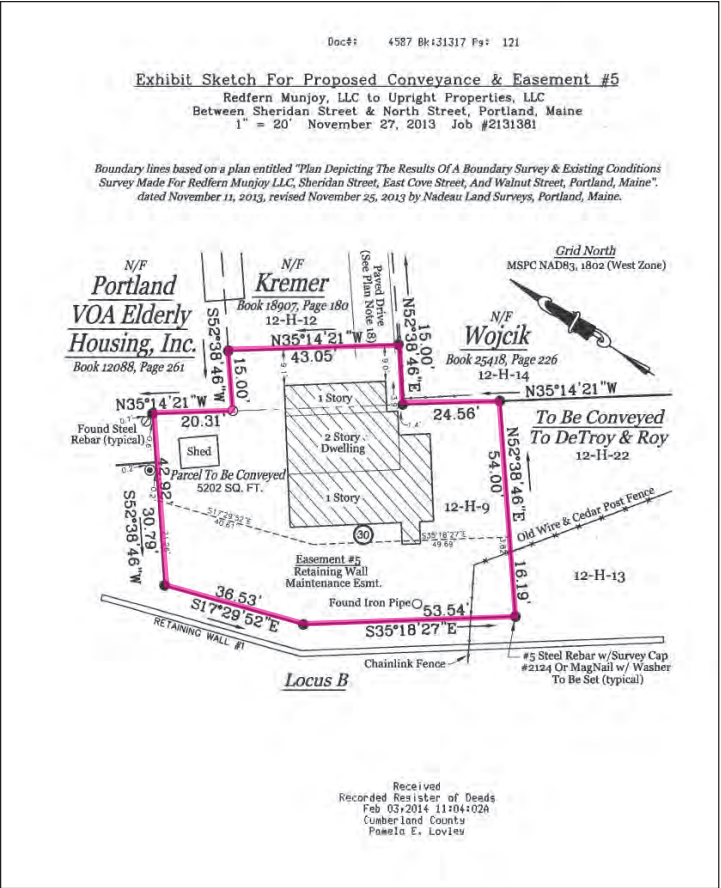
Beginning at a point on the Northerly side of Lot #23 as shown on Division of Little, Weeks, and Moody Land as recorded in Cumberland County Registry of Deeds in Plan Book 36, Page 247, said point being distant fifty-seven (57) feet Easterly of the easterly side line of Sheridan Street; thence easterly by said Northerly side line of Lot #23 as shown on said plan and by land now or formerly of C.L. Miller forty-nine and eight tenths (49.8) feet, more or less, to the Division line between Lots #23 and #33; thence Southerly by the Westerly line of Lots #33 and #32 one hundred twenty-six and seventy-two hundredths (126.72) feet, more or less, to the Northeastly corner of Lot #21; thence Westerly by the Northerly side line of Lot #21 eighteen and eighty-five hundredths (18.85) feet, more or less, to a point which is ninety-two and fifty-seven hundredths (92.57) feet Easterly of the Easterly side line of Sheridan Street, measured on the Northerly side line of Lot #21; thence Northwesterly in a straight line and by land formerly of Chester L. Miller one hundred twenty-nine and thirty-five hundredths (129.35) feet to land of said Miller and the point of beginning.

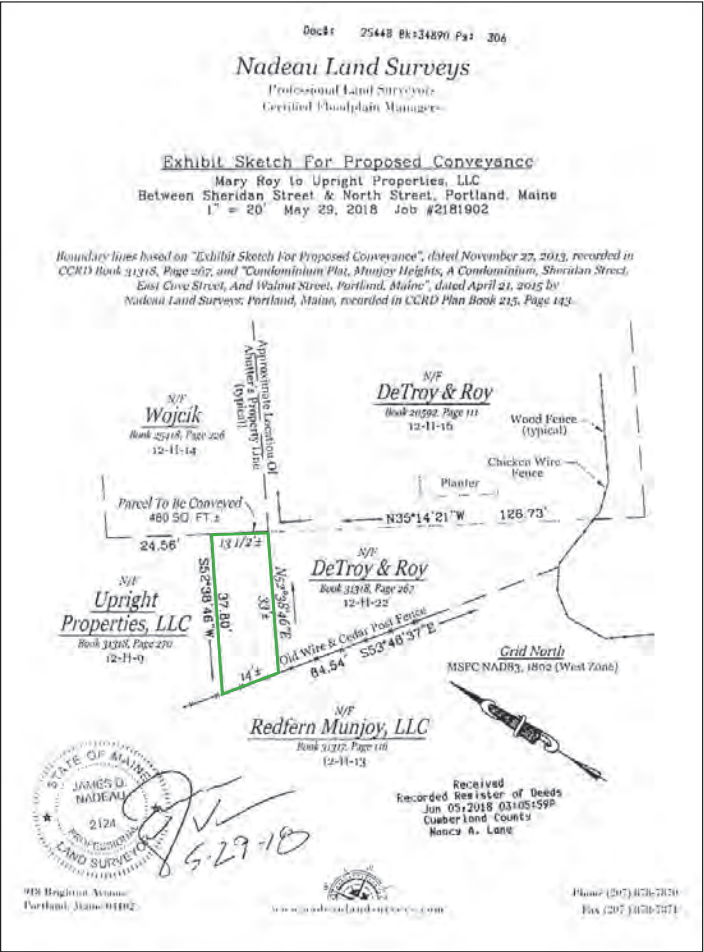
The above described premises are conveyed together with any and all easements, rights, or restrictions of record.

Being the same premises conveyed to Earl Maxwell and Cecelia Maxwell by deed of Chester L. Miller dated September 26, 1951. Earl Maxwell was the surviving joint tenant, as Cecelia Maxwell died on December 14, 1974.

Received
Recorded Register of Deeds
Feb 03/2014 11:01:44A
Cumberland County
Pamela E. Lovley







Property Deed description for Mary Roy to
Upright Properties, LLC
June 5, 2018
Property 012 H009/128 R North Street



See applicant's drawing labeled C-03.



307

Know all Men by these Presents, That

I, Elmore W. Ramsdell of Portland in the County of Cumberland and State of Maine,

in consideration of one dollar and other valuable considerations,
Claire Bowden of said Portland,

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said Claire Bowden, her heirs and assigns forever, a certain lot or parcel of land on the easterly side of Sheridan Street, beginning at a point on said easterly side of Sheridan Street which point marks the southwesterly corner of land conveyed by A. J. Bernstein to Elmore W. Ramsdell by deed dated May 28, 1923, and recorded in Cumberland County Registry of Deeds in Book 1153, Page 466; thence running northerly by said easterly side line of Sheridan Street sixty-three and five tenths (63.5) feet, more or less, to the northwesterly corner of said land conveyed to Ramsdell as aforesaid; thence running easterly along the northerly line of said land one hundred and four and sixty-two one hundredths (104.62) feet to the northwest corner of land conveyed by said A. J. Bernstein to Joseph R. Murphy by deed dated May 28, 1923, recorded in Cumberland County Registry of Deeds, Book 1183, Page 466; thence running southerly by the westerly line of said Murphy land twenty and thirty-one one hundredths (20.31) feet to the southwesterly corner of said Murphy land; thence running easterly along the southerly line of said Murphy land fifteen (15) feet to a point; thence southerly in a line parallel with and fifteen (15) feet distant easterly from said westerly side line of said Murphy land extended southerly, about forty-three (43) feet to the southerly line of land first above mentioned as conveyed by Bernstein to Ramsdell, at a point ninety-one and ninety-three one hundredths (91.93) feet westerly from the westerly side line of North Street; thence running westerly by said southerly side line of said Ramsdell land about one hundred twenty-one and ninety-five one hundredths (121.95) feet to Sheridan Street and the point of beginning.

Being a part of land conveyed by Abraham J. Bernstein to me by deed dated May 28, 1923, recorded in Cumberland County Registry of Deeds, Book 1183, Page 466.

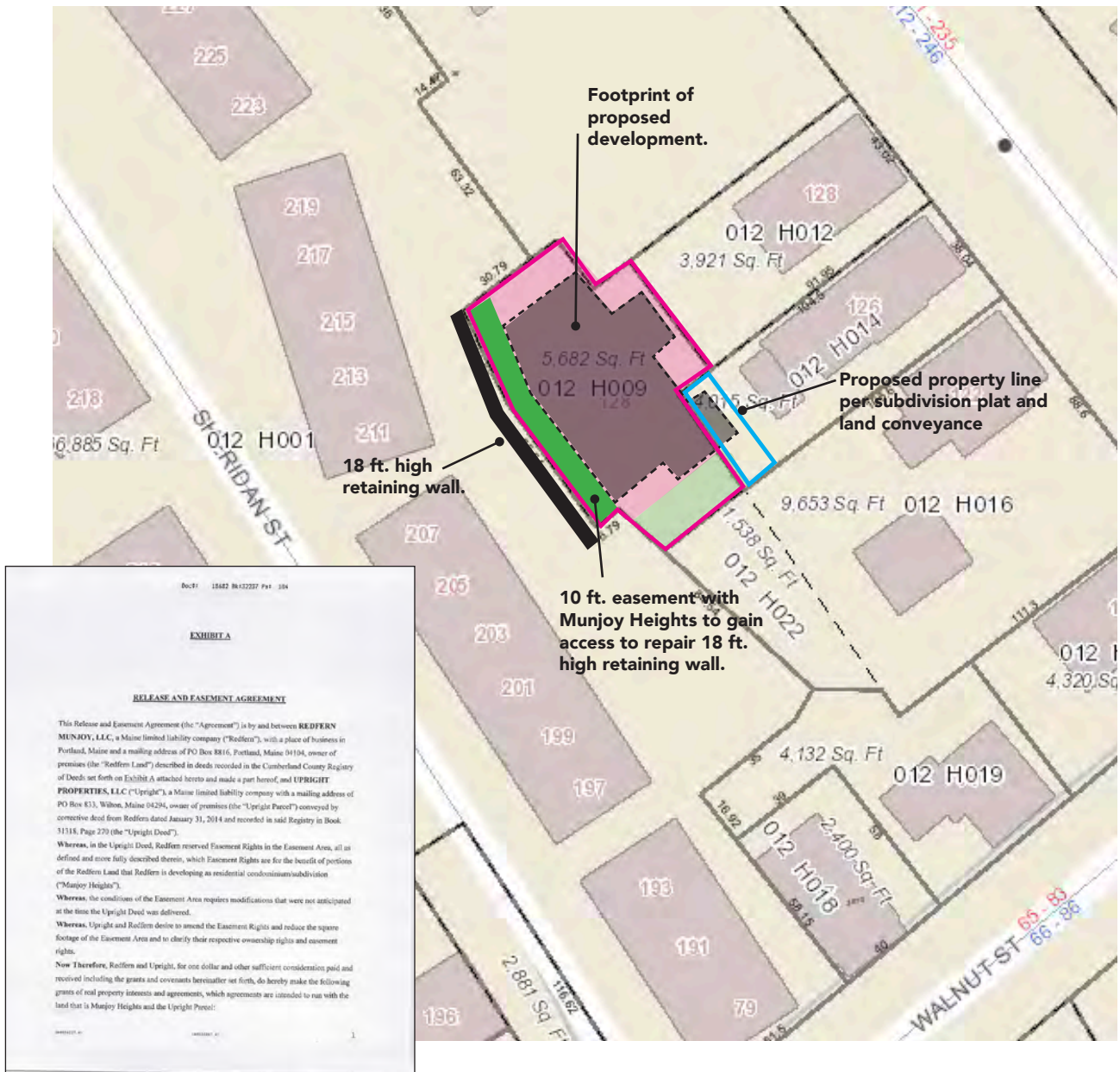
Together with a right of way across my land from the lot hereby conveyed to North Street.

Twelve words blotted out before signing. D.W.P.

Deed, Ramsdell to Bowden, July 25, 1923,
filed in the Cumberland County Clerk's
Office in Book 1143 at Page 307.



Completely reconfigured property lines with an easement to Munjoy Heights for repair of the retaining wall. Map does not show the steep grade making it impossible to gain access with heavy equipment with the proposed building.



Via Email: planningboard@portlandmaine.gov July 17, 2020

Brandon Mazer, Chair
Planning Board of the City of Portland
389 Congress Street, 4th Floor
Portland, ME 04101

RE: PL-000791-2019; 126 and 128R North Street, Josh Wojcik and Upright Properties, LLC

Dear Chairman Mazer and Members of the Portland Planning Board,

In advance of the Remote Workshop on Tuesday, July 21, 2020 at 4:30 pm, I am writing to state our objections to this project.

My husband and I are owners at 215 Sheridan St., in Munjoy Heights, which abuts this proposed project.

Our homeowners association (Munjoy Heights Condominium Association) has a ten-foot-wide easement at the back of the property at 128R in order to ensure our ability to maintain and repair the Munjoy Heights retaining wall. Specifically, the easement is to permit access “..with men and equipment, including **heavy equipment..**”

Access to the easement with heavy equipment is only possible via North Street. As you can see from the photo here, there is no way heavy equipment could access the wall from Munjoy Heights. The wall is 18 feet high. That’s why the developer created the easement.



Munjoy Heights Retaining Wall 1

The proposed projects at 126 and 128R North Street are so large they would block the right of way to our easement. The Munjoy Heights Condominium Association has a legal right to the easement, and to the right of way to the easement.

This project should not be approved because it violates our rights as members of the Munjoy Heights Condominium Association and jeopardizes our safety by blocking our ability to maintain and repair our retaining wall.

Thank you,

Leslie Hart
blesliehart@gmail.com
917.364.3682

Kevin Schochat
kevin@kevinschochat.com
917.597.4154.

215 Sheridan St.

Opposition to project 128R North Street

Annie Frye <fryenh@comcast.net>

Jul 21, 2020 2:02 PM

Posted in group: **Planning Board**

Dear Portland Planning Board,

Attached please find a letter expressing our concern about the proposed development being discussed this afternoon re: 128 R North Street. Please review our concerns as Portland property owners.

We are abutters to the property and feel it is in direct violation of the existing zoning regulations especially in regard to frontage. This project has no frontage. It is a land locked parcel. Overlooking this important regulation will put residents in danger in terms of emergency vehicles and safe circulation. Why are zoning regulations established if such basic requirements are dismissed?

The other issue is the grade change behind the proposed building. It is a huge retaining wall. The stability and runoff in this area could be hazardous.

Please read our letter and consider our concerns. We made this lifetime investment in a home at Munjoy Heights. This will definitely negatively impact our property.

Thank you for your consideration.

Annette and Steven Frye

217 Sheridan

Portland Maine

fryenh@comcast.net

shukriaw@portlandmaine.gov

amachado@portlandmaine.gov

Planning Board of Portland Maine

Re: Project # PL-000791-2019

128R North Street

Dear Ms. Wiar and Ms. Machado and members of the Planning Board-

We are abutters to the project PL-000791-2019 and would like to express our concerns about the proposed development. Our home is 217 Sheridan Street.

In reviewing the R-6 zoning requirements and the Munjoy Hill Conservation Overlay District we had concerns about the development and zoning violations.

- Lot 128 R is a small completely "land locked" parcel. It has no frontage of its own, it shares a driveway easement. R-6 requires 20 'of frontage. This lot has 0' frontage. After speaking with Ms. Wiar, I understand that the zoning administrator decided that the frontage issue could be overlooked by deeming it a non conforming lot. We are concerned that this is not an appropriate measure. Among other issues the emergency access to the proposed housing could be compromised.
- The Munjoy Hill Conservation Overlay requires the 1st floor of a multi-floor development must be living area. The drawing indicate parking at this level.
- As a rear abutter we are concerned about the retaining wall. The capacity for it to retain this 6 unit development is a question. Was it designed to accommodate such a load? We already experience substantial water running through our garage from the base of the wall. Engineering is a concern.
- I understand by providing the work force housing unit the development can maximize the height of the building to 45', the R-6 zone is normally 35' max height.

It seems this small, back lot on the edge of a huge slope has maximized its coverage and density using every loophole and exception. This doesn't make sense. Zoning is established to protect the neighborhood and safety of community.

Please take these concerns into consideration when deciding on this development.

Thank you.

Annette and Steven Frye

217 Sheridan Street

Portland Maine

fryenh@comcast.net

Google Groups

draft of your email to PB re/ MH letter to Upright

Leslie Hart <blesliehart@gmail.com>

Aug 12, 2020 5:59 PM

Posted in group: **Planning Board***Hi Pete**Here's a suggested draft of your email to the PB and others cc'd in our letter to Upright.**Leslie***To**

Planning Board, City of Portland
planningboard@portlandmaine.gov
Christine Grimando, Director Planning and Urban Development
cdg@portlandmaine.gov
Ann Machado, Zoning Director
amachado@portlandmaine.gov
Shukria Wiar, Planner
shukriaw@portlandmaine.gov

cc:

Danielle West-Chuta, Corporation Counsel
dwchuhta@portlandmaine.gov
Jen Thompson, Associate Corporation Counsel
jlt@portlandmaine.gov
Hon. Belinda Ray, City Councilwoman
bsr@portlandmaine.gov

Message:

Dear Planning Board:

Attached is a copy of a letter from the Munjoy Heights Condominium Association to Upright Properties LLC asserting the Association's legal rights to right-of-way easements that would be obstructed by the project at 128R North Street proposed by Upright. Understanding that the Planning Board is not in the position of adjudicating the respective property rights of private parties, we nevertheless believe that the Planning Board cannot approve development applications in derogation of the property interests of affected parties. At a minimum, if the Planning Board were to approve this application, such approval should be made conditioned upon the resolution of any dispute as to property claims by Munjoy Heights Condominium Association.

Thank you for your consideration.

Sincerely,

Peter Bagg, president, Munjoy Heights Condominium Association

Attachment

Munjoy Heights Condominium Association
c/o BellPort Property Management
536 Washington Ave.
Portland, ME 04103

August 12, 2020

Via Certified Mail, Return Receipt Requested

Upright Properties, LLC
% Joshua Wojcik, Manager
P. O. Box 833
Wilton, ME 04294

RE: Prohibited Obstruction of Right-of-Way Benefiting Munjoy Heights
Condominium Association

Dear Mr. Wojcik,

This letter, on behalf of the Munjoy Heights Condominium Association (“the Association”), is to advise you and remind you of the Association’s rights with respect to an access right-of-way from North Street conveyed by deed dated July 25, 1923 from Ramsdell to Bowden, and recorded on July 27, 1923 in the Cumberland County Registry of Deeds in Book 1143 at Page 307, and through the parcel now owned by Upright Properties, LLC (“Upright”) resulting from the conveyance by deed from Redfern Munjoy LLC dated January 31, 2014, the corrective deed for which was recorded in the Cumberland County Registry of Deeds Office on February 3, 2014 in Book 31318 at Page 270.

As you are aware, the 1923 right-of-way benefited the entire parcel conveyed to Bowden extending from the rear of the servient estate (now known as 128F North Street) approximately 121.95 feet westerly along the southerly side of the parcel all the way to Sheridan Street. Upon the conveyance of the easterly portion of the parcel to Upright on January 31, 2014, the Grantor Redfern Munjoy LLC by operation of law retained access rights over the 1923 right-of-way and through the newly-subdivided Upright parcel, benefiting the portion of the parcel retained by Redfern. This retained lot was subsequently conveyed to the Association and is now merged with its common property identified as tax parcel 012 H001.

We have had an opportunity to review your proposed development project at 128R North Street, and note that such project will obstruct the access rights-of-way benefiting the Association. Aside from the Association’s pure legal rights with respect to these easements, we must raise a particular concern: As you are also aware, the Association *also* holds the “Retaining Wall Maintenance Easement” described and reserved in the conveyance from Redfern Munjoy to Upright on January 31, 2014, (amended on April 30, 2015, and recorded in the Cumberland County Registry of Deeds Office in Book 33237 at Page 104). This easement is located on the Upright parcel above the retaining wall, and provides the easement holder with the “right and

easement” to enter the “Easement Area ... with men and equipment, including heavy equipment, to maintain, repair, shore-up, or replace the retaining wall” from such location. Because of the severe change in elevation from the Association’s property at the bottom of the retaining wall to the Easement Area on Upright’s property above, it would not be possible to access the Easement Area with men and heavy equipment from the bottom side of the retaining wall. The only possible access to the Easement Area is thus from the Upright parcel itself, in recognition also that access to maintain the retaining wall is dependent upon the 1923 right-of-way extending from Upright’s parcel to North Street.

At the time Redfern Munjoy retained the Retaining Wall Maintenance Easement in the conveyance to Upright, the prior nonconforming structure on the lot allowed sufficient area for necessary equipment to access the Easement Area. Upright demolished this non-conforming structure in December 2019. Your newly proposed project, however, would extend fully past the front area on both the northerly and southerly sides of the Upright lot and completely obstruct any means of access to the Easement Area. To proceed with the construction of such building will be in contravention of the Association’s legal rights.

Thank you for your attention. We trust that Upright Properties LLC will withdraw or modify its development application accordingly, and will refrain from taking any further actions that would result in the obstruction of the Association’s legal rights of access from the 1923 right-of-way and extending through the Upright parcel at 128R North Street.

Sincerely yours,

Munjoy Heights Condominium Association Board of Directors:

Peter Bagg, President: peterbagg1@gmail.com
Mark Filler, Treasurer: MFiller@filler.com
Leslie Hart, Secretary: blesliehart@gmail.com
Ann Casady: ann@casadydesign.com
Dick Marino: marino04102@gmail.com
Mary Morse: mrsm1359@outlook.com
Susanne Robins: suerobins@twc.com
Fred Williams: fwilliams@oldportadvisors.com
Yael Reinharz: yael.reinharz@gmail.com

cc: Planning Board, City of Portland
Christine Grimando, Director Planning and Urban Development
Ann Machado, Zoning Director
Shukria Wiar, Planner
Danielle West-Chuta, Corporation Counsel
Jen Thompson, Associate Corporation Counsel
Hon. Belinda Ray, City Councilwoman

UPRIGHT PROPERTIES, LLC
PORTLAND, MAINE

DRAWING NO.
C-01

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.

- 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, ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.
- 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.
- 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.
- 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 NOT AVAILABLE EXCLUDE FROM BID IN WRITING.
- 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.
- EXISTING CONDITIONS, BOUNDARY SURVEY, AND TOPOGRAPHY FROM THE PLAN TITLED "PLAN DEPICTING THE RESULTS OF A BOUNDARY SURVEY & EXISTING CONDITIONS SURVEY" (JOB NO. 2181902BTR1) BY NADEAU LAND SURVEYS DATED 8/22/2018 AND REVISED 5/1/2019.
- 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.
- CONSTRUCTION MANAGEMENT PLAN BY ACORN ENGINEERING SHALL BE REFERRED TO FOR ANTICIPATED PROJECT SCHEDULE AND CLOSURES. TRAFFIC CONTROL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.
- 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.
- 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 ADJACENT STRUCTURES. A COPY OF THE SURVEY SHOULD BE PROVIDED TO THE OWNER. DOCUMENT WITH PICTURES AT A MINIMUM.
- THE CONTRACTOR SHALL SURVEY ROCK SURFACE PRIOR TO EXCAVATION AND DEVELOP VOLUME CALCULATIONS TO SHARE WITH ACORN ENGINEERING, IF ANY.

CIVIL SITE NOTES:

- THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO MODIFY THE CONTRACT DOCUMENTS.
- ALL SHOP AND ERECTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE CONTRACTOR PRIOR TO SUBMISSION FOR ENGINEER'S REVIEW. ANY UNCHECKED OR NON-STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
- CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY EXISTING STRUCTURES AND SITE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS. CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
- DETAILS SHOWN APPLY TO ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
- ALTHOUGH ALL DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT ALL DETAILS ARE ILLUSTRATED, NOR IS EVERY EXCEPTIONAL CONDITION ADDRESSED WITHIN THE CONTRACT DOCUMENTS.
- ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 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.
- UNLESS OTHERWISE SPECIFICALLY INDICATED, THE DRAWINGS DO NOT DESCRIBE OR DIRECT MEANS OR METHODS OF CONSTRUCTION.
- 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.
- DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE BRACING IS PROVIDED. CONCRETE SHALL ALSO BE CURED FOR 28 DAYS PRIOR TO BACKFILLING.
- TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE.
- ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
- THE ENGINEER BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND OBSERVATION VISITS TO THE SITE DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.

SPECIAL INSPECTION NOTES:

- ALL SITE SOILS-RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS SHALL BE REVIEWED BY THE GEOTECHNICAL ENGINEER.
- SITE DRAINAGE SHALL BE REVIEWED BY THE PROJECT ENGINEER.
- NORMAL REVIEWS WILL BE CONDUCTED BY LOCAL BUILDING DEPARTMENT.
- NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.
- REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.
- 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.
- DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINED ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
- 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 CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.
- THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN TEN DAYS OF THE FINAL INSPECTION STATING WHETHER

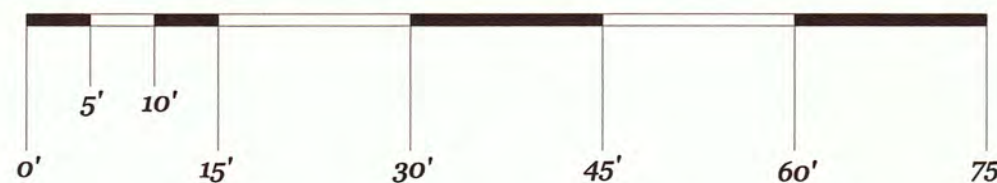
[illegible]

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

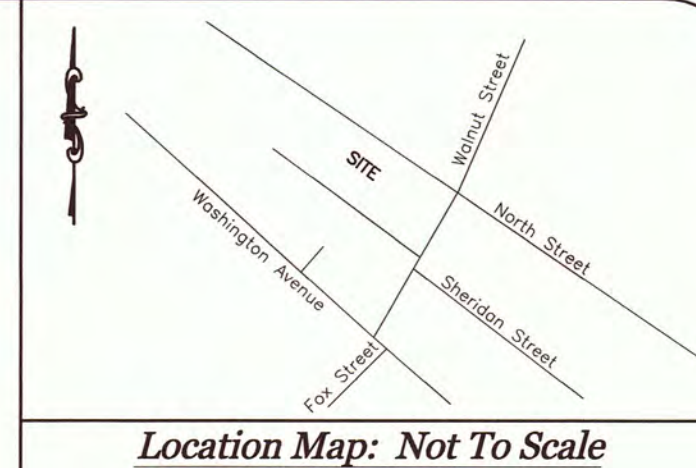
Plan References:

- Subdivision Of Lot #1 On Mountjoy's Neck For Little, Weeks, And Moody, dated February 17, 1802 and recorded March 24, 1802 in CCRD Book 36, Page 247.
- Re-Survey Of Plan Reference 1, dated June 1876 by E.C. Jordan, C.E., City Plan 370/6 and 386/28.
- Subdivision Of Elijah Kellogg Lot, dated April 10, 1802 and recorded February 18, 1807 in CCRD Book 51, Page 297, and traced 1925 for City Plan 406/78.
- City Of Portland Revaluation Plans, Sheets 10 & 12, dated 1882 by William A. Goodwin, City Engineer, recorded October 24, 1884 in CCRD Plan Book 5, Pages 10 & 12.
- Plan Of Lot At Terminus Of Sheridan Street, dated 1928 on file at Owen Haskell, Inc.
- "Property In Portland Me. Surveyed For The Jewish Home For Aged", dated August 1928 by E.C. Jordan & Co. on file at Owen Haskell, Inc.
- "General Plan And Profile, Department Of Parks And Public Works, City Of Portland, Maine, Reconstruction Of Walnut St., North St. To Washington Ave.", dated May 17, 1984 by Herbert P. Gray, Consulting Engineer, Portland, Maine, City Plan 302/7.
- "Standard Boundary Survey, Plan Of Property In County Of Cumberland, City Of Portland, Maine For Jewish Home For Aged", dated December 20, 1985 (Working Plan) by Morton & Rose Associates, Limerick, Maine on file at Maine Boundary Consultants.
- "City Of Portland, Maine Parks And Public Works Department Engineering Division, North Street Plan And Profile Sta. 11+00 To 16+50", Sheet 8 of 14, dated August 1985 by Woodward & Curran Inc. Consulting Engineers, Gorham, Maine, City Plan 925/1.
- "City Of Portland, Maine Parks And Public Works Department Engineering Division, Sheridan Street Plan And Profile Sta. 9+00N To 13+50N", Sheet 5 of 25, dated June 1987 by Woodward & Curran Inc. Consulting Engineers, Portland, Maine, City Plan 913/10.
- "Plan Of Property In Portland, Maine Made For Nicole D'Entremont (Standard Boundary Survey)", dated July 15, 1991 by Robert J. Cyr, RLS 955, South Portland, Maine, dated July 16, 1991 in CCRD Plan Book 191, Page 43.
- "Division Of Land For Nicki Lee Green & Katherine P. Richmond, 79 Walnut Street, Portland, Maine", dated April 2006 by Andrew E. Bradford Land Surveying, Inc., Kennebunk, Maine.
- "Plan Of Property Of W.H. Baxter, Esq.", dated July 1866 by Anderson Bonnell & Co., recorded July 1, 1866 in CCRD Plan Book 2, Page 54.
- Richards Standard Atlas Of The City Of Portland, Plate 2, dated 1914.
- Insurance Maps Of Portland, Maine, Volume One, Published By The Sanborn Map Company, Plate 1, dated 1909, last corrected April 1952.
- City Of Portland Atlas, Plate 48A, dated 1875.
- "Exhibit Sketch For Proposed Conveyance, Mary Roy To Upright Properties, LLC Between Sheridan Street & North Street, Portland, Maine", dated May 29, 2018 by Nadeau Land Surveys, Portland, Maine, recorded June 5, 2018 at the Cumberland County Registry of Deeds in Book 34890, Page 304.
- "Plan Depicting The Results Of A Boundary Survey & Existing Conditions Survey Made For Redfern Properties LLC, Sheridan Street And East Cove Street, Portland, Maine", dated November 11, 2013, revised November 25, 2013 by Nadeau Land Surveys, Portland, Maine.
- "Plan Depicting A Proposed Subdivision Made For Redfern Munjoy LLC, P.O. Box 8816, Portland, ME 04104, Munjoy Heights, Sheridan Street, East Cove Street, And Walnut Street, Portland, Maine", dated December 6, 2013, last revised February 10, 2014 by Nadeau Land Surveys, Portland, Maine, recorded February 21, 2014 at the Cumberland County Registry of Deeds in Plan Book 214, Page 48.
- "Condominium Plat, Munjoy Heights, A Condominium, Sheridan Street, East Cove Street, And Walnut Street, Portland, Maine", dated April 21, 2015 by Nadeau Land Surveys, Portland, Maine, recorded April 30, 2015 at the Cumberland County Registry of Deeds in Plan Book 215, Page 143.
- "City Of Portland, Maine Parks And Public Works Department Engineering Division, North Street, Plan And Profile Sta. 11+00 To 16+50", Sheet 8 of 14, dated August 15, 1985, City Plan 925/1.
- "Portland Water District, Portland Sewer System Infiltration-Inflow Analysis, System Base Mapping, Study Area IV", Sheet IV-11, dated 1981, last revised March 22, 1999 by Hunter-Baillet Associates, Falmouth, Maine, City Plan 905/1.

Graphic Scale:



Project Benchmark:
(See Note 15)



General Notes:

- This plan is not intended to depict limits or extent of fee title ownership. An opinion of title should be rendered by a title attorney.
- This office reserves the right to be held harmless by all 3rd party claims.
- This survey does not purport to reflect any of the following:
 - assessments other than those that are visible or specifically stated in the referenced documents.
 - building setback compliance or restrictive covenants.
 - zoning or other land use regulations.
 - the location of any underground utilities or structures.
- This office reserves the right to be held harmless for unknown or unobtainable private records which could affect the results of this survey.
- Reference is made to "Letter Of Agreement" dated May 23, 2018 between Nadeau Land Surveys and the below listed client(s), which shall be considered an integral part of this survey.
- N/F is an abbreviation for Now or Formerly.
- Locus Parcels are located in the R-6 Residential Zone:
Minimum Lot Size = 2,000 S.F.
Minimum Lot Area / Dwelling Unit = 725 S.F.
Minimum Street Frontage = 20 feet
Minimum Lot Width = 20 feet
Maximum Lot Coverage = 60%
Minimum Front Yard Setback = 5 feet, or average depth of adjacent front yards
Minimum Side Yard Setback = 5 feet
Minimum Rear Yard Setback = 10 feet
A City of Portland Code Enforcement Officer should be consulted for confirmation of all applicable space & bulk requirements for Locus Parcels.
- Locus Parcel A is shown on the City of Portland Assessor's Map 12, Block H, as Lot 14, and is listed as 126 North Street. Locus Parcel B is shown on the City of Portland Assessor's Map 12, Block H, as parts of Lots 9 & 22, and is listed as 128R North Street.
- Area of Locus Parcel A is 4,105.0 square feet (0.09 acre). Area of Locus Parcel B is 5,682.0 square feet (0.13 acre).
- The apparent right of way lines depicted on this plan are based on the Plan References listed hereon and monumentation found in the field, and City of Portland Engineering Street Notes.
- The Locus Parcels do not scale in a Special Flood Hazard Area per FEMA Flood Insurance Rate Map Community-Panel Number 230051 0014B, index dated December 8, 1998. The parcels scale in Zone C.
- All building corner offsets to boundary lines are from cornerboards and not building foundation, unless noted.
- Call 1-888-DIGSAFE at least three business days before performing ANY excavation.
- Vertical Datum is NGVD29. Benchmark is City Monument T112-18-107, elevation = 145.08'.
- See CCRD Book 1143, Page 307, dated July 25, 1923, from Elmore W. Ramsdell to Claire Bowden, for right of way to North Street.
- Per City of Portland Records Vol. 1, Page 184, North Street was accepted March 20, 1795 as 4 rods (66 feet) wide.
- See CCRD Book 14149, Page 281, dated September 10, 1998, for City of Portland's License to erect a fence across Poplar Street partially intruding on land N/F Maxwell.
- See CCRD Book 31326, Page 331, dated February 3, 2014, from the City of Portland to Raymond C. Maxwell, for Termination of License recorded in Book 14149, Page 281.
- Existing bulkhead is allowed to encroach setback window per City of Portland Zoning Ordinance Section 14-425.
- See Notice for vacated portions of Sheridan Street and East Cove Street, dated March 5, 2015 and recorded in CCRD Book 32118, Page 145.
- The underground utilities shown have been located from field survey information and existing drawings. This office makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in-service or abandoned. The underground utilities shown are approximate location and are located as accurately as possible from information available. This office has not physically located the underground utilities.
- See CCRD Book 32237, Page 104, dated April 30, 2015, for Release And Easement Agreement between Redfern Munjoy, LLC and Upright Properties, LLC.
- The coordinates depicted on our plan are for municipal requirements only and should not be used for construction layout. This office assumes no liability and/or responsibility if used for construction purposes.
- Spot grades, sill and rim elevations are for engineering purposes only, and shall not be used as project benchmarks. This office assumes no liability and/or responsibility if used for construction purposes.
- No records research or site evaluation has been performed since the original date of this survey. The survey plan was revised solely to depict additional utility information.

Locus Deed References:

- Locus Parcel A**
Gregory D. Kesich and Gail D. Kesich
To
Raymond T. Wojcik, Zetta A. Wojcik and Joshua T. Wojcik
dated August 24, 2007 and recorded August 27, 2007 at the
Cumberland County Registry of Deeds in Book 25418, Page 226.
- Locus Parcel B**
Redfern Munjoy, LLC
To
Upright Properties, LLC
dated January 31, 2014 and recorded February 3, 2014 at the
Cumberland County Registry of Deeds in Book 31317, Page 118,
corrected on same date in Book 31318, Page 270.
- Mary Roy
To
Upright Properties, LLC
dated and recorded June 5, 2018 at the Cumberland
County Registry of Deeds in Book 34890, Page 304.

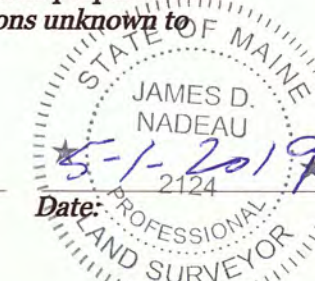
N/F
Redfern Munjoy, LLC
Book 31317, Page 116
Book 31207, Page 48
(See Plan References 18,19,20)

Surveyor's Statement:

Nadeau Land Surveys hereby states exclusively to the client listed hereon, that this plan is based on, and the result of, an on the ground field survey and that to the best of our knowledge, information, and belief, it conforms to the Maine Board of Licensure For Professional Land Surveyors rules and regulations.

This plan is not valid without the signature and stamp of the below listed Professional Land Surveyor who prepared this plan as it may contain unauthorized alterations unknown to this office.

Nadeau Land Surveys
James D. Nadeau, P.L.S. #2124 (agent)



Revised 5-1-2019: Added Sewer and Water information, Plan References 21 & 22, Note 26, and PB 409.

Plan Depicting The Results Of A Boundary Survey
& Existing Conditions Survey Made For
Joshua T. Wojcik
Southwesterly Sideline Of North Street
Portland, Maine

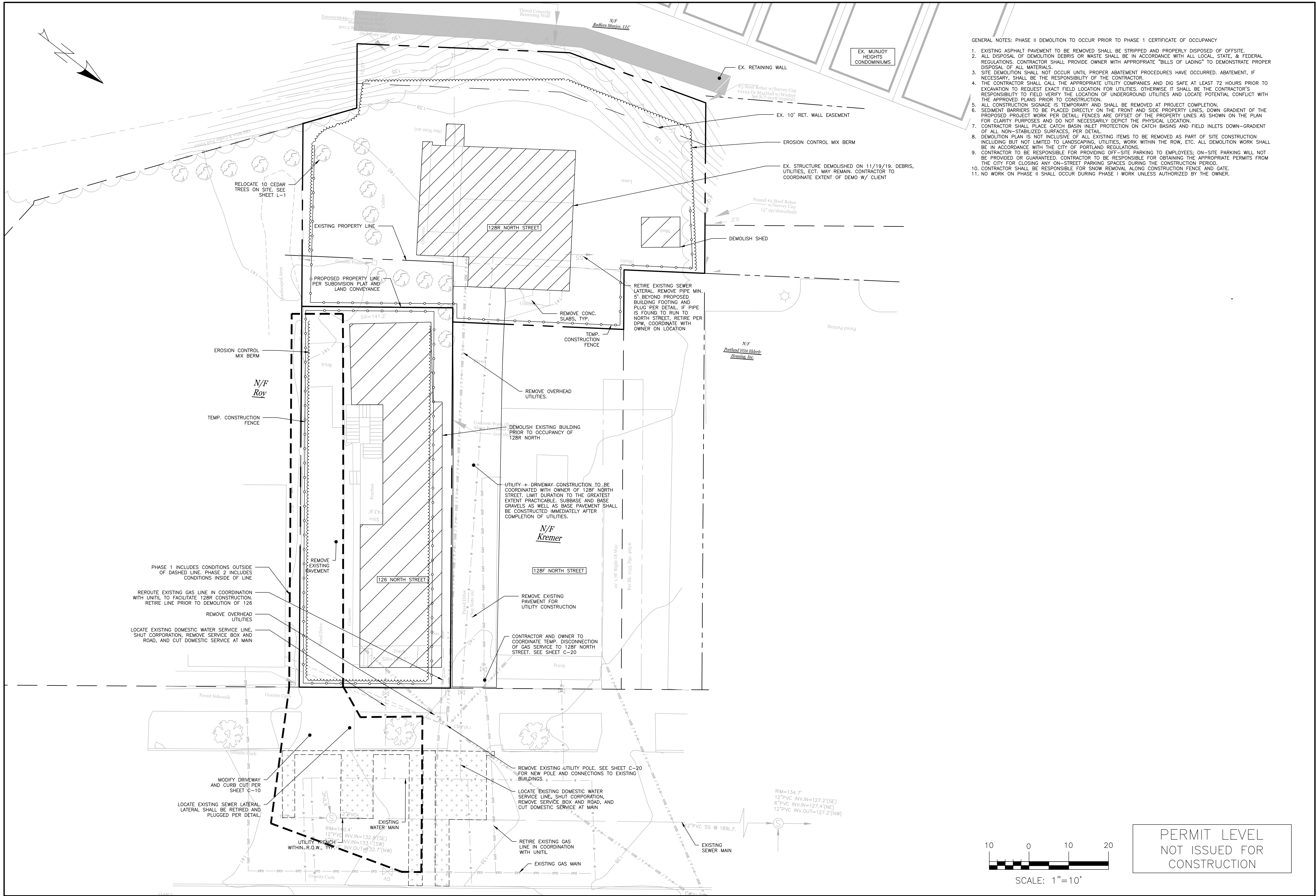
PREPARED BY:

918 BRIGHTON AVENUE
PORTLAND, ME 04102

Nadeau Land Surveys
Professional Land Surveyors
Certified Floodplain Managers

PH. (207) 878-7870
FAX (207) 878-7871

RECORD OWNER:	DRAWN BY:	PLAN DATE:
Joshua T. Wojcik, et al. Upright Properties, LLC 47 Lafayette St. #1 Portland, ME 04101	TPB	8/22/2018
	CHECKED BY:	SURVEY DATE:
	JDN/MLC	June 2018
	INSTR.	SCALE:
	Topcon DS-205AC	1" = 15'
FIELD BOOK:	JOB No:	SHEET No:
FB 407 & 409 & Topcon Tesla	2181902BTR1	1 of 1



- GENERAL NOTES: PHASE II DEMOLITION TO OCCUR PRIOR TO PHASE I CERTIFICATE OF OCCUPANCY
- EXISTING ASPHALT PAVEMENT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
 - 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.
 - SITE DEMOLITION SHALL NOT OCCUR UNTIL PROPER ABATEMENT PROCEDURES HAVE OCCURRED. ABATEMENT, IF NECESSARY, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - 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.
 - ALL CONSTRUCTION SIGNAGE IS TEMPORARY AND SHALL BE REMOVED AT PROJECT COMPLETION.
 - 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 FOR CLARITY PURPOSES AND DO NOT NECESSARILY DEPICT THE PHYSICAL LOCATION.
 - CONTRACTOR SHALL PLACE CATCH BASIN INLET PROTECTION ON CATCH BASINS AND FIELD INLETS DOWN-GRADIENT OF ALL NON-STABILIZED SURFACES, PER DETAIL.
 - 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 THE ROW, ETC. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF PORTLAND REGULATIONS.
 - 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 SPACES DURING THE CONSTRUCTION PERIOD.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR SNOW REMOVAL ALONG CONSTRUCTION FENCE AND GATE.
 - NO WORK ON PHASE II SHALL OCCUR DURING PHASE I WORK UNLESS AUTHORIZED BY THE OWNER.

ISSUED FOR	BY
LEVEL III SITE PLAN	WHS
DATE	4/7/19
PHASE II UPDATE	WHS
DATE	10/29/19
COMMENT RESPONSE	WHS
DATE	12/18/19
COMMENT RESPONSE 2	WHS
DATE	2/24/2020

DRAWING NAME
DEMOLITION & CONSTRUCTION MANAGEMENT PLAN

PROJECT NAME
126/128R NORTH STREET REDEVELOPMENT

CLIENT
UPRIGHT PROPERTIES, LLC
PO BOX 833 WILTON, ME 04294

ACOENGINEERING, INC.

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACOB ENGINEERING, INC. ANY ALTERATIONS SHALL BE MADE WITHOUT LIABILITY TO ACOB ENGINEERING, INC.

65 HANOVER ST, PORTLAND, MAINE 04101
(207) 775-2655

FILE: 1116_CIVIL

JN: 1116

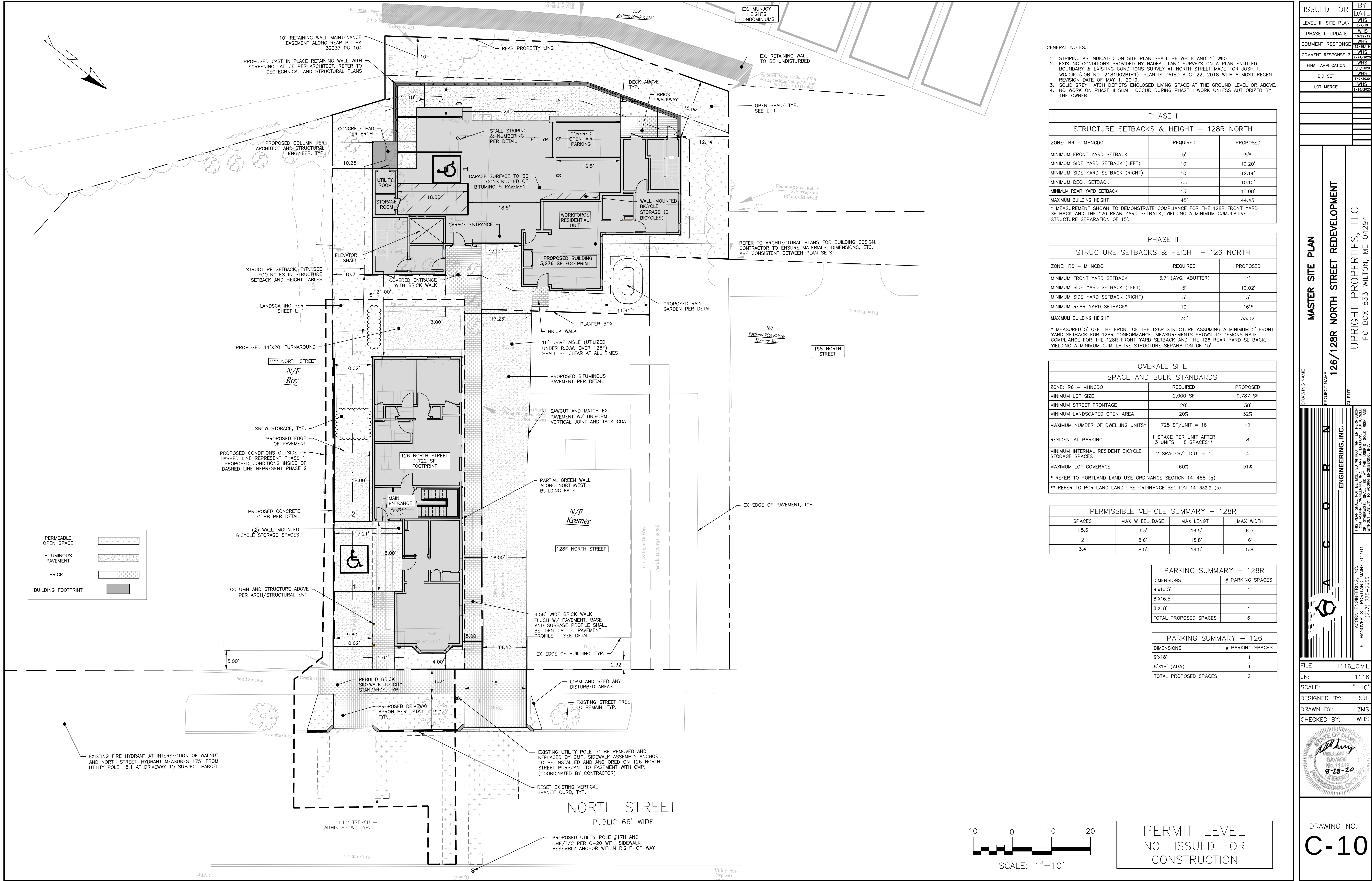
SCALE: 1"=10'

DESIGNED BY: SJL

DRAWN BY: ZMS

CHECKED BY: WHS

DRAWING NO.
C-03



- GENERAL NOTES:
1. STRIPING AS INDICATED ON SITE PLAN SHALL BE WHITE AND 4" WIDE.
 2. EXISTING CONDITIONS PROVIDED BY NADÉAU LAND SURVEYS ON A PLAN ENTITLED BOUNDARY & EXISTING CONDITIONS SURVEY AT NORTH STREET MADE FOR JOSH T. WOJCIK (JOB NO. 21819028TR1). PLAN IS DATED AUG. 22, 2018 WITH A MOST RECENT REVISION DATE OF MAY 1, 2019.
 3. SOLID GREY HATCH DEPICTS ENCLOSED LIVING SPACE AT THE GROUND LEVEL OR ABOVE.
 4. NO WORK ON PHASE II SHALL OCCUR DURING PHASE I WORK UNLESS AUTHORIZED BY THE OWNER.

PHASE I		
STRUCTURE SETBACKS & HEIGHT - 128R NORTH		
ZONE: R6 - MHNCD0	REQUIRED	PROPOSED
MINIMUM FRONT YARD SETBACK	5'	5'
MINIMUM SIDE YARD SETBACK (LEFT)	10'	10.20'
MINIMUM SIDE YARD SETBACK (RIGHT)	10'	12.14'
MINIMUM DECK SETBACK	7.5'	10.10'
MINIMUM REAR YARD SETBACK	15'	15.08'
MAXIMUM BUILDING HEIGHT	45'	44.45'
* MEASUREMENT SHOWN TO DEMONSTRATE COMPLIANCE FOR THE 128R FRONT YARD SETBACK AND THE 126 REAR YARD SETBACK, YIELDING A MINIMUM CUMULATIVE STRUCTURE SEPARATION OF 15'.		

PHASE II		
STRUCTURE SETBACKS & HEIGHT - 126 NORTH		
ZONE: R6 - MHNCD0	REQUIRED	PROPOSED
MINIMUM FRONT YARD SETBACK	3.7' (AVG. ABUTTER)	4'
MINIMUM SIDE YARD SETBACK (LEFT)	5'	10.02'
MINIMUM SIDE YARD SETBACK (RIGHT)	5'	5'
MINIMUM REAR YARD SETBACK*	10'	16'
MAXIMUM BUILDING HEIGHT	35'	33.32'
* MEASURED 5' OFF THE FRONT OF THE 128R STRUCTURE ASSUMING A MINIMUM 5' FRONT YARD SETBACK FOR 128R CONFORMANCE. MEASUREMENTS SHOWN TO DEMONSTRATE COMPLIANCE FOR THE 128R FRONT YARD SETBACK AND THE 126 REAR YARD SETBACK, YIELDING A MINIMUM CUMULATIVE STRUCTURE SEPARATION OF 15'.		

OVERALL SITE		
SPACE AND BULK STANDARDS		
ZONE: R6 - MHNCD0	REQUIRED	PROPOSED
MINIMUM LOT SIZE	2,000 SF	9,787 SF
MINIMUM STREET FRONTAGE	20'	38'
MINIMUM LANDSCAPED OPEN AREA	20%	32%
MAXIMUM NUMBER OF DWELLING UNITS*	725 SF/UNIT = 16	12
RESIDENTIAL PARKING	1 SPACE PER UNIT AFTER 3 UNITS = 8 SPACES**	8
MINIMUM INTERNAL RESIDENT BICYCLE STORAGE SPACES	2 SPACES/5 D.U. = 4	4
MAXIMUM LOT COVERAGE	60%	51%
* REFER TO PORTLAND LAND USE ORDINANCE SECTION 14-488 (g)		
** REFER TO PORTLAND LAND USE ORDINANCE SECTION 14-332.2 (b)		

PERMISSIBLE VEHICLE SUMMARY - 128R			
SPACES	MAX WHEEL BASE	MAX LENGTH	MAX WIDTH
1,5,6	9.3'	16.5'	6.5'
2	8.6'	15.8'	6'
3,4	8.5'	14.5'	5.8'

PARKING SUMMARY - 128R	
DIMENSIONS	# PARKING SPACES
9'x16.5'	4
8'x16.5'	1
8'x18'	1
TOTAL PROPOSED SPACES	6

PARKING SUMMARY - 126	
DIMENSIONS	# PARKING SPACES
9'x18'	1
8'x18' (ADA)	1
TOTAL PROPOSED SPACES	2

ISSUED FOR

BY

DATE

LEVEL III SITE PLAN

WHS

8/7/19

PHASE II UPDATE

WHS

10/29/19

COMMENT RESPONSE

WHS

12/18/19

COMMENT RESPONSE 2

WHS

2/24/2020

FINAL APPLICATION

WHS

6/2/2020

BID SET

WHS

6/2/2020

LOT MERGE

WHS

6/28/2020

MASTER SITE PLAN

126/128R NORTH STREET REDEVELOPMENT

UPRIGHT PROPERTIES, LLC

PO BOX 833 WILTON, ME 04294

DRAWING NAME

PROJECT NAME

CLIENT

ACORN ENGINEERING, INC.

ENGINEERING, INC.

STATE OF MAINE

WILLIAM SAVAGE

8-28-20

PROFESSIONAL ENGINEER

FILE:

1116_CIVIL

JN:

1116

SCALE:

1"=10'

DESIGNED BY:

SJL

DRAWN BY:

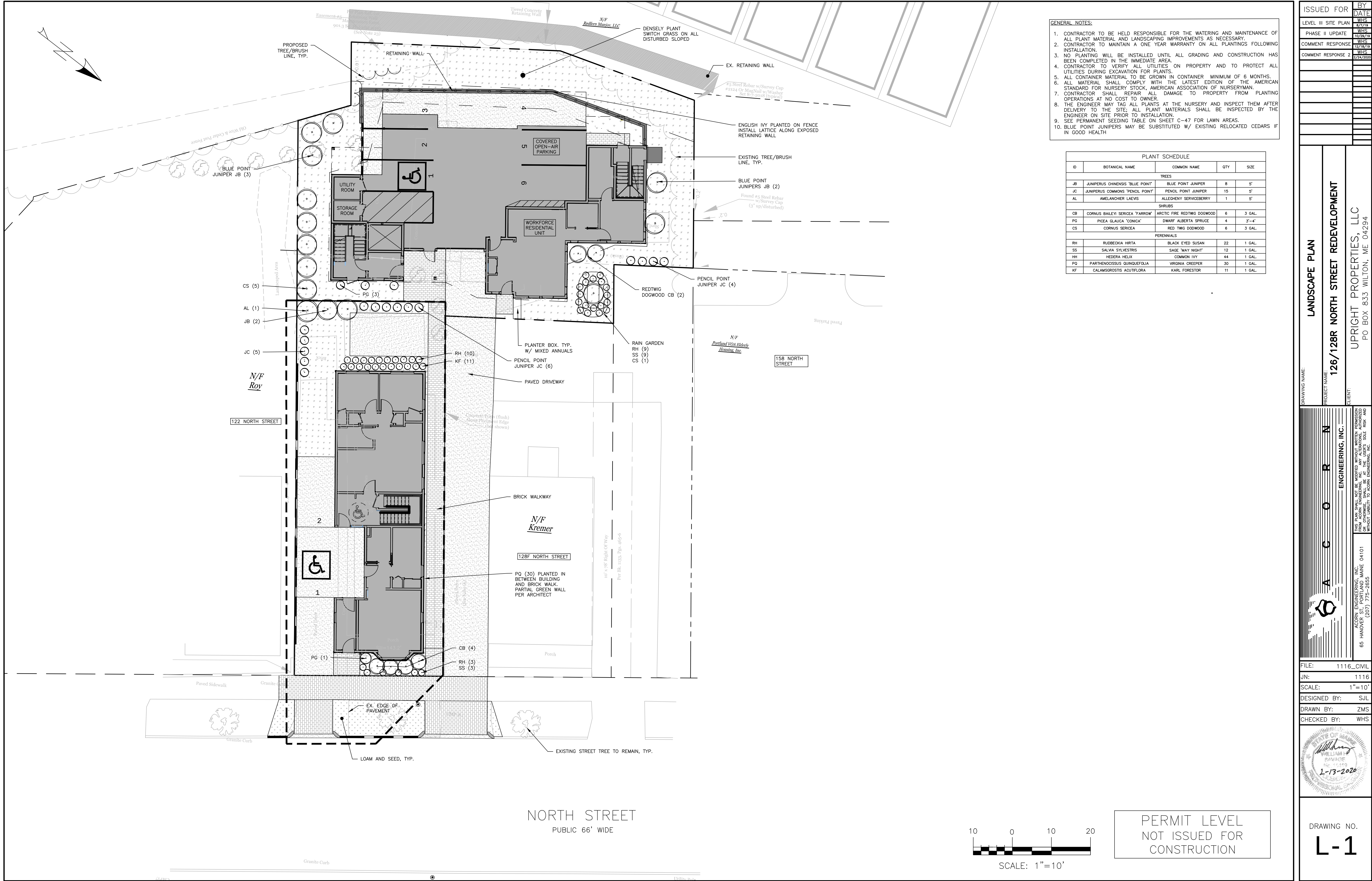
ZMS

CHECKED BY:

WHS

DRAWING NO.

C-10



- GENERAL NOTES:
1. CONTRACTOR TO BE HELD RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL PLANT MATERIAL AND LANDSCAPING IMPROVEMENTS AS NECESSARY.
 2. CONTRACTOR TO MAINTAIN A ONE YEAR WARRANTY ON ALL PLANTINGS FOLLOWING INSTALLATION.
 3. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
 4. CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
 5. ALL CONTAINER MATERIAL TO BE GROWN IN CONTAINER MINIMUM OF 6 MONTHS.
 6. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMAN.
 7. CONTRACTOR SHALL REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.
 8. THE ENGINEER MAY TAG ALL PLANTS AT THE NURSERY AND INSPECT THEM AFTER DELIVERY TO THE SITE; ALL PLANT MATERIALS SHALL BE INSPECTED BY THE ENGINEER ON SITE PRIOR TO INSTALLATION.
 9. SEE PERMANENT SEEDING TABLE ON SHEET C-47 FOR LAWN AREAS.
 10. BLUE POINT JUNIPERS MAY BE SUBSTITUTED W/ EXISTING RELOCATED CEDARS IF IN GOOD HEALTH

PLANT SCHEDULE				
ID	BOTANICAL NAME	COMMON NAME	QTY	SIZE
TREES				
JB	JUNIPERUS CHINENSIS 'BLUE POINT'	BLUE POINT JUNIPER	8	5'
JC	JUNIPERUS COMMONS 'PENCIL POINT'	PENCIL POINT JUNIPER	15	5'
AL	AMELANCHIER LAEVIS	ALLEGHENY SERVICEBERRY	1	5'
SHRUBS				
CB	CORNUS BAILEYI 'SERICEA 'FARROW'	ARCTIC FIRE REDTWIG DOGWOOD	6	3 GAL.
PG	PICEA GLAUCA 'CONICA'	DWARF ALBERTA SPRUCE	4	3'-4'
CS	CORNUS SERICEA	RED TWIG DOGWOOD	6	3 GAL.
PERENNIALS				
RH	RUDEBECKIA HIRTA	BLACK EYED SUSAN	22	1 GAL.
SS	SALVIA SYLVESTRIS	SAGE 'MAY NIGHT'	12	1 GAL.
HH	HEDERA HELIX	COMMON IVY	44	1 GAL.
PQ	PARTHENDOCISSUS QUINQUEFOJIA	VIRGINIA CREEPER	30	1 GAL.
KF	CALAMAGROSTIS ACUTIFLORA	KARL FORESTOR	11	1 GAL.

ISSUED FOR

BY

DATE

LEVEL III SITE PLAN

WHS

4/7/19

PHASE II UPDATE

WHS

10/29/19

COMMENT RESPONSE

WHS

12/18/19

COMMENT RESPONSE 2

WHS

2/24/2020

DRAWING NAME

LANDSCAPE PLAN

PROJECT NAME

126/128 NORTH STREET REDEVELOPMENT

CLIENT

UPRIGHT PROPERTIES, LLC

PO BOX 833 WILTON, ME 04294

ACORN ENGINEERING, INC.

65 HANOVER ST. PORTLAND, MAINE 04101

(207) 775-2655

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR UNAUTHORIZED, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE:

1116_CIVIL

JN:

1116

SCALE:

1"=10'

DESIGNED BY:

SJL

DRAWN BY:

ZMS

CHECKED BY:

WHS

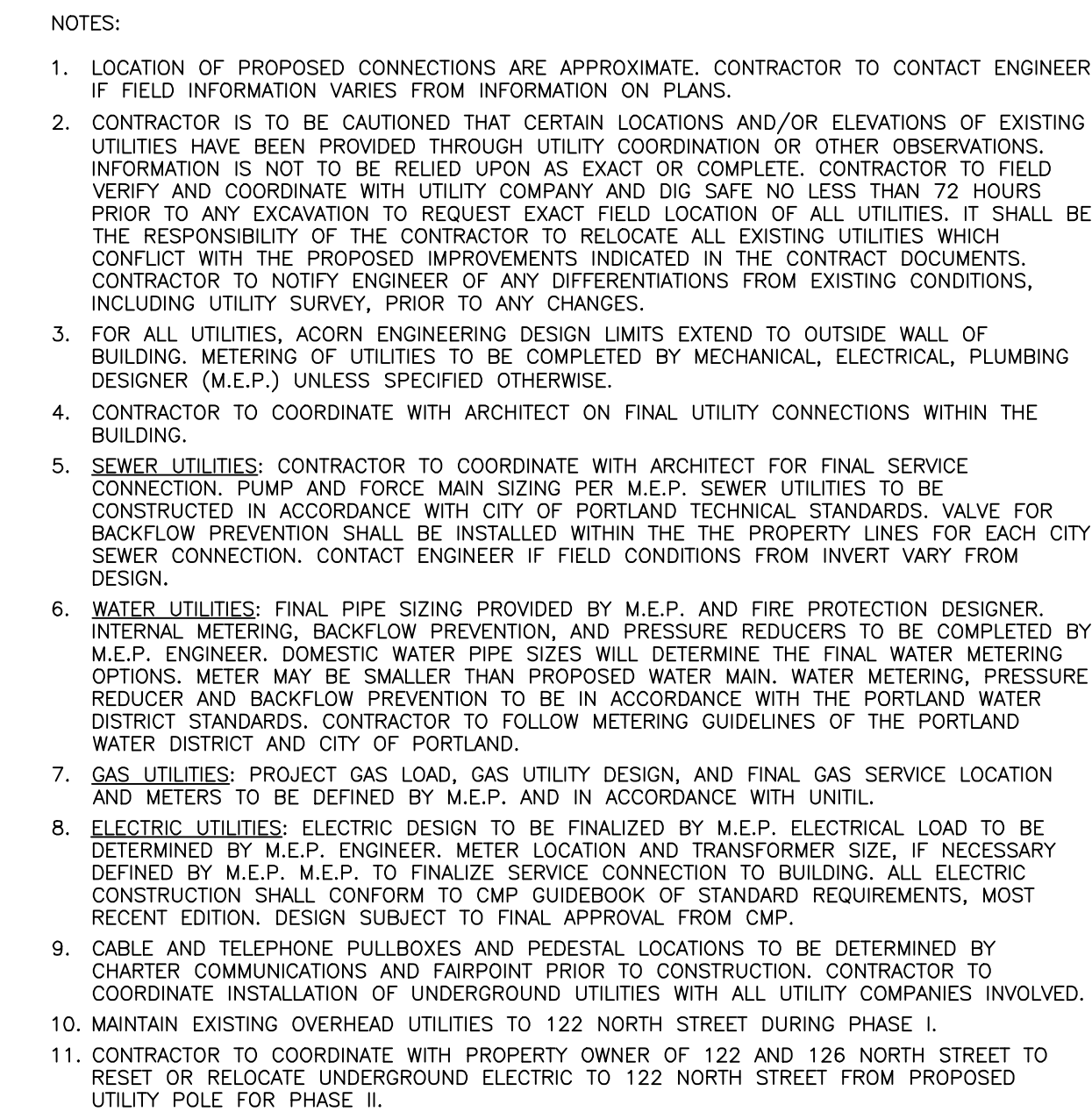
STATE OF MAINE

PROFESSIONAL SEAL

2-13-2020

DRAWING NO.

L-1

[illegible]

DRAWING NAME:	UTILITY PLAN
PROJECT NAME:	126/128R NORTH STREET REDEVELOPMENT
CLIENT:	UPRIGHT PROPERTIES, LLC PO BOX 833 WILTON, ME 04294



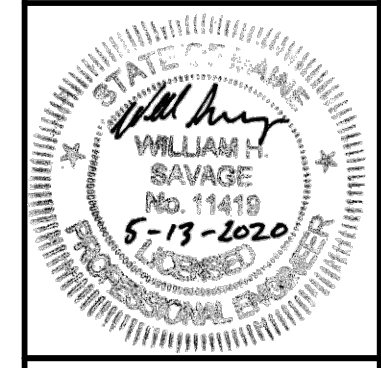
A C C O R N
ENGINEERING, INC.

THE PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACCOR ENGINEERING, INC. ANY ALTERATIONS AUTHORIZED BY THE ARCHITECT SHALL BE INDICATED BY A CIRCLED "R" WITHOUT LIABILITY TO ACCOR ENGINEERING, INC.

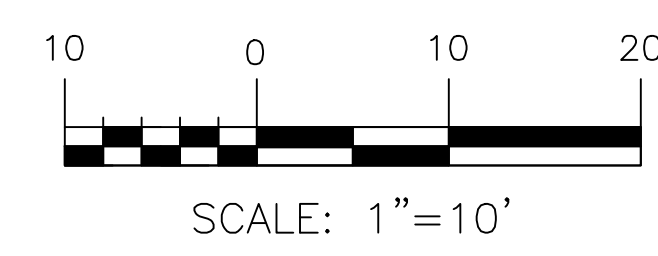
ACCOR ENGINEERING, INC.
65 HANOVER ST., PORTLAND, MAINE 04101
(207) 775-2855

04101

FILE:	1116_CIVIL
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SCALE:	1"=10'
DESIGNED BY:	SJL
DRAWN BY:	SJL & ZMS
CHECKED BY:	WHS

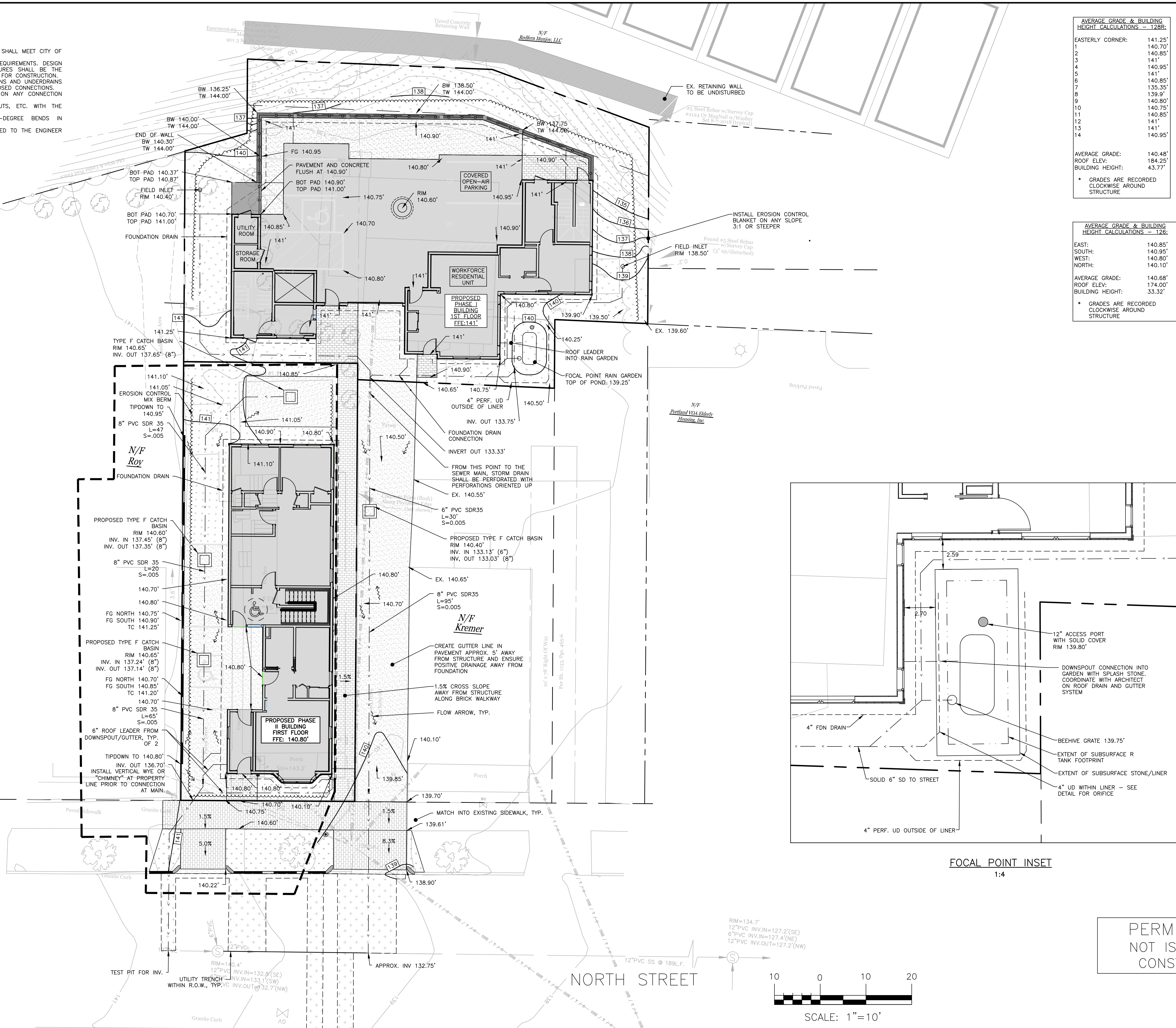


DRAWING NO.
C-20



GENERAL NOTES:

1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
2. REFER TO STRUCTURAL PLANS FOR FOUNDATION REQUIREMENTS. DESIGN OF ADDITIONAL TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
3. CONTRACTOR SHALL ENSURE THAT FOUNDATION DRAINS AND UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
4. INSTALL BACKFLOW PREVENTION WITHIN PROPERTY ON ANY CONNECTION TO THE COMBINED SEWER.
5. COORDINATE ROOF LEADERS, GUTTERS, DOWNSPOUTS, ETC. WITH THE ARCHITECT.
6. CLEANOUTS SHALL BE PROVIDED AT ALL 90-DEGREE BENDS IN FOUNDATION DRAIN.
7. ANY SIGNIFICANT DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION.



AVERAGE GRADE & BUILDING HEIGHT CALCULATIONS - 128R:

EASTERLY CORNER:	141.25'
1	140.70'
2	140.85'
3	141'
4	140.95'
5	141'
6	140.85'
7	139.35'
8	139.9'
9	140.80'
10	140.75'
11	140.85'
12	141'
13	141'
14	140.95'

AVERAGE GRADE: 140.48'
ROOF ELEV: 184.25'
BUILDING HEIGHT: 43.77'

* GRADES ARE RECORDED
CLOCKWISE AROUND
STRUCTURE

AVERAGE GRADE & BUILDING HEIGHT CALCULATIONS - 126:

EAST:	140.85'
SOUTH:	140.95'
WEST:	140.80'
NORTH:	140.10'

AVERAGE GRADE: 140.68'
ROOF ELEV: 174.00'
BUILDING HEIGHT: 33.32'

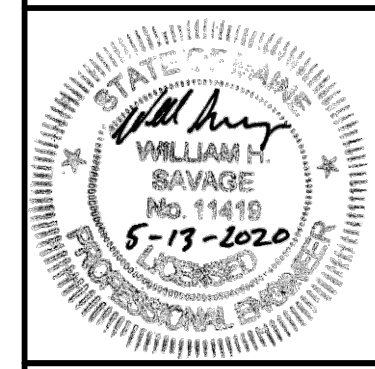
* GRADES ARE RECORDED
CLOCKWISE AROUND
STRUCTURE

ISSUED FOR	BY	DATE
ATS	WHS	6/26/19
LEVEL III SITE PLAN	WHS	6/27/19
PHASE II UPDATE	WHS	10/29/19
COMMENT RESPONSE	WHS	2/27/20
COMMENT RESPONSE 2	WHS	2/24/2020
FINAL APPLICATION	WHS	6/2/2020

DRAWING NAME: GRADING & DRAINAGE PLAN
PROJECT NAME: 126/128R NORTH STREET REDEVELOPMENT
CLIENT: UPRIGHT PROPERTIES, LLC
PO BOX 833 WILTON, ME 04294

ACORN ENGINEERING, INC.
65 HANOVER ST, PORTLAND, MAINE 04101
(207) 775-2655

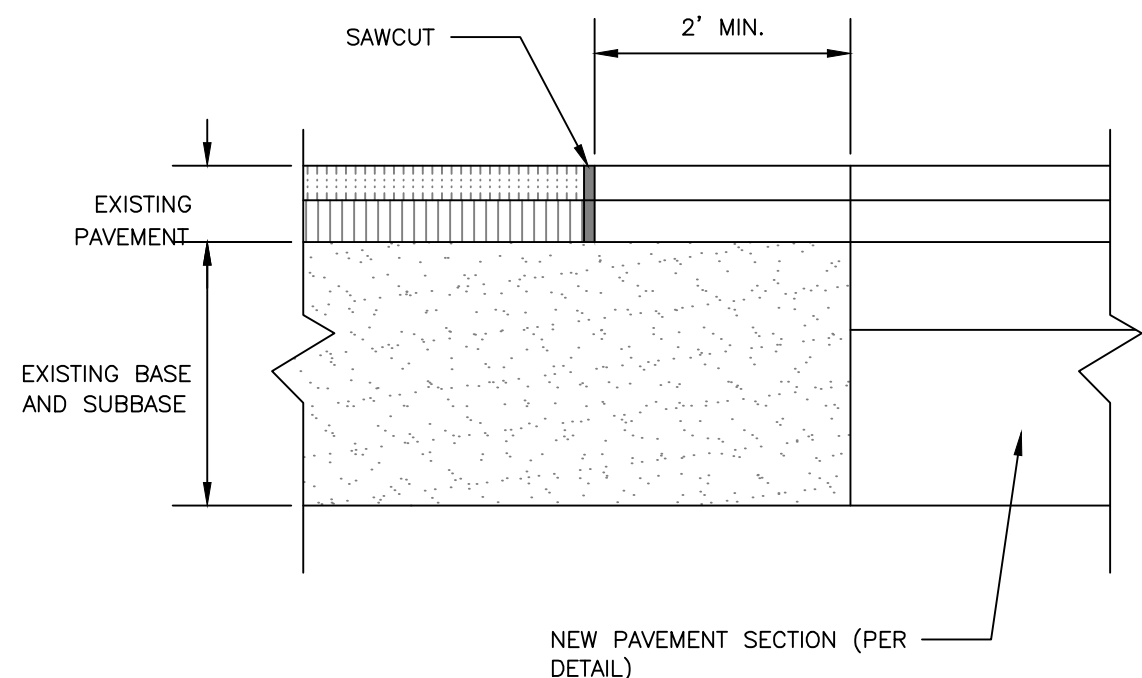
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SCALE: 1"=10'
DESIGNED BY: SJL
DRAWN BY: ZMS
CHECKED BY: WHS



DRAWING NO.
C-30

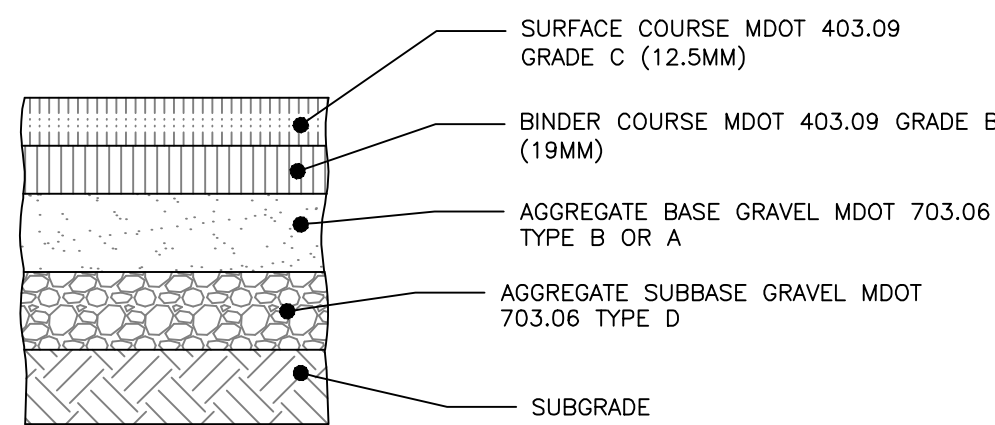
NOTES:

1. SAWCUT EXISTING PAVEMENT AND REMOVE 2' STRIP OF EXISTING PAVEMENT. APPLY BITUMINOUS TACK COAT PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.
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

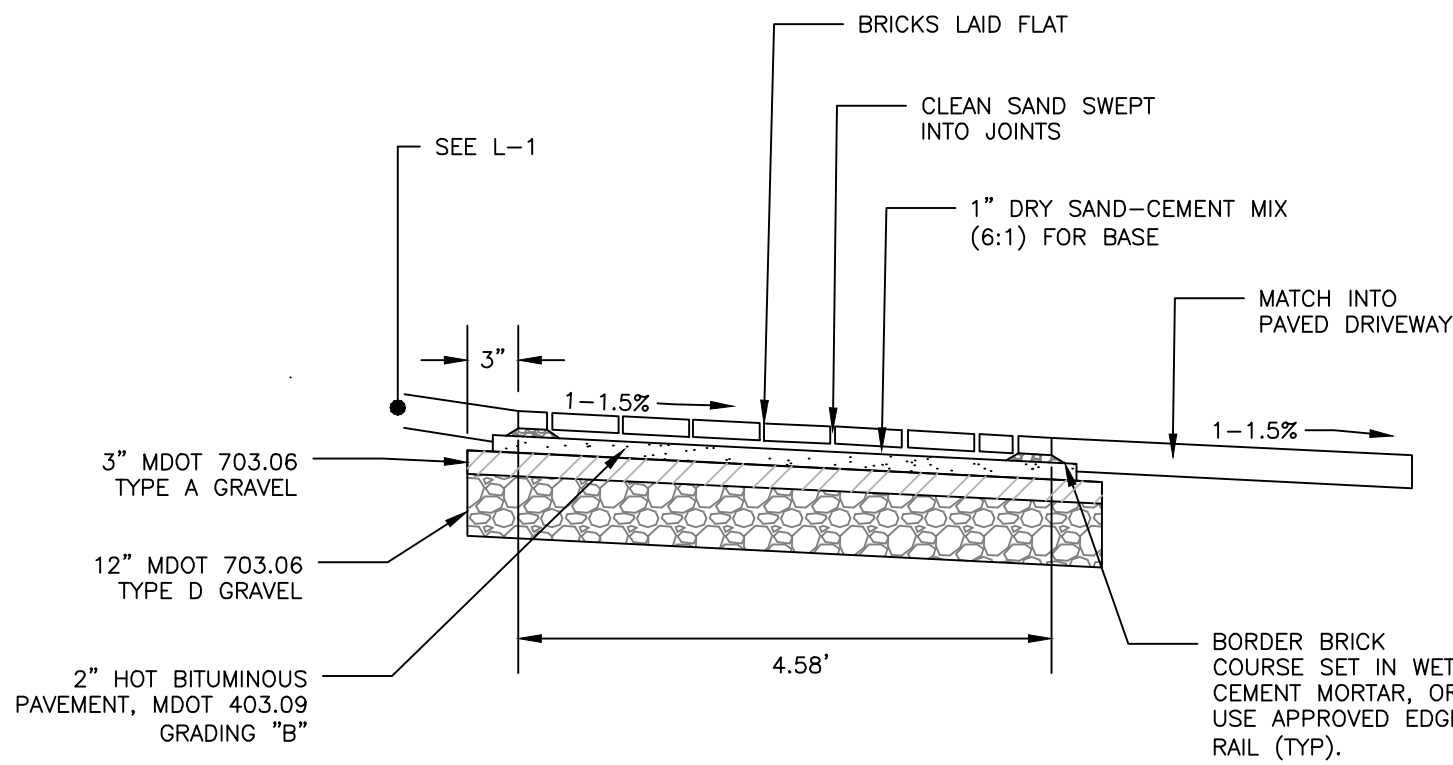


NOTE:
COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557

THICKNESS OF LAYERS	
STANDARD	LAYERS
1-1/2"	SURFACE COURSE MDOT 403.09 GRADE C (12.5mm)
2"	BINDER COURSE MDOT 403.09 GRADE B (19mm)
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B OR A
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

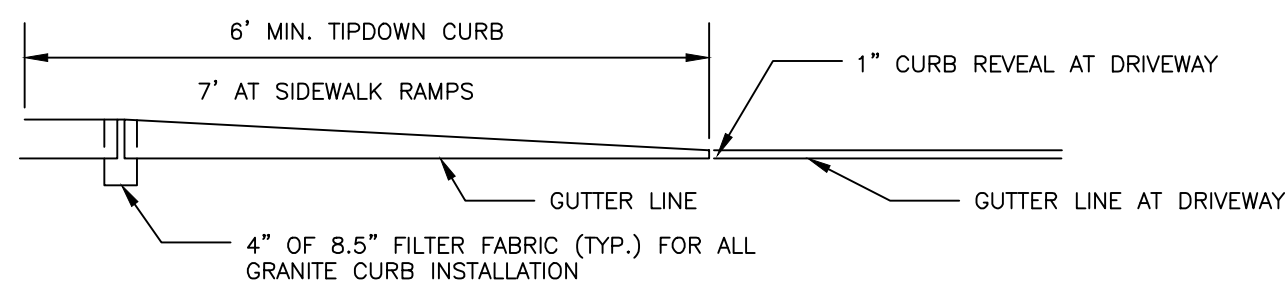
BITUMINOUS PAVEMENT PROFILE

NOT TO SCALE

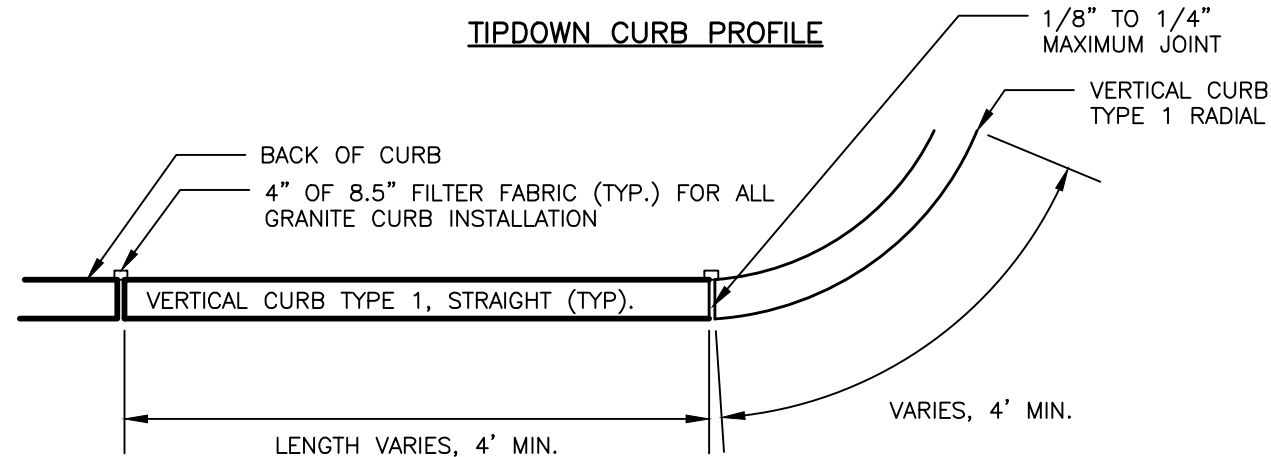


INTERNAL BRICK PEDESTRIAN SIDEWALK ON VEHICULAR WAY

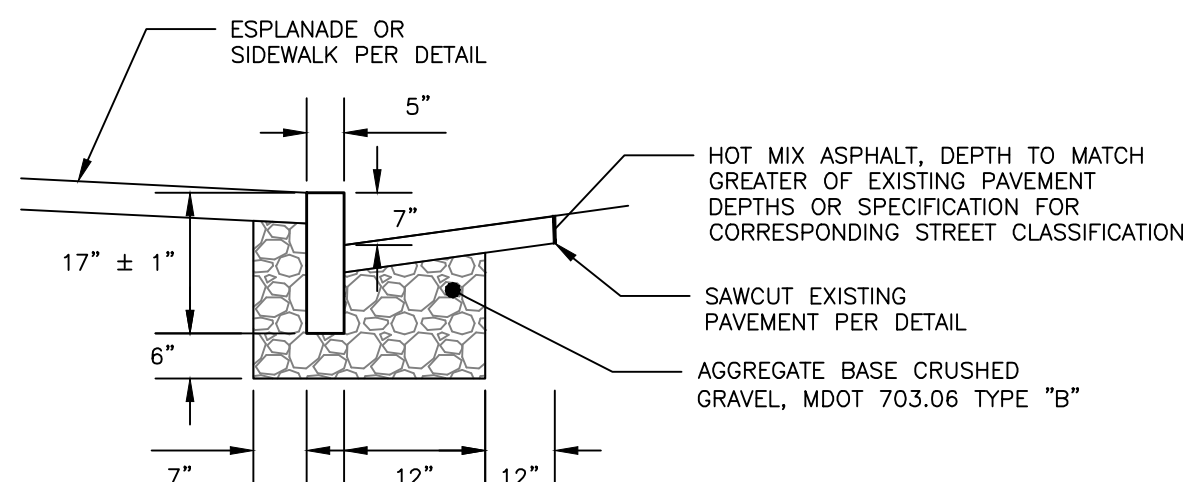
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TIPDOWN CURB PROFILE



VERTICAL GRANITE CURB PLAN VIEW



VERTICAL GRANITE CURB CROSS SECTION

NOTES:

1. CURB SHALL BE RESET IN ACCORDANCE WITH MDOT 609.08 WITH THE EXCEPTION OF CURB SPACING TO BE INSTALLED PER DETAIL.

VERTICAL GRANITE CURB AND TIPDOWN INSTALLATION IN EXISTING STREETS DETAIL

NOT TO SCALE

NOTES:

1. BRICKS TO BE USED:

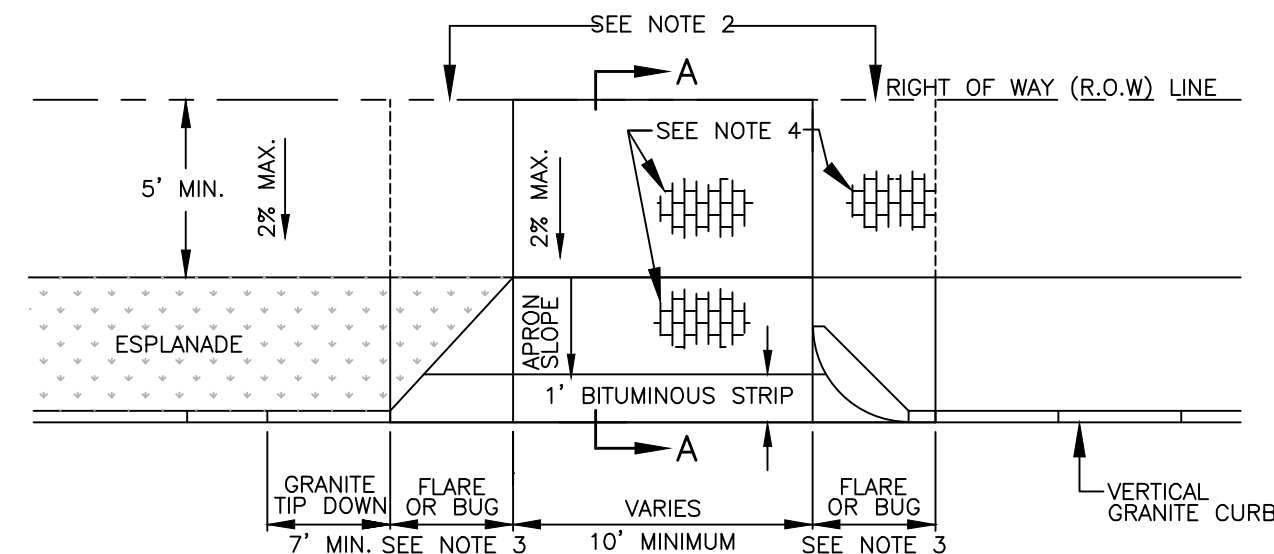
NEW CONSTRUCTION:

4"x8" PINE HALL PATHWAY PAVEMENT BRICK; MFG. BY PINE HALL BRICK CO., MADISON, NORTH CAROLINA. LACHANCE ITEM #193623; PINE HALL PATHWAY PAVEMENT BRICK.

REPAIR/MAINTENANCE TO EXISTING BRICK SIDEWALKS:

VERMONT BACKER SUPPLIED BY GAGNE AND SONS SPECIFICATION NUMBER: "VERMONT PAVEMENT BRICK", ITEM NUMBER #VBBB

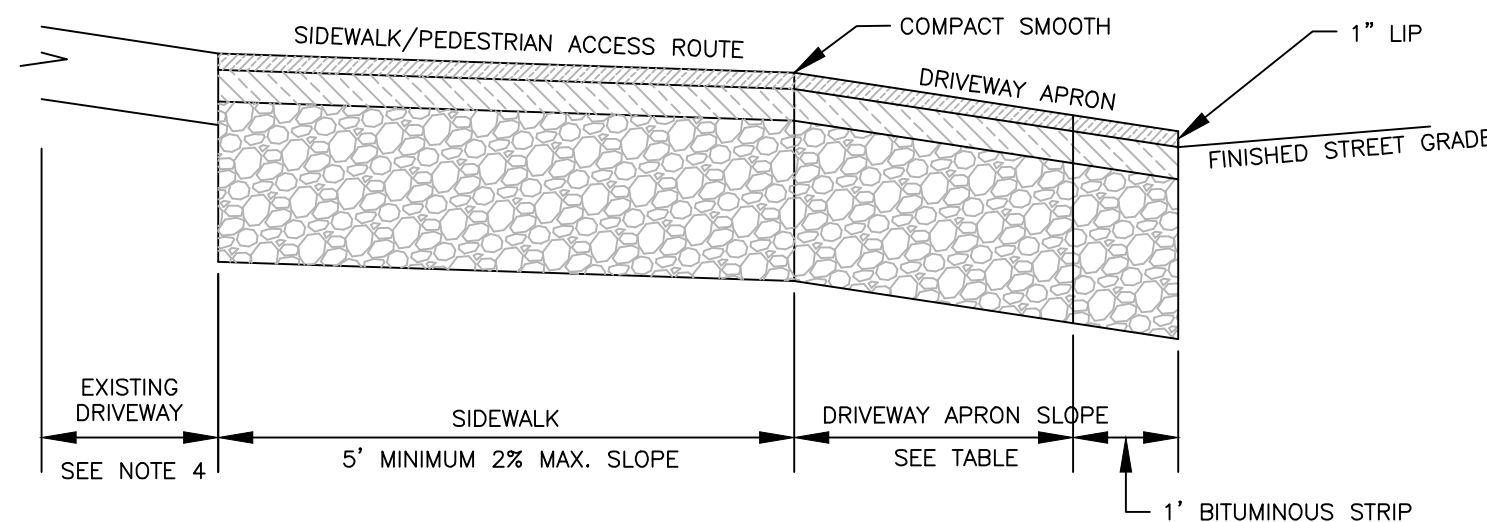
2. INSTALL BRICK FLUSH UP TO BUILDING, PAVEMENT, STAIRS, CONCRETE SURFACES, CURB OR LANDSCAPED AREAS.



APRON SLOPE TABLE	
LAND USE	MAXIMUM RECOMMENDED GRADE CHANGE AT STREET(%)
RESIDENTIAL WITH <9 PARKING SPACES	14%
ALL OTHER DRIVEWAYS	10%

NOTES:

1. MATCH EXISTING GRADE AT R.O.W. LINE, WHERE REQUIRED TO MEET A.D.A. AND DRIVEWAY APRON SLOPE REQUIREMENTS, A CONSTRUCTION EASEMENT MAY BE REQUIRED.
2. 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%.
3. TWO-FOOT RADIUS CORNER GRANITE PIECES ("BUGS") ARE REQUIRED AT LOW-VOLUME DRIVEWAYS UNLESS OTHERWISE DIRECTED BY DPW. AT OTHER DRIVEWAYS, STANDARD FLARE/TIPDOWN TREATMENTS SHALL BE USED.
4. 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.



DRIVEWAY APRON

NOT TO SCALE

NOTES:

1. BRICKS TO BE USED:

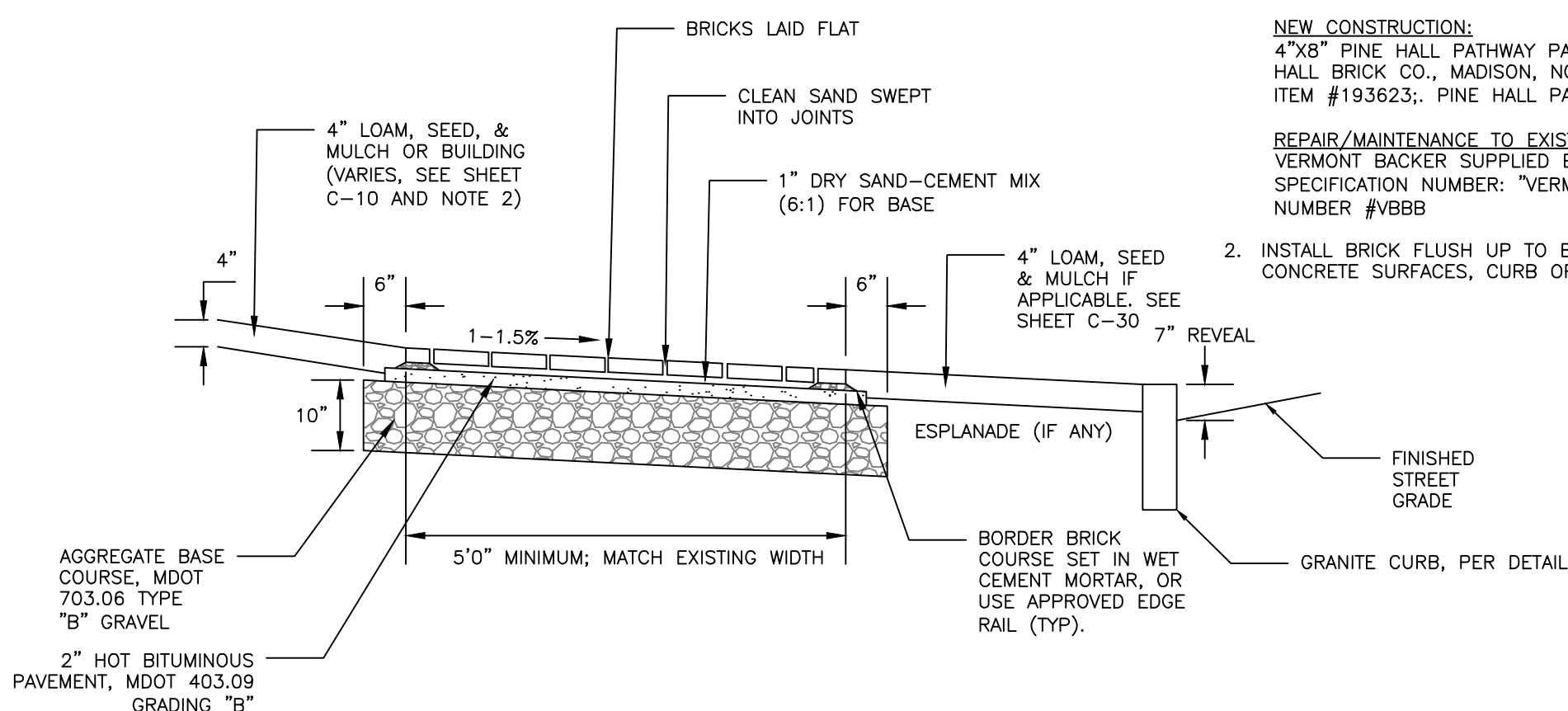
NEW CONSTRUCTION:

4"x8" PINE HALL PATHWAY PAVEMENT BRICK; MFG. BY PINE HALL BRICK CO., MADISON, NORTH CAROLINA. LACHANCE ITEM #193623; PINE HALL PATHWAY PAVEMENT BRICK.

REPAIR/MAINTENANCE TO EXISTING BRICK SIDEWALKS:

VERMONT BACKER SUPPLIED BY GAGNE AND SONS SPECIFICATION NUMBER: "VERMONT PAVEMENT BRICK", ITEM NUMBER #VBBB

2. INSTALL BRICK FLUSH UP TO BUILDING, PAVEMENT, STAIRS, CONCRETE SURFACES, CURB OR LANDSCAPED AREAS.



BRICK SIDEWALK WITH BITUMINOUS BASE DETAIL - RIGHT OF WAY AND INTERNAL NON-VEHICULAR WALKS

NOT TO SCALE

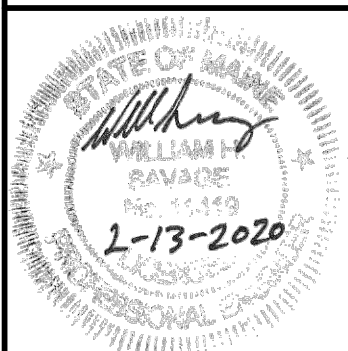
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
LEVEL III SITE PLAN	WHS
PHASE II UPDATE	WHS
COMMENT RESPONSE 2	WHS

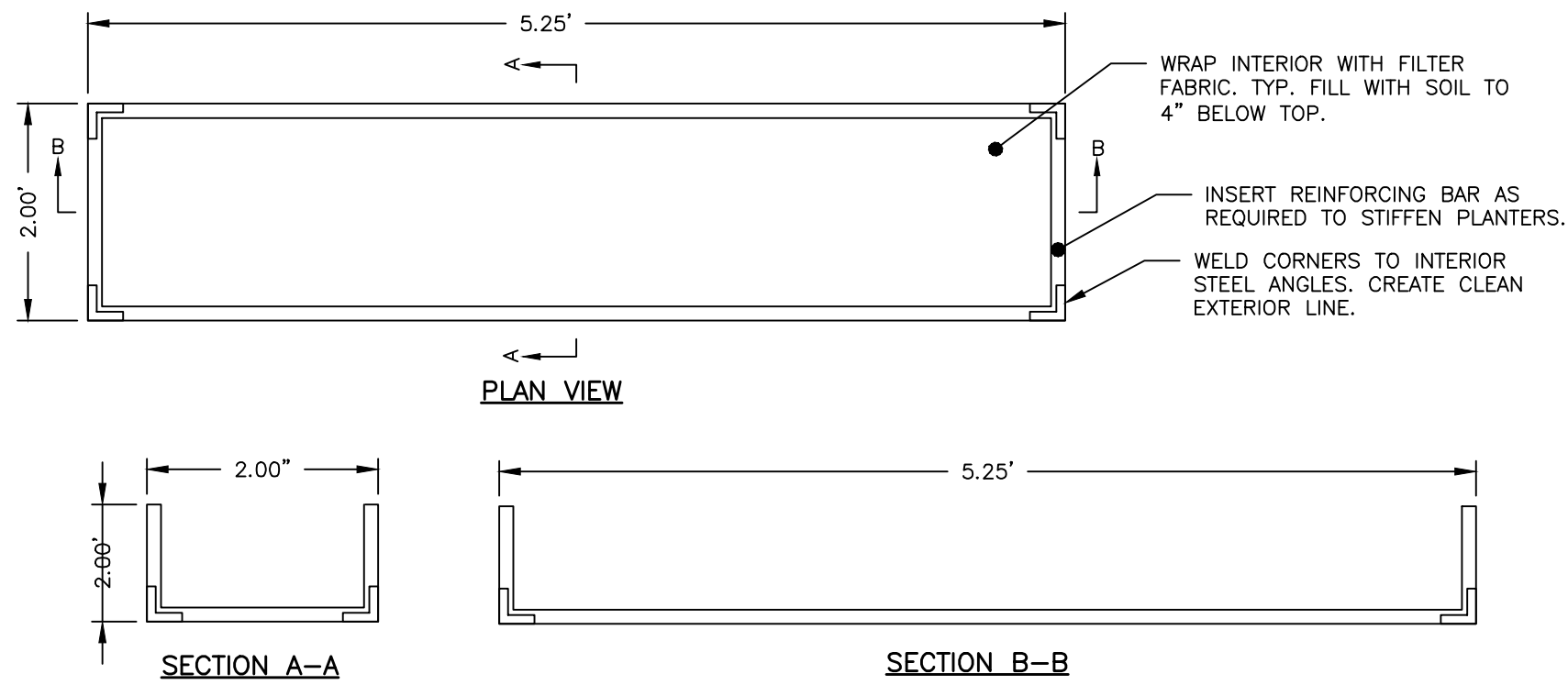
SITE DETAILS - 1	128R NORTH STREET REDEVELOPMENT	UPRIGHT PROPERTIES, LLC
DRAWING NAME	PROJECT NAME	CLIENT
65 HANOVER ST. PORTLAND MAINE 04101	(207) 775-2655	THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR UNAUTHORIZED, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.	ENGINEERING, INC.
65 HANOVER ST. PORTLAND MAINE 04101	(207) 775-2655

FILE:	1116_CIVIL
JN:	1116
SCALE:	NTS
DESIGNED BY:	SUL
DRAWN BY:	ZMS
CHECKED BY:	WHS



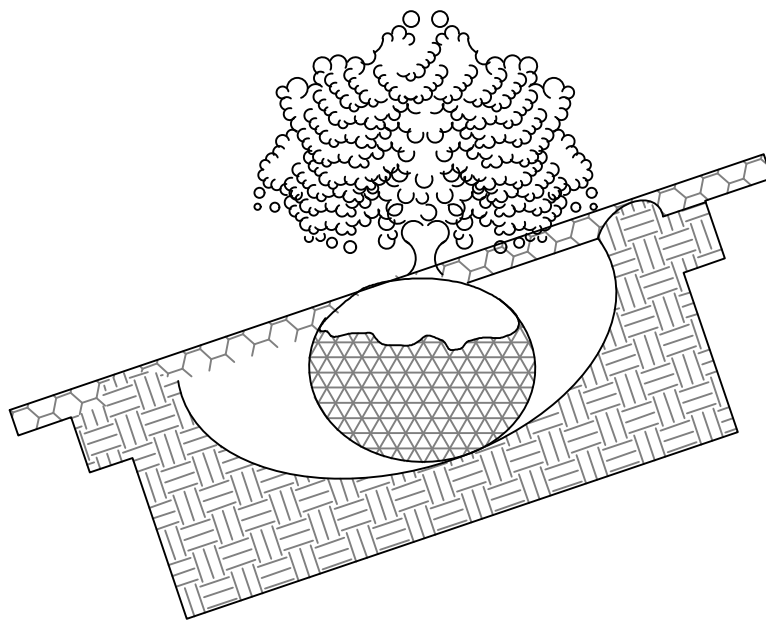
DRAWING NO.
C-40



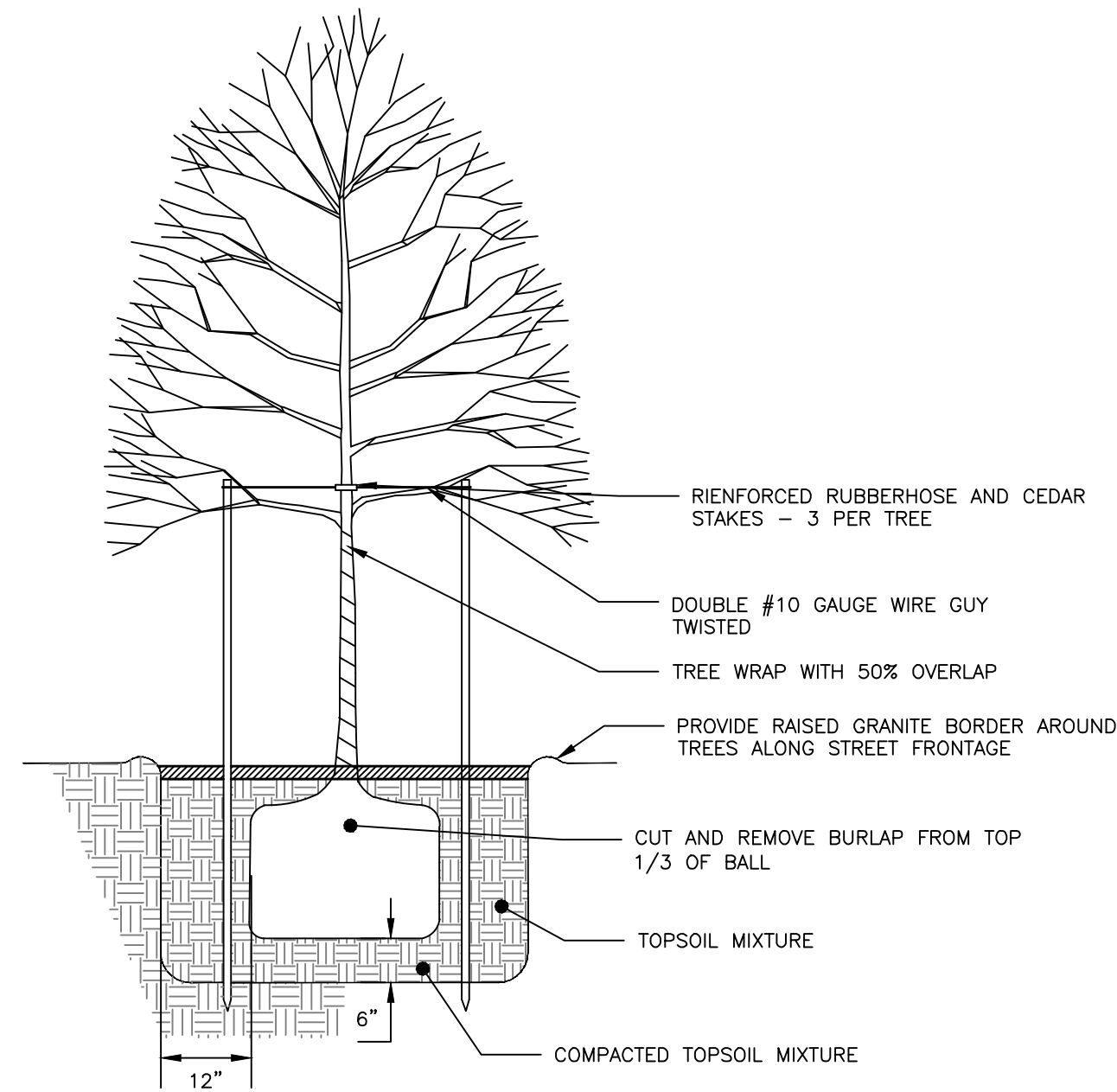
WEATHERING STEEL PLANTER BOX
NOT TO SCALE

NOTES:

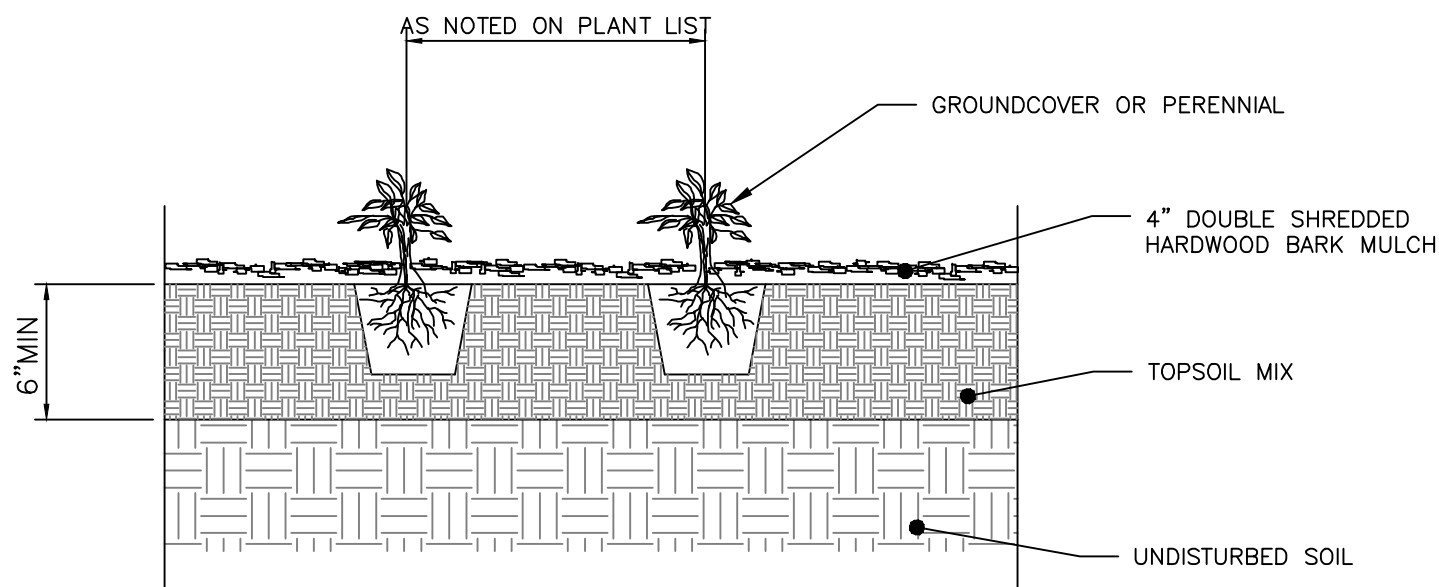
1. DIG HOLE AT LEAST 2 TIMES THE DIAMETER OF THE ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH THE TOP AT DOWNHILL EDGE OF THE HOLE.
2. TOPSOIL BACKFILL SHALL BE NATURAL FRABLE, FERTILE, FINE LOAMY SOIL POSSESSING THE CHARACTERISTICS OF TOPSOIL IN THE VICINITY WHICH PRODUCE A HEAVY GROWTH. TOPSOIL SHALL CONTAIN NOT LESS THAN 6% NOR MORE THAN 20% ORGANIC MATTER. TOP SOIL SHALL HAVE A pH VALUE OF NOT LESS THAN 5.5 NOR MORE THAN 7.0.
3. CONTAINER GROWN STOCK – REMOVE CONTAINER PROTECTING THE ROOT BALL. GENTLY COMB OUT THE ROOTS. PRUNE DAMAGED ROOTS.
4. BACKFILL THE HOLE WITH TOPSOIL TO A DEPTH NOT TO EXCEED 8\"/>



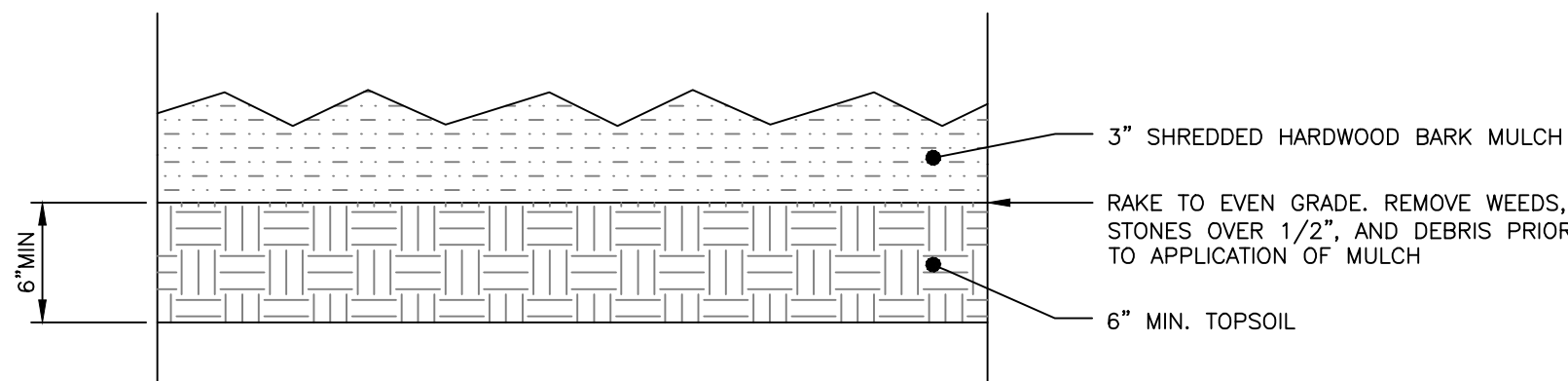
TYPICAL PLANTING
NOT TO SCALE



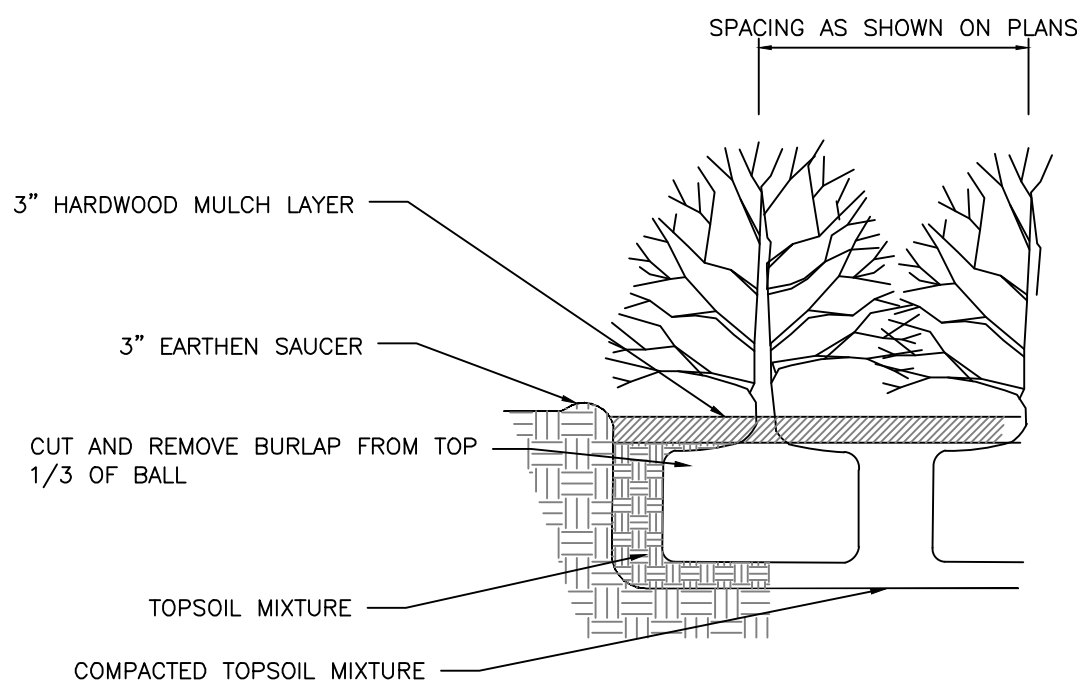
TREE PLANTING DETAIL
NOT TO SCALE



PERENNIAL PLANTING DETAIL
NOT TO SCALE



BARK MULCH DETAIL
NOT TO SCALE



SHRUB PLANTING DETAIL
NOT TO SCALE

PLANTING NOTES:

1. ALL PLANT SELECTION AND INSTALLATION WILL BE IN COMPLIANCE WILL THE CITY OF PORTLAND TECHNICAL MANUAL (SECTION 4).
2. CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
3. IF THERE IS A DISCREPANCY BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLAN AND THE NUMBER OF PLANTS SHOWN IN PLANT LIST (IF ANY), THE NUMBER OF PLANTS SHOWN ON PLAN WILL TAKE PRECEDENCE.
4. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMAN.
5. ALL DISTURBED AREAS NOT TO BE PAVED OR PLANTED SHALL BE LOAMED AND SEEDED AS SHOWN. THE SEED MIX SPECIFICATIONS ARE AS FOLLOWS: LESCO FINE FESCUE LINKS BLEND OF 35% HARD FESCUE, 35% CREEPING RED FESCUE, 20% CHEWINGS FESCUE AND 10% SHEEP FESCUE. ADD 5% LITTLE BLUESTEM AND 5% NORTHEAST WILDFLOWER SEED MIXTURE BY WEIGHT TO THE LINKS BLEND.
6. FOR PRICING PURPOSES, PROVIDE A PER TREE UNIT COST FOR STAKING AND GUYING. IF STAKING AND GUYING IS REQUIRED, REMOVE TREE WRAP, STAKES, AND GUY WIRES AT END OF FIRST GROWING SEASON.
7. FOR TREE PLANTING IN LAWN AREAS, ANY DISTURBED LAWN SHALL BE LOAMED AND SEEDED AS NECESSARY.
8. NEW TREES TO BE INSTALLED WITH A SLOW RELEASE WATERING BAG.
9. CONTRACTOR TO BE HELD RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL PLANT MATERIAL AND LANDSCAPING IMPROVEMENTS FOR AT LEAST 30 DAYS FOLLOWING INSTALLATION. FOLLOWING THIS PERIOD, THE LANDOWNER OR PROPERTY MANAGEMENT SHALL BE RESPONSIBLE FOR CONTINUED WATERING AND MAINTENANCE. CONTRACTOR TO MAINTAIN A ONE YEAR WARRANTY ON ALL PLANTINGS FOLLOWING FINAL INSTALLATION.
10. ALL PROPOSED PLANTS SHALL BE LOCATED AS SHOWN ON THE PLANS. CONTRACTOR TO NOTIFY ENGINEER WHEN PLANTINGS HAVE BEEN MOBILIZED ON SITE. ENGINEER TO INSPECT AND ACCEPT OR REJECT ANY SPECIMENS ON THE BASIS OF APPARENT HEALTH, HARDINESS, AND CONFORMANCE WITH THE PLANTING SCHEDULE. REJECTED SPECIMENS ARE TO BE REPLACED BY THE CONTRACTOR AT NO ADDED COST TO THE OWNER. ACCEPTANCE DOES NOT WAIVE THE REQUIRED ONE YEAR PLANTING WARRANTY.

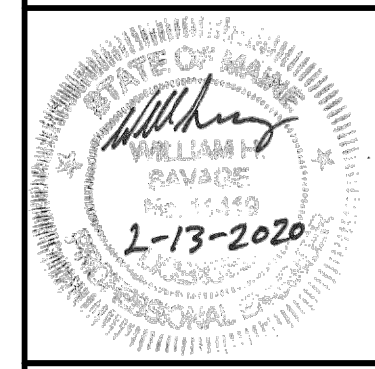
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
LEVEL III SITE PLAN	WHS
PHASE II UPDATE	WHS
COMMENT RESPONSE 2	WHS

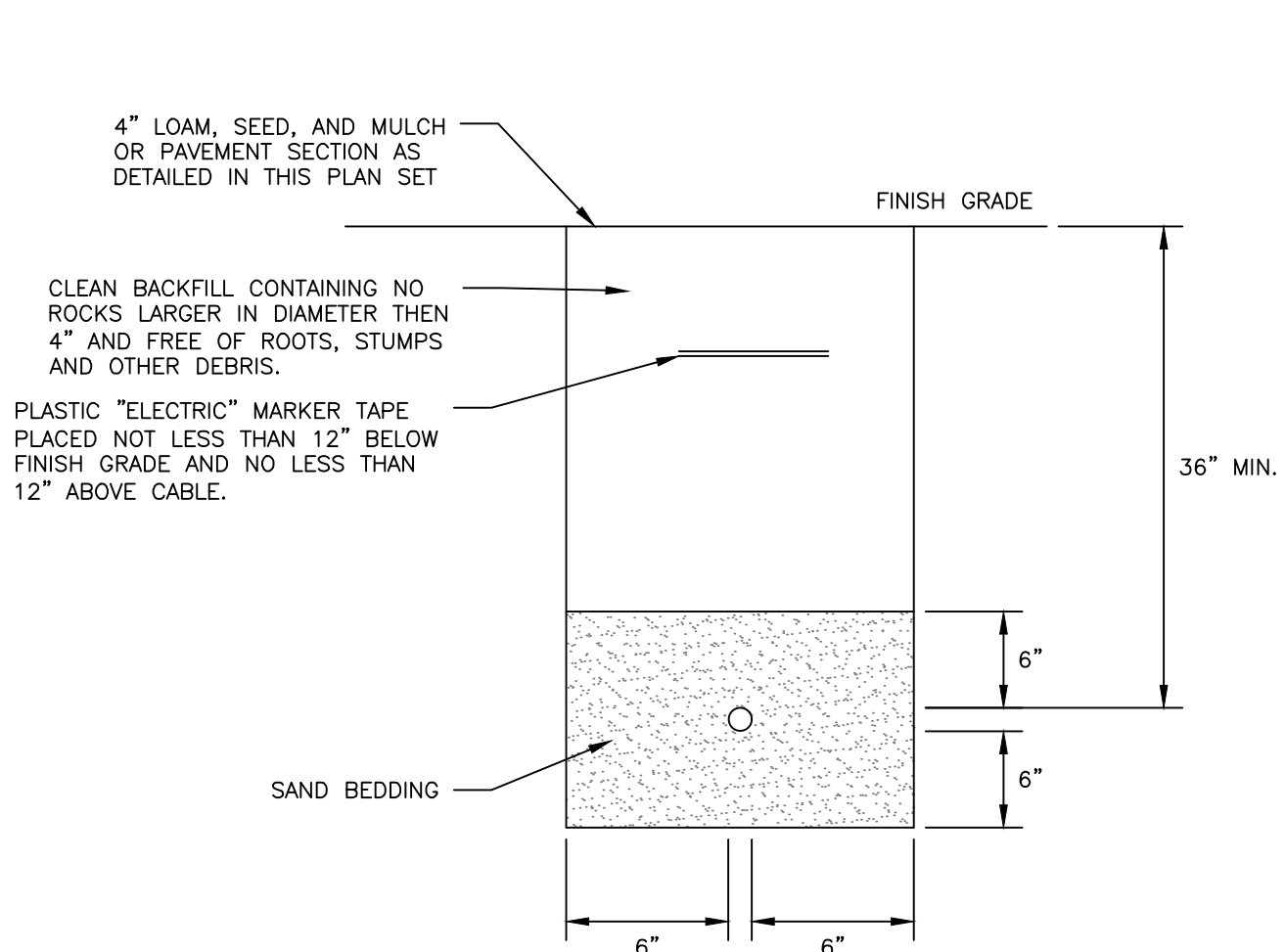
LANDSCAPING DETAILS	128R NORTH STREET REDEVELOPMENT	UPRIGHT PROPERTIES, LLC
DRAWING NAME:	PROJECT NAME:	CLIENT:
		PO BOX 833 WILTON, ME 04294

ACORN ENGINEERING, INC.	ENGINEERING, INC.
65 HANOVER ST, PORTLAND MAINE 04101	(207) 775-2655

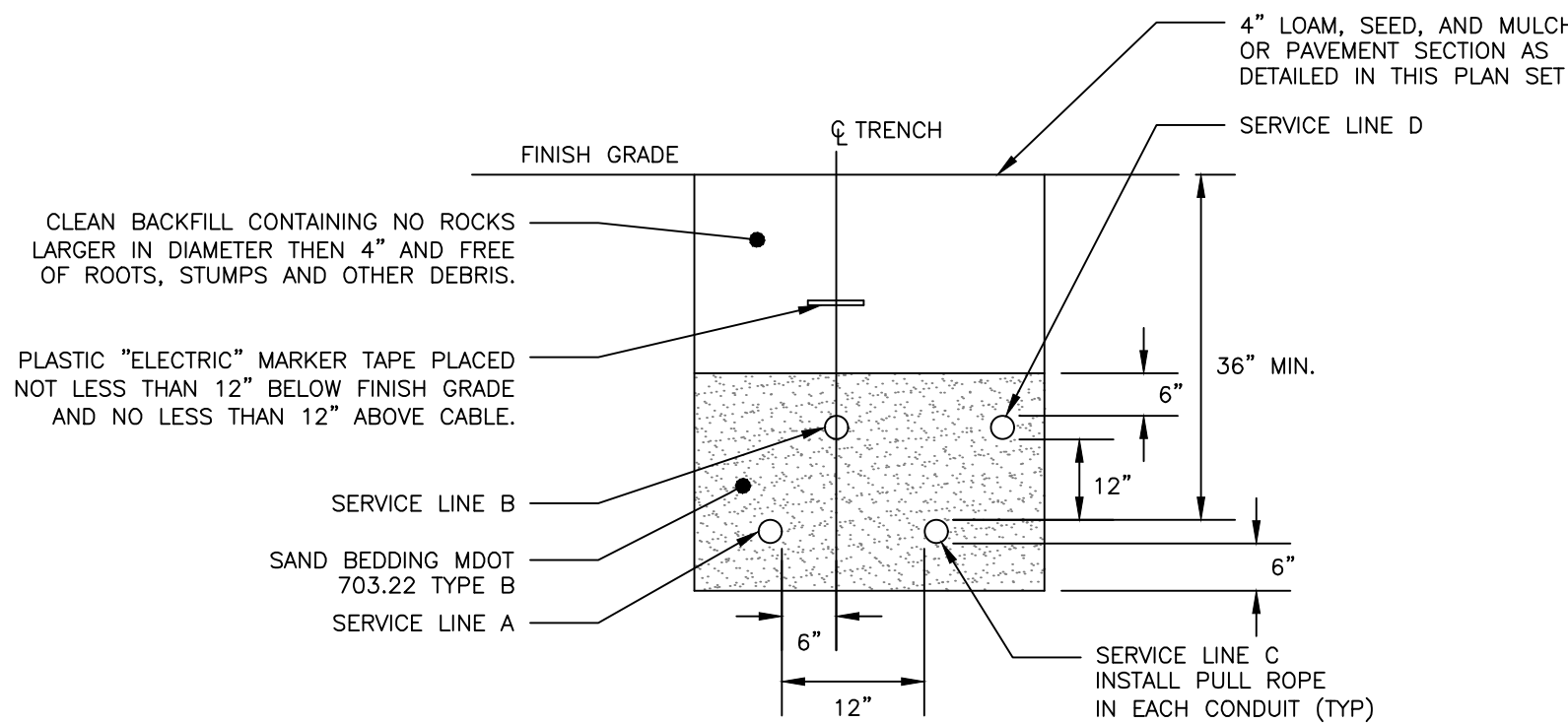
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JN:	1116
SCALE:	NTS
DESIGNED BY:	SUL
DRAWN BY:	ZMS
CHECKED BY:	WHS



DRAWING NO.
C-42



SECONDARY ELECTRICAL TRENCH
NOT TO SCALE

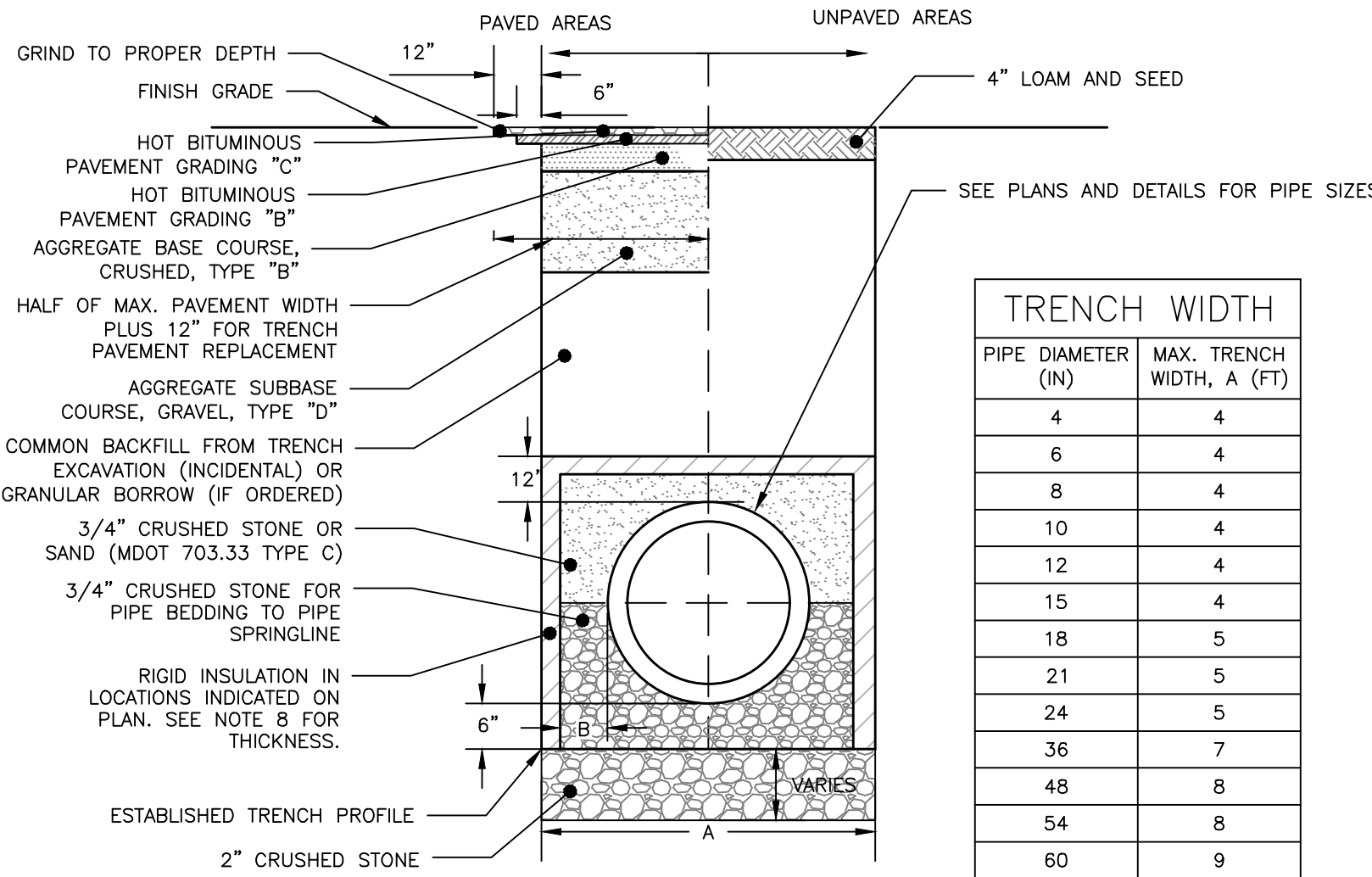


CONDUIT TYPE				
SERVICE	CONDUIT SIZE	GRASS AND PAVED AREAS	UTILITY	REMARKS
A	2-5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
B	2-4"	SCHEDULE 40 PVC	COMMUNICATION	-
C	2-4"	SCHEDULE 40 PVC ELECTRICAL GRADE	SPARE	IF REQUIRED
D	2-4"	SCHEDULE 40 PVC	CABLE	-

- NOTES:
- 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.

UTILITY TRENCH - PRIMARY AND SECONDARY POWER, TELEPHONE, AND CABLE
NOT TO SCALE

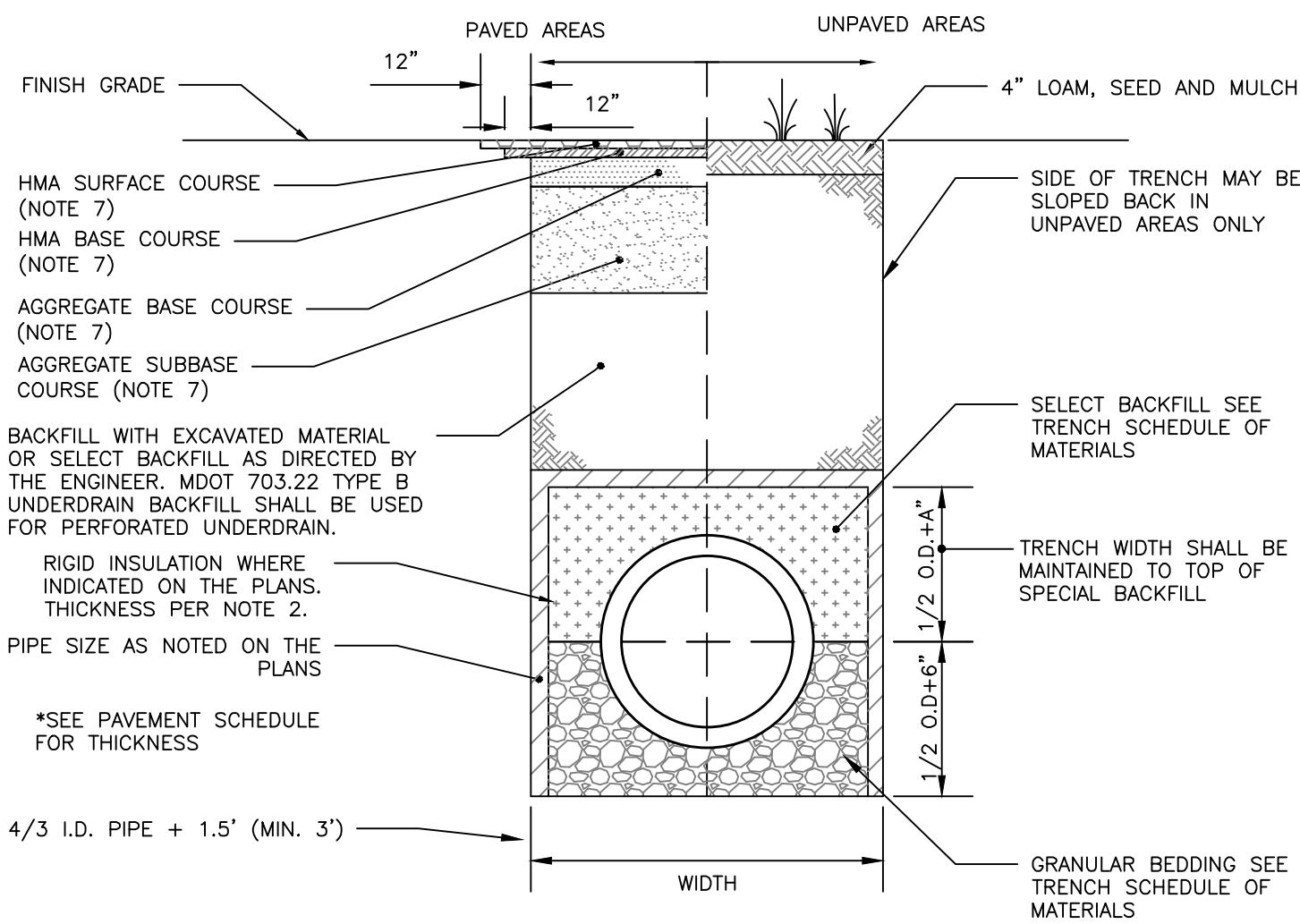
- DESIGN NOTES:
- ANY ALTERNATE TRENCHING METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
 - ALL CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL STANDARDS FIGURE II-2.
 - BRACING & SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - WHERE APPLICABLE, PERFORATIONS IN STORM DRAIN (PERF. SD) SHALL BE ORIENTED UP.
 - 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
 - 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.
 - THIS DETAIL SHALL BE APPLIED ONLY TO PIPE TRENCHES WITHIN OF THE CITY OF PORTLAND R.O.W.
 - 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.
 - DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.
 - 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".
 - DIMENSION A IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE TABLE BELOW.



TRENCH WIDTH	
PIPE DIAMETER (IN)	MAX. TRENCH WIDTH, A (FT)
4	4
6	4
8	4
10	4
12	4
15	4
18	5
21	5
24	5
36	7
48	8
54	8
60	9

- ALLOWABLE PIPE MATERIALS:
- REINFORCED CONCRETE PIPE (RCP) MIN. STRENGTH OF CLASS III
 - PVC RING TYPE SEWER (SDR 35) OR EQUIVALENT, MIN PS-46 RATING
 - PVC RING TYPE SEWER PIPE MEETING ASTM F 789
 - DUCTILE IRON PIPE (DIP)
 - ADS N-12 HP TRIPLE-WALL MIN PS-46 RATING
 - ADS SANITITE HP MIN. PS-46

CITY OF PORTLAND TYPICAL PIPE TRENCH DETAIL
NOT TO SCALE

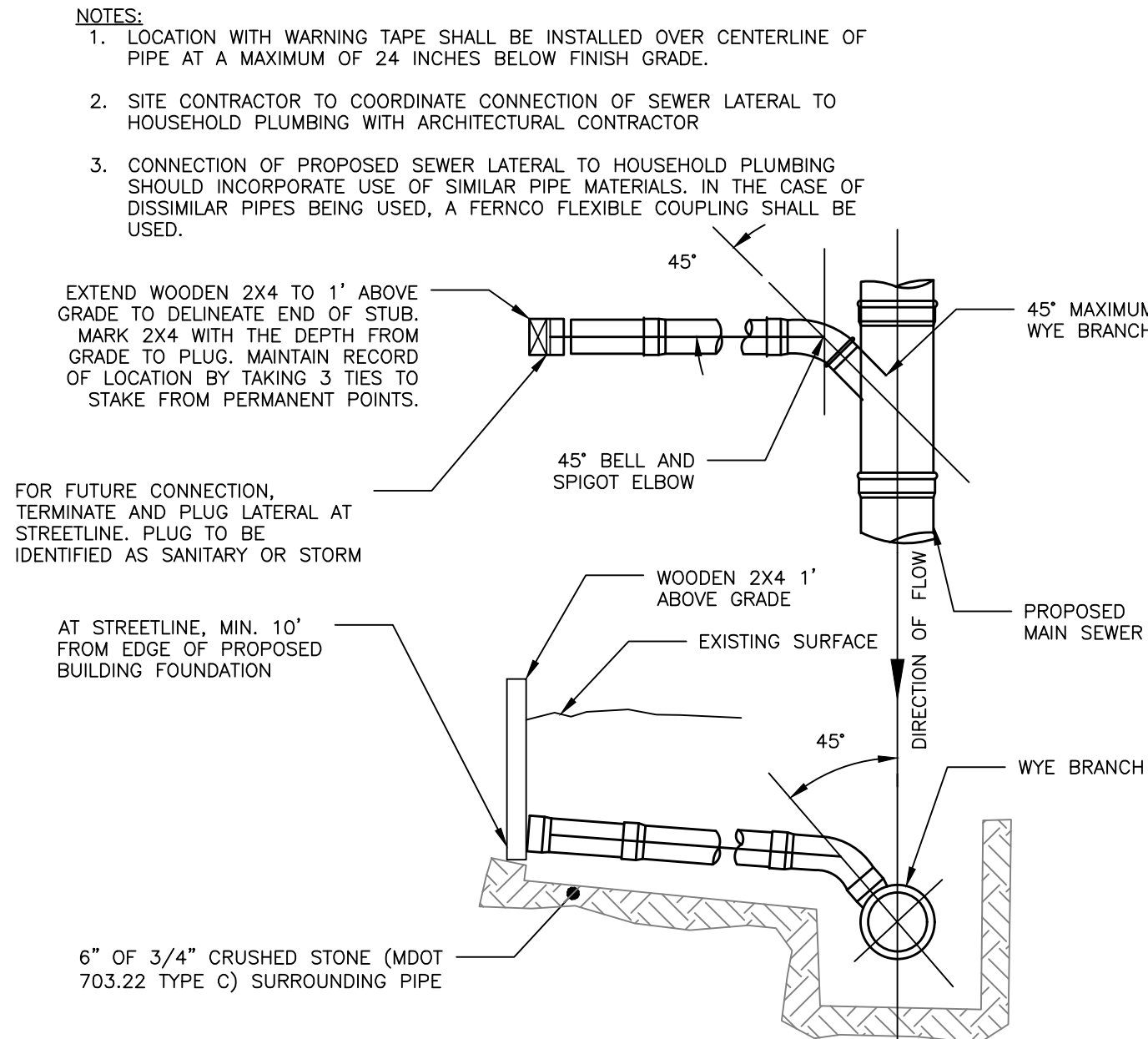


- ALLOWABLE PIPE MATERIALS:
- REINFORCED CONCRETE PIPE (RCP) MIN. STRENGTH OF CLASS III
 - PVC RING TYPE SEWER (SDR 35) OR EQUIVALENT, MIN PS-46 RATING
 - PVC RING TYPE SEWER PIPE MEETING ASTM F 789
 - DUCTILE IRON PIPE (DIP)
 - ADS N-12 HP TRIPLE-WALL MIN PS-46 RATING
 - ADS SANITITE HP MIN. PS-46

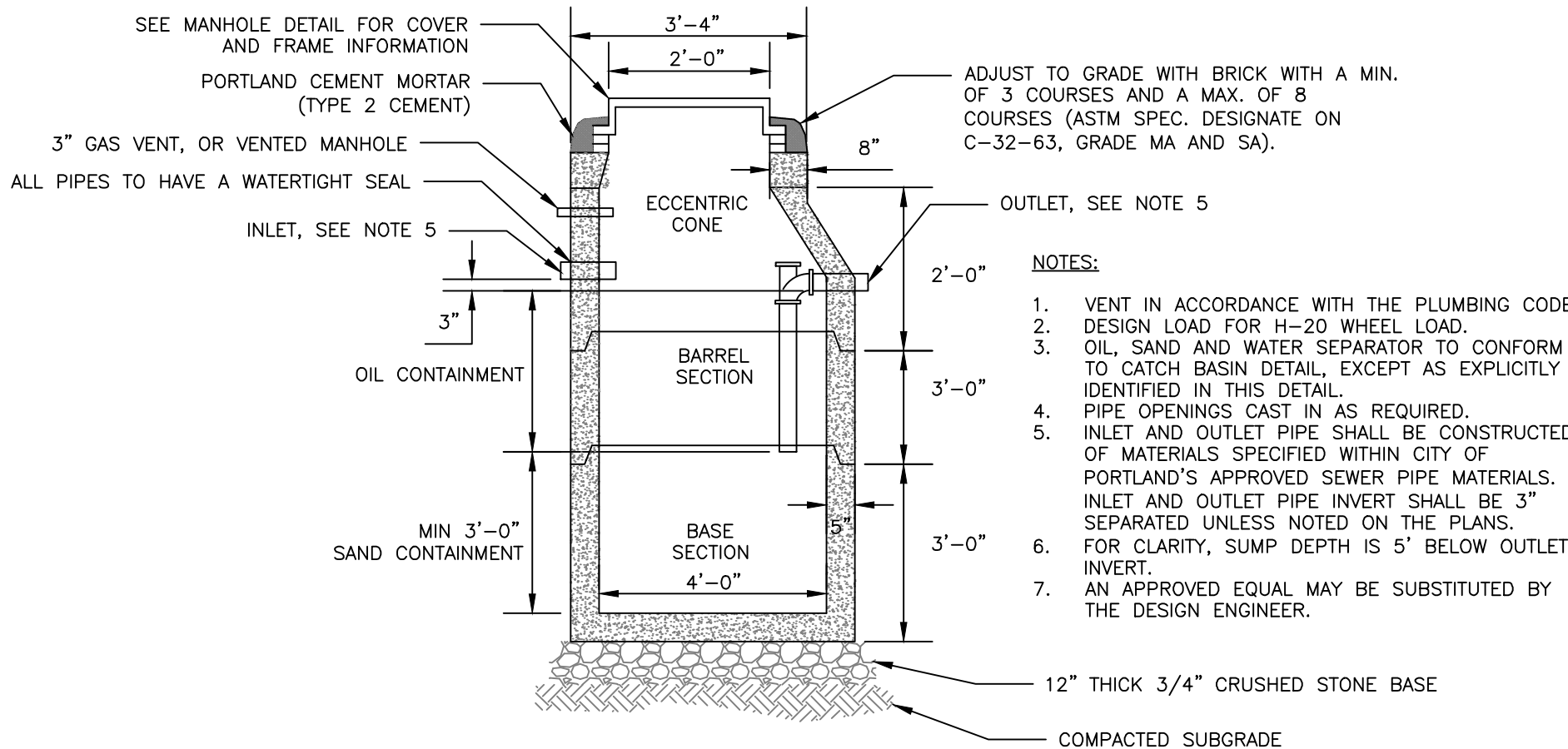
INTERNAL STORM DRAIN AND SEWER TYPICAL TRENCH SECTION
NOT TO SCALE

SCHEDULE OF MATERIALS		
TYPE OF PIPE	GRANULAR BEDDING	SELECT BACKFILL
CMP DUCTILE IRON RCP	MDOT 703.22 TYPE B UD BACKFILL	MDOT 703.22 TYPE B UD BACKFILL
PVC/HDPE	MDOT 703.22 TYPE C 3/4" CRUSHED STONE	MDOT 703.22 TYPE B UD BACKFILL
CMP	MDOT 703.22 TYPE C 3/4" CRUSHED STONE	MDOT 703.22 TYPE C 3/4" CRUSHED STONE

- NOTES:
- 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.
 - 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.
 - INSTALL WARNING TAPE DIRECTLY ABOVE UTILITIES AT THE TOP OF SUBGRADE.
 - MINIMUM COVER
 - 2'-0" - STORM DRAIN
 - 5'-0" - SEWER
 - NO TREES SHALL BE PLANTED WITHIN 5' OF A SEWER PIPE OR SERVICE
 - THIS DETAIL SHALL BE APPLIED ONLY TO DRAINAGE PIPE TRENCHES OUTSIDE OF THE CITY OF PORTLAND R.O.W.
 - THICKNESS AS NOTED BY SURFACE DETAILS



SEWER TEE/WYE CONNECTION DETAIL
NOT TO SCALE



4'-0" DIAMETER PRECAST OIL AND WATER SEPARATOR
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
LEVEL III SITE PLAN	WHS
PHASE II UPDATE	WHS
COMMENT RESPONSE 2	WHS

UTILITY DETAILS - 1

128R NORTH STREET REDEVELOPMENT

UPRIGHT PROPERTIES, LLC

PO BOX 833 WILTON, ME 04294

ACORN ENGINEERING, INC.

65 HANOVER ST., PORTLAND, MAINE 04101

(207) 775-2655

FILE: 1116_CIVIL

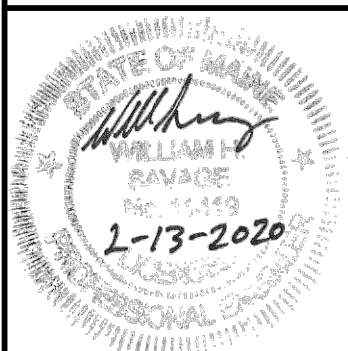
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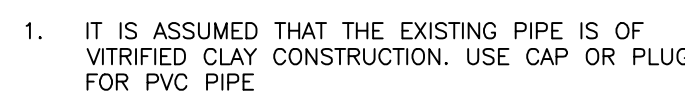
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DRAWING NO.

C-43



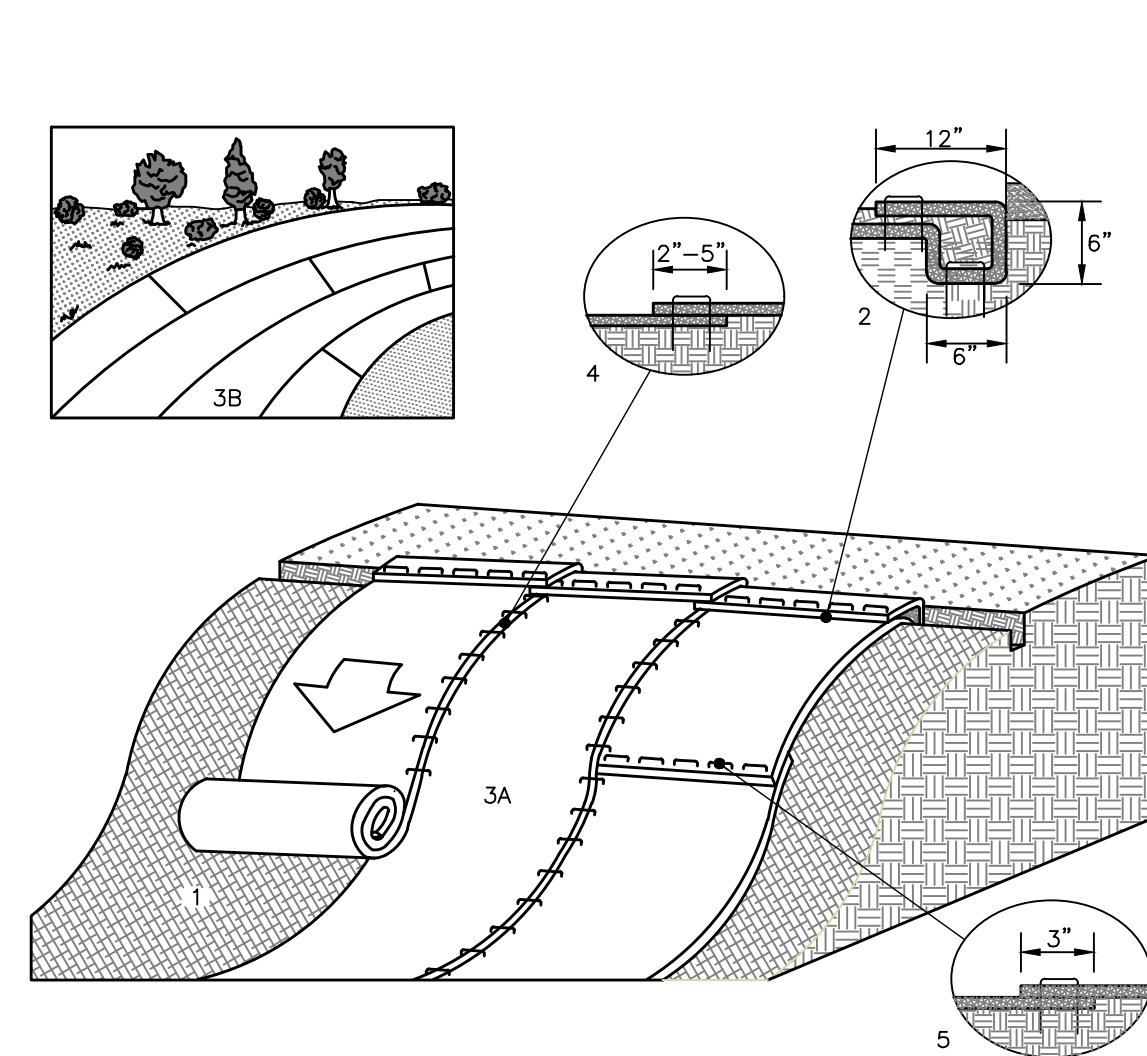
1. BACKFLOW VALVE TO BE PROVIDED BY AGRI DRAIN CORPORATION OR AN APPROVED EQUAL.
2. VALVE TO BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS AND COMPLY WITH RULES AND REGULATIONS AS OUTLINED IN SECTION 2 OF THE CITY OF PORTLAND TECHNICAL MANUAL.
3. VALVE SHALL BE INSTALLED WITH A VALVE BOX AND COVER TO PROVIDE EASY ACCESS AND MAINTENANCE; VALVE COVER SHALL STATE "SEWER ON LID FLUSH TO SURFACE. REFER TO VALVE & BOX COVER DETAIL FOR ADDITIONAL INFORMATION.
4. CONCRETE COLLAR AT A MINIMUM 24-HOUR COMPRESSIVE STRENGTH OF 3,000 PSI.

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.

NOTE: SEE THRUST/RETAINER
GLAND SCHEDULE FOR TYPE
OF BLOCKING TO BE USED
ON BENDS

1. REFER TO THE GRADING AND DRAINAGE PLANS
FOR ADDITIONAL INFORMATION

ISSUED FOR	BY
LEVEL III SITE PLAN	DATE
PHASE II UPDATE	WHS
COMMENT RESPONSE	8/7/19
COMMENT RESPONSE 2	WHS
	10/29/19
	WHS
	12/18/19
	WHS
	2/24/202

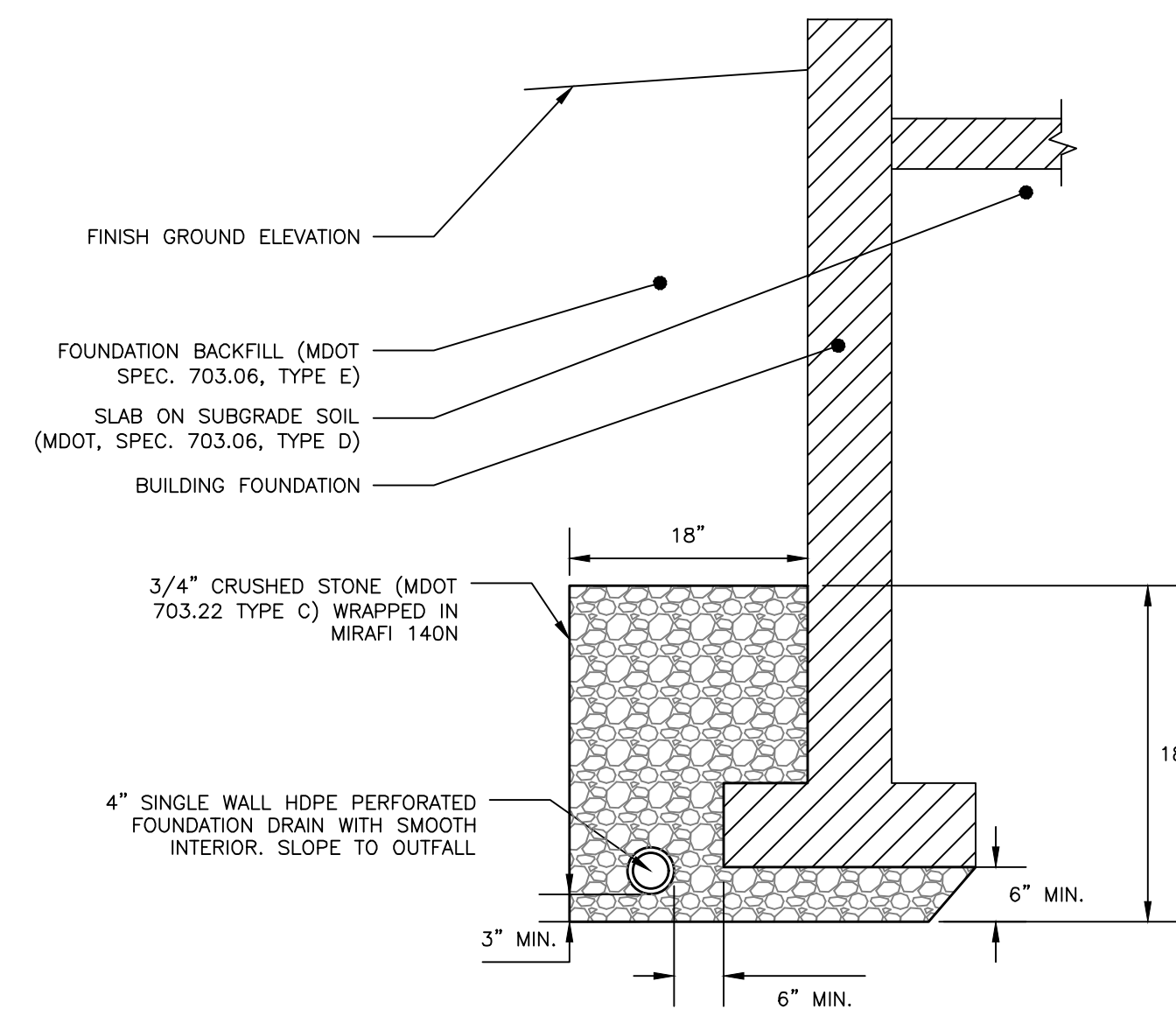


1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL BLANKET (ECB), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE ECB IN A 6" DEEP $\times$ 6" WIDE TRENCH WITH APPROXIMATELY 12" OF ECB EXTENDED BEYOND THE TOP OF THE SLOPE PORTION OF THE TRENCH. ANCHOR THE ECB WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12" PORTION OF ECB BACK OVER THE SEED AND COMPACTED SOIL. SECURE ECB OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE ECB.
3. ROLL THE ECB (A) DOWN OR (B) HORIZONTALLY DOWN THE SLOPE. ECB WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL ECB MUST BE SECURELY FASTENED TO SOIL SURFACE BY STAPLES/STAKES/STAPLES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLING PATTERN GUIDE.
4. THE EDGES OF PARALLEL ECB MUST BE STAPLED WITH APPROXIMATELY 2" $\times$ 5" OVERLAP DEPENDING ON THE ECB TYPE.
5. CONSECUTIVE ECB SPUNCE DOWN THE SLOPE MUST BE END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH THE END AREA OF EACH APPROXIMATELY 12" APART ACROSS ENTIRE ECB WIDTH.

*NOTE:
IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR
STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY
TO PROPERLY SECURE THE ECB.

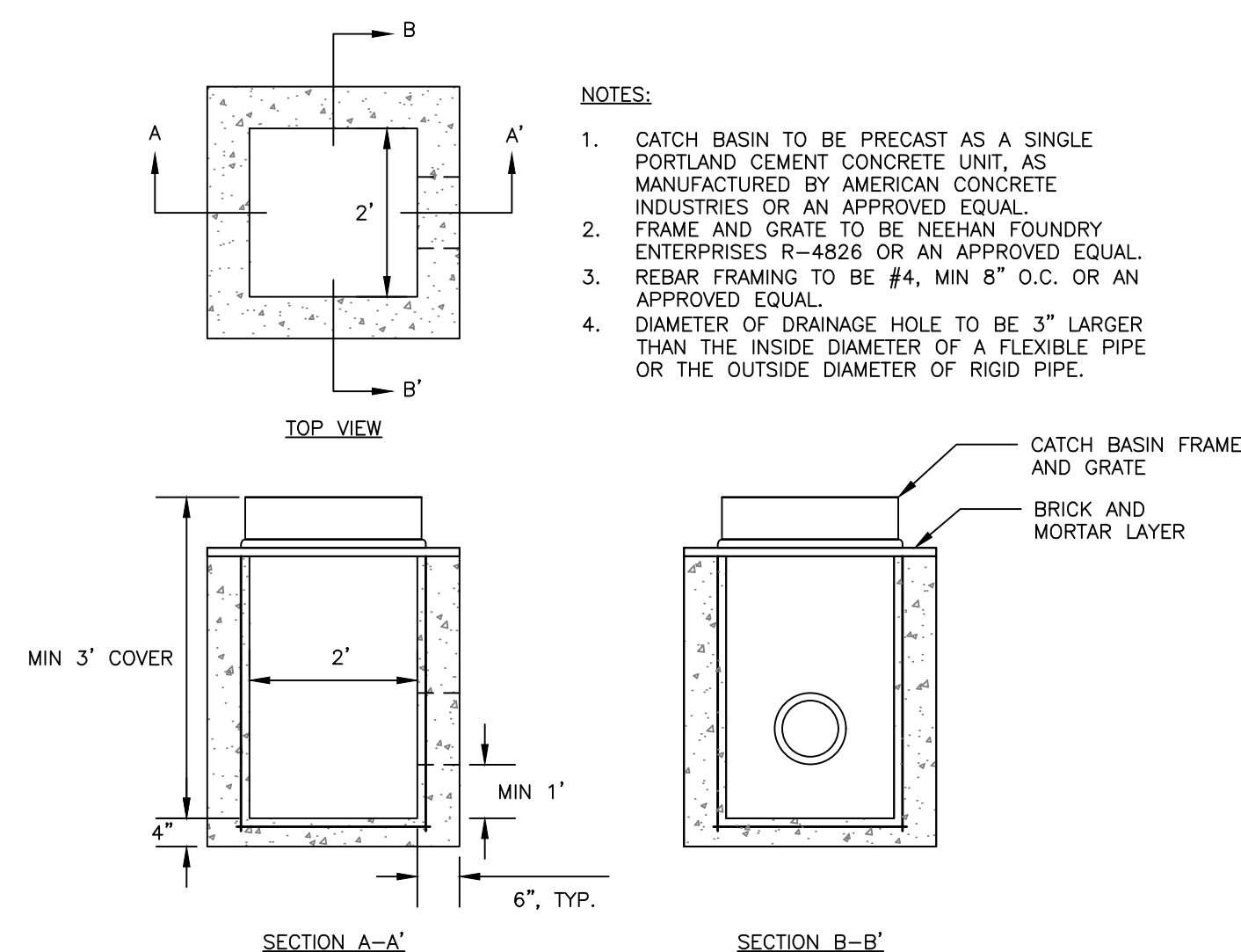
EROSION CONTROL BLANKET SLOPE INSTALLATION

NOT TO SCALE



FOUNDATION DRAIN DETAIL

NOT TO SCALE

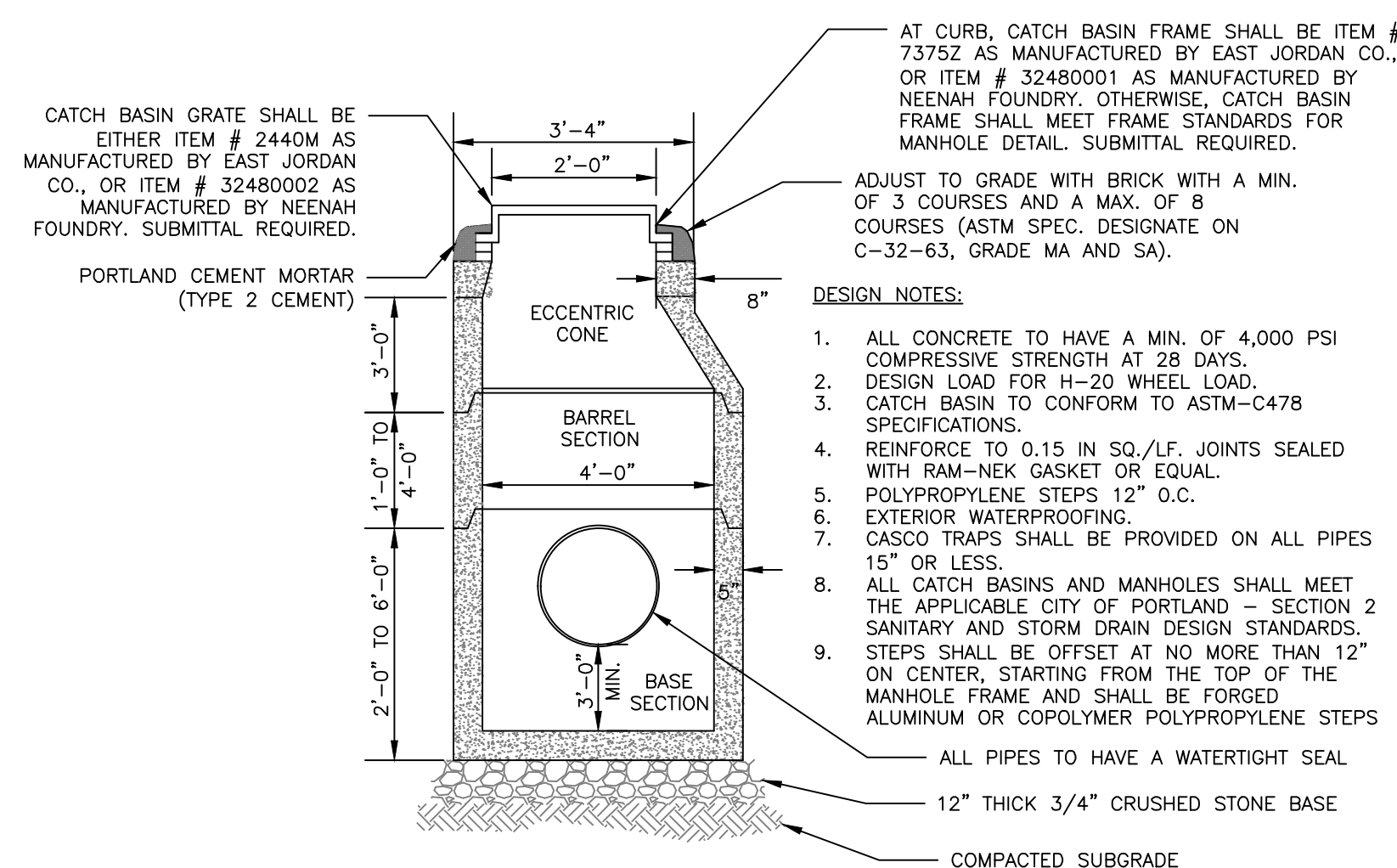


- NOTES:

1. CATCH BASIN TO BE PRECAST AS A SINGLE PORTLAND CEMENT CONCRETE UNIT, AS MANUFACTURED BY AMERICAN CONCRETE INDUSTRIES OR AN APPROVED EQUAL.
2. FRAME AND GRATE TO BE NEEHAN FOUNDRY ENTERPRISES R-4826 OR AN APPROVED EQUAL.
3. REBAR FRAMING TO BE #4, MIN 8" O.C. OR AN APPROVED EQUAL.
4. DIAMETER OF DRAINAGE HOLE TO BE 3" LARGER THAN THE INSIDE DIAMETER OF A FLEXIBLE PIPE OR THE OUTSIDE DIAMETER OF RIGID PIPE.

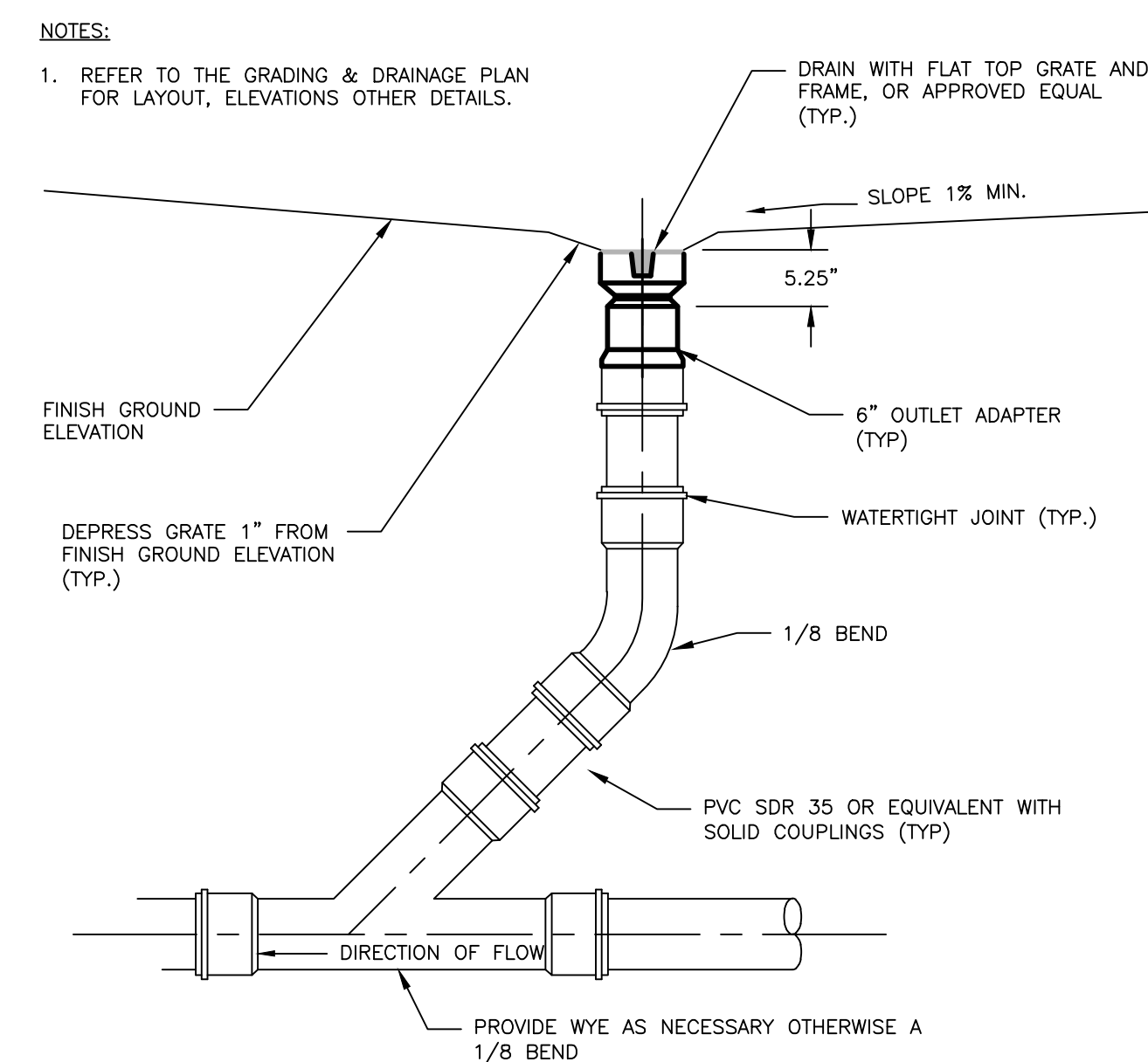
'TYPE F' PRECAST CATCH BASIN

NOT TO SCALE



4'-0" DIAMETER PRECAST CATCH BASIN/MANHOLE

NOT TO SCALE



INLINE DRAIN DETAIL WITH FLAT GRATE

NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

DRAWING NAME:

PROJECT NAME:

CLIENT:

A C O R N
ENGINEERING, INC.

FILE:	1116_CIVIL
JN:	1116
SCALE:	NTS
DESIGNED BY:	SJL
DRAWN BY:	ZMS
CHECKED BY:	WHS

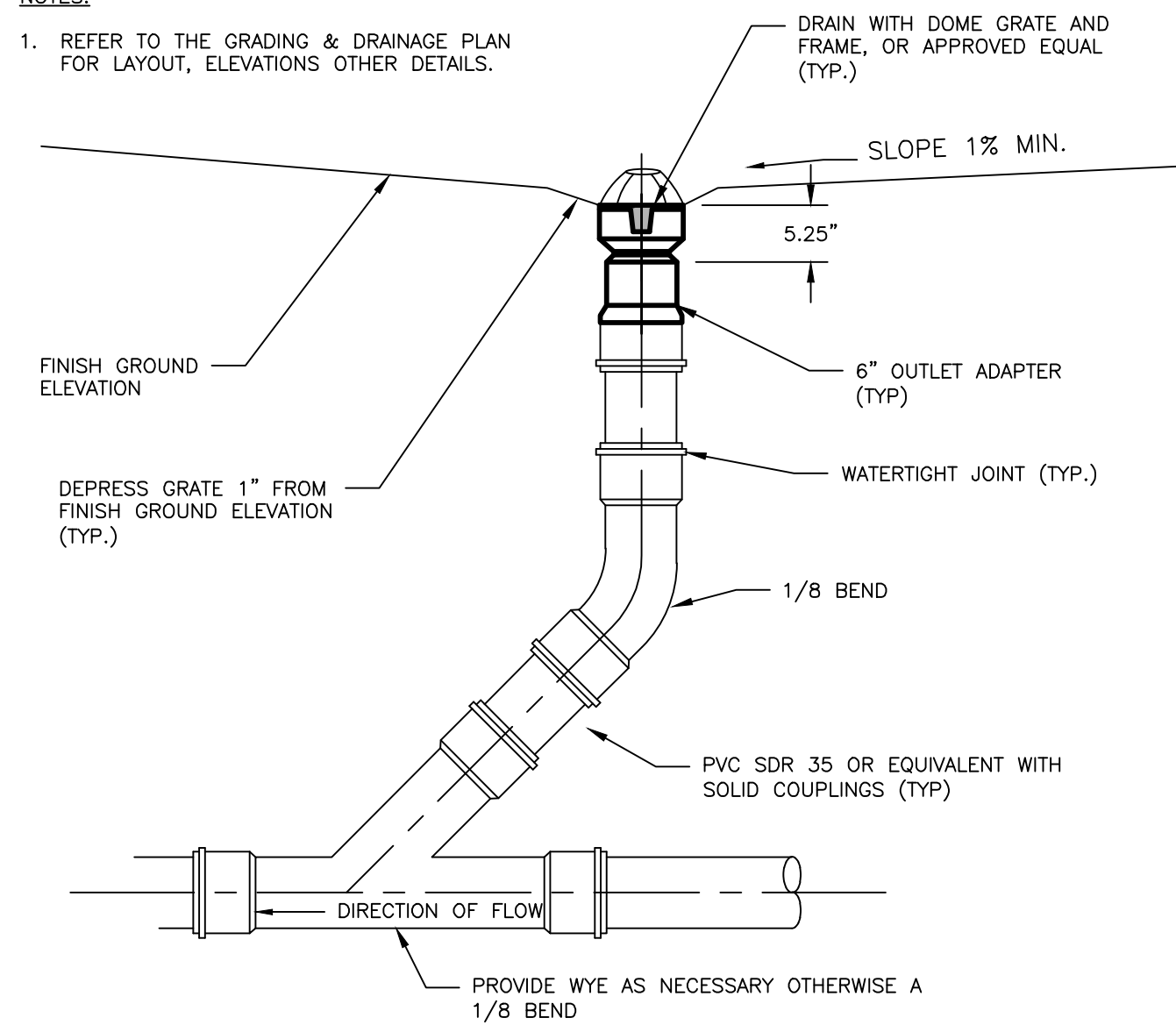


STATE OF MAINE
WILLIAM
SAVAGE
No. 1419
2-13-2020
SARAH J. LEBLANC
SARAH J. LEBLANC

DRAWING NO.
C-45

NOTES:

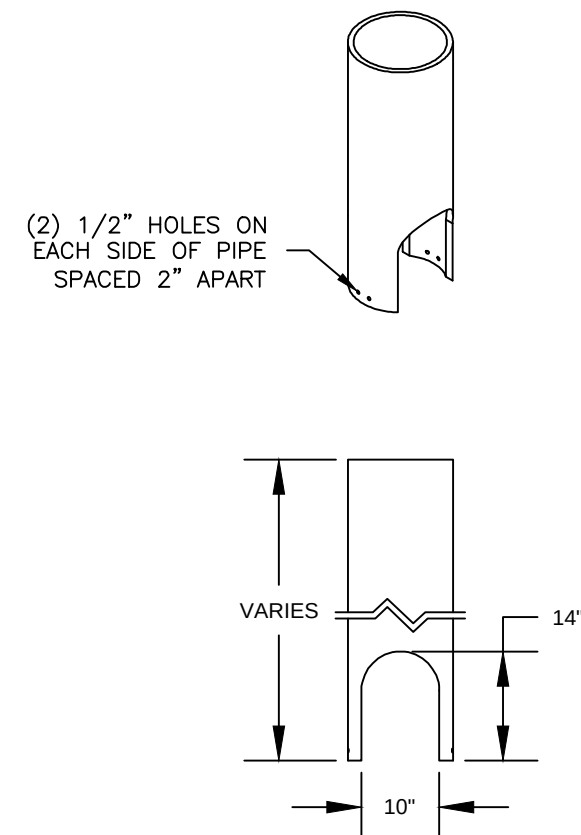
1. REFER TO THE GRADING & DRAINAGE PLAN FOR LAYOUT, ELEVATIONS OTHER DETAILS.



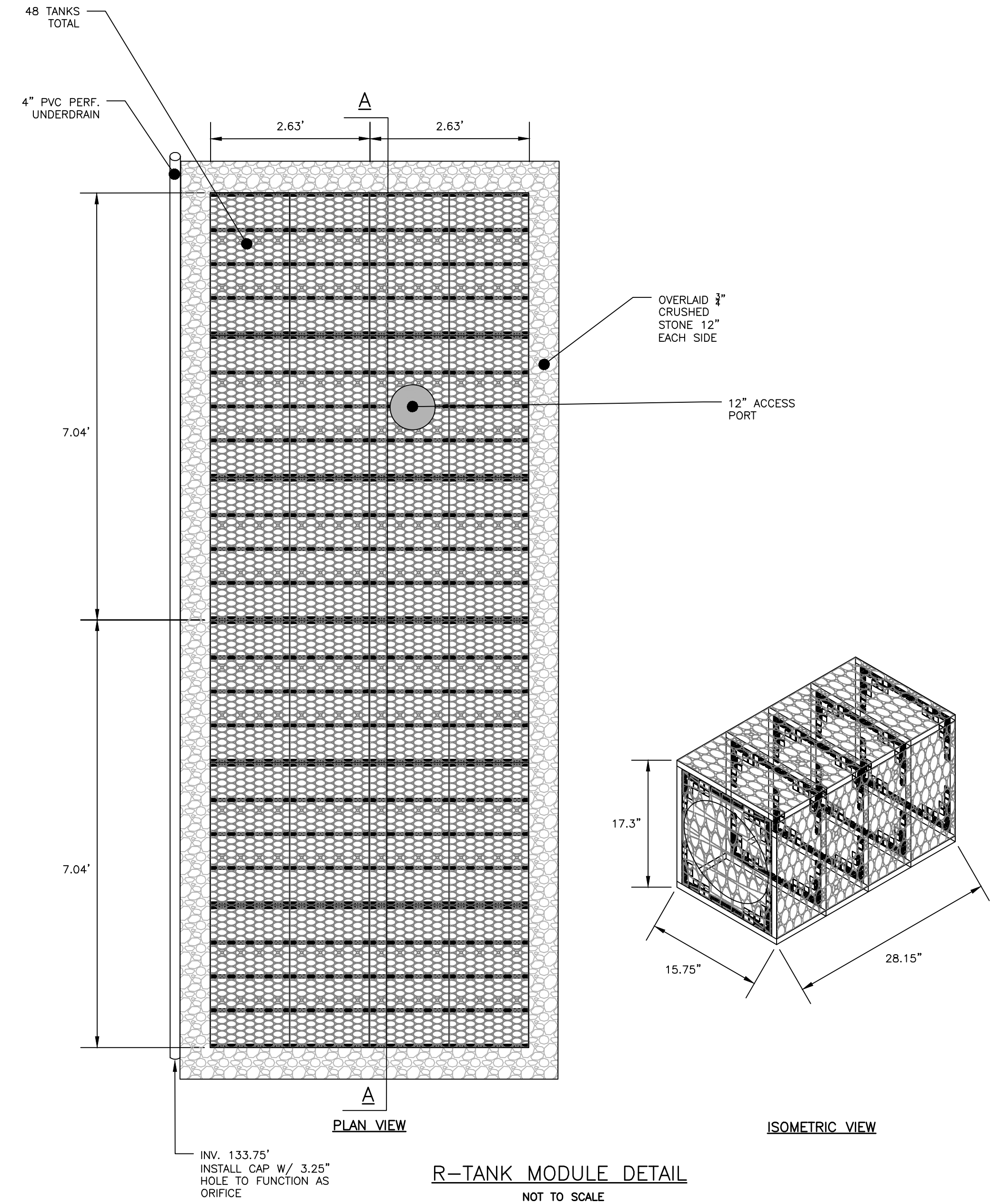
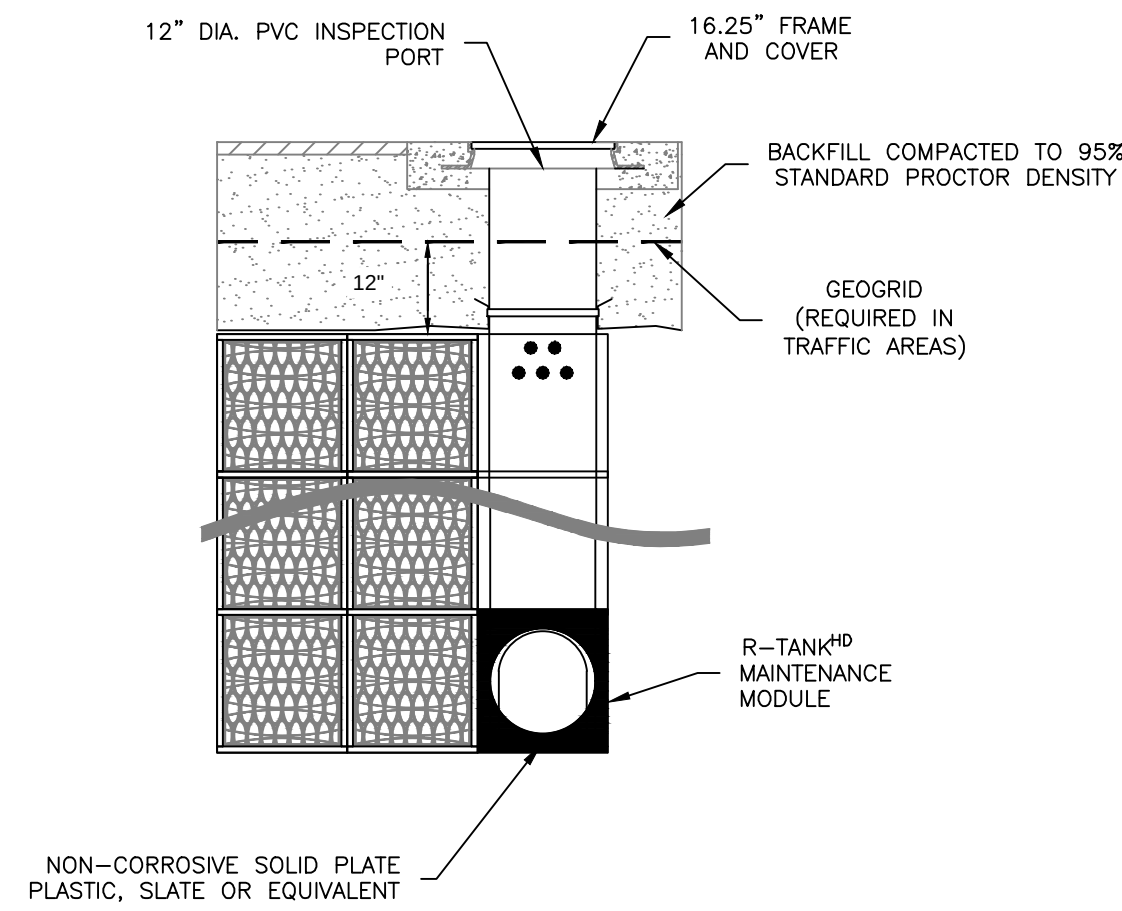
OVERFLOW BEEHIVE DRAIN

NOTES

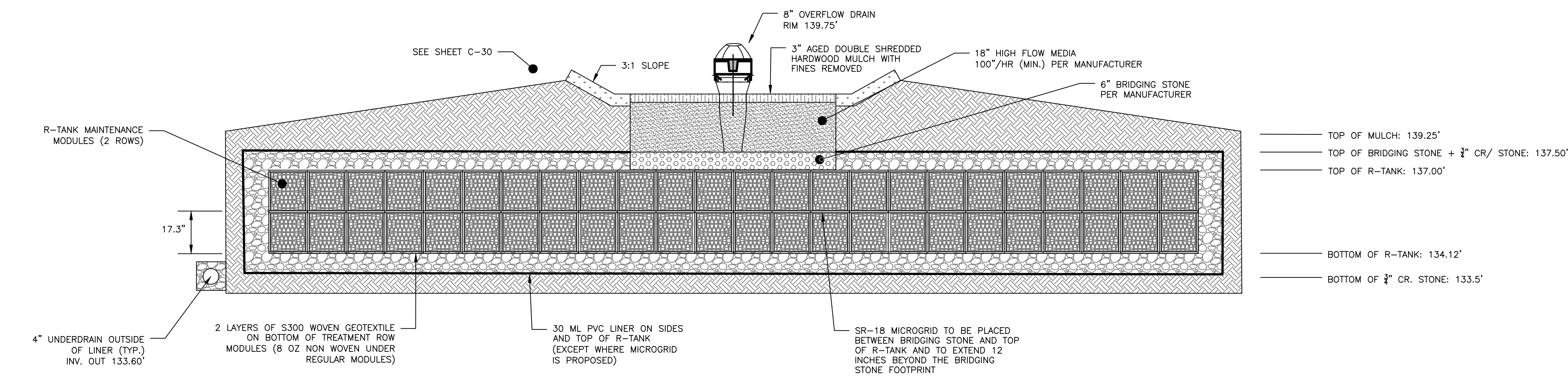
1. THE INSPECTION PORT IS USED IN THE MAINTENANCE MODULE TO INSPECT THE LEVEL OF SEDIMENT ACCUMULATION.
2. MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION DURING THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER. FLUSH MAINTENANCE ROW VIA THE ACCESS STRUCTURE FROM EITHER END AS NEEDED.
3. SEE TRAFFIC LOADING DETAIL FOR MINIMUM & MAXIMUM COVER REQUIREMENTS.



ACCESS PORT WITH SOLID COVER
NOT TO SCALE



R-TANK MODULE DETAIL
NOT TO SCALE



SECTION A-A

FOCAL POINT RAIN GARDEN WITH R-TANK TREATMENT ROW
NOT TO SCALE

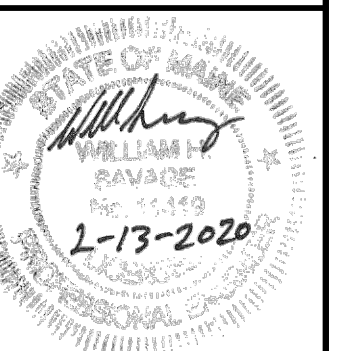
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
LEVEL III SITE PLAN	WHS
PHASE II UPDATE	WHS
COMMENT RESPONSE 1	WHS
COMMENT RESPONSE 2	WHS

DRAWING NAME: FOCAL POINT RAIN GARDEN DETAILS
PROJECT NAME: 128R NORTH STREET REDEVELOPMENT
CLIENT: UPRIGHT PROPERTIES, LLC
PO BOX 833 WILTON, ME 04294

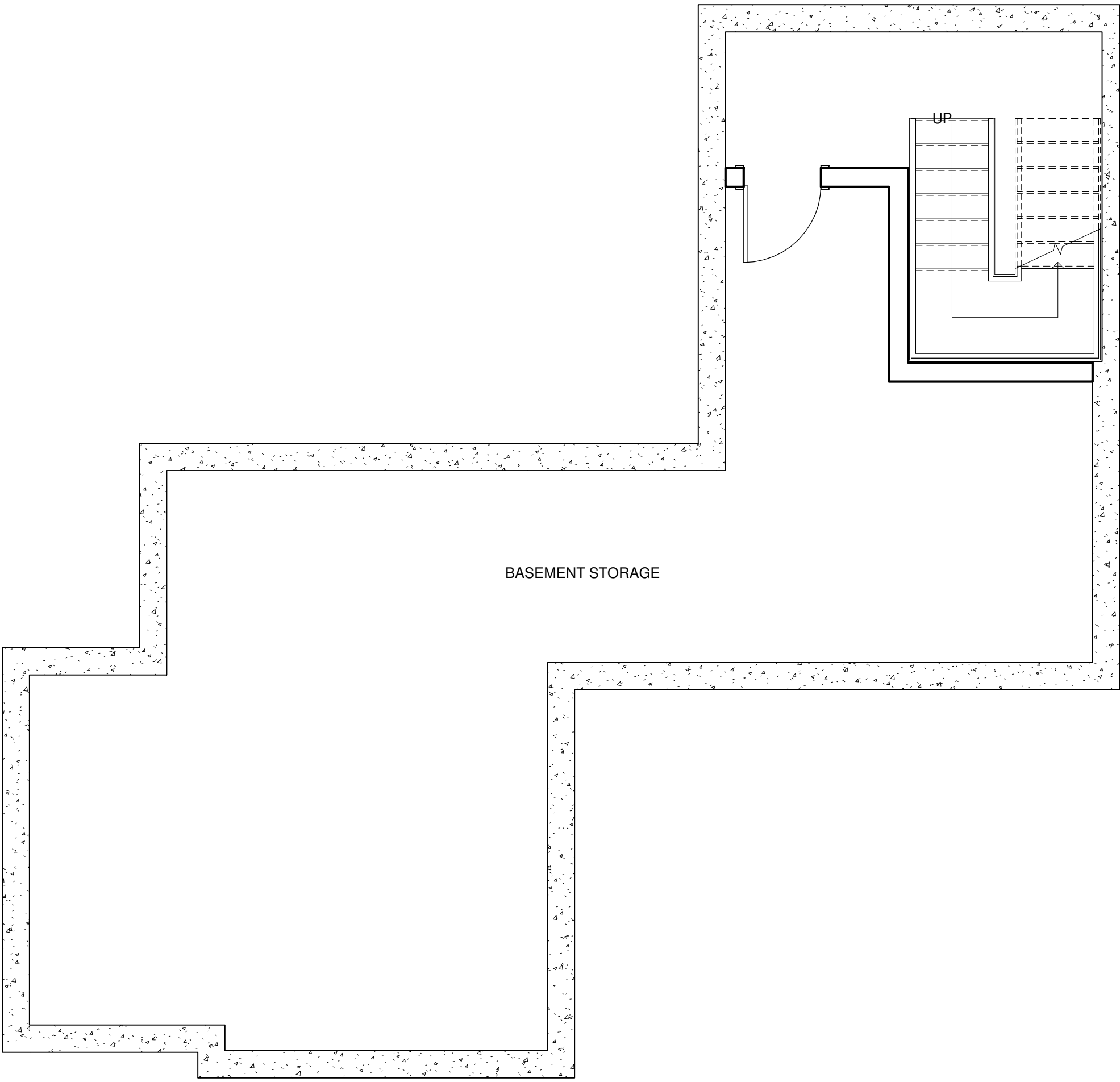
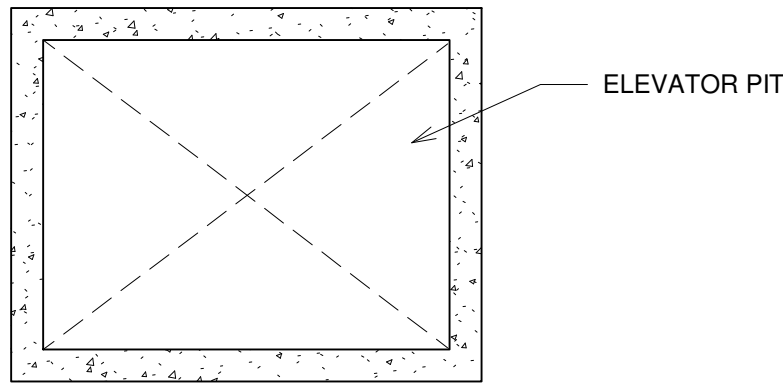
ACORN ENGINEERING, INC.
65 HANOVER ST. PORTLAND MAINE 04101
(207) 775-2655
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED BY THE CLIENT, SHALL BE THE RESPONSIBILITY OF THE CLIENT AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE: 1116_CIVIL
JN: 1116
SCALE: NTS
DESIGNED BY: SJL
DRAWN BY: ZMS
CHECKED BY: WHS



DRAWING NO.
C-46

A Basement Plan
1/4" = 1'-0"



128R North
Street
NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0459 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Matt Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoeengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

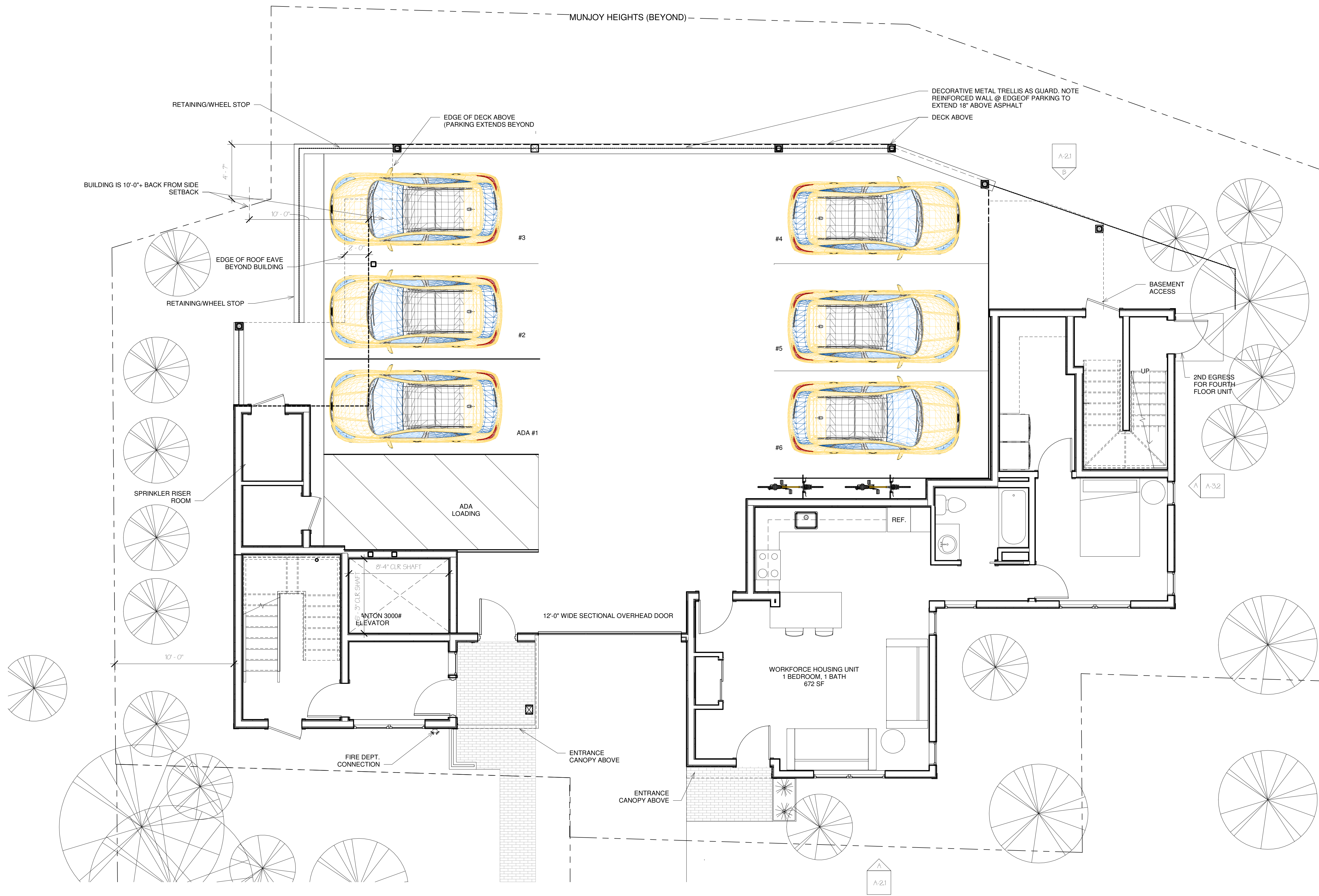
STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

**BASEMENT
PLAN**

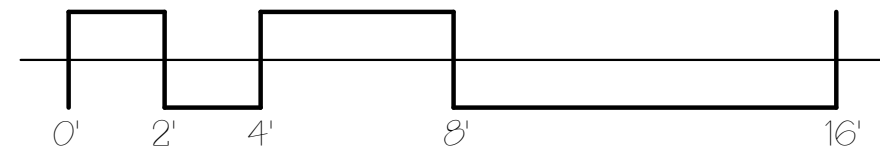
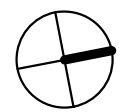
Project number	18-16_128R North
Date	11.19.18
Drawn by	Author
Checked by	Checker

A-1.6	
Scale	1/4" = 1'-0"



A First Floor
1/4" = 1'-0"

[DESIGN DEVELOPMENT NOT FOR CONSTRUCTION]



126 & 128R North Street

NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTROUS
CREATIVE**

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Matt Hardison, P.E.
Senior Geotechnical Engineer
Summit Geotechnical Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

FIRST FLOOR PLAN

Project number 18-16_128R North

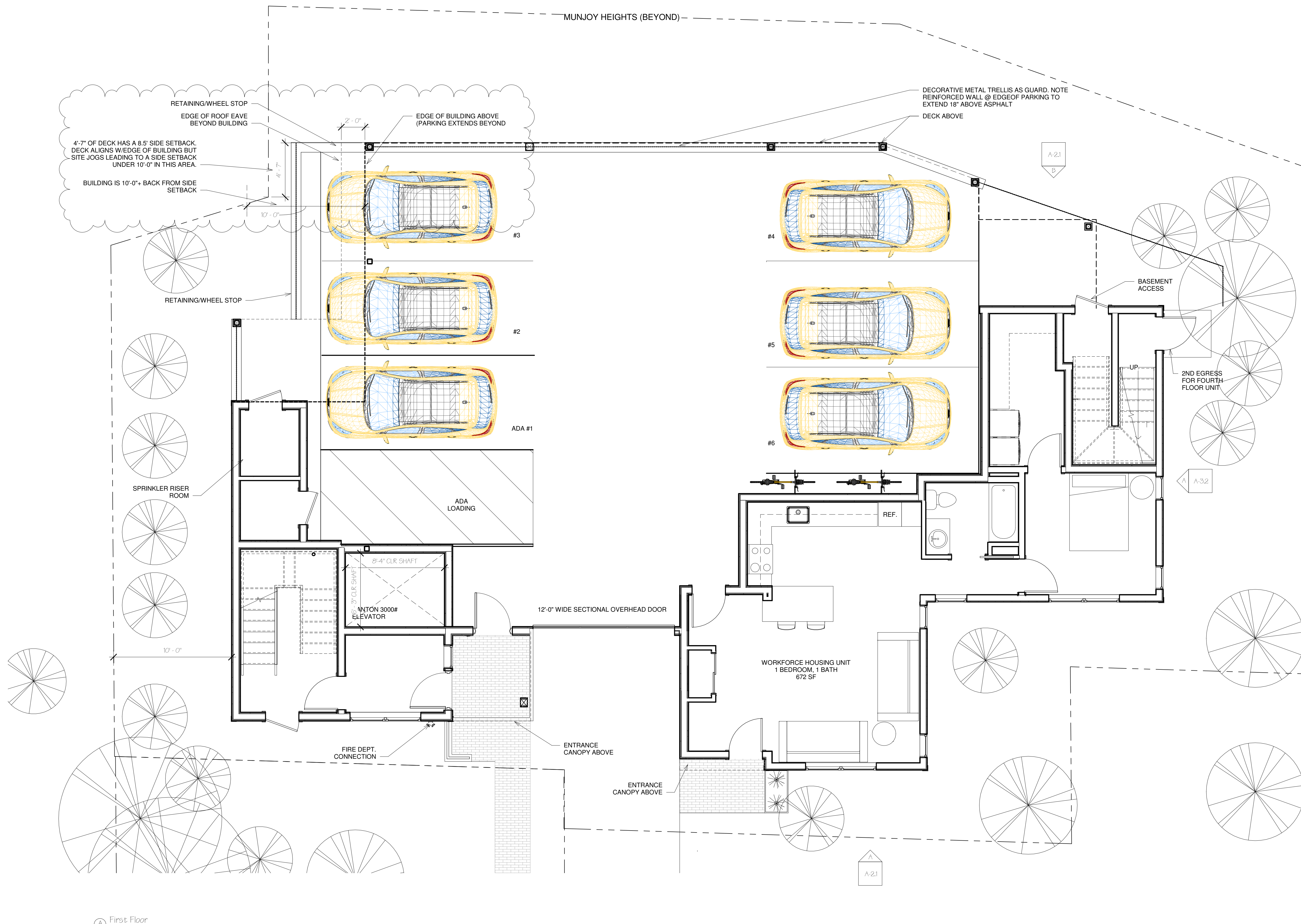
Date 04.16.20

Drawn by TJR

Checked by TJR

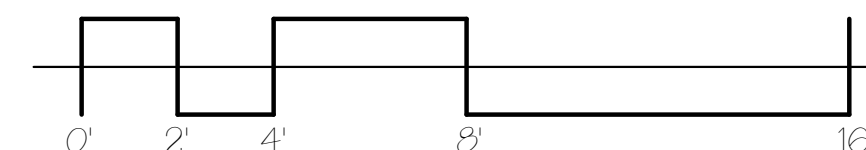
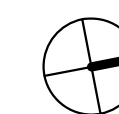
A-1.1

Scale 1/4" = 1'-0"



A First Floor
1/4" = 1'-0"

[DESIGN DEVELOPMENT NOT FOR CONSTRUCTION]



126 & 128R North Street

NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTROUS
CREATIVE**

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Matt Harrison, P.E.
Senior Geotechnical Engineer
Summit Geotechnical Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date
1	Revision 1	Date 1

FIRST FLOOR PLAN

Project number 18-16_128R North

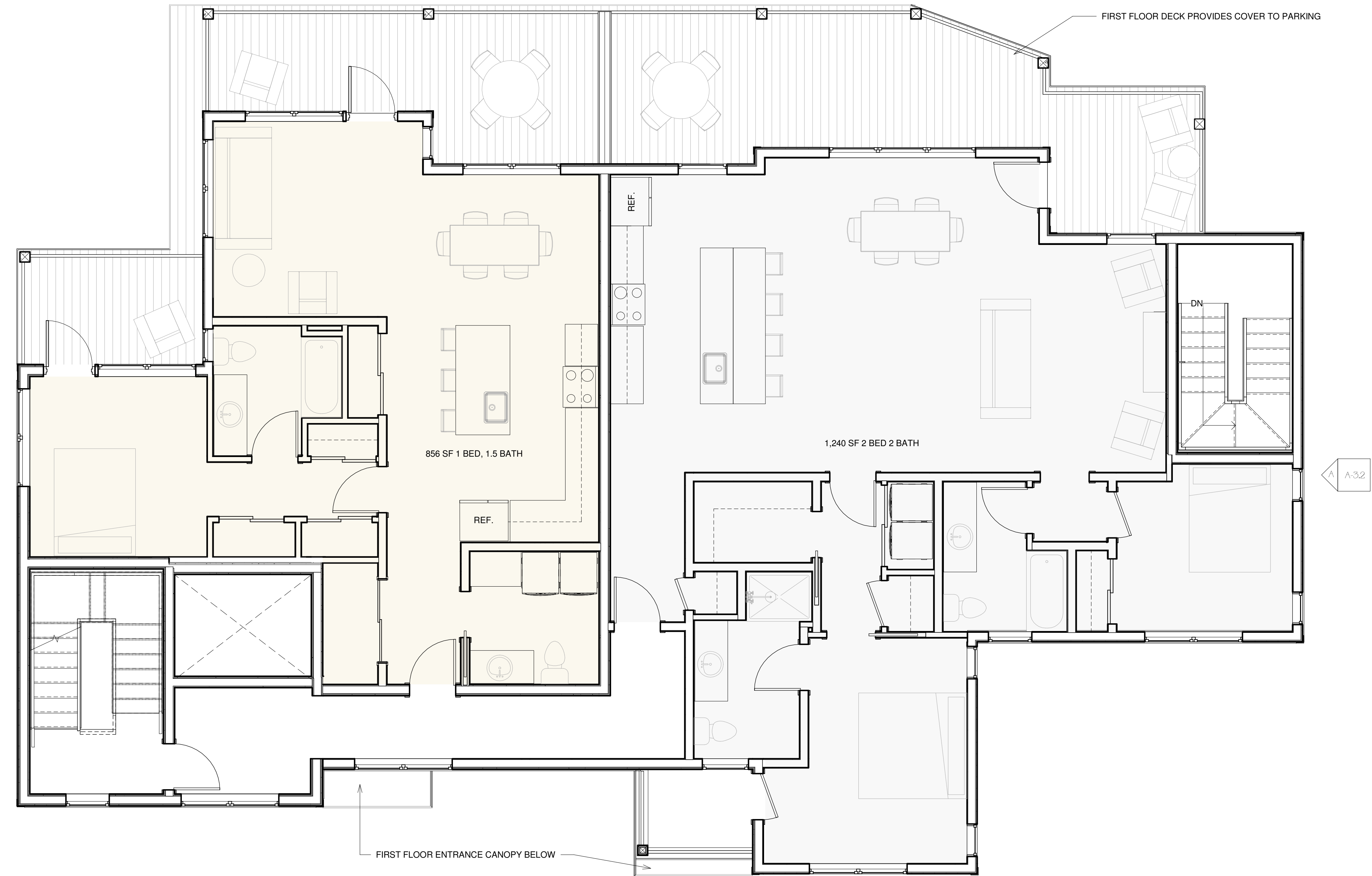
Date 11.19.18

Drawn by TJR

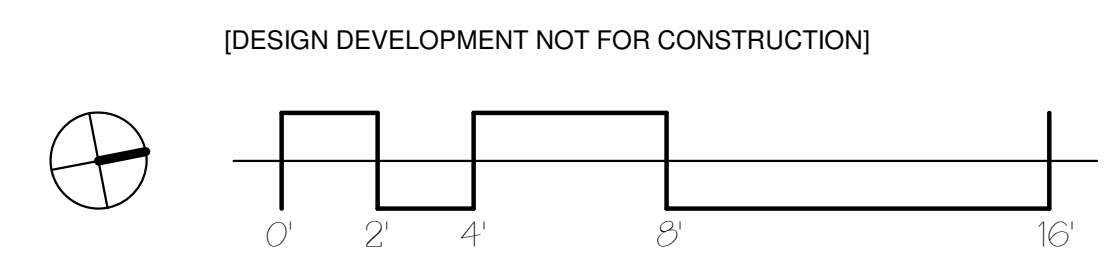
Checked by TJR

A-1.1

Scale 1/4" = 1'-0"



Ⓐ Second Floor
1/4" = 1'-0"



126 & 128R North Street

NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Matt Hardison, P.E.
Senior Geotechnical Engineer
Summit Geotechnical Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

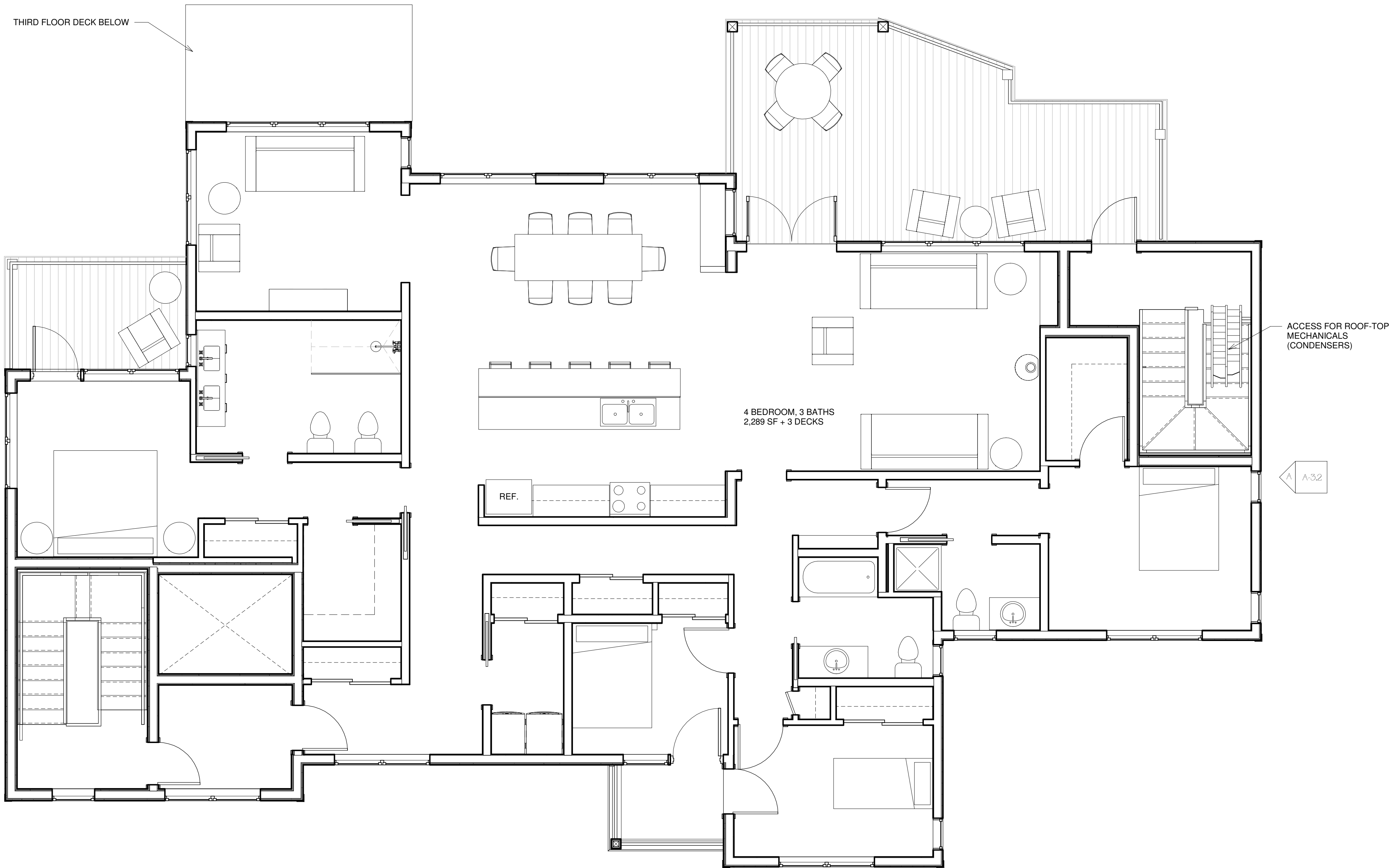
STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

SECOND & THIRD FLOOR PLAN

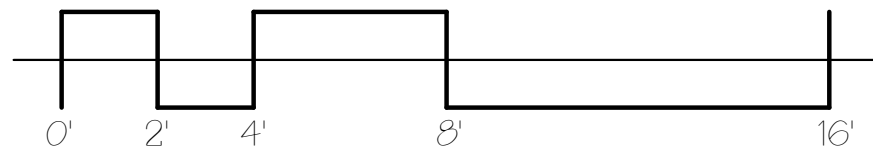
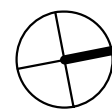
Project number	18-16_128R North
Date	11.19.18
Drawn by	TJR
Checked by	TJR

A-1.2
Scale: 1/4" = 1'-0"



A Fourth Floor
1/4" = 1'-0"

[DESIGN DEVELOPMENT NOT FOR CONSTRUCTION]



126 & 128R North Street

NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTROUS
CREATIVE**

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR

James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER

Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoeengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER

Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER

Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

FOURTH FLOOR

Project number 18-16_128R North

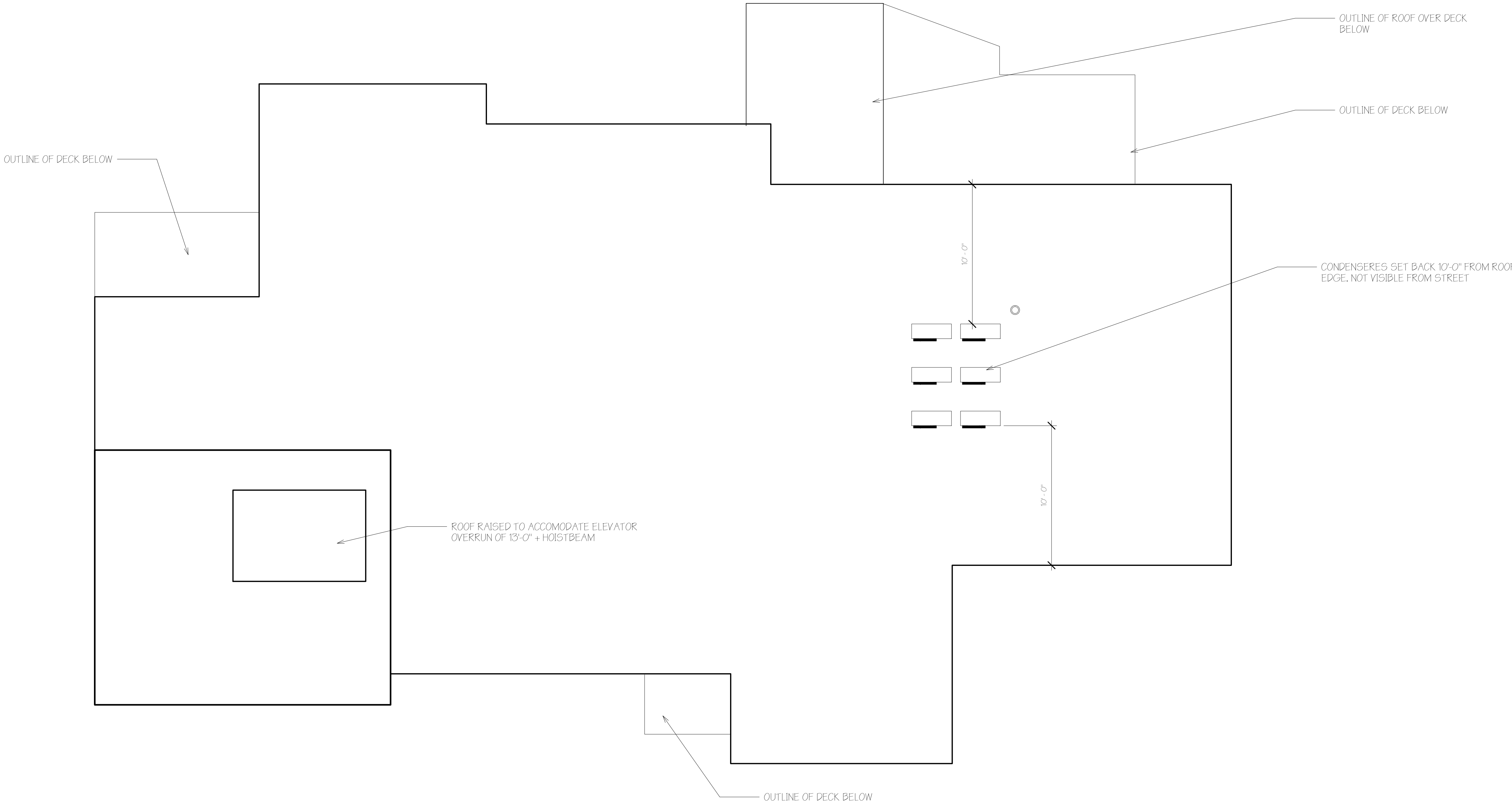
Date 11.19.18

Drawn by TJR

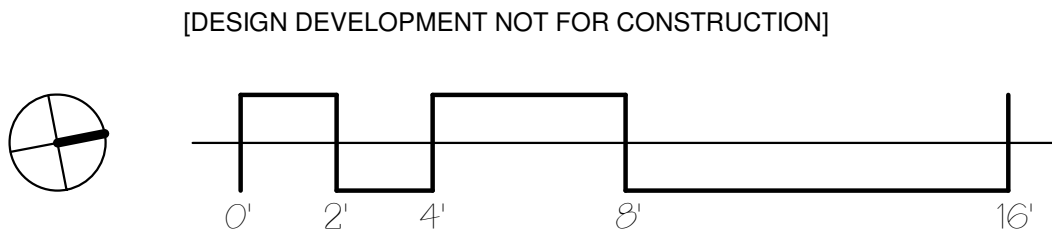
Checked by TJR

A-1.4

Scale 1/4" = 1'-0"



(A) Roof
1/4" = 1'-0"



**126 & 128R
North Street**
NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com

**DEXTROUS
CREATIVE**

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoeengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

ROOF PLAN

Project number 18-16_128R North

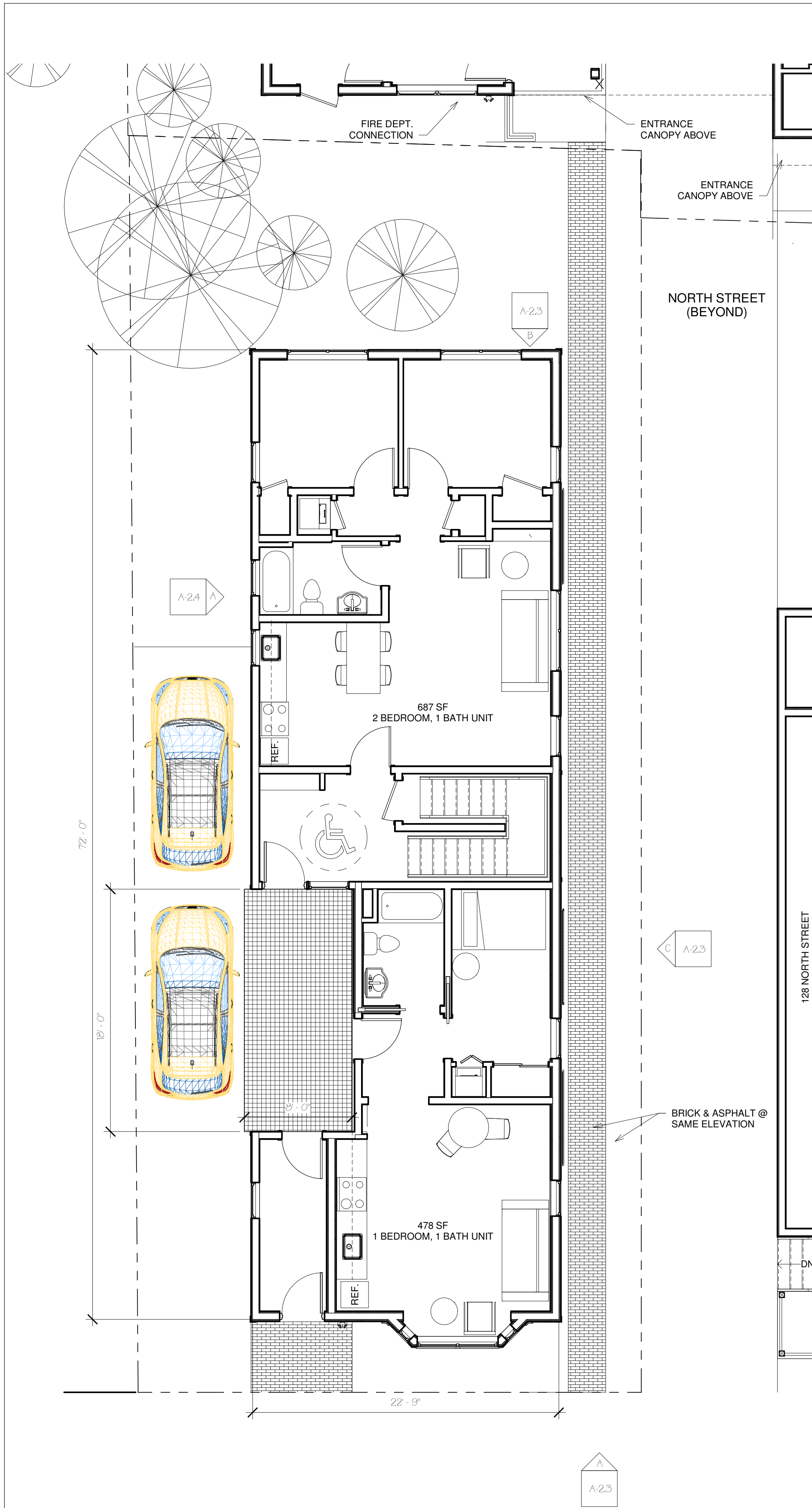
Date 11.19.18

Drawn by Author

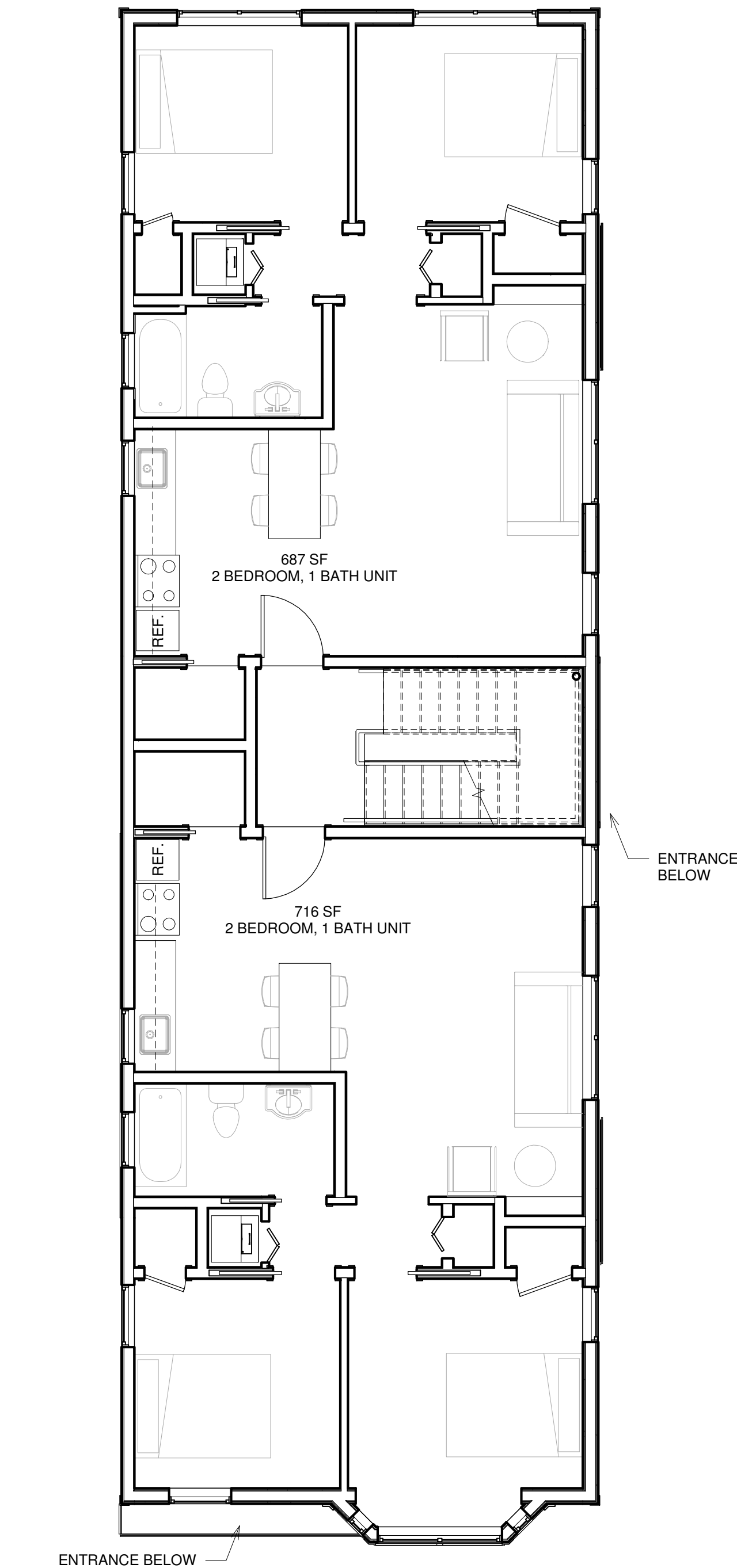
Checked by Checker

A-1.5

Scale 1/4" = 1'-0"



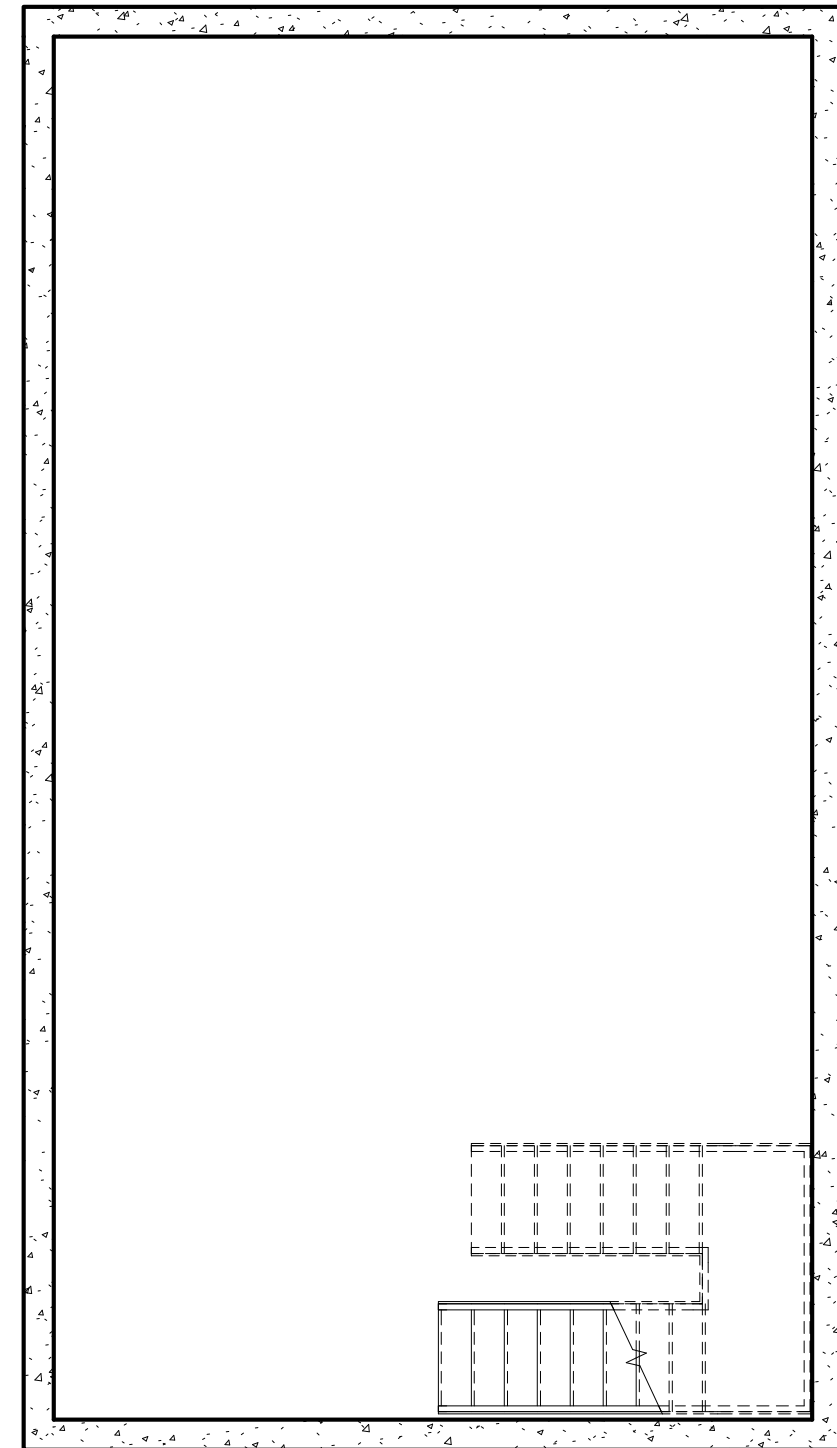
A First Floor 126
3/16" = 1'-0"



B Second & Third Floors 126
3/16" = 1'-0"



C Roof 126
3/16" = 1'-0"



D Basement
3/16" = 1'-0"

126 & 128R North Street NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Matt Hardison, P.E.
Senior Geotechnical Engineer
Summit Geotechnical Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, P.E.
Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

PHASE 2 PLANS

Project number	18-16_128R North
Date	11.19.18
Drawn by	Author
Checked by	Checker

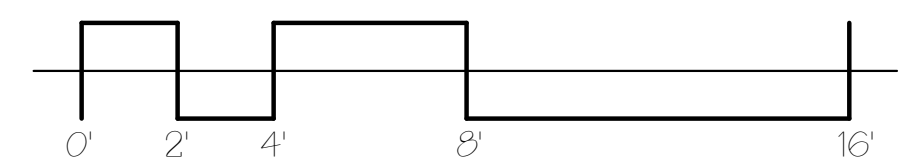
A-1.6 126
Scale: 3/16" = 1'-0"



Ⓐ North Elevation
3/16" = 1'-0"



Ⓑ South Elevation
3/16" = 1'-0"



126 & 128R North Street

NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTROUS
CREATIVE**

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Matt Hardison, P.E.
Senior Geotechnical Engineer
Summit Geotechnical Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

SOUTH & NORTH ELEVATIONS

Project number 18-16_128R North
Date 11.19.18
Drawn by Author
Checked by Checker

A-2.1

Scale 3/16" = 1'-0"



Ⓐ East Elevation
3/16" = 1'-0"



Ⓑ West Elevation
3/16" = 1'-0"

**126 & 128R
North Street**
NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoeengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
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CIVIL ENGINEER
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Portland, Maine 04104
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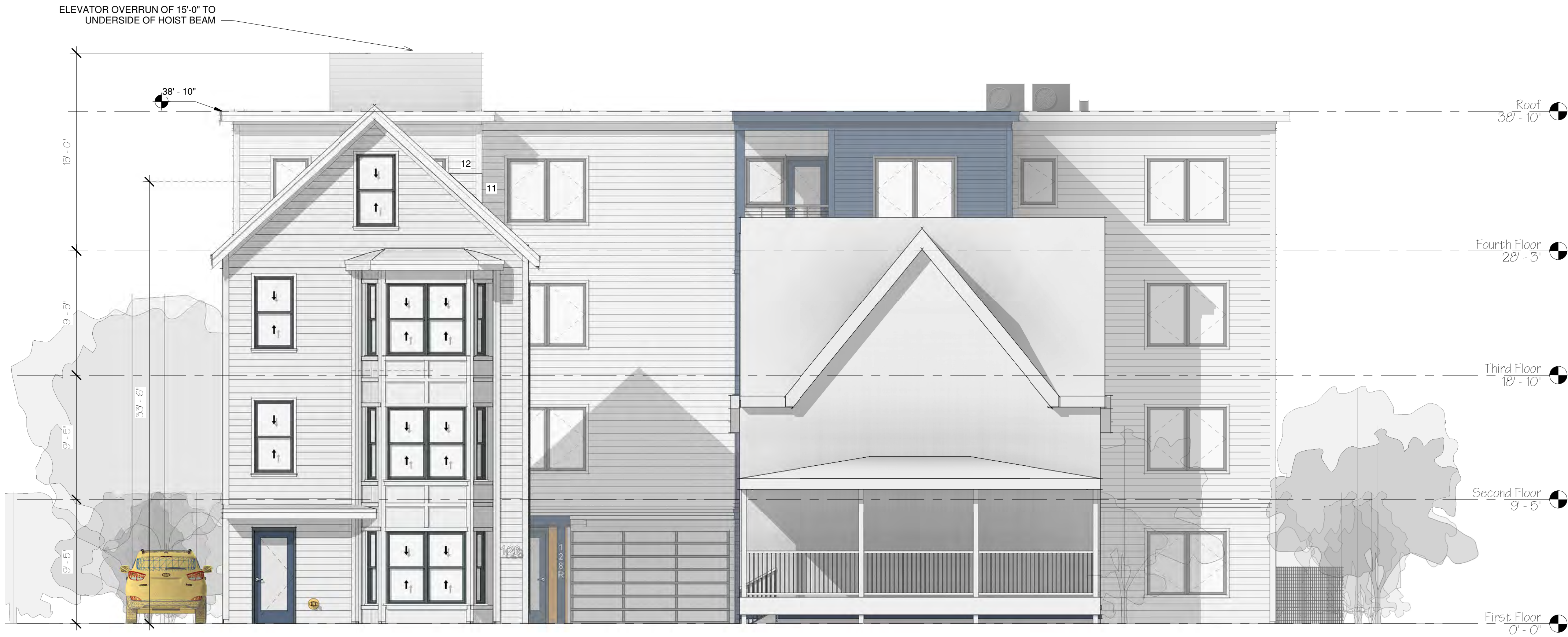
STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

**EAST &
WEST
ELEVATIONS**

Project number	18-16_128R North
Date	11.19.18
Drawn by	Author
Checked by	Checker

A-2.2
Scale: 3/16" = 1'-0"



A South Elevation 126 & 128
3/16" = 1'-0"



B North Elevation 126 North
3/16" = 1'-0"



C East Elevation 126 North
3/16" = 1'-0"

126 & 128R North Street NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoeengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

SOUTH, NORTH & EAST 126

Project number 18-16_128R North
Date 11.19.18
Drawn by Author
Checked by Checker

A-2.3
Scale 3/16" = 1'-0"



**126 & 128R
North Street**
NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTROUS
CREATIVE**
PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
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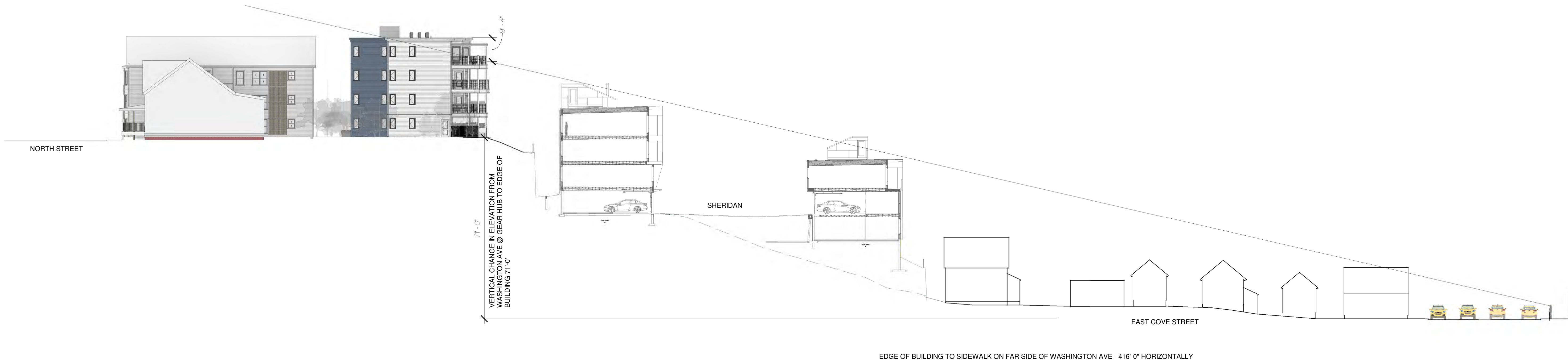
STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

**WEST
ELEVATION
126**

Project number	18-16_128R North
Date	11.19.18
Drawn by	Author
Checked by	Checker

A-2.4
Scale: 3/16" = 1'-0"



SITE SECTION NORTH STREET TO
WASHINGTON AVENUE
1" = 20'-0"

ENTOURAGE 'FLORENCE' IS 5'-6" TALL. IF FLORENCE WERE TO STAND ON THE FAR SIDEWALK OF WASHINGTON AVENUE AND LOOK UP TOWARDS NORTH STREET THEY WOULD BE ABLE TO SEE THE TOP OF THE DECK RAIL AT 128R NORTH AND THE ELEVATION BEYOND AT A DISTANCE OF 435'-0" (HYPOTENUSE). THE REAR FACE OF THE BUILDING WOULD BE 418'-0" FROM HER HORIZONTALLY AND 71'-0" VERTICALLY*. THE MAJORITY OF THEIR SITE LINE WOULD BE CONSUMED BY THE MUNJOY HEIGHTS PROJECT (ALONG SHERIDAN STREET). THE DASHED LINE SHOWS THE CHANGE IN TOPOGRAPHY CREATED BY THE MUNJOY HEIGHTS PROJECT. THE ENTOURAGE IS ALSO SHOWN WITHIN THE FOURTH FLOOR OF THE MUNJOY HEIGHTS PROJECT LOOKING AT THE BACK OF 128R. THIS INDIVIDUAL IS 31'-0" AWAY FROM THE FACE OF DECK AND THEIR EYES WOULD BE 5'-0" ABOVE THE GRADE OF PARKING. THE PERSPECTIVE SEEN BY THIS PERSON IS SHOWN ON B/A-5.2. NOTE THAT THE MUNJOY HEIGHTS PROJECT. NOTE THAT THE BUILDINGS IN THE MUNJOY HEIGHTS PROJECT ARE SITUATED ALONG A SPLINE AND VARY IN DISTANCE FROM THE REAR FACE OF 128R BUILDING. AT THE CLOSEST POINT THE EXTERIOR FACE OF THE MUNJOY HEIGHTS BUILDING TO THE FACE OF DECK IS 25'-0" AND AT THE WIDEST POINT IT IS 32'-0". AT THE POINT OF THIS SECTION THE BUILDING IS MODELED AT 28'-0" SEPARATION.

*BASED ON ACORN ENGINEERING SITE ELEVATIONS POINTS AT THE EDGE OF BUILDING ON 128R NORTH STREET AND PROJECTS CURRENTLY UNDER CONSTRUCTION ALONG WASHINGTON AVENUE. SITE SECTION THROUGH MUNJOY HEIGHTS OBTAINED FROM ENGINEER. EAST COVE STREET HOUSES WERE SITED USING A COMBIATION OF PORTLAND GIS DATA, ASSESSING DEPARTMENT MEASUREMENTS AND GOOGLE STREET VIEW IMAGES

126 & 128R North Street

NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTROUS
CREATIVE**

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoeengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

SITE SECTION

Project number 18-16_128R North
Date 11.19.18
Drawn by Author
Checked by Checker

A-3.2

Scale 1" = 20'-0"



F Northeast Perspective



B Bird's Eye View of North Street Facade



I Main Entrance 128R



D View from Driveway



E Entrance View

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OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTRIOUS
CREATIVE**

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Matt Hardison, P.E.
Senior Geotechnical Engineer
Summit Geotechnical Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

PERSPECTIVES 128R

Project number 18-16_128R North

Date 11.19.18

Drawn by Author

Checked by Checker

A-5.1

Scale



Ⓐ Northwest Perspective



Ⓑ 4th floor Munjoy Heights View

THIS PERSPECTIVE IS TAKEN FROM THE FOURTH FLOOR AT MUNJOY HEIGHTS FROM JUST WITHIN THE UNIT. ELEVATION OF THE CAMERA (EYES) IS TAKEN AT 5'-0" ABOVE THE FLOOR AS SHOWN ON THE SITE SECTION A/A-3.2. THE DISTANCE OF THIS PERSON IS STANDING (INSIDE THEIR UNIT) IS 31'-0" FROM THE FACE OF THE SECOND FLOOR DECK. THE MUNJOY HEIGHTS BUILDINGS VARY IN DISTANCE FROM 128R NORTH BASED ON THEIR PROJECT'S SPLINE. THAT SAID, THE DISTANCE FROM THE EXTERIOR FACE OF THEIR BUILDINGS TO THE EXTERIOR FACE OF THE SECOND FLOOR DECKS RANGES FROM 25'-0" AT THE CLOSEST SECTION TO 32'-0". IN THE SITE SECTION SHOWN ON PAGE A-3.2 THE BUILDINGS ARE SHOWN AT 28'-0" APART.

**126 & 128R
North Street**
NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTROUS
CREATIVE**

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0459 (cell)

PROJECT TEAM

SURVEYOR

James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER

Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoenvironmental Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER

Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER

Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

**PERSPECTIVES
128R**

Project number 18-16_128R North

Date 11.19.18

Drawn by Author

Checked by Checker

A-5.2

Scale:



A View for Walnut Street Rendering



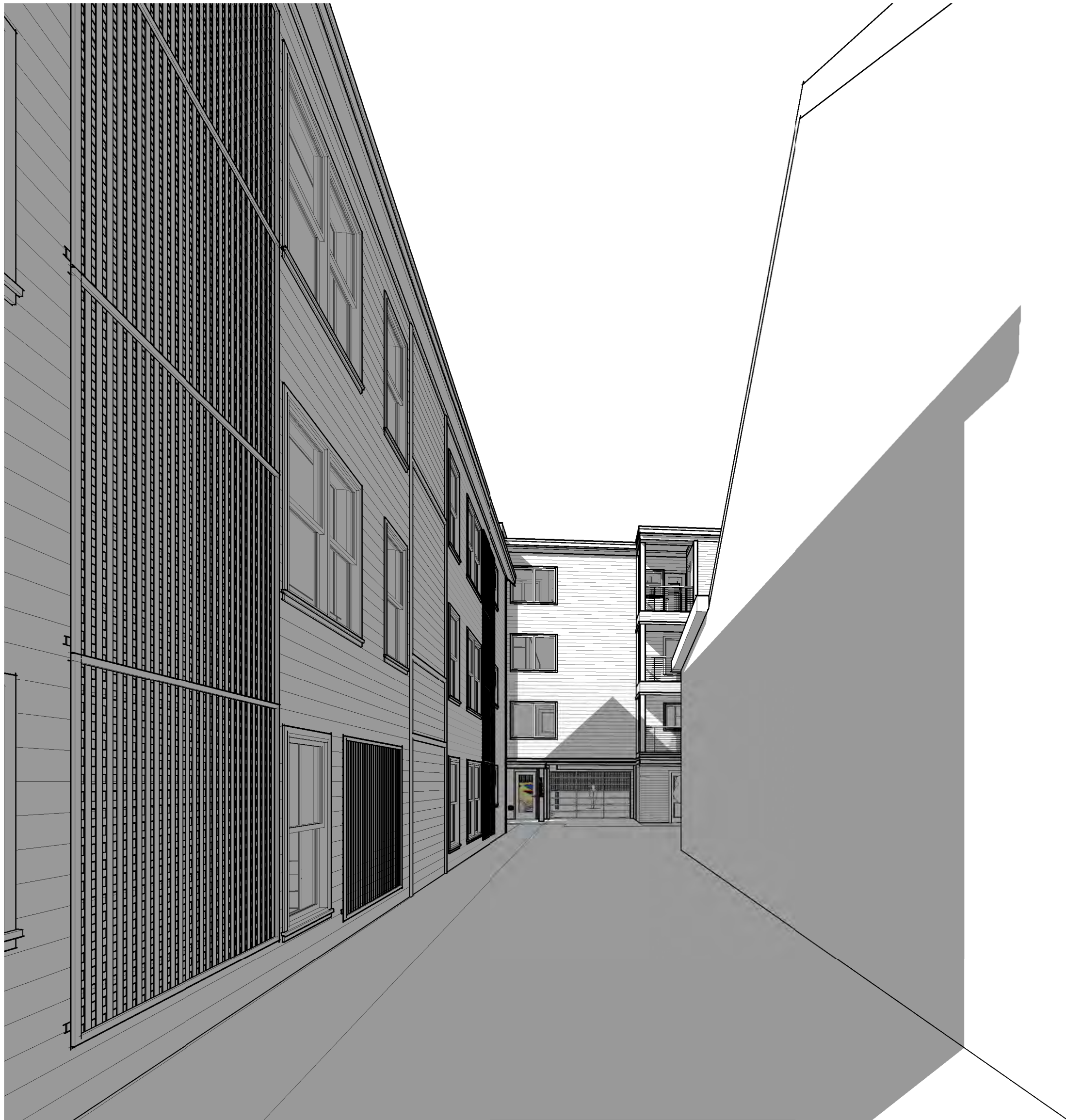
D View from Senior Housing for Rendering Copy 1



B View 126 + 128R North (elevation 176")



C Street View 126 + 128R North (Eye at 5'-0")



E View from North Street Sidewalk 126 & 128R

126 & 128R North Street NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTROUS
CREATIVE**

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Matt Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoeengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

PERSPECTIVES 126

Project number 18-16_128R North
Date 11.19.18
Drawn by Author
Checked by Checker

A-5.3

Scale:



A North Street View Showing Entrances



B Main Entrance 126

**126 & 128R
North Street**
NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0459 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoeengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

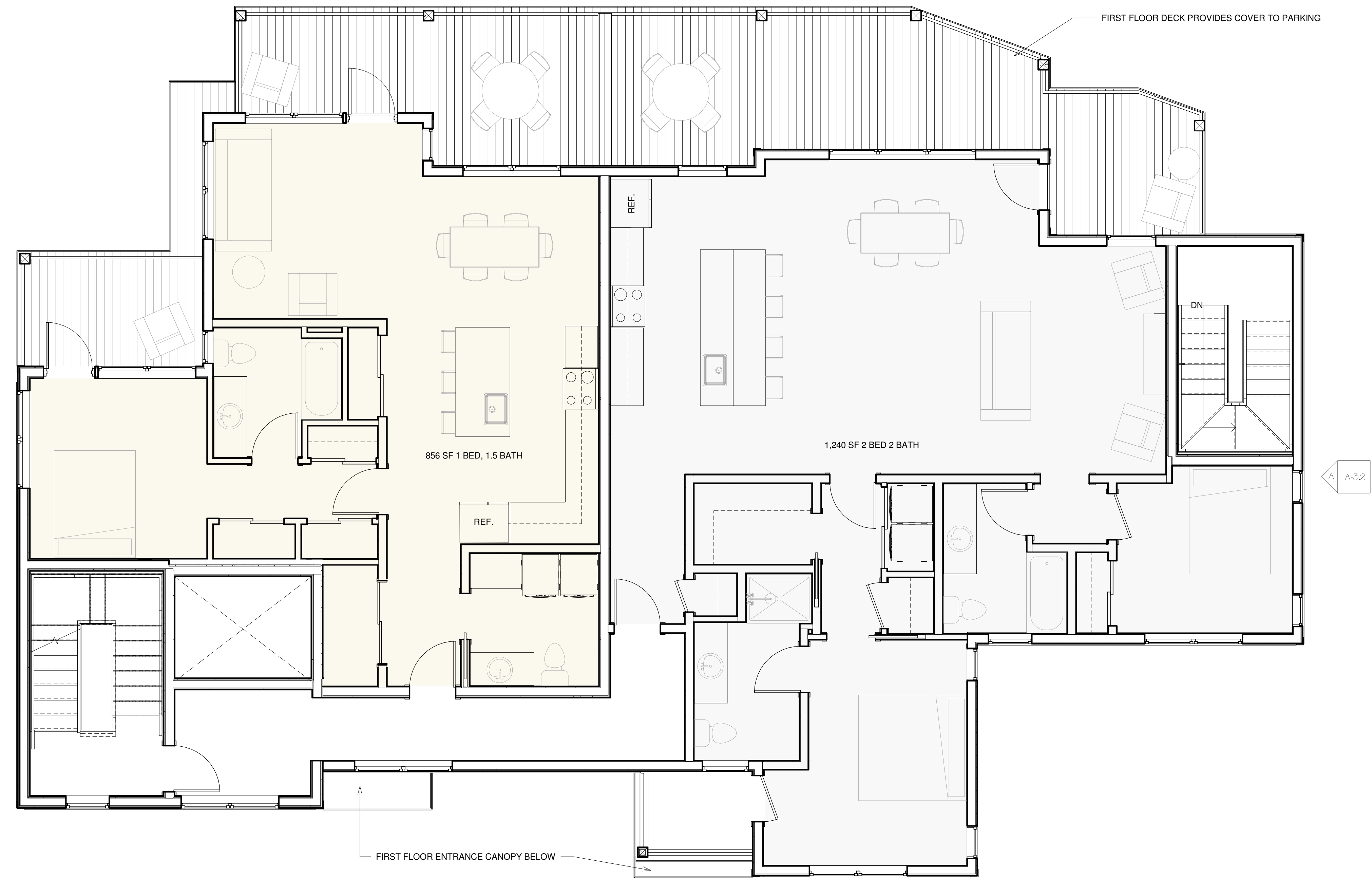
No.	Description	Date

**PERSPECTIVES
126**

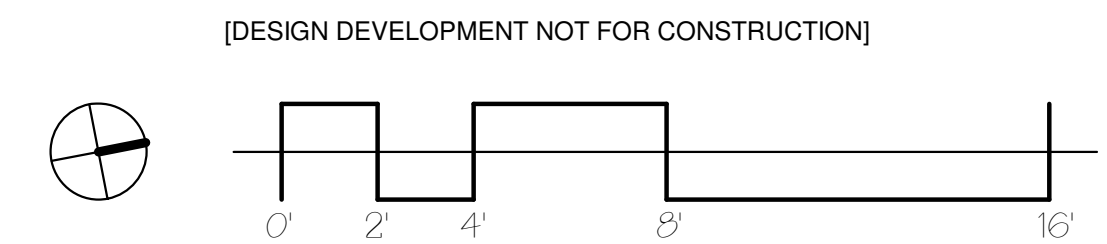
Project number	18-16_128R North
Date	11.19.18
Drawn by	Author
Checked by	Checker

A-5.4

Scale:



Ⓐ Second Floor
1/4" = 1'-0"



**126 & 128R
North Street**
NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTROUS
CREATIVE**
PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Matt Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoenengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

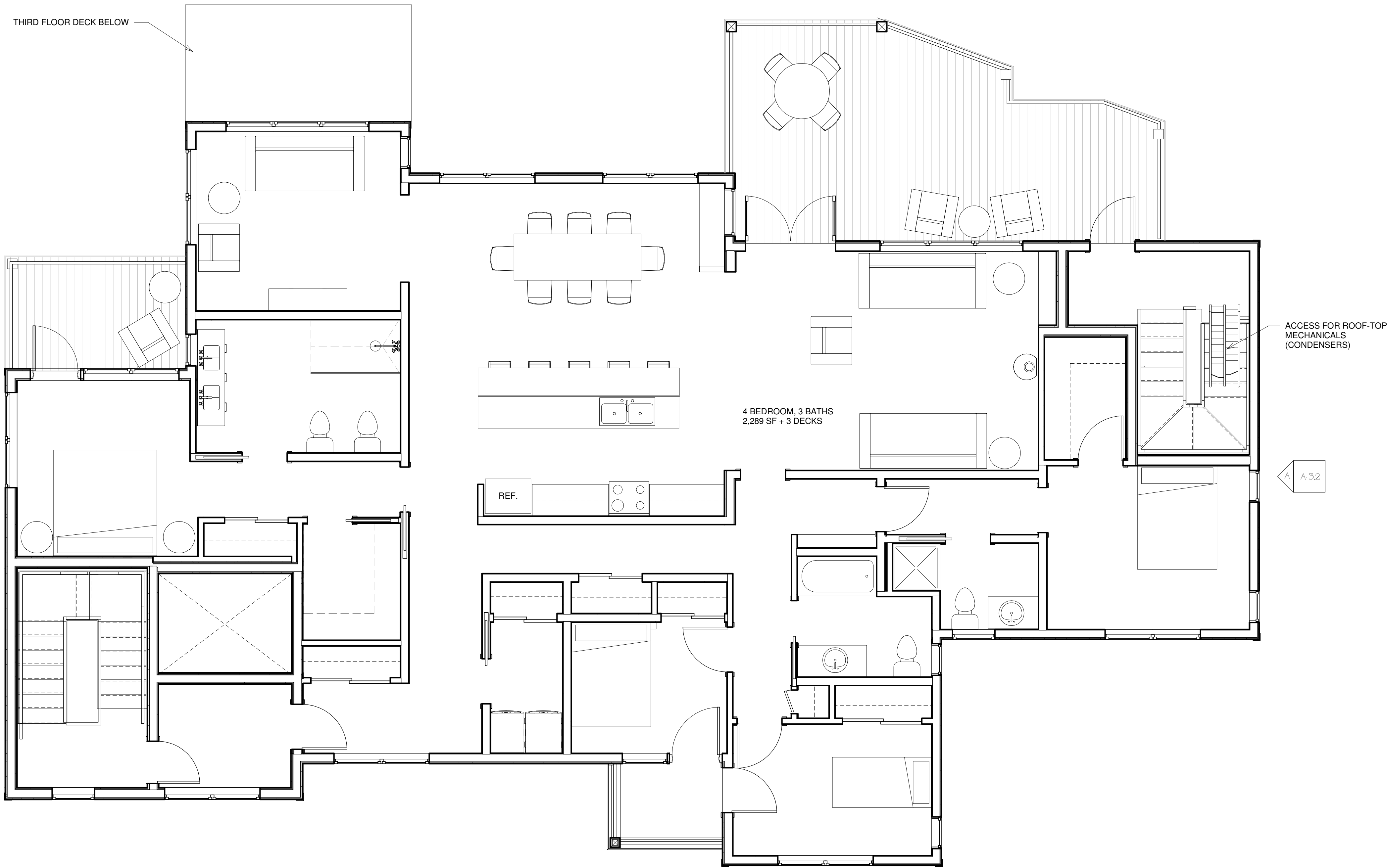
CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

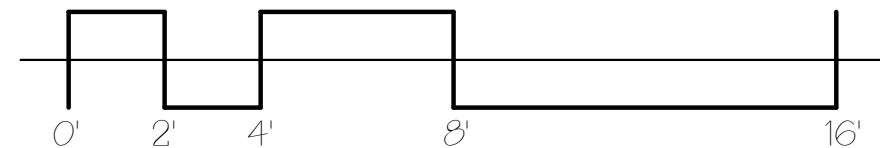
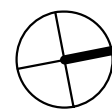
**SECOND &
THIRD
FLOOR PLAN**

Project number	18-16_128R North
Date	04.16.20
Drawn by	TJR
Checked by	TJR
A-1.2	
Scale	1/4" = 1'-0"



A Fourth Floor
1/4" = 1'-0"

[DESIGN DEVELOPMENT NOT FOR CONSTRUCTION]



126 & 128R North Street

NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTROUS
CREATIVE**

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoeengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

FOURTH FLOOR

Project number 18-16_128R North

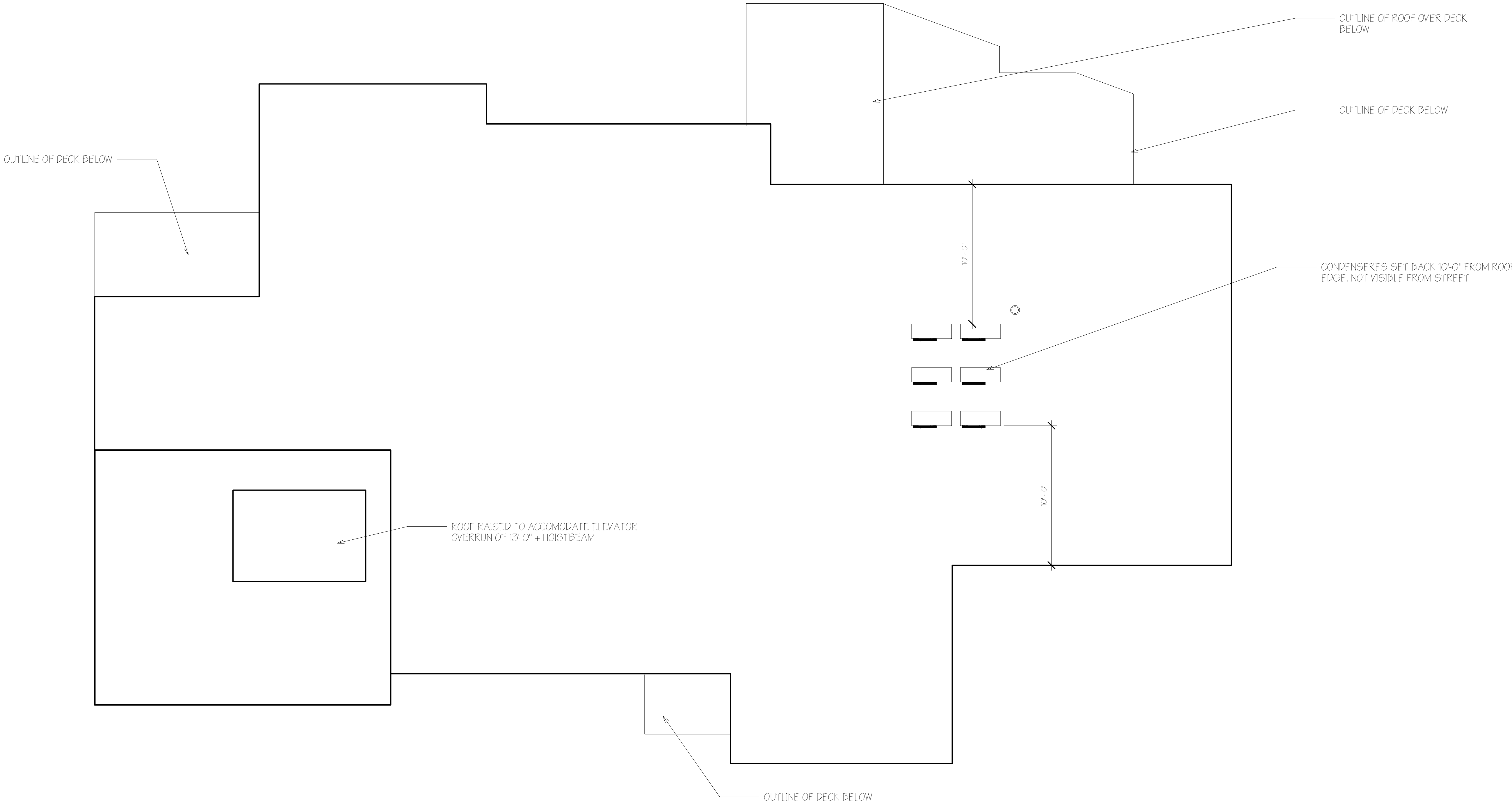
Date 04.16.20

Drawn by TJR

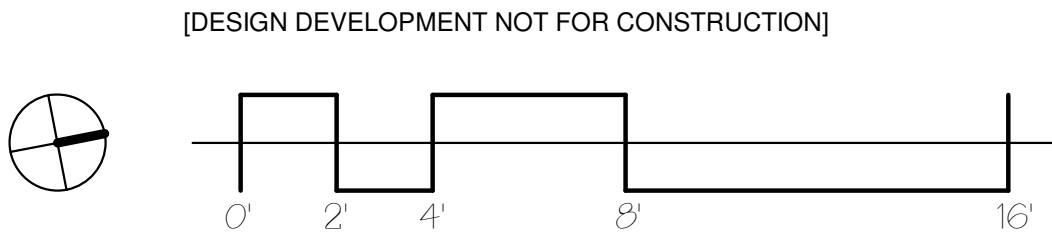
Checked by TJR

A-1.4

Scale 1/4" = 1'-0"



(A) Roof
1/4" = 1'-0"



**126 & 128R
North Street**
NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTROUS
CREATIVE**
PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.408.0459 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoeengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

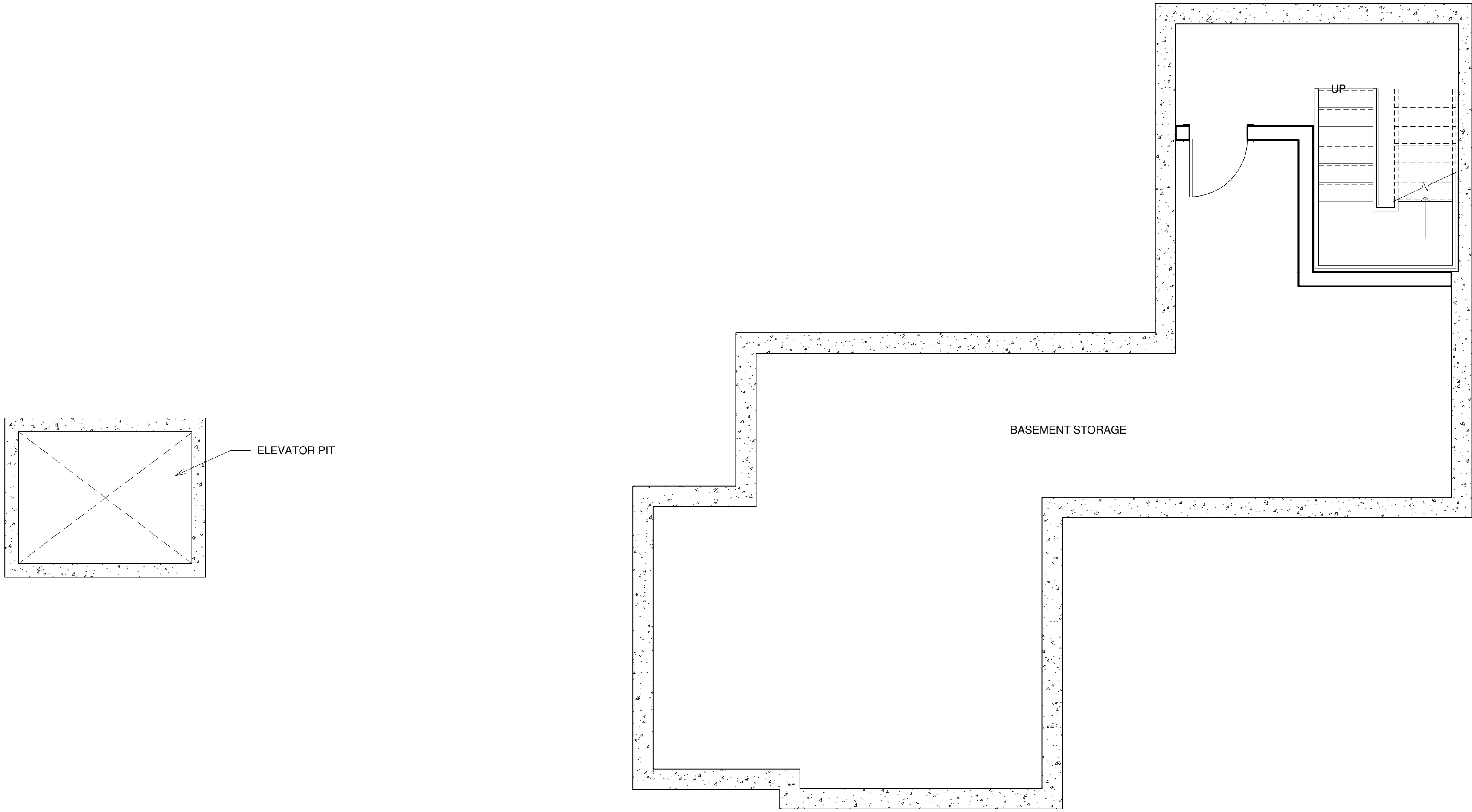
STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

ROOF PLAN

Project number	18-16_128R North
Date	04.16.20
Drawn by	Author
Checked by	Checker
A-1.5	
Scale	1/4" = 1'-0"

A Basement Plan
1/4" = 1'-0"



128R North Street
NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



DEXTROUS CREATIVE
PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0459 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoeengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

BASEMENT PLAN

Project number	18-16_128R North
Date	11.19.18
Drawn by	Author
Checked by	Checker

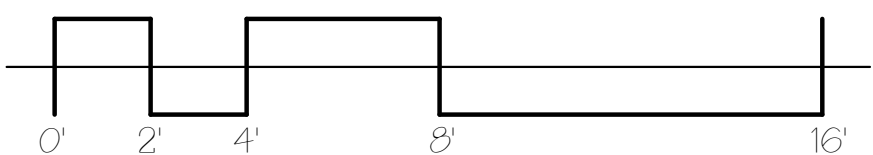
A-1.6	
Scale	1/4" = 1'-0"



Ⓐ North Elevation
3/16" = 1'-0"



Ⓑ South Elevation
3/16" = 1'-0"



126 & 128R North Street

NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTROUS
CREATIVE**
PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geotechnical Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

SOUTH & NORTH ELEVATIONS

Project number	18-16_128R North
Date	04.16.20
Drawn by	Author
Checked by	Checker

A-2.1

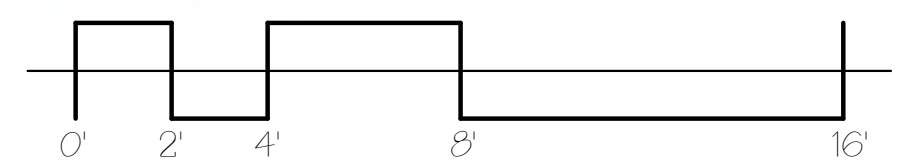
Scale: 3/16" = 1'-0"



A South Elevation
3/16" = 1'-0"



B North Elevation
1/4" = 1'-0"



128R North Street

NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
(207) 403-0459 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Matt Hardison, P.E.
Senior Geotechnical Engineer
Summit Geotechnical Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

SOUTH & NORTH ELEVATIONS

Project number	18-16_128R North
Date	11.19.18
Drawn by	Author
Checked by	Checker
Scale	As indicated

A-2.1



(A) East Elevation
3/16" = 1'-0"



(B) West Elevation
3/16" = 1'-0"

126 & 128R North Street

NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTROUS
CREATIVE**
PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoeengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

EAST & WEST ELEVATIONS

Project number	18-16_128R North
Date	04.16.20
Drawn by	Author
Checked by	Checker

A-2.2
Scale: 3/16" = 1'-0"



Ⓐ East Elevation
3/16" = 1'-0"



Ⓑ West Elevation
3/16" = 1'-0"

128R North Street
NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0459 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoeengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
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Structural Integrity Consulting Engineers, Inc.
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Portland, ME 04101
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No.	Description	Date

EAST & WEST ELEVATIONS

Project number	18-16_128R North
Date	11.19.18
Drawn by	Author
Checked by	Checker

A-2.2	
Scale	3/16" = 1'-0"



F Northeast Perspective



B Bird's Eye View of North Street Facade



I Main Entrance 128R



D View from Driveway



E Entrance View

126 & 128R North Street NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTRIOUS
CREATIVE**

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Matt Hardison, P.E.
Senior Geotechnical Engineer
Summit Geotechnical Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

PERSPECTIVES 128R

Project number	18-16_128R North
Date	04.16.20
Drawn by	Author
Checked by	Checker
A-5.1	
Scale	



(A) Northwest Perspective



(B) 4th floor Munjoy Heights View

THIS PERSPECTIVE IS TAKEN FROM THE FOURTH FLOOR AT MUNJOY HEIGHTS FROM JUST WITHIN THE UNIT. ELEVATION OF THE CAMERA (EYES) IS TAKEN AT 5'-0" ABOVE THE FLOOR AS SHOWN ON THE SITE SECTION A/A-3.2. THE DISTANCE OF THIS PERSON IS STANDING (INSIDE THEIR UNIT) IS 31'-0" FROM THE FACE OF THE SECOND FLOOR DECK. THE MUNJOY HEIGHTS BUILDINGS VARY IN DISTANCE FROM 128R NORTH BASED ON THEIR PROJECT'S SPLINE. THAT SAID, THE DISTANCE FROM THE EXTERIOR FACE OF THEIR BUILDINGS TO THE EXTERIOR FACE OF THE SECOND FLOOR DECKS RANGES FROM 25'-0" AT THE CLOSEST SECTION TO 32'-0". IN THE SITE SECTION SHOWN ON PAGE A-3.2 THE BUILDINGS ARE SHOWN AT 28'-0" APART.

126 & 128R North Street

NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoenvironmental Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

PERSPECTIVES 128R

Project number 18-16_128R North

Date 04.16.20

Drawn by Author

Checked by Checker

A-5.2

Scale:



OVERALL SITE		
SPACE AND BULK STANDARDS		
ZONE: R6 - MHNCD0	REQUIRED	PROPOSED
MINIMUM LOT SIZE	2,000 SF	9,787 SF
MINIMUM STREET FRONTAGE	20'	38'
MINIMUM LANDSCAPED OPEN AREA	20%	32%
MAXIMUM NUMBER OF DWELLING UNITS*	725 SF/UNIT = 16	12
RESIDENTIAL PARKING	1 SPACE PER UNIT 3 UNITS = 8 SPACES**	8
MINIMUM INTERNAL RESIDENT BICYCLE STORAGE SPACES	2 SPACES/5 D.U. = 4	4
MAXIMUM LOT COVERAGE	60%	51%
* REFER TO PORTLAND LAND USE ORDINANCE SECTION 14-488 (g)		
** REFER TO PORTLAND LAND USE ORDINANCE SECTION 14-332.2 (b)		

JOSH WOJCIK
PO BOX 833 WILTON, ME 04294

NADEAU LAND SURVEYS
PORTLAND, MAINE
CONTACT: JAMES D. NADEAU, P.L.S.
918 BRIGHTON AVE, PORTLAND, ME 04102

RECEIVED: _____

RECORDED IN _____

ATTEST: _____

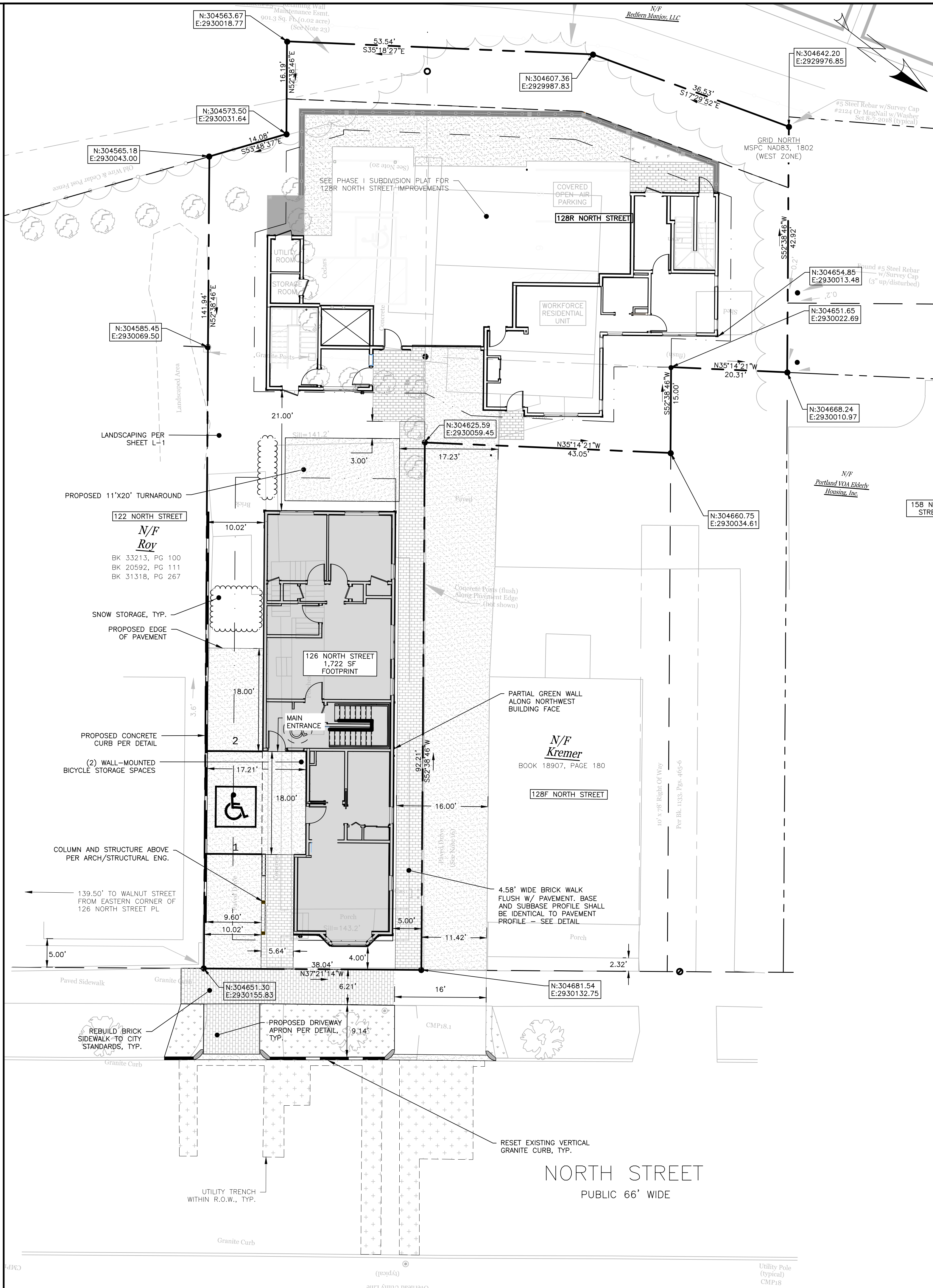
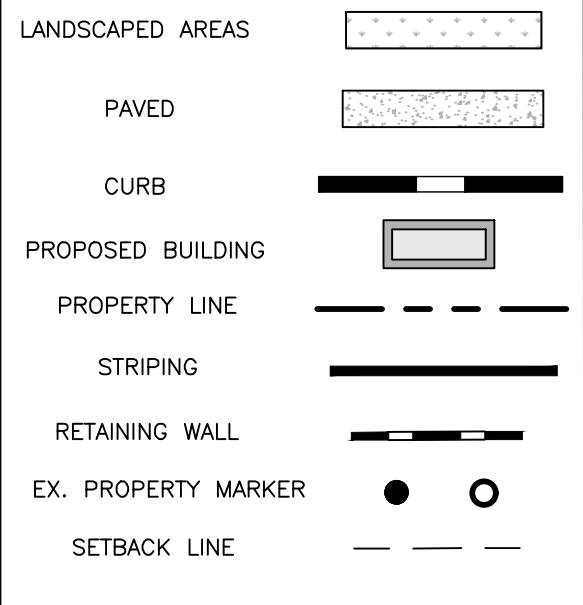
REGISTRAR

UNIT TABULATION – 126	
UNIT NUMBER	SIZE (SF)*
1A	680
2A	687
2B	716
3A	687
3B	716

*UNIT AREA MEASURED FROM
OUTSIDE OF EXTERIOR WALLS TO
THE CENTER OF SHARED WALLS

*UNIT AREA MEASURED FROM
OUTSIDE OF EXTERIOR WALLS TO
THE CENTER OF SHARED WALLS

DATE:



1. FOR INFORMATION REGARDING THE PROPOSED SITE, REFER TO THE SITE PLAN, C-10, MOST RECENT VERSION.
2. FOR INFORMATION REGARDING PROPOSED UTILITIES, REFER TO THE UTILITY PLAN, SHEET C-20, MOST RECENT VERSION.
3. FOR INFORMATION REGARDING PROPOSED GRADING AND STORMWATER, REFER TO THE GRADING & DRAINAGE PLAN, SHEET C-30, MOST RECENT VERSION.
4. UTILITY TABULATION PROVIDED BY DEXTROUS CREATIVE; REFER TO ARCHITECTURAL PLANS FOR FLOOR PLANS AND BUILDING HEIGHTS.
5. TOTAL SITE AREA INCLUDES 0.084 ACRES (3,645 S.F.). R.O.W. WIDTH FOR NORTH STREET IS 50 FEET PER BOUNDARY SURVEY & TOPOGRAPHICAL MAP WITH EXISTING CONDITIONS COMPLETED BY NADEAU LAND SURVEYS DATED 8/22/2018 (JOB #2181902BTR1).
6. SITE BOUNDARIES PER BOUNDARY SURVEY & TOPOGRAPHICAL MAP WITH EXISTING CONDITIONS COMPLETED BY NADEAU LAND SURVEYS ASSOCIATED DATED 8/22/2018 (JOB #2181902BTR1).
7. PROPERTY PINS TO BE SET BY PROFESSIONAL LAND SURVEYOR.
8. AS OF 8/26/2020, THE SITE IS BOUNDED BY THE R-6 ZONE ON EAST, WEST, SOUTH, AND NORTH SIDES OF THE CITY OF PORTLAND GIS WEBSITE.
9. LOCUS PARCEL IS SHOWN ON THE CITY OF PORTLAND ASSESSOR'S MAP 12, BLOCK H, LOT 14.
10. LOCUS PARCEL DOES NOT FALL IN A SPECIAL FLOOD HAZARD AREA PER FEMA FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 2300510014B, INDEX DATED 7/17/1986.
11. ALL BUILDING CORNER OFFSETS TO BOUNDARY LINES ARE FROM THE BUILDING FOUNDATION, UNLESS OTHERWISE NOTED.
12. THIS MAP IS THE SUBDIVISION PLAN FOR THE CREATION OF UP TO SIX (6) DWELLING UNITS ON THE EXISTING SUBJECT PROPERTY.
13. THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SIDEWALKS, STORMWATER DRAINAGE, AND UTILITIES.
14. THE OWNER SHALL BE RESPONSIBLE FOR COMPLYING WITH THE CONDITIONS OF CHAPTER 32 STORMWATER INCLUDING ARTICLE III, POST-CONSTRUCTION STORMWATER MANAGEMENT AGREEMENT, WHICH SPECIFIES ANNUAL INSPECTIONS AND MAINTENANCE REQUIREMENTS AS 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.

1. THIS PLAN IS NOT INTENDED TO DEPICT LIMITS OR EXTENT OF FEED TITLE OWNERSHIP. AN OPINION OF TITLE SHOULD BE RENDERED BY A TITLE ATTORNEY.
2. THE OFFICE RESERVES THE RIGHT TO BE HELD HARMLESS BY ALL 3RD PARTY CLAIMS.
3. THIS SURVEY DOES NOT PURPORT TO REFLECT ANY OF THE FOLLOWING:
 - 3.1. EASEMENTS OTHER THAN THOSE THAT ARE VISIBLE OR SPECIFICALLY STATED IN THE REFERENCED DOCUMENTS.
 - 3.2. BUILDING SETBACK COMPLIANCE OR RESTRICTIVE COVENANTS.
 - 3.3. ZONING OR OTHER LAND USE REGULATIONS
 - 3.4. THE LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES.
4. THIS OFFICE RESERVES THE RIGHT TO BE HELD HARMLESS FOR UNKNOWN OR UNOBTAINABLE PRIVATE RECORDS WHICH COULD AFFECT THE RESULTS OF THIS SURVEY
5. REFERENCE IS MADE TO "LETTER OF AGREEMENT" DATED MAY 23, 2018 BETWEEN NADEAU LAND SURVEYS AND THE BELOW LISTED CLIENT(S), WHICH SHALL BE CONSIDERED AN INTEGRAL PART OF THIS SURVEY.
6. THE ABOVE LISTED CLIENT(S) HAVE BEEN ADVISED OF THE LIMITS OF THIS SURVEY.
7. ALL DEEDS REFERENCED ON THIS PLAN ARE RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS (CORD).
8. LOCUS PARCELS ARE LOCATED IN THE R-6 RESIDENTIAL ZONE: (AS OF 8/22/18)
 - 8.1. MINIMUM LOT SIZE = 200 S.F.
 - 8.2. MINIMUM LOT AREA / DWELLING UNIT = 725 S.F.
 - 8.3. MINIMUM STREET FRONTAGE = 20 FEET
 - 8.4. MINIMUM LOT WIDTH = 20 FEET
 - 8.5. MAXIMUM LOT COVERAGE = 60%
 - 8.6. MINIMUM FRONT YARD SETBACK = 5 FEET, OR AVERAGE DEPTH OF ADJACENT FRONT YARDS
 - 8.7. MINIMUM SIDE YARD SETBACK = 5 FEET
 - 8.8. MINIMUM REAR YARD SETBACK = 10 FEET
9. LOCUS PARCEL A IS SHOWN ON THE CITY OF PORTLAND ASSESSOR'S MAP 12, BLOCK H, AS LOT 14, AND IS LISTED AS 126 NORTH STREET. LOCUS PARCEL B IS SHOWN ON THE CITY OF PORTLAND ASSESSOR'S MAP 12, BLOCK H, AS LOT 15, AND IS LISTED AS 128 NORTH STREET.
10. AREA OF LOCUS PARCEL A IS 4,105.0 SQUARE FEET (0.09 ACRE). AREA OF LOCUS PARCEL B IS 5,682.0 SQUARE FEET (0.13 ACRES)
11. THE APPARENT RIGHT OF WAY LINES DEPICTED ON THIS PLAN ARE BASED ON THE PLAN REFERENCES LISTED HEREON MONUMENTATION FOUND IN THE FIELD, AND CITY OF PORTLAND ENGINEERING STREET NOTES.
12. THE LOCUS PARCELS DO NOT SCALE IN A SPECIAL FLOOD HAZARD AREA PER FEMA FLOOD INSURANCE RATE MAP 17000101A-PANEL NUMBER 230051 0014-B, INDEX DATED DECEMBER 8, 1998. THE PARCELS SCALE IN ZONE C.
13. ALL BUILDING CORNER OFFSETS TO BOUNDARY LINES ARE FROM CORNER BOARDS AND NOT BUILDING FOUNDATION, UNLESS NOTED.
14. ALL 1'-889-B-BENCH MARKS AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY EXCAVATION.
15. VERTICAL DATUM IS NGVD29. BENCHMARK IS CITY MONUMENT 112-18-107, ELEVATION = 145.08'
16. SEE CORD BOOK 1143, PAGE 307, DATED JULY 25, 1923, FROM ELMORE W. RAMSDALL TO CLAIRE M. RAMSDALL FOR CORNER OF NORTH STREET.
17. PER CITY OF PORTLAND RECORDS, VOL. 1, PAGE 184, NORTH STREET WAS ACCEPTED MARCH 20, 1795 AS 4 RODS (66 FEET) WIDE.
18. SEE CORD BOOK 14149, PAGE 281, DATED SEPTEMBER 10, 1938, FOR CITY OF PORTLAND'S LICENSE TO ERECT A FENCE ALONG PORTLAND STREET PARTIALLY INFRINGING ON LAND N/Y MAXWELL.
19. SEE CORD BOOK 31326, PAGE 331, DATED FEBRUARY 3, 2014, FROM THE CITY OF PORTLAND TO RAYMOND C. MAXWELL, FOR TERMINATION OF LICENSE RECORDED IN BOOK 14149, PAGE 281.
20. DISTANCE BULLETSHOW TO ENCRATCH SETBACK WINDOW PER CITY OF PORTLAND ZONING ORDINANCE SECTION 14-425.
21. SEE NOTICE FOR VACATED PORTIONS OF SHERIDAN STREET AND EAST COVE STREET, DATED MARCH 5, 1915, RECORDED IN CORD BOOK 32118, PAGE 145.
22. THE UNDERGROUND UTILITIES SHOWN ON THESE PLANS BEING LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS, THIS OFFICE MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE LOCATIONS AND ARE NOT TO BE USED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THIS OFFICE HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
23. SEE CORD BOOK 32237, PAGE 104, DATED APRIL 30, 2015, FOR RELEASE AND EASEMENT AGREEMENT BETWEEN DEPT. OF TRANSPORTATION AND CITY OF PORTLAND.
24. THE COORDINATES DEPICTED ON OUR PLAN ARE FOR MUNICIPAL REQUIREMENTS ONLY AND SHOULD NOT BE USED FOR CONSTRUCTION LAYOUT. THIS OFFICE ASSUMES NO LIABILITY AND/OR RESPONSIBILITY IF ANY COORDINATE CONFLICTS WITH ANY OTHER RECORDS.
25. SPOT GRADES, SILL AND FIN ELEVATIONS ARE FOR ENGINEERING PURPOSED ONLY, AND SHALL NOT BE USED AS PROJECT BENCHMARKS. THIS OFFICE ASSUMES NO LIABILITY AND/OR RESPONSIBILITY IS USED FOR CONSTRUCTION PURPOSES.
26. NO RECORDS OF THE FIELD EVALUATION HAS BEEN PERFORMED SINCE THE ORIGINAL DATE OF THIS SURVEY. THIS SURVEY PLAN IS REVISED SOLEY TO DEPICT ADDITIONAL UTILITY INFORMATION

1. THERE ARE NO EXISTING EASEMENTS IDENTIFIED BY THE SURVEYOR PERTAINING TO 126 NORTH STREET.
2. NO RECORD OF AN EASEMENT WAS FOUND FOR THE APPARENT ENCROACHMENT OF THE AERIAL UTILITY LINES ACROSS THIS PROPERTY.

THERE ARE NO PROPOSED EASEMENTS.

N/A

--

APPROVED: PORTLAND PLANNING BOARD

CHAIRPERSON: _____ DATE: _____



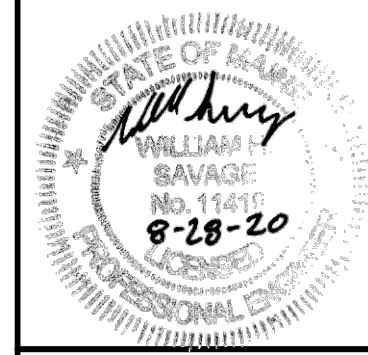
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

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SUBDIVISION PLAT - PHASE II (126 NORTH
ST., PORTLAND, MAINE 04101)

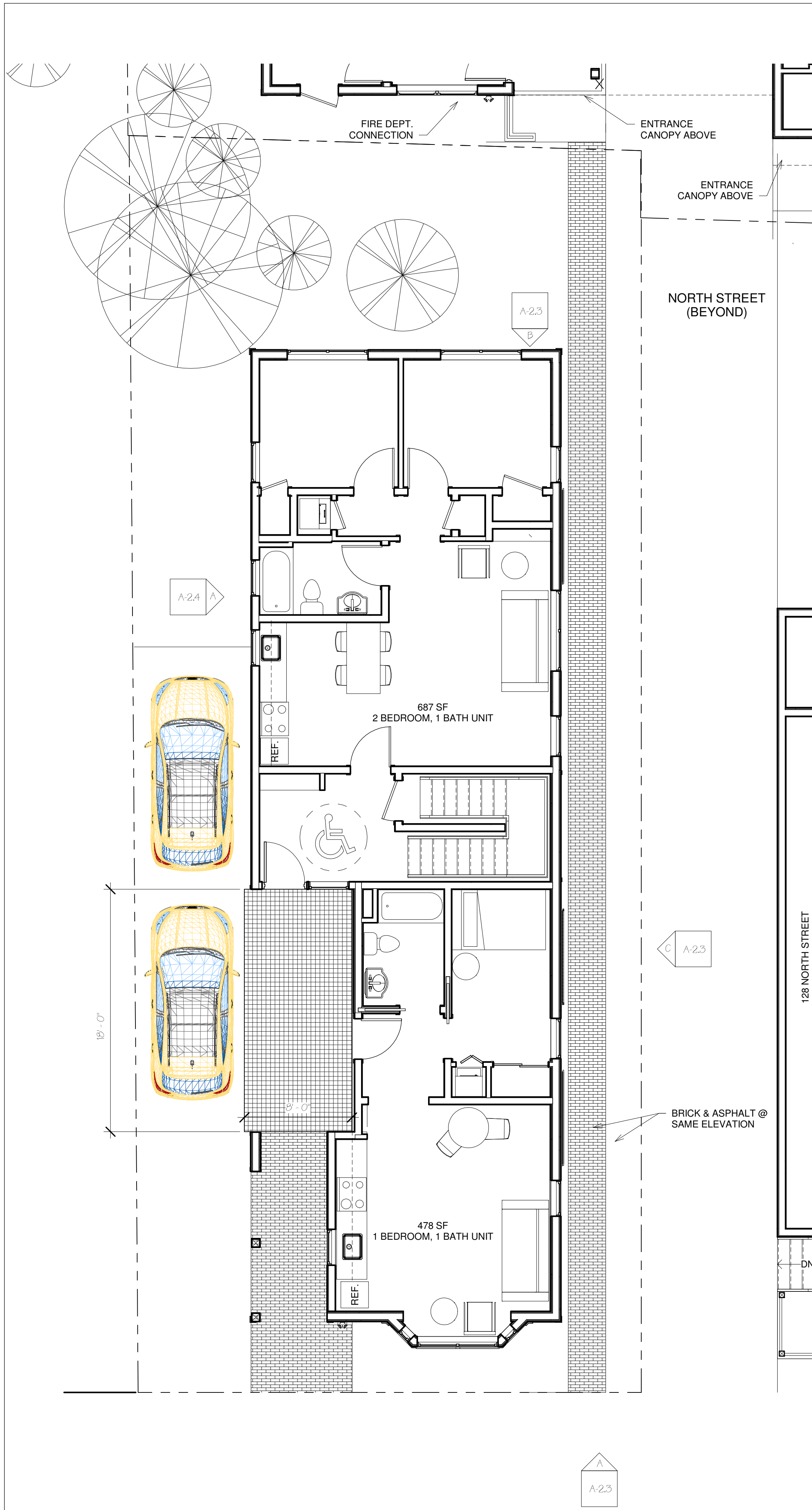
DRAWING NAME:

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JN:	1116
SCALE:	1"=10'
DESIGNED BY:	SJL
DRAWN BY:	ZMS
CHECKED BY:	WHS

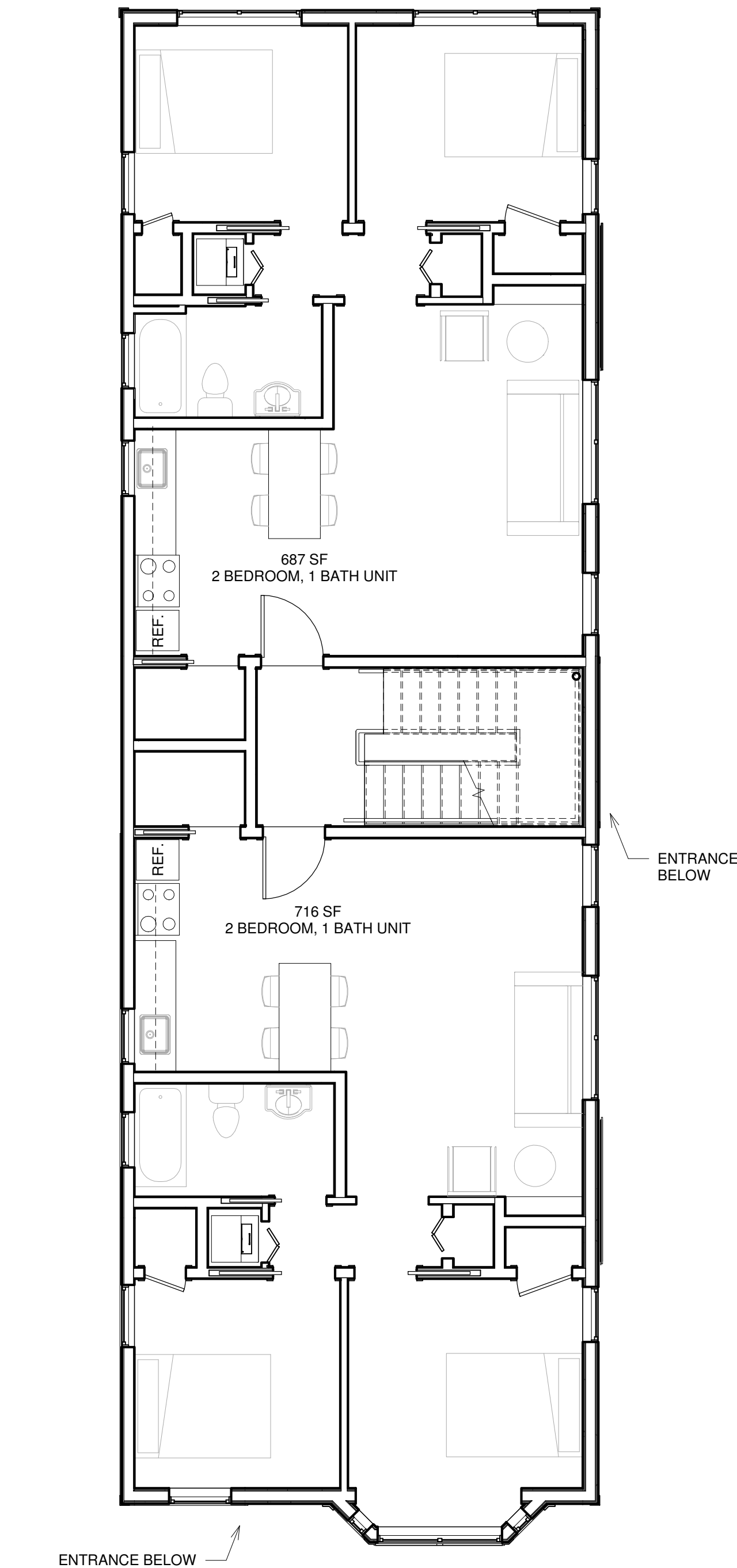


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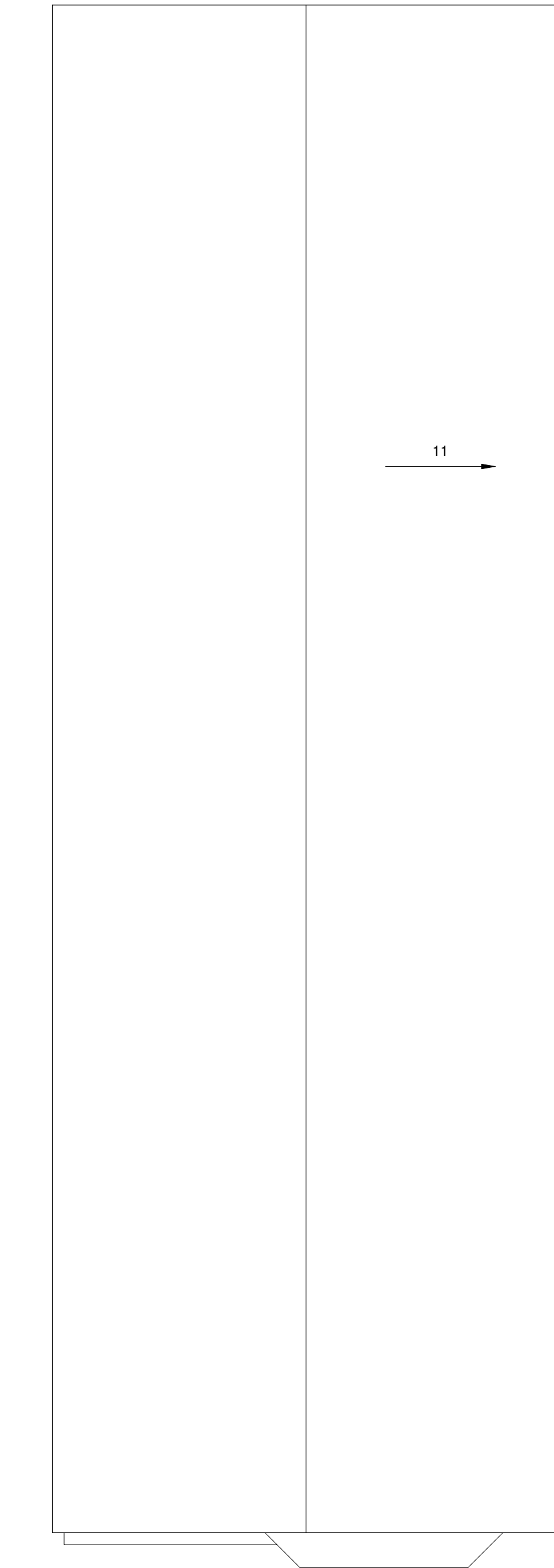
PLAT



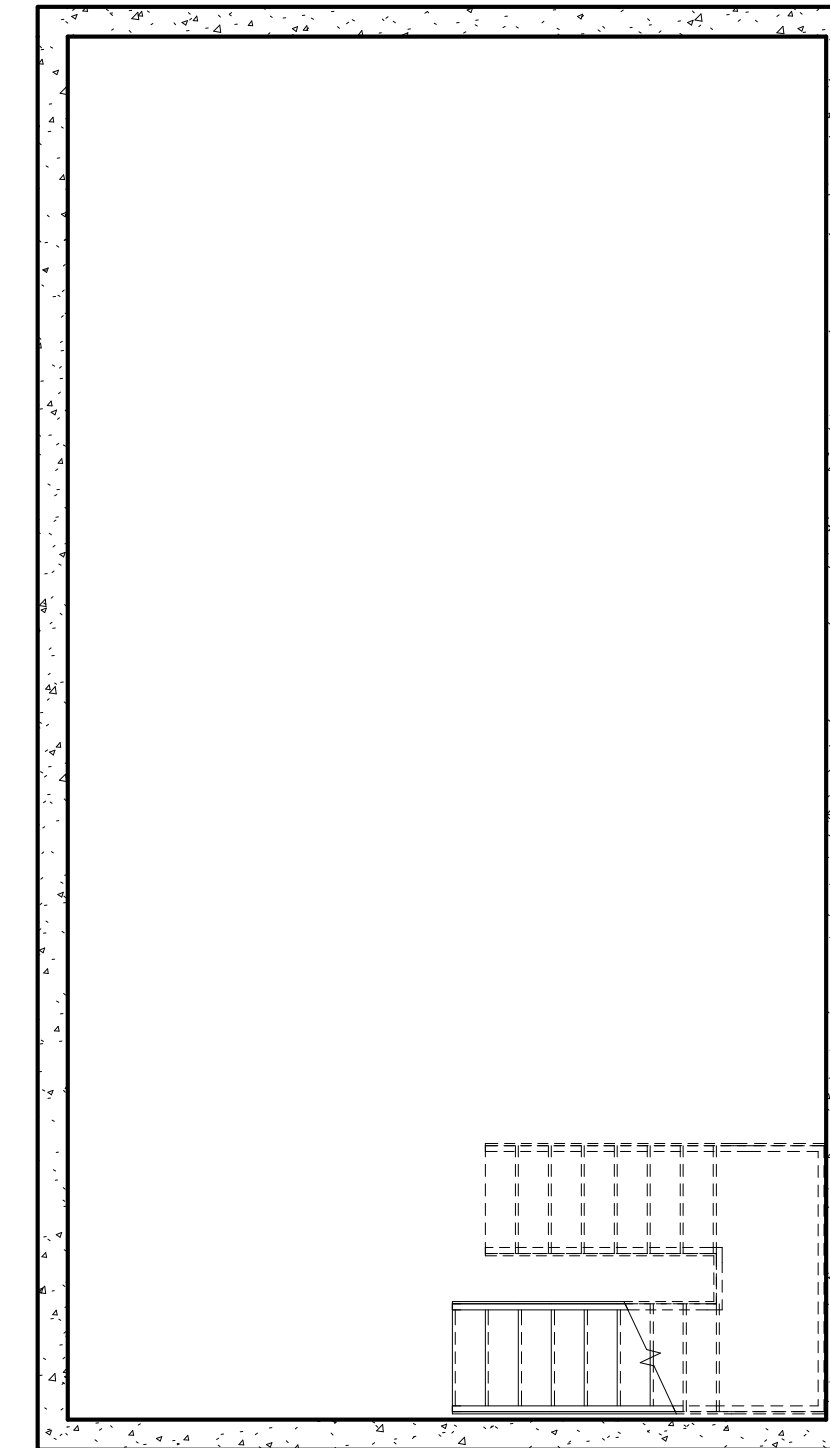
A First Floor 126
3/16" = 1'-0"



B Second & Third Floors 126
3/16" = 1'-0"



C Roof 126
3/16" = 1'-0"



D Basement
3/16" = 1'-0"

126 & 128R North Street

NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Matt Hardison, P.E.
Senior Geotechnical Engineer
Summit Geotechnical Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, P.E.
Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

PHASE 2 PLANS

Project number	18-16_128R North
Date	04.16.20
Drawn by	Author
Checked by	Checker

A-1.6 126
Scale: 3/16" = 1'-0"



A View for Walnut Street Rendering



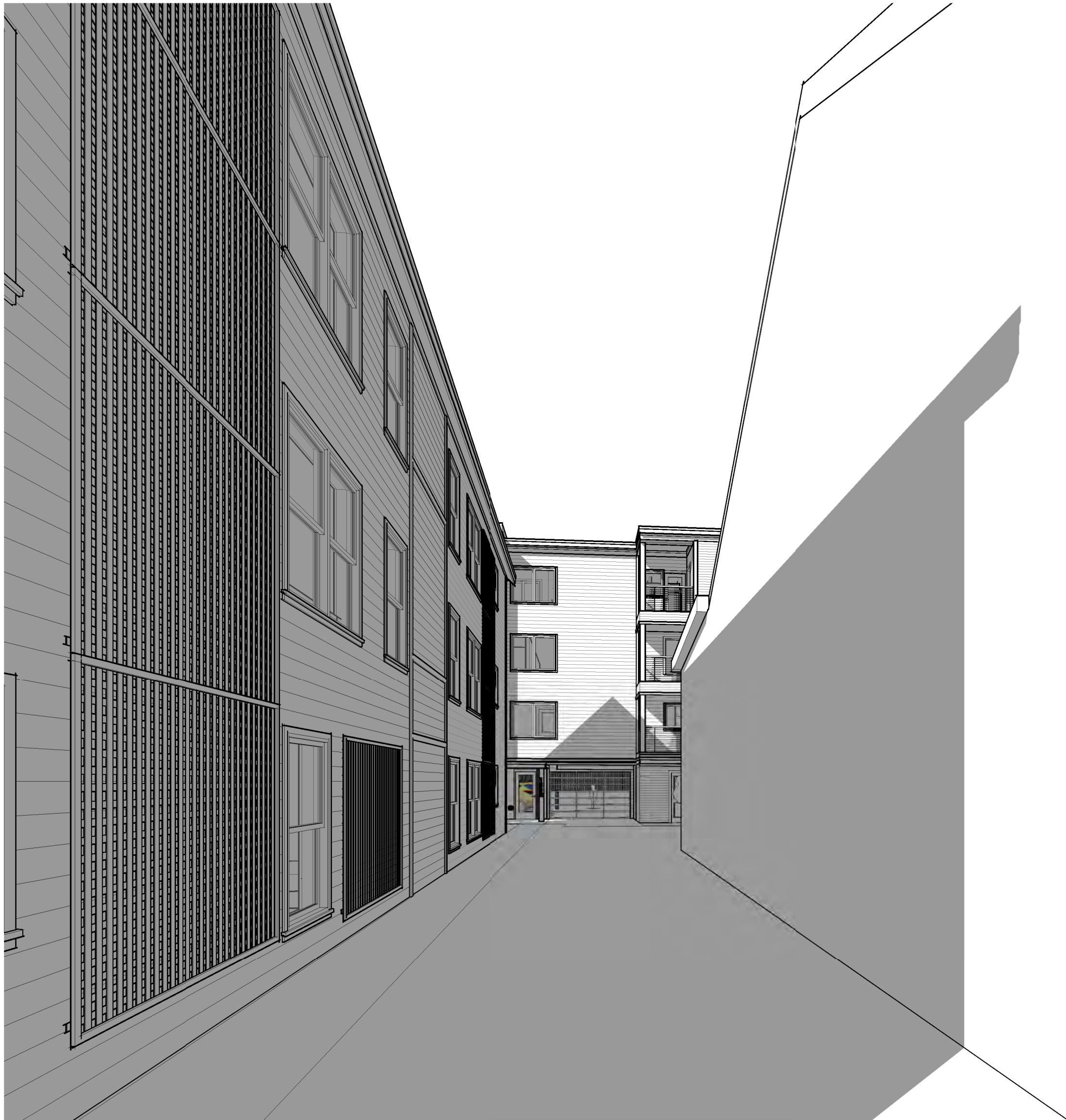
D View from Senior Housing for Rendering Copy 1



B View 126 + 128R North (elevation 176")



C Street View 126 + 128R North (Eye at 5'-0")



E View from North Street Sidewalk 126 & 128R

126 & 128R North Street

NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTROUS
CREATIVE**

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Matt Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoeengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

PERSPECTIVES 126

Project number 18-16_128R North

Date 04.16.20

Drawn by Author

Checked by Checker

A-5.3

Scale:



A North Street View Showing Entrances



B Main Entrance 126

126 & 128R
North Street
NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.408.0469 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoengeering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

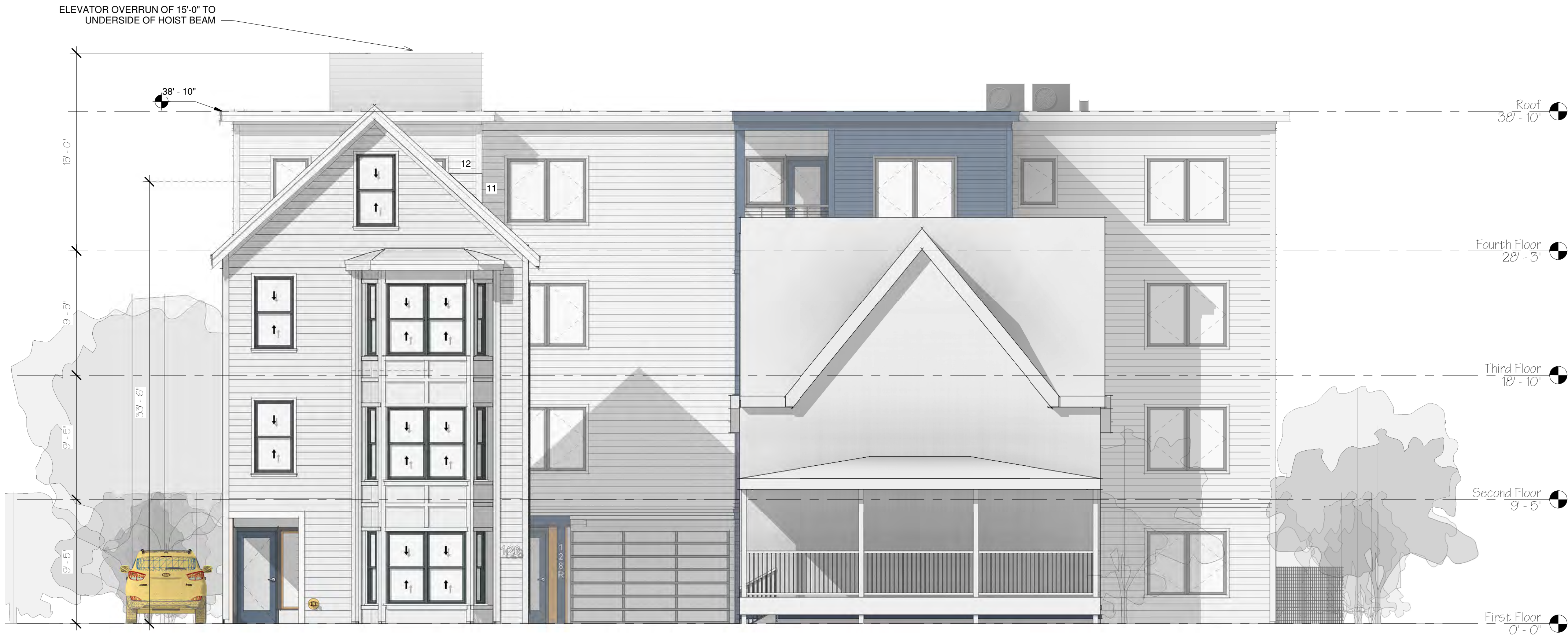
No.	Description	Date

PERSPECTIVES
126

Project number	18-16_128R North
Date	04.16.20
Drawn by	Author
Checked by	Checker

A-5.4

Scale:



A South Elevation 126 & 128
3/16" = 1'-0"



B North Elevation 126 North
3/16" = 1'-0"



C East Elevation 126 North
3/16" = 1'-0"

126 & 128R North Street NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geotechnical Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
(207) 576-6762

CIVIL ENGINEER
Will Savage, PE
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
(207) 775-2655

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

SOUTH, NORTH & EAST 126

Project number	18-16_128R North
Date	04.16.20
Drawn by	Author
Checked by	Checker

A-2.3

Scale: 3/16" = 1'-0"



**126 & 128R
North Street**
NEW CONSTRUCTION

OWNER
JOSHUA WOJCIK
UPRIGHT FRAMEWORKS LLC
PO BOX 833
WILTON ME 04294
jwojck@uprightframeworks.com



**DEXTRIOUS
CREATIVE**
PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
James P. Nadeau, PLS
Nadeau Land Surveyors
918 Brighton Ave
Portland, ME 04102
(207) 878-7870

GEOTECHNICAL ENGINEER
Mat Hardison, P.E.
Senior Geotechnical Engineer
Summit Geoeengineering Services, Inc.
P.O. Box 7216
Lewiston, Maine 04243
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CIVIL ENGINEER
Will Savage, PE
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Portland, Maine 04104
(207) 775-2655

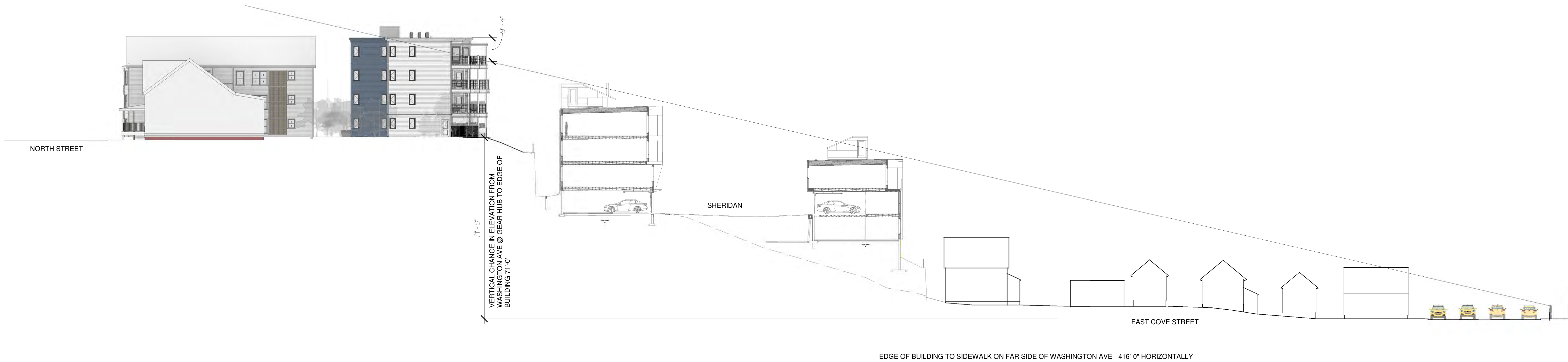
STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
Structural Integrity Consulting Engineers, Inc.
46 Forest Ave
Portland, ME 04101
(207) 774-4614

No.	Description	Date

**WEST
ELEVATION
126**

Project number	18-16_128R North
Date	04.16.20
Drawn by	Author
Checked by	Checker

A-2.4
Scale 3/16" = 1'-0"



SITE SECTION NORTH STREET TO
WASHINGTON AVENUE
1" = 20'-0"

ENTOURAGE 'FLORENCE' IS 5'-6" TALL. IF FLORENCE WERE TO STAND ON THE FAR SIDEWALK OF WASHINGTON AVENUE AND LOOK UP TOWARDS NORTH STREET THEY WOULD BE ABLE TO SEE THE TOP OF THE DECK RAIL AT 128R NORTH AND THE ELEVATION BEYOND AT A DISTANCE OF 435'-0" (HYPOTENUSE). THE REAR FACE OF THE BUILDING WOULD BE 418'-0" FROM HER HORIZONTALLY AND 71'-0" VERTICALLY*. THE MAJORITY OF THEIR SITE LINE WOULD BE CONSUMED BY THE MUNJOY HEIGHTS PROJECT (ALONG SHERIDAN STREET). THE DASHED LINE SHOWS THE CHANGE IN TOPOGRAPHY CREATED BY THE MUNJOY HEIGHTS PROJECT. THE ENTOURAGE IS ALSO SHOWN WITHIN THE FOURTH FLOOR OF THE MUNJOY HEIGHTS PROJECT LOOKING AT THE BACK OF 128R. THIS INDIVIDUAL IS 31'-0" AWAY FROM THE FACE OF DECK AND THEIR EYES WOULD BE 5'-0" ABOVE THE GRADE OF PARKING. THE PERSPECTIVE SEEN BY THIS PERSON IS SHOWN ON B/A-5.2. NOTE THAT THE MUNJOY HEIGHTS PROJECT. NOTE THAT THE BUILDINGS IN THE MUNJOY HEIGHTS PROJECT ARE SITUATED ALONG A SPLINE AND VARY IN DISTANCE FROM THE REAR FACE OF 128R BUILDING. AT THE CLOSEST POINT THE EXTERIOR FACE OF THE MUNJOY HEIGHTS BUILDING TO THE FACE OF DECK IS 25'-0" AND AT THE WIDEST POINT IT IS 32'-0". AT THE POINT OF THIS SECTION THE BUILDING IS MODELED AT 28'-0" SEPARATION.

*BASED ON ACORN ENGINEERING SITE ELEVATIONS POINTS AT THE EDGE OF BUILDING ON 128R NORTH STREET AND PROJECTS CURRENTLY UNDER CONSTRUCTION ALONG WASHINGTON AVENUE. SITE SECTION THROUGH MUNJOY HEIGHTS OBTAINED FROM ENGINEER. EAST COVE STREET HOUSES WERE SITED USING A COMBIATION OF PORTLAND GIS DATA, ASSESSING DEPARTMENT MEASUREMENTS AND GOOGLE STREET VIEW IMAGES

126 & 128R
North Street
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UPRIGHT FRAMEWORKS LLC
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Portland, ME 04101
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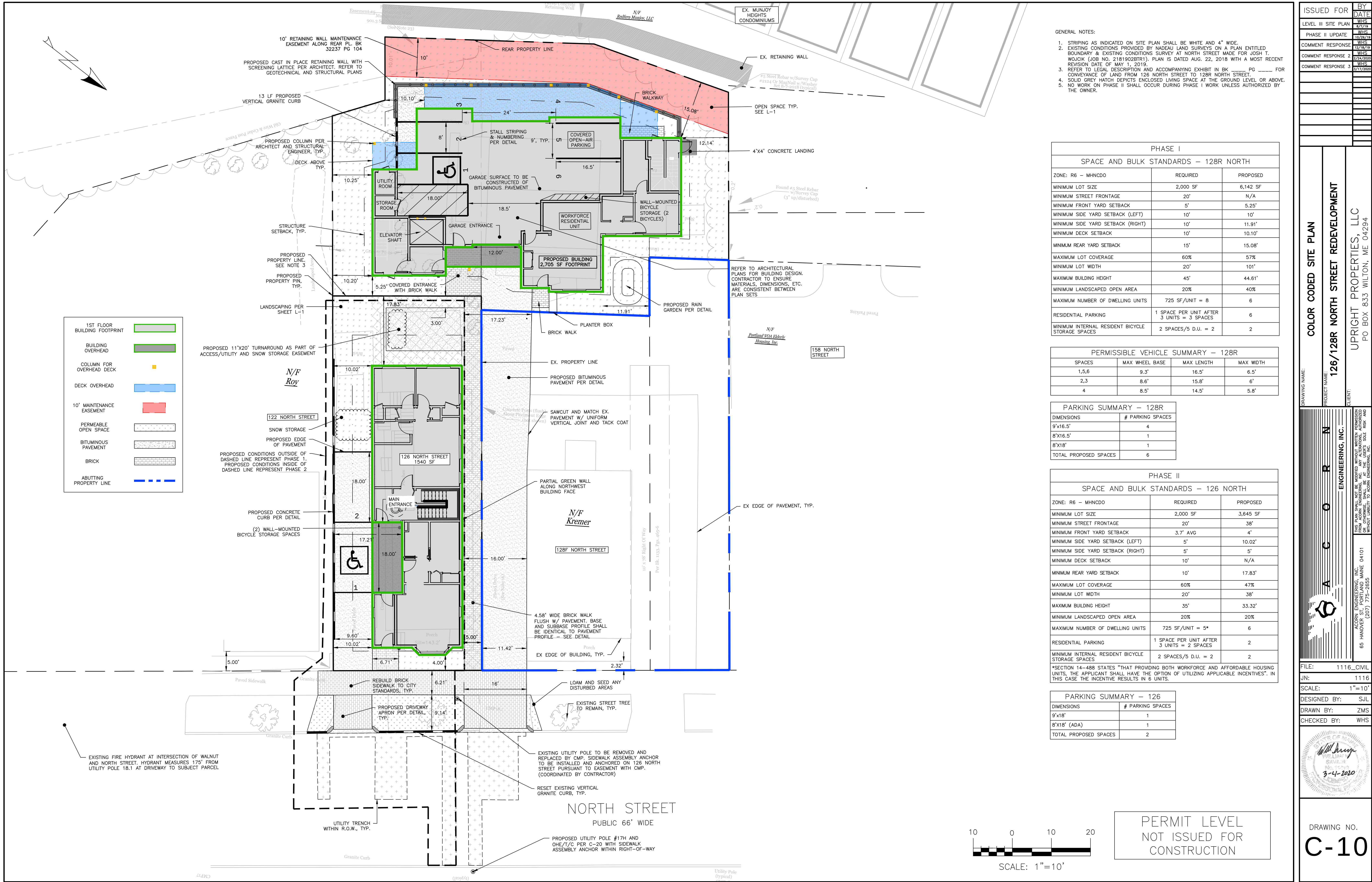
No.	Description	Date

SITE
SECTION

Project number 18-16_128R North
Date 04.16.20
Drawn by Author
Checked by Checker

A-3.2

Scale 1" = 20'-0"



- GENERAL NOTES:
1. STRIPING AS INDICATED ON SITE PLAN SHALL BE WHITE AND 4" WIDE.
 2. EXISTING CONDITIONS PROVIDED BY NADÉAU LAND SURVEYS ON A PLAN ENTITLED BOUNDARY & EXISTING CONDITIONS SURVEY AT NORTH STREET MADE FOR JOSH T. WOLICK (JOB NO. 2181902BTR1). PLAN IS DATED AUG. 22, 2018 WITH A MOST RECENT REVISION DATE OF MAY 1, 2019.
 3. REFER TO LEGAL DESCRIPTION AND ACCOMPANYING EXHIBIT IN BK _____ PG _____ FOR CONVEYANCE OF LAND FROM 126 NORTH STREET TO 128 NORTH STREET.
 4. SOLID GREY HATCH DEPICTS ENCLOSED LIVING SPACE AT THE GROUND LEVEL OR ABOVE.
 5. NO WORK ON PHASE II SHALL OCCUR DURING PHASE I WORK UNLESS AUTHORIZED BY THE OWNER.

PHASE I		
SPACE AND BULK STANDARDS - 128R NORTH		
ZONE: R6 - MHNDO	REQUIRED	PROPOSED
MINIMUM LOT SIZE	2,000 SF	6,142 SF
MINIMUM STREET FRONTAGE	20'	N/A
MINIMUM FRONT YARD SETBACK	5'	5.25'
MINIMUM SIDE YARD SETBACK (LEFT)	10'	10'
MINIMUM SIDE YARD SETBACK (RIGHT)	10'	11.91'
MINIMUM DECK SETBACK	10'	10.10'
MINIMUM REAR YARD SETBACK	15'	15.08'
MAXIMUM LOT COVERAGE	60%	57%
MINIMUM LOT WIDTH	20'	101'
MAXIMUM BUILDING HEIGHT	45'	44.61'
MINIMUM LANDSCAPED OPEN AREA	20%	40%
MAXIMUM NUMBER OF DWELLING UNITS	725 SF/UNIT = 8	6
RESIDENTIAL PARKING	1 SPACE PER UNIT AFTER 3 UNITS = 3 SPACES	6
MINIMUM INTERNAL RESIDENT BICYCLE STORAGE SPACES	2 SPACES/5 D.U. = 2	2

PERMISSIBLE VEHICLE SUMMARY - 128R			
SPACES	MAX WHEEL BASE	MAX LENGTH	MAX WIDTH
1,5,6	9.3'	16.5'	6.5'
2,3	8.6'	15.8'	6'
4	8.5'	14.5'	5.8'

PARKING SUMMARY - 128R	
DIMENSIONS	# PARKING SPACES
9'x16.5'	4
8'x16.5'	1
8'x18'	1
TOTAL PROPOSED SPACES	6

PHASE II		
SPACE AND BULK STANDARDS - 126 NORTH		
ZONE: R6 - MINDO	REQUIRED	PROPOSED
MINIMUM LOT SIZE	2,000 SF	3,645 SF
MINIMUM STREET FRONTAGE	20'	38'
MINIMUM FRONT YARD SETBACK	3.7' AVG	4'
MINIMUM SIDE YARD SETBACK (LEFT)	5'	10.02'
MINIMUM SIDE YARD SETBACK (RIGHT)	5'	5'
MINIMUM DECK SETBACK	10'	N/A
MINIMUM REAR YARD SETBACK	10'	17.83'
MAXIMUM LOT COVERAGE	60%	47%
MINIMUM LOT WIDTH	20'	38'
MAXIMUM BUILDING HEIGHT	35'	33.32'
MINIMUM LANDSCAPED OPEN AREA	20%	20%
MAXIMUM NUMBER OF DWELLING UNITS	725 SF/UNIT = 5*	6
RESIDENTIAL PARKING	1 SPACE PER UNIT AFTER 3 UNITS = 2 SPACES	2
MINIMUM INTERNAL RESIDENT BICYCLE STORAGE SPACES	2 SPACES/5 D.U. = 2	2

*SECTION 14-498 STATES "THAT PROVIDING BOTH WORKFORCE AND AFFORDABLE HOUSING UNITS, THE APPLICANT SHALL HAVE THE OPTION OF UTILIZING APPLICABLE INCENTIVES". IN THIS CASE THE INCENTIVE RESULTS IN 6 UNITS.

PARKING SUMMARY - 126	
DIMENSIONS	# PARKING SPACES
9'x18'	1
8'x18' (ADA)	1
TOTAL PROPOSED SPACES	2

ISSUED FOR

BY

DATE

LEVEL III SITE PLAN

WHS

4/7/19

PHASE II UPDATE

WHS

10/29/19

COMMENT RESPONSE 1

WHS

12/18/19

COMMENT RESPONSE 2

WHS

2/24/2020

COMMENT RESPONSE 3

WHS

3/17/2020

COLOR CODED SITE PLAN

126/128R NORTH STREET REDEVELOPMENT

UPRIGHT PROPERTIES, LLC

PO BOX 833 WILTON, ME 04294

ACORN ENGINEERING, INC.

65 HANOVER ST, PORTLAND, MAINE 04101

(207) 775-2655

FILE:

1116_CIVIL

JN:

1116

SCALE:

1"=10'

DESIGNED BY:

SJL

DRAWN BY:

ZMS

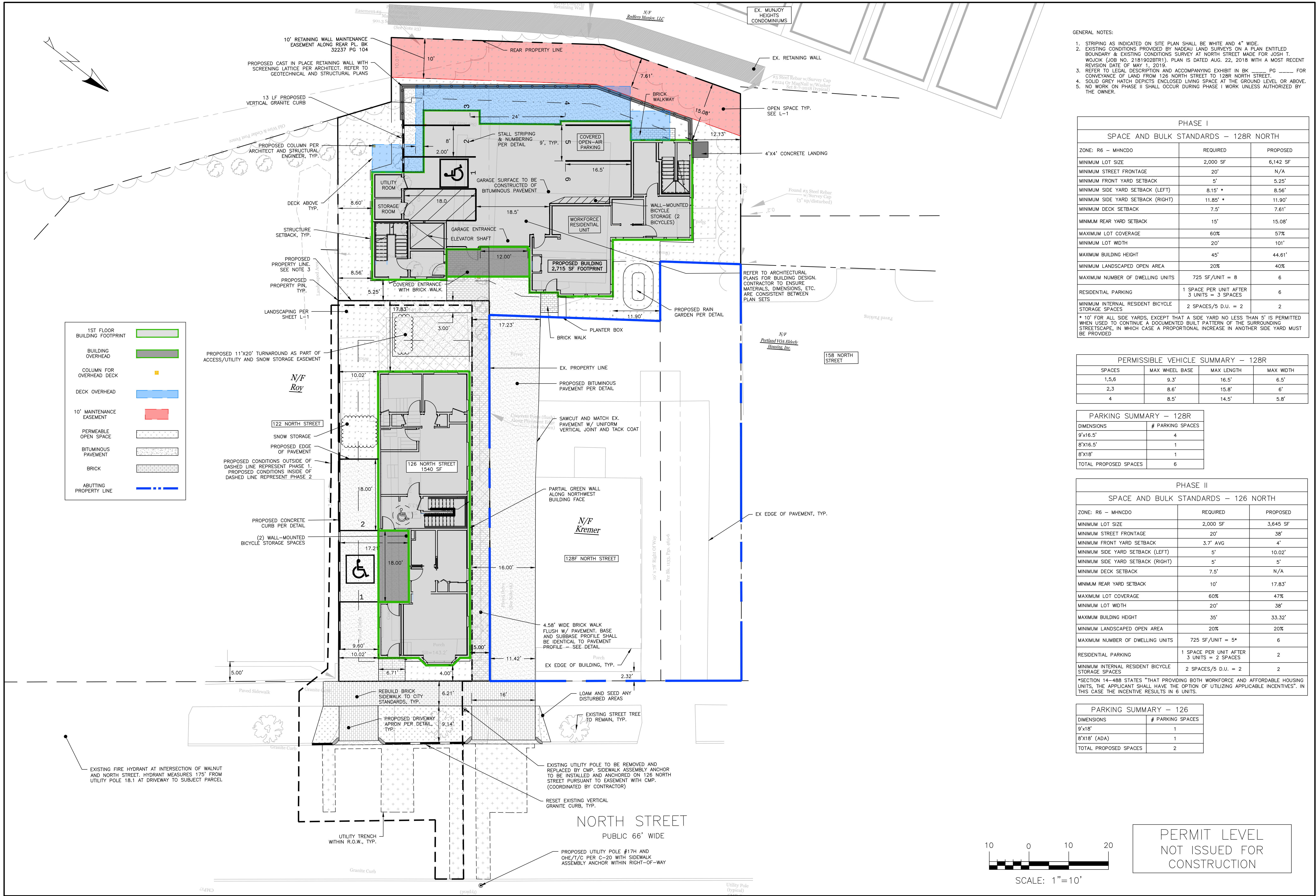
CHECKED BY:

WHS

3-4-2020

DRAWING NO.

C-10



- GENERAL NOTES:
1. STRIPING AS INDICATED ON SITE PLAN SHALL BE WHITE AND 4" WIDE.
 2. EXISTING CONDITIONS PROVIDED BY NADEAU LAND SURVEYS ON A PLAN ENTITLED BOUNDARY & EXISTING CONDITIONS SURVEY AT NORTH STREET MADE FOR JOSH T. WOLCK (JOB NO. 21819028TR1). PLAN IS DATED AUG. 22, 2018 WITH A MOST RECENT REVISION DATE OF MAY 1, 2019.
 3. REFER TO LEGAL DESCRIPTION AND ACCOMPANYING EXHIBIT IN BK _____ PG _____ FOR CONVEYANCE OF LAND FROM 126 NORTH STREET TO 128R NORTH STREET.
 4. SOLID GREY HATCH DEFECTS ENCLOSED LIVING SPACE AT THE GROUND LEVEL OR ABOVE.
 5. NO WORK ON PHASE II SHALL OCCUR DURING PHASE I WORK UNLESS AUTHORIZED BY THE OWNER.

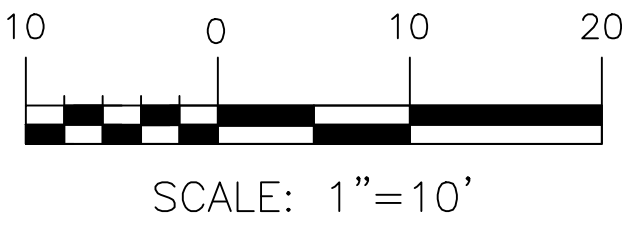
PHASE I		
SPACE AND BULK STANDARDS - 128R NORTH		
ZONE: R6 - MHNDO	REQUIRED	PROPOSED
MINIMUM LOT SIZE	2,000 SF	6,142 SF
MINIMUM STREET FRONTAGE	20'	N/A
MINIMUM FRONT YARD SETBACK	5'	5.25'
MINIMUM SIDE YARD SETBACK (LEFT)	8.15' *	8.56'
MINIMUM SIDE YARD SETBACK (RIGHT)	11.85' *	11.90'
MINIMUM DECK SETBACK	7.5'	7.61'
MINIMUM REAR YARD SETBACK	15'	15.08'
MAXIMUM LOT COVERAGE	60%	57%
MINIMUM LOT WIDTH	20'	101'
MAXIMUM BUILDING HEIGHT	45'	44.61'
MINIMUM LANDSCAPED OPEN AREA	20%	40%
MAXIMUM NUMBER OF DWELLING UNITS	725 SF/UNIT = 8	6
RESIDENTIAL PARKING	1 SPACE PER UNIT AFTER 3 UNITS = 3 SPACES	6
MINIMUM INTERNAL RESIDENT BICYCLE STORAGE SPACES	2 SPACES/5 D.U. = 2	2
* 10' FOR ALL SIDE YARDS, EXCEPT THAT A SIDE YARD NO LESS THAN 5' IS PERMITTED WHEN USED TO CONTINUE A DOCUMENTED BUILT PATTERN OF THE SURROUNDING STREETSCAPE, IN WHICH CASE A PROPORTIONAL INCREASE IN ANOTHER SIDE YARD MUST BE PROVIDED		

PERMISSIBLE VEHICLE SUMMARY - 128R			
SPACES	MAX WHEEL BASE	MAX LENGTH	MAX WIDTH
1,5,6	9.3'	16.5'	6.5'
2,3	8.6'	15.8'	6'
4	8.5'	14.5'	5.8'

PARKING SUMMARY - 128R	
DIMENSIONS	# PARKING SPACES
9'x16.5'	4
8'x16.5'	1
8'x18'	1
TOTAL PROPOSED SPACES	6

PHASE II		
SPACE AND BULK STANDARDS - 126 NORTH		
ZONE: R6 - MHNDO	REQUIRED	PROPOSED
MINIMUM LOT SIZE	2,000 SF	3,645 SF
MINIMUM STREET FRONTAGE	20'	38'
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MAXIMUM BUILDING HEIGHT	35'	33.32'
MINIMUM LANDSCAPED OPEN AREA	20%	20%
MAXIMUM NUMBER OF DWELLING UNITS	725 SF/UNIT = 5*	6
RESIDENTIAL PARKING	1 SPACE PER UNIT AFTER 3 UNITS = 2 SPACES	2
MINIMUM INTERNAL RESIDENT BICYCLE STORAGE SPACES	2 SPACES/5 D.U. = 2	2
*SECTION 14-488 STATES "THAT PROVIDING BOTH WORKFORCE AND AFFORDABLE HOUSING UNITS, THE APPLICANT SHALL HAVE THE OPTION OF UTILIZING APPLICABLE INCENTIVES". IN THIS CASE THE INCENTIVE RESULTS IN 6 UNITS.		

PARKING SUMMARY - 126	
DIMENSIONS	# PARKING SPACES
9'x18'	1
8'x18' (ADA)	1
TOTAL PROPOSED SPACES	2



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR: LEVEL III SITE PLAN

BY: WHS

DATE: 4/7/19

PHASE II UPDATE: WHS

DATE: 10/25/19

COMMENT RESPONSE 1: WHS

DATE: 12/18/19

COMMENT RESPONSE 2: WHS

DATE: 2/24/2020

COLOR CODED SITE PLAN

126/128R NORTH STREET REDEVELOPMENT

UPRIGHT PROPERTIES, LLC

PO BOX 833 WILTON, ME 04294

ACORN ENGINEERING, INC.

65 HANOVER ST. PORTLAND, MAINE 04101

(207) 775-2655

FILE: 1116_CIVIL

JN: 1116

SCALE: 1"=10'

DESIGNED BY: SUL

DRAWN BY: ZMS

CHECKED BY: WHS

DRAWING NO.

C-10