

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, May 25, 2021, 5:30 p.m. 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: May 25, 2021 05:30 PM Eastern Time (US and Canada)

Topic: Planning Board Public Hearing 05-25-2021

Please click the link below to join the webinar:

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Webinar ID: 831 9437 3511

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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

PUBLIC HEARING - 5:30 PM

1. ROLL CALL AND DECLARATION OF QUORUM
2. COMMUNICATION AND REPORTS
3. REPORT OF ATTENDANCE AT THE MEETING HELD ON MAY 11, 2021

Afternoon Workshop

99 Winter Street/160 State Street: Chann, Dundon, Dunfey, Silk, Smith, and Stanley present; Mazer absent.

Evening Hearing

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

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

4. REPORTS OF DECISIONS AT THE MEETING HELD ON MAY 11, 2021

- i. Level III Site Plan and Conditional Use; 69 Presumpscot Street; Portland Public School Department, Applicant. Stanley moved and Dundon seconded a motion to waive Technical Manual Section 12.3.2, Illumination Levels, in order to allow lighting below the 0.2 foot-candle (fc) minimum standard. Vote 5-0, Smith absent, Chann recused. Stanley moved and Dunfey seconded a motion to find the conditional use in conformance with Land Use Code Sections 6.5.6(F) and 6.5.2. Vote 5-0, Smith absent, Chann recused. Stanley moved and Dundon seconded a motion to approve the site plan with five conditions of approval. Vote 5-0, Smith absent, Chann recused.
- ii. Conditional Use; 132 Brackett Street; Portland Public School Department, Applicant. Stanley moved and Dundon seconded a motion to find the conditional use in conformance with Land Use Code Sections 6.5.6(F) and 6.5.2. Vote 5-0, Smith absent, Chann recused.

5. NEW BUSINESS

- i. Level III Site Plan and Subdivision; 201(200) Federal Street; Redfern Downtown, LLC., Applicant. (estimated time 5:30 – 6:30 p.m.) The Planning Board will hold a public hearing to consider a proposal for an 18 story, 180,000 square foot mixed use building with 266 residential units and ground-floor commercial space at 201 Federal Street. The subject property is 55,321 square feet in size, is zoned B-3 Downtown Business, and is located within the Congress Street Historic District.
- ii. Level III Site Plan and Subdivision; 387 (383) Commercial Street; DPD Lot 3 LLC., Applicant. (estimated time 6:30 – 7:30 p.m.) The Planning Board will hold a public hearing to consider a proposal for the development of a seven-story, 35,100 square foot mixed-use building at 387 Commercial Street. The proposed project is Phase 3 of the 383 Commercial Street Master Development Plan which was approved by the Planning Board on December 13, 2017. The subject property is 34,957 square feet in size and is zoned B-5b Urban Commercial Mixed Use.

- iii. Zoning Map and Text Amendment; 165 Lambert Street; Maine Cooperative Development Partners, Applicant. (estimated time 7:30 p.m.) The Planning Board will hold a public hearing to consider a Zoning Map and Text Amendment application to facilitate a new mixed-use development at 165 Lambert Street. Actions sought via this application include amendments to the Land Use Code's Planned Residential Unit Development (PRUD) standards to modify the open space requirements, to allow vertically-stacked dwelling units for PRUDs located in the R-3 zone, along with changes to the Neighborhood Center definition to accommodate food service. The map amendment would rezone the subject parcel and adjacent parcels within the proposed rezoning boundary from R-2 Residential to R-3 Residential. The map and text amendment is subject to review and recommendation from the Planning Board to the City Council.



PLANNING BOARD REPORT PORTLAND, MAINE

200 Federal Street
Level III Site Plan, Subdivision; IZ Conditional Use
PL-001235-2020
CBL 032 G001001
Redfern Downtown, LLC, Applicant

Submitted to: Portland Planning Board
Public Hearing Date: May 25, 2021

Prepared by: Caitlin Cameron, Urban Designer
Date: May 21, 2021

I. INTRODUCTION

Redfern Downtown, LLC. (dba Redfern Properties) seeks approval of a Level III Site Plan, Subdivision, and Inclusionary Zoning Conditional Use application for the property to be designated as 201 Federal Street W. These actions would facilitate the development of an 18-story, 180,000 square foot mixed use building with 266 residential units, ground-floor commercial space, amenity spaces for the residents, and retention of 21 existing surface parking spaces.

The hearing for this application was noticed to 96 neighbors and interested parties, and the public notice appeared in the *Portland Press-Herald* on May 14th and 15th, 2021. The applicant held a Neighborhood Meeting on November 18, 2020, with notes included ([Attachment S](#)). As of the writing of this report, the Planning Department has received six public comments (PC 1-6).

The Planning Board has held two workshops on this project on November 10, 2020, and April 13, 2021. As this application was under review prior to the December 1, 2020 effective date of the new land use code, all code citations in this report refer to the previous code. The Historic Preservation Board approved the Certificate of Appropriateness for the design of this project on April 21, 2021 with some conditions.

Applicant: Redfern Downtown LLC
(represented by Jonathan Culley)
Agent and Civil Engineer: Acorn
Engineering (Will Savage)
Architect: Ryan Senatore Architecture,
LLC (Ryan Senatore)

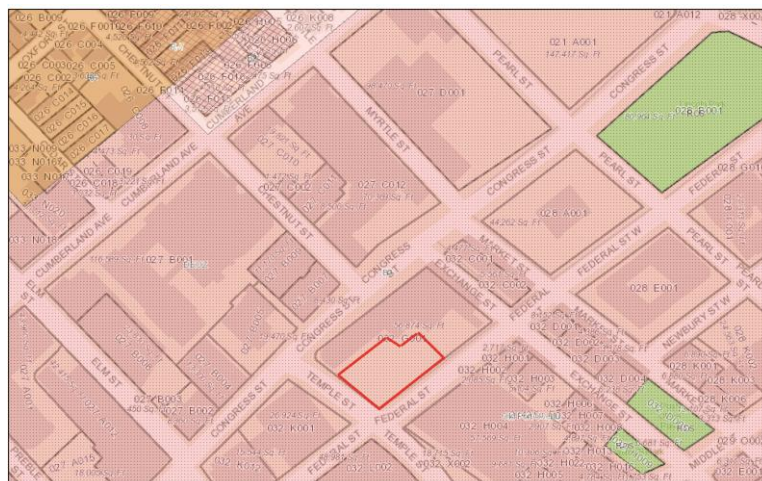


Figure 1: Zoning Map (applicant's property outlined)

II. REQUIRED REVIEWS

Applicant's Proposal	Applicable Standards
New construction over 10,000 sf	Sec 14-526 Level III Site Plan Review
Subdivision (266 dwelling units)	Sec 14-497 Subdivision Review
Multi-family Residential >10 units	Sec 14-487 Inclusionary Zoning Conditional Use
Parking Requirement Reduction (47%)	Ch 14 Div. 20 Off-street Parking/B-3 Zone
PAD Encouragement District	B-3 Design Review
Design Review/Historic Preservation	HP Certificate of Appropriateness
Waivers	Citation
Light Trespass	Technical Manual: 12.3.4 Light Trespass – shall not exceed .1 fc at property line

III. PROJECT DATA

SUBJECT	DATA
Total area of the site	17,017 sq ft
Total Disturbed Area	17,017 sq ft
Existing Zoning	B-3 Downtown Business
Existing Use	Commercial buildings, surface parking, postal facility, bank with drive-thru
Proposed Use	Residential, Commercial/Retail, surface parking
Impervious Surface Area	
--Existing	50,555 sq ft
--Proposed	53,083 sq ft
--Net Change	+2,528 sq ft
Building Footprint	
--Existing	0 sq ft
--Proposed	14,187 sq ft
--Net Change	+14,187 sq ft
Building Floor Area	
--Existing	0 sq ft
--Proposed	335,591 sq ft
-Net Change	+335,591 sq ft
Proposed Bedroom Mix	266 total
-Efficiencies	117
-One-bedroom	146
-Two-bedroom	2
-Three-bedroom	0
Parking Spaces	21 (on-site) + 125 (off-site); 266 spaces required
Bicycle parking Spaces	167 (2 existing)

IV. BACKGROUND AND EXISTING CONDITIONS

a. Current Land Uses and Zoning

The site is at the heart of Portland's walkable downtown, proximate to some of the tallest structures in the city. An existing parcel is being divided to create the new property at 201 Federal Street W at the corner of

Temple and Federal streets behind the existing USPS building. The site is located in the B-3 zone. B-3 is a high-density commercial, residential, and mixed-use zone mapped throughout the City's downtown. Maximum building heights are regulated by the Downtown Height Overlay Map and vary between 45 feet up to 210 feet. In certain locations an architectural cap allowance is permitted and allows for an additional 40 feet above the designated height limit. In March 2021, two zoning amendments associated with this parcel were approved by the City Council (Order 180-20/21 & Order 181-20/21) in order to facilitate this proposal. The amendments adjusted lot coverage provisions in the B-3 zone and increased the permitted maximum building height and removed the parcel from architectural cap eligibility. The site is also located within the Pedestrian Activities Map (PAD) Encouragement area.

The applicant's property currently includes a plaza space, surface parking, and an entrance to the USPS facility. Within the same block is the 1950 USPS building facing Congress Street and two historic office buildings fronting on Exchange Street. The surrounding blocks below Congress Street within the same streetscape as this proposal include more recent buildings such as the high-rise office buildings, One City Center and Two Monument Square, and the Temple Street Parking Garage; the maximum height allowed in these blocks is now 190 feet. The site is not immediately located on the historic, smaller-scale streetscapes of Congress or Exchange streets and instead has a more immediate relationship to taller, more contemporary structures.

b. Historic Resources

The block being considered is also within the Congress Street Historic District. The proposed new construction was reviewed and approved with conditions on April 21, 2021 by the Historic Preservation Board for design. The block includes three existing buildings, two of which are contributing structures facing Exchange Street. Exchange Street is an important historic street in the downtown with smaller scale, historic buildings and a high volume of tourist foot traffic.



Figure 2: Proposal within existing context (applicant)

V. PROPOSED DEVELOPMENT

The proposed development includes a new mixed-use tower with 266 residential units on the upper floors, ground floor commercial spaces, amenity spaces for the residents, and 21 surface parking spaces for the US Postal Service (USPS) facility, which abuts the development site. The required 27 workforce housing units will be provided on-site. Residential parking is proposed to be provided off-site at the Chestnut Street garage. The proposed project would also construct a new plaza that will include landscaping and benches between the new tower and the USPS building. The rendering below shows the Federal Street façade – the design was reviewed and approved by the Historic Preservation Board.



Figure 3: Proposed Development from Temple Street (applicant)

VI. STAFF REVIEW

A. PLANNING BOARD WORKSHOP 11.10.2020

The Board considered the zone amendments and site plan application together for this first workshop. Planning Board members asked for input from Historic Preservation staff on the height amendment and design. There was also discussion and questions regarding the existing and proposed plaza space, the proposal for parking and traffic impacts, including loading concerns, the capacity of the Chestnut Street garage, and what example projects are considered when determining the appropriate demand. The Board generally agreed the project would appeal to tenants without cars and that taller, denser buildings are appropriate for this downtown location. There was a comment about the impacts on the USPS office and strengthening the visibility of its entrance. There was a recognition that the Construction Management Plan will be critical in this busy, downtown location.

B. PLANNING BOARD 2nd WORKSHOP 4.13.2021

Planning Board members asked for clarification on how the B-3 Downtown Urban Design Guidelines apply to this project – as stated in Section 14.6.4.l.1 of the Land Use Code the Historic Preservation design review and standards supersede in this case except for the Pedestrian Activities District (PAD) overlay, which is evaluated by staff and found to be met. Several board members expressed concern about the plaza design, tree survivability, and requested revisions that improve visibility into the space and to the building entry and that reduce obstacles from pedestrian desire lines. The Board also discussed the garage design and asked for more information about design, circulation, and feasibility for loading to take place in that location. Off-site parking requirements were also discussed.

Public comment included support for increased housing supply on-peninsula and in compliance with the Comprehensive Plan. Some concerns were raised about consistent review for all applications, accommodation of bicycle parking, shadow study, incompatibility of loading and USPS parking circulation, and impacts to the off-site parking location and the ability to provide street trees in that location.

C. RIGHT, TITLE, AND INTEREST

The applicant submitted a deed and land option agreement for a new parcel at 200 Federal Street, (Attachment C). The applicant has a Joint Development Agreement with PO Square Building, LLC to incorporate through-access to the post office and bank buildings. The applicant is showing site plan improvements outside of the area identified within their right, title, and interest documentation – the applicant provided a letter from the adjoining property owner as evidence they are aware of and approve the proposal to modify this adjoining property.

Reciprocal easements for access to the on-site parking and plaza areas are also required between the two property owners – the applicant will provide executed agreements prior to issuance of building permit.

D. ZONING ASSESSMENT

General Assessment: The proposed building is located in the B-3 zone and includes two street frontages on Federal Street and Temple Street. Both project frontages are designated as Pedestrian Activities District (PAD) Encouragement streets – the façade designs were evaluated and found to meet the PAD criteria (Attachment 4).

The purpose statement for the B-3 zone includes the following relevant to the proposal:

- (2) *Enhance and promote the orderly expansion of retail and service businesses downtown, satisfying the related needs of the city's resident, working and visitor populations;*
- (3) *Encourage increased housing opportunity downtown for a diverse residential population;*
- (4) *Enhance the pedestrian environment through the encouragement of intensive mixed-use activities, through the enhancement and maintenance of public and private open space, and through the enlivenment and increased attractiveness of the street environment;*

The zoning dimensional requirements are permissive in this urban downtown zone – in most cases the requirements are intended to create dense, taller buildings that fill the site and maintain a street wall line. Regarding height for this block, there is a minimum of 35 feet and a maximum of 190 feet as per the Downtown Height Overlay map. The project complies with the B-3 zoning regulations including the dimensional standards (Section 14-220 Dimensional Requirements) and the use standards (Section 14-217 Permitted Uses).

	Required	Proposed
Lot Size (minimum)	none	17,017 sf
Street Frontage (minimum)	15'	91.51' Temple St. 189.85' Federal St.
Build-to Line	5'	Met on all streets
Lot Width (minimum)	0'	122.82'; 110.84'; 175.16'
Blank Wall (maximum)	30'	No blank walls
Height (min)	35'	190'
Height (max)	190'	190'
Rear Setback	-	-
Side Setback	-	-
Side Setback	-	-
Lot coverage (max 100%)	17,017 sf (100%)	14,187 sf (83%)
Impervious	-	2,528 sf
Floor area above 125'	10,500 sf or 25% site area; 15,000 sf max.	10,490 sf
Parking	266 residential	125 residential; 21 post office
Bike Parking	53	114

Parking Requirement Reduction – The Applicant seeks Planning Board approval for a reduced parking requirement. A minimum of 266 residential spaces (1 per 1 residential unit) are required by Division 20 Off-Street parking. The applicant has provided a Transportation Demand Management (TDM) plan, traffic analysis, and parking analysis ([Attachment R](#)). The B-3 zone allows for parking requirements to be met by a variety of methods, including – fee-in-lieu, off-site parking, and/or car share. See comments below in the Site Plan review for additional staff comment.

Section 14-332.1 Zone specific off-street parking exceptions and modifications

Multi-family housing: *The Planning Board may establish a parking requirement that is less than the normally required number of spaces upon a finding of unique conditions that result in a lesser*

parking demand, such as housing for persons who cannot drive, housing that participates in a Transportation Demand Management program, . . . etc.

E. SUBDIVISION REVIEW STANDARDS

(15.4.1 Standards of review)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's subdivision ordinance. Staff comments are below and in *Attachments 1-4*.

Sec 15.4.1. A Will Not Result in Undue Water or Air Pollution

The project is not anticipated to result in undue air or water pollution.

Sec. 15.4.1. B & C Sufficient Water Availability and Will Not Cause Unreasonable Burden on Existing Water Supply

The applicant received evidence of capacity from the Portland Water District (*Attachment P*).

Sec. 15.4.1. D Will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result

No unreasonable soil erosion or reduction in the capacity of the land to hold water is anticipated given the infill site. The Site Plan (*Plan P5*) and Grading & Drainage Plan (*Plan P9*) provide information about stabilizing the site during and after construction. Staff finds that this standard is sufficiently met.

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

The applicant provided a traffic and parking assessment and TDM Plan (*Attachment R*) in which they propose future trip reductions as well as a demand of 0.48 parking spaces per residential unit. Staff reviewed additional trip generation information to confirm that the project will not trigger a Traffic Movement Permit (TMP). Tom Errico, the City's consulting traffic engineer, had the following comments regarding traffic impacts (*Attachment 4*):

- *Based upon ITE, the proposed project would be expected to generate 56 trips (7 entering and 49 exiting) during the AM Peak Hour and 53 trips (35 entering and 18 exiting) during the PM peak hour. I have reviewed the definitions for Land Use Code 222 and Dense Multi-Use Urban conditions and find them reasonable for the proposed project. Based upon this trip estimate, a MaineDOT Traffic Movement Permit is not required.*

Sec. 15.4.1 F Will provide for adequate sanitary waste and storm water disposal and will not cause an unreasonable burden on municipal services if they are utilized

Two 12-inch sewer lines are proposed to service the building and would outlet downhill to Federal Street. The applicant received a wastewater capacity letter from Department of Public Works (*Attachment M*). The storm drain also connects to existing Federal Street infrastructure.

Sec 15.4.1 G Will not cause an unreasonable burden on the ability of the City to dispose of solid waste and sewage if municipal services are to be utilized

The applicant proposes a trash and recycling room at the ground level adjacent to the parking. The project is not anticipated to cause an unreasonable burden on the ability of the City to dispose of solid waste.

Sec 15.4.1 H Will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat identified by the Department of Inland Fisheries and Wildlife or by the City, rare and irreplaceable natural areas, or any public rights for physical or visual access to the shoreline

This proposal is not deemed to have an adverse impact on the scenic beauty of the area. The project is located downtown within the Congress Street historic district and includes a Historic Preservation Board review/approval. The site is not located within the shoreland zone and therefore will not have any impacts on physical or visual access to the shoreline.

Sec 15.4.1 I Is in conformance with the Comprehensive Plan, Portland's Plan 2030

The project is in keeping with the stated goals around affordability, equity, authenticity (preserving the historic building), and furthers the policy of creating complete neighborhoods. The project takes advantage of a central, downtown location near transit and walkable services. See Section IX. Comprehensive Plan Analysis.

Sec 15.4.1 J The subdivider has adequate financial and technical capacity

As noted above, the applicant has provided evidence of financial and technical capacity ([Attachment G](#)).

Sec. 15.4.1 K Wetland/Water Body Impacts

The project is not located within a watershed of any pond or lake or within 250 feet of any wetland, great pond or river.

Sec. 15.4.1 L Will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater

There are no anticipated impacts to groundwater supplies.

Sec. 15.4.1 M Flood-Prone Area

Per the FEMA flood maps, the site is not located in a flood zone and therefore this standard is not applicable.

Sec 15.4.1 N Stormwater Management

It is staff determination that the project is required to comply with the Maine DEP Chapter 500 and City of Portland's Section 5 of the Technical Manual for stormwater management. This requires compliance with the Basic, General, and Flooding Standards. The Applicant has provided a detailed Erosion and Sedimentation Control plan to meet the Basic Standards. The project will also require a Stormwater Maintenance Agreement.

Sec 15.4.1 O Shore Frontage

The parcel does not have shore frontage. No river, stream or brook within or abutting the proposed subdivision.

Sec 15.4.1 P Traffic Impacts across municipal boundaries

The parcel does cross municipal boundaries.

F. SITE PLAN REVIEW STANDARDS (Section 14.6)

Impact on surrounding street systems (Section 14.6.1A)

Tom Errico, the City's consulting traffic engineer, had the following comments regarding traffic impacts ([Attachment 4](#)):

- *The applicant has conducted a traffic analysis at the Congress Street/Temple Street intersection. The analysis was based upon traffic counts conducted in 2019 (pre-COVID) during the AM and PM peak hours. The applicant conducted a SimTraffic analysis and based upon my review of the model the intersection will operate at an acceptable level of service following construction of the project. The model indicates the 95th% queue length (typically used for design) for the Temple Street approach is estimated to be 186 feet for the left-turn lane and 131 feet for the right-turn lane. The average queue length is estimated to be 101 feet for the left-turn lane and 79 feet for the right-turn lane. The applicant has noted that a 100-foot lane is required, and that design would accommodate average conditions. I find the design to be reasonable for a constrained urban setting.*

Temple Street is under moratorium until June 2021 – work in that roadway will need to follow moratorium repairs or commence after June 2021.

Access, Circulation (Section 14.6.1B)

The current proposal keeps two curb cuts on Federal Street for entry/exit to the two surface parking areas. One existing curb cut is being closed with the creation of two new on-street parking spaces.

Loading and Servicing (Section 14.6.1.B.2)

With regard to loading – the applicant proposes two on-street, 15-minute spaces for short-term loading on Federal Street for residents as well as surrounding businesses. An on-street loading area was added to Temple Street following the recommendations of DPW staff. The applicant proposes an additional loading area within the structured parking; however, this loading area impedes the circulation of the USPS parking spaces (as shown in the turning templates provided). Therefore, the loading area has been restricted for use in the evenings and weekends. Staff would like to see the parking agreement between the property owners to ensure the feasibility of this arrangement as a condition of approval. The garage clearance of 11'0" will allow for box trucks to enter.

Mike Tremblay, DPW Senior Engineer, provides the following comments ([Attachment 1](#)):

- *The loading zone within the parking garage makes the 11-foot wide ADA space inaccessible, and hinders access to and/or egress from most of the rest of the spaces in this parking area. As such, this loading area should not be used while these spaces are being used by USPS customers. The hours of operation of this loading space should be posted explicitly and should be included in the agreement this applicant makes with USPS. The city will be unable to enforce how the parking garage is used once the project is constructed; its management will be entirely up to the parties involved.*

Curb and sidewalks (Section 14.6.1.B.3)

The sidewalks will be rebuilt on Federal and Temple streets. The applicant proposes curb extensions at the intersection and extending up Temple Street. The curb extension was reviewed by the City and was determined to be acceptable. Staff assessed the proposal with a queuing analysis and recommend approval.

Public Transit Access (Section 14.6.1.C) - No transit shelter is required. The project is within a quarter mile of several existing bus stops (Routes 1, 9A, 9B, 21).

Vehicular Parking (Section 14.6.1.D1) – The zoning requires 266 parking spaces for the residential project; the retail space is under the 2,000 square foot threshold and thus does not require off-street parking. Residential parking will be provided off-site; residential leasing will be exclusive of parking. The B-3 zone allows for several options to meet the parking requirement including off-site parking (within 1,500 feet of the site), fee-in-lieu, and carshare equivalent (8 spaces). The project's parking is proposed to be provided off-site within 1,500 feet of the site – this approval includes a condition that the requirement be met either through evidence of off-site parking that meets the requirements or fee-in-lieu or a combination thereof.

The applicant requests Planning Board approval of a parking requirement reduction from 266 to 125 spaces (47%). The Land Use Code gives the Planning Board the discretion to approve a reduced number based on the information provided by the applicant. Staff generally support the parking demand of 125 spaces. Tom Errico, the city's consulting traffic engineer, had the following comments regarding parking reduction with a request for additional information (**Attachment 4**):

- *The applicant has conducted a parking study for the project and estimates a need for 125 parking spaces. In general, I find the methods in estimating the parking demand to be reasonable, although I continue to review the information in greater detail. I would note that the applicant shall provide details on parking supply for assessing potential traffic impacts.*
Status: I have reviewed the ITE Trip Generation data in detail and I find the methods used to be reasonable. It is unclear if a weekday is the worst-case parking demand scenario and would suggest the applicant provide an opinion for a weekend parking demand estimate. I don't expect it to be significantly higher.
- *Final Status: The applicant has provided information regarding Saturday parking conditions and adequately address this comment. I have no further comment.*

The post office visitor parking will be accommodated with 21 existing spaces under and behind this new building. The Applicant should specify how the USPS parking will be used during the periods where USPS is closed (overnight, Sundays, etc.) – this should be included with the reciprocal easement as part of a condition of approval.

Two new 15-minute parking spaces will be added at the closure of an existing curb cut on Federal Street. The applicant proposes these as pick up/drop off locations for residents and neighboring businesses.

Bike Parking (Section 14.6.1.D2)

Secured bicycle storage is provided in the sidewalk and interior storage on the ground floor of the project. The applicant is proposing 144 bicycle spaces which exceeds the zoning requirement. Staff finds this standard is met.

Snow Storage (Section 14.6.1.D3)

Snow will need to be hauled off site in order to keep pedestrian paths clear between surface parking areas and the building entrances.

Transportation Demand Management (Section 14.6.1.E)

A TDM plan is included in the submission (Attachment R). Transportation Program Manager Bruce Hyman reviewed the plan:

- *I have reviewed the TDM Plan for 200 Federal Street and find that it meets the Technical Manual requirements for TDM plans. It provides acceptable targets and contains a robust menu of TDM strategies for implementation.*

Preservation of significant natural features (Section 14.6.2.A)

There are no significant landscape or natural features to preserve. The majority of the open space is paved, hardscape rather than landscape. The proposed surface parking is within the building and screened from the sidewalk. The new plaza area would include trees and benches.

Landscape Preservation (Section 14.6.2.B)

The existing landscape and trees will be removed as a result of this proposal. The B-3 zone does not require setbacks and therefore the 30% landscape setback preservation does not apply.

Site Landscaping and Buffers (Section 14.6.2.C)

The B-3 zone does not require zoning setbacks and therefore the project is not subject to the landscape requirement as described in this standard.

The plan shows a new urban plaza between the new construction and existing building. Landscaping is also provided as a buffer between the sidewalk and surface parking areas.

Street Trees (Section 14.6.2.C4)

The street tree contribution will be significant given the limited ability to provide trees/landscape on this dense, urban infill site. 266 street trees are required, 12 will be provided = 254 x \$400 contribution of \$101,600. The applicant may apply a credit of the raised granite tree wells towards this contribution. The City Arborist approves a credit of \$2,000 for each tree well, 6 provided = 6 x \$2,000 credit of \$12,000.

Total street tree contribution is \$89,600.

Water Quality, Stormwater Management and Erosion Control (Section 14.6.2.D)

The project is required to have a Stormwater Maintenance Agreement to be recorded with the Registry of Deeds as a condition of approval – a draft is provided (Attachment U). See additional comments from Civil Engineer (Attachment 2) – staff review now finds the required standards listed below to be met.

- *The project is required to comply with the Maine DEP Chapter 500 and City of Portland's Section 5 of the Technical Manual for stormwater management. This requires compliance with the Basic, General, and Flooding Standards. The Applicant has provided a detailed Erosion and Sedimentation Control plan to meet the Basic Standards. The stormwater management report identifies that this is a Redevelopment project, but that it will also create 3,500 SF of new impervious surface on the site. Based on Section 5 of the City of Portland Technical Manual, the City has required any project to comply with the General and Flooding Standard if they create greater than 1,000 SF of new impervious surface.*

Consistency with City Master Plans (Section 14.6.3.A)

The project is in keeping with the stated goals around affordability, equity, authenticity (preserving the historic building), and furthers the policy of creating complete neighborhoods. The project takes advantage of a central, downtown location near transit and walkable services. See Section IX. Comprehensive Plan Analysis.

Public Safety and Fire Prevention (Section 14.6.3.B)

There are no additional comments or concerns from the Fire Department at this time.

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.

Natural Surveillance: The building is built to the property line; two parking areas are not gated but are well-lit. **Visibility from the sidewalk to the parking area is compromised by the tall water wall within the proposed plaza – there is some opportunity for unwanted behavior in that space due to the lack of natural surveillance.** The plaza space is narrow and deep with trees in the center – visibility through the space is accommodated through the lowering of the seating wall, tree selection/spacing that does not obstruct views throughout the space. Lighting provides visibility and a sense of activity in the space at night. The photometrics plans show that lighting generally meets the Technical Manual standards; however, a waiver is required for light trespass at the property lines and this has been included within the motions.

Access Management: The plaza was revised to provide a visible pathway without barriers for users to access and navigate the site to the building entrances accessible through the space.

Public Utilities (Section 14.6.3.C)

The applicant has yet to provide the letter from the Department of Public Works showing capacity to serve and will be required as a condition of approval. Electrical services are already underground in this area.

Massing, Ventilation and Wind Impact (Section 14.6.4.A)

Project meets zone dimensional standards with regards to height and massing. The project is proposed on an urban infill site with no residential properties immediately adjacent.

Shadow (Section 14.6.4.B)

The project, being within the B-3 zone, is exempt from the shadow standards as stated in Section 14.6.4.B. The project is not adjacent to any public park or open space. The height of the structure is comparable to surrounding buildings and will cast some afternoon shadow onto the USPS building and Congress Street behind. The private plaza area will often be in shadow.

Planning Board members asked for clarification of the shadow impact requirements, and the below language codified the project's exemption from shadow standards:

14.6.4. B Shadow: All development outside the B-3, B-5, B-6 and B-7 zones shall be designed to avoid and/or mitigate the adverse impacts of shadows cast by new structures or building additions from falling on publicly accessible open space in accordance with the shadow standards of the Technical Manual.

Snow and Ice Loading (Section 14.6.4.C)

No anticipated concerns.

View Corridors (Section 14.6.4.D)

The Council-adopted View Protection Corridor Plan shows the view northward to the First Parish Church from Temple Street is protected. Subsequently, staff worked with the applicant to ensure that the proposed curb extension on Temple Street and accompanying street trees do not compromise that protected view. The City Arborist recommended columnar street tree species to limit the canopy encroachment into the view corridor. A rendering is provided of the proposed condition which staff find acceptable.



FEDERAL STREET | TEMPLE STREET VIEW CORRIDOR- PROPOSED

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Figure 4 Rendering: Temple Street View Corridor

Historic Resources (Section 14.6.4.E): – The project is within the Congress Street Historic District and is subject to Historic Preservation Certificate of Appropriateness. At its first workshop, the Historic Preservation Board commented on the appropriateness of the material palette, the design of the building base versus the upper tower, and expressed a desire for a more consistent material/detail treatment of the upper tower rather than an “urban camouflage” approach. The building base was discussed for its height and proportion to the street, and the appropriateness of the window to solid ratio and material selection. The applicant was encouraged to consider the precedent examples of high-rise buildings in Portland for their material selection, placement, and use of detail. The project received approval on April 21, 2021 with conditions of approval to see final details for the streetscape and plaza elements and lighting.

Exterior Lighting (Section 14.6.4.F) – Staff evaluated the photometric plan for conformance with lighting levels, light trespass, and fixture specifications. Decorative street lights are required on both streets. Staff find the lighting levels are met, but a waiver for light trespass is required. Plaza lighting is shown to meet the technical standards.

Noise and Vibration (Section 14.6.4.G) – HVAC will be located on the roof with a screened penthouse. Individual units include built-in vents in the window assembly. The project is not directly abutting residential properties.

Signage and Wayfinding (Section 14.6.4.H)

Signage was not proposed or reviewed as part of this application.

Design Standards (Section 14.6.4.I)

Design review was conducted and approved by the Historic Preservation Board on April 21, 2021. The project was found to meet the criteria for the PAD encouragement area ([Attachment 3](#)).

VII. INCLUSIONARY ZONING CONDITIONAL USE

The applicant is required by Division 30, Section 14-487 to provide twenty-seven (27) workforce housing units (on-site or off-site) or pay the fee-in-lieu. The applicant has proposed to provide all of these units on-site and meet the requirements. The Housing Program Manager has the following comments ([Attachment 5](#)):

- *Based on the aforementioned information, the developer would comply with Division 30, section 14-487 by either:*
 - *providing 27 workforce units with 12 studio units and 15 one-bedroom units;*
 - *providing 26 workforce units and paying a fraction fee-in-lieu of \$65,271.60 (.6 x 108,786); or*
 - *providing a fee-in-lieu of \$2,893,707.60 (26.6 x \$108,786).*
- *The applicant has chosen to provide 27 workforce rental units composed of no less than 15 one-bedroom units and the appropriate number of corresponding studio units.*

VIII. COMPREHENSIVE PLAN ANALYSIS

Portland's Plan 2030

Comprehensive Plan goals and policies (state and local) relevant to the site plan/subdivision application are included below. The proposed development aligns with these vision statements and goals by adding residential units on an infill lot within a dense, walkable, downtown location currently used as under-developed surface parking lot and underutilized plaza space. Increasing the viability of downtown, infill sites such as this potentially reduces new construction in green field or outlying areas. In addition, the project introduces a high number of new residential units providing more housing; in this instance, the units are proposed to be market-rate rental apartments and the required workforce units will be provided on-site.

Vision Statements

- Equity: We will be a state and national leader in achieving a more equitable city.
- Equity: We will incorporate the needs of all our residents in planning for our future.
- 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.
- Sustainable: Portland will grow in order to sustain our community, infrastructure, and economy.
- Sustainable: Growth should respect and seek to preserve our spectacular natural resources.
- Secure: We will be committed to accessible housing and healthy food for all our residents.

Environment

- Adopt sustainable land use and transportation policies that support connectivity, walkable neighborhoods, and multi-modal transportation.
 - Continue to develop land use policies which support complete neighborhoods.

An Enduring City – Historic Preservation

- 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.

A Livable City: Housing

- Increase, preserve, and modify the overall supply of housing city-wide to meet the needs, preferences and financial capabilities of all Portland residents
- Encourage additional contextually appropriate housing density in and proximate to neighborhood centers, concentrations of services, and transit nodes and corridors as a means of supporting complete neighborhoods.
- Pursue policies to enable people who work in Portland to have the option to live in Portland.
- Encourage quality, sustainable design in new housing development.
 - Remove housing barriers
 - Leverage underused properties
 - Support age-friendly housing options
 - Adapt affordable housing

An Accessible City – Transportation

- Promote multi-modal accessibility, enabling residents and visitors of all ages and abilities to participate fully in the social and economic life of the community.
 - Enhance the pedestrian realm

Future Land Use

- Complete Neighborhoods
- Reinforce the Center

IX. PUBLIC COMMENT

The Neighborhood Meeting held on November 18, 2020 had one attendee with comments about the overall design approach complementing the Old Port neighborhood (Attachment S). Six public comments were received regarding the Site Plan application (PC1-7). One commenter is an Exchange Street property owner who is opposed to the project due to the traffic and parking impacts on the block and the stress on the already dense area. A member of the public provided observations that the project will not only impact the downtown site but also have traffic implications at the Chestnut Street garage location. In addition, he commented that the project continues a car-centric mentality in its impacts on the built fabric, and that a project in this area of downtown should not be evaluated by Historic Preservation given the lack of sensitive historic resources. Concerns were raised about the proposal's impact on the quality of skyline and surrounding character as well as shadow impacts.

III. PROPOSED MOTIONS FOR THE PLANNING BOARD TO CONSIDER

A. WAIVERS

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board report for the public hearing on May 25, 2021 for application PL-001235-2020 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**] that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual *Section 12.3.4 Light Trespass*. The Planning Board [**waives/does not waive**] the *Technical Manual* standard (Technical Manual Section 12.3.4) to allow illumination levels to exceed .1 fc at the property line.

B. INCLUSIONARY ZONING 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 May 25, 2021 for application #PL-001235-2020 relevant to Portland's Inclusionary Zoning Conditional Use Standards and other regulations, and the testimony presented at the Planning Board hearing, the Planning Board [**finds/does not find**] the proposed conditional use for workforce housing meets the standards of Land Use Code Section 14-484 with the following conditions:

PRIOR TO ISSUANCE OF BUILDING PERMIT

1. That the Applicant and the City enter into an agreed upon Affordable Housing Agreement (AHA) for workforce units as described in the memorandum from Housing Program Manager dated March 24, 2021, or as an alternative to providing workforce housing units, the project may pay a fee-in-lieu for some or all of the required units;

PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY

2. That the Affordable Housing Agreement (AHA) be filed as covenant to the 201 W. Federal Street property's deed with the Cumberland County Registry of Deeds.

C. SUBDIVISION REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing on May 25, 2021 for application #PL-001235-2020 relevant to the subdivision regulations, and the testimony presented at the Planning Board hearing, the Planning Board [**finds/does not find**] that the plan is in conformance with the subdivision standards of the Land Use Code subject to the following conditions of approval:

PRIOR TO THE SUBMISSION OF THE PLAT FOR PLANNING BOARD SIGNATURE

1. Easement and licenses shall be finalized to the satisfaction of the Planning Authority, Department of Public Works, and Corporation Counsel pursuant to the following item:
 - i. Canopy overhang into the public right-of-way
 - ii. Building footings that cross into the public right-of-way
 - iii. Utility drain

PRIOR TO ISSUANCE OF A BUILDING PERMIT

2. The signed subdivision plat shall be recorded at the Cumberland County Registry of Deeds.
3. The applicant shall provide the letters from the Department of Public Works showing capacity to serve.

PRIOR TO CERTIFICATE OF OCCUPANCY

4. A Stormwater Maintenance Agreement for the stormwater drainage system shall be submitted for review by the Planning Authority and Corporation Counsel. Once approved, the document shall be signed and recorded at the Cumberland County Registry of Deeds prior to the issuance of a building permit. Please submit final copies to the Planning Authority.

D. SITE PLAN REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on May 25, 2021 for application PL-001235-2020 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 and [approves/does not approve] the application, subject to the following conditions of approval:

PRIOR TO THE ISSUANCE OF A BUILDING PERMIT

1. The applicant shall provide evidence of a reciprocal access easement for the plaza area.
2. The applicant shall submit evidence of a reciprocal easement and legal agreement to the Planning Authority and Corporation Counsel that describes the parking and loading management plan for the use of the curb cut, driveway, and parking areas.
3. The applicant shall submit the final Construction Management Plan (CMP) to the Planning Authority and Building Authority for review and approval.

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

4. Due to site constraints preventing the planting of required street trees in the right-of-way, the two-hundred sixty-six (266) street trees as required in Sec. 14.6.2.C4 of the Site Plan Ordinance cannot be met; the applicant shall contribute to the tree fund of \$400 per tree for two-hundred fifty-four (254) trees x \$400 minus \$12,000 credit for the raised granite tree wells for a total of \$89,600.

E. SITE PLAN REVIEW – PARKING REDUCTION

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 May 25, 2021 for application #PL-001235-2020 relevant to the parking requirement; and the testimony presented at the Planning Board hearing, the Planning Board [approves/does not approve] a reduced parking requirement of 125 parking spaces, subject to the following condition of approval:

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

1. The applicant shall meet the parking requirement either by payment of a fee-in-lieu or submit to the Planning Authority evidence of an executed parking lease for off-site parking within 1,500 feet of 201 W. Federal Street of a duration no less than five years for the required off-site parking spaces or a combination thereof.

ATTACHMENTS

Attachments to Memorandum

1. Department of Public Works
2. Civil and Stormwater
3. PAD assessment

4. Traffic
5. IZ Conditional Use

Public Comment

PC1 Joseph Palacci 11/3/20
PC2 George Rheault 3/3/21
PC3 Larry Schwellenbach 3/11/21
PC4 Susan McCulley 4/9/21
PC5 George Rheault 4/9/21
PC6 George Rheault 4/9/21

Applicant's Submittal

- A. Cover Letter
- B. Application
- C. Right, Title, and Interest
- D. Zoning Assessment
- E. Easements
- F. Request for Waivers
- G. Financial Capacity
- H. Technical Capacity
- I. Conformity with City Master Plans
- J. Stormwater Management Report
- K. Erosion and Sedimentation Control Report
- L. Fire Department Letter
- M. Wastewater Capacity Letter
- N. Lighting
- O. Architectural Design Narrative
- P. Utilities
- Q. Construction Management Plan
- R. Traffic & Parking Assessment
- S. Neighborhood Meeting Materials
- T. Turning Template Exhibit
- U. Stormwater Maintenance Agreement
- V. Parking Lease
- AA. View Corridor Renderings

Plans

P1 Cover Sheet
P2 General Notes
P3 Boundary & Topographic Survey
P4 Construction Management Plan
P5 Site Plan

P6 Landscape Plan
P7 Utility Plan 1
P8 Utility Plan 2
P9 Grading & Drainage Plan
P10 Site Details 1
P11 Site Details 2
P12 Landscape Details
P13 Utility Details 1
P14 Utility Details 2
P15 Utility Details 3
P16 Drainage Details
P17 Erosion Control Notes
P18 Erosion Control Details
P19 Photometric Plan
P20 Architectural Cover Sheet
P21 First Floor Plan
P22 Second Floor Plan
P23 Third Floor Plan
P24 Fourth Floor Plan
P25 Eighteenth Floor Plan
P26 Roof Plan
P27 South Elevation
P28 North Elevation
P29 East & West Elevations
P30 Subdivision Plat

201 Federal - Additional comments

3 messages

Mike Tremblay <mtremblay@portlandmaine.gov>
To: Caitlin Cameron <ccameron@portlandmaine.gov>

Thu, May 6, 2021 at 2:23 PM

Caitlin,

Here are my additional comments for 201 Federal Street:

- The loading zone within the parking garage makes the 11-foot wide ADA space inaccessible, and hinders access to and/or egress from most of the rest of the spaces in this parking area. As such, this loading area should not be used while these spaces are being used by USPS customers. The hours of operation of this loading space should be posted explicitly and should be included in the agreement this applicant makes with USPS. The city will be unable to enforce how the parking garage is used once the project is constructed; its management will be entirely up to the parties involved.
- In a previous version of the site plan, the area to the north of the open-air parking area was designated as snow storage, which would have disrupted access from the parking lot to the USPS entrance. There now appears to be no designated snow storage area. The applicant should specify how snow will be stored and/or otherwise removed/managed.
- Truck turning templates should be provided for all truck movements into the parking area.
- The applicant has not yet provided weekend parking demand information, as requested before the project's workshop.

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



Caitlin Cameron <ccameron@portlandmaine.gov>
To: Pete Heil <pheil@acorn-engineering.com>

Thu, May 6, 2021 at 3:43 PM

additional comments below.

[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

Caitlin Cameron <ccameron@portlandmaine.gov>

Thu, May 6, 2021 at 3:43 PM



Caitlin Cameron <ccameron@portlandmaine.gov>

200 Federal Street

Lauren Swett <lswett@woodardcurran.com>
To: Caitlin Cameron <ccameron@portlandmaine.gov>

Fri, Apr 2, 2021 at 7:38 AM

Hi Caitlin,

Based on our discussion in Development Review, my comments are updated as following:

The project is creating 3,500 SF of new impervious surface. The Applicant has noted that the project is a redevelopment site and is not subject to the City of Portland's threshold for stormwater management of 1,000 SF of new impervious surface, per Section 5 the Technical Manual. The City's approach for past projects has generally been to require compliance with the General and Flooding Standard when there is greater than 1,000 SF of new impervious surface, even in redevelopment projects. As noted previously on tight urban sites like this one, this has been done in the past using in-line roof filters, pervious pavers, or tree-box filters.

The Applicant should also review the current proposed layout of their stormwater and sewer connections into the existing Federal Street sewer. They have made adjustments since the previous submission, and they are showing a 12-inch connection directly into the 24" brick sewer. Any connections greater than 8" require a manhole. There are some inconsistencies with the notes on drawing C-21 between where a new manhole is shown and where the note is called out, so it may be that their intent is for a manhole, but one should be provided at all of their proposed connections to the existing sewer given the proposed pipe sizes.

If there are any questions, please 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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American Society of Civil Engineers

<http://regions.asce.org/leader-training-committee/>

Planning and Urban Development Department Planning Division



Subject: B-3 PAD Design Review – 200 Federal Street
Written by: Caitlin Cameron, Urban Designer
Date of Review: Monday, March 22 2021

The project at 200 Federal Street was reviewed according to the *City of Portland Design Manual* standards by Caitlin Cameron, Urban Designer, against the *B-3 Downtown Business Zone PAD encouragement standards*.

Pedestrian Activities Encouragement Area (Federal + Temple Streets)

... shall be designed and constructed to accommodate pedestrian-oriented uses at the street level. In determining such design, the following factors should be considered:

- 1. The exterior design of the street level building facade, including the placement of entrances, potential entrances, and window openings;*
 - The proposal places the primary residential entrance and retail entries directly facing the street. Both Federal and Temple streets include entrances and storefront. Frequent doors are provided.
- 2. The design and placement of inpenetrable exterior building features such as columns, piers, bearing walls and retaining walls;*
 - Columns and bearing walls follow structural grid and do not create solid, blank walls.
- 3. The orientation of proposed street level uses to the street and the accessibility of floor area to the street by virtue of grade elevations and access;*
 - Proposed street-level uses are oriented to Federal and Temple streets; Entrances are provided at sidewalk grade.
- 4. The adequacy of the interior layout of the first twenty (20) feet in depth of the building abutting specified streets to accommodate viable pedestrian-oriented uses;*
 - For the majority of building frontage, first 20' depth of building allows for active uses including retail, lobby, bike room, and gallery spaces. In a few instances, these spaces are less than the 20' depth.
- 5. The continuity of street level uses as impacted by service entrances to parking structures or lots, drive-through facilities or other interruptions.*
 - The service entrances and driveways are concentrated on Federal Street, away from the corner, and include other uses such as bike room, gallery space.

Pedestrian activities district (PAD) encouragement areas: In addition to subsection 1 of this section, proposed development located within the pedestrian activities district (PAD) encouragement areas, as shown on the pedestrian activities district map, a copy of which is on file in the Planning and Urban Development Department, shall be designed and constructed to be reasonably capable of being converted to accommodate uses permitted in the PAD overlay zone in accordance with the factors set forth in subsection b. of this section.

200 Federal Street - Final Traffic Comments

1 message

Tom Errico <thomas.errico@tylin.com>
To: "Cameron, Caitlin" <ccameron@portlandmaine.gov>
Cc: Mike Tremblay <mtremblay@portlandmaine.gov>

Thu, May 20, 2021 at 7:55 AM

Hi Caitlin – The following is a status update of previous comments and represent final traffic comments.

- The applicant shall conduct a trip generation estimate, with supporting documentation, to determine the need for a Traffic Movement Permit and/or preparation of a traffic study. Following receipt of this information (and parking supply source as noted below) the need for a traffic study will be determined. An analysis of the Congress Street/Temple Street intersection will be required to inform the design of Temple Street between Federal Street and Congress Street.

Status:

- The applicant has estimated trip generation for the project according to methods from the Institute of Transportation Engineers (ITE). The estimate was based upon Land Use Code 222 – Multifamily Housing (High-Rise) for a Dense Multi-Use Urban condition. Based upon ITE, the proposed project would be expected to generate 56 trips (7 entering and 49 exiting) during the AM Peak Hour and 53 trips (35 entering and 18 exiting) during the PM peak hour. I have reviewed the definitions for Land Use Code 222 and Dense Multi-Use Urban conditions and find them reasonable for the proposed project. Based upon this trip estimate, a MaineDOT Traffic Movement Permit is not required.
- The applicant has conducted a traffic analysis at the Congress Street/Temple Street intersection. The analysis was based upon traffic counts conducted in 2019 (pre-COVID) during the AM and PM peak hours. The applicant conducted a SimTraffic analysis and based upon my review of the model the intersection will operate at an acceptable level of service following construction of the project. The model indicates the 95th queue length (typically used for design) for the Temple Street approach is estimated to be 186 feet for the left-turn lane and 131 feet for the right-turn lane. The average queue length is estimated to be 101 feet for the left-turn lane and 79 feet for the right-turn lane. The applicant has noted that a 100-foot lane is required, and that design would accommodate average conditions. I find the design to be reasonable for a constrained urban setting.

Final Status: I have no further comment.

- The applicant has conducted a parking study for the project and estimates a need for 125 parking spaces. In general, I find the methods in estimating the parking demand to be reasonable, although I continue to review the information in greater detail. I would note that the applicant shall provide details on parking supply for assessing potential traffic impacts.

Status: I have reviewed the ITE Trip Generation data in detail and I find the methods used to be reasonable. It is unclear if a weekday is the worst-case parking demand scenario and would suggest the applicant provide an opinion for a weekend parking demand estimate. I don't expect it to be significantly higher.

Final Status: The applicant has provided information regarding Saturday parking conditions and adequately address this comment. I have no further comment.

To: Caitlin Cameron, Urban Designer, Planning & Urban Development Department

From: Victoria Volent, Housing Program Manager, Housing & Community Development Division

Date: March 24, 2021

Subject: 200 Federal Street – Inclusionary Zoning Conditional Use

Please note, 200 Federal Street is entitled to consideration under Division 30 regulations in effect as of the review conducted by the Planning Board during their November 10, 2020 Workshop meeting.

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, 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. The ordinance under Section 14-487 e 3 also requires the number of bedrooms in the units shall be 10% of the total number of bedrooms in the development.

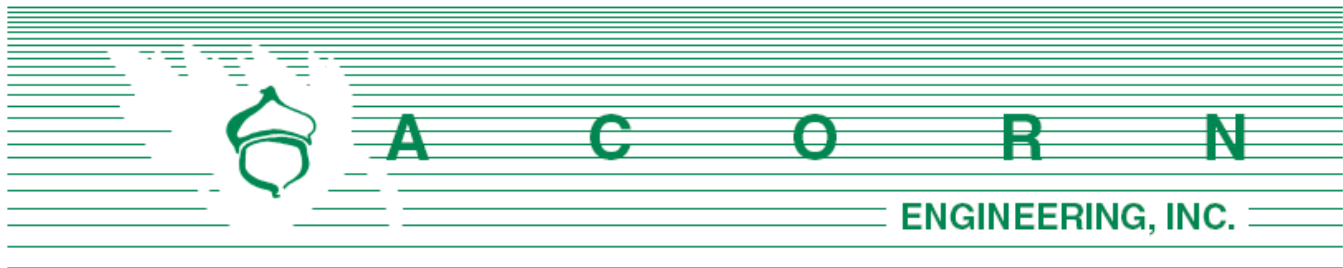
The development located at 200 Federal Street proposes the creation of 266 dwelling units of rental housing consisting of one hundred eighteen (118) studio units, one hundred forty-six (146) one-bedroom units, and two (2) two-bedroom units. As dwelling units for rent, the designated Workforce Units would be restricted to households earning up to 100% of Area Median Income (AMI). Based on the requirements outlined in Section 14-487, the development is required to provide; a minimum of twenty-seven (27) workforce units with no less than twelve (12) studio and fifteen (15) one-bedroom units; or twenty-six (26) units and pay a proportional fee-in-lieu of \$65,271.60 (.6 X \$108,786); or pay a fee-in-lieu of \$2,893,707.60 (26.6 X \$108,786). The Applicant has elected to provide twenty-seven (27) Workforce Units composed of no less than twelve (12) studio and fifteen (15) one-bedroom units on-site, to satisfy the ordinance's minimum requirements. As such, the project has met the minimum requirements set forth in Section 14-487.

Staff recommends the Planning Board Approve this Conditional Use provided the Applicant and the City enter into an agreed upon Affordable Housing Agreement (AHA) for 27 workforce units, or as an alternative to providing workforce housing units, the project may pay a fee-in-lieu for some or all of the required units before a Building Permit may be issued.

The Affordable Housing Agreement will outline the details of the affordability restrictions placed on the Workforce Units and will be filed as a covenant to the 200 Federal Street property's deed with the Cumberland County Registry of Deeds before a Certificate of Occupancy may be issued.

Sincerely,

Victoria Volent
Housing Program Manager



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

September 4, 2020

Subject: Level III Site Plan/Subdivision Application – 200 Federal Street

Dear Christine Grimando,

On behalf of Redfern Downtown LLC, dba Redfern Properties, we are pleased to submit the accompanying package of submission materials related to the proposed redevelopment at 200 Federal Street.

The proposed project site is comprised of a single parcel, Chart 32, Block G, Lot 1, encompassed by Congress, Temple, Federal and Exchange Streets. The property is located in the B3 Downtown Business Zoning District, Downtown Height Overlay, Pedestrian Encouragement Zone, Downtown Entertainment Overlay Zone and Congress Street Historic District. The site is currently comprised of two existing mixed-use buildings with surface parking, landscaping and a brick patio area.

The project proposes to redevelop a portion of the existing lot into an 18-story, predominantly residential building with ground level retail with enclosed screened parking. The 18-story building will include 118 studio units, 146 one-bedroom units and 2, 2-bedroom units for a total of 266 residential units with associated common areas, office, and fitness area. On the ground floor, the project proposes a 2,000 ± square-foot retail space. This application package is intended to meet the City's Submission Requirements as outlined in the Level III Site Plan & Subdivision Application procedures.

We are pleased to submit this application which will increase the available housing stock consistent with the City's Comprehensive Plan, provide onsite Workforce Housing, improve the streetscape with a street front-facing building, sidewalk reconstruction, decorative street lighting, street tree plantings and the closure of an existing curb cut on Federal Street.

Redfern Downtown LLC and the design team look forward to your review of this project. If you have any questions regarding these materials or the completeness of the application materials, please contact us within the next five (5) days.

Sincerely,

William H. Savage, P.E.
 Project Manager
 Acorn Engineering, Inc.

Documents:

- Section A: Cover Letter
- Section B: Level II & III Final Site Plan Application & Checklist
- Section C: Right, Title, Interest (Land Option Agreement)
- 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: Utilities
- Section Q: Construction Management Plan
- Section R: Solid Waste
- Section S: Traffic & Parking Analysis

Drawings:

- Civil Plan Set, Dated 9/4/2020
- Architectural Plan Set, Dated 8/20/2020







Section B:
Level II & III Site Plan
Application & 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 II and Level III Site Plan (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
- ☒ 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

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



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



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

Section C:
Right, Title, Interest
(Land Option Agreement)



**QUITCLAIM DEED
(WITH COVENANT)**

MAINE REAL ESTATE TAX PAID

KNOW ALL PERSONS BY THESE PRESENTS, That **A & M PARTNERS, INC.**, a Maine corporation, whose mailing address is 120 Exchange Street, Portland, Maine 04101, (Grantor) does hereby remise, release, bargain, sell and convey, and forever **quitclaim with covenants** to **PO SQUARE BUILDING LLC**, a Maine Limited Liability Company, whose mailing address is 120 Exchange Street, Portland, Maine 04101 (Grantee) the land and buildings located in Portland, Cumberland County, Maine, described as follows:

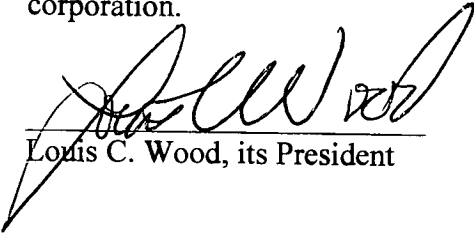
See Attached Exhibit "A"

Being the same premises conveyed to Grantor by deed dated March 16, 1993, and recorded in the Cumberland County Registry of Deeds in Book 10603, Page 113.

IN WITNESS WHEREOF, the undersigned has caused this instrument to be signed and sealed on 13th May, 2019

A & M PARTNERS, INC. a Maine corporation.

Witness


Louis C. Wood, its President

State of Maine
County of Cumberland, ss

May 13, 2019

Then personally appeared before me the above named Louis C. Wood in his said capacity and acknowledged the foregoing to be his free act and deed and the free act and deed of said corporation, A & M PARTNERS, INC.

Before me,


Notary Public/Attorney at Law

Martin J. Foley

EXHIBIT A
396 Congress Street a/k/a 400 Congress Street, Portland

A certain parcel of land situated on the southerly side of Congress Street, the westerly side of Exchange Street, the northerly side of Federal Street and the easterly side of Temple Street in the City of Portland, County of Cumberland, and State of Maine, bounded and described as follows:

Beginning at the point of intersection of the assumed easterly sideline of Temple Street and the assumed southerly sideline of Congress Street;

Thence, N 63° 04' 40" E by Congress Street 325.52 feet to the westerly side of Exchange Street;

Thence, S 38° 44' 13" E by Exchange Street 180.90 feet to the northerly side of Federal Street;

Thence, S 64° 10' 36" W by Federal Street 313.07 feet to the easterly side of Temple Street;

Thence, N 43° 04' 34" W by Temple Street 178.09 feet to the point of beginning.

The above description is based on an ALTA/NSPS Land Title Survey prepared by Owen Haskell, Inc. entitled "396 Congress Street (aka 400 Congress Street), Portland, Cumberland County, Maine" made for PO Square Portland LLC and its assigns, dated April 4, 2019 and revised through May 8, 2019.

SUBJECT TO THE FOLLOWING:

Cable Television Installation Agreement by and between Public Cable d/b/a Time Warner Cable and A&M Partners, Inc. dated October 21, 1999 and recorded in Book 15936, Page 274.

Received
Recorded Register of Deeds
May 13, 2019 02:46:50P
Cumberland County
Nancy A. Lane

OPTION AGREEMENT

200 Federal Street, Portland Maine

OPTION granted as of this 24th day of July, by **PO Square Building LLC**, a Maine limited liability company whose mailing address is 120 Exchange Street, Portland Maine (hereinafter called "Optionor or Owner"), to **Redfern Downtown LLC**, a Maine limited liability company whose mailing address is PO Box 8816, Portland Maine 04104 (hereinafter called "Optionee").

RECITALS

WHEREAS, Optionor presently is the owner of certain property in the vicinity of 200 Federal Street, Portland Maine as shown on the sketch or map attached as Exhibit A (the "Premises"), being a portion of the property acquired by Owner from A & M Partners by Quitclaim Deed with Covenant dated May 13, 2019 and recorded in the Cumberland County Registry of Deeds as Book 35640, Page 071; and

WHEREAS, Optionor desires to grant, and Optionee desires to acquire, an option on the terms provided by this Option Agreement to acquire the Premises.

AGREEMENT

1. **Grant.** Optionor hereby grants to Optionee the exclusive right and option to purchase the Premises, together with such easements and parking arrangements between the parties and over the remaining property of Owner as may be necessary for office building tenants, pedestrian and vehicular access.
2. **Option Price and Purchase Price.** Within ten (10) days from the date of this Agreement, Optionee shall pay Optionor the Option Price in the amount of [REDACTED]. The Purchase Price, upon exercise of this Option and full execution of other documents associated with the sale transfer, shall be equal to the sum of [REDACTED]. All payments from Optionee to Optionor shall be payable at closing, unless otherwise agreed upon between the parties. The Option Price shall be credited towards the Purchase Price in the event Optionee exercises this option.
3. **Term.** Optionee may exercise this option by notice delivered in the manner described below on or before [REDACTED].
4. **Notice of Exercise.** This Option may be exercised by Optionee giving written notice to Optionor in person or by U.S. mail, fax or overnight delivery service prior to the expiration of the option term, at the address set forth above.

5. **Closing.** Specific closing terms to be more further defined in a Purchase and Sale Agreement and shall occur at a date and time reasonably specified by Optionee, and subject to written agreement by Optionor. Title shall be conveyed by Optionor by Quitclaim Deed with Covenant and any other assignment documents required, conveying good and marketable title to the Premises free from all encumbrances and claims of others. In the event that it is necessary for the Premises to be conveyed as a condominium unit as a result of the physical configuration of the Premises, Optionee and Optionor agree to enter into all necessary condominium documentation on commercially reasonable terms at or prior to Closing. Real estate taxes shall be pro-rated. Unless Optionee shall waive any defect in title, Optionor shall make reasonable efforts to remove such defect in title. In case Optionor, after 45 days, or such greater period that Optionee may permit, shall have failed to do so, Optionee may elect to (a) terminate, in which case Optionor shall return the Option Price without further recourse to either party, or (b) waive such defect by notice in writing. In the event Optionee exercises this Option and fails to close for reasons not attributable to default by Optionor, Optionor shall, as Optionor's sole remedy, be entitled to retain the Option Price as liquidated damages without further recourse.

6. **Parking.** If Optionee exercises this Option, Optionor agrees to enter into a lease or other arrangement of parking spaces on other property owned by Optionor on commercially reasonable terms to provide sufficient parking to meet municipal and other governmental parking requirements for the use to be made of the Premises by Optionee.

7. **Failure to Exercise.** If Optionee fails to exercise this Option, any payments made under this Option Agreement shall be retained by Optionor, and neither party shall have any further rights or claims against the other. The Optionee may fail or refuse to exercise this Option for any reason whatsoever, including without limitation that the Optionee determines, or is notified that, the Property is not able to be permitted and approved for a residential multi-family development of a size, scale and cost acceptable to Optionee, or other due diligence investigations prove unsatisfactory.

8. **Inspections.** Optionee shall have reasonable access to the Premises to conduct such surveys, tests, and inspections as it may deem necessary during the Option term or after exercise of the Option. Optionee shall provide reasonable notice to Optionor, shall enter at its sole risk and shall restore the premises substantially to its prior condition.

9. **Successors and Assigns.** This Agreement is binding upon and shall inure to the benefit of the parties hereto and their personal representatives, heirs, successors and assigns. This Agreement may not be assigned by Optionee without the written approval of Optionor.

IN WITNESS WHEREOF, the undersigned have executed this Option Agreement as of the day and year first above stated.

WITNESS:



PO Square Building LLC


By: Drew Sigfridson
Its: Manager

Redfern Downtown, LLC

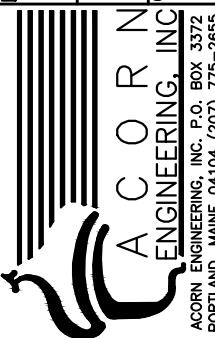

By:
Its: Jonathan Culley, Manager

EXHIBIT A

1. PLAN REFERENCES BOUNDARY & TOPOGRAPHIC SURVEY PREPARED BY OWEN HASKELL, INC. OF FALMOUTH MAINE, DATED 11/12/2019.

-
- CONGRESS STREET
- EXCHANGE STREET
- FEDERAL STREET
- TEMPLE STREET
- MULTI-STORY
BRICK BUILDING
BUILDING FOOTPRINT = 27,100 ± SF.
- PROPOSED BUILDING
EXTERIOR WALL FACE, TYP
- TO BE CONVEYED TO
REDFERN DOWNTOWN LLC
AREA: 17,003 SF
- REMAINDER OF
PO SQUARE BUILDING LLC
32-G-1
- N 300718.32
E 2928649.53
- N 300920.85
E 2928904.37
- N 300615.23
E 2928794.75
- N 300805.28
E 2929043.54
- S52°37'23"W
193.28'
- 10.50'
- 10.50'
- 5.6'
- 8.2'
- 10.5'
- N45°13'12"W
36.91'
- N52°37'23"E
18.67'
- S37°22'37"E
50.83'
- N52°37'26"E
189.85'
- S54°37'44"E
91.51'
- MANHOLE
BOLT HYDRANT
CL. 66.95
- MANHOLE
BOLT HYDRANT
CL. 66.95

DRAWING NAME:	EXHIBIT A
PROJECT NAME:	200 FEDERAL STREET REDEVELOPMENT
CLIENT:	REDFERN DOWNTOWN LLC



FILE:	1129_CM
DATE:	7/24/2022
JN:	11229
SCALE:	1":50'
DESIGN BY:	FR
DRAWN BY:	FR
CHECKED BY:	WH

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

DRAWING NO.
EX-A

PO SQUARE BUILDING, LLC

120 Exchange Street
Portland, ME 04101

May 6, 2021

Caitlin Cameron
City of Portland
Planning and Urban Development Department
389 Congress Street
Portland, ME 04101

Dear Caitlin,

This purpose of this letter is to inform the City of Portland Planning Department that the owners of PO Square Building LLC have been working closely with Redfern Downtown LLC on issues related to the proposed development of 201 Federal St. The matters that we have been discussing include, but are not limited to, the following:

1. The new property line will bisect the “pocket park” being proposed by Redfern Downtown LLC. PO Square Building LLC is well aware of these plans, has been involved in the designs, and consents to the improvements, including those on the PO Square Building LLC property.
2. PO Square Building LLC and Redfern Downtown LLC are in the process of negotiating a parking lease and any additional **easements** for the parking spaces that will serve the USPS Office.
3. Management of the Parking areas and loading docks where loading dock areas may be in conflict with parking spaces. These issues will be addressed by scheduling and assigning parking and deliveries to minimize conflicts. The parking spot adjacent to where a truck may be parked in the loading area is designed as “USPS employee parking”. It is anticipated that the employees vehicle will not move while the USPS trucks are picking up / delivering packages.

Please know that PO Square Building LLC and Redfern Downtown LLC are working closely to make sure that the 201 Federal St. development is successful in all regards. Please contact me with any questions.

Sincerely,



Drew Sigfridson

Section D:
Zoning Assessment





ZONING ANALYSIS Relevant Zone(s) B3 Downtown Business, Downtown Height Overlay ,
Pedestrian Encouragement, Downtown Entertainment
Overlay, Congress Street Historic District

All Projects:

	Required	Proposed
Lot Size	NONE	1.27 AC
Area Per Dwelling Unit	NONE	N/A
Minimum Street Frontage	15 FT	998 FT
Front Yard Minimum	NONE	N/A
Front Yard Maximum	5 FT	0 FT
Rear Yard	NONE	N/A
Yard Right	NONE	N/A
Yard Left	NONE	N/A
Side Street Setback	NONE	N/A
Step Back	NONE	N/A
Maximum Lot Coverage	100%	96%
Minimum Lot Coverage	NONE	N/A
Maximum Height	190'	190'
Open Space	NONE	N/A
Maximum Impervious Area	N/A	N/A
Pavement Setback	(35 FT - SURFACE PARKING)	76.9 FT
Floor Area Ratio	NONE	N/A
Off Street Parking Spaces	20, PER USPS LEASE	21
Loading Bays	0	0
Other 1		
Other 2		
Other 3		

Planned Residential Unit Developments (PRUD) Requirements

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

Affordable Housing Density Bonuses (if applicable)

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

Section E:
Easements



Summary of Written Easements

Existing Easements

- The following agreement is listed within the deed recorded at the Cumberland County Registry of Deeds Book 35640, Page 72.
 - o Cable Television Installation Agreement by and between Public Cable d/b/a Time Warner Cable and A&M Partners, Inc. dated October 21, 1999 and recorded in Book 15936, Page 274.

Proposed Easements – There are no proposed easements at this time.



Section F: Waivers



Request for Waivers

There are no current waiver requests.



Section G: Financial Capacity



Financial Capacity

Please refer to attached letter from the Applicant's bank confirming financial capacity.





July 28, 2020

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

RE: 200 Federal Street Apartments - Financial Capacity Letter

To Whom It May Concern:

I am pleased to provide this financial capacity letter in support of Redfern Properties, LLC & affiliates, developer of the above reference project. Based on my longstanding relationship with the developer, it is my opinion that this group has the financial resources, technical expertise and management capability to complete the project as presented.

While a formal commitment cannot be issued until full approvals are received, Bar Harbor Bank & Trust has issued a term sheet for the project and is looking forward to more substantive conversations as the project progresses.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe Delano", written over a circular stamp or seal.

Joe Delano
Senior Vice President

Technical Capacity

Redfern Downtown, LLC, dba Redfern Properties is a Portland-based development firm, whose Principals include Jonathan & Catherine Culley of Redfern Properties.

Redfern Properties develops, owns, and operates a portfolio of properties that includes the highest quality rental apartments in Portland. Redfern Properties is committed to developing innovative residential properties, and focuses on infill and other “smart-growth” development in creating unique residences and commercial spaces, while making neighborhoods and communities more vibrant and sustainable.

Ryan Senatore Architecture has designed several important multifamily residential projects in Southern and Central Maine, including the nine-story, 139-unit, concrete and steel framed high-rise apartment building known as the Hiawatha (for Redfern Properties). RSA’s residential clients include private developers as well as public housing authorities, and completed projects include both new construction and adaptive reuse of existing historic structures.

Acorn Engineering specializes in providing urban redevelopment, civil/site design, environmental services, municipal consulting and construction administration. Together, Acorn Engineering, Inc. and Ryan Senatore Architecture have successfully designed and permitted more than 20 level II/III projects in Portland during the past 5 years, including four for Redfern Properties: Munjoy Heights, East Bayside Lofts, The Hiawatha, and 70 Anderson.

ALA is a process-driven, landscape architecture and urban design firm committed to thoughtful, creative intervention at the intersection of environment, economics, art, and culture. ALA has worked on a number of important projects throughout Maine and the U.S. Locally, ALA has been the prime design consultant for the redevelopment of the 500-acre Scarborough Downs property in addition to numerous public and private development projects across Maine. ALA’s clients include private developers, housing authorities, and municipalities.



**Section I:
Conformity with Land
Use Ordinance**



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 as well as the City of Portland Technical Manual, Chapter 14 Standards for Local Site Location of Development Review.

OVERVIEW

The proposed 18-story building addition has been designed to conform to City standards where possible as well as improve upon existing non-conformities. This project conforms with the majority of the applicable standards of Portland's Land Use Ordinance Section 14-526 as demonstrated in the following narrative.

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

The site is located at the corner of the intersection of Temple Street and Federal Street. Temple Street is classified as a major urban collector with an average annual daily traffic volume of approximately 6,100 vehicles per day. Federal Street is classified as a local urban road with an average annual daily traffic volume of approximately 1,600 vehicles per day. The project site design provides twenty-one parking spaces internally with resident parking accommodated in the nearby Chestnut Street parking garage. It is expected that residents will utilize non-vehicular modes of travel (i.e. walking, bicycling, public transit, etc) as further outlined in the attached Section S: Traffic & Parking Assessment.

2. Access and Circulation:

a. Site Access and Circulation:

This project conforms with the design standards of Section 14-526 as demonstrated in the following narrative unless a waiver is otherwise noted. If a waiver is requested, please refer to Section F: Request for Waivers for additional information.

- (i) The development will provide safe access and internal circulation for both pedestrians and vehicles as indicated on the Site Plan (Sheet C-10) as found in the Civil Plan Set accompanying this application.
- (ii) The proposed entrances have been located to provide ample site distance from oncoming traffic.
- (iii) The site does not feature additional drive-up service features. Existing bank drive-up services are proposed to remain.

b. Loading and Servicing:

- (i) It is anticipated that deliveries accessing the retail space along will temporarily load from either the 15-minute parking spaces along Federal Street or Temple Street. USPS bulk deliveries will be temporarily re-routed, as identified on the Construction Management Plan (Sheet C-03) of the Civil Plan Set, with a permanent delivery location forthcoming.



- c. Sidewalks:
 - (i) It is proposed to replace to City Standards, all disturbed existing brick sidewalks along Federal Street & Temple Street as part of the project.
 - (ii) It is not proposed to repair or replace existing Federal Street & Temple Street sidewalks unless disturbed as part of the project.
 - (iii) Primary building entrances will be accessed from the Federal Street & Temple Street sidewalks.
- 3. Public Transit Access:
 - a. Existing Metro transit facilities at Monument Square (900-feet ±) and the Metro Pulse at Elm Street (700-feet ±) are located less than ¼ mile from the project site, as measured along rights-of-way. As a result, no transit facility is required for the project.
 - b. Not applicable. See a above.
 - c. Not applicable. See a above.
- 4. Parking:
 - a. Location and Required Number of Vehicle Parking Spaces:
 - (i) Please refer to attached Section S: Traffic & Parking Assessment.
 - (ii) Please refer to attached Section S: Traffic & Parking Assessment.
 - (iii) The amount of parking does not exceed the minimum requirement by more than 10%.
 - (iv) The parking space & aisle dimensions are in conformance with the Technical Standards, as shown on Sheet C-10.
 - (v) The driveway apron and parking areas proposed are to be constructed with pavement & brick, per City standards.
 - b. Location and Required Number of Bicycle Parking Spaces:
 - (i) Per Sec 14-332(h): Retail Stores, the requirement criteria begin with first floor areas larger than 2,000 square feet not used for bulk storage. The proposed retail space floor area is less than 2,000 square feet, when excluding bulk storage areas, resulting in no required vehicular parking spaces & no bicycle parking spaces. However, given the urban fabric and vision for the project, the site has been designed to include four exterior bicycle hitches within the Federal Street sidewalk, for a total of eight spaces.
 - 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.
 - d. Snow Storage:



- (i) Please refer to Sheet C-10 for identified snow storage area. When necessary, the Owner may have snow removed from the site.
- (ii) The snow storage area has been located to avoid adversely impacting the site's functionality.

5. Transportation Demand Management (TDM):

- a. Please refer to attached Section S: Traffic & Parking Assessment
- b. Please refer to attached Section S: Traffic & Parking Assessment

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

- a. Not applicable.
- b. Not applicable.

2. Landscaping and Landscape Preservation:

a. Landscape Preservation.

- (i) The disturbance of existing trees and vegetation that are not proposed to be removed will be limited to the greatest practical extent possible.
- (ii) Per the Boundary & Topographic Survey, three of the existing eight trees within the property to be removed are between 10"-16" DBH. If the Landscaping Plan, forthcoming by Aceto Landscape Architecture, does not replace all three removed trees, the applicant will work with the City Arborist to pay a fee-in-lieu.
- (iii) It is not anticipated that the project will necessitate any tree protection.
- (iv) Please refer to (ii) above for additional information surrounding existing vegetation compromising site development.
- (v) Not applicable.

b. Site Landscaping.

(i) Landscaped Buffers:

- a. Not applicable. There are no proposed loading and servicing areas, exterior dumpsters, storage areas and utility structures visible from public sidewalks, streets and adjacent properties.
- b. The project includes a total of approximately 365 ft of frontage improvements along Federal and Temple Streets. If the Landscaping Plan, forthcoming by Aceto Landscape Architecture, does not meet the requirements, the applicant will work with the City Arborist to pay a fee-in-lieu.
- c. Not applicable.



- d. Not applicable.

(ii) Parking Lot Landscaping:

- a. If the Landscaping Plan, forthcoming by Aceto Landscape Architecture, does not meet the requirement, the applicant will work with the City Arborist to pay a fee-in-lieu.
- b. Not applicable.
- c. Not applicable.
- d. Not applicable.
- e. Not applicable.

(iii) Street Trees:

- a. Street trees are to be provided every 30 to 45 feet along the street frontage. A total of approximately 365 ft of frontage improvements along Federal and Temple Streets are included within this project, which equates to a minimum of eight street trees. If the Landscaping Plan, forthcoming by Aceto Landscape Architecture, does not meet the requirement, the applicant will work with the City Arborist to pay a fee-in-lieu.
- b. Please refer to forthcoming Landscaping Plan.

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 roof & parking area runoff, with the addition of stormwater management practices to attenuate the flows.
- (ii) 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 additional 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. Adequate emergency access has been provided on two sides of the proposed building via Federal Street and Temple Street.
 - c. Per the Boundary & Topographic Survey, an existing fire hydrant is located on Federal Street, approximately 66-feet from the Southwesterly corner of the proposed building. Per a site visit performed by Acorn Engineering, an additional fire hydrant was observed on Federal Street, approximately 61-feet from the Southeasterly corner of the proposed building.
3. Availability and Adequate Capacity of Public Utilities:
 - a. Ability to Serve letters have been sent to the respective companies. Responses that have been received are included in the submission.
 - b. The electrical service will be underground through coordination with the Mechanical/Electrical/Plumbing designer & CMP.
 - c. The new sewer and stormwater infrastructure will meet the provisions of the Technical Manual.
 - d. The project will be served by connection to the public combined sewer system within Federal Street.
 - e. The sanitary sewer collection system meets applicable sections of the Technical Manual. The stormwater management system is designed to meet Chapter 500 standards.
 - f. Temporary storage and timely removals of trash and recyclable materials will be provided by the applicant.

(d) Site Design Standards

1. Massing, Ventilation and Wind Impact:
 - a. Please refer to attached Section O: Architectural Design Narrative
 - b. Please refer to attached Section O: Architectural Design Narrative
 - c. Please refer to attached Section O: Architectural Design Narrative



2. Shadows:
 - a. Please refer to attached Section O: Architectural Design Narrative
3. Snow and Ice Loading:
 - a. The structures will not distribute snow and ice onto adjacent properties.
4. View Corridors:
 - a. Please refer to attached Section O: Architectural Design Narrative
5. Historic Resources:
 - a. Please refer to attached Section O: Architectural Design Narrative
 - b. Please refer to attached Section O: Architectural Design Narrative
 - c. There are no known archaeological resources at 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 in the Civil Plan Set accompanying this submission.
 - (ii) 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) Street lighting will conform to specific lighting district requirements, as specified in Section 10 of the Technical Manual.
7. Noise and Vibration:
 - a. Please refer to attached Section O: Architectural Design Narrative & Architectural Plan Set
8. Signage and Wayfinding:
 - a. 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 in the Congress Street Historic District.



(ii) Please refer to the attached Section O: Architectural Design Narrative

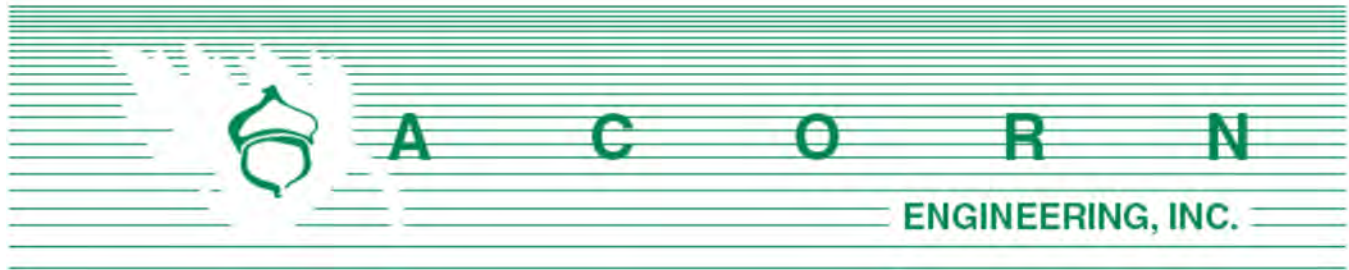
(iii) Street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.

9. Zoning Related Design Standards:

a. The project has been designed to meet the standards set forth in the B3 zone, Downtown Height Overlay Zone, Downtown Entertainment Overlay Zone and Congress Street Historic Districts. Please refer to Sheet C-10 for more information on the Space & Bulk Standards & attached Section D: Zoning Assessment

b. Not Applicable





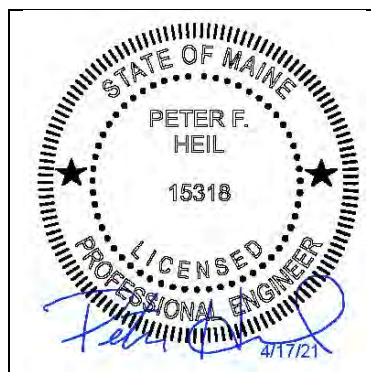
STORMWATER MANAGEMENT **REPORT**

Prepared For:

**Redfern Downtown LLC
dba Redfern Properties
PO Box 8816
Portland, ME 04104**

Prepared By:

**Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104**



October 2020
Revised April 2021

INTRODUCTION

Acorn Engineering, Inc. has been retained by Redfern Downtown LLC, dba Redfern Properties, to provide civil engineering services for a proposed redevelopment project at 201 Federal Street W in Portland. The project proposes to redevelop a portion of the existing lot into an 18-story, predominantly residential building with ground level retail, enclosed screened covered parking, surface parking & landscape improvements. Pedestrian access to the site will be provided via brick sidewalks on Federal Street & Temple Street. The development is intended to be serviced by Portland Water District (PWD), CMP (electric), Unil (natural gas), Charter (cable), Fairpoint (telephone) and City of Portland (sanitary sewer and stormwater).

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
- Maine DEP Chapter 500 Stormwater Management

EXISTING CONDITIONS

A Boundary & Topographic survey was prepared by Owen Haskell, Inc. of Falmouth, Maine signed on October 13, 2020.

The property is in the B3 Downtown Business Zoning District, Downtown Height Overlay, Pedestrian Encouragement Zone, Downtown Entertainment Overlay Zone & Congress Street Historic District. Approximately 91% of the site is existing impervious in the form of roofing, pavement, brick, or concrete. The existing site has relatively flat slopes, apart from an accessible ramp from Temple Street to the existing USPS public entrance. The majority of existing stormwater runoff from the subject site drains to the combined sanitary & stormwater system within Federal Street.

The project team is not aware of the presence of any existing significant natural features located on the site. Given the urban setting and existing impervious surfaces, a field inventory of significant natural features was not undertaken. The site is not within a watershed classified as an Urban Impaired Stream as defined by the Maine DEP Chapter 502.

PROPOSED DEVELOPMENT

The proposed project, as outlined in the introduction above, increases the site's total impervious area by approximately 3,500-square feet, but remains below the Redeveloped Project standards for non-roof impervious area threshold of 5,000-square feet. As the project proposes >1,000 sf of new impervious General & Flooding Standards apply. The project proposes to meet water quality treatment standards by installing pervious pavers within the pocket park. The project will also comply with the Basic Erosion and Sedimentation Control Standards per the DEP Chapter 500.

Stormwater in the site will be managed with the implementation of a series of foundation drain, catch basins, storm drains & landscaping. Please refer to the Grading & Drainage Plan (Sheet C-30) & Site & Planting Plan (L 1-00) for additional information.



GENERAL STANDARDS - WATER QUALITY

The pervious pavers subsurface media was sized to meet and exceed the requirement set forth within the MDEP Volume III BMPs Technical Design Manual, Chapter 7.7. The system has proven to be effective at filtering and removing a wide range of pollutants contained in stormwater runoff.

Impervious Treatment Area

The surface runoff will be generated by the impervious surface of the pocket park. The stormwater will percolate through the pavers where it will then filter through several layers of media before being collected by an underdrain and directed to the City's combined sewer system within Federal Street. For the purposes of modeling the stormwater, the pervious pavers will be considered impervious area in all calculations and tables throughout the report.

The treatment of the impervious surfaces by the Pervious Paver BMP is summarized in Table 1.

Table 1: New Impervious Area Treatment					
Existing Impervious Area (SF)	Proposed Total Impervious Area (SF)	Net change in Impervious Area (SF)	Proposed Impervious Area with Treatment (SF)	% Overall New Imp. Area Treated	MDEP Requirement
50,555	54,048	3,493	3,899	111.6%	95%

*This area was derived from the subcatchment that will drain to or directly on the porous pavement

As shown in Table 1, the project anticipates to exceed the required treatment for new impervious surfaces through the utilization of the porous pavement filter media BMP.

Filter Area Depth

Per the requirement for porous pavement in Chapter 7.7 of the MDEP Stormwater BMP manual, the filter depth shall be a minimum of 4 inches. The proposed design incorporates a filter depth of 10 inches with a void ratio of 5%.

FLOODING STANDARD - WATER QUANTITY

To evaluate the project with respect to the Flooding Standard, the proposed development 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", 5.80", respectively. Rainfall amounts are sourced from the Northeast Regional Climate Center website (<http://precip.eas.cornell.edu>), Extreme Precipitation Tables.

Storage Capacity

Per the MDEP Stormwater BMP Manual Section 7.7, 1 inch of rainfall needs to be stored in either the filter layer or the subbase and base layers. The following condition is met:

Surface Area of Stormwater System x (Subbase depth x porosity + Base Depth x porosity) must be



greater than 1 inch of rainfall x Drainage Area. The following condition is calculated as such:

$$3,899 \text{ SF} \times (0.67' \times 0.4 + 0.33' \times 0.4) = 1,559.6 \text{ CF which is greater than } (0.083' \times 4,067 \text{ SF}) = 338 \text{ CF}$$

Thus, the available storage exceeds the requirement. An average depth of 8 inches for the subbase was used which is a conservative dimension based on the varying depth.

Time of Concentration (Tc)

The times of concentration for subcatchments in both the pre and post conditions were calculated by entering the flow path with the associated ground cover and slopes. HydroCAD then calculated the Tc's and incorporated the total Tc for each subcatchment into the model. The only subcatchment that this method was not used for was subcatchment 2 in the post condition. The Tc's were derived as outlined in Post-development Calculations section.

Curve Number (CN)

Conservative curve number runoff values were used within the subcatchments. Namely, the pre condition vegetated areas have a rating of "good" to reduce the CN. Additionally, the porous pavement was modeled as impervious pavement with a high CN in the post condition.

Pre-development Calculations

The pre-development condition was modeled as one subcatchments including:

- Subcatchment 1: the existing site which contains the existing building, pavement, concrete, and landscaped areas.

The peak flow rates for the 2, 10, and 25-year storm events at POI #1 are presented in Table 2 below, and a full copy of the HydroCAD calculations is included within Attachment D of this report.

Table 2: Pre - Development Peak Stormwater Flows			
Drainage Area	2-yr Storm (CFS)	10-yr Storm (CFS)	25-yr Storm (CFS)
POI #1	3.41	5.39	6.95

Post-development Calculations

The post-development condition was modeled as two subcatchments including:

- Subcatchment 2: Pervious paver pocket park
- Subcatchment 3: the remainder of the site including, existing building, proposed building, new and existing parking areas, and landscaping.

The time of concentration in the pervious paver area is based on the UNHSC's research in which the time of concentration for porous pavement is equal to following ratio:

$$T_c = 790 \text{ minutes} / 41'' \text{ of base above the underdrain}$$



Taking a conservative approach, the Tc was calculated using only the depth of the filter course while excluding the stone layers. The equivalent ratio yielded a Tc of 193 minutes based upon the 10" filter course.

The direct time of concentration of 6 minutes was utilized for the other subcatchment area, with direct sheet flow to the proposed catch basins and field inlets.

A post-development Watershed Map for this project showing the subcatchments is included as Attachment B.

Post-development peak flow rates for the 2, 10, and 25 storm events are summarized below for each of the subcatchments. The HydroCAD calculations are included within Attachment D.

Table 3: Post - Development Peak Stormwater Flows			
Drainage Area	2-yr Storm (CFS)	10-yr Storm (CFS)	25-yr Storm (CFS)
2 (Pervious Pavers)	0.05	0.07	0.09
3	3.50	5.28	6.69

The post-development flowrates are then compared to the pre-development flowrates in the table below.

Table 4: Pre & Post - Development Comparison						
Drainage Area	2-yr Storm Event (CFS)		10-yr Storm Event (CFS)		25-yr Storm Event (CFS)	
	Pre	Post	Pre	Post	Pre	Post
POI #1	3.41	3.51	5.39	5.29	6.95	6.71

As shown in Table 4, the post-development peak flows from the property are below the pre-development levels in the 10 & 25-year storm due to the attenuating effect of the proposed underdrained storage and filter layers beneath the porous pavement. In the 2-year, the 0.1 cfs increase is negligible, and the 24" combined sewer within Federal Street is anticipated to have the capacity to handle the insignificant increase associated with the tight urban site, similar to other sites Downtown. Per Chapter 7.7 of the MDEP Stormwater BMP manual, the underdrain shall be surrounded by 12 inches of stone. This additional storage was not modeled in the HydroCAD analysis in order to represent a conservative peak flowrate and water elevation.

SOILS

Onsite soil information has been derived from the following sources:

- United States Department of Agriculture Web Soil Survey (WSS)
- Soil Boring Log performed by Summit Geoengineering Services, dated 10/26/2019

Per the WSS report, the entirety of the soils on site are Hinckley Loamy Sand (0%-8% slopes) which are in the hydrologic soil group A. Soils assigned to the hydrologic soil group A have a high infiltration rate (low runoff potential) when thoroughly wet, consisting mainly of deep,



well drained to excessively drained sands or gravelly sands, with a high rate of water transmission.

The susceptibility for soil erodibility (rock free) is indicated on a relative “Kf” scale of values over a range of 0.02 to 0.69, with higher “Kf” values indicating more erodible soils. “Kf” values are empirical measures which are impacted by inherent soil properties such as soil detachability, infiltration & runoff and the transportability of the sediment eroded from the soil.

The “Kf” values for the 200 Federal Street project are unavailable from the USDA WSS, so the value listed in Table 1 below has been referenced from another project with Hinckley Loam Sand located at Seven Congress Square as an estimate.

Table 1		
Soils Type	Depth	Kf Value
Hinckley Loamy Sand	Whole soil	0.1

The “Kf” value for the soil, listed above, shows a low susceptibility to erosion; however, the implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance to provide proper site stabilization.

Conclusion

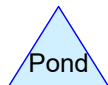
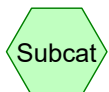
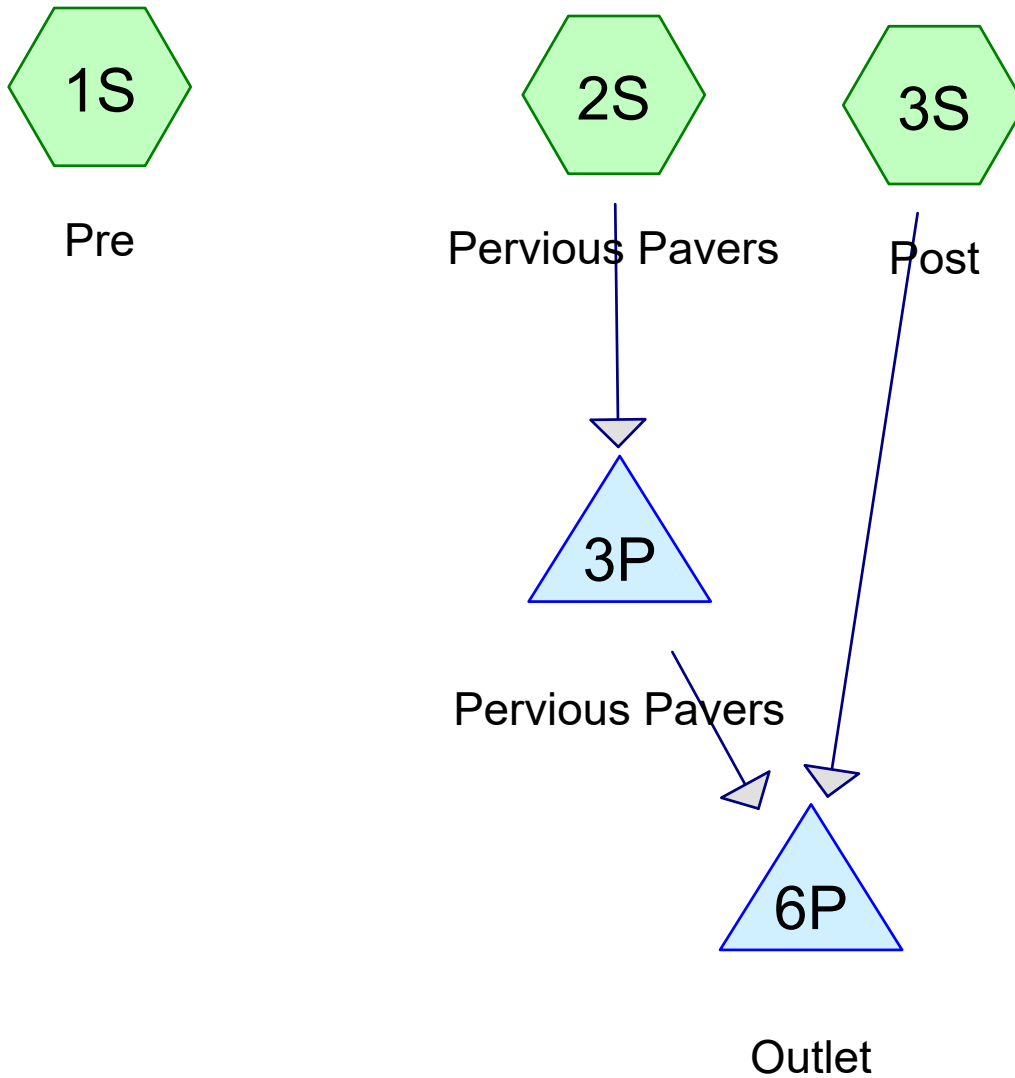
The proposed redevelopment was designed to meet the requirements set forth in *Section 5 – Portland Stormwater Management Standards* in the City’s Technical Manual. The proposed project as designed is anticipated to largely maintain existing drainage patterns, while decreasing the overall volume and flowrate of stormwater runoff through the addition of foundation drains, stormwater structures, landscaping, etc. The

As a result, the design of the proposed development and stormwater system is not anticipated to create erosion, drainage or runoff problems in the development or with respect to adjacent properties.

Attachments

Attachment A: Soil Boring Log
Attachment B: USDA WSS Soils Map
Attachment C: Redevelopment Exhibit





Routing Diagram for Pre & Post
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Pre & Post

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.139	39	>75% Grass cover, Good, HSG A (1S, 2S, 3S)
2.401	98	Paved parking, HSG A (1S, 2S, 3S)
2.540	95	TOTAL AREA

Pre & Post

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
2.540	HSG A	1S, 2S, 3S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
2.540		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
0.139	0.000	0.000	0.000	0.000	0.139	>75% Grass cover, Good	1S, 2S, 3S
2.401	0.000	0.000	0.000	0.000	2.401	Paved parking	1S, 2S, 3S
2.540	0.000	0.000	0.000	0.000	2.540	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	3P	58.75	57.80	29.4	0.0323	0.010	8.0	0.0	0.0

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

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Time span=0.00-20.00 hrs, dt=0.05 hrs, 401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Pre

Runoff Area=55,321 sf 91.38% Impervious Runoff Depth>2.22"
Tc=5.0 min CN=93 Runoff=3.41 cfs 0.235 af

Subcatchment2S: Pervious Pavers

Runoff Area=4,067 sf 95.87% Impervious Runoff Depth>2.35"
Tc=193.0 min CN=96 Runoff=0.05 cfs 0.018 af

Subcatchment3S: Post

Runoff Area=51,254 sf 97.84% Impervious Runoff Depth>2.62"
Tc=5.0 min CN=97 Runoff=3.50 cfs 0.257 af

Pond 3P: Pervious Pavers

Peak Elev=64.10' Storage=1 cf Inflow=0.05 cfs 0.018 af
Discarded=0.00 cfs 0.001 af Primary=0.05 cfs 0.017 af Outflow=0.05 cfs 0.018 af

Pond 6P: Outlet

Peak Elev=59.06' Storage=1 cf Inflow=3.51 cfs 0.274 af
Outflow=3.51 cfs 0.274 af

Total Runoff Area = 2.540 ac Runoff Volume = 0.510 af Average Runoff Depth = 2.41"
5.46% Pervious = 0.139 ac 94.54% Impervious = 2.401 ac

Pre & Post

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

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Summary for Subcatchment 1S: Pre

Runoff = 3.41 cfs @ 12.07 hrs, Volume= 0.235 af, Depth> 2.22"

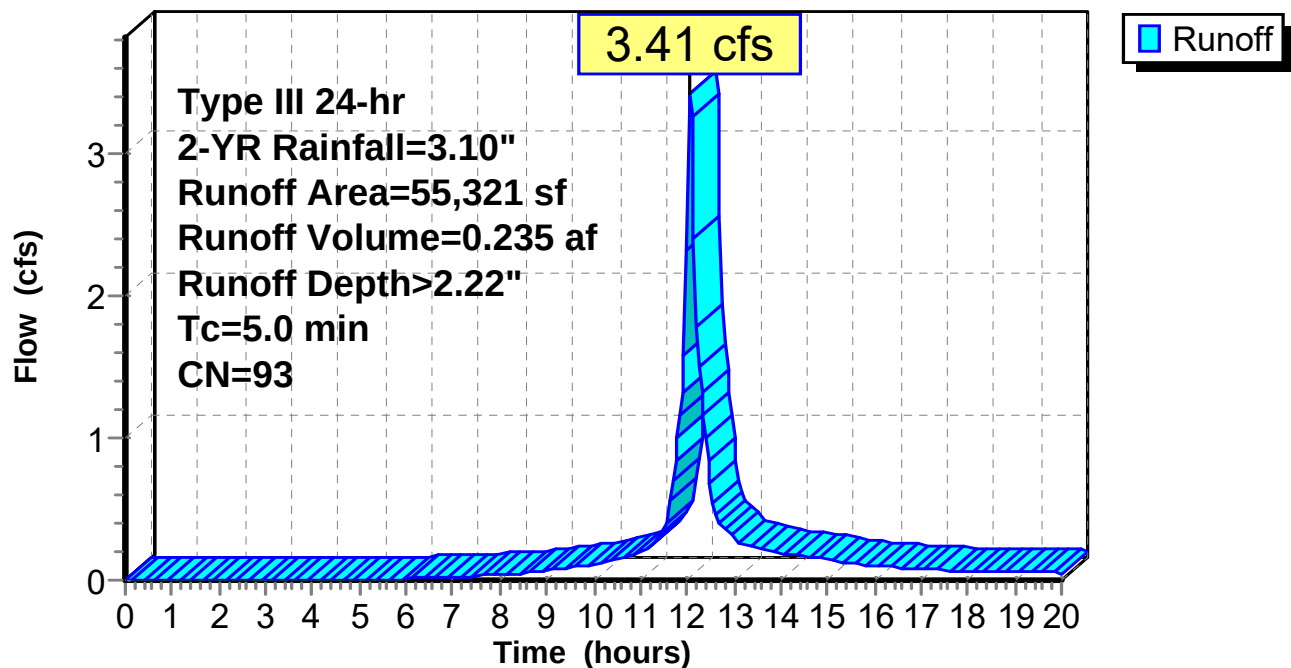
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
50,555	98	Paved parking, HSG A
4,766	39	>75% Grass cover, Good, HSG A
55,321	93	Weighted Average
4,766		8.62% Pervious Area
50,555		91.38% Impervious Area

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

Subcatchment 1S: Pre

Hydrograph



Pre & Post

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

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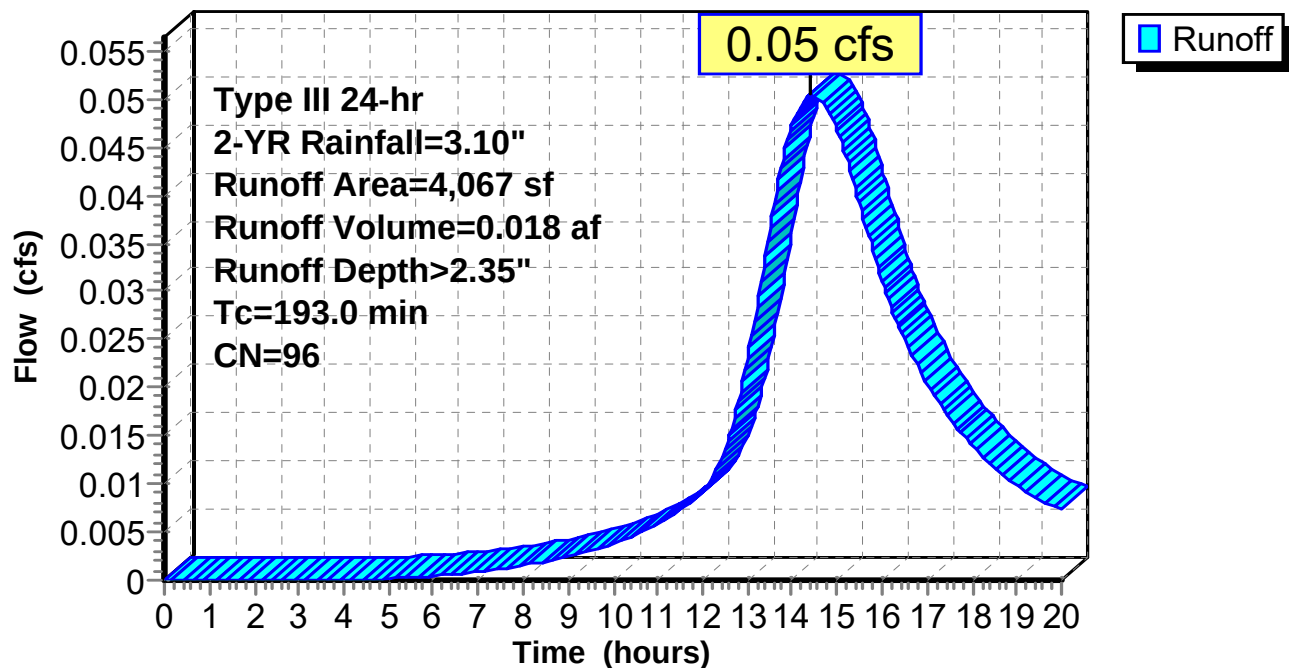
Summary for Subcatchment 2S: Pervious Pavers

Runoff = 0.05 cfs @ 14.39 hrs, Volume= 0.018 af, Depth> 2.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
3,899	98	Paved parking, HSG A
168	39	>75% Grass cover, Good, HSG A
4,067	96	Weighted Average
168		4.13% Pervious Area
3,899		95.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
193.0					Direct Entry, Filter Depth Calc

Subcatchment 2S: Pervious Pavers**Hydrograph**

Pre & Post

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

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Summary for Subcatchment 3S: Post

Runoff = 3.50 cfs @ 12.07 hrs, Volume= 0.257 af, Depth> 2.62"

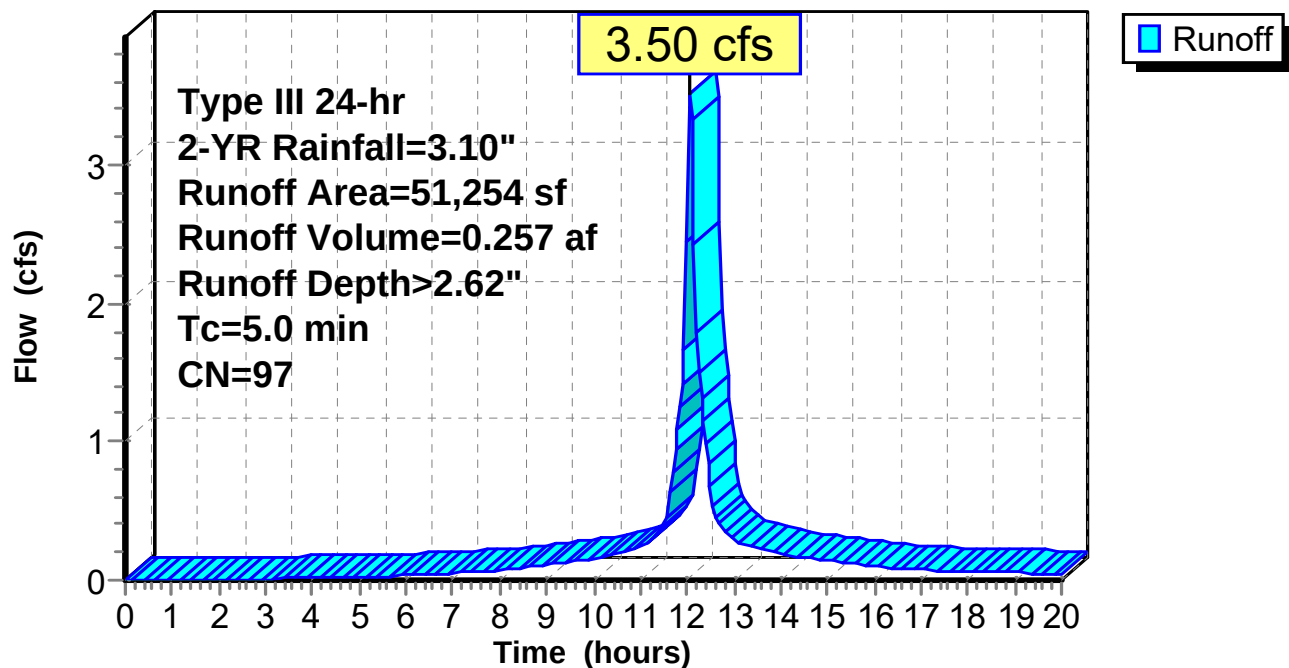
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
50,149	98	Paved parking, HSG A
1,105	39	>75% Grass cover, Good, HSG A
51,254	97	Weighted Average
1,105		2.16% Pervious Area
50,149		97.84% Impervious Area

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

Subcatchment 3S: Post

Hydrograph



Pre & Post

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

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Summary for Pond 3P: Pervious Pavers

Inflow Area = 0.093 ac, 95.87% Impervious, Inflow Depth > 2.35" for 2-YR event
 Inflow = 0.05 cfs @ 14.39 hrs, Volume= 0.018 af
 Outflow = 0.05 cfs @ 14.40 hrs, Volume= 0.018 af, Atten= 0%, Lag= 0.3 min
 Discarded = 0.00 cfs @ 14.40 hrs, Volume= 0.001 af
 Primary = 0.05 cfs @ 14.40 hrs, Volume= 0.017 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 64.10' @ 14.40 hrs Surf.Area= 3,899 sf Storage= 1 cf

Plug-Flow detention time= 0.2 min calculated for 0.018 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (892.3 - 892.2)

Volume	Invert	Avail.Storage	Storage Description
#1	65.77'	64 cf	Pavers (Prismatic) Listed below (Recalc) 1,287 cf Overall x 5.0% Voids
#2	65.44'	515 cf	4" Choker 1-1/2" (Prismatic) Listed below (Recalc) 1,287 cf Overall x 40.0% Voids
#3	64.60'	164 cf	10" Filter MDOT Type D (Prismatic) Listed below (Recalc) 3,275 cf Overall x 5.0% Voids
#4	64.10'	780 cf	6" - 3/4" Crushed Stone (Prismatic) Listed below (Recalc) 1,950 cf Overall x 40.0% Voids
		1,523 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
65.77	3,899	0	0
66.10	3,899	1,287	1,287

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
65.44	3,899	0	0
65.77	3,899	1,287	1,287

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.60	3,899	0	0
65.44	3,899	3,275	3,275

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.10	3,899	0	0
64.60	3,899	1,950	1,950

Device	Routing	Invert	Outlet Devices
#1	Primary	58.75'	8.0" Round Culvert L= 29.4' Ke= 1.000 Inlet / Outlet Invert= 58.75' / 57.80' S= 0.0323 1' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Discarded	64.10'	2.410 in/hr Exfiltration over Surface area

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

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Discarded OutFlow Max=0.22 cfs @ 14.40 hrs HW=64.10' (Free Discharge)

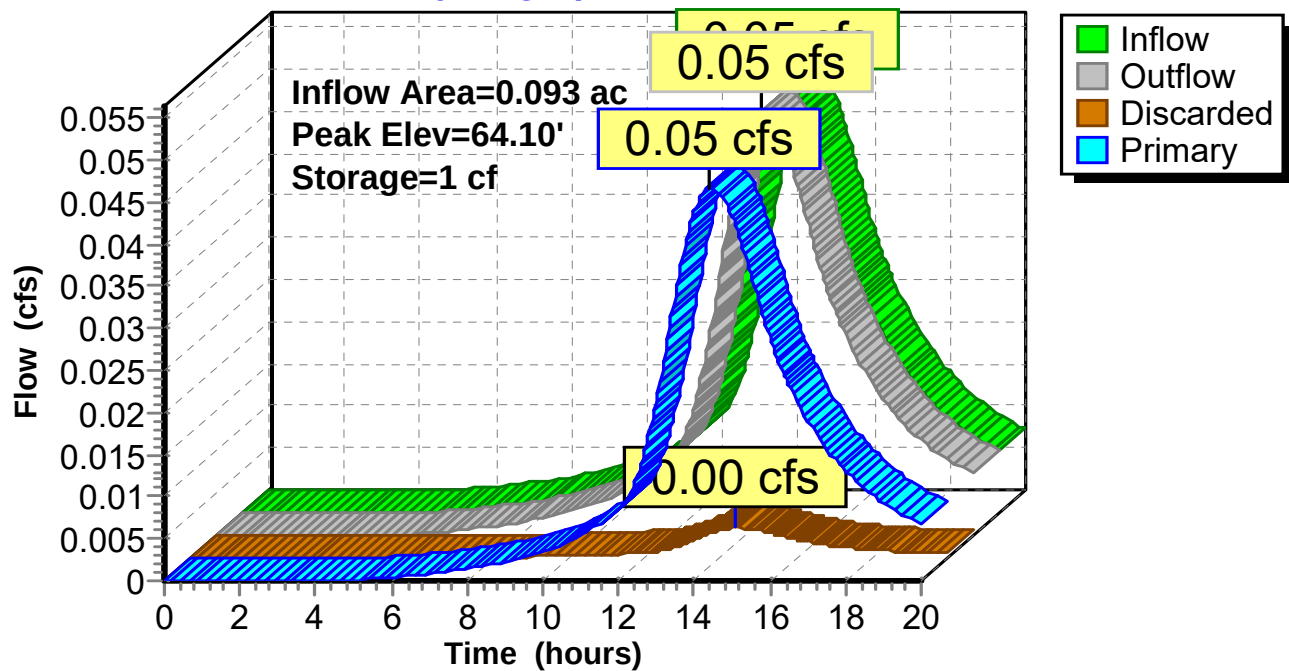
↑**2=Exfiltration** (Exfiltration Controls 0.22 cfs)

Primary OutFlow Max=2.82 cfs @ 14.40 hrs HW=64.10' (Free Discharge)

↑**1=Culvert** (Inlet Controls 2.82 cfs @ 8.09 fps)

Pond 3P: Pervious Pavers

Hydrograph



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

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Summary for Pond 6P: Outlet

Inflow Area = 1.270 ac, 97.70% Impervious, Inflow Depth > 2.59" for 2-YR event
Inflow = 3.51 cfs @ 12.07 hrs, Volume= 0.274 af
Outflow = 3.51 cfs @ 12.07 hrs, Volume= 0.274 af, Atten= 0%, Lag= 0.0 min
Primary = 3.51 cfs @ 12.07 hrs, Volume= 0.274 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.06' @ 12.07 hrs Surf.Area= 1 sf Storage= 1 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (747.4 - 747.4)

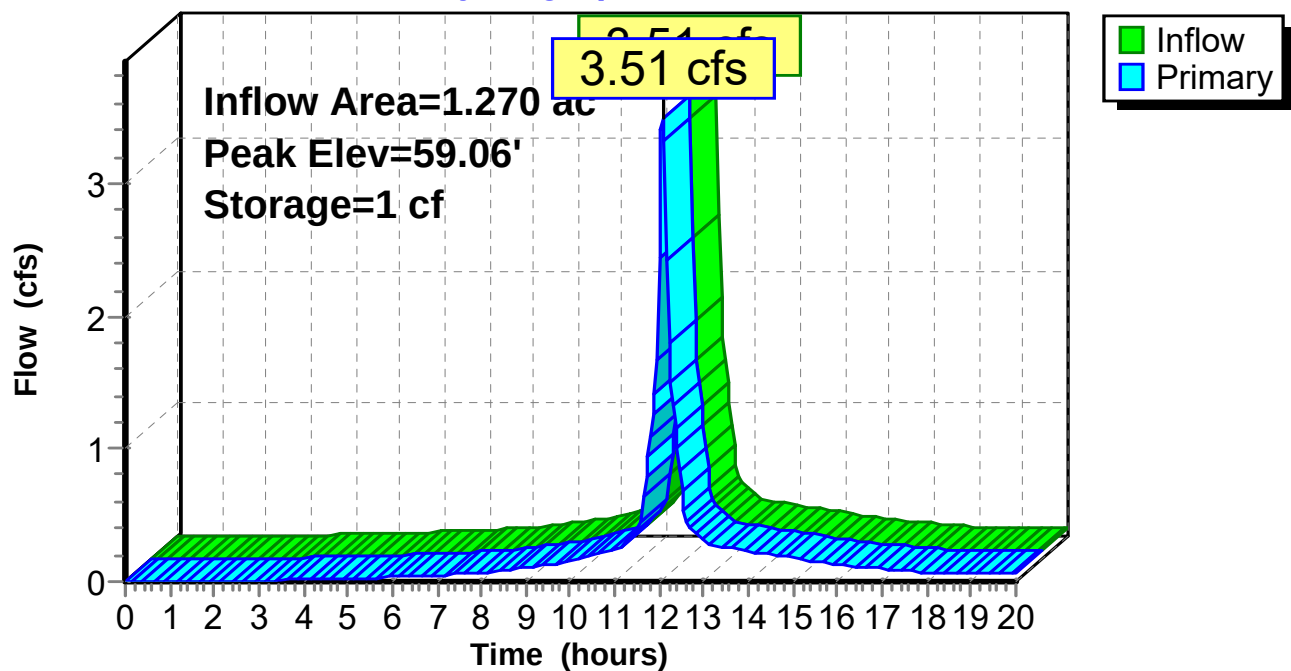
Volume	Invert	Avail.Storage	Storage Description
#1	57.80'	44 cf	12.0" Round Pipe Storage L= 56.5' S= 1.0000 '"/>

Device	Routing	Invert	Outlet Devices
#1	Primary	57.70'	12.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=3.40 cfs @ 12.07 hrs HW=59.01' (Free Discharge)
↑1=Orifice/Grate (Orifice Controls 3.40 cfs @ 4.33 fps)

Pond 6P: Outlet

Hydrograph



Pre & Post

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

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Page 1

Summary for Subcatchment 1S: Pre

Runoff = 5.39 cfs @ 12.07 hrs, Volume= 0.382 af, Depth> 3.61"

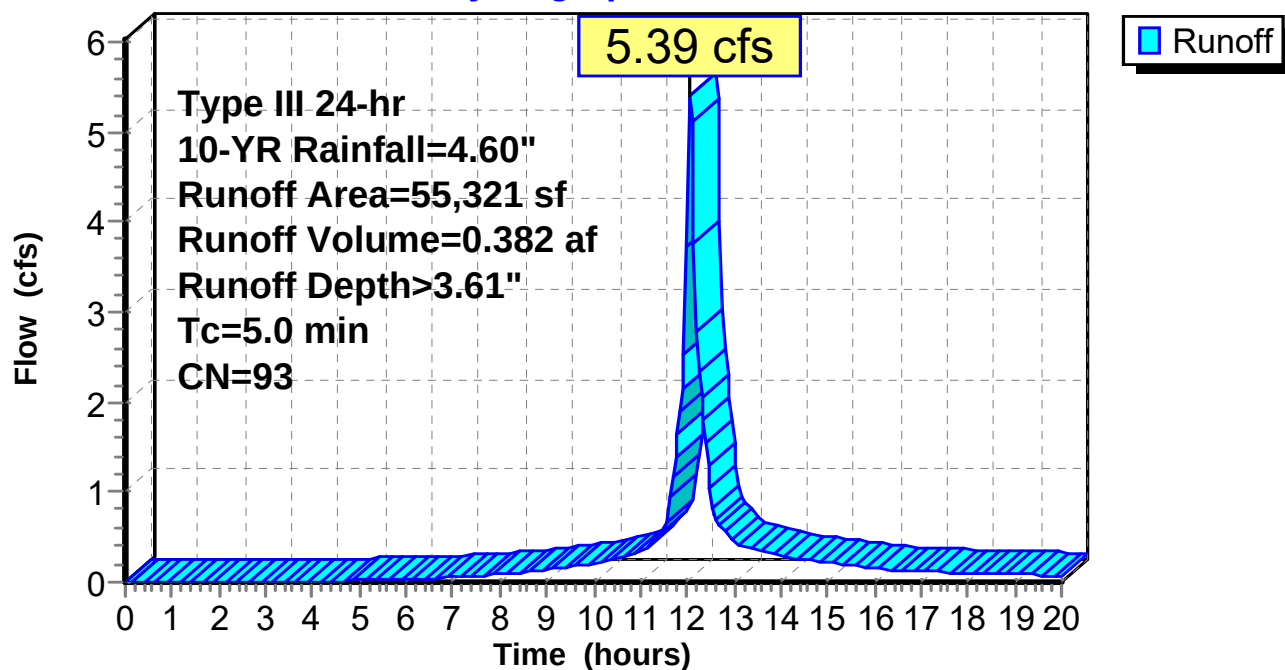
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
50,555	98	Paved parking, HSG A
4,766	39	>75% Grass cover, Good, HSG A
55,321	93	Weighted Average
4,766		8.62% Pervious Area
50,555		91.38% Impervious Area

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

Subcatchment 1S: Pre

Hydrograph



Pre & Post

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

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Page 2

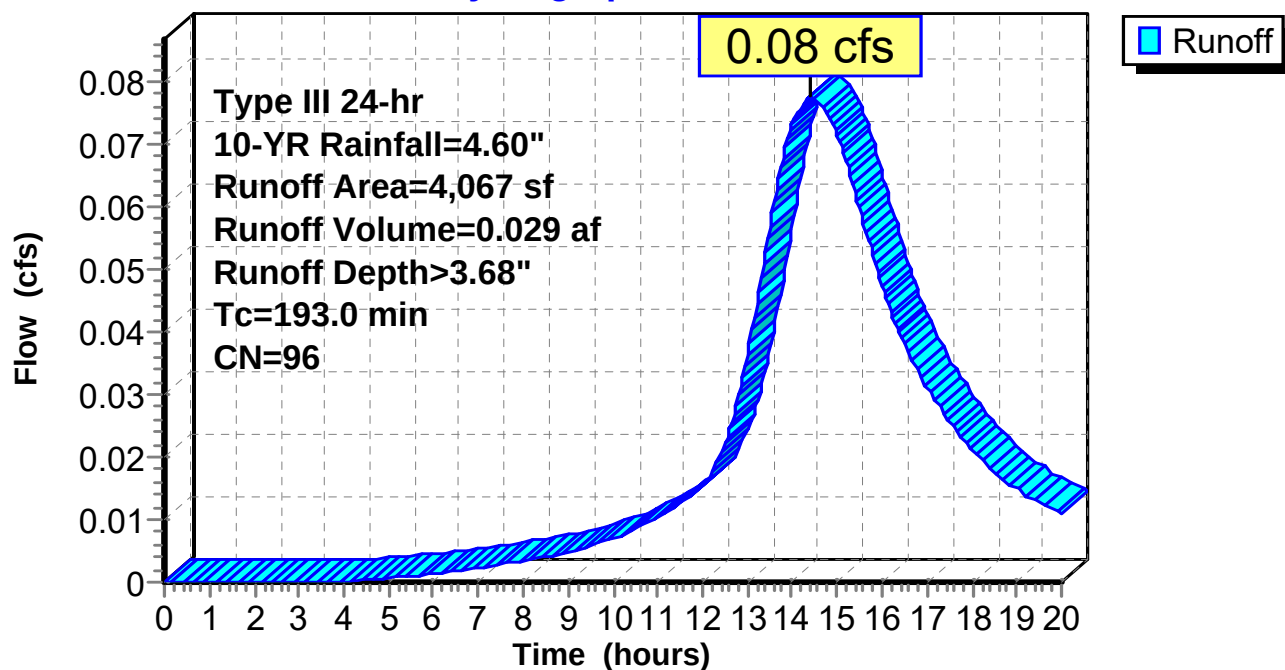
Summary for Subcatchment 2S: Pervious Pavers

Runoff = 0.08 cfs @ 14.38 hrs, Volume= 0.029 af, Depth> 3.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
3,899	98	Paved parking, HSG A
168	39	>75% Grass cover, Good, HSG A
4,067	96	Weighted Average
168		4.13% Pervious Area
3,899		95.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
193.0					Direct Entry, Filter Depth Calc

Subcatchment 2S: Pervious Pavers**Hydrograph**

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

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Summary for Subcatchment 3S: Post

Runoff = 5.28 cfs @ 12.07 hrs, Volume= 0.397 af, Depth> 4.05"

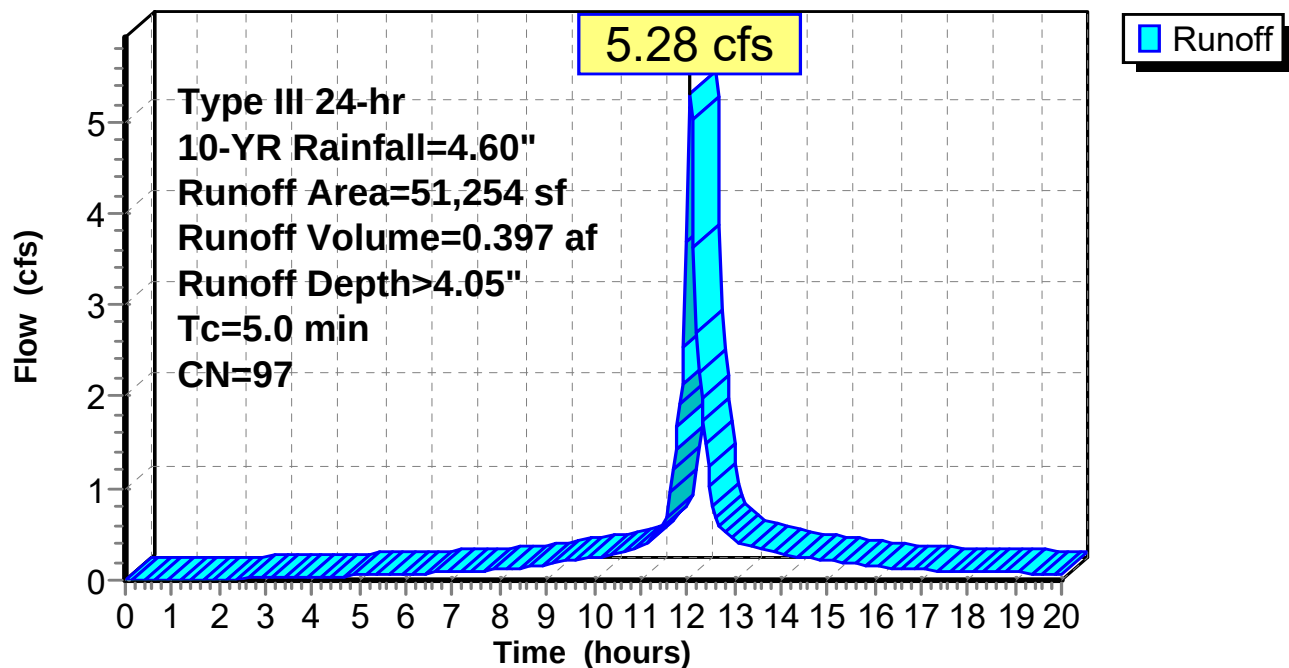
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
50,149	98	Paved parking, HSG A
1,105	39	>75% Grass cover, Good, HSG A
51,254	97	Weighted Average
1,105		2.16% Pervious Area
50,149		97.84% Impervious Area

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

Subcatchment 3S: Post

Hydrograph



Pre & Post

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

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Summary for Pond 3P: Pervious Pavers

Inflow Area = 0.093 ac, 95.87% Impervious, Inflow Depth > 3.68" for 10-YR event
 Inflow = 0.08 cfs @ 14.38 hrs, Volume= 0.029 af
 Outflow = 0.08 cfs @ 14.39 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.4 min
 Discarded = 0.01 cfs @ 14.39 hrs, Volume= 0.002 af
 Primary = 0.07 cfs @ 14.39 hrs, Volume= 0.027 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 64.10' @ 14.39 hrs Surf.Area= 3,899 sf Storage= 1 cf

Plug-Flow detention time= 0.2 min calculated for 0.029 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (883.0 - 882.9)

Volume	Invert	Avail.Storage	Storage Description
#1	65.77'	64 cf	Pavers (Prismatic) Listed below (Recalc) 1,287 cf Overall x 5.0% Voids
#2	65.44'	515 cf	4" Choker 1-1/2" (Prismatic) Listed below (Recalc) 1,287 cf Overall x 40.0% Voids
#3	64.60'	164 cf	10" Filter MDOT Type D (Prismatic) Listed below (Recalc) 3,275 cf Overall x 5.0% Voids
#4	64.10'	780 cf	6" - 3/4" Crushed Stone (Prismatic) Listed below (Recalc) 1,950 cf Overall x 40.0% Voids
		1,523 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
65.77	3,899	0	0
66.10	3,899	1,287	1,287

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
65.44	3,899	0	0
65.77	3,899	1,287	1,287

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.60	3,899	0	0
65.44	3,899	3,275	3,275

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.10	3,899	0	0
64.60	3,899	1,950	1,950

Device	Routing	Invert	Outlet Devices
#1	Primary	58.75'	8.0" Round Culvert L= 29.4' Ke= 1.000 Inlet / Outlet Invert= 58.75' / 57.80' S= 0.0323 1' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Discarded	64.10'	2.410 in/hr Exfiltration over Surface area

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

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Discarded OutFlow Max=0.22 cfs @ 14.39 hrs HW=64.10' (Free Discharge)

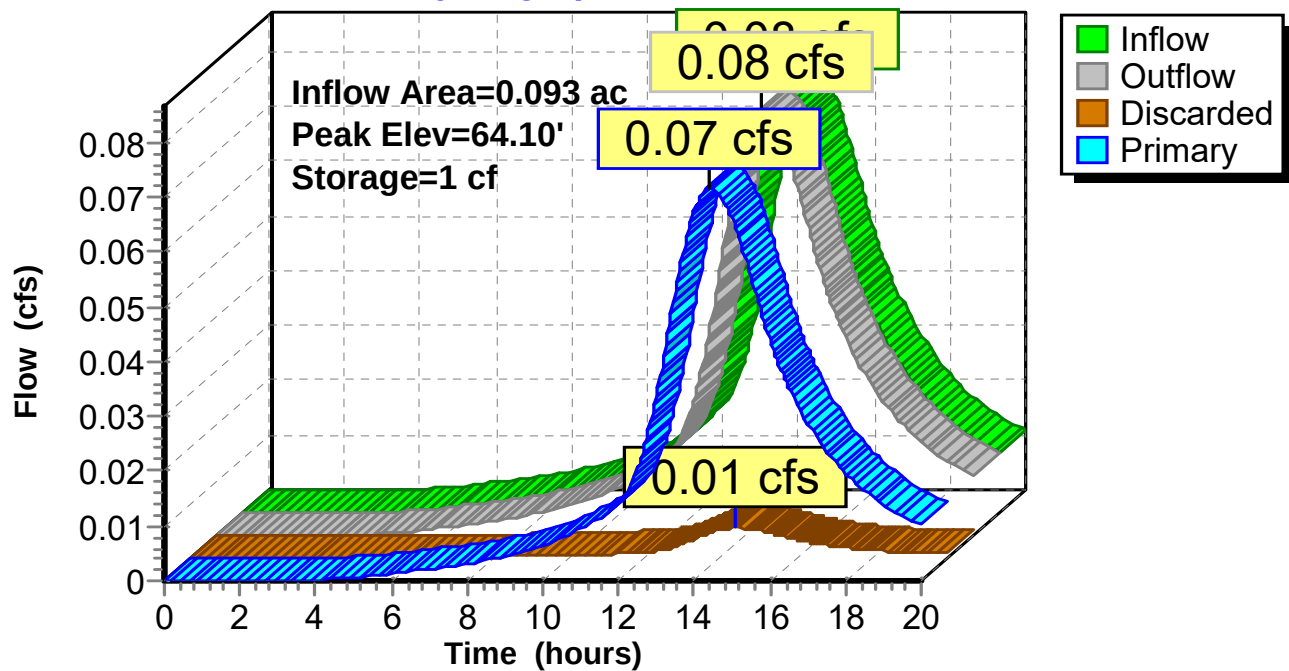
↑ **2=Exfiltration** (Exfiltration Controls 0.22 cfs)

Primary OutFlow Max=2.82 cfs @ 14.39 hrs HW=64.10' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 2.82 cfs @ 8.09 fps)

Pond 3P: Pervious Pavers

Hydrograph



Pre & Post

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

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Summary for Pond 6P: Outlet

Inflow Area = 1.270 ac, 97.70% Impervious, Inflow Depth > 4.00" for 10-YR event
Inflow = 5.30 cfs @ 12.07 hrs, Volume= 0.424 af
Outflow = 5.29 cfs @ 12.07 hrs, Volume= 0.424 af, Atten= 0%, Lag= 0.0 min
Primary = 5.29 cfs @ 12.07 hrs, Volume= 0.424 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.14' @ 12.07 hrs Surf.Area= 1 sf Storage= 1 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (738.7 - 738.7)

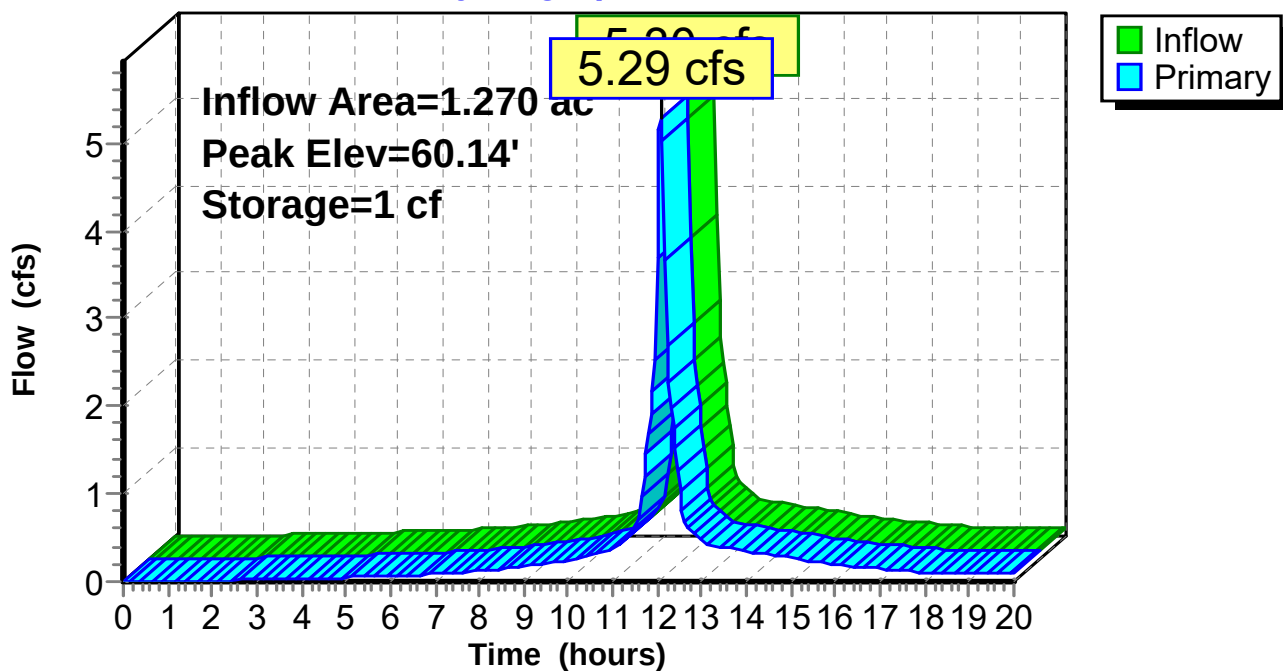
Volume	Invert	Avail.Storage	Storage Description
#1	57.80'	44 cf	12.0" Round Pipe Storage L= 56.5' S= 1.0000 '/'

Device	Routing	Invert	Outlet Devices
#1	Primary	57.70'	12.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=5.11 cfs @ 12.07 hrs HW=60.02' (Free Discharge)
↑ **1=Orifice/Grate** (Orifice Controls 5.11 cfs @ 6.50 fps)

Pond 6P: Outlet

Hydrograph



Pre & Post

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

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Summary for Subcatchment 1S: Pre

Runoff = 6.95 cfs @ 12.07 hrs, Volume= 0.501 af, Depth> 4.74"

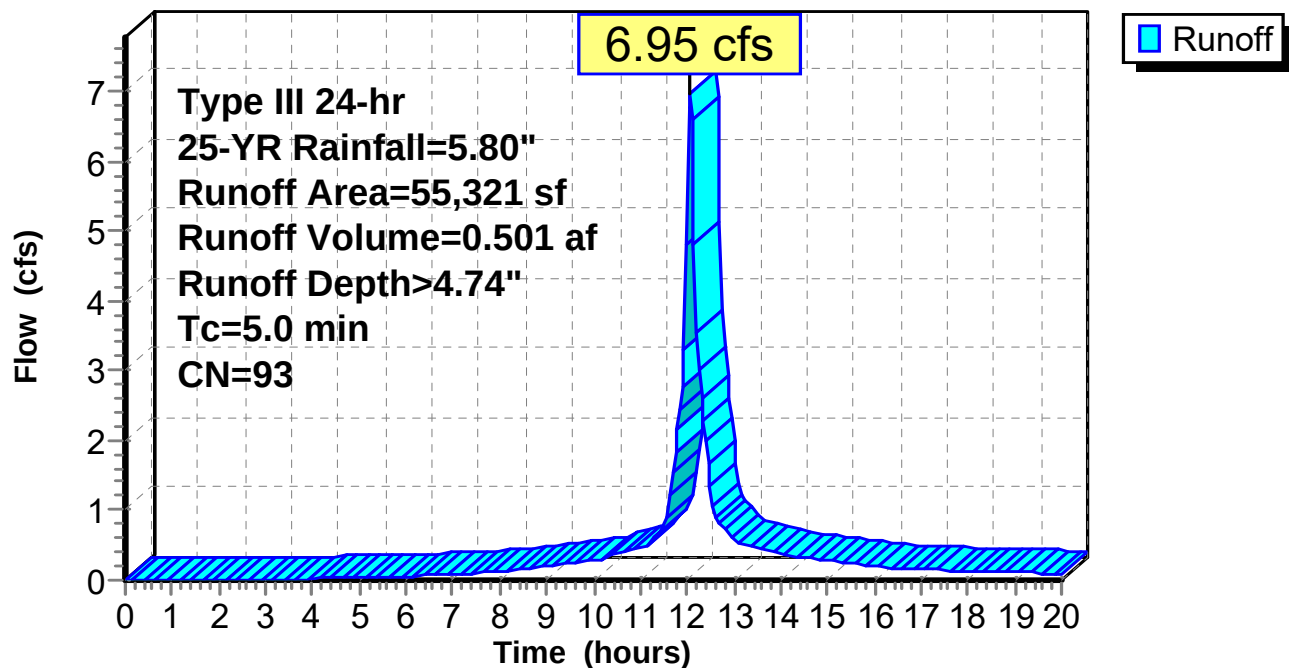
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
50,555	98	Paved parking, HSG A
4,766	39	>75% Grass cover, Good, HSG A
55,321	93	Weighted Average
4,766		8.62% Pervious Area
50,555		91.38% Impervious Area

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

Subcatchment 1S: Pre

Hydrograph



Pre & Post

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

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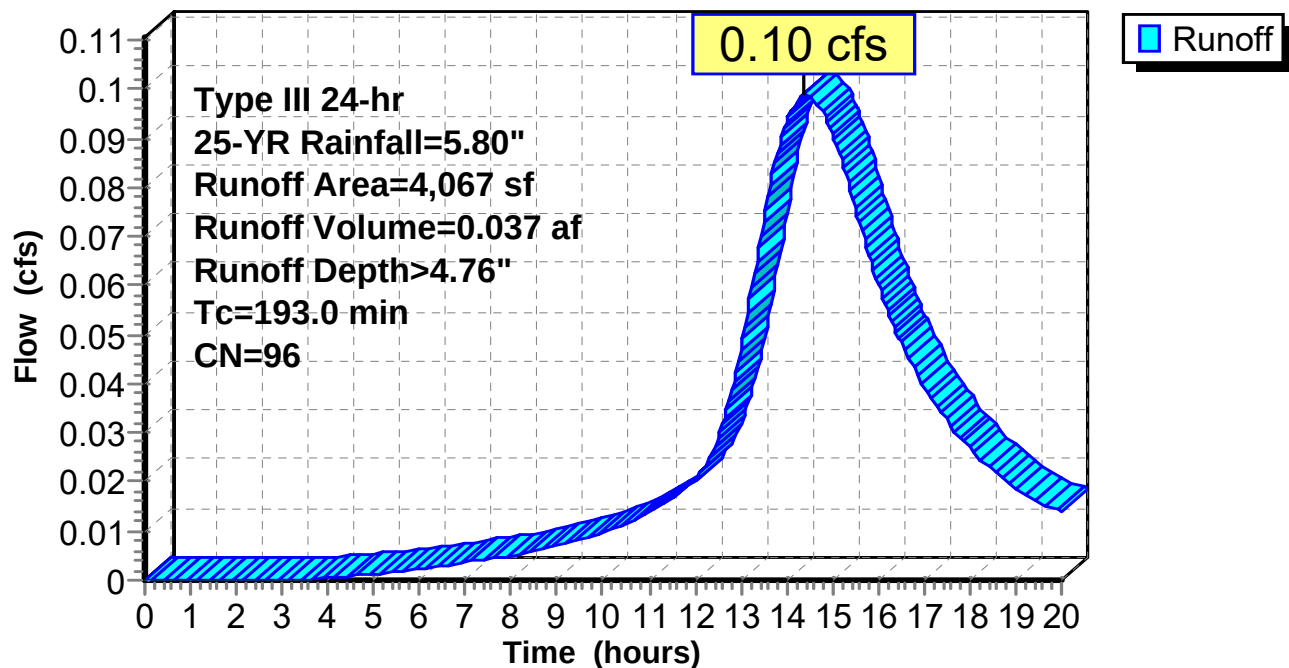
Summary for Subcatchment 2S: Pervious Pavers

Runoff = 0.10 cfs @ 14.38 hrs, Volume= 0.037 af, Depth> 4.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
3,899	98	Paved parking, HSG A
168	39	>75% Grass cover, Good, HSG A
4,067	96	Weighted Average
168		4.13% Pervious Area
3,899		95.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
193.0					Direct Entry, Filter Depth Calc

Subcatchment 2S: Pervious Pavers**Hydrograph**

Pre & Post

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

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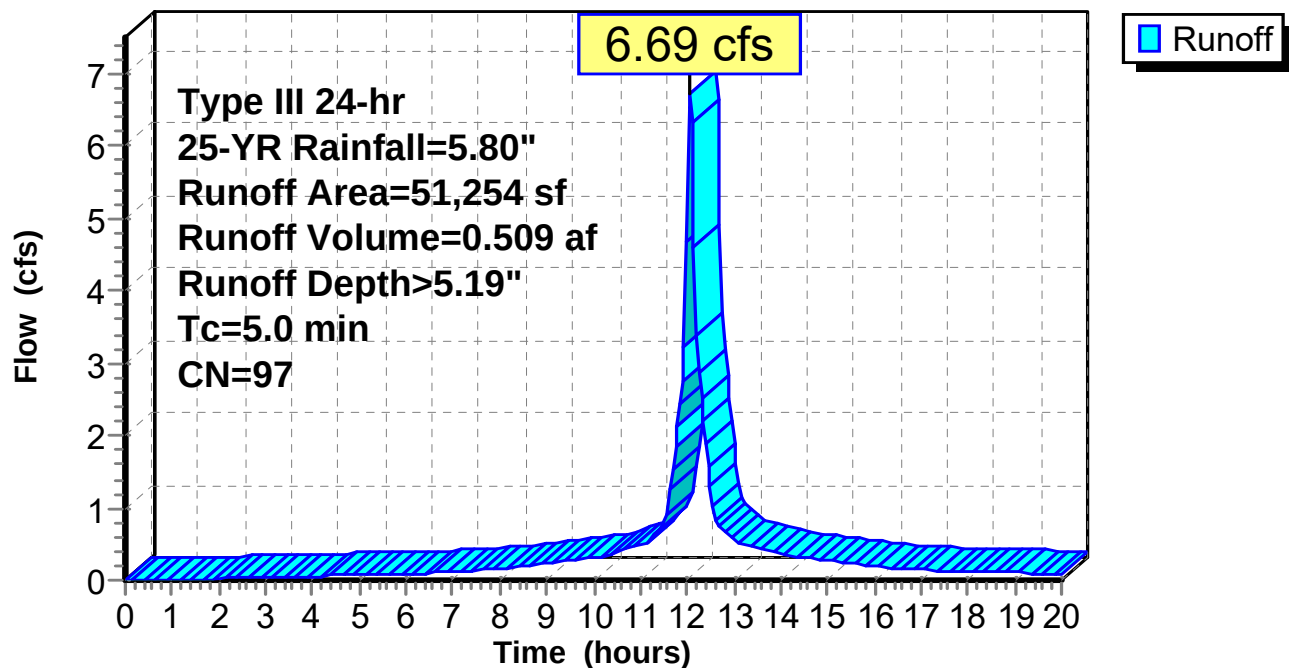
Summary for Subcatchment 3S: Post

Runoff = 6.69 cfs @ 12.07 hrs, Volume= 0.509 af, Depth> 5.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
50,149	98	Paved parking, HSG A
1,105	39	>75% Grass cover, Good, HSG A
51,254	97	Weighted Average
1,105		2.16% Pervious Area
50,149		97.84% Impervious Area

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

Subcatchment 3S: Post**Hydrograph**

Pre & Post

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

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Summary for Pond 3P: Pervious Pavers

Inflow Area = 0.093 ac, 95.87% Impervious, Inflow Depth > 4.76" for 25-YR event
 Inflow = 0.10 cfs @ 14.38 hrs, Volume= 0.037 af
 Outflow = 0.10 cfs @ 14.39 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.4 min
 Discarded = 0.01 cfs @ 14.39 hrs, Volume= 0.003 af
 Primary = 0.09 cfs @ 14.39 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 64.10' @ 14.39 hrs Surf.Area= 3,899 sf Storage= 1 cf

Plug-Flow detention time= 0.2 min calculated for 0.037 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (878.1 - 877.9)

Volume	Invert	Avail.Storage	Storage Description
#1	65.77'	64 cf	Pavers (Prismatic) Listed below (Recalc) 1,287 cf Overall x 5.0% Voids
#2	65.44'	515 cf	4" Choker 1-1/2" (Prismatic) Listed below (Recalc) 1,287 cf Overall x 40.0% Voids
#3	64.60'	164 cf	10" Filter MDOT Type D (Prismatic) Listed below (Recalc) 3,275 cf Overall x 5.0% Voids
#4	64.10'	780 cf	6" - 3/4" Crushed Stone (Prismatic) Listed below (Recalc) 1,950 cf Overall x 40.0% Voids
		1,523 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
65.77	3,899	0	0
66.10	3,899	1,287	1,287

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
65.44	3,899	0	0
65.77	3,899	1,287	1,287

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.60	3,899	0	0
65.44	3,899	3,275	3,275

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.10	3,899	0	0
64.60	3,899	1,950	1,950

Device	Routing	Invert	Outlet Devices
#1	Primary	58.75'	8.0" Round Culvert L= 29.4' Ke= 1.000 Inlet / Outlet Invert= 58.75' / 57.80' S= 0.0323 1' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Discarded	64.10'	2.410 in/hr Exfiltration over Surface area

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

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Discarded OutFlow Max=0.22 cfs @ 14.39 hrs HW=64.10' (Free Discharge)

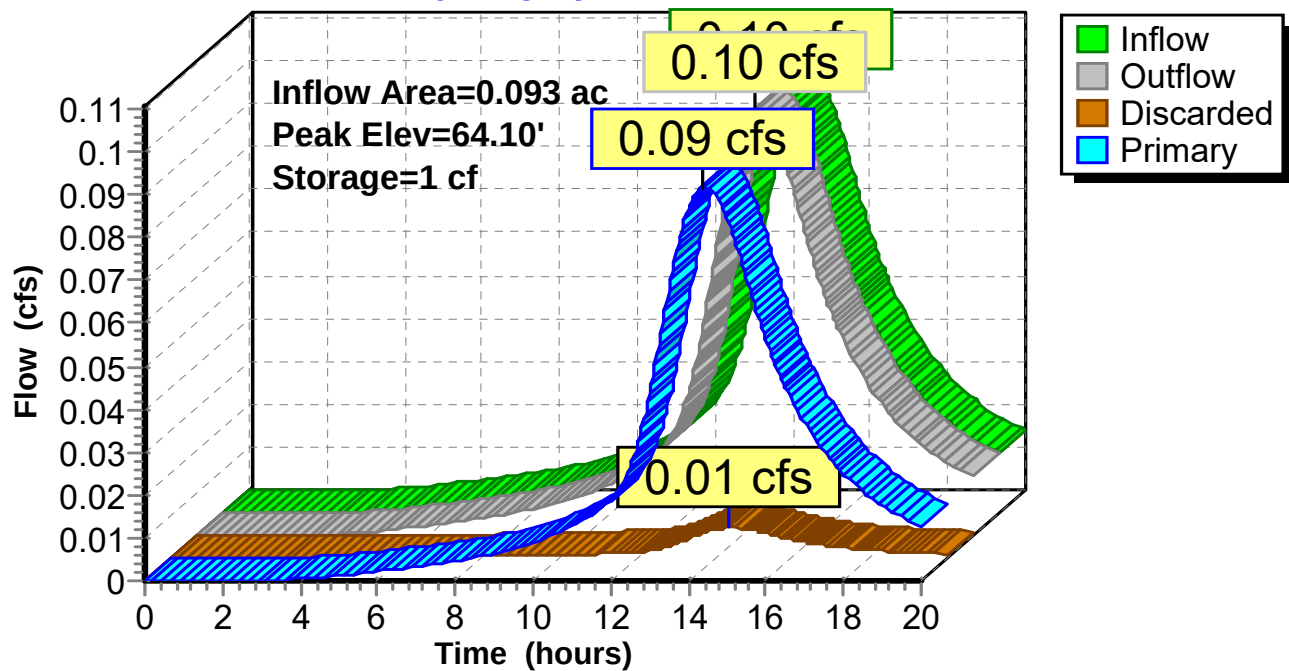
↳ **2=Exfiltration** (Exfiltration Controls 0.22 cfs)

Primary OutFlow Max=2.82 cfs @ 14.39 hrs HW=64.10' (Free Discharge)

↳ **1=Culvert** (Inlet Controls 2.82 cfs @ 8.09 fps)

Pond 3P: Pervious Pavers

Hydrograph



Pre & Post

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

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Summary for Pond 6P: Outlet

Inflow Area = 1.270 ac, 97.70% Impervious, Inflow Depth > 5.13" for 25-YR event
Inflow = 6.71 cfs @ 12.07 hrs, Volume= 0.543 af
Outflow = 6.71 cfs @ 12.07 hrs, Volume= 0.543 af, Atten= 0%, Lag= 0.0 min
Primary = 6.71 cfs @ 12.07 hrs, Volume= 0.543 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.32' @ 12.07 hrs Surf.Area= 1 sf Storage= 2 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (734.2 - 734.2)

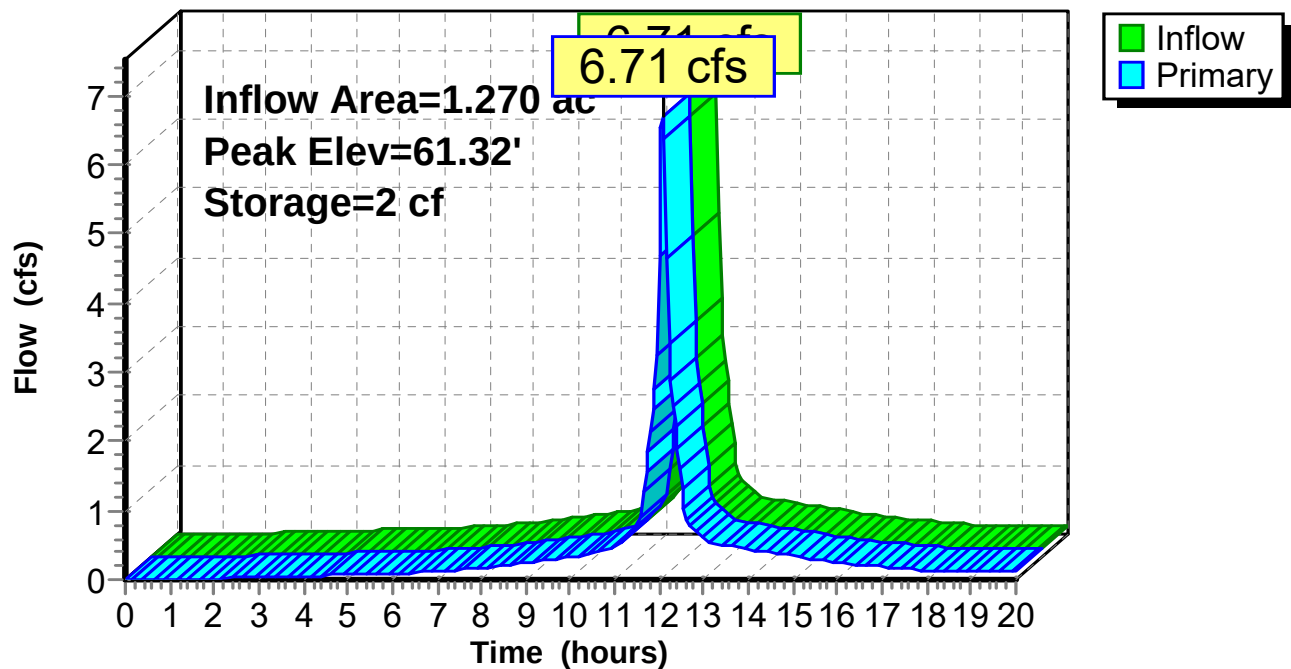
Volume	Invert	Avail.Storage	Storage Description
#1	57.80'	44 cf	12.0" Round Pipe Storage L= 56.5' S= 1.0000 '"/>

Device	Routing	Invert	Outlet Devices
#1	Primary	57.70'	12.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=6.47 cfs @ 12.07 hrs HW=61.13' (Free Discharge)
↑**1=Orifice/Grate** (Orifice Controls 6.47 cfs @ 8.24 fps)

Pond 6P: Outlet

Hydrograph



Section K:
Erosion & Sedimentation
Control Report



EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**Redfern Downtown, LLC
P.O. Box 8816
Portland, Maine 04104**

Prepared By:

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



September 2020

INTRODUCTION

Acorn Engineering, Inc. has been retained by Redfern Downtown, LLC. to provide civil engineering services for a proposed development at 200 Federal Street in Portland, ME. The project proposes to construct a new, 18-story, mixed-use building with interior ground level parking. The proposed building will be constructed on a portion of the parcel currently comprised of surface parking, landscaping and a brick patio area.

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 (E) Level II 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 is located at 200 Federal Street in Portland. A Boundary & Topographic Survey has been prepared by Owen Haskell, Inc. of Falmouth, Maine dated November 12, 2019, Revised September 2, 2020.

The property is in the B3 Downtown Business Zoning District, Downtown Height Overlay, Pedestrian Encouragement Zone, Downtown Entertainment Overlay Zone and Congress Street Historic District. The majority (approximately 91%) of the site is impervious in the form of brick, pavement, or roof cover.

The project team is not aware of the presence of any existing significant natural features located on the site. Given the urban setting, and existing impervious surfaces, a field inventory of significant natural feature was not undertaken. The project is not located within a watershed classified as an Urban Impaired Stream, as depicted on the Maine DEP “Urban Impaired Streams Watersheds” GIS Map, dated 5/31/18.

Existing Soils

Onsite soil information has been obtained from the following:

- United States Department of Agriculture Web Soil Survey
- “Soil Boring Log – New Multi Story Building Federal Street” dated 10/26/19 performed by Summit Geoengineering Services

There is no proposed onsite wastewater disposal; therefore, 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.

According to the USDA WSS report generated for the parcel, the area within and surrounding the project includes the soil type listed in the table below. The erosion factor, “K”, indicates the susceptibility of soils to sheet and rill erosion by water erosion. The estimated “K” factor shown below is based on a percentage of silt, sand and organic matter as well as soil structure and saturated hydraulic conductivity. Values of “K” have a range of 0.02 to 0.69. Higher “K” values indicate a higher susceptibility to sheet and rill erosion by water.

Table 1 - “K” Value		
Soils Type	Subsurface	Substratum
Hinckley	0.17	0.17

The soil “K” value listed above, shows a low susceptibility to erosion. 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 12% slopes throughout the site.

1.1 Existing Erosion Problems

There are no existing signs of erosion.

1.2 Critical Areas

Critical areas that would require special attention during construction include, but are not limited to, the existing structures, the drainage network within Federal Street & Temple Street, abutting properties to the east and north, shared driveways, slope stabilization during trenching & additional areas located within the vicinity during earthwork and foundation construction.

1.3 Protected Natural Resource

The project team is not aware of the presence of any existing significant natural features located on the site. Given the urban setting, and existing impervious surfaces, a field inventory of significant natural feature was not undertaken. The project is not located within a watershed classified as an Urban Impaired Stream, as depicted on the Maine DEP “Urban Impaired Streams Watersheds” GIS Map, dated 5/31/18.

1.4 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.

1.5 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 FODS Trackout Control Entrance (urban alternative to typical crushed stone stabilized construction entrance) be placed at all access points to the project site where there are disturbed areas. The following specifications must be followed at a minimum:

- The entrance shall not be less than 20 feet wide, however not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.
- The contractor to follow the most recent version of manufacturer's specifications.
- FODS Trackout Control Mat System: Manufacturer FODS, (844) 200-3637
- Examine area where tracking pad will be placed, to determine what preparation is needed.
- Examine panels as they arrive on the site to verify they are undamaged and suitable for intended purpose.
- Grade topsoil to ensure that installation site is flat, without unneeded high spots or low spots.
- If necessary, remove unsuitable material and replace with material capable of supporting construction loads. Compact as required.
- If substrate has a CBR of 4 or less, incorporate aggregate, geotextile or geogrid into the supporting strata.
- Install culvert, if needed, before installing tracking pad. Backfill to adequately support minimum H-20 traffic loading.
- Install tracking pad to the approximate lines and grades indicated on the drawings. Size shall be as indicated on the drawings, or, if no size is indicated, pad length shall be the greater of 35 feet; or 3 times the circumference of the largest tire that will cross is during the project.
- Provide number of individual panels of tracking pad to make up the size required. Adjacent panels shall be butted together and be at approximately the same elevation. Anchor panels against sliding according to manufacturer's recommendations.
- Place H-bracket between first and second mat, and all adjacent mats.
- Connect mats together using long steel straps per manufacturer's instructions.
- Anchor mats to surface per manufacturer's specifications per substrate.



- Provide extra panels for turning radii, if needed to prevent trucks from running off the pad during turns.
 - Clean dirt and debris from tracking pad as often as necessary or once debris has reached 2.5-inches in the lane of travel. Properly dispose of material removed so it does not leave the site or enter ditches of stormwater pipes.
 - Once the site is stabilized, or when the project moves into a new phase such that the tracking pad is no longer required, remove tracking pad, taking care to properly dispose of dirt and debris, and restore the area as described in section 31 25 01.
- 2.1.2 Siltation fence, erosion control berm, or filter socks 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 Federal Street & Temple 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 prior to rain events.
- 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. Sediment 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 in 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, 90% 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 90% 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 90% 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 actions shall be taken to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 90% 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 of 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 FODS Trackout Control Entrances

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

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

The contractor shall re-vegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event. The



contractor shall incorporate planned inlets and drainage systems as early as possible into the construction phase.

8.0 **CONCLUSION**

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

9.0 **ATTACHMENTS**

- Temporary Seeding Plan
- Permanent Seeding Plan



TEMPORARY SEEDING PLAN

Site Preparation

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

Seedbed Preparation

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

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

Seeding

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

Seed	Pounds / 1,000 S.F.	Recommended Seeding Dates
Winter Rye	2.5	Aug-15 to Oct-1
Oats	1.8	Apr-1 to Jul-1 Aug-15 to Sep-15
Annual Ryegrass	0.9	Apr-1 to Jul-1
Sudangrass	0.9	May-15 to Aug-15
Perennial	0.9	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.

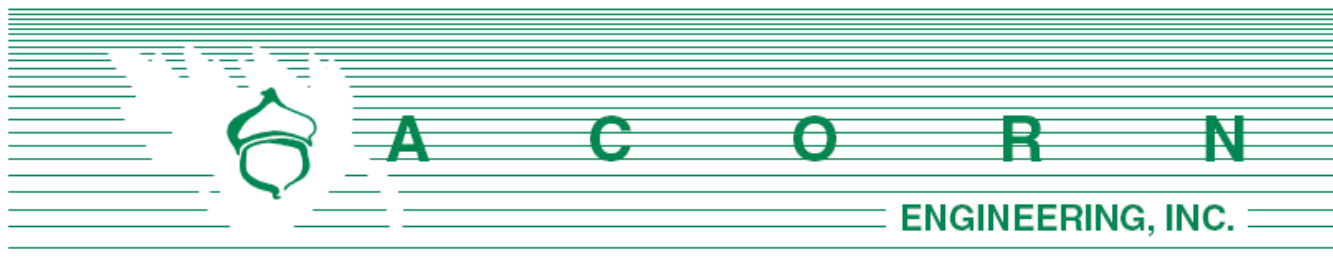
Conclusion

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



Section L: **Fire Department Letter**





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

September 4, 2020

Subject: 200 Federal Street – Fire Department Checklist

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

1. Name, address, telephone number of Applicant:
Redfern Downtown, LLC
jonathan@redfernproperties.com
(207) 776-9715
2. Name address, telephone number of Architect:
Ryan Senatore Architecture
Ryan Senatore
ryan@senatorearchitecture.com
(207) 650-6414
3. Proposed uses of any structures [NFPA and IBC classification
Please refer to attached Section O: Architectural Design Narrative
4. Square footage of all structures
The existing parking lot, landscaping & brick patio area are to be removed to facilitate the proposed structure with a gross floor area of 192,375 square feet. Please refer to attached Architectural Plan Set for additional information.
5. Elevation of all structures
Based upon the average grade plane defined by the IBC, the proposed building height is approximately 190'. Please refer to attached Architectural Plan Set for additional information.
6. Proposed fire protection of all structures
Please refer to attached Section O: Architectural Design Narrative with includes a Fire Protection/Life Safety Code Report prepared by Code Red Consultants.
7. Hydrant locations
Two existing hydrants are located on Federal Street, one of which is approximately 66 feet from the southwesterly side of the proposed building & the other at 61 feet from the southeasterly side of the proposed building. Once received, hydrant flow data requested

from the Portland Water District may be made available to the Fire Department upon request. The applicant is working with Portland Water District on Federal Street main, hydrant & service modifications.

8. Water main size and location

The redevelopment will be serviced by a new, 12" ductile iron water main within Federal Street. An 8" sprinkler service line will extend from the proposed water main to the building fire suppression system. Please refer to Utility Plan – 1 (C-20) & Utility Plan – 2 (C-21) in the Civil Plan Set accompanying the submission for additional information.

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

Access to the proposed structure is provided directly on the southeast along Temple Street and southwest along Federal Street.

10. Please refer to attached Section O: Architectural Design Narrative for code summaries.

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

The portion of the parcel to be developed has frontage along both Federal Street and Temple Street, with the following public street widths available:

- Federal Street (Southeast): 66 feet
- Temple Street (Southwest): 70 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: Please refer to #9 above.

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

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

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

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

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

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

Response: There are no proposed overhead obstructions between the street and proposed building.

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

Response: Please refer to attached Section O: Architectural Design Narrative

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

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

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

Sincerely,



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





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

Date: November 5, 2020

Re: Wastewater Capacity Authorization

Address: 200 Federal Street
 Applicant: Redfern Downtown, LLC

Planner: Caitlin Cameron

Anticipated Wastewater Flow:

Estimate of Anticipated Design Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing flow to be removed				
Vacant				0
Proposed flow				
Employees at place of employment with no showers- Office	# Employees	2	12	24
Employees at place of employment with no showers- Retail	# Employees	4	12	48
Public restroom- Retail	# Toilets	1	325	325
Multiple Family Dwelling Units	Studio	118	120	14160
Multiple Family Dwelling Units	1-Bedroom	146	120	17520
Multiple Family Dwelling Units	2-Bedroom	2	180	360
Net Change				+ 32112
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				

Comments:

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

You are reminded that the sewers you are proposing to connect into convey both sanitary and stormwater

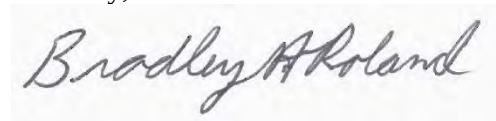
212 Canco Road, Ste B • Portland, ME 04103 • 207-874-8801

cbranch@portlandmaine.gov • www.portlandmaine.gov

(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 cursive script that reads "Bradley A. Roland". The signature is written in dark ink on a light-colored, slightly textured background.

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

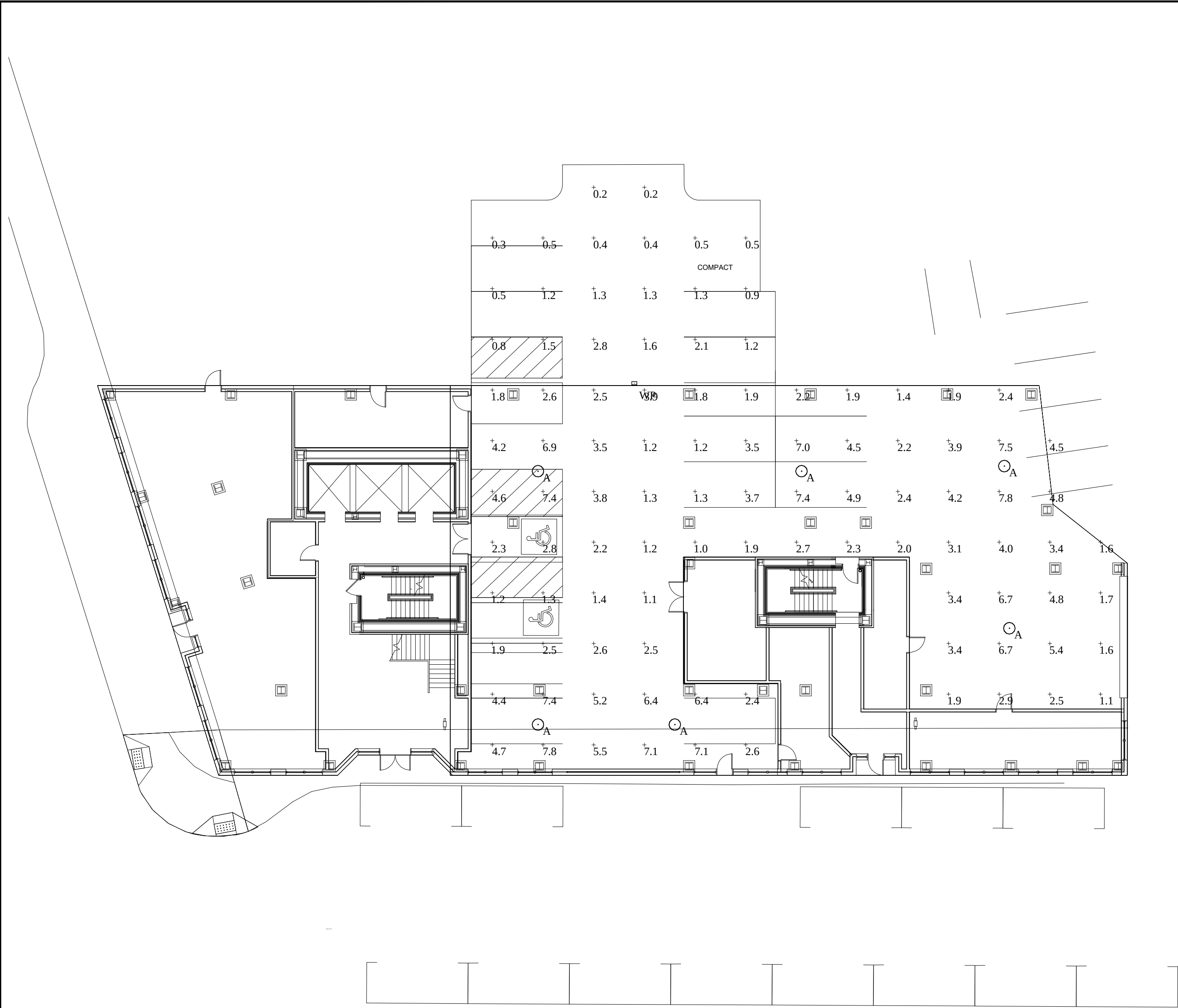
Section N:
Lighting



Lighting

Please find the attached photometric plan and cut sheets prepared by Swaney Lighting Associates.





Luminaire Schedule							
Symbol	Qty	Label	Mounting Height	LLF	Lum. Lumens	Lum. Watts	Description
⊙	6	A	9' - 0" AFG	0.900	6089	51.2	SRT2-50-4K7-5QW
⊠	1	WP	12' - 0" AFG	0.900	2789	28	TRP1-12L30-4K7-4

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Overall Area	Illuminance	Fc	3.02	7.8	0.2	15.10	39.00

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:

FEDERAL STREET DEVELOPMENT
PORTLAND, ME
SITE PHOTOMETRIC PLAN

REVISED FROM DRAWING NUMBER(S):



Hubbell Lighting, Inc.
701 MILLENNIUM BLVD.
GREENVILLE, SC 29607

ON BY:
DHK

REV BY:

QUOTE:
N/A

DATE:
11/14/19

DATE:

DRAWING / DESIGN NO.:
1925339

CHK BY:
N/A

SCALE:
AS NOTED

Page 124

SRT2 EDGE-LIT

CEILING/SURFACE/GARAGE

FEATURES

- Edge-lit optical assembly delivers exceptional uniformity over the entire lens with indirect illumination that reduces glare and improves visual comfort
- Low profile housing intended for 8' - 20' mounting heights for surface, trunnion/yoke or pendant mounting
- Applications include parking garage, walkway or building canopies, corridors, tunnels, large stairwells and other interior applications
- Multiple optical distributions are available making the Beacon Edge-Lit luminaire both versatile and functional
- UL/cUL listed for wet locations, IP65 and 3G vibration rated
- Ambient temperatures of up to 40°C

CONTROL TECHNOLOGY



SPECIFICATIONS

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 4,000–16,000
- Five distribution types: Type V Square, Type V Rectangular, Type V Concentrated, Type V Wide or Asymmetric (Type 3/4)
- Wide variety of CCT's and CRI's offered: 3000K (70CRI), 3000K (80CRI), 3500K (80CRI), 4000K (70CRI), 4000K (80CRI) or 5000K (70 CRI) CCT

ELECTRICAL

- 120V–277V 50/60Hz with 347V and 480V available
- 0-10V dimming drivers are RoHS compliant and IP66
- Surge protection – Standard 10kA with optional end of life LED indicator

INSTALLATION

- Standard quick mount plate over standard 4" square junction box or octagonal box and allows for simplified fixture installation.
- Standard luminaire accepts a rigid or free-swinging 3/4" NPT stem for pendant mount via wet location j-box (by others)
- Optional bird deterrent shroud available for field installation
- Optional trunnion/yoke mount available for field installation

OPTIONS/CONTROLS

- Standalone occupancy sensor available for on/off or dimming operation
- NX Distributed Intelligence™ available with in fixture wireless control module, features dimming and occupancy sensor
- wiSCAPE® available with in fixture wireless control module, features dimming and occupancy sensor
- UL924 device available for standalone and wireless control override during power interruptions
- Uplight option provides approximately 800 lumens and consumes only 8 additional watts
- Integral battery backup option available with and without heater. Rated for 0°C (without heater) and -30°C (with heater)
- Emergency lighting relay available for generator or central inverter supplied lighting
- Vandal resistant wire guard available as an option for factory installation or as an accessory for field installation

RELATED PRODUCTS

- [Drive Edge-Lit SRT1](#)
[Arceos™ ARS Surface](#)
[Endura](#)

CERTIFICATIONS

- Listed to UL1598 for use in wet location, listed for -40°C to 40°C applications
- IDA approved with zero uplight for 3000K and warmer CCTs
- IP65

WARRANTY

- 5 year warranty
- See [HLI Standard Warranty](#) for additional information

KEY DATA	
Lumen Range	4000–16000
Wattage Range	30–140
Efficacy Range (LPW)	110–135
Reported Life (Hours)	L70>50K
Weight lbs. (kg)	15 (5.8)



SRT2 EDGE-LIT

CEILING/SURFACE/GARAGE

ORDERING GUIDE

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

Example: SRT2 30 3K7 5QW UNV GT WG

CATALOG #

Series	Engine	CCT	Distribution	Voltage	Color/Finish	Options
SRT2 Edge-Lit Parking Garage Size 2	30 30W Nominal 4000 lm	3K7 3000K, 70 CRI	5QW Type Square Wide ¹	UNV 120V- 277V	BL Textured Black	CD Continuous Dimming ⁶
	50 50W Nominal 6000 lm	3K8 3000K, 80 CRI	5RW Type 5 Rect. Wide ¹	120 120V	DB Textured Dark Bronze	WG Wire Guard
	65 65W Nominal 8000 lm	35K8 3500K, 80 CRI	5C Type 5 Concentrated	208 208V	GT Graphite Textured	UD Uplight Module ³
	85 85W Nominal 10000 lm	4K7 4000K, 70 CRI	5W Type 5 Wide ⁴	240 240V	GYS Smooth Gray	F Single Fuse (120, 277, 347V) ²
	100 100W Nominal 12000 lm	4K8 4000K, 80 CRI	ASY Asymmetric (Type 4) ¹	277 277V	PS Smooth Plat. Silver	F Double Fuse (208, 240, 480V) ²
	120 120W Nominal 14000 lm	5K7 5000K, 70 CRI		347 347V	WH Textured White	E EM Battery Pack (0°C) ²
	140 140W Nominal 16000 lm			480 480V	CC Custom Color	EH EM Battery w/Heater (-30°C) ²
						ELR Emergency Lighting Relay ³
						LD3 36" Lead Length ⁵
						LD6 72" Lead Length ⁵
						LD9 108" Lead Length ⁵
						SP10K 10kA Surge Protection with End of Life LED Indicator
						LMB Less Mounting Bracket

Control Options	
<u>NX Standalone</u>	
NXOS-12F	NX Distributed Intelligence™, PIR Occ. Sensor, Dimming Daylight Harvesting, up to 12' MH
NXSP-30F	NX Distributed Intelligence™, PIR Occ. Sensor, Dimming Daylight Harvesting, up to 30' MH
NXOS924-12F	NX Distributed Intelligence™, PIR Occ. Sensor with UL924 dimming bypass module for controls override, up to 12' MH ³
NXSP924-30F	NX Distributed Intelligence™, PIR Occ. Sensor, with UL924 dimming bypass module for controls override, up to 30' MH ³
<u>NX Networked – Wireless¹</u>	
NXWE	NX Distributed Intelligence™ Wireless Enabled (module + radio)
NXOSW-12F	NX Distributed Intelligence™ Wireless, PIR Occ. Sensor, Dimming Daylight Harvesting, up to 12' MH
NXSPW-30F	NX Distributed Intelligence™ Wireless, PIR Occ. Sensor, Dimming Daylight Harvesting, up to 30' MH
NXWE924	NX Distributed Intelligence™ Wireless Enabled with UL924 dimming bypass module for controls override ³
NXOSW924-12F	NX Distributed Intelligence™ Wireless, PIR Occ. Sensor with UL924 dimming bypass module for controls override, up to 12' MH ³
NXSPW924-30F	NX Distributed Intelligence™ Wireless, PIR Occ. Sensor with UL924 dimming bypass module for controls override, up to 30' MH ³
<u>wiSCAPE® – Wireless¹</u>	
WIR	Wireless Controls, wiSCAPE®
WIRSC	wiSCAPE® + occupancy sensor
WIR924	Wireless Controls, wiSCAPE® with UL924 dimming bypass module for controls override ³
WIRSC924	wiSCAPE® + occupancy sensor with UL924 dimming bypass module for controls override ³
<u>Sensor Controls</u>	
SCP-8F	Remote control programmable line voltage sensor (8-12' recommended MH)
SCP-20F	Remote control programmable line voltage sensor (12-20' recommended MH)
SCP924-8F	Programmable sensor with UL924 dimming bypass module for controls override (8-12' recommended MH) ³
SCP924-20F	Programmable sensor with UL924 dimming bypass module for controls override (12-20' recommended MH) ³

Accessories (Order Separately)	
☐ SRT2-WG	Wire Guard for SRT2 version
☐ SRT-MB	Mounting bracket for pre-installation
☐ SRT2-BRD	Bird deterrent shroud for SRT2 version, not available with uplight or trunnion mount
☐ SRT2-TM	Trunnion/Yoke accessory for SRT2 version
☐ SCP-REMOTE	Remote control for SCP option; order at least on per project to program and control

Notes:

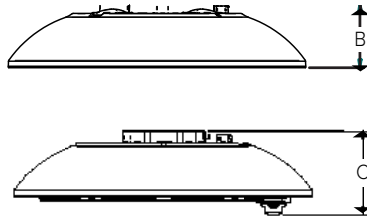
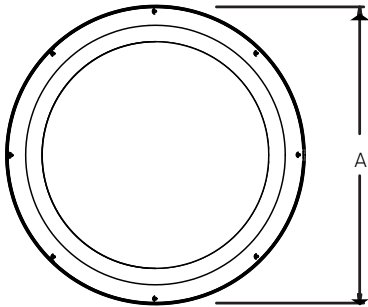
- 1 Up to 85W light engines only
- 2 Must specify voltage, 120V or 277V for E and EH
- 3 Universal voltage only
- 4 100–140W light engines only
- 5 Standard wire lead length 24"
- 6 Specify when using external 0-10V dimming system

SRT2 EDGE-LIT

CEILING/SURFACE/GARAGE

DIMENSIONS

SRT2



A	B	C	Weight
18.5" (469mm)	4.0" (1mm)	5.2" (132mm)	15bs (6.8kg)

ADDITIONAL INFORMATION

MOUNTING



Surface Mount

Mounting plate with "quick mount" hanger for one person simple installation.



Pendant Mount

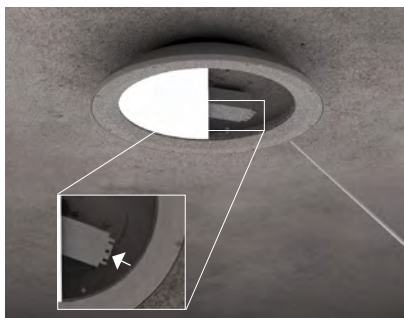
Standard 3/4" threaded entry for pendant applications.



Trunnion/Yoke Mount

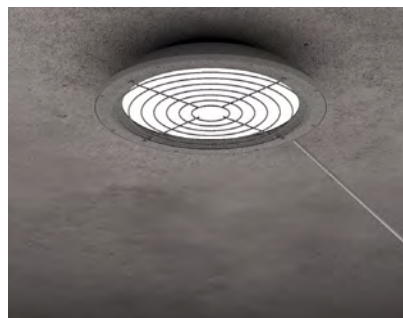
Multiple position trunnion mount adjusts 9" up and down for positioning in 1" increments.

ACCESSORIES AND SERVICES



Battery Backup

Integral battery backup option available on SRT2 version.



Wire Guard

An optional wire guard can be specified at the factory or as an accessory for field installation.



Bird Deterrent

An optional bird shroud deterrent can be specified at the factory or as an accessory for field installation.

SRT2 EDGE-LIT

CEILING/SURFACE/GARAGE

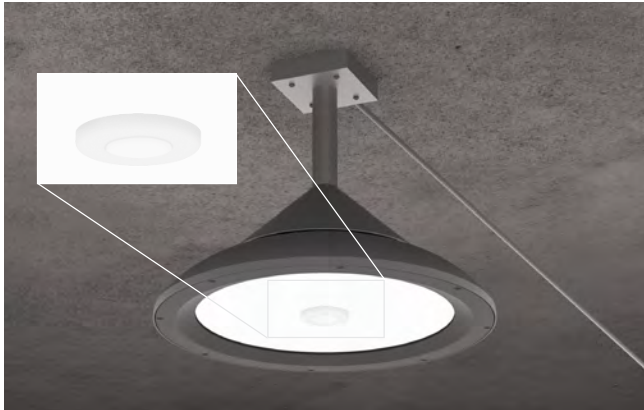
ADDITIONAL INFORMATION (CONT'D)

UPLIGHT

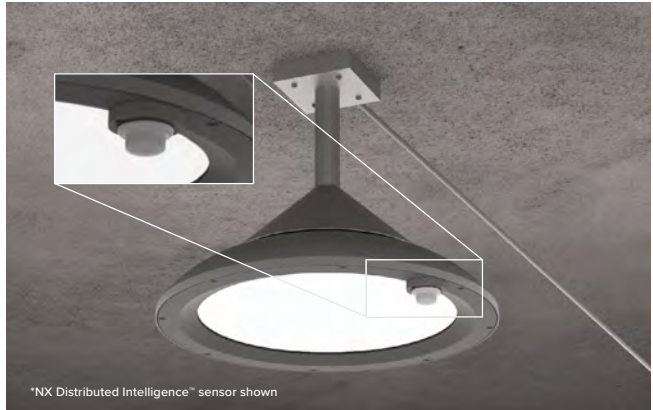
Optional uplight module provides 800 lumens of indirect illumination for improved visual quality while eliminating cave effect.



CONTROLS



Standalone Controls



Wireless Controls

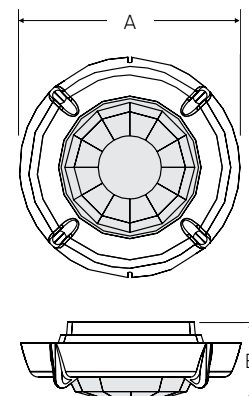
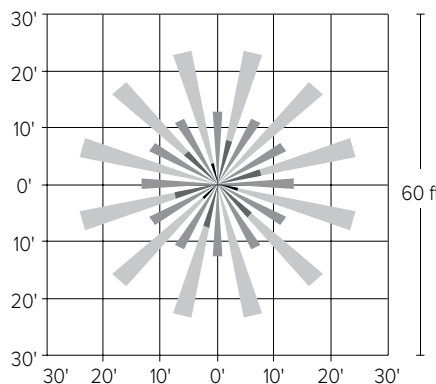
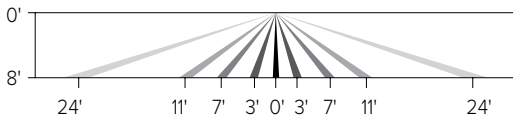
Optional passive infrared sensors are available for basic occupancy and daylight sensing. Programmable via remote or Bluetooth® phone app.

NX DISTRIBUTED™ INTELLIGENCE

wiSCAPE™
WIRELESS OUTDOOR LIGHTING SYSTEM

Optional NX Distributed Intelligence™ and wiSCAPE® wireless controls are available for SRT2 versions (with or without occupancy sensing).

SCP-8F



A	B
2.3" (59mm)	.8" (20mm)

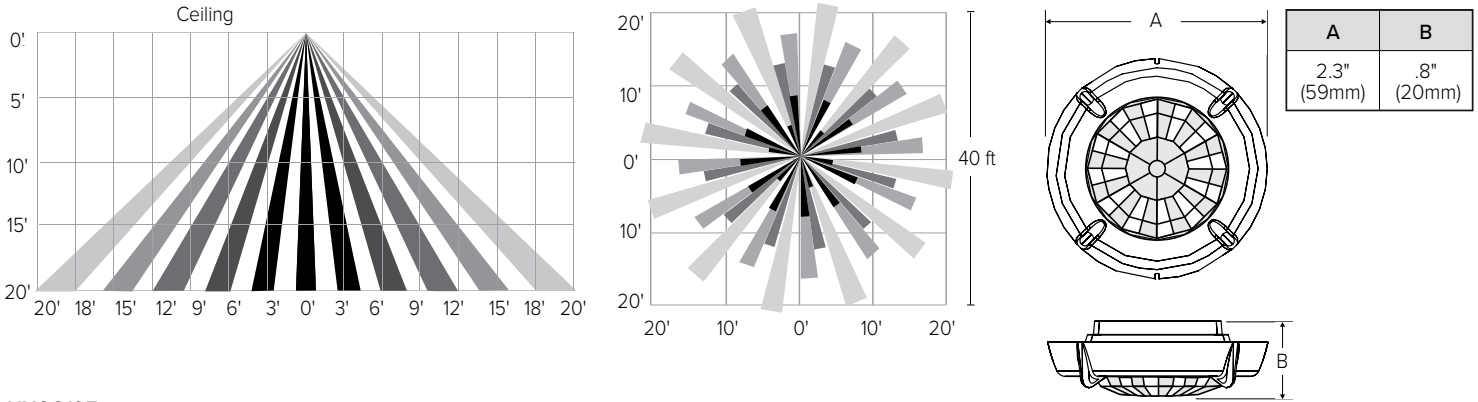
SRT2 EDGE-LIT

CEILING/SURFACE/GARAGE

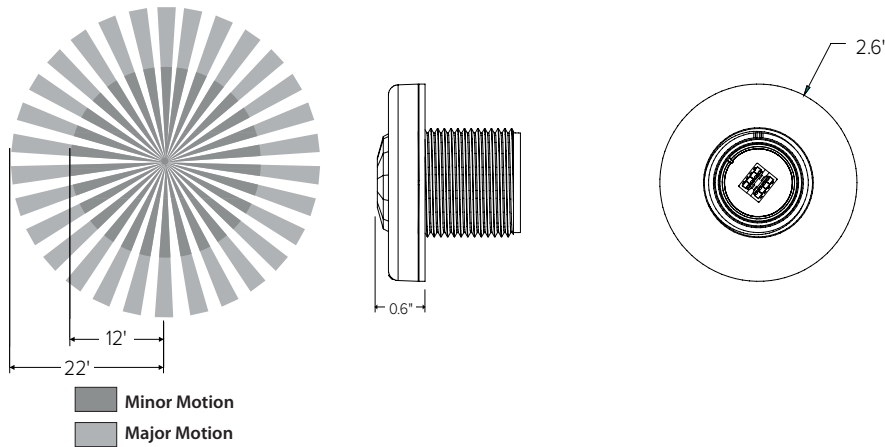
ADDITIONAL INFORMATION (CONT'D)

CONTROLS (CONT'D)

SCP-20F

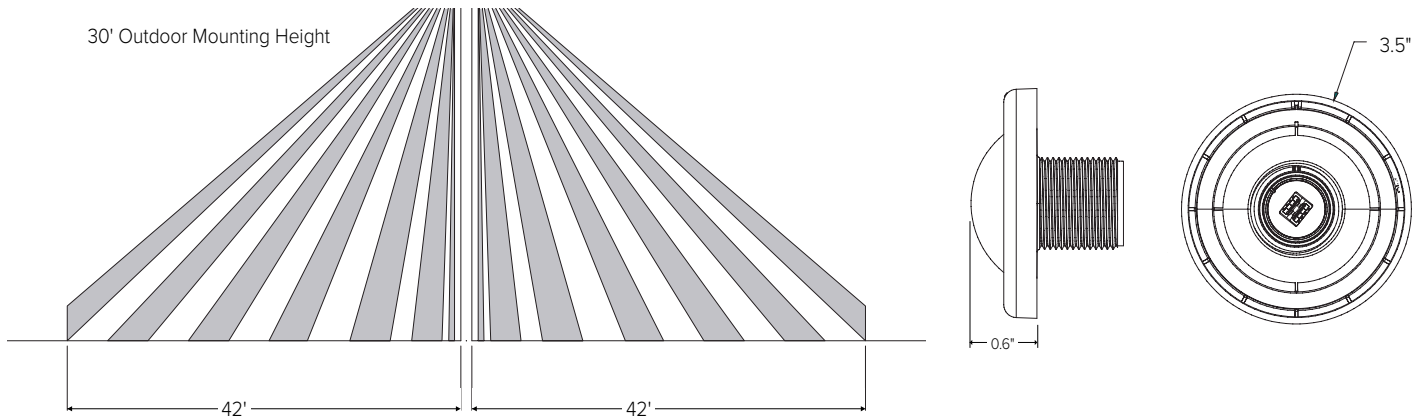


NXOS12F



NXSMP-OMNI Range

NXSP30F



USE OF TRADEMARKS AND TRADE NAMES

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GEOPAK SERIES SIZE 1 LED

Architectural Wallpack
TRP1/RD11/QSP1

NEW

Cat.#

Job

Type



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

APPLICATIONS

- Small sized architectural wallpacks in three stylish shapes with molded contours to accentuate building architecture. Provides excellent illumination in energy-saving LED systems.
- Back box accessory available for surface conduit application.

Construction:

- Housing is made from die-cast aluminum with a hinged back-plate for ease of installation and maintenance.
- The LED bezel and trim-plate are made of stainless steel.
- Five powder coat standard finishes, plus custom color options.
- Wet Location Listed to UL924 and UL1598 Standard.

LED:

- 12 high power LEDs delivering up to 3,000 lumens.
- Up to 118 lumens per watt
- Type II, III and IV distributions for a wide variety of applications.
- Zero uplight (UO), dark sky, neighbor friendly

Electrical:

- 120-277 operation, 50/60Hz
- 0-10V dimming driver standard
- 10kA surge protector
- Photocell and occupancy sensor options available for complete on/off and dimming control

Battery Backup:

- Integral Battery Backup provides emergency lighting for the required 90 minute path of egress.
- Includes a long-life Lithium Iron Phosphate battery with optional battery heater for cold temperature application.
- Utilizes 4 LEDs in emergency mode with 657 lumens. Each of the 4 LEDs in emergency are designed to function independently in the unlikely event of a single LED malfunction
- Spectron® self-testing/self-diagnostic electronics are included standard
- Independent dedicated driver and LED array for battery/emergency mode operation.

Installation:

- Universal plate for mounting to standard 3 1/2" and 4" square electrical boxes. All connections are made from connections at the rear of the unit.
- Optional back-box accessory available for surface conduit application. See BB-Geo accessories.

Listings:

- UL 1598 listed for use in wet locations
- Drivers IP66 and RoHS compliant
- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org

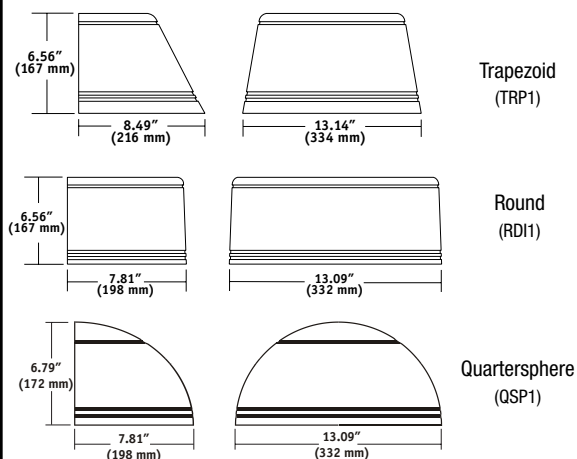
Warranty:

- For more information visit:
<http://www.hubbelloutdoor.com/resources/warranty/>

PRODUCT IMAGE(S)



DIMENSIONS



SHIPPING INFORMATION

Catalog Number	Weight (lbs)	Carton Dimensions		
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
TRP1	11.5	17.0	9.9	10.0
RD11	11.5	18.0	11.0	9.25
QSP1	10.5	17.0	9.6	10.5

CERTIFICATIONS/LISTINGS



*3000K and warmer CCTs only



ORDERING INFORMATION

ORDERING EXAMPLE: TRP-12L-20-4K-3-1-BL-SCP-EH

HOUSING	VERSION	WATTAGE	CCT/CRI	DISTRIBUTION	VOLTAGE	FINISH	CONTROL OPTIONS	OPTIONS
TRP1 Trapezoid	12L 12 LEDs	15 15 watts	3K7 3000K, 70CRI	2 Type II	U 120-277	BL Black	PCU Button Photocell	F ⁴ Fusing (only available with STD fixture configuration, 120-277V only)
RD11 Radius		20 20 watts	4K7 4000K, 70CRI	3 Type III	1 120	DB Bronze	SCP ^{2,3} Programmable Motion Sensor	E ¹ Battery Pack (0°C)
QSP1 Quartersphere		30 30 watts	5K7 5000K, 70CRI	4 Type IV	2 208 3 240 4 277	GR Gray PS Platinum WH White CC Custom	SPECIFY SCP HEIGHT 8F Up to 8ft mount height 20F Up to 20ft mount height	EH ¹ Battery Pack (-30°C) with heater

¹ Voltage specific (120 or 277V only)

² Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, 120-277V only

³ PCU option not applicable, included in sensor

⁴ Must specify input voltage (120, 208, 240 or 277)



HUBBELL
Outdoor Lighting

Hubbell Outdoor Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

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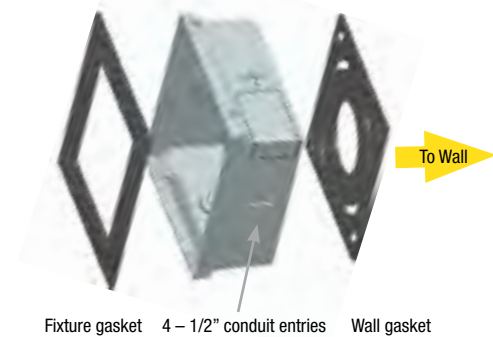
TRP1/RD11/QSP1-SPEC
JUNE 1, 2018 8:51 AM

ACCESSORIES - Order separately

Catalog Number	Description
SCP-REMOTE ²	Remote control for SCP option. Order at least one per project to program and control.
BB-GE0-XX	Back box with 4 - 1/2" threaded conduit holes, specify finish by replacing "XX" with finish selection, eg. Dark Bronze "DB"

² Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, 120V-277V only

BB-GE0-XX



BB-GE0-XX – Mounted to luminaire

PERFORMANCE DATA (AC/Standard Configurations)

# OF LEDS	DRIVE CURRENT	SYSTEM WATTS	DIST. 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
12	350mA	13.9	2	1635	118	1	1	1	1577	113	1	1	1	1497	108	1	1	1
			3	1613	116	1	0	1	1556	112	1	0	1	1477	106	1	0	1
			4	1607	116	0	0	1	1550	111	0	0	1	1471	106	0	0	1
	500mA	19.9	2	2268	114	1	1	1	2176	109	1	1	1	2077	104	1	1	1
			3	2245	113	1	0	1	2140	108	1	0	1	2049	103	1	0	1
			4	2229	112	0	0	1	2150	108	0	0	1	2041	103	0	0	1
	700mA	28.2	2	2942	104	1	1	1	2885	102	1	1	2	2721	96	1	1	1
			3	2912	103	1	0	1	2836	101	1	0	1	2685	95	1	0	1
			4	2892	103	1	0	1	2789	99	1	0	1	2674	95	1	0	1

Electrical Data

Input Power Consumption

Drive Current (mA)	Input Voltage (V)	System Power (w)	Current (Amps)
350mA	120	13.9	0.12
	277		0.05
500mA	120	19.9	0.17
	277		0.07
700mA	120	28.2	0.24
	277		0.10

Battery backup units consume additional power during charging (maximum 32.2 watts for E, 50.7 watts for EH)

Projected Lumen Maintenance

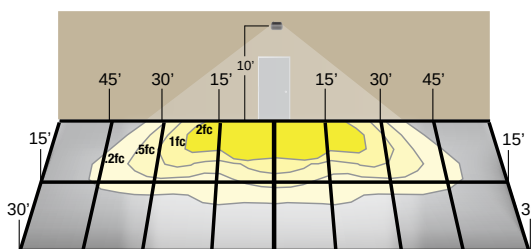
Ambient Temp.	Operating Hours					
	0	25,000	50,000	TM-21-11 ¹ 60,000	100,000	L70 (hours)
25°C/77°F	1.00	0.98	0.97	0.95	0.91	>345,000
40°C/104°F	1.00	0.96	0.95	0.92	0.87	>268,000

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

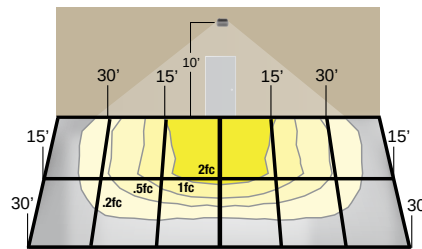
AMBIENT TEMPERATURE		LUMEN MULTIPLIER
0° C	32° F	1.02
10° C	50° F	1.01
20° C	68° F	1.00
25° C	77° F	1.00
30° C	86° F	1.00
40° C	104° F	0.99
50° C	122° F	0.98

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

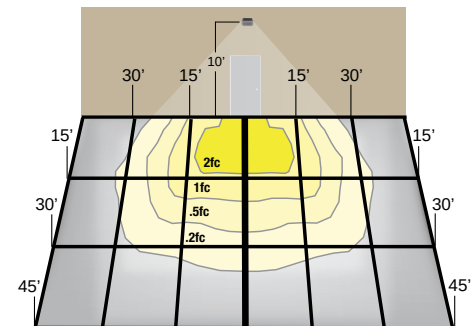
PHOTOMETRIC REPORTS (30w, 4000K shown)



TYPE II



TYPE III



TYPE IV (Forward throw)

GeoPak - Battery Back Up

Functional Circuitry: Transient surge protection device on AC input. Upon failure of the normal utility power, an LED driver is automatically activated to power the emergency LEDs. Upon resumption of normal utility power, the LED driver is turned off, and the battery is recharged through a micro-controller based 3-stage charger. The battery is a maintenance-free Lithium Iron Phosphate (LiFePo) type. A low voltage battery disconnect (LVD) feature protects the battery from severe damage during prolonged power failures. Manual testing is available at any time using the push-to-test button. The optional heater features a heating wrap and thermostat to maintain optimal battery temperature during charge or discharge. The GeoPak includes the following features:

- Battery re-charge within 24 hours
- AC Lock-out circuit
- Self-diagnostics monitors LED status, LED driver circuit, battery capacity and charger function and displays any fault detection by means of a flashing code.

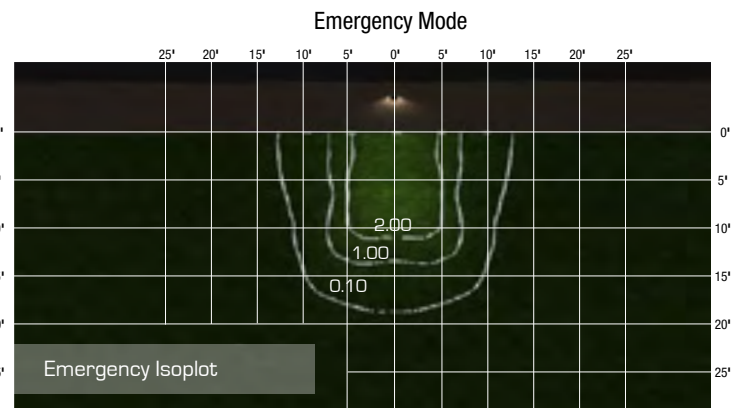
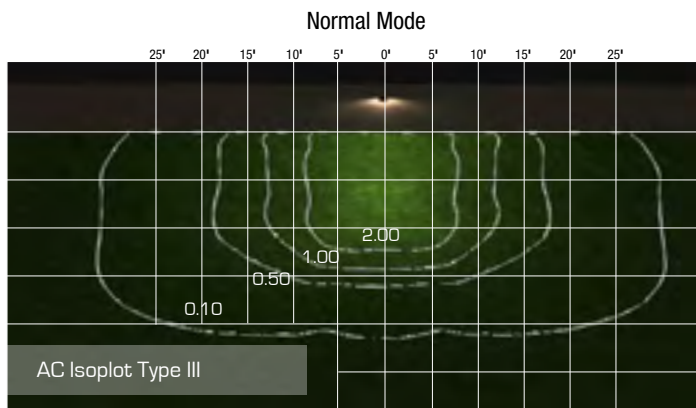
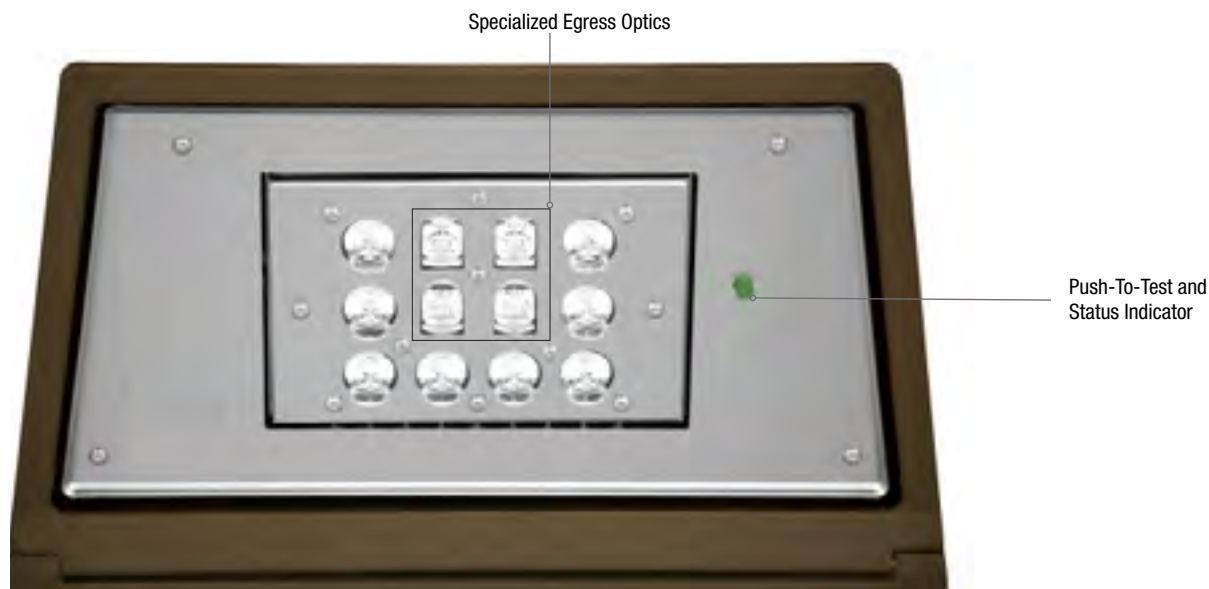
Emergency Photometric Performance (1 fc average .1 fc minimum)

28' multi-unit spacing at 10' MH with 0/30/10 reflectances on a 6' path

26' x 10' single unit coverage at 10' MH with 0/30/10 reflectances

6' x 19' forward throw coverage at 10' MH with 0/30/10 reflectances

- Self-Test feature runs a 1 minute test once a month and an alternating 30 or 60 minute test once every 6 months. Multi-color LED indicator provides visible fault detection and charging status.
- User initiated 1, or 90-minute system test feature
- 15 minute re-transfer delay
- Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage).
- Battery backup units consume 6 watts when charging a dead battery and 2 watts during maintenance charging. EH (units with a heater) consume up to an additional 8 watts when charging if the battery temp is lower than 10°C



Provides Life Safety Code average illuminance of 1.0 fc. Assumes open space with no obstructions.

Diagrams for illustration purposes only, please consult factory for application layout.



Date: May 6, 2021

Swaney Lighting
PO Box 1597
Scarborough ME 04070
Phone: (207) 883-7100
Fax: (207) 885-9606

Job Name
200 FEDERAL STREET PARK
SLA20-47038
PORTLAND ME

Bid Date
Nov 25, 2020

Submittal Date
May 6, 2021



Transmittal

Swaney Lighting

PO Box 1597

Scarborough ME 04070

Phone: (207) 883-7100

From: Therese "TC" Freeman X-103

Project 200 FEDERAL STREET PARK**Quote#** SLA20-47038**Location** PORTLAND ME

To SWANEY LIGHTING
 15 PLEASANT HILL ROAD
 SCARBOROUGH ME 04074
 Contact: WANDA RICHARD

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	MFG	Part
A1	KIM	INT/4/48L-80/3K7/WG/UNV/**/NCR/*M/**
F1	TMB	FACTORY MOLDED FLOPPYFLEX SYSTEM CONSISTING OF BELOW:
F1	TMB	FFFH27KN
	Item Note:	FLOPPYFLEX FLAT, STS BENDING; SOLD BY THE METER
F1	TMB	FFFHMLDX(S/B/T)3M
	Item Note:	SEAMLESS MOLDED ENTRY POWER FEED; SPECIFY END, SIDE, OR BOTTOM FEED
F1	TMB	FFFHMLDEND
	Item Note:	SEAMLESS MOLDED END CAP
F1	TMB	FFACKKF1MV3
	Item Note:	SELF-LOCKING ALUMINUM PROFILE, 1M
F1	TMB	FFACKKF.5MV3
	Item Note:	SELF-LOCKING ALUMINUM PROFILE, 0.5M
F1	TMB	FFACKKF20MMV3
	Item Note:	SELF-LOCKING ALUMINUM PROFILE, 20mm
F1	TMB	MEAHLG150H24
	Item Note:	MEANWELL HLG 150W, 24V POWER SUPPLY
F1	TMB	MEAHLG40H24
	Item Note:	MEANWELL HLG 40W, 24V POWER SUPPLY
F1	TMB	FFHEZCONEC
	Item Note:	EZ CONNECT END CAP (SPARE)
F1	TMB	FFMINITOLK
	Item Note:	FLOPPYFLEX MINI TOOL KIT
U5	BEACON PRODUCTS	URBCAP-21/24L-27/3K7/UNV/5W/ NRNW/**
	Item Note:	CATENARY CONFIGURATION: SUSPENSION CABLE AND POWER CABLE BY OTHERS.

KIMLIGHTING®

INT White

FLOODLIGHT LUMINAIRE

FEATURES

- Architectural linear product for wall and ground mounting applications such as sign lighting, wall washing, wall grazing, and building accent lighting
- IP66 rated product with linear run capabilities
- Lumen range from 2,803 to 15,162 lm



CONTROL TECHNOLOGY

NX DISTRIBUTED INTELLIGENCE

SPECIFICATIONS

CONSTRUCTION

- Extruded housing, low copper (<0.1% Cu) Aluminum Alloy 6063-T6 and .160" minimum wall thickness.
- Extrusion includes an integral visor.
- Die-cast driver compartment and end caps, low copper (<0.6% Cu) Aluminum Alloy 360 and .100" minimum wall thickness.
- LED and driver compartment rated for IP66 ingress protection.
- Finish: fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat.
- Lens is impact resistant 0.157" tempered glass with anti-reflective coating.
- Lens is sealed in with Reactive Back Bedding Sealent.
- Driver compartment has a one-piece molded silicone gasket.
- All external fasteners are stainless steel.

OPTICS

- LEDs mount to a metal printed circuit board assembly (MCPCB).
- Optical lenses are clear injection molded PMMA acrylic.

INSTALLATION

- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury

DATE: _____ LOCATION: _____
TYPE: _____ PROJECT: _____
CATALOG #: _____

intent



Intent

RELATED PRODUCTS

[KFL](#)

[LTV8 \(RGBW\)](#)

[INT \(RGBW COLOR\)](#)

ELECTRICAL

- Universal voltage, 120 through 277V with a $\pm 10\%$ tolerance. Driver is Underwriters Laboratories listed.
- High voltage configurations, 347/480. Driver is Underwriters Laboratories listed.
- Dimming range from 10% to 100% through the use of standard 0-10V interface on the programmable driver.
- Drivers have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 55°C ambient environments.
- Standard configuration has dimming leads pulled off the fixture.
- Optional factory programmed dimming profile.
- "Thermal Shield", secondary side, thermistor provides protection for the sustainable life of LED module and electronic components.
- Luminaire capable of operating at 100% brightness in a 40°C environment. Both driver and optical array have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C.
- Surge protection: 20,000A in series.
- SF for 120, 277, 347 Line Volts, DF for 208, 240, 480 Line Volts.
- Wiring: No. 18AWM rated 150°C.
- External cable connections are IP68 rated

CERTIFICATIONS AND LISTINGS.

- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40°C ambient temperatures.
- IP66 certified.
- RoHS compliant.

WARRANTY

- 5 year warranty.
- See [HLI Standard Warranty](#) for additional information.

KEY DATA	
LUMEN RANGE	2,803-15,162
WATTAGE RANGE	28.6-123.4
EFFICACY RANGE (LPW)	94.4-135
REPORTED LIFE (HOURS)	L70/60,000

Submitted by Swaney Lighting	Job Name: 200 FEDERAL STREET PARK	Catalog Number: INT/4/48L-80/3K7/WG/UNV/**/NCR/ *M/** Notes:	Type: A1 SLA20-47038
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INT White

FLOODLIGHT LUMINAIRE

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE

Example: INT-2-24L-60-4K9-WF-UNV-A6-CR-MB-MGF-GT-PC

CATALOG #

HOUSING

INTENT						
Housing	Length	#L-Nom. Watts	CCT/CRI	Beam Spread	Voltage	Mounting
INT Flood Luminaire	2 2 Foot	24L-30 24LED, 30W, 3,000 lm	5K7 5000K, 70 CRI	N Narrow	UNV Universal 120-277V	K Threaded Knuckle
		24L-35 24LED, 40W, 4,000 lm	5K8 5000K, 80 CRI	NM Narrow Medium	347 347V	A3 3" Adjustable arm
		24L-60 24LED, 60W, 6,000 lm	5K9 5000K, 90 CRI	MF Medium Flood	480 480V	A6 6" Adjustable arm
	3 3 Foot	36L-40 36LED, 40W, 4,500 lm	4K7 4000K, 70 CRI	WF Wide Flood		A12 12" Adjustable arm
		36L-60 36LED, 60W, 6,000 lm	4K8 4000K, 80 CRI	HF Horizontal Flood		Please verify
		36L-95 36LED, 95W, 9,000 lm	4K9 4000K, 90 CRI	WG Wall Graze		
	4 4 Foot	48L-55 48LED, 55W, 6,000 lm	3K7 3000K, 70 CRI	WW Asymmetric Wall Wash		
		48L-80 48LED, 80W, 8,000 lm	3K8 3000K, 80 CRI			
		48L-125 48LED, 125W, 12,000 lm	3K9 3000K, 90 CRI			

Cable Ready	Input Wiring	Color	Options
CR Cable Ready	LM Left Mounting	BL Black	SF Single Fuse (120/277/347)
NCR Non Cable Ready	RM Right Mounting	DB Dark Bronze	DF Double Fuse (208/240/480)
	MB Mounting Bracket ¹	GT Graphite	DL Diffused Lens ²
	*M Please verify	LG Light Gray	LVR Louver
		PS Platinum Silver	MGF Marine Grade
		TT Titanium	PC Button Photocontrol
		WH White	
		CC Custom Color ³	

Mounting Accessories

Mounting Accessories

J-25N Stake ⁴	INT-C2FT 2ft Connector Cable
JB1 Architectural Junction Box ⁴	INT-C3FT 3ft Connector Cable
JBR Composite In-grade ⁴	INT-C4FT 4ft Connector Cable
Architectural Junction Box ⁴	INT-C5FT 5ft Connector Cable
SM18 Stanchion Mount ⁴	INT-C10FT 10ft Connector Cable
INT-WMT-A Wall Mounting Template	INT-CK23 2ft-3ft Connector Kit ⁵
	INT-CK24 2ft-4ft Connector Kit ⁵
	INT-CK33 3ft-3ft Connector Kit ⁵
	INT-CK34 3ft-4ft Connector Kit ⁵
	INT-CK44 4ft-4ft Connector Kit ⁵

The number of cables will be one less than the number of fixtures in continuous row (i.e. 1 cable required for 2 fixtures)

Notes:

- ¹ 2ft Intent with adjustable arm input wiring only
- ² Only available with WF on Static White configuration
- ³ Contact factory
- ⁴ Order in set of 2 per fixture
- ⁵ Connector Kit will have Decorative Cover Included

KIM LIGHTING®

INT White

FLOODLIGHT LUMINAIRE

DELIVERED LUMENS

SECTION LENGTH: 2ft

LED COUNT: 24L

Drive Current (mA)	Nominal Lumen Package	Nominal Watts	Beam Spread		Lens Option	Beam Angles (H x V)	NEMA Type	3K7			4K7			5K7		
								Lumens	Max Candela	LPW	Lumens	Max Candela	LPW	Lumens	Max Candela	LPW
350	3,000	30	N	Narrow	Clear	17° H x 17°V	3H x 3V	3319	26327	116.1	3490	27683	122	3563	28263	124.6
			NM	Narrow Medium	Clear	30°H x 30°V	4H x 4V	3332	10737	116.5	3504	11291	123	3577	11527	125.1
			MF	Medium Flood	Clear	63°H x 63°V	5H x 5V	3226	3491	112.8	3391	3670	119	3462	3746	121.0
			WF	Wide Flood	Clear	80°H x 80°V	6H x 6V	3392	2541	118.6	3566	2671	125	3640	2727	127.3
					Diffused	77°H x 77°V	7H x 6V	2803	1651	98.0	2947	1735	103	3009	1772	105.2
			HF	Horizontal Flood	Clear	54°H x 22°V	5H x 5V	3061	5269	107.0	3218	5539	113	3285	5655	114.9
			WG	Wall Graze	Clear	52° H x 12 °V	5H x 3V	3385	11687	118.3	3559	12288	124	3632	12540	127.0
			WW	Wall Wash	Clear	30°H x 20°V	4H x 3V	3136	11883	109.6	3297	12493	115	3365	12751	117.7
500	4,000	35	N	Narrow	Clear	17° H x 17°V	3H x 3V	4608	36552	115.5	4845	38432	121	4945	39226	123.9
			NM	Narrow Medium	Clear	30°H x 30°V	4H x 4V	4626	14908	115.9	4864	15674	122	4965	15999	124.4
			MF	Medium Flood	Clear	63°H x 63°V	5H x 5V	4478	4846	112.2	4708	5096	118	4805	5201	120.4
			WF	Wide Flood	Clear	80°H x 80°V	6H x 6V	4708	3527	118.0	4950	3708	124	5053	3785	126.6
					Diffused	77°H x 77°V	7H x 6V	3891	2291	97.5	4091	2409	103	4176	2459	104.7
			HF	Horizontal Flood	Clear	54°H x 22°V	5H x 5V	4249	7314	106.5	4467	7690	112	4560	7850	114.3
			WG	Wall Graze	Clear	52° H x 12 °V	5H x 3V	4698	16221	117.8	4940	17057	124	5042	17409	126.4
			WW	Wall Wash	Clear	30°H x 20°V	4H x 3V	4353	16495	109.1	4577	17344	115	4672	17704	117.1
800	6,000	60	N	Narrow	Clear	17° H x 17°V	3H x 3V	6797	53916	109.1	7146	56685	115	7294	57859	117.0
			NM	Narrow Medium	Clear	30°H x 30°V	4H x 4V	6823	21987	109.5	7174	23119	115	7323	23599	117.5
			MF	Medium Flood	Clear	63°H x 63°V	5H x 5V	6604	7148	106.0	6944	7515	111	7088	7671	113.7
			WF	Wide Flood	Clear	80°H x 80°V	6H x 6V	6945	5204	111.4	7302	5471	117	7453	5584	119.6
					Diffused	77°H x 77°V	7H x 6V	5740	3380	92.1	6035	3554	97	6160	3627	98.8
			HF	Horizontal Flood	Clear	54°H x 22°V	5H x 5V	6267	10789	100.8	6589	11296	105.5	6726	11593	107.8
			WG	Wall Graze	Clear	52° H x 12 °V	5H x 3V	6930	23928	111.2	7286	25157	116.9	7437	25679	119.3
			WW	Wall Wash	Clear	30°H x 20°V	4H x 3V	6421	24331	103.0	6750	25578	108.3	6891	26112	110.6

Submitted by Swaney Lighting	Job Name: 200 FEDERAL STREET PARK	Catalog Number: INT/4/48L-80/3K7/WG/UNV/**/NCR/ *M/** Notes:	Type: A1 SLA20-47038
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KIMLIGHTING®

INT White

FLOODLIGHT LUMINAIRE

DELIVERED LUMENS

SECTION LENGTH: 3ft

LED COUNT: 36L

Drive Current (mA)	Nominal Lumen Package	Nominal Watts	Beam Spread		Lens Option	Beam Angles (H x V)	NEMA Type	3K7			4K7			5K7		
								Lumens	Max Candela	LPW	Lumens	Max Candela	LPW	Lumens	Max Candela	LPW
350	4,500	40	N	Narrow	Clear	17° H x 17° V	3H x 3V	5038	39964	119.9	5297	42018	126.1	5407	42890	128.7
			NM	Narrow Medium	Clear	30° H x 30° V	4H x 4V	5058	16300	120.4	5318	17137	126.6	5429	17495	129.2
			MF	Medium Flood	Clear	63° H x 63° V	5H x 5V	4896	5299	116.5	5147	5570	122.5	5254	5686	125.0
			WF	Wide Flood	Clear	80° H x 80° V	6H x 6V	5148	3857	122.5	5413	4056	128.8	5525	4140	131.5
					Diffused	77° H x 77° V	7H x 6V	4255	2506	101.3	4473	2634	106.5	4566	2689	108.7
			HF	Horizontal Flood	Clear	54° H x 22° V	5H x 5V	4646	7873	110.6	4884	8277	116.2	4986	8529	118.7
			WG	Wall Graze	Clear	52° H x 12° V	5H x 3V	5137	17737	122.3	5401	18649	128.5	5513	19036	131.2
500	6,000	60	WW	Wall Wash	Clear	30° H x 20° V	4H x 3V	4760	18037	113.3	5004	18962	119.1	5108	19356	121.6
			N	Narrow	Clear	17° H x 17° V	3H x 3V	6912	54829	116.2	7267	57645	122.1	7418	58843	124.7
			NM	Narrow Medium	Clear	30° H x 30° V	4H x 4V	6939	22361	116.6	7295	23508	122.6	7447	23998	125.2
			MF	Medium Flood	Clear	63° H x 63° V	5H x 5V	6716	7269	112.9	7061	7642	118.7	7208	7801	121.1
			WF	Wide Flood	Clear	80° H x 80° V	6H x 6V	7062	5291	118.7	7425	5563	124.8	7580	5679	127.4
					Diffused	77° H x 77° V	7H x 6V	5837	3437	98.1	6137	3614	103.1	6264	3689	105.3
			HF	Horizontal Flood	Clear	54° H x 22° V	5H x 5V	6373	10799	107.1	6701	11355	112.6	6840	11591	115.0
800	9,000	95	WG	Wall Graze	Clear	52° H x 12° V	5H x 3V	7047	24332	118.4	7409	25582	124.5	7564	26118	127.1
			WW	Wall Wash	Clear	30° H x 20° V	4H x 3V	6529	24740	109.7	6865	26013	115.4	7008	26556	117.8
			N	Narrow	Clear	17° H x 17° V	3H x 3V	10475	83092	111.8	11013	87360	117.5	11242	89177	119.9
			NM	Narrow Medium	Clear	30° H x 30° V	4H x 4V	10516	33888	112.2	11056	35629	118.0	11286	36370	120.2
			MF	Medium Flood	Clear	63° H x 63° V	5H x 5V	10179	11017	108.6	10701	11582	114.2	10924	11823	116.5
			WF	Wide Flood	Clear	80° H x 80° V	6H x 6V	10703	8020	114.2	11253	8432	120.1	11487	8607	122.6
					Diffused	77° H x 77° V	7H x 6V	8846	5209	94.4	9300	5476	99.2	9494	5591	101.3
			HF	Horizontal Flood	Clear	54° H x 22° V	5H x 5V	9659	16369	103.1	10155	17209	108.4	10366	17567	110.7
			WG	Wall Graze	Clear	52° H x 12° V	5H x 3V	10680	36877	114.0	11229	38772	119.8	11463	39580	122.3
			WW	Wall Wash	Clear	30° H x 20° V	4H x 3V	9895	37496	105.6	10404	39425	111.0	10620	40243	113.6

KIM LIGHTING®

INT White

FLOODLIGHT LUMINAIRE

DELIVERED LUMENS

SECTION LENGTH: 4ft

LED COUNT: 48L

Drive Current (mA)	Nominal Lumen Package	Nominal Watts	Beam Spread		Lens Option	Beam Angles (H x V)	NEMA Type	3K7			4K7			5K7		
								Lumens	Max Candela	LPW	Lumens	Max Candela	LPW	Lumens	Max Candela	LPW
350	6,000	55	N	Narrow	Clear	17° H x 17° V	3H x 3V	6642	52687	123.1	6983	55392	129.4	7128	56543	132.1
			NM	Narrow Medium	Clear	30° H x 30° V	4H x 4V	6668	21488	123.6	7011	22594	129.9	7156	23061	132.6
			MF	Medium Flood	Clear	63° H x 63° V	5H x 5V	6454	6986	119.6	6786	7345	125.8	6927	7497	128.4
			WF	Wide Flood	Clear	80° H x 80° V	6H x 6V	6787	5152	125.8	7135	5416	132.2	7284	5530	135.0
					Diffused	77° H x 77° V	7H x 6V	5609	3303	103.9	5897	3473	109.3	6020	3545	111.6
			HF	Horizontal Flood	Clear	54° H x 22° V	5H x 5V	6124	10652	113.5	6439	11200	119.3	6573	11385	121.8
			WG	Wall Graze	Clear	52° H x 12° V	5H x 3V	6772	23382	125.5	7120	24584	132.0	7268	25095	134.7
			WW	Wall Wash	Clear	30° H x 20° V	4H x 3V	6275	23778	116.3	6597	24998	122.3	6734	25517	124.8
500	8,000	80	N	Narrow	Clear	17° H x 17° V	3H x 3V	9217	73114	117.3	9690	76865	123.3	9892	78468	125.8
			NM	Narrow Medium	Clear	30° H x 30° V	4H x 4V	9253	29818	117.7	9728	31349	123.8	9931	32003	126.3
			MF	Medium Flood	Clear	63° H x 63° V	5H x 5V	8956	9693	113.9	9416	10191	119.8	9612	10403	122.3
			WF	Wide Flood	Clear	80° H x 80° V	6H x 6V	9418	7149	119.8	9901	7516	126.0	10107	7672	128.6
					Diffused	77° H x 77° V	7H x 6V	7783	4583	99.0	8183	4819	104.1	8353	4919	106.3
			HF	Horizontal Flood	Clear	54° H x 22° V	5H x 5V	8499	14783	108.1	8935	15541	113.7	9121	15864	116.0
			WG	Wall Graze	Clear	52° H x 12° V	5H x 3V	9398	32450	119.6	9880	34115	125.7	10086	34825	128.3
			WW	Wall Wash	Clear	30° H x 20° V	4H x 3V	8707	32994	110.8	9154	34688	116.5	9344	35408	118.9
800	12,000	125	N	Narrow	Clear	17° H x 17° V	3H x 3V	13627	108096	110.5	14327	113648	116.1	14625	116012	118.6
			NM	Narrow Medium	Clear	30° H x 30° V	4H x 4V	13680	44085	110.9	14383	46350	116.6	14682	47314	119.0
			MF	Medium Flood	Clear	63° H x 63° V	5H x 5V	13241	14331	107.3	13921	15068	112.9	14211	15381	115.2
			WF	Wide Flood	Clear	80° H x 80° V	6H x 6V	14127	10724	114.5	14853	11275	120.4	15162	11510	122.6
					Diffused	77° H x 77° V	7H x 6V	11676	6876	94.7	12276	7230	99.5	12531	7380	101.8
			HF	Horizontal Flood	Clear	54° H x 22° V	5H x 5V	12565	21855	101.9	13210	22977	107.1	13485	23456	109.4
			WG	Wall Graze	Clear	52° H x 12° V	5H x 3V	13894	47974	112.6	14608	50439	118.4	14911	51486	120.9
			WW	Wall Wash	Clear	30° H x 20° V	4H x 3V	12873	48781	104.4	13534	51285	109.7	13815	52350	112.0



Job Name:
200 FEDERAL STREET PARK

Catalog Number:

INT/4/48L-80/3K7/WG/UNV/**/NCR/
*M/**

Notes:

Type:

A1

SLA20-47038

KIMLIGHTING®

INT White

FLOODLIGHT LUMINAIRE

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

PHOTOMETRY

INT-4-48L-125-4K7-N

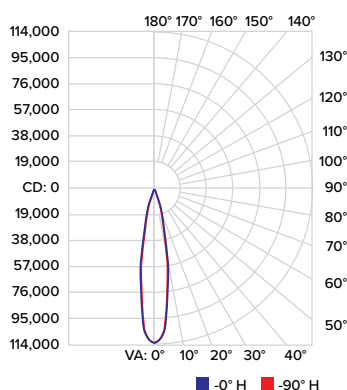
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	14327
Watts	123.35
Efficacy	116.15
Beam Angls (HxV)	17.6° x 18°
Center Beam Candlepower	113,648

LUMENS PER ZONE

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%)	77.60%	11,111.90	33.3	33
Beam (50%)	38.40%	5,495.80	17.6	18
Total	100%	14,326.80		

ISOFOOT CANDLE PLOT



ILLUMINANCE AT A DISTANCE

	Center Beam fc	Beam Width
56.2 ft	36.00 fc	17.8 ft 17.4 ft
112.4 ft	9.00 fc	35.6 ft 34.8 ft
168.6 ft	4.00 fc	53.4 ft 52.2 ft
224.7 ft	2.25 fc	71.2 ft 69.5 ft
280.9 ft	1.44 fc	89.0 ft 86.9 ft
337.1 ft	1.00 fc	106.8 ft 104.3 ft

■ Vertical Spread: 18.0° ■ Horizpread: 17.6°

INT-4-48L-125-4K7-NM

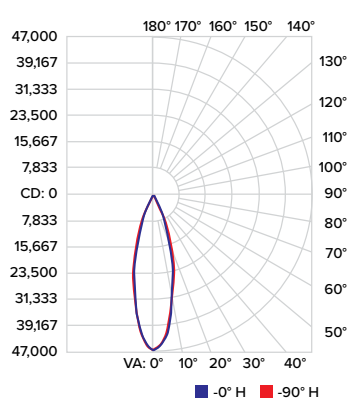
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	14383
Watts	123.35
Efficacy	116.60
Beam Angls (HxV)	30.1° x 28.6°
Center Beam Candlepower	46,350

LUMENS PER ZONE

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%)	85.50%	12,298.30	54.2	53.4
Beam (50%)	46.10%	6,627.50	30.1	28.6
Total	100%	14,383.20		

ISOFOOT CANDLE PLOT



ILLUMINANCE AT A DISTANCE

	Center Beam fc	Beam Width
35.9 ft	36.00 fc	18.3 ft 19.3 ft
71.8 ft	8.99 fc	36.6 ft 38.7 ft
107.6 ft	4.00 fc	54.9 ft 58.0 ft
143.5 ft	2.25 fc	73.2 ft 77.3 ft
179.4 ft	1.44 fc	91.6 ft 96.6 ft
215.3 ft	1.00 fc	109.9 ft 116.0 ft

■ Vertical Spread: 28.6° ■ Horizpread: 30.1°

**KIMLIGHTING®****INT White**

FLOODLIGHT LUMINAIRE

DATE: LOCATION:

TYPE: PROJECT:

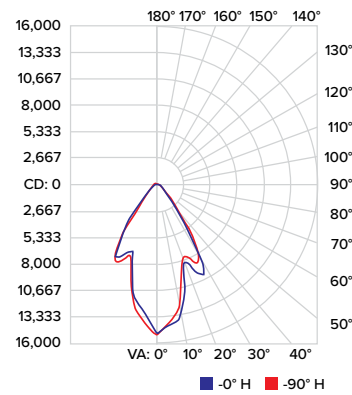
CATALOG #:

PHOTOMETRY CONTINUED**INT-4-48L-125-4K7-MF****LUMINAIRE DATA**

Description	4000K, 70CRI
Delivered Lumens	13921
Watts	123.35
Efficacy	112.86
Beam Angls (HxV)	63.8° x 63.5°
Center Beam Candlepower	15,068

LUMENS PER ZONE

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%)	90.10%	12,541.60	90.9	92.1
Beam (50%)	65.80%	9,158.90	63.8	51
Total	100%	13,921.10		

ISOFOOT CANDLE PLOT**ILLUMINANCE AT A DISTANCE**

	Center Beam fc	Beam Width
20.5 ft	35.90 fc	19.5 ft 25.5 ft
40.9 ft	9.01 fc	39.0 ft 50.9 ft
61.4 ft	4.00 fc	58.5 ft 76.5 ft
81.8 ft	2.25 fc	78.0 ft 101.9 ft
102.3 ft	1.44 fc	97.5 ft 127.4 ft
122.8 ft	1.00 fc	117.1 ft 153.0 ft

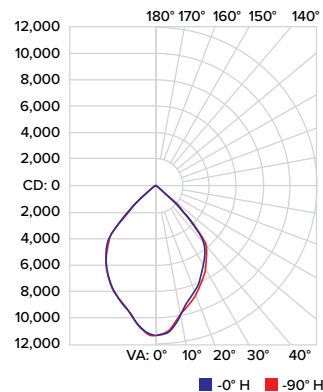
■ Vertical Spread: 51.0° ■ Horizspread: 63.8°

INT-4-48L-125-4K7-WF**LUMINAIRE DATA**

Description	4000K, 70CRI
Delivered Lumens	14853
Watts	123.72
Efficacy	120.05
Beam Angls (HxV)	80.4° x 79.8°
Center Beam Candlepower	11,275

LUMENS PER ZONE

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%)	97.00%	14,415.80	104.2	100.7
Beam (50%)	77.60%	11,525.90	80.4	79.8
Total	100%	14,853.10		

ISOFOOT CANDLE PLOT**ILLUMINANCE AT A DISTANCE**

	Center Beam fc	Beam Width
17.7 ft	36.00 fc	29.6 ft 39.9 ft
35.4 ft	9.00 fc	59.2 ft 79.8 ft
53.1 ft	4.00 fc	88.8 ft 119.6 ft
70.8 ft	2.25 fc	118.4 ft 159.6 ft
88.5 ft	1.44 fc	148.0 ft 199.5 ft
106.2 ft	1.00 fc	177.6 ft 239.4 ft

■ Vertical Spread: 79.8° ■ Horizspread: 80.4°



Job Name:
200 FEDERAL STREET PARK

Catalog Number:
INT/4/48L-80/3K7/WG/UNV/**/NCR/
*M/**

Notes:

Type:

A1

SLA20-47038

KIMLIGHTING®

INT White

FLOODLIGHT LUMINAIRE

PHOTOMETRY CONTINUED

INT-4-48L-125-4K7-HF

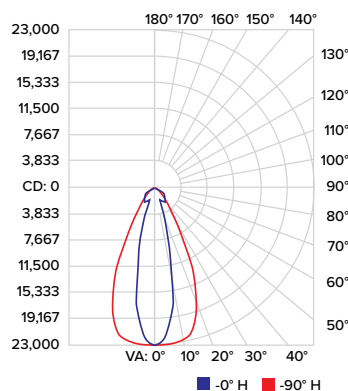
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	13210
Watts	123.35
Efficacy	107.09
Beam Angls (HxV)	53.3° x 24.2°
Center Beam Candlepower	22,977

LUMENS PER ZONE

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%)	72.30%	9,564.50	86.9	471
Beam (50%)	39.00%	5,151.80	53.3	24.2
Total	100%	13,209.80		

ISOFOOT CANDLE PLOT



ILLUMINANCE AT A DISTANCE

	Center Beam fc	Beam Width
25.3 ft	35.70 fc	10.9 ft 25.4 ft
50.5 ft	8.97 fc	21.7 ft 50.7 ft
75.8 ft	3.98 fc	32.6 ft 76.1 ft
101.1 ft	2.24 fc	43.4 ft 101.4 ft
126.3 ft	1.43 fc	54.2 ft 126.7 ft
151.6 ft	1.00 fc	65.1 ft 152.1 ft

■ Vertical Spread: 24.2° ■ Horizspread: 53.3°

INT-4-48L-125-4K7-WG

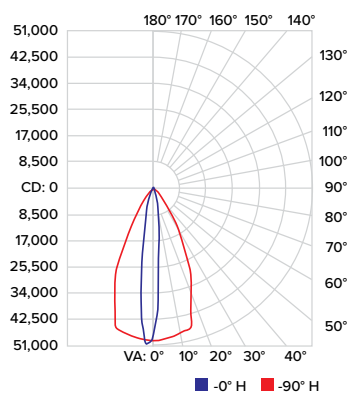
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	14608
Watts	123.35
Efficacy	118.43
Beam Angls (HxV)	52.4° x 13.2°
Center Beam Candlepower	50,439

LUMENS PER ZONE

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%)	78.10%	11,434.00	78.5	34.4
Beam (50%)	43.90%	6,424.80	52.4	13.2
Total	100%	14,608.40		

ISOFOOT CANDLE PLOT



ILLUMINANCE AT A DISTANCE

	Center Beam fc	Beam Width
37.0 ft	35.90 fc	8.6 ft 36.4 ft
74.0 ft	8.97 fc	17.2 ft 72.8 ft
111.0 ft	3.99 fc	25.7 ft 109.2 ft
148.0 ft	2.24 fc	34.3 ft 145.6 ft
185.0 ft	1.43 fc	42.9 ft 182.0 ft
222.0 ft	1.00 fc	51.5 ft 218.4 ft

■ Vertical Spread: 13.2° ■ Horizspread: 52.4°

INT-4-48L-125-4K7-WW

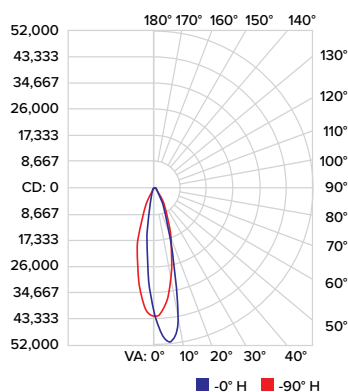
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	13534
Watts	123.35
Efficacy	109.72
Beam Angls (HxV)	29.4° x 19.6°
Center Beam Candlepower	51,285

LUMENS PER ZONE

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%)	79.90%	10,831.10	59.4	44.8
Beam (50%)	36.60%	4,956.70	29.4	19.6
Total	100%	13,534.60		

ISOFOOT CANDLE PLOT



ILLUMINANCE AT A DISTANCE

	Center Beam fc	Beam Width
34.4 ft	35.90 fc	11.9 ft 18.0 ft
68.8 ft	8.97 fc	23.8 ft 36.1 ft
103.2 ft	3.99 fc	35.7 ft 54.1 ft
137.7 ft	2.24 fc	47.6 ft 72.2 ft
172.1 ft	1.43 fc	59.5 ft 90.3 ft
206.5 ft	1.00 fc	71.4 ft 108.3 ft

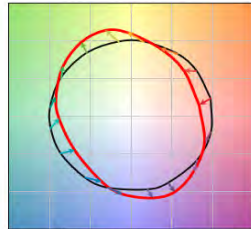
■ Vertical Spread: 19.6° ■ Horizspread: 29.4°

KIMLIGHTING®

INT White
FLOODLIGHT LUMINAIRE

TM-30 DATA

COLOR VECTOR GRAPHIC

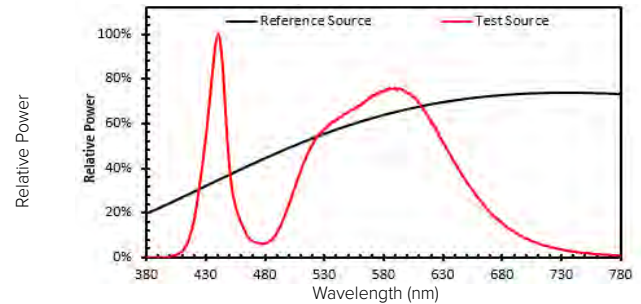


— Reference Illuminant — Test Source

TEST SOURCE

R _t	68
R _g	99
CCT(K)	3947
D _{uv}	0.0004
x	0.3831
y	0.3793
CIE R _a	72

SPECTRAL POWER DISTRIBUTION COMPARISON



ELECTRICAL DATA

Size	Current	System Watts	Line Voltage		Amps AC						Min Power Factor	Max. THD (%)	Dimming				
			VAC	HZ	120	208	240	277	347	480			Dimming Range	Source Current Out		Absolute Voltage	
														Min	Max	Min	Max
2 ft	350 mA	28.6	120-480	50/60	0.24	0.14	0.12	0.10	0.08	0.06	>0.9	20	10% to 100%	0mA	1mA	0V	10V
	500 mA	39.9			0.33	0.19	0.17	0.14	0.11	0.08							
	800 mA	62.3			0.52	0.30	0.26	0.22	0.18	0.13							
3 ft	350 mA	42.0	120-480	50/60	0.35	0.20	0.18	0.15	0.12	0.09	>0.9	20	10% to 100%	0mA	1mA	0V	10V
	500 mA	59.5			0.50	0.29	0.25	0.21	0.17	0.12							
	800 mA	93.7			0.78	0.45	0.39	0.34	0.27	0.20							
4 ft	350 mA	54.0	120-480	50/60	0.45	0.26	0.22	0.19	0.16	0.11	>0.9	20	10% to 100%	0mA	1mA	0V	10V
	500 mA	78.6			0.66	0.38	0.33	0.28	0.23	0.16							
	800 mA	123.4			1.03	0.59	0.51	0.45	0.36	0.26							

POWER LOAD MATRIX (10A MAX AMPERAGE)

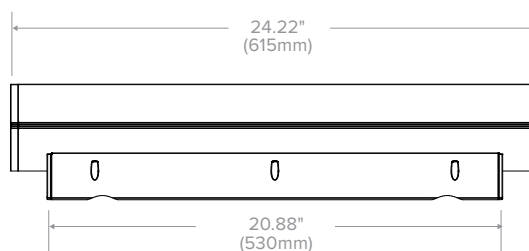
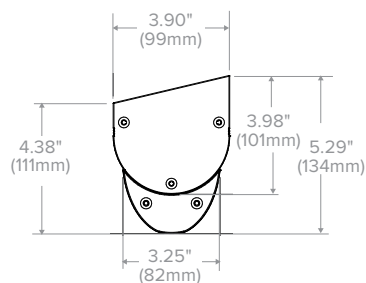
Version	Size (ft)	Driver Wattage (W)	Driver Qty	Primary Voltage (V)	Programmed Current (mA)	Power Factor	%ATHD	Load (A)	System Power (W)	Max Mated Units	Total Feet
Static White	2	30	1	120	350	0.99	6.5	0.249	28.6	40	80
		40	1	120	500	0.98	5.2	0.365	39.9	27	54
		60	1	120	800	0.99	3.1	0.555	62.3	18	36
	3	40	1	120	350	0.98	4.5	0.37	42.0	27	81
		60	1	120	500	0.99	3.29	0.511	59.5	19	57
		95	1	120	800	0.99	2.9	0.818	93.7	12	36
	4	55	1	120	350	0.99	6.5	0.474	54.0	21	84
		80	1	120	500	0.99	5.2	0.669	78.6	14	56
		125	1	120	800	0.99	3.2	1.09	123.4	9	36

CRI LUMEN MULTIPLIER	
CCT	80 CRI
3000K	0.9119
4000K	0.8941
5000K	0.8625

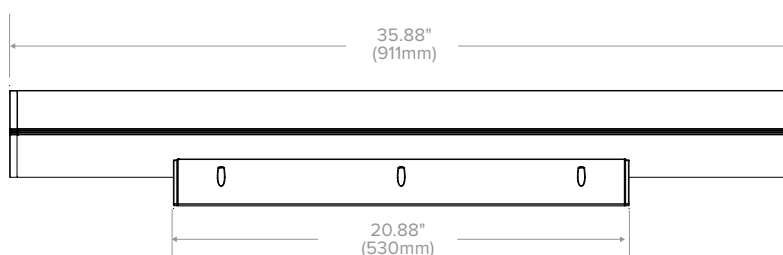
TM-21 LIFETIME CALCULATION- PROJECTED LUMEN MAINTENANCE (25°C / 77°F)						
AMBIENT TEMP.	0	25,000	36,000	50,000	100,000	Reported L70
25°C / 77°F	100%	97.6%	96.3%	94.8%	89.3%	>60,000 hrs

**KIMLIGHTING®****INT White**

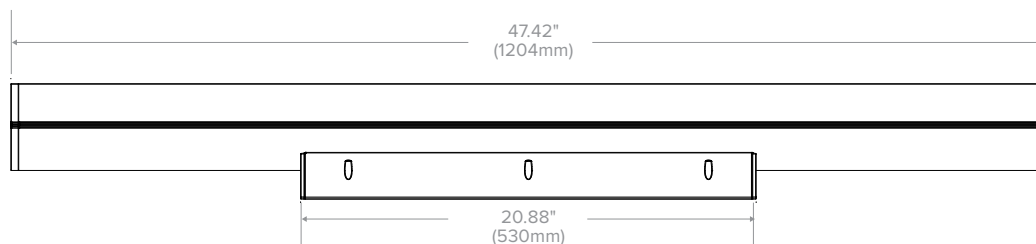
FLOODLIGHT LUMINAIRE

DIMENSIONS

2 FT Fixture



3 FT Fixture



4 FT Fixture

PHOTOMETRY

BROCHURE

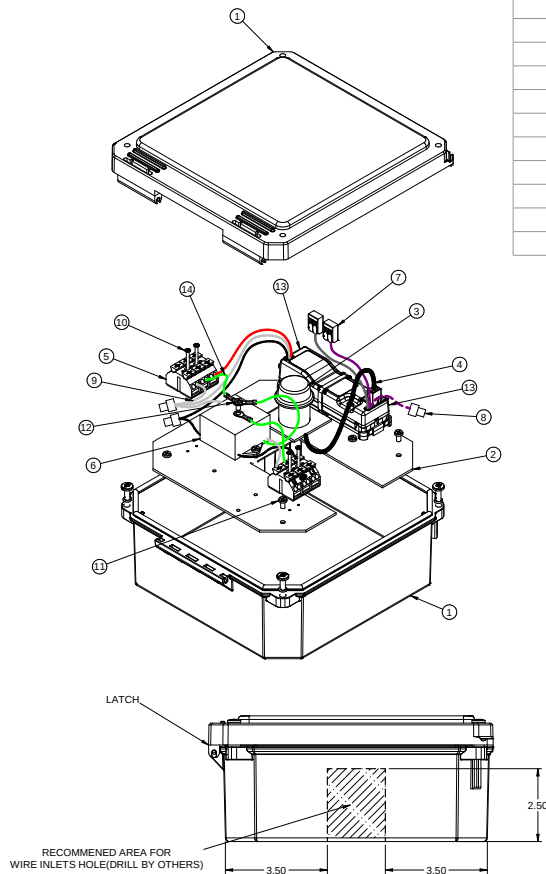
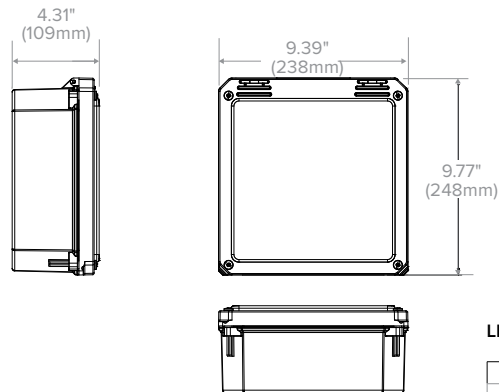
DELIVERED LUMENS

DIMENSIONAL DRAWINGS



**KIMLIGHTING®****INT White**

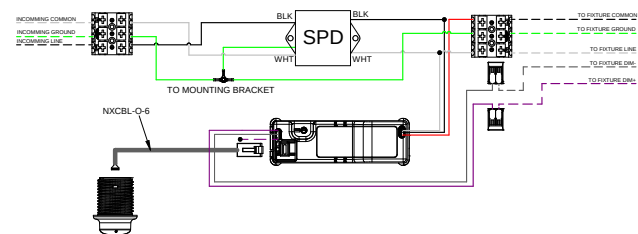
FLOODLIGHT LUMINAIRE

ADDITIONAL INFORMATION CONTINUED**NX BOX****LIST COMPONENTS AND WIRING DIAGRAM**

		Description	Quantity	
1	HW-80804CHSC	N4X Screw Cover 8x8x4 FGL-OPAQ	1	
2	93111068	PLT Remote NX	1	
3	SC	NX Module	1	Table 2
4*	NXCBL-O-6	NXCBL-O-6	1	
5	93074109	Terminal Block 3PT, WAGO CE	2	
6	93054384	SRGPRT-LITTELFUSE 120-277V	1	
7	0874070B	CONN WAGO 2-WIRE 221-412	2	
8*	A74106	Wire Terminal	3	
9*	80105-6E	Wire #18 AWM (150c) WHT	1	
10	93005881	SCR 4-40X1.0 PHH SS	4	
11	A84135	SCR-8-32X5/16 PHH PHMS SS	9	
12	88348	#10 Ring Terminal	3	
13	NXFM-1R2D-O-UNV	NXFM-1R2D-O-UNV	1	
14*	80106-6E	Wire #18 AWM (150c) Green	2	

Table 2 Item #3 P/N

Option	#3
NXWE-RME	NXRM-H
NXS-RME	NXSMP-LMI

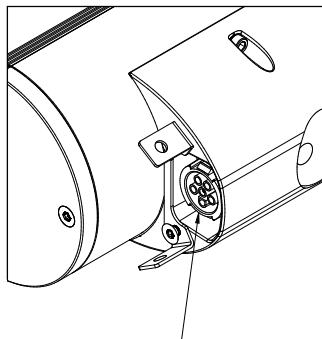
**WIRING DIAGRAM**

**KIMLIGHTING®****INT White**

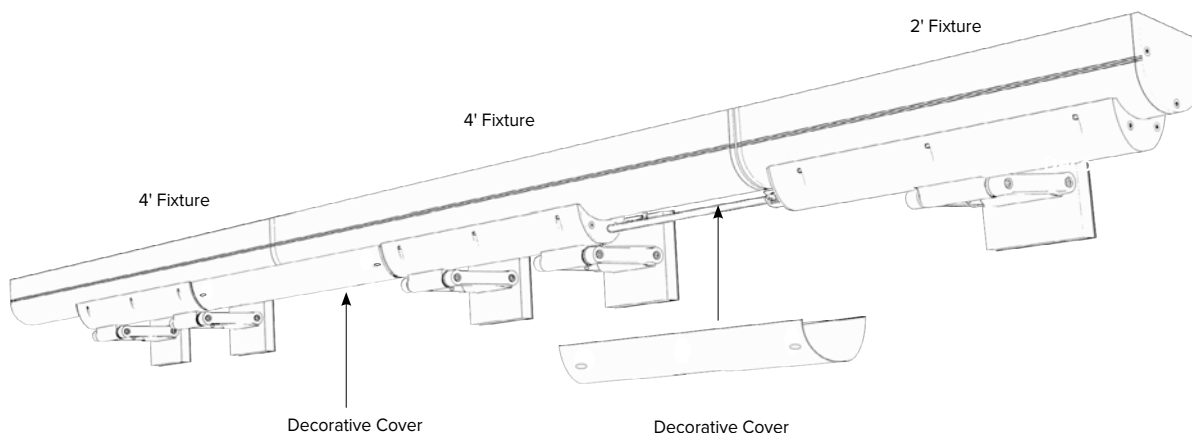
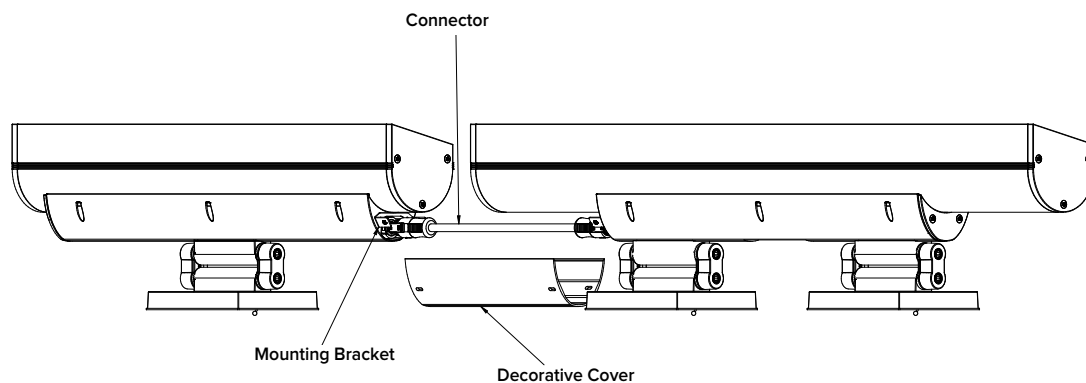
FLOODLIGHT LUMINAIRE

MOUNTING• **Cable Ready**

Wiring can be mounted through a cable on the side of the driver compartment. If this option is chosen, fixture will automatically come with connectors on both sides of the fixture.



Cable Ready



PHOTOMETRY

BROCHURE

DELIVERED LUMENS

DIMENSIONAL DRAWINGS

**KIMLIGHTING®****INT White**

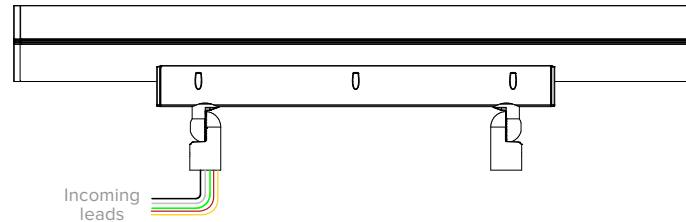
FLOODLIGHT LUMINAIRE

MOUNTING CONT'D

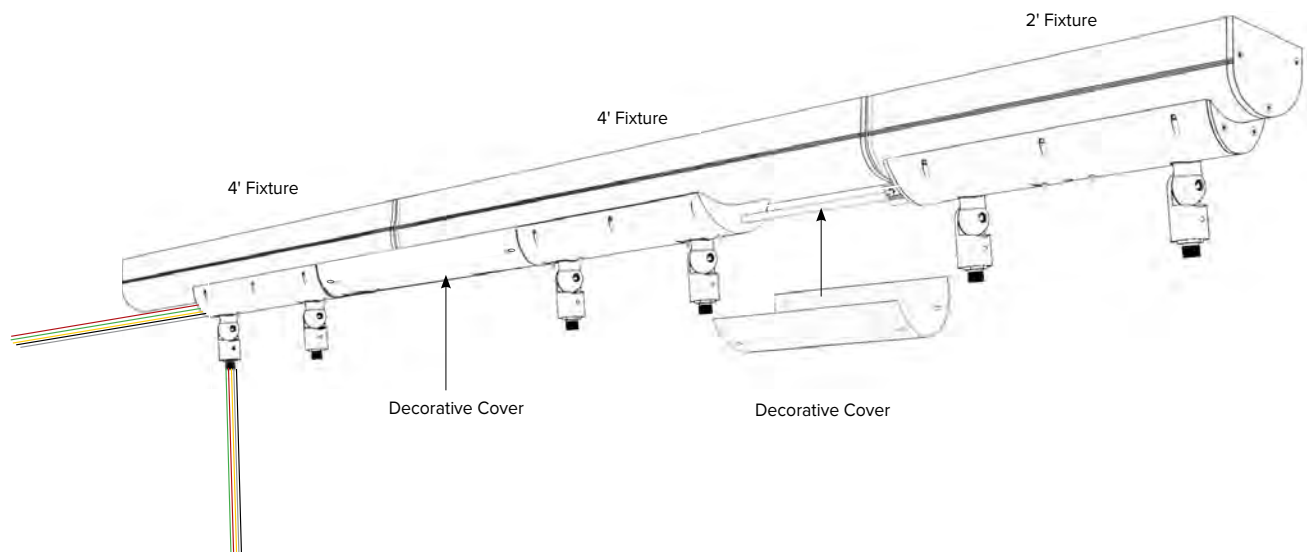
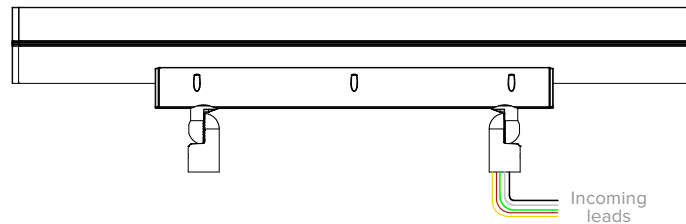
- **Left Mounting and Cable Ready**

Both above wiring configurations can be combined to create a configuration shown here.

Left Mounting



Right Mounting





Job Name:
200 FEDERAL STREET PARK

Catalog Number:

INT/4/48L-80/3K7/WG/UNV/**/NCR/
*M/**

Notes:

Type:

A1

SLA20-47038

KIMLIGHTING®

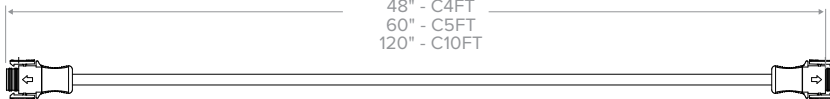
INT White

FLOODLIGHT LUMINAIRE

MOUNTING CONT'D

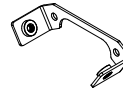
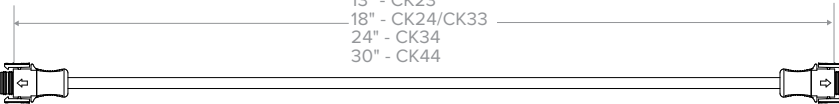
CONNECTOR CABLE

24" - C2FT
36" - C3FT
48" - C4FT
60" - C5FT
120" - C10FT



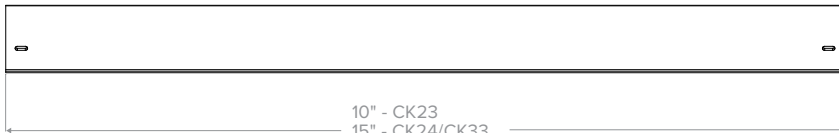
CONNECTOR KITS

13" - CK23
18" - CK24/CK33
24" - CK34
30" - CK44



Bracket x2

Cable x1



Cover x1

10" - CK23
15" - CK24/CK33
21" - CK34
27" - CK44

PHOTOMETRY

BROCHURE

DELIVERED LUMENS

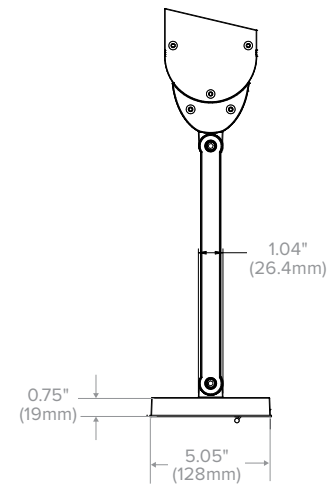
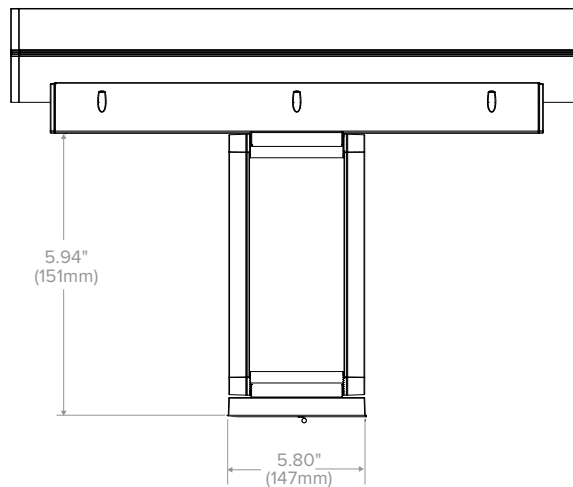
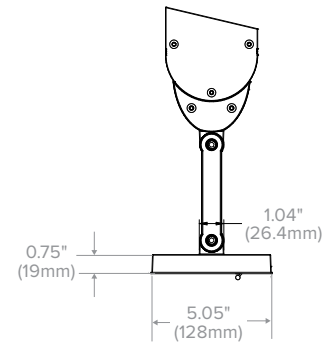
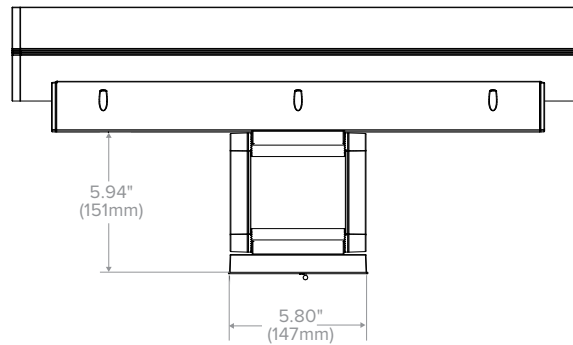
DIMENSIONAL DRAWINGS

**KIMLIGHTING®****INT White**

FLOODLIGHT LUMINAIRE

MOUNTING CONT'D

MOUNTING OPTIONS - 2 FT



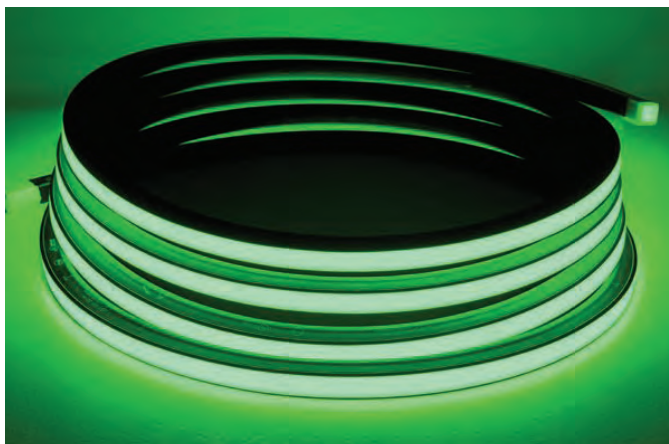
Submitted by Swaney Lighting		Catalog Number: INT/4/48L-80/3K7/WG/UNV/**/NCR/ *M/** Notes:	Type: A1 SLA20-47038
	Job Name: 200 FEDERAL STREET PARK		

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FloppyFlex®

SINGLE COLOR | FLAT 160° | FTB and STS LED NEON



Description

FloppyFlex Flat single color is flexible 24V LED neon available in several colors or color temperatures of white. The minimum side-to-side or front-to-back bend diameter is 300 mm. Features a homogenous LED surface without "skittles" effect.

Features

- Super bright with homogenous lighting surface
- Smooth, beautiful dimming, DMX control via FloppyDrive
- Wide beam angle
- Wide range of accessories for joining, terminating, mounting, powering
- Easy to use and install
- 300 mm minimum side-to-side or front-to-back bend diameter
- Unlimited and unprecedented possibilities

Applications

Installation, architectural, digital signage, gameshows, arcades, signs, film and television sets, theme parks, bars and clubs, cruise ships, creating words, indirect applications, and scenic elements



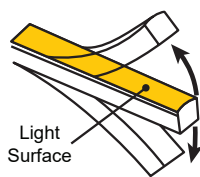
Available Connectors

Injection Molded Power Feed and End cap connectors, fully customizable for no-hassle installations. PVC IP67, Silicone IP68.

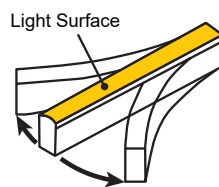
Double Molded IP68 Power Feed and End cap connectors, suitable for submersible applications. PVC only - not available for silicone versions.

EZ-Connect power feeds and end caps allow for easy onsite terminations with IP67 ratings, and allow for the End, Side, Middle, or Bottom power feed entry.

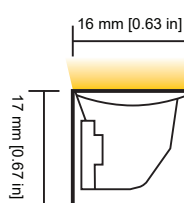
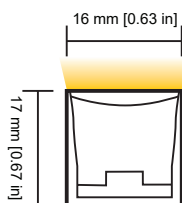
**Flame Resistant — UV Resistant — Solvents Resistant
Saltwater Resistant — IP67 Protection — IK08 Protection**



Front-to-Back Versions



Side-to-Side Versions



Certifications

With factory-installed connectors.

cULus Listed, CE, TUV and RoHS compliant and passes rigorous environmental, optical, mechanical, and electrical testing.



**Exclusive Distribution — The Americas, Europe, and Asia
Innovative, Performance-Driven Show Technology Since 1983**



Job Name:
200 FEDERAL STREET PARK

Catalog Number:

**FACTORY MOLDED FLOPPYFLEX
SYSTEM CONSISTING OF BELOW:**

Notes:

Type:

F1

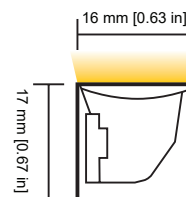
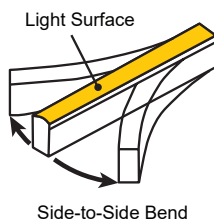
SLA20-47038

FloppyFlex®

**SINGLE COLOR | FLAT 160° | STS
LED NEON**

Flat Side-to-Side White PVC Specifications

Part Number		FFFH21K	FFFH27K	FFFH3K	FFFH35K	FFFH4K	FFFH57K
Type		Dimmable Fixed White					
LED Color		2100K	2700K	3000K	3500K	4000K	5700K
CCT		2238±102K	2725±145K	3045±175K	3465±245K	3985±275K	5669±355K
Lumen/m		400	400	400	450	450	400
Lumen/ft		122	122	122	137	137	122
CRI		82-87					
Beam Angle, Average (50%)		116°					
Cut & Connect Unit Length		55.6 mm [2.19 in]					
Number of Units Per Meter		18					
LED Quantity Per Unit		6					
LED Quantity Per Meter		108					
Base Color		White					
Housing		PVC					
Minimum Bend Diameter		300mm/11.81 in.					
Bending Direction		Side-to-Side (STS)					
Connectors & Hardware		Factory molded connectors, Field attachable connectors, Aluminum mounting channels					
Operating Voltage		24 VDC					
Wiring		2-Wire					
Power Consumption		12 W/m					
Max Fixture Runs	Single end feed	10 m [32.8 ft]					
	Double end feed	20 m [65.6 ft]					
Control		DMX-512 via FloppyDrive 2X2, Dimmable MLV LED Driver, Non-dimmable AC/DC LED Driver					
Installation Temperature		0 to 45 °C [32 to 113°F]					
Operating Temperature		-20 to 45 °C [-4 to 113 °F]					
Mounting Surface Temperature		60 °C [140 °F] Max.					
Storage Temperature		-20 to 60 °C [-4 to 140 °F]					
Dimensions (WxHxD)		16 mm x 17 mm x variable [0.63 in x 0.67 in x variable]					
Ingress Protection		IP67 with Molded connectors, IP68 with Double Molded connectors, IP67 with EZ-Connect connectors					
Listing		UL2108 Class 2, UL2108 Non Class 2, UL676, CE-EMC, IS 10322					
Warranty		3 Years					



Exclusive Distribution – The Americas, Europe, and Asia

sales@tmb.com

Los Angeles
+1 818.899.8818

London
+44 (0)20.8574.9700

tmb
www.tmb.com

New York
+1 201.896.8600

Beijing
+86 10.8492.1587

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+1 519.538.0888



FloppyFlex®

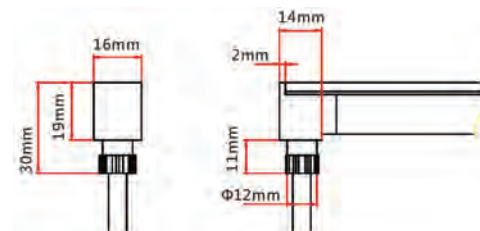
MOLDED FLAT CONNECTORS IP67 PVC OR IP68 SILICONE



Molded Bottom Entry Connection

Connects FloppyFlex Flat to power supply with pre-installed end feed cable, IP67.

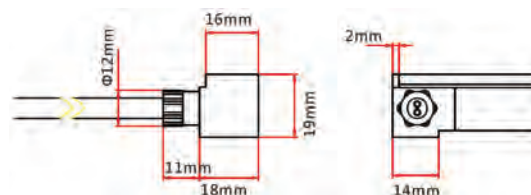
Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.



Molded Side Entry Connection

Connects FloppyFlex Flat to power supply with pre-installed side feed cable, IP67.

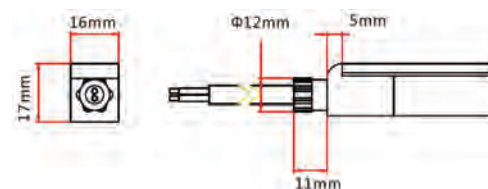
Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.



Molded End Entry Connection

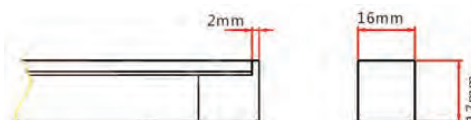
Connects FloppyFlex Flat to power supply with pre-installed end feed cable, IP67.

Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.



Molded End Cap

Pre-installed termination protection of FloppyFlex Flat, IP67.



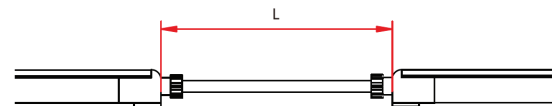
Molded End Entry Connection

Connects two pieces of FloppyFlex Flat together with a flexible cable, IP67

Cable length available in 0.3 - 1 m.

Maximum 8 jumpers per 20 m

Maximum 4 jumpers per 10 m



Molded T-Feed Connection

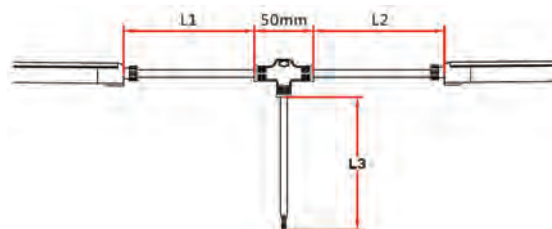
Connects two pieces of FloppyFlex Flat together with powered T-joint, IP67.

L1 and L2 length available in 0.15-0.5 m.

L3 length available in 0.3 - 1 m

Maximum 8 T-Feeds per 20 m

Maximum 4 T-Feeds per 10 m



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Job Name:
200 FEDERAL STREET PARK

Catalog Number:
**FACTORY MOLDED FLOPPYFLEX
SYSTEM CONSISTING OF BELOW:**
Notes:

Type:

F1

SLA20-47038

FloppyFlex®

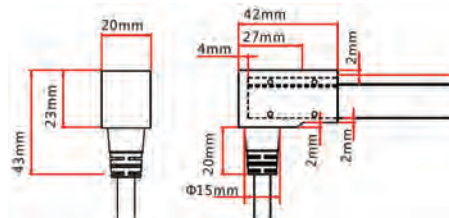
DOUBLE-MOLDED **FLAT CONNECTORS** IP68 PVC ONLY



Double-Molded Bottom Entry Connection

Connects FloppyFlex Flat to power supply with pre-installed end feed cable, IP68.

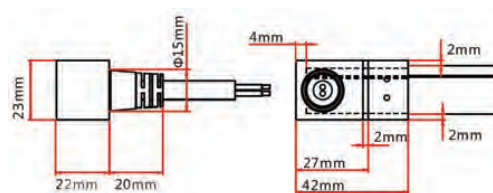
Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.



Double-Molded Side Entry Connection

Connects FloppyFlex Flat to power supply with pre-installed side feed cable, IP68.

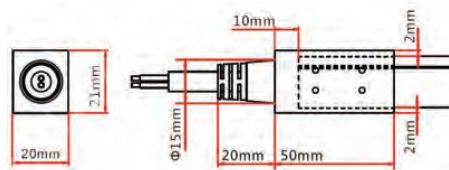
Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.



Double-Molded End Entry Connection

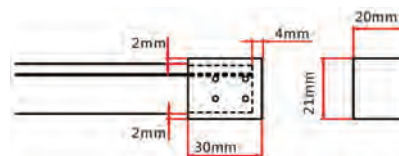
Connects FloppyFlex Flat to power supply with pre-installed end feed cable, IP68.

Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.



Double-Molded End Cap

Pre-installed termination protection of FloppyFlex Flat, IP68.



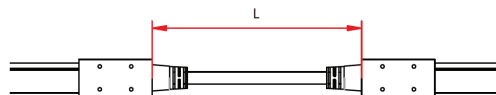
Double-Molded End Entry Connection

Connects two pieces of FloppyFlex Flat together with a flexible cable, IP68

Cable length available in 0.3 - 1 m.

Maximum 8 jumpers per 20 m

Maximum 4 jumpers per 10 m



Double-Molded T-Feed Connection

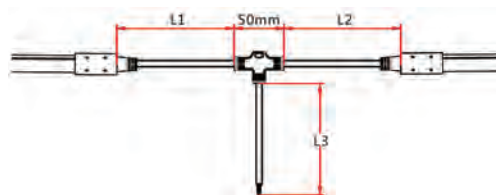
Connects two pieces of FloppyFlex Flat together with powered T-joint, IP68.

L1 and L2 length available in 0.15-0.5 m.

L3 length available in 0.3 - 1 m

Maximum 8 T-Feeds per 20 m

Maximum 4 T-Feeds per 10 m



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FloppyFlex®

EZ-CONNECT FLAT CONNECTORS IP67 PVC OR SILICONE



EZ-Connect Bottom Entry

Connects FloppyFlex Flat to power supply with user-installable end feed cable, IP67.

Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.



EZ-Connect Side Entry

Connects FloppyFlex Flat to power supply with user-installable side feed cable, IP67.

Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.



EZ-Connect End Entry

Connects FloppyFlex Flat to power supply with user-installable end feed cable, IP67.

Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.



EZ-Connect End Cap

User-installable termination protection of FloppyFlex Flat, IP67.



EZ-Connect End Entry

Connects two pieces of FloppyFlex Flat together with a flexible cable, user-installable, IP67.

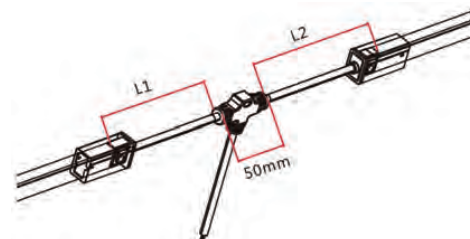
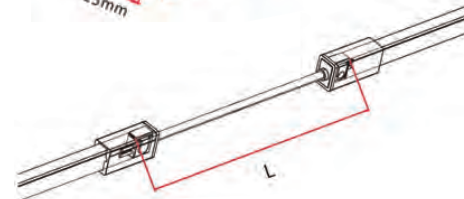
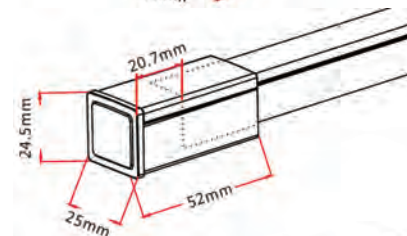
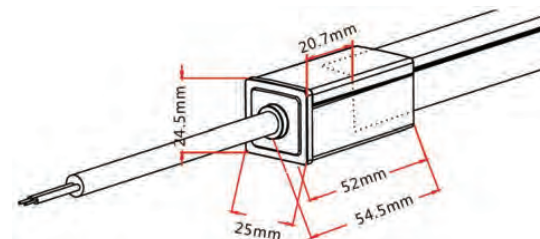
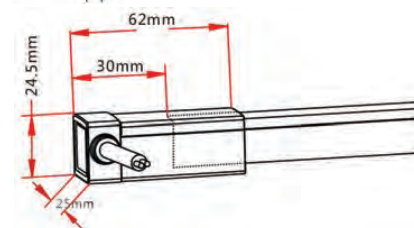
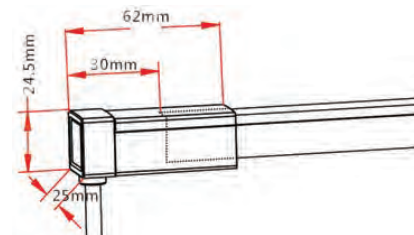
Cable length available in 0.3 m, 1 m, and 3 m.



EZ-Connect T-Feed

Connects two pieces of FloppyFlex Flat together with powered T-joint, user-installable, IP67.

L1 and L2 length available in 0.3 m.
L3 length available in 1 m



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FloppyFlex®

MINI TOOL KIT ASSEMBLY TOOLS



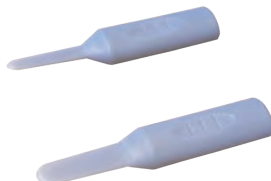
The FloppyFlex Mini Tool Kit includes the tools needed to properly cut and terminate FloppyFlex LED Neon with EZ-Connect field-installable connectors. Correct installation ensures proper electrical contact, IP rating integrity, and warranty compliance.

Includes cutter, insertion spreaders, and grippers.

We recommend using these tools for optimum installation results and reduced risk of damage to the product.



Cutter



Insertion Spreaders



Grippers

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DRIVERS



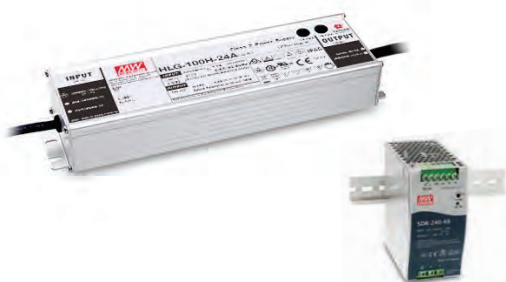
FloppyDrive DIN Rail Mount

- DMX dimming for 12 or 24V LED Tapes, Neons, and other low voltage systems of all types. Perfect for FloppyFlex and FloppyTape.
- Two 12V or 24V 2-, 3-, 4-, or 5-wire outputs
- Addressing, monitoring and reporting of all functions, via RDM
- 1200Hz flicker-free refresh rate
- Pluggable Terminal Block (PTB) screw terminals for bare-wire, installation flexibility
- More information and full specification sheets at <https://tmb.com/proplex-floppydrives>



FloppyDrive 4x2 24V PortableMount

- DMX Control for FloppyFlex LED neon, FloppyTape LED tape, and other 24 VDC LED neon or tape systems. (Max. length of runs per output varies with neon or tape product.)
- Two 24 VDC outputs. 12 VDC version also available
- Rugged, tour-ready ProPlex "Blue Box" PortableMount chassis. Packaged for extreme conditions. Shock-mounted circuitry. Advanced thermal management
- Color LCD Display with easy-function control buttons for easy setup and configuration
- Heavy-duty yoke for truss mounting. Optional RackMount Kit available.
- RDM functionality for complete system monitoring and addressing via RDM
- 2-, 3-, and 5-wire (1-, 2-, and 4-channel) versions also available
- More information and full specification sheets at <https://tmb.com/proplex-floppydrives>



Mean Well 24 VDC LED Drivers

- High efficiency 24VDC LED drivers in DIN Rail and stand-alone with multiple wattage configurations
- IP-rated units available.
- Fixed or dimmable output. Dimming available via 1-10VDC, 10V PWM signal, resistance, or built-in potentiometer.

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Job Name:
200 FEDERAL STREET PARK

Catalog Number:
**FACTORY MOLDED FLOPPYFLEX
SYSTEM CONSISTING OF BELOW:**
Notes:

Type:

F1

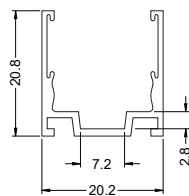
SLA20-47038

FloppyFlex®

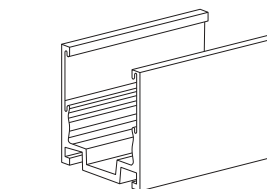
SELF-LOCKING ALUMINUM PROFILE V3 FFACKF*MV3



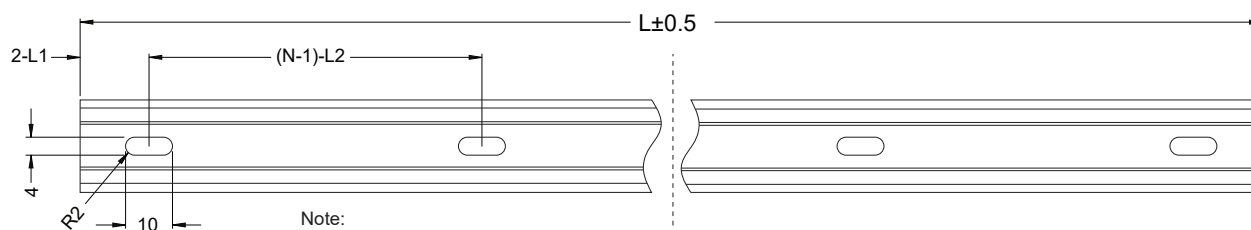
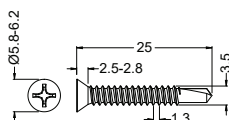
Versatile self-locking profile can be used to mount FloppyFlex Flat LED neon in any orientation including overhead at any angle. Extruded 6063 aluminum construction with elastic serrated grip tape hold the FloppyFlex neon firmly through varying temperatures of -20 to +70 °C.



Tolerance: ±0.2 mm



Dimensions in millimeters



Note:

1. 2-L1 refers to two of symmetric L1 in each piece of profile
 2. (N-1)-L2 refers to (N minus one) of symmetric L2 in each piece of profile
- "N" hereby stands for its corresponding "Hole Number" in the table below.

Part Number	Length	L1	L2	Slotted Hole	Number of Holes
FFACKF20MMV3	20 mm [0.787 in]	10 mm [0.39 in]	N/A	4x10 mm [0.16x0.39 in]	1
FFACKF.5MV3	500 mm [19.68 in]	50 mm [1.97 in]	200 mm [7.87 in]	4x10 mm [0.16x0.39 in]	3
FFACKF1MV3	1000 mm [39.37 in]	100 mm [3.93 in]	200 mm [7.87 in]	4x10 mm [0.16x0.39 in]	5
FFACKF2MV3	2000 mm [78.74 in]	100 mm [3.93 in]	200 mm [7.87 in]	4x10 mm [0.16x0.39 in]	10

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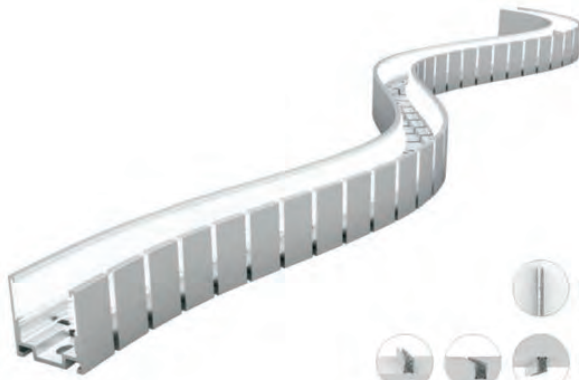
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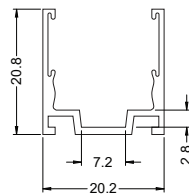
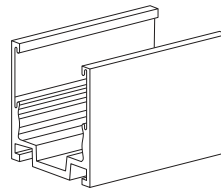


FloppyFlex®

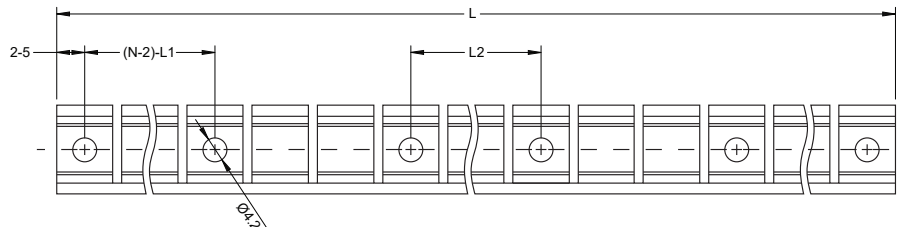
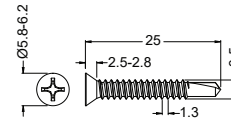
FLEXIBLE SELF-LOCKING ALUMINUM PROFILE FFACFLKF*M



Flexible self-locking profile can be used to mount FloppyFlex Flat STS LED neon in custom freeform curves while maintaining clamping force. May be mounted in any orientation including overhead at any angle.

Tolerance: ± 0.2 mm

Dimensions in millimeters

**Note:**

1. 2-5 refers to two of symmetric 5 mm in each piece of profile
 2. (N-2)·L1 refers to (N minus two) of symmetric L1 in each piece of profile
- "N" hereby stands for its corresponding "Hole Number" in the table below.

Part Number	Length	L1	L2	Screw Hole	Number of Holes
FFACFLKF.5M	500 mm [19.68 in]	116.5 mm [4.59 in]	23.3 mm [0.92 in]	Ø4.2 mm [0.17 in]	6
FFACFLKF1M	1000 mm [39.37 in]	116.5 mm [4.59 in]	58.2 mm [2.29 in]	Ø4.2 mm [0.17 in]	10

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Submitted by Swaney Lighting 	Job Name: 200 FEDERAL STREET PARK	Catalog Number: FACTORY MOLDED FLOPPYFLEX SYSTEM CONSISTING OF BELOW: Notes:	Type: F1 SLA20-47038
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URBAN SERIES

URBAN LUMINAIRE

FEATURES

- Decorative transitional style lighting fixture series is suitable for walkway lighting and wall mounting
- Two unique shade and style options
- LED turtle-friendly option available
- Integral Surge and Thermal Protection



*3000K and warmer CCTs only

CONTROL TECHNOLOGY



SPECIFICATIONS

CONSTRUCTION

- The drivers shall be located in the top cast housing and shall be accessible without tools by hinging the lower shade assembly. The driver and all electrical components shall be on a tray
- The lower shade shall be made from a one-piece aluminum spinning
- The housing is designed for LED thermal management without the use of metallic screens, cages, or fans. The top casting shall be able to be pendent mounted in place with a stainless steel safety pin and then permanently held in place with four stainless steel bolts

ELECTRICAL

- 100V through 277V, 50 Hz to 60 Hz (UNV), or 347V or 480V input
- Power factor is ≥ 0.90 at full load
- Dimming drivers are standard with connections for external dimming equipment available upon request
- Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is listed by UL for use at 600VAC at 50°C or higher
- Plug disconnects are listed by UL for use at 600 VAC, 13A or higher. 13A rating applies to primary (AC) side only
- Fixture electrical compartment shall contain all LED driver components
- Button photocell available
- Ambient operating temperature -40°C to 40°C

ELECTRICAL (CONTINUED)

- Surge protection - 20KA
- Lifeshield™ Circuit - protects luminaire from excessive temperature. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range. A luminaire equipped with the device may be reliably operated in any ambient temperature up to 55°C (131°F). Operation shall be smooth and undetectable to the eye. Thermal circuit is designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers. The device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.)

CONTROLS

- Available with Energeni for optional set dimming, timed dimming with simple delay, or timed dimming based on time of night visit: www.beaconproducts.com/products/energeni
- Urban can be specified with SiteSync™ wireless control system for reduction in energy and maintenance cost while optimizing light quality 24/7. For more details, see ordering information or visit: www.hubbellighting.com/products/sitesync/

FINISH

- 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



RELATED PRODUCTS

[Matrix MAA](#)

[Brighton](#)

[La Jolla](#)

FINISH (CONTINUED)

- The finish meets the AAMA 605.2 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

CERTIFICATIONS

- DesignLights Consortium (DLC) qualified, consult DLC website for more details: <http://www.designlights.org/QPL>
- NRTL Certified, UL8750, UL 1598 and CSA22.2#250. 13-14 for wet locations
- IDA approved
- This product is approved by the Florida Fish and Wildlife Conservation Commission. Separate spec available at <http://www.beaconproducts.com/products/urban>

WARRANTY

- 5 year warranty
- See [HLI Standard Warranty](#) for additional information

KEY DATA	
Lumen Range	3,300–11,600
Wattage Range	55–136
Efficacy Range (LPW)	61–87

Submitted by Swaney Lighting	Job Name: 200 FEDERAL STREET PARK	Catalog Number: URBCAP-21/24L-27/3K7/UNV/5W/ NRNW/*** Notes: CATENARY CONFIGURATION: SUSPENSION CABLE AND POWER CABLE BY OTHERS.	Type: U5 SLA20-47038
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DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE

Example: URB-CAP-21-36L-80-5K7-UNV-4-SWP-NRNW-BLT

CATALOG #

Model	Lens Option	Engine-Watts	CCT/CRI ⁷	Voltage	Optics ²	Electrical Options
URB Urban	CAP-21 21" Capitol MRDS-21 21" Miramar deep shade MAR-21 21" Maritas CAP-26 26" Capitol MRSS-26 26" Miramar shallow shade MRDS-26 26" Miramar deep shade MAR-26 26" Maritas	24L-27 27W, LED array 24L-55 55W, LED array 36L-80 85W, LED array 48L-110 110W, LED array ¹ 60L-136 136W, LED array ¹	3K7 3000K, 70 CRI 4K7 4000K, 70 CRI 5K7 5000K, 70 CRI	UNV 120-277V 347 347V 480 480V	FR Type I 2 Type II 3 Type III 4 Type IV 4W Type IV wide 5R Type V rectangular 5QM Type V square medium 5W Type V round wide BC Backshield (available for FR, 2, 3, 4, 4W Optics)	PCU Button Photocell, Universal

Control Options	Mounting Style	Style	Sensor Option	Specify Std. finish
GENI-XX Energeni ⁵ SWP SiteSync Wireless Pre-Commission ^{3,4}	PM Pendant mount SM Side mount YM Yoke mount	NRNW No rings 3RNW Three rings	MOB Motion sensor 33% or 50% dimming ^{6,8}	Finish BLT Black Matte Textured BLS Black Gloss Smooth DBT Dark Bronze Matte Textured DBS Dark Bronze Gloss Smooth GTT Graphite Matte Textured LGS Light Grey Gloss Smooth PSS Platinum Silver Smooth WHT White Matte Textured WHS White Gloss Smooth VGT Verde Green Textured Color Option CC Custom Color

Accessories

- ☐ **SWUSB** SiteSync interface software loaded on USB flash drive for use with owner supplied PC (Windows based only). Includes SiteSync license, software and USB radio bridge node*
- ☐ **SWTAB** Windows tablet and SiteSync interface software. Includes tablet with preloaded software, SiteSync license and USB radio bridge node*
- ☐ **SWBRG** SiteSync USB radio bridge node only. Order if a replacement is required or if an extra bridge node is requested*

Notes:

- * When ordering SiteSync at least one of these two interface options must be ordered per project
 + If needed, an additional Bridge Node can be ordered

Notes:

- 1 26" only
- 2 To rotate optics left or right 90 degrees, specify L or R after the optical distribution example: 4L
- 3 Must specify group and zone information at time of order. For further details, see www.hubbell-automation.com/products/sitesync/
- 4 Not available with other control or sensor options
- 5 When ordering Energeni, specify the routine setting code (Example GENI-04). See [Energeni brochure](http://cdn.beaconproducts.com/content/products/specs/instructions) and [Energeni instructions](http://cdn.beaconproducts.com/content/products/specs/instructions) for setting table and options. Not available with sensor options
- 6 Specify time delay, dimming level and mounting height
- 7 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/Urban_LED_spec_sheet_turtle.pdf
- 8 Only available on 24L and 36L configurations

CONTROLS

SiteSync — Precommissioned 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 [the SiteSync family page on our website](#) or contact Hubbell Lighting tech support at 864-678-1000.

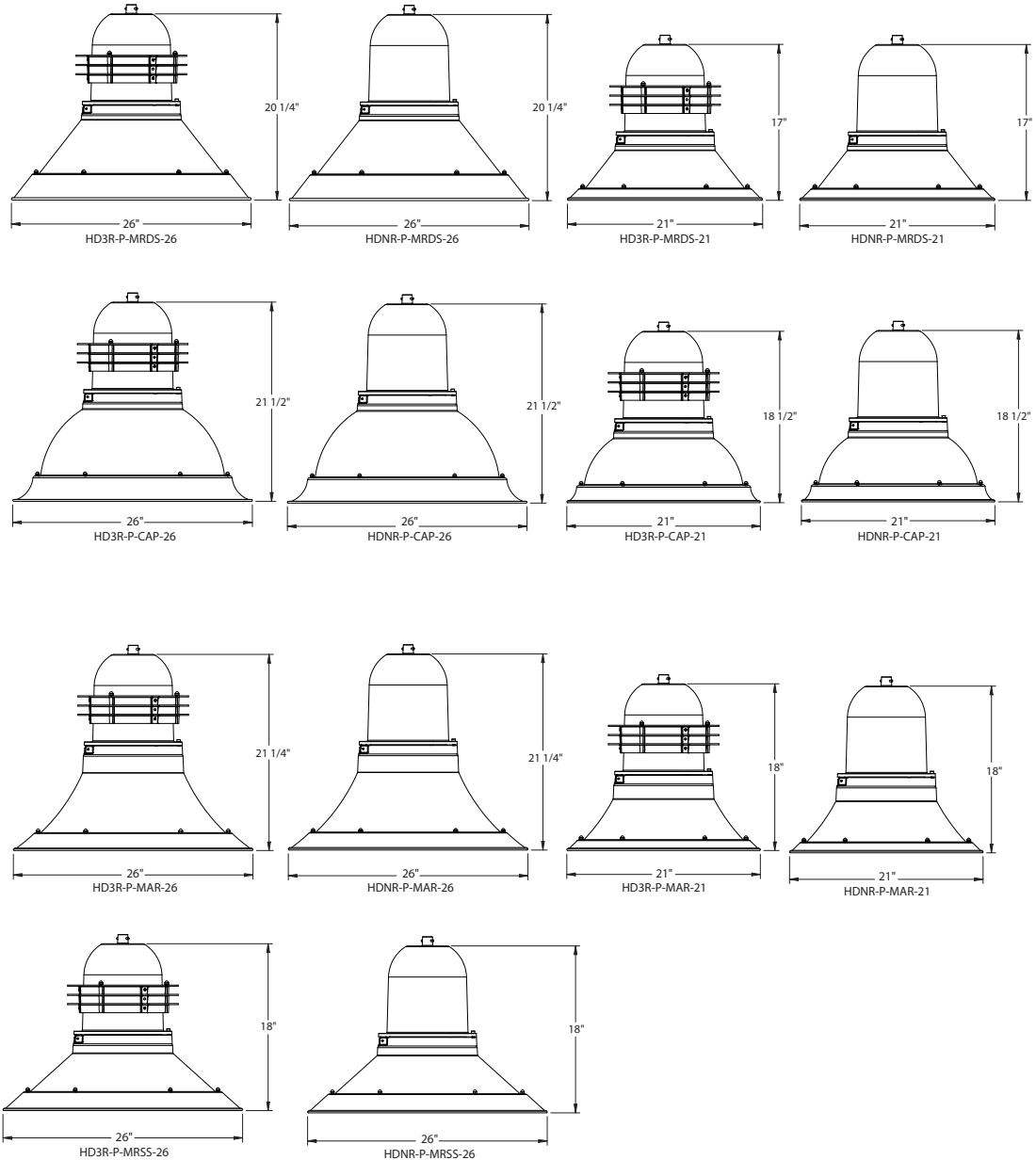
SiteSync fixtures with Motion control (SWPM) require the mounting height of the fixture for selection of the lens.

Examples: URB-CAP-26/60L-136/3K7/UNV/5QM/SWP/NRNW/BLT SiteSync only
 URB-CAP-26/60L-136/3K7/UNV/5QM/SWPM-20F/NRNW/BLT SiteSync with Motion Control



**URBAN SERIES**

URBAN LUMINAIRE



Submitted by Swaney Lighting 	Job Name: 200 FEDERAL STREET PARK	Catalog Number: URBCAP-21/24L-27/3K7/UNV/5W/ NRNW/*** Notes: CATENARY CONFIGURATION: SUSPENSION CABLE AND POWER CABLE BY OTHERS.	Type: U5 SLA20-47038
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URBAN SERIES

URBAN LUMINAIRE

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	350mA	27W	FR	3871	138	1	0	0	3990	143	1	0	0	3667	131	0	0	0
			2	3750	134	2	0	0	3838	137	1	0	1	3528	126	1	0	1
			3	3638	130	1	0	1	3750	134	1	0	1	3446	123	1	0	1
			4	3680	131	0	0	1	3794	135	0	0	1	3486	129	0	0	1
			4W	3612	129	1	0	1	3723	133	1	0	1	3422	122	1	0	1
			5QM	3750	134	2	0	0	3866	138	2	0	0	3553	127	2	0	0
			5R	3763	134	2	0	2	3879	139	2	0	2	3565	127	2	0	2
			5W	3556	127	2	0	1	3666	131	3	0	1	3369	120	2	0	1
24	700mA	55W	FR	6451	113	1	0	1	6650	117	1	0	1	6112	107	1	0	1
			2	6251	110	3	0	1	6397	112	1	0	2	5879	103	1	0	1
			3	6063	106	1	0	2	6250	110	1	0	2	5744	101	1	0	2
			4	6133	108	1	0	2	6323	111	1	0	2	5811	102	1	0	2
			4W	6020	106	1	0	2	6206	109	1	0	2	5703	100	1	0	2
			5QM	6251	110	3	0	1	6444	113	3	0	1	5922	104	2	0	1
			5R	6272	110	3	0	3	6466	113	3	0	3	5942	104	3	0	3
			5W	6926	104	3	0	1	6110	107	3	0	1	5615	99	3	0	1
36	700mA	85W	FR	9672	113	1	0	1	9970	117	1	0	1	9173	107	1	0	1
			2	9303	109	1	0	2	9591	112	1	0	2	8823	103	1	0	2
			3	9089	107	1	0	2	9370	110	1	0	2	8621	101	1	0	2
			4	9195	108	1	0	2	9479	111	1	0	2	8721	102	1	0	2
			4W	9025	106	1	0	2	9304	109	1	0	2	8559	100	1	0	2
			5QM	9371	110	3	0	1	9661	113	3	0	1	8888	104	3	0	1
			5R	9403	110	3	0	3	9694	114	3	0	3	8918	105	3	0	3
			5W	8885	105	3	0	2	9160	108	4	0	2	8427	100	3	0	2
48*	700mA	110W*	FR	12895	116	1	0	1	13294	120	1	0	1	12230	110	1	0	1
			2	12404	112	2	0	2	12788	115	2	0	2	11765	106	2	0	2
			3	12119	109	1	0	3	12494	113	1	0	3	11494	104	1	0	2
			4	12260	110	1	0	3	12639	114	1	0	3	11628	105	1	0	3
			4W	12033	108	2	0	3	12405	112	2	0	3	11413	103	2	0	2
			5QM	12494	113	3	0	2	12881	116	3	0	2	11850	107	3	0	2
			5R	12537	113	3	0	3	12925	116	4	0	4	11891	107	3	0	3
			5W	11847	107	4	0	2	12213	110	4	0	2	11236	101	4	0	2
60*	700mA	136W*	FR	16119	117	1	0	2	16618	121	2	0	2	15288	112	1	0	2
			2	15505	113	2	0	2	15985	117	2	0	2	14706	107	2	0	2
			3	15149	111	2	0	3	15617	114	2	0	3	14368	105	2	0	3
			4	15324	112	1	0	3	15798	115	1	0	3	14534	106	1	0	3
			4W	15041	110	2	0	3	15506	113	2	0	3	14266	104	2	0	3
			5QM	15618	114	4	0	2	16101	118	4	0	2	14813	108	3	0	2
			5R	15671	114	4	0	4	16156	118	4	0	4	14864	108	4	0	4
			5W	14809	108	4	0	2	15267	111	4	0	2	14046	103	4	0	2

Notes:

1 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.

* Available in the 26" Urban only



URBAN SERIES

URBAN LUMINAIRE

ELECTRICAL DATA

# OF LEDS	Number of Drivers	Drive Current (mA)	Input Voltage (V)	System Power (Watts)	Oper. Current (Amps)
24	1	350mA	120	27	0.27
			277		0.12
			347		0.09
			480		0.07
24	2	700 mA	120	55	0.55
			277		0.24
			347		0.19
			480		0.14
36	1	700 mA	120	80	0.80
			277		0.35
			347		0.28
			480		0.20
48	1	700 mA	120	110	1.1
			277		0.43
			347		0.38
			480		0.28
60	1	700 mA	120	136	1.4
			277		0.59
			347		0.47
			480		0.34

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

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	0.98
40° C	104° F	0.98

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

PROJECTED LUMEN MAINTENANCE

Ambient Temperature	OPERATING HOURS					
	0	25,000	50,000	*TM-21-11 L90 60,000	100,000	L70 (Hours)
25°C / 77°F	1.00	0.97	0.95	0.95	0.86	>470,000

Notes:

* 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.

EPA

EPA: X.XX sqft		PM	SM	YM
CAP	21	1.04	1.14	1.39
	26	1.39	1.49	1.79
MAR	21	1.00	1.10	1.35
	26	1.25	1.35	1.65
MRDS	21	1.00	1.10	1.35
	26	1.25	1.35	1.65
MRSS	26	1.17	1.27	1.57

FOR ALL CONFIGURATIONS LINE DRAWINGS PLEASE SEE:

URB-HD-P.PDF
URB-HD-S.PDF
URB-HD-YM.PDF

USE OF TRADEMARKS AND TRADE NAMES

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Submitted by Swaney Lighting		Catalog Number:	Type:
	Job Name: 200 FEDERAL STREET PARK	URBCAP-21/24L-27/3K7/UNV/5W/ NRNW/*** Notes: CATENARY CONFIGURATION: SUSPENSION CABLE AND POWER CABLE BY OTHERS.	U5 SLA20-47038

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Section O:
Architectural Design
Narrative



August 5, 2020

Caitlin Cameron
Urban Designer
City of Portland Maine
389 Congress Street
Portland, Maine 04101

Re: 200 Federal St. - Design Narrative

The proposed building to be located on 200 Federal Street in Downtown Portland consists of 265 residential market rate apartment units and first floor retail suites. The building is an 18 story structure sited on the corner of Federal and Temple Streets.

Prior to developing the building concept we spent much time walking the streets of the surrounding neighborhood, analyzing existing streetscapes, building massing, forms, materials and textures. This approach allowed us to develop a design concept that is grounded by the existing neighborhood context and also reflects our contemporary time. As seen in the aerial rendering and streetscape photos the predominant exterior materials in the neighborhood and along the Congress Street corridor are red brick and a lighter stone or cast stone material. We have utilized these materials and colors to help integrate 200 Federal Street into the existing Architectural fabric.

The building is a taller structure along the Congress Street corridor, to scale the building design from longer views we have designed a building cap material transition at the 16th floor which is a similar datum to the adjacent One City Center building. This visually lighter color building cap also helps the building meet the sky gracefully. The main body of the building is primarily brick clad with a high percentage of punched openings, this facade pattern creates nice light filled residential units but also a strong vertical and horizontal grid that provide the facade a nice order. The order is then balanced by vertical breaks in the brick with the lighter material, this scales the facades horizontally and visually breaks the building massing on the longer facades. The building has a strong base which is three stories in height, this base is pronounced by its larger width than the body of the building but also

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101

by its materiality. The base is a cast masonry unit material with a light limestone like coloring. A similar material coloring is found in many of the adjacent larger neighboring building's, bases. The masonry unit is 24"x12" with a clean joint system, we have created a facade rhythm at the base with large expanses of glass for porosity and a strong pilaster order. The base design creates a scaled transition from the pedestrian level up to the main body of the building above.

200 Federal Street is a simple yet elegant structure that will add to the City of Portland's diverse skyline and it will contribute to the positive energy building within the surrounding neighborhood.

We look forward to discussing the project at the upcoming Planning Board workshop.

Sincerely,



Ryan Senatore, AIA LEED AP

Principal

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101

CODE RED CONSULTANTS

154 TURNPIKE ROAD SUITE 200, SOUTHBOROUGH MA 01772

WWW.CRCFIRE.COM

Fire Protection/Life Safety Code Report

Project:

Mixed Use-High Rise
200 Federal Street
Portland, ME 04101

March 18, 2020

Prepared for:

Ryan Senatore Architecture
500 Congress Street, Second Floor
Portland, ME 04101



Zach Blanchard, P.E. (MA)



Carl Nelson, P.E. (MA)

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1. Introduction & Project Description

1.1 Introduction

Ryan Senatore Architecture has retained Code Red Consultants to provide fire protection and life safety code consulting services for the design and construction of the Federal Street Mixed Use project located in Portland, ME.

This report addresses the key fire protection and life safety features of the codes and standards referenced in Section 2 of this report. The primary intent of this document is to (1) coordinate the fire protection and life safety approach between all design disciplines, (2) demonstrate building, fire and life safety code compliance to the Authorities Having Jurisdiction, and (3) serve as a record document for the building owner. Details of compliance are left to the construction documents and the contractors. This report is intended to address code requirements as enforced by Authorities Having Jurisdiction only. It is the responsibility of the design team to ensure that any owner or insurance carrier requirements, which may exceed the provisions of the applicable codes and standards, are met.

1.2 Project Description

The project consists of the construction of a new 18-story mixed-use high-rise building (with a penthouse) consisting primarily of residential dwelling units (for rent). The building has an aggregate area of approximately 180,000 SF and a maximum footprint area of approximately 10,000 SF. The floor uses consist of the following:

- First Floor: Mixed-use consisting of parking garage, retail, and a two-story main lobby for the apartment complex;
- Second Floor: Residential units, fitness center, mail/package room, private offices, and lounge;
- Third through Seventeenth Floors: Residential Units
- Eighteenth Floor: Residential units, community room, and sky lounge
- Mechanical Penthouse

2. Applicable Codes

Building	MUBC – Maine Uniform Building Code, which is the portion of the Maine Uniform Building and Energy Code (MUBEC) that does not contain energy code requirements and is an amended version of the 2015 International Building Code (IBC).
Life Safety	2018 Edition of NFPA 101, <i>Life Safety Code</i> (LSC) as adopted and amended by the Rules of the State Fire Marshal and City of Portland Code of Ordinances Chapter 10 Article I
Fire	2015 Edition of NFPA 1, <i>Fire Code</i> as adopted by the MUBC 2018 Edition of NFPA 1, <i>Fire Code</i> as adopted by the City of Portland Code of Ordinances Chapter 10 Article II 2018 Edition of NFPA 1, <i>Fire Code</i> as adopted by the Rules of the State Fire Marshal *Where one edition is more stringent, the specific edition will be identified as the code reference.
Electrical	2017 NFPA 70, National Electric Code
Elevator	Maine Elevator & Tramway Rules & Laws, an amended version of the 2013 ASME A.17.1, Safety Code For Elevators And Escalators
Energy Code:	MUBEC – Maine Uniform Building and Energy Code, an amended version of the 2009 International Energy Conservation Code
Mechanical	2013 ASHRAE 62.1, Ventilation for Acceptable Indoor Air Quality 2015 International Mechanical Code (IMC) as adopted by the City of Portland
Plumbing	Maine State Plumbing Code which adopts and amends the 2015 Uniform Plumbing Code (UPC)
Accessibility Regulations	2009 ICC A117.1, Accessible And Usable Buildings and Facilities 2010 ADA Standards for Accessible Design Fair Housing Act Design Manual
Other	Various National Fire Protection Association (NFPA) codes and standards as referenced by the codes listed above

3. Fire Protection/Life Safety Analysis

The following sections describe the code compliance approach for the building.

3.1 Use and Occupancy Classification

3.1.1 Primary Occupancies

Table 1 indicates the primary occupancies within the building (MUBC Chapter 3).

Description	Occupancy Classification
Fitness Center, Lounge (< 50 occupants)	Group A-3
Residential (Apartments)	Group R-2
Retail (Market)	Group M
Offices	Group B
Parking Garage Storage, MEP, Building Support	Group S-2

TABLE 1: PRIMARY OCCUPANCY CLASSIFICATION

The building is classified as non-separated mixed-use occupancy (MUBC 508.3).

3.2 Special Use and Occupancy

3.2.1 High-Rise

The building is classified as a high-rise, as the height of the building is more than 75 feet above grade plane (MUBC 202). The building is required to comply with the following requirements, as well as the specific high-rise requirements provided in their corresponding sections throughout this report.

The highest occupiable floor is greater than 120 feet above the lowest level of fire department vehicle access. Therefore, fire service access elevators are required to be provided in accordance with MUBC Section 3007 (MUBC 403.6.1).

3.2.2 Parking Garage

The design and construction of the parking garage is required to be in accordance with the below requirements. Additional features required for enclosed parking garages including fire protection systems are incorporated throughout this report.

- The parking garage is required to be provided with a mechanical ventilation system in accordance with the 2015 IMC (MUBC 406.6.2).
- The clear height is required to be at least 7 feet in vehicle and pedestrian traffic areas (MUBC 406.4.1).
- Vehicle ramps are not permitted to be considered as required exits unless pedestrian facilities (e.g. raised sidewalks or guards) are provided (MUBC 406.4.4).

- Ramps that are used for vertical circulation and for parking are not permitted to exceed a slope of 1:15 (6.67 percent).
- Parking surfaces are required to be of concrete or similar noncombustible and nonabsorbent materials. Asphalt surfaces are permitted at ground level (MUBC 406.4.5).
- Vehicle ramps are not permitted to exceed a slope of 6.67% (MUBC 406.4.5).

3.2.3 Construction Type

The building is 18 stories in height and contains a total height less than 420 feet. Therefore, the building is permitted to be Type IA Modified High-Rise construction. (MUBC 403.2.1.1(1), 504, 506).

3.2.4 Fire-Resistance Ratings of Building Elements

The following table indicates the minimum fire-resistance ratings required for building elements in Type IA Modified High-Rise construction with the allowable reductions to Type IB (except for columns) applied (MUBC 403.2.1.1(1), 602.1).

Fire-Resistance Ratings of Building Elements	
Building Element	Fire-Resistance Rating (Hours) Type IA Modified
Primary structural frame - columns	3
Primary structural frame - other than columns	2
Exterior bearing walls	2
Interior bearing walls	2
Nonbearing exterior walls	See Section 3.2.8
Floor construction and secondary members	2
Roof construction and secondary members	1

TABLE 2: FIRE-RESISTANCE RATINGS – TYPE IA MODIFIED

3.2.5 Height and Area

The proposed building height and area are as follows:

- Building Height: 18 stories above grade, approximately 289.5' to roof
- Building Footprint Area: 10,000 sf
- Building Aggregate Area: 180,000 sf

For non-separated mixed-use buildings, the allowable height and area of the building are based on the most restrictive allowances for the occupancy groups under consideration (MUBC 508.3.2).

Buildings classified as Type IA Modified High-Rise Construction are permitted to be unlimited in height and area (MUBC 504 & 506).

3.2.6 Penthouse

The building includes a rooftop structure above Level 18. The structure is less than one-third of the area of the supporting roof deck and is not used for any purpose other

than the sheltering dedicated mechanical equipment. Therefore, the rooftop structure is classified as a penthouse (MUBC 1510.2).

3.2.7 Spray Applied Fire-Resistant Materials (SFRM)

The bond strength of SFRM installed throughout the building is required to have a minimum bond strength of 430 psf (MUBC 403.2.4).

3.2.8 Exterior Walls & Openings

The following table indicates the fire-resistance ratings and opening limitations required for nonbearing exterior walls based on fire separation distance (MUBC 602; 705.8).

Fire Separation Distance	Fire Resistance Rating		Allowable area of Openings ¹
	Group M	Group A-3, R-2, S-2	
0 to less than 3 feet	2 Hour	1 Hour	Not Permitted
3 feet to less than 5 feet	2 Hour	1 Hour	15%
5 feet to less than 10 feet	1 Hour	1 Hour	25%
10 feet to less than 15 feet	1 Hour	1 Hour	45%
15 feet to less than 20 feet	1 Hour	1 Hour	75%
20 feet or greater	0 Hour	0 Hour	No Limit

TABLE 3: FIRE-RESISTANCE RATINGS AND OPENING LIMITATIONS FOR EXTERIOR WALLS

Fire separation distance is required to be measured at right angles from the face of the building to either the closets interior lot line, the centerline of a street, alley, or public way, or an imaginary lot line between two buildings on the same property (MUBC 202).

3.3 Interior Walls and Partitions

3.3.1 Fire/Smoke Resistive Assemblies

Table 4 indicates the interior walls and partitions that are required to be constructed as fire/smoke resistive assemblies.

Type of Assembly	Construction	Code Reference
Dwelling Unit Separations		
Separation walls	1-hour fire partition	MUBC 420.2, 708
Horizontal separation	1-hour horizontal assembly	MUBC 420.3, 711
Corridors		
Serving Group R Occupancies	½-hour fire partition	MUBC 1020.1 NFPA 101, 30.3.6.1.2
Special Rooms/Incidental Uses		
Dry type transformer room > 35,000 V	3-hour fire barrier	NFPA 70, 450.42

¹ Based on building being fully sprinkler protected and unprotected openings.

Emergency generator room ²	2-hour fire barrier	NFPA 110, 7.2.1.1
Electrical rooms containing emergency power feed circuits	2-hour fire barrier	NFPA 70, 700.10
Non-sprinklered electrical room	2-hour fire barrier	NFPA 13, 8.15.10.3
Elevator machine room/controls room	2-hour fire barrier	MUBC 3005.4
Fire pump room	2-hour fire barrier	MUBC 913.2.1
Exit Passageways	2-hour fire barrier	MUBC 1024.3
Trash chute termination room	2-hour fire barrier	MUBC 713.13.4
Fire Command Center	1-hour fire barrier	MUBC 911.1.2
Trash chute access room/Collection Room	1-hour fire barrier	MUBC 713.13.3; NFPA 101, 30.3.2.1.1
Dry type transformer room > 112.5 kVA	1-hour fire barrier	NFPA 70, 450.21(B)
Boiler room where the largest piece of equipment is > 15 psi and 10 horsepower	Smoke-tight wall	MUBC 509
Furnace room where any equipment is > 400,000 BTU per hour input	Smoke-tight wall	MUBC 509
Fire Service Access Elevator Lobby (with protected path)	1-hour smoke barrier	MUBC 3007.6.2
Shafts		
Shafts connecting any number of stories	2-hour fire barrier	MUBC 713.4 NFPA 101, 8.6.5

TABLE 4: FIRE/SMOKE RESISTIVE ASSEMBLIES

Type of Assembly	Description
Fire Barrier (MUBC 707.5) (NFPA 101, 8.3)	Wall construction is required to extend from the floor or foundation below to the underside of the floor or roof sheathing, slab or deck above. They are required to be continuous through concealed spaces, such as those above ceiling. Openings are required to comply with MUBC 716 (see Section 3.3.4).
Fire Partition (MUBC 708.4)	Wall construction is required to extend from the top of the floor or foundation to the underside of the floor or roof sheathing above. The supporting construction is required to afford the required fire-resistance rating of the fire partition. Openings are required to comply with MUBC 716 (see Section 3.3.4).
Smoke Barrier – Fire Service Access Elevator Lobby (MUBC 709.4.2) (NFPA 101, 8.5.2)	Wall construction for fire service access elevator lobbies is required to form an effective membrane enclosure that terminates at a fire barrier wall having a fire protection rating not less than 1 hour, another smoke barrier wall, or an outside wall. Walls are required to be continuous from outside wall to outside wall, from a floor to a floor, or from a smoke barrier to a smoke barrier (or a combination thereof). Smoke barriers are required to be continuous through all

² Fuel line supplying a generator inside the building are required to be separated from areas of the building, other than the generator room, by an approved assembly having a fire-resistance rating not less than 1-hour (MUBC 403.4.8.2).

	concealed spaces, such as those found above a ceiling, including interstitial spaces.
Smoke Tight (MUBC 509.4.2) (NFPA 101, 8.4.2)	Walls are required to extend from the top of the foundation or floor below to the underside of the floor or roof sheathing, deck or slab above or to the underside of ceiling membrane that is constructed to limit the transfer of smoke.

TABLE 5: FIRE/SMOKE RESISTIVE ASSEMBLY TYPES

3.3.2 Identification

All fire walls, fire barriers, fire partitions, smoke barriers, and smoke partitions, or any other wall required to have protected openings or penetrations will be permanently identified with signs/stenciling (MUBC 703.7). Identification will:

- Be located in accessible concealed floor, floor-ceiling, or attic spaces.
- Be located within 15 feet of the end of each wall and at intervals not exceeding 30 feet measured horizontally along the wall or partition.
- Include lettering not less than 3 inches in height with a minimum 3/8-inch stroke in a contrasting color incorporating the suggested wording "FIRE AND/OR SMOKE BARRIER - PROTECT ALL OPENINGS".

3.3.3 Structural Integrity

Exit enclosures and elevator hoistways are required meet the structural integrity requirements of MUBC Section 403.2.3.

Concrete or masonry walls are deemed to satisfy the requirements for structural integrity (MUBC 403.2.3.3).

3.3.4 Doors and Fire Shutters

Doors, fire shutters, and their corresponding components are required to have fire-resistance ratings and meet the required testing standards as specified in Table 6. All doors and fire shutters required to be fire-resistance-rated must be designed, installed, and labeled in accordance with NFPA 80 (MUBC 716.5).

Wall Type	Required Wall Rating	Minimum Fire Door Rating	Performance Criteria for Doors/Shutters ³	Code Reference
Fire barriers have 2-hour rating	2-hours	1½-hours	NFPA 252 or UL 10C	MUBC 716.5
Fire partitions: Corridor walls	½-hour	1/3 hour	NFPA 252 or UL 10C UL 1784	
Fire Service Access Elevator Lobbies – Smoke Barrier	1-hour	3/4-hour	UL 1784	MUBC 3007.6.3

³ All doors are required to be self- or automatic closing and provided with an active latch bolt that will secure the door when it is closed (MUBC 716.5.9.1).

Other smoke barriers (protected path)	1-hour	1/3-hour	NFPA 252 or UL 10C	MUBC 716.5, 3007.6.3
Smoke-tight walls	No rating	No rating	No air transfer openings, max 3/4" undercut	MUBC 509.4.2
Smoke Partitions in Elevator Lobbies			Limit the transfer of smoke per UL 1784	MUBC 3006.3

TABLE 6: FIRE DOOR AND SHUTTER REQUIREMENTS

3.3.5 Elevator Lobbies

Since the building has occupiable floors located more than 120 feet above the lowest level of fire department access, at least two fire service access elevators are required to be provided and serve every floor and must open into a fire service access lobby except at the level(s) of exit discharge (MUBC 403.6.1 & 3007.6). Major requirements include:

- Direct access to an exit stairway (MUBC 3007.4.1).
- Exit stairs containing standpipes must have access to the floor without passing through the fire service access elevator lobby (MUBC 3007.9.1)
- Be enclosed with construction complying with Table 4 (MUBC 3007.4.2).
- Be a minimum of 150 square feet in area with a minimum dimension of 8 feet (MUBC 3007.4.4).

Other elevators are required to be equipped with lobbies on each floor, except the level(s) of exit discharge, that are constructed in accordance with Table 4 (MUBC 3006.2). As an alternative, the lobbies can be omitted if the shafts are pressurized.

3.3.6 Penetrations

Penetrations of fire-resistance-rated walls and horizontal assemblies that are not protected with dampers or a shaft are required to comply with this section. Ducts and air transfer openings that are protected by dampers are required to comply with Section 3.3.8 of this report.

Through and membrane penetrations of fire-resistance-rated walls and fire-resistance-rated horizontal assemblies are required to be protected by an approved penetration firestop system installed as tested in accordance with ASTM E 814 or UL 1479, with a minimum positive pressure differential of 0.01 inch of water (MUBC 714.3 & 714.4). Penetrations of fire-resistance-rated walls must have an F rating of not less than the required fire-resistance rating of the wall penetrated (MUBC 714.4.1). Penetrations of fire-resistance rated horizontal assemblies must have an F rating/T rating of not less than 1 hour but not less than the required rating of the floor penetrated (MUBC 714.4.1.2).

Voids created between the fire resistance-rated floor assembly and the exterior curtain wall shall be protected with a perimeter joint system that is designed and tested in accordance with ASTM E 2307 (MUBC 715.4). The system is required to have an F rating for a time not less than the rating of the floor assembly.

3.3.7 Third Party Firestopping Special Inspections

MUBC Section 1705.17 requires a special inspector for through-penetrations, membrane penetration firestops, fire-resistance joint systems, and perimeter fire barrier systems since the building is a high-rise.

All penetrations of fire-resistance rated walls and floors are subject to MUBC 1705.17, which requires a special inspector for through-penetrations, membrane penetration firestops, fire-resistant joint systems, and perimeter fire barrier systems.

The inspections are required to be performed in accordance with ASTM E2174 for penetration firestop systems and ASTM E2393 for joint systems, including the following:

- The inspector is to witness the installation of 10% of each type of firestop system or perform destructive testing of 2% of each type of firestop system per floor or for each area of a floor when a floor is larger than 10,000 ft².
- Complete submittals showing all listed firestop assemblies are required to be provided to the inspector before they perform their inspections. This includes any engineering judgements that may be needed for assemblies that don't meet all the details of a listed assembly.
- The specifications should indicate that special inspections are required for all penetration firestop systems and fire-resistant joint systems.

3.3.8 Ducts and Air Transfer Openings

Fire and smoke dampers are required where ducts and air transfer openings penetrate walls as specified in MUBC and NFPA 101. Where dampers are installed, they are required to be listed and bear the label of an approved testing agency (MUBC 717.3.1). Fire dampers must be tested in accordance with UL 555 and smoke dampers must be tested in accordance with UL 555S. Combination fire/smoke dampers must comply with both test standards.

Fire dampers are required to be rated for 1.5 hours, unless they are installed in a 3-hour or greater assembly, in which case they are required to be 3-hour rated (MUBC 717.3.2.1). For this project, all fire dampers are expected to be 1.5 hour since there are no 3-hour fire resistance rated walls. Smoke damper leakage ratings must be Class I or II. Elevated temperature ratings must not be less than 250°F (MUBC 717.3.2.2). Combination fire/smoke dampers must comply with both rating requirements (MUBC 716.3.2.3). Refer to MUBC 716.3.3 for required damper actuation methods.

Fire, smoke, and fire/smoke dampers are required to be provided with an approved means of access that permits inspection and maintenance of the damper and its operating parts (MUBC 717.4). Access points are required to have permanent labels

with letters that are not less than ½ inch in height that reads “FIRE/SMOKE DAMPER, SMOKE DAMPER, or FIRE DAMPER”.

3.4 Vertical Openings

3.4.1 Floor Openings

Floor openings are required to be enclosed in shafts in accordance with Section 3.3.1 of this report unless otherwise specified below (MUBC 713.4 & NFPA 101, 8.6).

3.4.2 Convenience Openings

The main lobby in the building includes a 2-story unenclosed vertical opening that connects the First and Second Floors. The opening is permitted as the following will be met (MUBC 712.1.9, NFPA 101, 8.6.8.2):

- Does not connect more than two adjacent stories.
- Is separated from corridors by a smoke partition.
- Is not concealed within the building construction.
- Is not serving as a required means of egress.
- Is separated from floor openings serving other levels.

3.5 Interior Finishes

3.5.1 Wall and Ceiling Finishes

Interior wall and ceiling finish ratings are classified in accordance with ASTM E 84 or UL 723 based on flame spread and smoke-developed indices (MUBC 803.1.2). Interior finish classifications are required to be in accordance with those specified in the following table based on the occupancy classifications (MUBC 803.11).

Occupancy Classification	Exit Enclosures	Corridors, Exit Access Stairways/Ramps	Rooms and Enclosed Spaces
A-3	B	B	B
R-2 / S-2	C	C	C
M	B	C	C

TABLE 7: INTERIOR WALL & CEILING FINISH REQUIREMENTS

3.5.2 Interior Floor Finish

Floor finishes and coverings of a traditional type, such as wood, vinyl, linoleum or terrazzo, and resilient floor covering materials that are not comprised of fibers are permitted throughout (MUBC 804.1 Exception). Other interior floor covering materials are required to comply with the requirements of the DOC FF-1 “pill test” (CPSC 16 CFR Part 1630) (MUBC 804.4.1).

3.6 Fire Protection Systems

3.6.1 Automatic Sprinkler Systems

An automatic sprinkler system designed in accordance with NFPA 13 is required throughout the building (MUBC 403.3; 903.2).

A secondary water supply is required for the building if the building is assigned Seismic Design Category C, D, E, or F (MUBC 403.3.3).

3.6.2 Standpipe Systems

A Class I standpipe system is required to be installed throughout the building in accordance with NFPA 14 as the floor level of the highest story is more than 30 feet above the lowest level of fire department vehicle access (MUBC 905.3.1(1)).

Class I standpipe hose connections are required to be provided in all of the following locations (MUBC 905.4):

- In every required stairway, hose connections are required to be located at an intermediate floor level between floors for every floor level above or below grade.
- In every exit passageway, at the entrance from the exit passageway to other areas of a building.
- On the roof of the building as the roof has a slope less than 33.3%.

3.6.3 Fire Pump Room

The fire pump room is required to be protected by 2-hour fire barriers and horizontal assemblies (MUBC 403.3.4 & 913.2.1).

The fire pump room is required to be located such that is accessible directly from the outside of the building or through a fire-rated corridor from an enclosed stairway or exterior exit. The enclosed passageway is required to have a fire-resistance rating not less than that of the fire pump room (NFPA 20, 4.13.2).

3.6.4 Fire Extinguishers

Portable fire extinguishers are required in all occupancies within the building and are required to be selected and installed in accordance with NFPA 10 (MUBC 906.1)

Fire extinguishers are required to be installed in locations designated by MUBC Section 906.

3.7 Emergency Systems

3.7.1 Fire Alarm and Detection Systems

The building is required to be provided with a fire alarm system throughout (MUBC 907.2). The fire alarm system is required to be provided with emergency voice/alarm communication capabilities (MUBC 403.4.4).

An automatic smoke detection system is required to be installed in the following locations:

- At the fire alarm control unit(s) (NFPA 72, 10.4.4)
- In each mechanical equipment, electrical, transformer, telephone equipment, or similar room which is not provided with sprinkler protection (MUBC 907.2.13.1.1(1)).

- In each elevator machine room and in elevator lobbies (MUBC 907.2.13.1.1(2)).
- On each floor level at the entrance to smokeproof enclosures/pressurized stairs (MUBC 909.20.6).

Single- or multiple-station smoke alarms are required to be installed within the dwelling units in accordance with MUBC Section 907.2.11.2.

The building is required to be provided with carbon monoxide detection in accordance with the requirements of MUBC Section 908.7 and 915.2. The carbon monoxide detection is required to be installed in accordance with NFPA 720 (2009) (Rules of the State Fire Marshal and City of Portland Code of Ordinances Chapter 10 Article I (I)).

Duct smoke detectors complying with MUBC Section 907.3.1 are required to be installed in the following locations (MUBC 907.2.13.1.2):

- In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 cfm. Such detectors are required to be located in a serviceable area downstream of the last duct inlet.
- At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system. In Group R-2 occupancies, a smoke detector is allowed to be used in each return air riser carrying not more than 5,000 cfm and serving not more than 10 air-inlet openings.

3.7.2 Fire Command Center

A fire command center complying with MUBC 911 is required in a location approved by the fire department (MUBC 403.4.5). The fire command center is required to be separated from the remainder of the building with 1-hour fire barriers (MUBC 911.1.2). The room is required to be a minimum of 200 square feet with a minimum dimension of 10 feet (MUBC 911.1.3). The fire command center is required to comply with NFPA 72 and contain the following features (MUBC 911.1.6):

- The emergency voice/alarm communication system control unit.
- The fire department communications system.
- Fire detection and alarm system annunciator.
- Annunciator unit visually indicating the location of the elevators and whether they are operational.
- Status indicators and controls for air distribution systems.
- Fire-fighter graphic control panel for smoke control systems installed in the building.
- Controls for unlocking stairway doors simultaneously.
- Sprinkler valve and waterflow detector display panels.
- Emergency and standby power status indicators.
- A telephone for fire department use with controlled access to the public telephone system.
- Fire pump status indicators.
- Schematic building plans indicating the typical floor plan, building core, means of egress, fire protection systems, fire-fighting equipment and fire department

access, and the location of fire walls, fire barriers, fire partitions, smoke barriers, and smoke partitions.

- An approved Building Identification Card.
- Work table.
- Generator supervision devices, manual start and transfer features.
- Elevator fire recall switch in accordance with the elevator code.
- Elevator emergency or standby power selector switch(es).
- Continuous monitoring of the fire service access elevator by a standard emergency service interface system meeting the requirements of NFPA 72 (MUBC 3007.6).
- Manual and override controls for smokeproof enclosure mechanical system(s) (MUBC 909.16).
- Storage unrelated to operation of the fire command center is not permitted.

3.7.3 Smoke Control System

Exit stairways serving high-rise floors are required to be designed as smokeproof enclosures designed in accordance with MUBC Sections 909.20 and 1023.11 (MUBC 403.5.4).

The smokeproof enclosures are required to be pressurized to a minimum of 0.10 inches of water and a maximum of 0.35 inches of water in the shaft relative to the building measured with all stairway doors closed under maximum anticipated conditions of stack effect and wind effect (MUBC 909.20.5).

The smokeproof enclosure ventilation systems are required to be independent of other building ventilation systems (MUBC 909.20.6.1). The equipment, control, wiring, power wiring, and ductwork is required to be designed and installed in accordance with MUBC Section 909.20.6.1. Where equipment, control wiring, power wiring, and ductwork are located inside of the building, they are required to be separated from adjacent building areas and other mechanical equipment by 2-hour fire barriers.

3.7.4 Post-Fire Smoke Removal System

To facilitate smoke removal in post-fire salvage and overhaul operations, the building is required to be provided with a natural or mechanical post-fire smoke removal system (MUBC 403.4.7).

3.7.5 Emergency Responder Radio Coverage

Emergency responder radio coverage is required to be provided in the building in accordance with MUBC Section 916.1 and IFC Section 510 (MUBC 403.4.5).

3.8 Standby/Emergency Power

Throughout the building, a standby/emergency power system is required to serve the following building features (MUBC 403.4.8.4; 2702.2):

Emergency

- Exit signage

- Means of egress illumination
- Fire alarm and detection systems
- Emergency voice/alarm communication systems
- Electrically powered fire pumps
- Elevator car lighting

Standby

- Smoke control system
- Emergency responder radio coverage
- Elevators required for accessible egress
- Power and lighting for the fire command center

3.9 Fire Department Access

3.9.1 Fire Apparatus Access Roads

A fire apparatus access road is required to be provided such that any portion of an exterior wall of the first story of the building is not more than 450 feet from the access road as measured by an approved route around the exterior of the building (NFPA 1, 18.2.3.2.2.1).

The fire apparatus access road is required to meet the following specifications:

- **Dimensions.** The access road is required to have an unobstructed width of not less than 20 feet and an unobstructed vertical clearance of not less than 13'6" (NFPA 1, 18.2.3.4.1.1 & 18.2.3.4.1.2).
- **Surface.** The surface of the access road is required to be designed and maintained to support the imposed loads of fire apparatus and provide all-weather driving capabilities (NFPA 1, 18.2.3.4.2).
- **Turning Radius.** The required turning radius of the access road is to be specified by the AHJ (NFPA 1, 18.2.3.4.3).
- **Dead Ends.** Dead-end access roads in excess of 150 feet in length are required to be provided with an approved area for turning around fire apparatus (NFPA 1, 18.2.3.4.4).
- **Grade.** The grade of the access road is required to be within the limits established by the AHJ based on the fire department's apparatus (NFPA 1, 18.2.3.4.6.1).
- **Angles of Approach and Departure.** The angles of approach and departure for access roads shall not exceed 1 ft drop in 20 ft or the limits established by the AHJ based on the fire department's apparatus (NFPA 1, 18.2.3.4.6.2).
- **Markings.** Approved signs or other approved notices or markings including the word are to be provided where required by the AHJ (NFPA 1, 18.2.3.5).

3.10 Means of Egress

3.10.1 Occupant Load

The number of occupants is computed at the rate of one occupant per unit of area as prescribed in the following table (MUBC 1004.1.2; NFPA 101, 7.3.1.2). Program loads are not permitted to be used (MUBC 1004.1.2).

Function of Space	Occupant Load Factor (ft ² /occupant)
Assembly - Tables & Chairs	15 net
Sales Area (on street floor)	30 gross
Exercise Rooms (with equipment)	50 gross
Residential	200 gross
Parking Garage	200 gross
Commercial Kitchens	200 gross
Storage & MEP	300 gross

TABLE 8: OCCUPANT LOAD FACTORS

3.10.2 Egress Capacity

The required egress capacity for any means of egress component is based on the capacity factors given in the following table (MUBC 1005.1; NFPA 101, 7.3.3.1):

Stairways (inches of width per person)	All Other Components (inches of width per person)
0.3	0.2

TABLE 9: EGRESS WIDTH FACTORS

3.10.3 Number of Exits

The number of exits required from every story cannot be less than that specified in the following table (MUBC 1006.3.1).

Occupant Load	Number of Exits Required
1 - 500	2
501 - 1,000	3
> 1,000	4

TABLE 10: MINIMUM NUMBER OF EXITS REQUIRED

A single exit is permitted to serve the penthouse. One stair is required to extend to the roof if elevator equipment that must be accessed for maintenance is present on the roof (MUBC 1011.12).

3.10.4 Exit Access

Two exits or exit access doorways are required to be provided from any space where the occupant load or common path of travel exceeds the value specified in Table 11 (MUBC 1006.2.1).

Occupancy	Occupant Load	Common Path of Travel
A-3, M	49	75
R-2	20	125

B	49	100
S-2	29	100

TABLE 11: SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY

Where two exits or exit access doorways are required from any portion of the exit access, the exits or exit access doorways are required to be placed a distance apart equal to not less than one-third of the length of the maximum overall diagonal dimension of the building or area served (MUBC 1007.1.1(2)).

Two exit access doorways are required in boiler, incinerator, and furnace rooms where the area is over 500 square feet and any fuel-fired equipment exceeds 400,000 British thermal unit input capacity (MUBC 1006.2.2.1).

For these rooms, the exit doors are required to be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the room (MUBC 1006.2.2.1).

Interior exit stairways in high-rise buildings are required to be separated by a distance not less than 30 feet or not less than one-fourth of the length of the maximum overall diagonal dimension of the building or area to be served, whichever is less (MUBC 403.5.1).

3.10.5 Exit Enclosures

Exit enclosures are not permitted to be used for any purpose other than means of egress (MUBC 1023.1).

Penetrations into and openings through an exit enclosure are prohibited except for required exit doors and equipment serving the stair (MUBC 1023.4).

Exit passageways must comply with MUBC Section 1024 and must not be used for any purpose other than as a means of egress. Exit passageways are utilized to achieve exterior discharge of an exit stair. Exit passageways are constructed as fire barriers, providing a fire resistance rating of not less than that required by the stair to which it is connected (MUBC 1024.3). Openings in an exit passageway are limited to those necessary for exit access to the exit passageway from normally occupied spaces and for egress from the exit passageway (MUBC 1024.5). Penetrations into or through an exit passageway are prohibited except as specifically identified in MUBC Section 1024.6.

The exit passageway is required to be a smokeproof enclosure in accordance with Section 3.7.3 as there are openings into the exit passageway (MUBC 1023.11.1 Ex. 1).

3.10.6 Stairs

Stairs are required to have sufficient capacity to serve the calculated occupant load, with a minimum width of not less than 44 inches (MUBC 1011.2).

Stair risers heights are required to be a maximum of 7 inches and minimum of 4 inches. Tread depths are required to be 11 inches minimum (MUBC 1011.5.2).

Stair treads and risers are required to be uniform in size and shape (MUBC 1011.5.4). Open risers are not permitted (ADA 504.3).

3.10.7 Doors

Doors are required to be a minimum of 32 inches in clear width and are not permitted to have a swinging door leaf greater than 48 inches in nominal width (MUBC 1010.1.1).

Egress doors are required to be of the pivoted or side-swinging type (MUBC 1010.1.2), unless within a single dwelling unit. Doors are required to swing in the direction of egress travel where serving an occupant load of 50 or more persons (MUBC 1010.1.2.1).

The distance between two doors in series is required to be 48 inches minimum plus the width of a door swinging into the space. Doors in series are required to swing either in the same direction or away from the space between the doors. The distance between horizontal sliding doors is not permitted to be less than 48 inches (MUBC 1010.1.8).

Stairway doors other than the exit discharge door are permitted to be locked from the stairway side, provided they are capable of being unlocked simultaneously, without unlatching, upon a signal from the fire command center where the fire command center is continuously staffed during any occupancy, or upon power failure. Where the fire command center is not continuously staffed during occupancy, the stairways doors are required to unlock upon activation of the building fire alarm system or upon power failure (MUBC 403.5.3).

Doors serving rooms or spaces with an occupant load of 50 or more in a Group A occupancy are not permitted to be provided with a lock or latch unless it is panic or fire exit hardware (MUBC 1010.1.10.1).

3.10.8 Travel Distances

Exit access travel distances must not exceed the maximum values specified in Table 12 (MUBC 1017; NFPA 101, 7.6).

Occupancy	Maximum Exit Access Travel Distance
A-3	250 feet
B	300 feet
R-2	325 feet
M	250 feet
S-2	400 feet

TABLE 12: EXIT ACCESS TRAVEL DISTANCES

3.10.9 Corridors

Corridors serving group R-2 occupancies are required to have a ½-hour rating. Corridors serving other occupancies are permitted to be nonrated unless they serve as required exits from Group R spaces (MUBC 1020.1).

Corridor width is required to comply with Table 13 (MUBC 1020.2):

Occupancy	Maximum Exit Access Travel Distance
Access to and utilization of MEP equipment	24 inches
With a required occupancy capacity < 50 people	36 inches
Within dwelling units	36 inches
Any areas not listed above	44 inches

TABLE 13: MINIMUM CORRIDOR WIDTH

Where more than one exit or exit access doorway is required, the exit access is required to be arranged such that dead ends in the corridors do not exceed the maximum allowable distances specified in Table 14 (MUBC 1020.4).

Occupancy	Maximum Dead End Distance
A	20 feet
R-2, M, and B	50 feet
S-2	50 feet

TABLE 14: MAXIMUM DEAD END DISTANCES

3.10.10 Exit Discharge

Exits are required to discharge directly to the exterior, except where permitted below (MUBC 1028.1).

A maximum of 50 percent of the number and capacity of exit enclosures are permitted to egress through either (1) areas on the level of exit discharge or (2) a vestibule (MUBC 1028.1). The combined use of these two exceptions is not permitted to exceed 50 percent to the number and capacity of the required exits.

Where exit enclosures egress through areas on the level of exit discharge, the following are required to be met (MUBC 1028.1(1); NFPA 101, 7.7.2):

- Occupants are provided with a free and unobstructed path of travel to an exterior egress door and such exits are readily visible and identifiable from the point of termination of the exit enclosure;
- The entire area of the level of exit discharge is separated from areas below by construction having a fire rating equivalent to the exit enclosure served (not applicable as no areas below); and
- All portions of the egress path are sprinkler protected.

3.10.11 Exit Signage

Exit and exit access doors are required to be marked by approved exit signs readily visible from any direction of egress travel (MUBC 1013.1). The path of egress travel to exits and within exits are required to be marked by readily visible exit signs to clearly indicate the direction of egress travel where the exit or path of travel is not immediately visible. Exit signs within corridors and exit passageways are required to be placed such that no point is more than 100 feet or the listed viewing distance for the

sign, whichever is less, from the nearest visible exit sign. Exit signs are not required in the following locations:

- In rooms or areas that require only one exit or means of exit access.
- Main exterior exit doors that are obviously and clearly identifiable as exits where approved by the building official.

3.10.12 Luminous Egress Markings

Approved luminous egress path marking are required to be provided in exit enclosures, including vertical exit enclosures and exit passageways, in accordance with MBC 1025.2.1 through 1025.2.6 (MUBC 403.5.5). Locations include steps, landings, handrails, perimeter demarcation lines, obstacles, and doors within the exit path.

3.10.13 Egress Illumination

The means of egress, including the exit discharge, are required to be illuminated at all times the building served by the means of egress is occupied (MUBC 1008.1). The illumination level is not permitted to be less than 1 footcandle at the walking surface (MUBC 1008.2)

In the event of power supply failure, an emergency electrical system is required to automatically illuminate all of the following areas (MUBC 1008.3):

- Aisles in rooms and spaces that require two or more means of egress.
- Corridors, exit enclosures, and exit passageways.
- Exterior egress components at other than the level of exit discharge until exit discharge is accomplished.
- Interior exit discharge elements.
- Exterior landings for exit discharge doorways.
- Electrical equipment rooms.
- Fire Pump rooms.
- Generator rooms.
- Public restrooms greater than 300 ft².

The emergency power system is required to provide power for a duration of not less than 90 minutes and is required to consist of storage batteries, unit equipment, or an on-site generator (MUBC 1008.3.4). The initial illumination is required to be an average of 1 footcandle and a minimum at any point of 0.1 footcandle measured along the path of egress at the floor level. Illumination levels are permitted to decline to 0.6 footcandle average and a minimum of 0.06 footcandle at the end of the emergency lighting time duration (MUBC 1008.3.5).

3.10.14 Accessible Means of Egress

Accessible means of egress are required to be provided from all accessible spaces within the building. Where more than one means of egress is required from any accessible space, the space is required to be served by not less than two accessible means of egress (MUBC 1009.1).

Not less than one of the accessible means of egress is required to an elevator (MUBC 1009.4). The elevator is required to be provided with standby power and comply with the emergency operation and signaling device requirements of the MUBC.

A two-way communication system is required to be provided at the elevator landing on each accessible floor that is one or more stories above the level of exit discharge (MUBC 1009.8).

Exit stairways will serve as the other accessible means of egress from the stories located above or below the level of exit discharge. The stairs are not required to have 48" between handrails, nor are they required to be accessed from an area of refuge in order to be considered as an accessible means of egress since the building will be fully sprinkler protected (MUBC 1009.3(2&4)).

3.11 Accessibility

3.11.1 General

The building is subject to compliance with the Fair Housing Act, the 2010 ADA Standards, and ICC A117.1 (MUBC 1101.2).

At least 2% of the dwelling units are required to be Type A units. The Type A units are required to be dispersed among the various classes of units (MUBC 1107.6.2.2.1). All other units are required to be Type B units, unless qualifying for one of the reductions in MUBC Section 1107 (MUBC 1107.6.2.2.2).

Specific requirements regarding the units are located in ICC A117.1 Sections 1003 and 1004.

3.12 Plumbing Fixtures

3.12.1 Required Number

When calculating the required number of plumbing fixtures, it is appropriate to assume that 50% of the building population is male and 50% is female, calculated by the total occupant load (UPC 422.1). The appropriate number of fixtures need to be provided based on the following factors and occupancies present (UPC 422.1). Where multiple occupants are present, the fractional numbers shall be summed and then rounded to the next whole number.

Use	Toilets		Urinals	Lavatories		Drinking Fountain	Service Sink
	F	M		F	M		
Assembly	1: 1-25 2: 26-50 3: 51-100 4: 101-200	1: 1-100 2: 101-200	1: 1-100 2: 101-200	1: 1-100 2: 101-200	1: 1-200	1: 1-250 2: 251-500	1 service sink or laundry tray
Mercantile ⁴	1: 1-100	1: 1-100	0: 1-200	1: 1-200	1: 1-200	1: 1-250	
Storage	1: 1-100	1: 1-100	-	1: 1-200	1: 1-200	1: 1-250	
Residential	1 water closet, lavatory, and bathtub/shower fixture per apartment. 1 kitchen sink per apartment 1 laundry tray or 1 automatic clothes washer connection per unit or 1 automatic clothes washer connection for each 12 units						

TABLE 15: PLUMBING FIXTURE FACTORS

Where separate facilities are required, and each toilet facility is required to have only one water closet, two family or assisted-use toilet facilities are permitted to replace the required separate toilet facilities (UPC 422.2.1).

⁴ Where a total occupant load is 50 or less for a mercantile occupancy, one toilet facility, designed for use by no more than one person at a time, shall be permitted for use by both sexes (UPC 422.2 ex. 3)

Section P: Utilities



Utilities

The proposed project will include installation of multiple utility services to the new building. Please refer to the Utility Plan – 1 (Sheet C-20), Utility Plan – 2 (Sheet C-21) & Grading Plan (Sheet C-30) for additional information.

Water:

It is proposed to tap an 8" ductile iron sprinkler service line off the new 12" ductile iron main within Federal Street. Additionally, a 6" ductile iron domestic line is proposed to be tapped off the main with a separate 1" domestic service for the ground level retail.

Sewer:

Two 12" PVC laterals are proposed to drain via gravity to the combined main within Federal Street.

Stormwater:

The proposed measures to handle runoff include a series of foundation drains, roof leaders and catch basins. These networks will connect to a separated 6" & 12" PVC storm drain line that connect to the existing 24" combined main within Federal Street..

UGE/T/C:

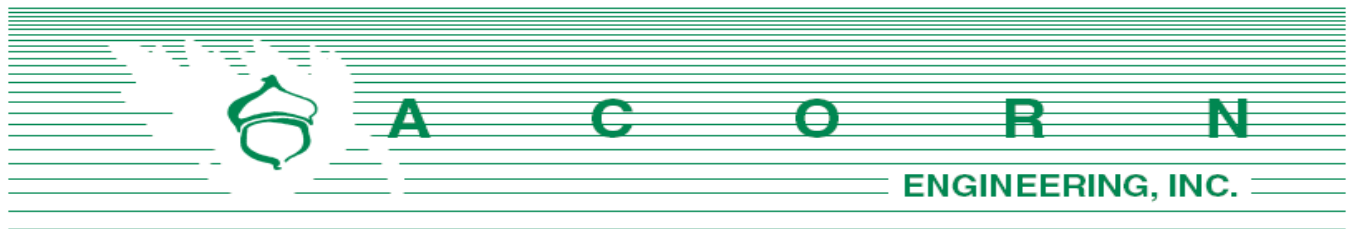
The abutting buildings on site are currently serviced by underground electric. An additional service is proposed to be routed underground from the existing underground service in Federal Street.

Gas:

The existing gas service line to an abutting building on site is expected to be rerouted. It is proposed to install a new tap for the proposed building off the existing 4" main in Federal Street.

Ability to serve letters were sent out to the respective utility companies on October 18, 2019 in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use, Section 14-527(g)(7). Responses that have been received from the utility companies can be found attached to this section.





Charter Communications
Attn: Mr. Mark Pelletier
118 Johnson Road
Portland, Maine 04102

November 8, 2019

Subject: 200 Federal Street Redevelopment
Re: Ability to Serve

Mr. Pelletier:

On behalf of Redfern Downtown, LLC, we are pleased to submit the following request for Charter Communications' ability to serve at a proposed mixed-use development located at 200 Federal Street within the B3 Downtown Business in Portland, Maine. The lot will be redeveloped into an eighteen-story mixed-use building with 260 residential units comprised of roughly 133 residential studio units, 125 one-bedroom units and 2 two-bedroom units, with associated common areas, office and fitness facility. The street level will include a 2,000± square foot retail space. The site currently serves as a surface parking lot with various landscaping and impervious open space features.

We anticipate new electrical network transformers and other additional infrastructure to be installed as part of the project.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Temple Street.
2. Any easements for 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 ALTA/NSPS Land Title Survey created by Owen Haskell, Inc to facilitate your review, as well as a proposed preliminary utility plan developed by our office. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read 'Faith Thomas'.

Faith Thomas, 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

Faith Thomas

From: Read, Scott H <Scott.Read@charter.com>
Sent: Friday, November 8, 2019 3:57 PM
To: Faith Thomas; William Savage
Cc: Pelletier, Mark
Subject: RE: Ability to Serve - Confidential

Hi Faith-

This proposed project will indeed be within Charter/Spectrum's service area but before we can serve it the owner/developer would need to do paperwork with our Community Solutions team. Who can we put them in touch with?

Thanks,
Scott

From: Pelletier, Mark
Sent: Friday, November 8, 2019 3:39 PM
To: Read, Scott H <Scott.Read@charter.com>
Subject: FW: Ability to Serve - Confidential

FYI



Mark Pelletier
Construction Coordinator III, Northern New England
118 Johnson Rd Portland ME 04102
207-253-2324
Mark.pelletier@charter.com

From: Faith Thomas [<mailto:fthomas@acorn-engineering.com>]
Sent: Friday, November 8, 2019 2:22 PM
To: Pelletier, Mark <Mark.Pelletier@charter.com>
Cc: William Savage <wsavage@acorn-engineering.com>
Subject: Ability to Serve - Confidential

Afternoon Mark,

We're reaching out for an Ability to Serve notice for a parcel located at 200 Federal Street in Portland. The attached document includes a project narrative as well as an existing conditions plan & conceptual utility plan.

None of the proposed work has been announced publicly and is confidential at this time.

We look forward to hearing back from you.

Thanks & have a great weekend,

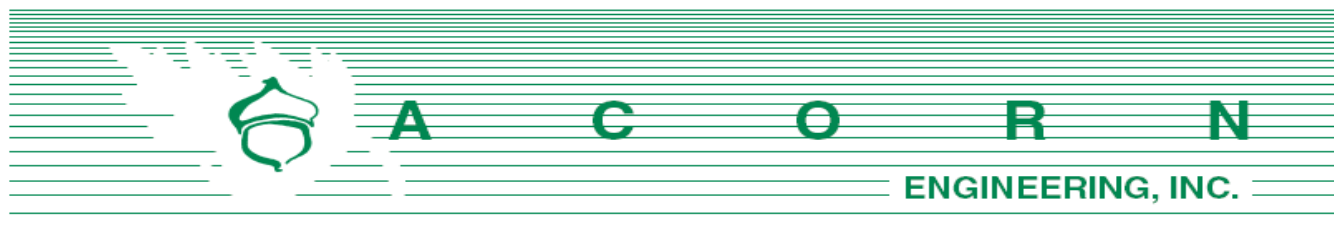
Faith Thomas, EI
Project Engineer

Licensed in Maine

Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104
B. 207.775.2655 C. 413.770.9524
[Website](#) | [Instagram](#) | [LinkedIn](#)

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Central Maine Power Company
Attn: Mr. Jamie Cough
162 Canco Road
Portland, Maine
04103

November 8, 2019

Subject: 40 Free Street Development
Re: Ability to Serve

Mr. Cough:

On behalf of Redfern Downtown, LLC, we are pleased to submit the following request for Charter Communications' ability to serve at a proposed mixed-use development located at 200 Federal Street within the B3 Downtown Business in Portland, Maine. The lot will be redeveloped into an eighteen-story mixed-use building with 260 residential units comprised of roughly 133 residential studio units, 125 one-bedroom units and 2 two-bedroom units, with associated common areas, office and fitness facility. The street level will include a 2,000± square foot retail space. The site currently serves as a surface parking lot with various landscaping and impervious open space features.

It is proposed to install of transformer vault(s), secondary vaults and duct banks to connect to CMP's primary and secondary grids on the existing in-town network.

The developer plans to serve the proposed building with a 3-phase electric service. On behalf of the client we are requesting the following information:

1. Any additional information, such as additional utility mapping confirming single and three-phase power locations within Federal Street, Temple Street, Congress Street and Exchange Street.
2. Any easements for underground services currently crossing the proposed development.
3. Alternative connection locations from the development to the existing system.
4. CMP's proposed infrastructure improvements within the project vicinity.
5. CMP's ability to serve the project.
6. Any input on the proposed location of the transformer and offsets, including offsets from adjacent buildings and windows, as well as transformer and pad sizes. If required, other options such as in-ground mounting within the sidewalk location may be explored.
7. Whether CMP allows for secondary distribution line to be run within the basement of the facility, up support columns, and/or within ceiling conduit.
8. Access requirements to the CMP meters.
9. Metering options to reduce the necessary wall space.

I have attached a boundary survey and a preliminary utility plan to facilitate your review. Electrical loading computations and final metering will be performed by the electrical engineer, at a later date. Please let me know if you have any further questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Faith Thomas".

Faith Thomas, E.I.
Project Engineer
Acorn Engineering, Inc.



Faith Thomas

From: Cough, Jamie <Jamie.Cough@cmpco.com>
Sent: Friday, November 15, 2019 7:52 AM
To: Faith Thomas
Subject: CMP Ability to Serve Request and Three Phase Service Process 210 Federal St Portland
Attachments: Easement_Information_Worksheet.doc; Standard Easement Sample.pdf; Draft April 2019 EDET.XLSX
Categories: Red category

11/15/2019

Faith Thomas, El
Project Engineer
Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104

RE: CMP Ability to Serve Request and Three Phase Service Process 210 Federal St Portland Request for Ability to Serve Letter

SAP Notification Permanent is TBD (please set this up asap)

Project Description:

The project is located at 200 Federal Street within the B3 Downtown Business in Portland, Maine. The lot will be redeveloped into an eighteen-story mixed-use building with 260 residential units comprised of roughly 133 residential studio units, 125 one-bedroom units and 2 two-bedroom units, with associated common areas, office and fitness facility. The street level will include a 2,000± square foot retail space.

CMP has the ability to serve the proposed project in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Handbook of Standard Requirements. If you have any questions on the process, or need help in completion of the documents, **please contact me at 207-629-1489.**

Here is our typical process for getting your three phase or CT rated single phase service installed. If you have any questions, please let me know. The underlined links will redirect you to the appropriate site for additional information. If this is a single phase service with all self-contained metering, the process is simplified, but still begins with a call to CMP.

Service Milestones for Three Phase Services and CT Rated Single Phase Services. Please refer to CMP Installation Checklists for other installations.

- Call 1-800-565-3181 to establish a new account (if needed) and an SAP work order. Please provide both of these to me.
- Submit Load information. Please complete the attached EDET (excel file) using load information. . Please complete this and email back to me.
- Submit the easement information worksheet. Please complete this form and either email or fax back to me.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections if you have them.
- Preliminary meetings with CMP Advisor and Engineer to determine details of job (I will need to schedule with your electrician/contractor-please let me know who this is)
- Field planner design appointment to cost out job and develop CMP Invoice. The invoice is typically generated 5-6 weeks after the design appointment. This expires after 90 days from the invoice date.
- CMP submits invoice to the customer for payment (typically via email). Payment received from customer.
- Easements (based on easement information worksheet) sent out, signed and originals returned to CMP.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer or materials delivery, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

Please complete the attached forms (the specific instructions are on each form) and email them back to me at your earliest convenience.

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements: [CMP Handbook of Standard Requirements](#)

You will be responsible for installing the customer connections, conduits, and metering in accordance with the CMP Handbook of Standard Requirements. The transformer will be sized based on your submitted load sheets.

Your deposit amount will be typically based on an estimated two month bill, calculated from your completed load sheet unless otherwise determined by CMP.

Metering:

All metering (including locations) must be preapproved by CMP.

Chapter 324 Interconnections:

Please be advised that if you plan to install solar/wind/hydro generation, you must complete an application under the MPUC mandated Chapter 324 Interconnection Standards. If you go to Chapter 324 Interconnection Standards and follow the instructions for the Small Generator Interconnection Procedures, CMP can do this work in parallel to your service request that will be handled by me. If your project is under 660 KW You will be able to have a Customer Net Energy Billing contract. Information concerning Customer Net Energy Billing can be accessed thru the Chapter 324 website or by clicking here: Net Energy Billing

Reallocation/Line Extensions:

Recently, changes were made to the three-phase construction policy, which require CMP to reallocate construction costs paid by customers. If applicable, those projects identified as “developments” do not qualify for reallocation of funds. Please see this document at our website for details about the reallocation conditions. Any reallocation charges will be specifically denoted on your invoice. The website address for this is: PolyphaseLineExtension .

This line extension will be part of Central Maine Power's distribution system. In the event the property served under this Agreement is sold or otherwise conveyed, all rights and obligations of the Agreement shall stay with the property. Please note that if you rent or lease this property to another and you want to receive the reimbursement payments, you must make special arrangements with the Central Maine Power Company. Otherwise, any reimbursement payments will be sent to the "Customer" taking service at the service location.

Electricity Supplier Information:

Central Maine Power Company (CMP) will provide your facility with electric delivery service. If you don't already have a provider, you will need to make arrangements with a competitive electricity provider in order to receive electricity supply for your facility. In the event you fail to choose a competitive electricity provider, you will receive Standard Offer service arranged by the Maine Public Utilities Commission. If you wish to be served by a competitive electricity provider immediately upon establishment of delivery service, you must arrange for this service directly through your chosen competitive electricity provider, who must enroll your account no later than 5 PM on the business day prior initiation of delivery service by CMP. An up-to-date list of competitive suppliers can be found at the:

- 1) Maine Public Utilities Commission (MPUC) web site- [Maine PUC](#)
- 2) By calling the MPUC at (207) 287-3831

Attachments:

Excel Load Sheet (EDET)
Easement Worksheet and Sample Standard Easement

Regards,

Jamie

Jamie Cough
Energy Services Advisor
Central Maine Power Company
162 Canco Road
Portland, ME 04103
207-629-1489 office



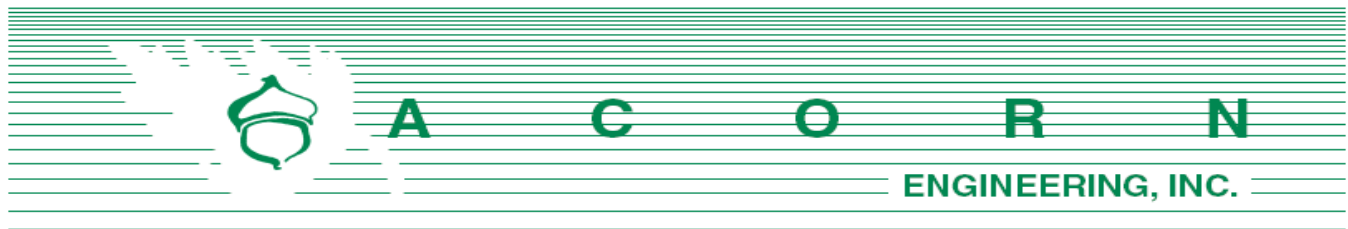
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Consolidated Communications
Attn: Mr. Patrick Morrison
5 Davis Farm Road
Portland, Maine 04103

November 8, 2019

Subject: 200 Federal Street Redevelopment
Re: Ability to Serve

Mr. Morrison:

On behalf of Redfern Downtown, LLC, we are pleased to submit the following request for Consolidated Communications' ability to serve at a proposed mixed-use development located at 200 Federal Street within the B3 Downtown Business in Portland, Maine. The lot will be redeveloped into an eighteen-story mixed-use building with 260 residential units comprised of roughly 133 residential studio units, 125 one-bedroom units and 2 two-bedroom units, with associated common areas, office and fitness facility. The street level will include a 2,000± square foot retail space. The site currently serves as a surface parking lot with various landscaping and impervious open space features.

We anticipate new electrical network transformers and other additional infrastructure to be installed as part of the project.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Temple Street.
2. Any easements for services currently crossing the proposed development.
3. Alternative connection locations from the property to the existing communication system.
4. Consolidated's proposed infrastructure improvements within the project vicinity.
5. Consolidated's ability to serve the project.

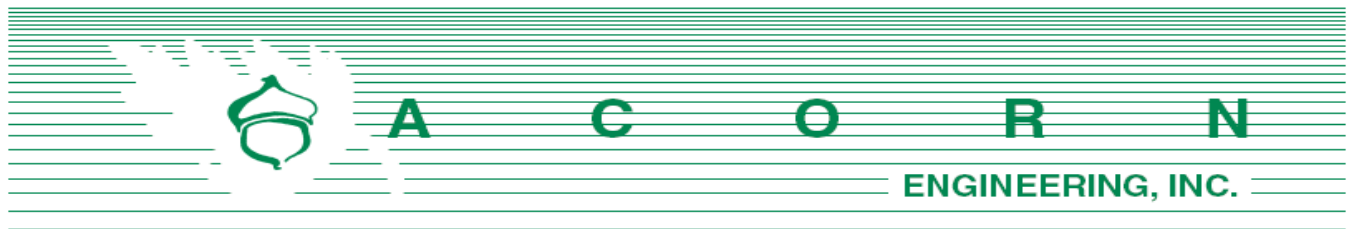
I have attached an existing ALTA/NSPS Land Title Survey created by Owen Haskell, Inc to facilitate your review, as well as a proposed preliminary utility plan developed by our office. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Faith Thomas, 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



Department of Public Works
 Attn: Brad Roland
 212 Canco Road
 Portland, Maine 04103

November 8, 2019

Subject: 200 Federal Street Redevelopment
 Re: Ability to Serve

Brad:

On behalf of Redfern Downtown, LLC, we are pleased to submit the following request for Portland Department of Public Work's ability to serve at a proposed mixed-use development located at 200 Federal Street within the B3 Downtown Business in Portland, Maine. The lot will be redeveloped into an eighteen-story mixed-use building with 260 residential units comprised of roughly 133 residential studio units, 125 one-bedroom units and 2 two-bedroom units, with associated common areas, office and fitness facility. The street level will include a 2,000± square foot retail space. The site currently serves as a surface parking lot with various landscaping and impervious open space features.

There is currently no known sewer infrastructure on site. It is proposed to tap a 12" sanitary service line off the 24" main within Federal Street to the proposed building. The project team is working with Bala Consulting Engineers on the Mechanical, Electrical, Plumbing and Fire Protection for the proposed development.

Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules and architectural plans to date, the structure will be comprised of 133 studio units, 125 one-bedroom units and 2 two-bedroom units; in addition, a 2,000± square foot retail space, fitness room and office. As a result, 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				
Parking Lot	N/A	N/A	0	0
Total Gallons per Day (Existing)				0
Proposed Flow				
Residential Units	Studio	133	120	15,960



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Residential Units	1-Bedroom	125	120	15,000
Residential Units	2-Bedroom	2	210	420
Retail	4-Employees	1	325+4*12	373
Office	2 Employees	1	12*2	24
Total Gallons per Day (Proposed)				31,777
Net Change				+31,777 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 31,777 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. Additionally, the number of bedrooms per unit may change later in the design process. We will provide any changes to the anticipated sewage demand.

On behalf of the client, we are requesting the following information:

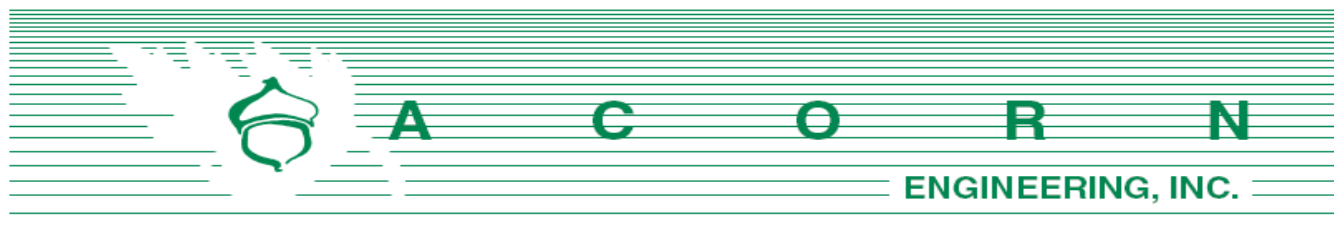
1. Any additional information, such as utility mapping within Federal Street, Temple Street & Exchange Street and confirmation of the location and size of the services to the existing property and the size and material of the main within Federal Street, Temple Street & Exchange Street.
2. DPW's proposed infrastructure improvements within the project vicinity.
3. DPW's ability to serve the project.
4. Any project related offsite sewer main improvements.

I have attached an existing ALTA/NSPS Land Title Survey created by Owen Haskell, Inc to facilitate your review, as well as a proposed preliminary utility plan developed by our office. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,



Faith Thomas, E.I.
Project Engineer
Acorn Engineering, Inc.



Portland Water District
 Attn: MEANS Department
 225 Douglass Street
 Portland, Maine 04104

October 18, 2019

Subject: 200 Federal Street Redevelopment
 Re: Ability to Serve

To Whom It May Concern:

On behalf of Redfern Properties, LLC, we are pleased to submit the following request for Portland Water District's ability to serve at a proposed mixed-use development located at 200 Federal Street within the B3 Downtown Business in Portland, Maine. The lot will be redeveloped into an eighteen-story mixed-use building with 124 residential studio units, 125 one-bedroom units and 2 two-bedroom units, with associated common areas, office and fitness facility. The street level will include a 2,065± square foot retail space. The site currently serves as a surface parking lot with various landscaping and impervious open space features.

There is currently no known water infrastructure on site. It is proposed to tap an 8" fire water service line off the water main within either Federal Street or Temple Street to the proposed building. A separate 6" domestic service will serve the apartments with a 1" child connection for domestic service to the ground level retail. The domestic water system will include backflow prevention and a triplex booster pump system at the base of the building to provide adequate system pressure throughout the building. The fire protection system will include backflow prevention and an electric fire pump with generator back-up power. The project team is working with Bala Consulting Engineers on the Mechanical, Electrical, Plumbing and Fire Protection for the proposed development.

Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules and architectural plans to date, the structure will be comprised of 124 studio units, 125 one-bedroom units and 2 two-bedroom units; in addition, a 2,065± square foot retail space, fitness room and office. As a result, 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				
Parking Lot	N/A	N/A	0	0
Total Gallons per Day (Existing)				0

Proposed Flow				
Residential Units	Studio	124	120	14,880
Residential Units	1-Bedroom	125	120	15,000
Residential Units	2-Bedroom	2	210	420
Retail	4-Employees	1	325+4*12	373
Office	2 Employees	1	12*2	24
Total Gallons per Day (Proposed)				30,697
Net Change				+30,697 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 30,697 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. Additionally, the number of bedrooms per unit may change later in the design process. We will provide any changes to the anticipated water demand.

On behalf of the client, we are requesting the following information:

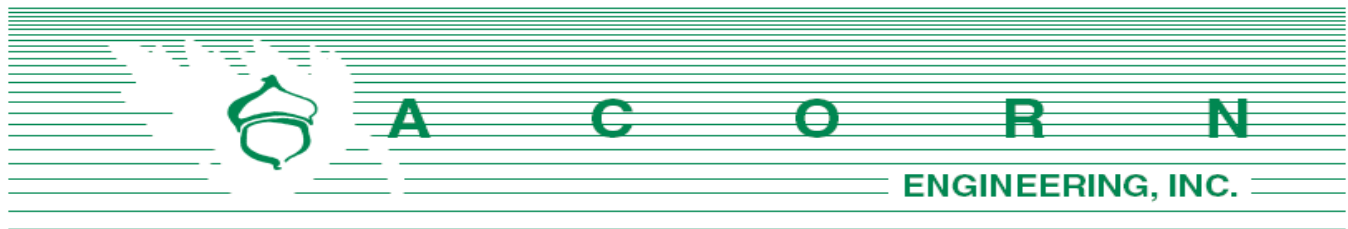
1. Any additional information, such as utility mapping within Federal Street, Temple Street & Exchange Street and confirmation of the location and size of the services to the existing property and the size and material of the water main within Federal Street, Temple Street & Exchange Street.
2. PWD's proposed infrastructure improvements within the project vicinity.
3. Flow data for adjacent hydrants.
4. PWD's ability to serve the project.
5. Any project related offsite water main improvements.

I have attached an existing ALTA/NSPS Land Title Survey created by Owen Haskell, Inc to facilitate your review. A proposed preliminary utility plan is currently being developed by our office and will be distributed once the existing conditions survey is complete. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,



Faith Thomas, E.I.
Project Engineer
Acorn Engineering, Inc.



Unitil Service Corp.
Attn: Bridget Harmon
376 Riverside Industrial Parkway
Portland, Maine 04103

October 18, 2019

Subject: 200 Federal Street Redevelopment
Re: Ability to Serve

Dear Ms. Harmon:

On behalf of Redfern Properties, LLC, we are pleased to submit the following request for Unitil's ability to serve at a proposed mixed-use development located at 200 Federal Street within the B3 Downtown Business in Portland, Maine. The lot will be redeveloped into an eighteen-story mixed-use building with 124 residential studio units, 125 one-bedroom units and 2 two-bedroom units. The street level will include a 2,065± square foot retail space. The site currently serves as a surface parking lot with various landscaping and impervious open space features.

We are not aware of any existing gas services to the property. It is proposed to route a service from either Federal Street or Temple Street to the proposed building. The project may include a water source heat pump with gas boilers, gas hot water heaters and a separate service to the ground level retail. The project team is working with Bala Consulting Engineers on the Mechanical, Electrical, Plumbing and Fire Protection for the proposed development.

On behalf of the client, we are requesting the following information:

1. Any additional gas lines within Federal Street, Temple Street & Exchange Street.
2. A confirmation of an existing gas main within Federal Street, as well as the size and pressure of any gas mains in the vicinity.
3. Unitil's proposed infrastructure improvements within the project vicinity.
4. Unitil's ability to serve the project.
5. Any project related offsite main improvements.

I have attached an existing ALTA/NSPS Land Title Survey created by Owen Haskell, Inc to facilitate your review. A proposed preliminary utility plan is currently being developed by our office and will be distributed once the existing conditions survey is complete. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read 'Faith Thomas'.

Faith Thomas, E.I.
Project Engineer - Acorn Engineering, Inc.



October 21, 2019

Acorn Engineering, Inc.
Attn: Faith Thomas E.I.
PO Box 3372 Portland Maine 04101

Re: 200 Federal Street Development

Dear Ms. Thomas:

Thank you for your interest in using natural gas for the above referenced project.

This is to confirm that natural gas can be made available from our distribution system to serve your proposed project.

Any improvements to the existing distribution system necessary to provide this service, as well as the design of the gas system in the project itself will be established as the overall design and scope of your project progresses. Please provide gas load requirements in order for the evaluation to be completed.

If you have any further questions or require additional information, please contact me at 207-541-2536 or email at harmon@unitil.com.

Sincerely,

Bridget L. Harmon

Business Development
Unitil Corporation
harmon@unitil.com
(O) 207-541-2536

ME GAS CUSTOMER ENERGY SOLUTIONS
376 Riverside Industrial Parkway
Portland, ME 04103

T 207-541-2508 www.unitil.com

**Section Q:
Construction
Management Plan**



Construction Management Plan

Project Address: 200 Federal Street

Project Description:

The proposed project includes the redevelopment of a portion of an existing lot into an 18-story, predominantly residential building with ground level retail, enclosed & surface parking.

Project Team Summary:

Owner/Applicant:	Redfern Downtown LLC
Owner's Representative:	Cordjia Capital Projects Group
General Contractor:	TBD
Civil Engineer:	Acorn Engineering, Inc.
Architect:	Ryan Senatore Architecture
Structural Engineer:	Structural Integrity

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 Federal Street & Temple 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:

Blaine Buck, Owner's Representative
(207) 236-9970

GC and Subcontractor information will be posted along the Federal Street & Temple Street frontages once contracted.

E. Construction Schedule

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



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

The estimated timeframe of the proposed project is outlined below:

<u>Project Start Date:</u>	Summer 2021
<u>Project End Date:</u>	Spring 2023

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City.

F. Security

1. The Construction Management Plan, Sheet C-03, depicts 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 Federal Street & Temple 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 Federal Street & Temple 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 Federal Street & Temple Street during utility connections and/or detour a mode of traffic when absolutely necessary for safety. All requests shall be subject to City approval. MOT plans shall employ the appropriate techniques and devices as called for in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:

- Construction speed signing may be used as needed to slow traffic.
- Traffic Control signs shall not be placed where they would create any obstructions to bicycles or pedestrians.
- Flaggers will be utilized when necessary.

All existing modes of travel in the work zone area shall be accommodated if impacted by the activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning and laying out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works. The MOT should also address on-street parking impacts, including deliveries and parking for adjoining businesses and property owners, analysis of roadway capacity or diversion capacity if street closure or change to roadway capacity is required, and coordination with other on-going or future construction or utility projects in the vicinity.

- Traffic control bicycle and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready



for safe operation. Traffic control will not be removed to allow auto travel at the expense of bicycle and pedestrians.

- Barrier systems utilized to separate the construction activity from the public street and /or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.
- ADA compliance in all capacities shall be maintained.

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

H. Site Management and Controls

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

I. Erosion & Sedimentation Control

1. The Contractor shall install all erosion and sedimentation controls as depicted 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 Federal Street & Temple 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 – 7,000 CF. Earthwork subcontractor(s) pit to project site.
 - Hot Mix Asphalt – 2 tons. Paving subcontractor(s) pit to project site.

L. Dewatering Plans

1. A basic dewatering plan for any construction work is required and shall be submitted by the Contractor. The plan must cover construction sites where groundwater is not expected but the impact of rainwater may require dewatering. The plan must include operating procedures, equipment to be used, including filters, erosion and sediment control measures, or other methods of removing sediment from approved discharges.
2. For construction work that will require frequent dewatering of groundwater from site, a dewatering plan must be prepared by the Contractor and approved by the Department



of Public Works. Groundwater and/or soil testing may be required to determine course of action if treatment is necessary. Approval for all discharges to City infrastructure is required. The proposed plan must address the following:

- Project duration, discharge location, storage equipment on-site, dewatering schematic, and emergency contact.
- General requirements include trained staff on-site for all approved discharges and required site log for documentation of all discharges.
- Storage and/or treatment process should include proper settling time and maintain proper use of filtering medium as required.
- Contingency/maintenance plan for all dewatering equipment devices and filtration mediums.

Any water that is removed from an excavation must be pumped from a perforated device buried in crushed stone prior to discharge and/or prior to storage and treatment. There will be no discharge allowed during precipitation events.

M. Special Measures as Necessary

No special measures are necessary for the proposed reconstruction.



Section S:
Traffic & Parking
Analysis



200 Federal Street



Transportation Demand Management (TDM) Plan

September 3, 2020

Summary

Redfern Properties provides this Transportation Demand Management (TDM) Plan for 200 Federal Street, located at the corner of Federal and Temple Streets in the B3 zone of Downtown Portland. The proposal is for an 18-story mixed-use building, primarily for 266 residential apartments, with one first floor retail use, and incorporation of existing U.S. Post Office visitor parking.

This is a key opportunity for urban infill redevelopment, new housing for downtown workers, and alternate transportation or reverse commuting for residents. The 200 Federal Street TDM Plan intends to reduce parking demand and drive-alone vehicle trips to and from the site and benefit the local transportation system through marketing the housing to downtown employees, providing leases exclusive of parking and on-site and near-site amenities, and offering strong support of transportation alternatives such as walking, bicycling and public transportation.

The plan sets the following TDM targets for 3 years after 200 Federal Street is fully occupied:

- 5% reduction in peak hour resident vehicle trips and parking demand for the site
- 65% resident multimodal rate

These targets will need to be reassessed after the first full year of occupancy of all tenant spaces.

COVID-19 NOTE: Site occupancy is forecast for Spring or Fall 2023 and with an anticipated vaccine for the COVID-19 virus available within approximately the next 18 months, transportation alternatives that are currently less viable - such as transit and carpooling - are anticipated to make significant recoveries by that time. COVID-related parking demand increases to enable drive alone options are also expected to decline. In addition, TDM efforts will likely be supported by a long-term increase in telework and walkable access to the largest number of jobs in the state.

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200 Federal Street Site

- 1.27 acre 18-story mixed-use urban infill site in the government district of Downtown Portland
- Residential: 266 dwelling units, 10% at Workforce Housing rate; includes common areas, co-working space, and fitness room: 185,739 sf, approximately 345 residents
- Retail tenant, 1st Floor: ~2,000 ft²
- Post Office visitor parking, interior ground level: 21 spaces
- 2 new 15-minute on-street parking spaces

TDM Targets

- **Trip & parking reduction targets:** a 5% reduction in resident vehicle trips and parking demand within 3 years after full occupancy - resulting from TDM program; i.e., a reduction of 7 weekday morning peak trips, 9 weekday evening peak trips, and 5 parking spaces
- **Multi-modal target:** 5% of resident trips will be via transit, carpooling, by bicycle, on foot or telecommuting within 3 years after full occupancy
- Will reassess targets at end of year one of full occupancy at 200 Federal

TDM Coordinator

Initial Coordinator: Jonathan Culley
Redfern Properties
P.O. Box 8816
Portland, ME 04104
jonathan@redfernproperties.com
207-776-9715

Eventual Coordinator: Property Manager
(company to be determined)

Cushman Transportation Consulting, LLC, 94 Beckett Street, 2nd Floor, Portland, ME 04101
Tel: (207) 200-1910 E-mail: sarah@sarahcushman.com www.sarahcushman.com



A. Property Description & Transportation Context

Site Characteristics & Occupant Demographics

200 Federal Street is a 1.27-acre parcel located at the corner of Federal and Temple Streets in the government district of Downtown Portland's B3 zone. The property also falls within the Pedestrian Encouragement Zone, Downtown Entertainment Overlay Zone, and Congress Street Historic District. These are land uses that benefit from and support this impressive in-fill redevelopment of what has, for some time, been only a small surface parking lot.

Infill development of any kind contributes to single-occupancy automobile trip reduction. That much more in the case of in-town housing, which is the primary use proposed for 200 Federal. When people move from one residence to another it provides a key opportunity and critical juncture at which to educate them about their transportation choices and the benefits of alternate transportation. Individuals are more receptive to this information as their daily living and commute patterns have changed with relocation.

Two hundred sixty-six (266) residential units are proposed for 200 Federal, consisting of 118 studios, 146 one-bedroom, and 2 two-bedroom rental apartments. Twenty-seven of the units will be deed-restricted as workforce rate housing. Redfern Properties will retain ownership of the building and a local property manager will manage the building long-term.

...One of the more interesting studies found in reviewing the literature was a 2003 German social science experiment conducted by three researchers (Bamberg, Rolle and Weber) where an individualized marketing intervention was used at a time of what they called a "changed decision" context, meaning immediately after relocation. The research found that if, when in a new situation, people received personally relevant and persuasive information, they were more likely to use it for making new behavioral decisions.

Portland Oregon SmartTrips Welcome Program, Tools of Change Landmark Case Study, 2012





Significant on-site and near-site amenities provide residents with a full-service living environment. People in residential settings often perceive they are dependent upon driving alone because of the number of errands and activities they must carry out in different locations. 200 Federal will reduce this dependence through the provision of services and facilities at and close to the site. Site features that encourage alternate transportation and discourage drive alone vehicle trips include: an indoor bicycle storage area, co-working space, an electronic package concierge for deliveries, and a fitness room.

In addition to the on-location amenities listed above, Redfern Properties has a Joint Development Agreement with PO Square Building, LLC to incorporate through-access to the Post Office Square building inhabiting the same block. This offers 200 Federal tenants both the U.S. Post Office and Norway Savings Bank as de facto building services. In addition, Redfern is seeking a grocery retailer or similar tenant for the small 2,000 square foot retail space on the 1st Floor. Post office visits to ship packages and grocery shopping are both trips often taken by personal vehicle.

Per the site development agreement, 200 Federal will maintain the existing Post Office visitor parking on the interior ground level of the building. With new access to these spaces via the adjacent Norway Savings parking lot, Redfern is able to create two new 15-minute parking spaces at the closed curb cut on Federal Street. This will provide pick-up and drop-off opportunities for residents, as well as neighboring businesses.



In strong support of site TDM efforts, residential leasing will be exclusive of parking. Tenants will be connected with nearby parking resources off-site. For example, PO Square Building, LLC also owns the Chestnut Street garage, within a 5-minute walk of 200 Federal; recent parking surveys show it can easily accommodate the vehicle storage needs of building residents. Parking that is unsubsidized and off-site is of tremendous benefit and a linchpin strategy to discourage drive alone trips and encourage the use of alternate transportation.

Tables 9 and 10 below, from the 2017 *City of Portland Parking Study for the Eastern Waterfront & Downtown* census data analysis, show that workers who live in the Downtown and Eastern Waterfront study area (which includes 200 Federal Street) and commute to all jobs – including anywhere in the region:

- Own far fewer vehicles: .7 per household - vs. 1.34 in the city and 1.79 in the region;
- Drive alone considerably less: 40.6% in the study area - vs. 67.4% in the city and 78.3% in the region;
- Use alternate modes of transportation and/or telecommute significantly more: 59.4% in the study area vs. 32.8% in the city and 21.9% in the region.

...The data shows significantly lower shares of drive alone commuting for workers who live in the study area or on the Peninsula as compared to the City and MSA [Portland-South Portland-Biddeford Metropolitan Statistical Area].

The share of workers who walk to work is very high in the study area at 43 percent in 2015, implying that those who live in the study area tend to work within a walkable distance from home...

... Carpooling decreased everywhere [between 2000 and 2015] except with residents of the study area where the carpool mode to work rose by nearly 7 percent...

2017 City of Portland Parking Study for the Eastern Waterfront & Downtown

Redfern Properties intends to market the property to downtown employees. According to the parking study, 12% of people live and also work in the study area. In *Portland's Plan 2030* (2017), analysis showed the number of people both living and working in the city decreased between 2002 and 2014. Residential sites like 200 Federal provide real opportunity for local population growth.

Table 9: Commute Mode Share Trends by Home Origin

	Commuter Home Origin	Drive Alone	Carpool	Transit	Bicycle	Walked	Work from Home & Other
2015	Portland-South Portland-Biddeford MSA	78.3%	9.3%	1.1%	0.6%	3.9%	7.0%
	City of Portland	67.4%	8.6%	3.1%	1.6%	12.2%	7.3%
	On the Peninsula	49.2%	6.9%	4.7%	2.8%	28.6%	7.9%
	Within the Study Area	40.6%	10.2%	3.5%	0%	42.5%	3.2%

Table 10: Auto Ownership 2000-2015

	Home Location	Vehicles	Occupied Households	Veh/HH
2015	Total U.S.	205,767,452	116,926,305	1.76
	Portland-South Portland-Biddeford MSA	383,798	214,667	1.79
	City of Portland	40,495	30,119	1.34
	On the Peninsula	11,611	11,917	0.97
	Within the Study Area	1,206	1,729	0.70

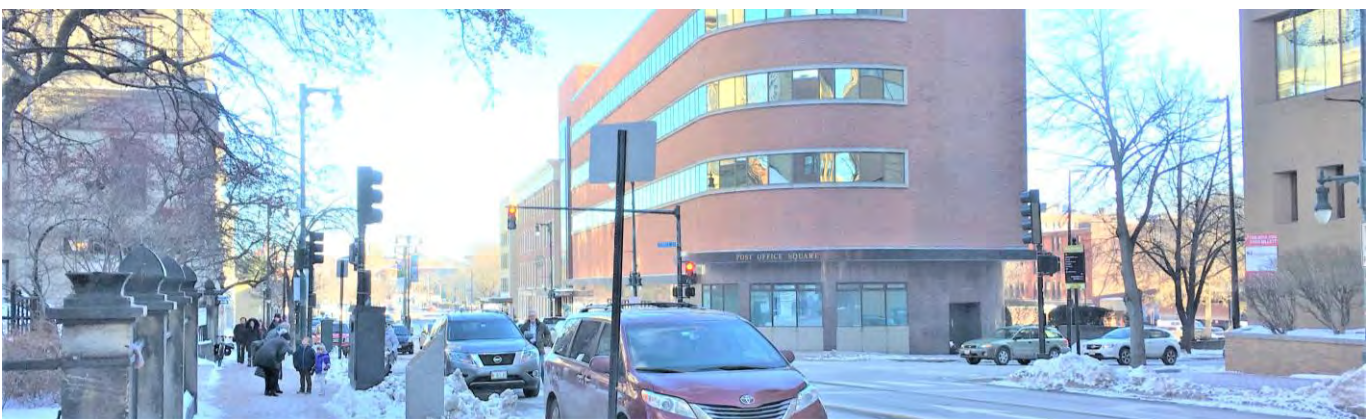




The developer anticipates 200 Federal will most likely attract Millennial tenants (adults under 40), single mid-level professionals and seniors. Real estate trends anticipate the apartments to be primarily one-person households (an average of 1.3 per unit). As stated in *Portland's Plan*, "Millennials (20-29) and Gen Xers (30-39) comprise the largest share of Portland's population, while Baby Boomers (50-69) are the fastest growing age group."

Per U.S. Census data, Millennials have been shown to prefer urban environments; they also tend to be more comfortable using modes other than the single-occupancy automobile for transportation. These multimodal habits were heavily influenced by the Great Recession and driving by Millennials has increased slowly as the economy has improved. However, from a behavior change perspective, this familiarity with different ways of getting around will greatly facilitate these tenants' participation in the 200 Federal Street TDM program.

Regarding vehicle travel and senior demographics, the percentage of the population that drives plateaus for the general public through the ages of 30-55 - and then starts declining after the age of 55 for women and after age 60 for men. Similarly, vehicle miles and person miles traveled per capita both fall precipitously starting at the age of 55. Car ownership has had a slight rebound since the Great Recession. However, between 2015 and 2016, the one increase in car-free living (above the margin of error) was among householders age 65 or older who rent. (Source: American Community Survey of the U.S. Census).



Larger Transportation Setting

The 200 Federal Street project brings to fruition a number of the mixed-use, downtown neighborhood, housing, urban form, and transportation demand management goals of several recent and historically important Portland studies and plans. Included among them are:

- the original *Downtown Vision* plan (1991)
- *A Time of Change: Portland Transportation Plan* (1993)
- *Housing, Sustaining Portland's Future* (2002)
- *Peninsula Transit Study* (2008)
- *Sustainable Portland* (2009)
- *City of Portland Parking Study for the Eastern Waterfront & Downtown* (2017)
- the City's Comprehensive Plan, *Portland's Plan 2030* (2017)

For example, the redevelopment of this site in the center of Portland addresses the land use diversity, housing, and strengthening-the-downtown objectives outlined in *Portland's Plan* (Comprehensive Plan, 2017) – described further as Complete Neighborhoods and Reinforce the Center.

In addition, as noted above, 200 Federal Street and its TDM initiatives align well with observations from the *City of Portland Parking Study for the Eastern Waterfront & Downtown*. Other indications included, "If future residential development in the study area were to attract a higher percentage of residents who also work in the study area, and do not use their vehicle to commute to work, this would raise the internal capture rate for office parking demand. An internally captured office trip does not need an additional office parking space because the resident employee leaves their vehicle at home. In this way, a single parking space would serve either a residential purpose or an office purpose depending on the time of day. It would help lower parking demand to promote or incentivize the occupancy of new residential development with employees (of any kind) who also work in the study area."

For downtown residents working off the Peninsula, who may commute by single occupancy vehicle, there is also a reverse commute phenomenon. This change in the directionality of trips creates a more balanced inbound-outbound flow of vehicular traffic during the morning and evening peak travel hours.



LOCAL GOALS

WE WILL:

Increase, preserve, and modify the overall supply of housing city-wide to meet the needs, preferences and financial capabilities of all Portland residents.

Encourage additional contextually appropriate housing density in and proximate to neighborhood centers, concentrations of services, and transit nodes and corridors as a means of supporting complete neighborhoods.

Pursue policies to enable people who work in Portland to have the option to live in Portland.

Collaborate with surrounding communities on regional housing solutions.

Encourage quality, sustainable design in new housing development.

Portland's Plan 2030 (2017 Comprehensive Plan)

Bicycle & Pedestrian Access

From a pedestrian and bicycling perspective, 200 Federal is very friendly, located within the strong sidewalk network and lower-speed street grid of the Portland peninsula. From the perspective of residents with any mobility concerns, sidewalks in the area are well-maintained year-round by the Portland Downtown district, including the removal of snow and ice during the winter months.

The building is also just six blocks from the Eastern Promenade multi-use path and seven blocks from the Bayside Trail, both pivotal links in Portland's alternate transportation system. In addition, the site is only three blocks from the Spring Street bicycle lane and a 4-minute bike ride to the Forest Avenue bike lane network and the Park Avenue protected bicycle lane.

Residential tenants working anywhere on the Peninsula will be within comfortable walking distance of their home; similarly, for 1st Floor retail employees who live on the East End, West End or downtown. Those residents whose employers are located within a five-mile commute distance can also easily bike to work, especially as bicycle networks in Portland, South Portland and Falmouth continue to improve. For example, 200 Federal tenants will be in close proximity to planned pedestrian and bicycle network improvements on Franklin Street, Preble and Elm Streets and the Federal Street Neighborhood Byway.

Amenities within easy walking distance of 200 Federal Street abound for residential tenants, retail employees and visitors. These include food and entertainment venues, grocery stores such as Trader Joe's and Whole Foods, and home product suppliers such as Reny's. These and other downtown offerings also provide an attractive dual-purpose trip for retail employees and site visitors who do end up driving downtown. For example, walking to run errands at neighboring businesses or meeting up with family and friends for after-hours events downtown. In addition, these internally captured trips represent no net new trip generation or parking demand beyond the original trip to the site.



Public Transportation Access

In terms of transit service, 200 Federal Street is ideally located just off the Congress Street bus corridor and only three short blocks (a 3 minute walk) from the hub of all of Greater Portland's public transportation options at the Elm Street Pulse, Monument Square and City Hall. 200 Federal Street itself is served by METRO Route #8 stop (now under review as part of METRO's Peninsula Loop Reboot task force – although delayed because of COVID). One block away is a Congress Street transit stop serving METRO's Routes 1, 7, 8, 9B and South Portland Bus' Routes 21, 24A and 24B.

At the METRO Pulse, services include ticket sales, a staffed indoor waiting room, outdoor seating and the:

- METRO Breez with service to Yarmouth, Freeport and Brunswick
- METRO Husky Line with service to Westbrook and Gorham
- METRO local Routes 2, 4, 5, 7, 8, 9A, 9B serving the significant transportation corridors of Outer Congress Street and Forest, Brighton, Washington, Stevens and Allen Avenues
- RTP Lakes Region Explorer with Route 302 service to Westbrook, Windham, Raymond, Casco, Naples and Bridgton

At City Hall one can catch METRO Routes 1, 7, 8, 9A and 9B and the intercity Shuttlebus, with service to Scarborough, Old Orchard Beach, Saco and Biddeford. At Monument Square, most of the above local METRO routes are accessible, along with all South Portland Bus routes, and the ZOOM Turnpike Express with service to Saco and Biddeford.

There is shelter from the elements for riders at the stops at Two Monument Square, in front of the Press Hotel, at the Pulse, and at the Monument Square stop at Center Street. METRO, South Portland Bus and Casco Bay Ferry Lines all provide real-time arrival information for riders, through the Southern Maine Transit Tracker website and smartphone apps such as Google Maps, Transit and Moovit. All local and express buses are also equipped with bicycle racks with space for 2-3 bikes. In addition, most METRO buses offer Wi-Fi access and some provide in-seat USB ports.



Shared Mobility Access

With the end of UhaulCarshare service in Portland in February 2020, Redfern is exploring other carshare options for residents at 200 Federal Street. If an option is found feasible, the company will offer a promotion code discount for tenants' carshare vehicle use for the first year of residency.

Over the past several years, the City was working on an agreement with JUMP Bikes (by Uber) – recently acquired during COVID-19 by Lime – to set up a dockless electric bikeshare system in Portland. If and when the system is launched, the developer will provide monthly bikeshare memberships for tenants.



B. 200 Federal Street's TDM Coordination

Redfern Properties has a long history of smart growth development projects and encouraging residents' physical and financial wellness through initiatives such as offering rent reductions for tenants who are car-free and providing on-site bicycle rooms and gyms. It sees this TDM program as part of its larger sustainability and smart growth mission.

Redfern is committed to a building Sustainability Initiative that will include its TDM efforts to reduce drive alone resident automobile trips, improve multimodal safety, and ease traffic congestion and area parking demand near 200 Federal Street. Jonathan Culley of Redfern Properties will serve as the interim TDM Coordinator until the development determines the site's property management company. Culley's contact information is:

Jonathan Culley
Redfern Properties
P.O. Box 8816, Portland, ME 04104
Email: jonathan@redfernproperties.com
Phone: 207-776-9715

The 200 Federal TDM Coordinator is responsible for:

- Coordinating tenant TDM policies and incentives
- Connecting tenants with nearby parking resources
- Encouraging greater use of preferred modes – walking, bicycling, carpooling, taking bus or rail transit - through transportation kiosk and site-wide promotion
- Overseeing/conducting surveying of tenants
- Filing annual reports and updating the plan with the City
- Exploration of additional TDM strategies, as needed



Culley and the future property manager are charged with coordinating the 200 Federal TDM plan implementation and monitoring and making any needed changes.

Redfern will provide the TDM Coordinator with a stipend to support the work of leading the site's ongoing TDM efforts. Acknowledging that roles and responsibilities change over time in any position, Redfern Properties and the site property manager will use the first few months of TDM implementation to enumerate the TDM Coordinator's responsibilities in detail for any other staff to uphold the responsibility of the position.

Day-to-day operations and monitoring of the TDM plan will be conducted in-house by the property manager long-term and Redfern Properties will retain the services of a TDM consultant to review initiatives, problem-solve and develop new strategies if and when necessary.



C. Trip Generation & Parking Demand Projections & Targets

Redfern Properties has hired Cushman Transportation Consulting, LLC (CTC) and Traffic Solutions to assist with its transportation demand management process. CTC specializes in TDM efforts locally and connects with TDM research and programs across North America – including aspects of setting and managing TDM targets. This all informs the following trip reduction, parking reduction and multimodal goals.

A complication for setting ambitious targets for this particular site is the existing high multimodal rate of individuals who currently live downtown. That is, when a multimodal rate is already extraordinary, mode change is much more incremental and moderate than if the rate has significant room for growth.



Projected Trip Generation & Parking Demand

On behalf of 200 Federal Street, Traffic Solutions created Institute for Transportation Engineers (ITE) trip generation and parking demand projections and conducted additional local traffic and parking studies to assess the potential impact of the site's redevelopment. This has included utilizing the most recent data in the 10th edition ITE *Trip Generation Manual* and the 5th edition ITE *Parking Generation Manual*, with distinctions for the multimodal context of the site.

Accordingly, the proposed 200 Federal Street project can be expected to generate approximately 56 trips in the AM peak hour and 53 trips during the PM peak hour. Per the parking demand projections analysis, the average peak hourly parking demand for the site is expected to be 125 spaces.

Trip Reduction Target

Given the multimodal accessibility of the site, the high existing rate of alternate transportation use by those living downtown, and the transportation demographics of expected tenants at 200 Federal Street, the building's TDM efforts should enable a further 5% reduction in resident drive alone vehicle trips by the end of 3-5 years. That is, 3 weekday morning peak trips and 3 weekday evening peak trips. The TDM team plans to revisit this reduction target after the first year of full occupancy at 200 Federal.

Parking Reduction Target

With the strong strategy of off-site and unsubsidized parking and the implementation of TDM incentives, a further achievable parking demand reduction is 5% by the end of 3 years; i.e., 6 spaces. The parking demand target will also be revisited after 200 Federal reaches its first year of full occupancy.

Multimodal Target

200 Federal is setting an initial target of 65% of residents making multimodal trips to and from the site, by 3 years after full occupancy. This includes transit, carpooling or vanpooling, bicycle, pedestrian and telecommute trips or some combination of these modes. The target is different from the trip and parking reduction targets above because, with the diversity of residents at 200 Federal and the timing of work schedules or retiree tenant activities, a number of these trips are likely to be outside of the morning and evening peak periods.

This is a complex target to set because of both the above mentioned current high multimodal rate and also the range of potential tenants and tenant occupations. For example, according to census data, when retired from day-to-day work, an individual's vehicle miles traveled decreases overall. 200 Federal plans to closely monitor existing trends to attain a reasonable mode-shift goal over time.

It is most useful for 200 Federal's TDM efforts to address the specific needs of transit users, carpoolers, bicyclists, walkers and telecommuters and set an overarching multimodal trip target for the site – versus targets for each mode. From other TDM experiments across the globe, it is clear that individuals' use of various alternate modes shift over time as different residents come and go and/or their needs change.

Projections & Targets

The TDM Plan sets the following targets:

- **Trip & parking reduction target:** a 5% reduction in resident vehicle trips and parking demand within 3 years after full occupancy - resulting from TDM program; i.e., 3 weekday morning peak trips, 3 weekday evening peak trips, 6 spaces
- **Multi-modal target:** 65% of resident trips will be via transit, carpooling, by bicycle, on foot or telecommuting within 3 years after full occupancy
- Will reassess targets at end of year one of 200 Federal Street occupancy



For example, a tenant who uses transit might move to another location or a different tenant who walks might switch primarily to bicycling. In another instance, a tenant who was able to drive may lose the ability to do so and switch to using transit or carpooling for errands.



D. Trip and Parking Reduction Strategies

In the table beginning on the following page, Redfern Properties proposes a number of best-practice and sensible parking and trip reduction strategies for 200 Federal's TDM Plan. These are based on the development team's understanding of the site's transportation context, likely residents and the usefulness of various TDM efforts. For example, unsubsidized off-site parking will produce the strongest results for decreasing single-occupancy vehicle trips to and from the site. In addition, the team acknowledges the various needs of different multimodal commuters. For instance, tenants who use transit, walk or bicycle are more able to do so if they have on-site, secure storage for larger commuting gear like bicycle trailers and shopping handcars.

Another critical component for the success of 200 Federal's TDM Plan is a carefully thought-out marketing plan that engages tenants from when they first move in regarding preferred modes of transportation and provides easily accessible information and subsidies. As shared by Portland Oregon's SmartTrips Welcome program, a residential move is a unique and powerful opportunity for mode experimentation and change. This marketing also builds the site's TDM culture and the sense of multimodal travel as the social norm. 200 Federal has begun designing a promotion strategy that complements other area Portland TDM work to encourage walking, bicycling, carpooling and the use of public transit.

...When a person changes residence, everything changes: the way to the store, the way to work, even the steps to the fridge.

This time of change offers a unique opportunity to create new neural pathways or reinforce old ones that haven't been used for a while and make these stronger than habitual pathways.

Andrew Pelsma, SmartTrips Program Specialist, Portland, Oregon

...To us, this represents a significant number of people with an immediate gap in knowledge about their local travel options.

Linda Ginenthal, SmartTrips Program Manager



Finally, the region was recently reexamining the need for an area Transportation Management Association (TMA) to benefit sites like 200 Federal. TMAs are generally public-private entities that assist sites with TDM implementation, outreach and monitoring; advocate for improved transit and act as brokers for services such as shuttles. Redfern Properties plans to support the development of a TMA, if found to be feasible, and have 200 Federal Street participate as a member.

The highest priority items for 200 Federal Street's TDM program success are:

- *Unsubsidized parking off-site*
- *On-site and near site amenities, multimodal infrastructure and transportation choices*
- *Social marketing work to engage with new residents and establish commuting another way as part of the building's Sustainability Initiatives and common norms*

Infrastructure	
Remote Parking/Reduced Parking/Shared Parking	<i>Reduced parking:</i> residential leasing will be exclusive of parking and unsubsidized <i>Remote, shared-use parking:</i> Tenants will be connected with local parking resources within 1500 feet of site, including Chestnut Street and Temple Street Garages. Residential overnight parking for those who commute off-Peninsula works well with high day-use commuter parking locations such as these. In addition, parking off-site makes car ownership less convenient for residents and further encourages the use of alternate modes.
Affordable Housing	Site to meet City standard for 10% workforce housing. Affordable housing units generate fewer vehicle trips and less parking demand than market-rate housing.
Transit & Other TDM Access	Real Time Transit & TDM monitor display in main lobby with looping slides regarding: live-time transit service information for routes near the site (available through Southern Maine Transit Tracker); multimodal map with nearby transit routes, bicycle routes and trails, and walk and bike distances/times; listing of bicycle facilities on site; carshare locations and membership information; information on GO MAINE ride-matching, rewards and Emergency Ride Home benefit for all alternate modes of transportation; all TDM benefits available for residents; contact information for TDM Coordinator.
Pedestrian & Bicycle Access	<i>Sidewalks:</i> Reconstruction of all street sidewalk segments abutting development
	<i>ADA-accessible pedestrian amenities:</i> barrier-free ramp improvements
	<i>Crosswalks:</i> Striping improvements to existing or proposed crosswalks
	<i>Lighting:</i> Street and building lighting to improve sidewalk illumination
	<i>On-street and Post Office courtyard bicycle parking:</i> 8 exterior bicycle parking spaces
	<i>Indoor, secure bicycle and stroller parking:</i> 106 secure and weatherproof spaces in large accessible basement for regular size bikes, electric bikes, cargo bikes, bicycle trailers, bike attachments for children, and strollers. Also available to facilitate child carseat storage (for those commuting with children on foot and by carpool).
	<i>Electric bicycle charging:</i> Provide charging station/outlets for resident electric bikes in bicycle room
	<i>Bicycle repair station:</i> Provide bike repair stand in bicycle room
	Committed to meeting a higher demand for on-street bicycle parking if needed



Shared Mobility	<i>Carshare</i> : if new carshare option found, will offer tenant discount during first year of residency
	<i>Handcarts</i> : Provide one collapsible shopping/utility cart with property management branding for every 25 dwelling units, available for checkout on hourly basis (e.g., pen and paper sign up system, online, etc.)
	<i>Cargo electric bikeshare</i> : experiment with one electric-assist cargo bicycle, available for checkout on hourly basis (e.g., pen and paper sign up system, online, etc.)
Electric Vehicle Charging Station	Provide electric car charging station for at least 1 motor vehicle in Post Office parking area
On-Site Amenities	<i>Co-working space</i> : work area and meeting space for tenants' use to encourage telecommuting
	<i>Broadband access</i> : hardwired infrastructure for broadband available for tenant hook-up and WiFi provided in common areas
	<i>Fitness room</i> : Provide on-site gym to reduce vehicle trips and improve resident physical fitness for active transportation
	<i>Grocery & other Amenities</i> : Encourage retail tenant to offer amenities that encourage walking trips for simpler needs (e.g., grocery items such as are available at a Rosemont Market, or small housewares and hardware items, etc.)
	<i>Postal services</i> : U.S. Post Office location accessible on-site
	<i>Banking services</i> : Norway Savings Bank branch accessible on-site
Delivery Supportive Amenities	Facilitate deliveries by providing an electronic package concierge and parcel receipt area
General Contribution to Area Transportation Improvements	Per Chapter 14 of the City of Portland Code, the property is contributing to transportation impact fees that will improve traffic operations and transportation in and around downtown Portland.
Incentives	
Parking Pricing/Cash Out/Incentives	Residential leasing will be exclusive of parking and thus enable a lower rental fee
Transit Subsidies	<i>Transit passes</i> : Explore new Dirigo TouchPass system to simplify management of transit subsidy for individual resident and Mercy employee trips (expected in 2020 from METRO, City of South Portland Bus Service and Biddeford Saco Old Orchard Beach Transit - but delayed with the COVID-19 crisis)
Pedestrian/Bicycling Subsidies	<i>Bicycle safety courses</i> : Reimburse residents for bicycle safety courses
	<i>Bicycle Benefits</i> : Purchase memberships (\$5) for residents who bicycle
	<i>Bicycle maintenance</i> : One free annual bicycle maintenance bench time visit to Portland Gear Hub Bike School for residents who bicycle
Shared Mobility Subsidies	<i>Carshare</i> : Discount for resident UhaulCarshare vehicle use for first year of residency
	<i>Bikeshare</i> : Monthly bikeshare memberships for residents when/if bikeshare starts in Portland
Targeted Promotions	<i>Early rental promotion to nearby employers</i> : Nearby employers will be invited to share 200 Federal housing information with their employees and participate in an early tour and promotion of the facilities.
	<i>Experiment with discounts and coupons to nearby businesses</i> : work with local businesses to offer residents discounts and coupons to downtown establishments within walking distance
TDM Coordinator	Provide stipend/remuneration to TDM Coordinator to support the work of the position.



Information	
Education for Travel Choice	<i>TDM orientation packets:</i> new residents and retail employees will be provided with orientation packets regarding the site's TDM program and access to 200 Federal by various travel modes. Includes: (1) Map of area with major streets, nearby landmarks and time to walk/bike to them, the closest bus stops and walking times, recommended cycling and walking routes, carshare locations, etc. (2) Information about transit service frequency, fares, first and last runs, and schedules; phone numbers and web addresses for transit service providers and taxi companies. (3) Reaching the site from major transportation terminals (bus and train stations, airport, ferry terminal, etc.) (4) Access arrangements for people with disabilities; (5) Availability of bicycle facilities, including secure bike parking and on-site bikeshare; (6) Bicycle Benefits membership and bicycle safety courses; (7) Encouraging residents to become members of GO MAINE and access rewards system, carpool matching and Emergency Ride Home Benefit; (8) carshare and eventual city bikeshare information; (9) automobile parking availability and price; (10) Information regarding building TDM program and contacting the TDM Coordinator.
	<i>New Resident TDM Acknowledgement:</i> At the time of occupancy, all new rental tenants will be provided with the site's TDM program benefits and goals. They will be asked to sign an acknowledgement of the TDM program and a commitment to participate in the annual resident commute survey.
	<i>Commute coaching:</i> One-on-one transportation consultations available for residents upon lease of dwelling unit to explore individual transportation options. Thereafter, offered at least once annually.
	<i>New resident engagement:</i> TDM Coordinator will engage with each new resident to share about the TDM program as part of the building's Sustainability Initiative
	<i>Ongoing TDM program education:</i> 1 or more times per year, TDM Coordinator will email all residents (new and existing, including subletters) - and the retail tenant - the same information as is in the TDM orientation packets.
	<i>Transportation fairs/tabling:</i> 1-2 times per year, TDM Coordinator will host morning or afternoon tabling event in lobby to engage residents in conversation about transportation choices. Will offer food and beverages.
	<i>Experiment with offering walking tour of multimodal options:</i> offer a hands-on walking tour of transportation options near the property. For example, visiting the METRO Pulse, discussing taking the bus and practicing putting a bicycle on the bus.
	<i>Experiment with offering on-site bicycle safety class:</i> as residents show interest, host a bicycle safety/information class or bicycle repair event for residents
	<i>TDM surveying:</i> Required resident transportation surveys and reporting to City will also serve as education tool
Promotion of Alternate Modes	<i>Co-promotion with City and downtown agencies:</i> Work with Portland Downtown and City of Portland's Drive Less, Do More marketing campaign to promote alternatives
	<i>Social media and social proof:</i> Use property management social media to build social proof of others doing the desired TDM actions (with posts from residents taking action – e.g., posting a photo of taking the bus to work or the morning carpool) - vs. just likes or retweets of info about using preferred alternate modes
	<i>Resident and retail employee recognition:</i> 1-2 times per year: recognize individual residents and retail employees who reduce the traffic impact of the site through property management social media, door posters, newsletter, email or other announcements.





E. Plan for Monitoring, Data Collection and Reporting

Recognizing that the implementation of a TDM Plan is a dynamic process, the 200 Federal Street TDM Coordinator will work with the City to monitor the effectiveness of the site's TDM Plan components - and to assess whether the site is achieving the trip and parking reduction and multimodal targets listed above. 200 Federal will work with tenants to evaluate off-site parking use and incentives for preferred modes and make improvements. Another important piece will be to determine the flexibility of tenants to utilize various travel modes.

Tenant Surveys

The TDM Coordinator will conduct annual tenant surveys that provide quantitative data (e.g., trip, parking and mode split) and qualitative data (e.g., perception of alternate transportation, area parking and the site's TDM programming). The site will carry out these surveys once annually for the first three years of full occupancy and then every two years thereafter, with at least 50% tenant participation.

The survey will be developed in consultation with the city's TDM manager and conform to overall city TDM modeling and planning. Survey questions will include:

- Number of people in household
- Resident mode of travel to and from work and/or for other trips away from the site – plus frequency of use of those modes
- If parking personal vehicle(s), where parked
- Whether the tenant drives during morning or afternoon peak periods



- Use of/participation in:
 - o On-site bicycle parking, hand cart and cargo bicycle
 - o Off-site carshare and future Portland bikeshare
 - o Any site TDM incentives or other benefits or programming
 - o GO MAINE program participation
- TDM marketing effectiveness
- Preferences, barriers or concerns with modes of travel and likelihood of changing travel behavior given specific incentives or disincentives
- Rating knowledge of walking, bicycling and using the bus in the community
- Space to add suggestions and comments

Note: the use of these survey tools will also assist 200 Federal with its TDM education efforts. That is, the questions themselves help people think differently about their transportation behavior. The surveys will also provide a reminder of the TDM lobby monitor and the TDM Coordinator as resources for more information about options.

Annual Report

The TDM Coordinator will then produce an annual TDM Report to meet the City's monitoring requirements. The report will include:

- a. the above survey data and percent of units occupied;
- b. how the data directly relates to the plan's reduction targets;
- c. details of that year's TDM operations – including management, strategies, marketing, number of contact points with residents, and any new infrastructure development;
- d. lessons learned and any changes in the TDM plan during the year;
- e. plans for the following year.





Traffic Solutions
William J. Bray, P.E.
17 Mountview Drive
Gorham, ME 04038
(207) 400-6890
trafficsolutions@maine.rr.com

October 6, 2020

Parking Assessment

Proposed

“200 Federal Street”

INTRODUCTION

Redfern Downtown, LLC is proposing to construct an 192,675 square-foot 18-story mixed-use building at 200 Federal Street that will include 266 residential apartment units, common areas, small office space for building manager, a resident only fitness area and a 1,950sf retail space, (excluding bulk storage) on the ground floor. The proposed site is comprised of a single parcel bordered by Congress, Exchange, Federal and Temple Streets.

Twenty-seven (27) of the 266 apartment units will meet the City’s criteria for affordable workforce units and the remaining 239 units will be market rate apartment units. The 266 total apartment units will include: 118 studio units, 146 one-bedroom units and (2) two-bedroom units.

The proposed site provides a total of 21 on-site parking spaces with a total of 11 surface spaces and 10 spaces under the proposed building. These spaces will be used by the U.S. Postal Service through an existing lease agreement. Parking (both short and long-term) for building tenants will be accommodated at the existing Chestnut Street parking garage located on Chestnut Street near Oxford and Lancaster Streets. Additionally, two existing 15-minute on-street parking spaces located on the Federal Street frontage of the site are proposed to accommodate the short-term parking needs of building residents.

The City’s Zoning Ordinance presently requires one parking space for each proposed residential unit on the peninsular (Sec. 14-332.1 (k) except:

“The required parking for multi-unit residential buildings may be partially met through provisions of shared use vehicles...One shared use vehicle shall be deemed to satisfy eight (8) required car spaces...”

“No parking shall be required for the first three units in the R-6 Residential Zone...”

“The planning board may establish a parking requirement that is less than the normally required number of spaces upon a finding of unique conditions that result in a lesser parking demand, such as housing for persons who cannot drive, housing that participates in a travel demand management program, availability of transit... etc.”

Further, Section 14-332.2. (c) states:

“Site plans over 50,000 square feet and projects in the B-6, B-7, and USM Overlay Zones: Where construction is proposed of new structures having a total floor area in excess of fifty thousand (50,000) square feet, the planning board shall establish the parking requirement for such structures. The parking requirement shall be determined based upon a parking analysis submitted by the applicant and upon the recommendation of the city transportation engineer.”

This document provides a determination of the “average” peak parking demand requirements of the proposed residential apartments based upon national parking trends presented in the most current 5th edition of the Institute of Transportation Engineers “**PARKING GENERATION**” publication. A parking survey was conducted at an existing residential apartment building located in Portland to affirm the applicability of the national trends in predicting the parking requirements of the proposed residential apartment project.

PARKING DEMAND

National parking demand data presented in the 5th Edition of the Institute of Transportation Engineers (ITE) “**PARKING GENERATION**” publication is typically the instrument used in estimating the actual parking demand of a development site. The 5th edition, which was published in January 2019, represents the most current copy of the noted ITE document. The ITE manual provides “average” peak parking demand rates for more than 100 land-use categories including: residential, lodging, recreational, institutional, medical, retail, office, services, etc.

The “average” peak parking demand requirements of the proposed 200 Federal Street residential apartments is estimated based upon the following projected residential apartment unit mix:

Market Rate Units

- (106) Studio Units
- (131) One-Bedroom Units
- (2) Two-Bedroom Units

Affordable Workforce Units

- (12) Studio Units
- (15) One-Bedroom Units

Total Apartment Units

- (118) Studio Units
- (146) One-Bedroom Units
- (2) Two-Bedroom Units

The peak parking demand requirements of the proposed market rate apartment units is based upon Land-Use #221- Multi-Family Housing (Mid-Rise). This land-use category is generally reserved for buildings between three and 10 floors; however, the ITE parking data for a high-rise building (buildings greater than 10 floors) is very limited. In fact, the parking demand rate presented in the noted ITE document for a high-rise residential building is based upon a single study. ITE representatives contacted by Acorn Engineering noted the limitations of the data for the high-rise category and, with that direction, this report applies the parking demand rate for a mid-rise apartment building. Accordingly, a peak parking rate of 0.48 spaces per bedroom was applied in calculating the peaking demand requirements of the proposed market rate units.

The peak parking demand requirements of the proposed affordable workforce apartment units is determined based upon Land-Use #223 - Affordable Housing – Income Limits. The parking rate used in determining the peak parking demand of the 27 workforce apartment units is 0.30 spaces per bedroom.

Table 1, below, provides a projection of the “average” peak parking demand requirements for the proposed 200 Federal Street residential apartment building for a typical weekday condition.

Table 1
“Peak” Parking Demand Determination Summary
For
“200 Federal Street Residential Apartments”
(Weekday Condition)

<u>Proposed Use</u>	<u>Total Bedrooms</u>	<u>Land-Use Code</u>	<u>Parking Space Rate</u>	<u>Parking Space Requirements</u>
Market Rate Residential Apartments				
106 Studio Units	106 bedrooms	LUC 221	0.48 spaces/bedroom	51 spaces
131 One-Bedroom Units	131 bedrooms	LUC 221	0.48 spaces/bedroom	63 spaces
2 Two-Bedroom Units	4 bedrooms	LUC 221	0.48 spaces/bedroom	2 spaces
Workforce Apartment Units				
12 Studio Units	12 bedrooms	LUC 223	0.30 spaces/bedroom	4 spaces
15 One-Bedroom Units	15 bedrooms	LUC 223	0.30 spaces/bedroom	5 spaces
TOTAL	-	-	-	125 spaces

The “average” peak parking demand requirement of the proposed 200 Federal Street apartment building is estimated at **125 spaces** for a typical weekday condition.

The proposed retail space (1,950sf) currently projected to be leased by a local neighborhood grocery, which, as a complementary use to the proposed residential apartments, will not require off-site parking. Section 14-332(h) of the City’s Land Use Code further defines the parking requirements for retail space as follows: “*retail stores One (1) parking space for each two hundred (200) square feet of first floor area in excess of two thousand (2,000) square feet not used for bulk storage,.....* Locally collected traffic data gathered at a similar grocery site; located on the Portland Peninsular, shows the majority of persons observed patronizing the grocery store were pedestrians. The study results, as presented below in Table 2, shows fewer than 8% of the total combined peak hour trips generated by the Pine Street/Bracket Street market are, in fact, automobile trips. Other than an occasional truck delivery vehicle, the proposed neighborhood grocery store will not attract vehicle traffic; thus, parking accommodations are not required and/or necessary.

Table 2
Trip Generation Summary
Market
(Bracket Street @ Pine Street)

<u>Survey Time</u>	<u>Entering Trips</u>		<u>Exiting Trips</u>		<u>Total Trips</u>	
	<u>Pedestrian Trip</u>	<u>Vehicle Trip</u>	<u>Pedestrian Trip</u>	<u>Vehicle Trip</u>	<u>Pedestrian Trip</u>	<u>Vehicle Trip</u>
7:30 to 7:45 AM	0	0	0	0	0	0
7:45 to 8:00 AM	0	0	0	0	0	0
8:00 to 8:15 AM	15	0	11	0	26	0
8:15 to 8:30 AM	4	1	8	1	12	2
8:30 to 8:45 AM	6	2	1	3	7	5

8:45 to 9:00 AM	11	2	9	3	20	5
AM Peak Hour Total	36	5	29	7	65	12
3:30 to 3:45 PM	5	0	7	0	12	0
3:45 to 4:00 PM	7	1	7	2	14	3
4:00 to 4:15 PM	5	0	9	0	14	0
4:15 to 4:30 PM	6	1	7	0	13	1
4:30 to 4:45 PM	12	1	10	1	22	2
4:45 to 5:00 PM	21	0	18	0	39	0
5:00 to 5:15 PM	15	1	18	1	33	2
5:15 to 5:30 PM	15	0	14	0	29	0
PM Peak Hour Total	63	2	60	2	123	4

COMPARATIVE CITY OF PORTLAND PARKING DATA

Parking utilization data was gathered at the existing 667 Congress Street 139-unit apartment building on July 10, 2019 to establish local parking demand trends for a similar size multi-story apartment building. Parking counts were collected at 6:00 a.m., 10:00 a.m., 5:00 p.m. and 8:00 p.m. with the results of the survey highlighted in Table 2 as follows:

Table 3
Parking Utilization Study Summary
(667 Congress Street Apartment Buildings)

<u>Apartment Location</u>	<u>Number of Apartment Units</u>	<u>Number of Bedrooms</u>	<u>Time Period/Parking Counts</u>			
			<u>6:00AM</u>	<u>10:00AM</u>	<u>5:00PM</u>	<u>8:00PM</u>
667 Congress Street	139 apartment units	147 beds	66 vehicles	39 vehicles	37 vehicles	57 vehicles
Parking Space Rate/Bedroom	-	-	0.44 spaces/bedroom	0.26 spaces/bedroom	0.25 spaces/bedroom	0.39 spaces/bedroom

The existing 667 Congress Street apartment building has a total of 139 apartment units that includes (34) efficiency units, (97) one-bedroom units and (8) two-bedroom units, which results in a total of 147 bedrooms. A total of 83 parking spaces are provided on-site with 3 spaces reserved for Joe's Smoke Shop leaving a balance of 80 spaces reserved for building tenants.

The results of the survey show a total of 66 of the 80 parking spaces were occupied at 6:00 a.m. and a descending number of spaces were occupied during the remaining three noted time periods, with a total of 39 spaces occupied at 10:00 a.m., 37 spaces at 5:00 p.m. and 57 spaces at 8:00 p.m. Peak parking demand ratios were determined for each of the four study times. The highest parking ratio of **0.44** spaces/bedroom occurs at 6:00 a.m. with lower values calculated for the remaining hourly time periods.

The peak parking demand value of 0.44 spaces per bedroom measured at the 667 Congress Street apartment building compares very closely with the national parking demand value of 0.48 spaces per bedroom for a market rate residential apartment unit. Accordingly, the peak parking demand requirement of the proposed 200 Federal Street residential apartment building is based upon the higher national parking demand rate of **0.48** spaces per bedroom unit and, combined with the limited number of parking spaces required by the proposed 27 workforce apartment units, results in a total parking space requirement of **125** spaces.

PARKING SUPPLY

The Applicant, will meet the average peak parking demand requirements of the proposed Federal Street mixed-use project through parking lease agreements with nearby parking garages and/or surface lots. Signed agreements will be forthcoming under separate cover.

SUMMARY

1. The proposed 200 Federal Street 18-story residential apartment building will provide a total of 239 market rate and 27 affordable workforce residential apartment units for a combined total of 266 apartment units. The proposed mix of residential units includes: 118 studio units, 146 one-bedroom units and 2 two-bedroom units.
2. National peak parking demand rates presented in the most current copy of the Institute of Transportation Engineers "**PARKING GENERATION**" publication suggests a market rate apartment unit in a multi-story building generates a peak parking demand of 0.48 spaces per bedroom. The same publication provides a parking demand rate of 0.30 spaces for an affordable workforce apartment unit. The proposed residential apartment building is forecasted to generate a peak parking demand of **125** parking spaces.
3. A parking survey was conducted at the existing 667 Congress multi-story residential apartment building to establish a local parking demand metric unique to the peninsular section of the City of Portland. The existing 667 Congress Street apartment building, with a total of 139 apartment units, provides a total of 80 parking spaces for tenants of the building. The mix of apartment units yields a total of 147 bedrooms. The parking survey was conducted on July 10, 2019 during four time periods: 6:00 a.m., 10:00 a.m., 5:00 p.m. and 8:00 p.m. A total of 66 of the 80 parking spaces were found occupied at 6:00 a.m. and lower occupancy values were recorded for the remaining three study times. The local peak parking demand rate measured at the 667 Congress Street apartment building is 0.44 spaces per unit (66 occupied spaces ÷ 147 bedrooms = 0.44 spaces per bedroom.)
4. Traffic Solutions has applied the higher national peak parking demand rate of 0.48 spaces/bedroom in determining the peak parking demand requirements of the proposed apartment project, which results in a total parking requirement of **125** spaces.
5. The Applicant, will meet the average peak parking demand requirements of the proposed Federal Street mixed-use project through parking lease agreements with nearby parking garages and/or surface lots.





Traffic Solutions
William J. Bray, P.E.
17 Mountview Drive
Gorham, ME 04038
(207) 400-6890
trafficsolutions@maine.rr.com

December 7, 2020

Thomas A. Errico, P.E.
Senior Associate-Traffic Engineering Director
T.Y. Lin International, Inc.
12 Northbrook Drive
Falmouth, Maine 04105

RE: #200 Federal Street – Traffic Demand

Dear Tom:

For your review and further direction, we are submitting peak hour trip projections for the proposed 200 Federal Street apartment building project. The peak hour trip generation projections are based upon the latest building design that includes a total of 266 residential apartments and a 1,950 square foot retail space. The proposed building is 18-stories high with a total building area of 192,675 square.

The trip estimates generated by the proposed residential apartment units are based upon trip rates presented in the 10th edition of the Institute of Transportation Engineers **TRIP GENERATION** publication. Specifically, we are applying trip rates presented for Land-Use #222: Multifamily Housing (High-Rise) for a “Dense Multi-Use Urban” condition. The following peak hour trip rates were utilized:

Weekday AM Peak Hour (Street)	= 0.21 trips/dwelling unit
Weekday PM Peak Hour (Street)	= 0.19 trips/dwelling unit
Weekday AM Peak Hour (Generator)	= 0.21 trips/dwelling unit
Weekday PM Peak Hour (Generator)	= 0.20 trips/dwelling unit
Saturday Peak Hour (Generator)	= 0.17 trips/dwelling unit
Sunday Peak Hour (Generator)	= 0.19 trips/dwelling unit

Table 1, below, presents the trip forecasts for each of the designated peak hour time periods.

Table 1
Peak Hour Trip Forecasts
200 Federal Street Apartment Building

<u>Peak Hour Time Period</u>	<u>Trip Rate</u>	<u>Total Trips</u>	<u>Entering Trips</u>	<u>Exiting Trips</u>
AM Peak Hour (Street)	0.21 trips/dwelling	56	7	49
PM Peak Hour (Street)	0.19 trips/dwelling	51	36	15
AM Peak Hour (Generator)	0.21 trips/dwelling	56	6	50
PM Peak Hour (Generator)	0.20 trips/dwelling	53	35	18
Saturday Peak Hour (Generator)	0.17 trips/dwelling	45	20	25
Sunday Peak Hour (Generator)	0.19 trips/dwelling	51	27	24

The proposed 1,950 square foot retail space, located on the first floor of the proposed building, is expected to be a "low trip generating business appealing to those already living or working downtown." As such, we are conservatively assuming perhaps five additional peak hour trips will be generated by the proposed retail space. Combining the peak hour trip projections prepared for the residential apartments with the additional trips generated by the retail space, the proposed project is expected to generate 61 or fewer peak hour trips during any of the defined peak hour time periods.

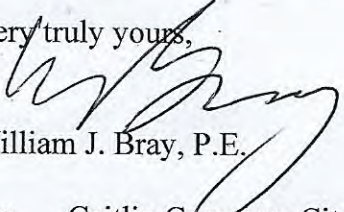
The Maine Department of Transportation's Chapter 305: Rules and Regulations Pertaining to Traffic Movement Permits requires: "any project including single and mixed-uses which generates 100 or more passenger car equivalent trips during peak hour of traffic generation, must file a Traffic Permit application." Accordingly, the proposed residential development project does not require a MaineDOT Traffic Movement Permit.

Your traffic comments included in the Staff Comment document requests information related to the parking supply source meeting the projected parking demand requirements of the proposed project. Please find attached a copy of a License Agreement for 125 parking spaces at the Chestnut Street parking garage.

I am hopeful that the information provided in this letter addresses your initial comments and that you will be able to provide direction on the traffic study requirements of the proposed project. We will be preparing the separate queuing analysis for the Congress Street/Temple Street intersection and will submit the results early in the month of December.

Thank you, Tom, we look forward to your response and direction.

Very truly yours,


William J. Bray, P.E.

Cc: Caitlin Cameron, City of Portland Urban Designer

LICENSE AGREEMENT

This License Agreement, effective as of June ____, 2020 (the “Effective Date”), is made and entered into by and between **CHESTNUT STRET GARAGE, LLC**, a Maine limited liability company with an address of [_____] (the “Licensor”) and **Redfern Downtown LLC**, a Maine Limited Liability Company with an address of PO Box 8816, Portland Maine 04104 (the “Licensee”).

WHEREAS, Licensor is the owner of the three condominium units comprising the Chestnut Street Parking Condominium, established by the Declaration of Chestnut Street Parking Condominium dated June 29, 1988 and recorded in the Cumberland County Registry of Deeds in Book 8355, Page 105, as amended (the “Parking Facility”);

WHEREAS, Licensee is the owner of certain property adjacent to the Parking Facility, which it intends to develop into a residential property;

WHEREAS, the Parking Facility is managed by United Parking Partners (the “Management Company”); and

WHEREAS, Licensor is willing to grant to Licensee a license to use 125 parking spaces in the Parking Facility, on the terms set forth herein.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. Use of the Parking Facility. Licensor grants Licensee the limited license to the use of one hundred twenty five (125) parking spaces for the parking of motor vehicles in the Parking Facility (the “Licensed Parking Spaces”). Licensee acknowledges that the Licensed Parking Spaces are guaranteed but not reserved or designated and are to be used in common with other users of the Parking Facility. Notwithstanding the foregoing, Licensor shall be permitted to designate the specific location of all or a portion of the Licensed Parking Spaces by giving thirty (30) days prior written notice of Licensee. Additionally, Licensor grants Licensee the limited license to use three (3) Americans With Disabilities Act (“ADA”) compliant spaces in the Parking Facility, consisting of two (2) standard ADA spaces and one (1) van size space (the “Licensed ADA Spaces”). The Licensed ADA Spaces shall be designated spaces, which location shall be determined by Licensor prior to the Commencement Date. The Licensed Parking Spaces and the Licensed ADA Spaces may not be re-licensed by Licensee to third-parties without Licensor’s prior written consent. Licensee’s interest in this License may not be assigned or sublet without Licensor’s prior written consent.

2. Construction of Licensed ADA Spaces. Prior to the Commencement Date, Licensor shall install the Licensed ADA Spaces on the second floor of the Parking Facility, including re-striping an entire section of the Parking Facility, striping the Licensed ADA Spaces, and installing property signage (the “ADA Installation Work”). The ADA Installation Work, including any and all design, permitting, and other modifications or work necessitated by the

installation of the Licensed ADA Spaces shall be made at Licensee's sole cost and expense, which expenses shall be reimbursed to Licensor within thirty (30) days of Licensor's submission of invoices and other reasonable evidence of such expense to Licensee.

3. Compliance with Law. Licensee shall at all times ensure that its use of the Licensed Parking Spaces and Licensed ADA Spaces is in compliance with all federal, state and local laws and regulations.

4. Key Access Cards. Licensor shall provide up to one hundred twenty five (125) key access cards in total to Licensee. Licensee shall be responsible for the issuance of the key cards to its residents and Licensee shall provide Licensor and the Management Company with a completed and executed Parking Garage Registration Form providing such information as Licensor shall reasonably request. Licensee shall further notify Licensor of any changes in the identities of individuals provided access cards and of any changes to any vehicles provided access to the Parking Facility within seven (7) days of said changes. If Licensor is requested to issue a replacement key access card for any reason, then Licensee agrees to pay Licensor the sum of fifteen dollars (\$15.00) for each replacement key access card issued.

5. Security for Key Access Cards. Prior to the Commencement Date, Licensee shall pay to Licensor the sum of One Thousand Two Hundred Fifty Dollars (\$1,250.00) as a security deposit for one hundred twenty five (125) key access cards. The security deposit shall be refunded within fifteen (15) days from the date Licensee returns all one hundred twenty five (125) key access cards to Licensor. Licensee agrees that Licensor may withhold from the refund the sum of [REDACTED] for each key access card not returned within five (5) days from expiration or termination of this Agreement.

6. License Fee. Licensee shall pay the Base License Fee on a monthly basis, in advance on or before the first day of each month. The "Base License Fee" shall be calculated as follows:

For the Licensed Parking Spaces: The Base License Fee for the Licensed Parking Spaces shall be a monthly fee per Licensed Parking Space, as follows:

Term Year	Monthly Base License Fee Per Space	Number of Licensed Parking Spaces	Total Monthly Base License Fee	Total Annual Base License Fee
Year 1	[REDACTED]	125	[REDACTED]	[REDACTED]
Year 2	[REDACTED]	125	[REDACTED]	[REDACTED]
Year 3	[REDACTED]	125	[REDACTED]	[REDACTED]
Year 4	[REDACTED]	125	[REDACTED]	[REDACTED]
Year 5	[REDACTED]	125	[REDACTED]	[REDACTED]
Year 6-10	The Base License Fee will reset at the beginning of the sixth year of the Term and be subject to increase at the then published rates for the Parking Facility, at Licensor's sole discretion, but in no event shall the Base License Fee be less than [REDACTED] or more than [REDACTED] per month per parking			

	space. In Term Years 7 through 10, the Base Licenses Fee shall increase each year by [REDACTED] per space per month over the Base License Fee of the Prior Year.
--	--

For the Licensed ADA Spaces: The Base License Fee for the Licensed ADA Spaces shall be a monthly fee per ADA Space plus those spaces lost to create the ADA Spaces (the “Lost Spaces”). The number of Lost Spaces will be determined upon completion of the construction of the ADA Licensed Spaces. The monthly Base License Fee per space shall be as follows:

Term Year	Monthly Base License Fee Per Space Licensed ADA Space and Lost Space
Year 1	[REDACTED]
Year 2	[REDACTED]
Year 3	[REDACTED]
Year 4	[REDACTED]
Year 5	[REDACTED]
Year 6-10	The Base License Fee for the ADA Spaces will reset at the beginning of the sixth year of the Term and be subject to increase at the then published rates for the Parking Facility, at Licensors’s sole discretion but in no even shall the Base License Fee be less than [REDACTED] or more than [REDACTED] per month per parking space. In Term Years 7 through 10, the Base Licenses Fee shall increase each year by [REDACTED] per space per month over the Base License Fee of the Prior Year.

Any monthly Base License Fee not received by Licensors by the fifth (5th) day of the month, shall be considered late and a late fee of 5% shall be added to the monthly Base License Fee which sums shall be promptly payable by Licensee.

7. Term. The term of this Agreement shall be for ten (10) years, commencing _____ (the “Commencement Date”) and terminating on _____. This license for shall be non-terminable by Licensee throughout the term of the Agreement.

8. No Bailment. No bailment is created by this Agreement. Licensors shall not be responsible for any damage to, or loss to any of vehicles parked using the Parking Facility under this Agreement, or any component parts thereof or personal property in such vehicles, other than damage or loss directly and solely caused by Licensors. VEHICLES SHALL BE LOCKED AND LICENSORS SHALL NOT BE RESPONSIBLE FOR ANY THEFT OF THE VEHICLE OR ITS CONTENTS OR ANY LOSS OR DAMAGE RESULTING FROM LEAVING KEYS IN THE VEHICLE. This policy may not be rescinded or modified by any Licensors employee, and Licensee acknowledges that the Licensors's employees are not authorized to accept responsibility for storing or safeguarding any vehicles or personal property located therein. Licensee shall be responsible for any damage to the Parking Facility as a result of this Agreement.

9. Release. It is understood and agreed between the parties hereto that Licensor will not be responsible for any damage or loss to vehicles or personal property belonging to Licensee or its employees other than as a result of the gross negligence or intentional misconduct of Licensor or its agents or employees. Licensee hereby indemnifies and holds harmless Licensor from any and all liability claims by Licensee or its employees, agents and invitees that is not in compliance with this Paragraph. Licensee, for itself and its employees, agree that the use of the Garage by Licensee and its employees shall be at its and their own risk.

10. Renovations, Alterations, Improvements, Repairs and Demolition. Licensor shall keep and maintain the Parking Facility in good and clean order and repair, including but not limited to the interior, exterior, foundations, floors, walls, ceilings and lighting thereof. Licensor may make, from time to time, such renovations, alterations, improvements, or repairs to the Parking Facility as Licensor deems advisable. Licensor shall use its commercially reasonable efforts to minimize any disruption of access to the Licensed Parking Spaces and Licensed ADA Spaces during any such renovations, alterations, improvements, or repairs. Licensor reserves the rights, and Licensee expressly acknowledges Licensor's right, to close all or a portion of the Parking Facility, from time to time, and for so long as, in Licensor's reasonable discretion, is necessary for the repair, maintenance, cleaning, renovation, alteration, improvement, construction, restoration or replacement of the Parking Facility. There shall be reduction in the Base License Fee in the event of any unavailability of parking spaces due to such activities.

11. Notices. Any notices which are required hereunder or which either Licensor or Licensee may desire to serve upon the other party shall be in writing and shall be deemed served when delivered personally, or when deposited in the United States Mail, postage prepaid, return receipt requested, addressed as follows:

If to Licensor:

Chestnut Street Garage, LLC

Attn: Drew Sigfridson

With a copy to:

Exchange Street Partners

Attn: Kristen Robichaud

If to Licensee:

ATTN: _____

12. Default. Licensee shall be in default hereunder if it shall fail to perform any of the obligations stated herein within fifteen (15) days after receipt of notice of such failure. Upon such default, Licensors shall have the right at its option, and in addition to any other remedies, to terminate this Agreement by giving Licensee a written default notice and upon the giving of such notice, this Agreement and the term hereof at the option of Licensors shall cease. If this Agreement is terminated due to default of Licensee, Licensee shall remain liable to Licensors for all payments hereunder accrued and unpaid up to the date of such termination. In addition, Licensee shall be responsible for the Base License Fee for the Licensed Parking Spaces and the Licensed ADA Spaces for the balance of the term of this Agreement.

13. Casualty/Eminent Domain/Termination. In the event that the Parking Facility is damaged or destroyed by fire or other casualty, in whole or in part, then Licensors, at its option, may terminate this Agreement upon ten (10) days written notice to Licensee. Licensee shall have no right to terminate this License in the event of such damage or destruction unless as a result thereof, Licensors is unable to provide Licensee with the Licensed Parking Spaces and Licensed ADA Spaces.

14. Subordination. This Agreement is and shall be subject in subordinate in all respects to all mortgages which may now and hereafter affect the property.

15. Estoppel. Licensee agrees, at any time, and from time to time, upon not less than ten (10) days prior request by Licensors, to execute, acknowledge and deliver to Licensors a statement in writing certifying the following information with respect to this Agreement (a) the term of the respective Agreement; (b) the monthly Base License Fee then payable hereunder and thereunder and the date to which such amounts have been paid; (c) that this Agreement is unmodified and in full force and effect (or, if there have been modifications, stating the modifications, and that the respective agreement as modified is in full force and effect), (d) that this Agreement represents the entire agreement between the parties as to parking in the Parking Facility; (e) there are no existing defenses or offsets which Licensee has against the enforcement of this Agreement by Licensors except as set out by Licensee; (f) that there is no default under this Agreement (or specifying what provision is in default); and (g) such other information as Licensors shall reasonably request. It is the intent of the parties that any such statement delivered pursuant to this Section may be relied upon by any prospective purchaser of, any prospective holder of a mortgage upon the Parking Facility.

16. Interruption/Maintenance. Licensors shall not be liable under any circumstances for interference with Licensee's business including, without limitation, loss profits, however occurring, through or in connection with or incidental to any acts or omissions of Licensors. Licensors reserves the right to periodically and temporarily close any portion of the Parking Facility upon prior notice to Licensee for maintenance and/or construction, except that no notice shall be required in the event of an emergency.

17. Amendment. This Agreement may be modified or amended by the mutual consent of the parties hereto; provided, however, that no such modification or amendment to this

Agreement shall be binding unless in writing and signed by both parties.

18. Rules and Regulations. Licensee agrees to abide by all posted or published rules and regulations now or hereinafter in effect pertaining to use of the Parking Facility and agrees to save hold harmless and indemnify Licensor for any expense or damage as a result of any violation thereof, including towing expense of those vehicles parked by customer which obstruct vehicles of other parkers including vehicles of facility owner and/or its employees.

19. Assignment. Licensor may assign its interest under the License Agreement at any time during the term of the Agreement.

20. Attorney's Fees. In the event of any dispute arising out of or in connection with this Agreement, the non-prevailing party agrees to reimburse the prevailing party for its reasonable attorney's fees and costs.

21. Conflict. During the term of this Agreement, the terms hereof shall control any contrary terms in the Reciprocal Agreement. To the extent that the terms of the Reciprocal Agreement are not in conflict with the Reciprocal Agreement, those terms shall continue in full force and effect.

22. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Maine.

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IN WITNESS WHEREOF, the parties have caused this License Agreement to be executed by their duly authorized officers or members as of the day and year first above written.

LICENSOR:

**CHESTNUT STREET GARAGE,
LLC**

**By: Exchange Street Partners, LLC,
its Manager**

By: Drew Sigfridson
Its: Manager

LICENSEE:

Redfern Downtown LLC

By: _____
Name:
Its:



Traffic Solutions
William J. Bray, P.E.
17 Mountview Drive
Gorham, ME 04038
(207) 400-6890
trafficsolutions@maine.rr.com

April 20, 2021

Peter Heil, P.E. CPESC, Project Manager,
Acorn Engineering, Inc.
P.O. Box 3372
Portland, Maine 04104

RE: #200 Federal Street – Weekend Parking Demand

Dear Pete:

This letter provides written response to the Portland Planning Board and Staff Review request for additional parking demand information for the proposed project. Specifically, it is my understanding Staff and Planning Board requested parking demand values for a typical Saturday and Sunday. You will recall the Parking Assessment report completed on October 6, 2020 was developed for a typical weekday condition. The “average” peak parking demand for the proposed project was based upon parking rate data presented in the 5th edition of the Institute of Transportation Engineers (ITE) “**PARKING GENERATION**” publication. This edition of the **PARKING GENERATION** manual, published in January 2019, is the most current copy of the publication. Land-Use #221 - Multi-Family Housing (Mid-Rise), which is generally reserved for buildings between three and 10 floors, was used to forecast the parking demand requirements of the proposed project. Parking data presented in the ITE report for a high-rise building is very limited; in that, the majority of the parking rates for the high-rise building are based upon a single data point (study), limiting their accuracy in projecting parking demand for the proposed project. The earlier October, 2020 Parking Assessment report applied a peak parking demand rate of 0.48 spaces per bedroom in forecasting the peak parking demand requirements of the proposed project for a typical weekday. This weekday peak parking rate was based upon a total of 50 separate studies; therefore, the parking demand projection presented in the earlier report is viewed as an accurate assessment of the peak parking demand of the proposed project with a high level of confidence. The same mid-rise building category (*dense multi-use urban, no nearby rail transit*) has very limited peak parking demand data for a Saturday and/or Sunday. Zero data was provided for a Saturday and a rate of one space per bedroom was provided for a Sunday, which was based upon a single parking survey.

Traffic Solutions conducted an on-site parking survey at the existing Chestnut Street parking garage on November 21, 2019 at 4:30 a.m. to establish the occupancy level of the garage in the early morning hours of a typical weekday. A total of 25 vehicles were observed in the 460-space

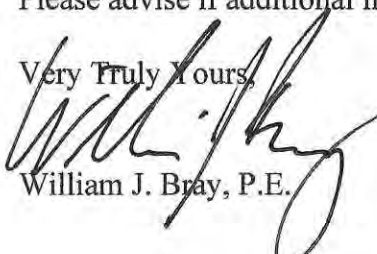
garage or approximately a 5% occupancy rate at that time. Anecdotally, a similar parking occupancy rate or, perhaps even lower, is expected for both a Saturday and Sunday.

The Chestnut Street parking garage clearly has more than sufficient parking spaces to accommodate the peak parking demand of the proposed 200 Federal Street apartment tower project for a typical weekday and/or a Saturday or Sunday. Redfern Downtown, LLC understands the critical importance of meeting the peak parking demand requirements of the proposed project and is committed to providing the necessary number of spaces in meeting that demand.

An optional approach in predicting the peak parking demand requirements of the project for a Saturday or Sunday would be to perform a limited study at the existing 667 Congress Street apartment building in the early hours of both days. An earlier parking study conducted on July 10, 2019 at this location provided parking demand results very similar to the ITE parking demand rate applied in predicting the parking demand requirements for a typical weekday.

Please advise if additional information or clarification is required.

Very Truly Yours,


William J. Bray, P.E.

April 21, 2021

Mr. Jonathan Culley
Redfern Downtown LLC
PO Box 8816
Portland Maine 04104

Re: Chestnut Street Parking Garage

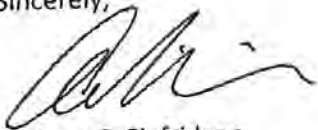
Dear Jonathan,

This letter shall serve to confirm our agreement that the ownership and management of the Chestnut Street Garage is planning for managing demand and committing to have up to 125 parking spaces available for lease by the time 200 Federal Street is completed and ready for occupancy.

It is our anticipation that the leasing terms shall be substantially similar to the attached draft licensing agreement and will go into effect in 2024.

Please contact us with any other questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'A. Sigfridson', with a stylized flourish at the end.

Andrew C. Sigfridson
Manager, Chestnut Street Garage LLC



Traffic Solutions
William J. Bray, P.E.
17 Mountview Drive
Gorham, ME 04038
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trafficsolutions@maine.rr.com

April 21, 2021

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RE: #200 Federal Street – Current Roadway Safety Evaluation

Dear Pete:

The Maine Department of Transportation's (MaineDOT) Office of Safety provided a Crash Summary Report for the project study area encompassing the following street segments:

- Chestnut Street – Lancaster Street to Congress Street
- Lancaster Street – Chestnut Street to Pearl Street
- Oxford Street – Chestnut Street to Pearl Street
- Congress Street – Chestnut Street to Temple Street
- Temple Street – Congress Street to Federal Street
- Federal Street – Temple Street to Exchange Street

Their safety report includes the most current three-year safety data (2018 through 2020) for the defined study area.

The following Table 1 provides a summary of the road safety report:

Table 1

2018 -2020 Traffic Accident Summary

<u>Location</u>	<u>Total Crashes</u>	<u>Critical Rate Factor</u>
1. Chestnut Street @ Congress Street	4	0.88
2. Chestnut Street @ Cumberland Avenue	7	1.74
3. Chestnut Street @ Lancaster Street	2	1.02
4. Lancaster Street @ Pearl Street	2	0.80
5. Pearl Street @ Oxford Street	2	0.86
6. Congress Street @ Temple Street	4	0.25
7. Federal Street @ Temple Street	5	1.41
8. Federal Street @ Exchange Street	1	0.67

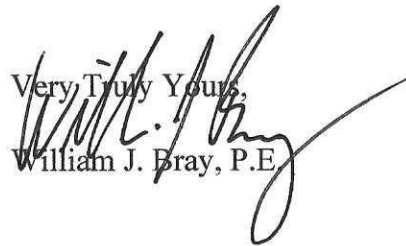
9. Chestnut Street btw. Congress Street and Cumberland Avenue	3	1.71
10. Chestnut Street btw. Cumberland Avenue and Oxford Street	4	2.16
11. Chestnut Street btw. Oxford Street and Lancaster Street	3	1.62
12. Lancaster Street btw. Pearl Street and Garage Ent.	2	1.62
13. Lancaster Street btw. Garage Ent. And Chestnut Street	2	1.62
14. Oxford Street btw. Chestnut Street and Stone Street	3	8.14
15. Congress Street btw. Chestnut Street and Temple Street	3	0.94
16. Federal Street btw. Temple Street and Exchange Street	2	1.17

The MaineDOT considers any roadway intersection or segment a high crash location if both of the following criteria are met:

- ***8 or more accidents***
- ***A Critical Rate Factor greater than 1.00***

As the data presented in the table shows, there are no reported high crash locations within the defined study area.

Please advise if additional information or clarification is required.

Very Truly Yours,

 William J. Bray, P.E.



Traffic Solutions
William J. Bray, P.E.
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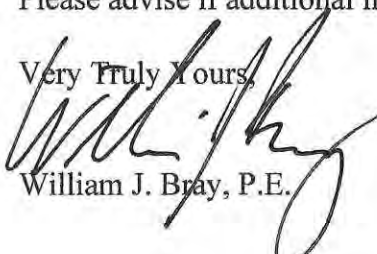
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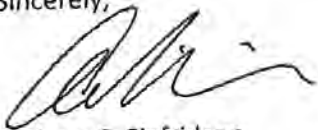
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Andrew C. Sigfridson
Manager, Chestnut Street Garage LLC



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April 21, 2021

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

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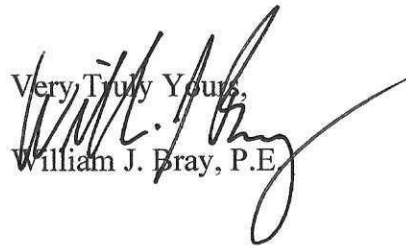
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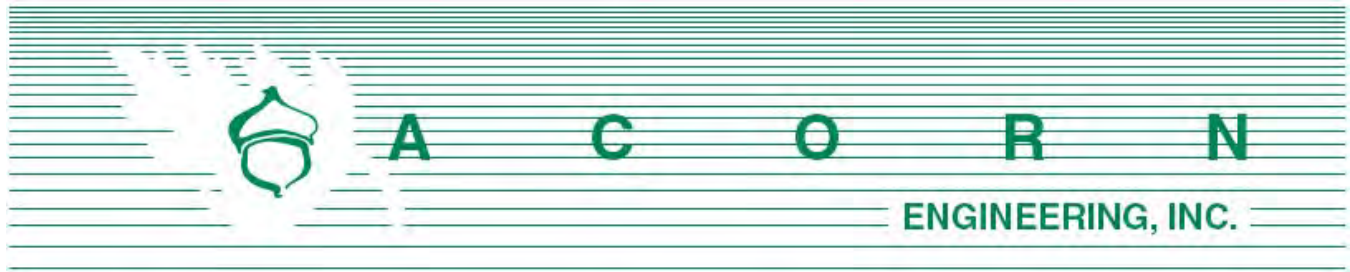
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Please advise if additional information or clarification is required.

Very Truly Yours,

 William J. Bray, P.E.



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

November 19, 2020

Subject: 200 Federal Street (PL-1235-2020) Neighborhood Meeting

I, Will Savage, hereby certify that a remote neighborhood meeting was held on November 18, 2020 via Zoom at 5:30 pm.

I also certify that on November 2, 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.

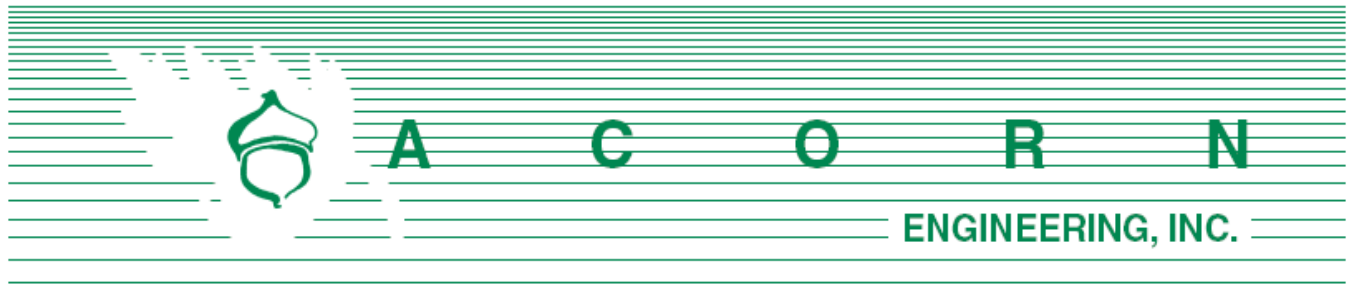
Sincerely,

A handwritten signature in black ink, appearing to read 'Will Savage', is written over a light blue horizontal line.

Will Savage, P.E.
Principal-Project Manager
Acorn Engineering, Inc.

Included with this certification are as follows:

1. Copy of the invitation sent
2. Attendee sign-in sheet
3. Meeting Minutes



Dear Neighbor:

October 21, 2020

On behalf of Redfern Downtown LLC, we are pleased to invite you to a virtual neighborhood meeting to discuss a proposed Level III Site Plan/Subdivision Application related to the property located at 201 Federal Street W (Chart 32, Block G, Lot 1). The project proposes to redevelop a portion of the existing lot into an 18-story residential building with ground level retail & 266 rental apartments, including 27 onsite Workforce Housing Units as required by the City's Inclusionary Zoning Ordinance.

Meeting: Held **remotely & recorded via Zoom** according to state and local requirements regarding social distancing and will be available for public viewing and participation. **To attend, please email admin@acorn-engineering.com to request a link or phone number to join the meeting.** You may also call the office line (listed below) to request this information.

Date/Time: Wednesday, November 18, 2020 at 5:30 p.m.

The City code requires that property owners within 500 feet of the proposed development and residents on an "interested parties list" be invited to participate in a neighborhood meeting. Both the sign-in sheet and recorded meeting minutes will be submitted to the Planning Board. If you have any questions, please do not hesitate to call the office at (207) 775-2655. We look forward to seeing you at the meeting.

Sincerely,

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

Sign-In Sheet

11/18/2020

200 Federal Street Portland, ME 04101

Level III Site Plan Neighborhood Meeting

Members of the Public in Attendance:

NAME

EMAIL

1. Sarah Hansen

shansen@portlandlandmarks.org

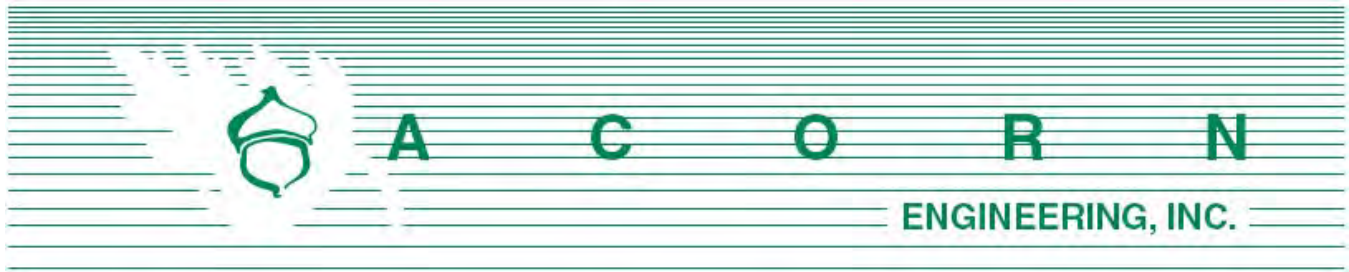
Developer and Consultant Team in Attendance:

NAME

EMAIL

1. Jonathan Culley – Redfern Properties
2. Catherine Culley – Redfern Properties
3. Ryan Senatore – Ryan Senatore Architecture
4. Will Savage – Acorn Engineering, Inc.
5. Faith Thomas – Acorn Engineering, Inc.

jonathan@redfernproperties.com
catherine@redfernproperties.com
ryan@senatorearchitecture.com
wsavage@acorn-engineering.com
fthomas@acorn-engineering.com



200 Federal Street Redevelopment Level III Site Plan/Subdivision

Neighborhood Meeting Minutes

November 18, 2020 / 5:30 pm

Remote meeting via Zoom

Project Team Attendees:

Jonathan Culley: Developer (Redfern Properties)

Catherine Culley: Developer (Redfern Properties)

Ryan Senatore: Architect (Ryan Senatore Architecture)

Will Savage: Civil Engineer (Acorn Engineering)

Faith Thomas: Civil Engineer (Acorn Engineering)

Meeting started at approximately 5:30 pm

With one attendee (Sarah Hansen), the floor was opened to questions and comments to start the meeting.

- **Sarah Hansen:** I'm interested to see if there are any changes in the project, and if there are any concerns you've heard from others? I'd like to see more modern architecture. I do not think Portland needs to stick to the high use of brick.

Jonathan Culley:

- We have looked at multi-family buildings on the east coast as part of the design. The building is located in the Old Port, and we want to incorporate features from the Old Port into the design. That is what makes the building special and appealing.
- Multi-family building shapes and dimensions are challenging, Overview of Zoning.
 - o Stepback at three stories.
- Goals for the architecture.
 - o Distinct base, body, and cap
 - o Durable materials you find in the Old Port. We do not want this building to feel out of place
- There are still more architectural aspects to design as part of this project

Ryan Senatore:

- Overview of design (thus far)
 - o Metal panel siding to pair with brick
 - o Lighting and shadows
 - o Glass bays
 - o Asymmetry
- Hopefully, we will have an update soon
- **Jonathan Culley:** We are trying to provide something different to implement a modern design while maintaining the Old Port feel.
- **Sarah Hansen:** I think the bays are very interesting, and the asymmetry plays nicely. There are a lot of different styles of buildings in the Old Port and this compliments the idea of development over time.
- **Ryan Senatore:** This is an interesting design where the building is located up close but also has a long view from places such as 295, South Portland and the harbor. What we are trying to set up with the asymmetry is the taller brick mass of the building that faces downtown, and it steps down toward city hall. From the long view the dark masonry will have a nice effect and the lighter material will help scale the building toward the east.
- **Jonathan Culley:** This is an update of where the project is currently at, thank you for coming.

Please note that the following questions and answers were not recorded verbatim and aim to represent and summarize the actual questions, answers, and discussion that took place at the meeting.

Meeting concluded at approximately 6:00 pm.

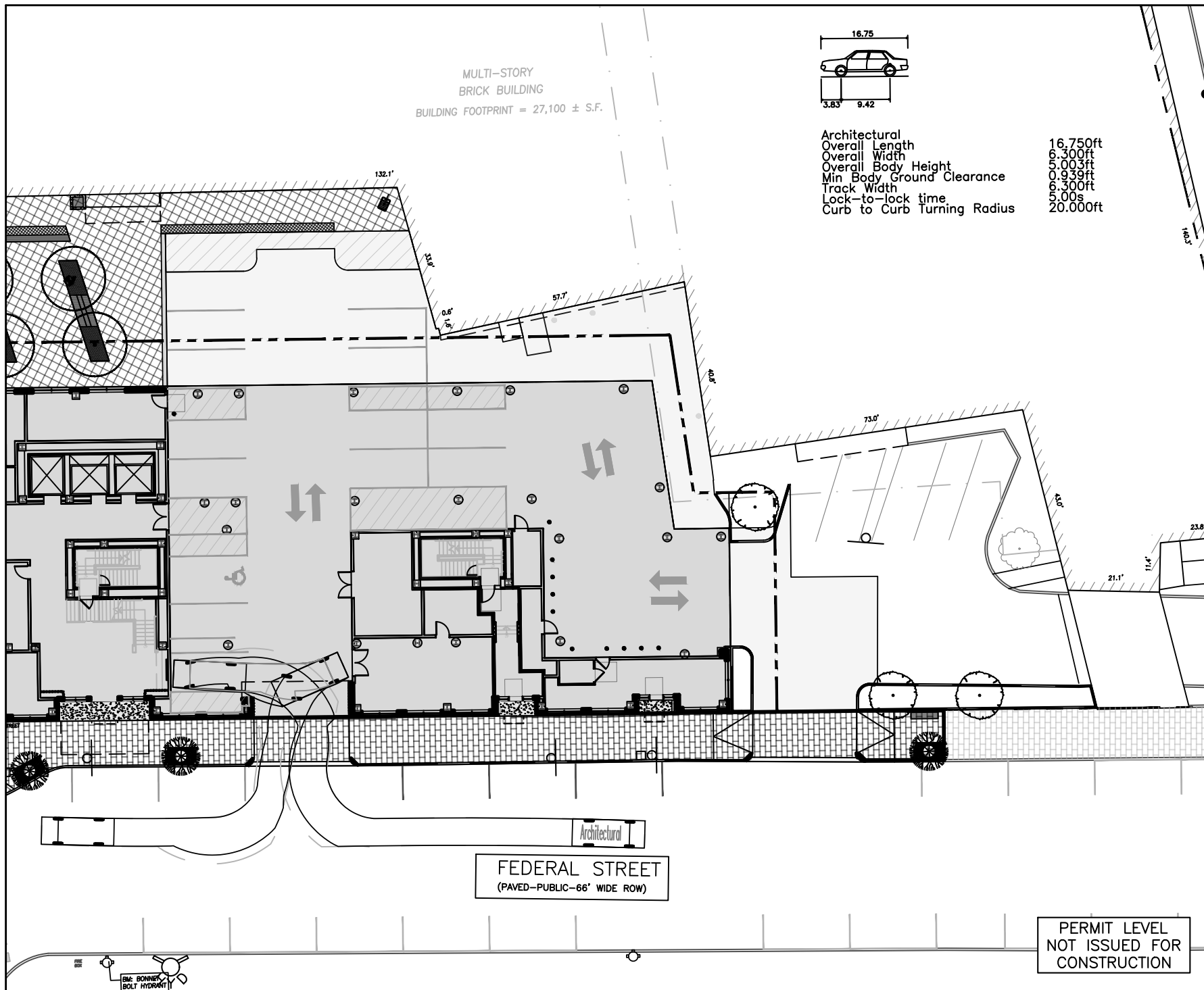
The abovementioned material was as interpreted and recorded from Zoom. Please note and relay any discrepancies or disputed information in the recorded minutes to the below address so that they can be reviewed, revised, and resubmitted, as necessary.

Recorded by,



Faith Thomas, E.I.
 Project Engineer
 Acorn Engineering, Inc.
fthomas@acorn-engineering.com





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CITY COMMENT	DATE
RESPONSE	PFH
	3/9/21

REV	DATE

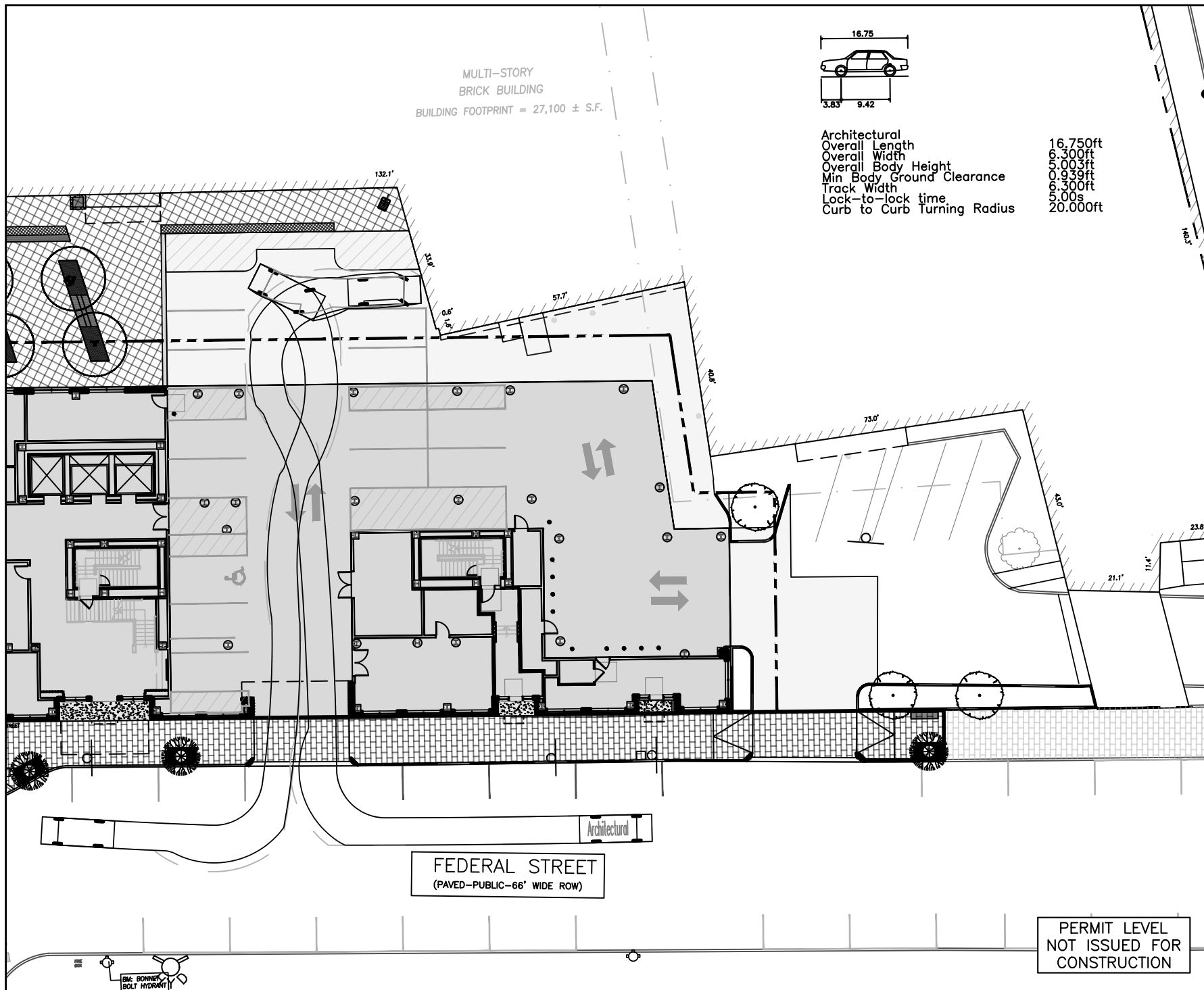
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PROJECT NAME:	FEDERAL STREET DEVELOPMENT
CLIENT:	REDFERN DOWNTOWN, LLC

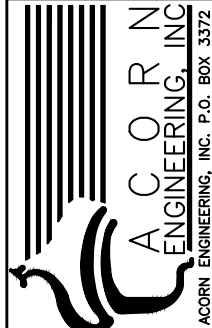


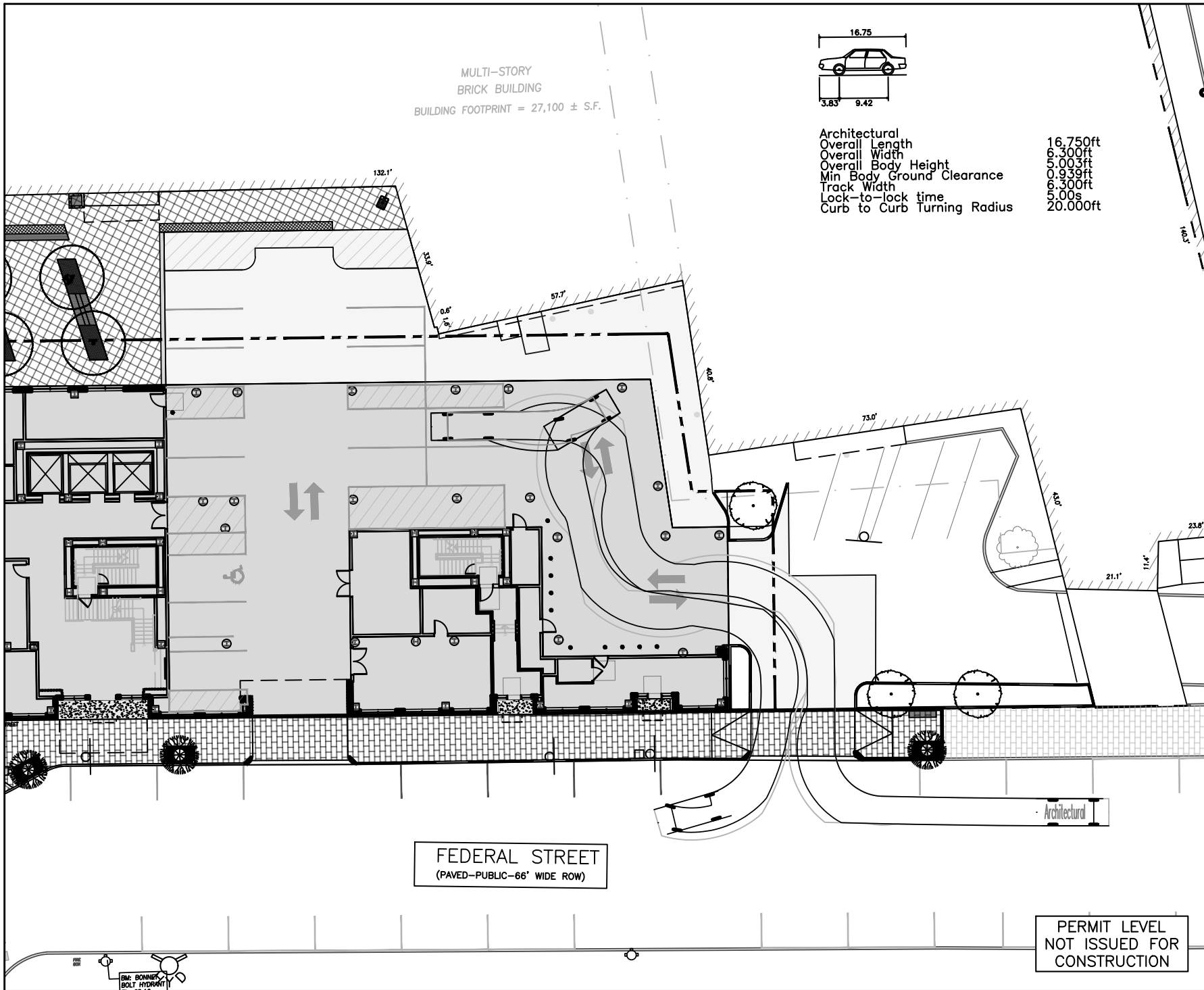
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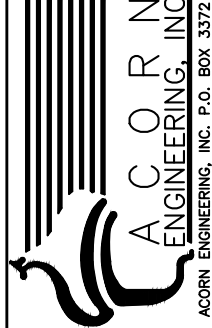
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	DATE
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PROJECT NAME:	FEDERAL STREET DEVELOPMENT
CLIENT:	REDFERN DOWNTOWN, LLC
 ACORN ENGINEERING, INC. ACORN ENGINEERING, INC. P.O. BOX 3372 PORTLAND, MAINE 04104 (207) 775-2855	
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	DATE
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PROJECT NAME:	FEDERAL STREET DEVELOPMENT
CLIENT:	REDFERN DOWNTOWN, LLC
 ACORN ENGINEERING, INC. ACORN ENGINEERING, INC. P.O. BOX 3372 PORTLAND, MAINE 04104 (207) 775-2855	
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DRAWING NO.	
VT-3	

STORMWATER DRAINAGE SYSTEM MAINTENANCE AGREEMENT

IN CONSIDERATION OF the site plan and subdivision approval granted by the Planning Board of the City of Portland to the proposed project located at 201 Federal Street W, Portland, Maine and shown on the Subdivision Plat recorded in the Cumberland County Registry of Deeds in Plan Book ___, Page ___ (the “Plan”) and associated Grading & Drainage Plan, last revised 5/4/21 prepared by Acorn Engineering, Inc. of P.O Box 3372, Portland, ME 04104 (hereinafter, the “Premises”) and pursuant to a condition thereof, Redfern Downtown, LLC, a Maine Limited liability company with a principal place of business in Portland, Maine, and having a mailing address of P.O. Box 8816, Portland, Maine 04104, the owner of the Premises, does hereby agree, for itself, its successors and assigns (the “Owner”), as follows:

Maintenance Agreement

Owner, its successors and assigns, will, at its own cost and expense and at all times in perpetuity, maintain in good repair and in proper working order the pervious pavers, catch basin, and storm drain pipes (hereinafter collectively referred to as the “stormwater system”) as shown on the Grading & Drainage Plan attached hereto as Exhibit B and in strict compliance with the approved Stormwater Inspection & Maintenance Plan and Stormwater Maintenance and Inspection Log, dated May 2021, copies attached as Exhibit A and C respectively and the annual inspection and reporting requirements of Chapter 32 of the Portland City Code.

Owner further agrees, at its own cost, to keep a Stormwater Maintenance and Inspection Log in the forms attached as Exhibit C. Such log shall be made available for inspection by the City of Portland upon reasonable notice and request.

This agreement is for the benefit of the City of Portland and all persons in lawful possession of the Premises and abutters thereto. The City of Portland and said persons in lawful possession may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction; further, that after giving the Owner written notice and a stated time to perform, the said City of Portland, by its authorized agents or representatives, may, but is not obligated to, enter upon said Premises to maintain, repair, or replace said stormwater system, including but not limited to the porous pavement, catch basins, storm drain pipes, underdrain pipes, and other drainage structures thereon in the event of any failure or neglect thereof, the cost and expense thereof to be reimbursed in full to the said City of Portland by the Owner upon written demand. Any funds owed to the City under this paragraph shall be secured by a lien on the property.

This Agreement shall not confer upon the City of Portland or any other person the right to utilize said stormwater system for public use or for the development of any other property. Except as may be required to comply with the terms of this Agreement, Owner shall bear no financial responsibility by virtue of this Agreement for enlarging the capacity of said system.

This Agreement shall also not be construed to allow any change or deviation from the requirements of the subdivision and/or site plan most recently and formally approved by the Planning Board of the City of Portland.

This agreement shall bind the undersigned only so long as it retains any interest in said Premises and shall run with the land and be binding upon the Owner's successors and assigns as their interests may from time to time appear.

The Owner shall record a copy of this Agreement in the Cumberland County Registry of Deeds within thirty (30) days of final execution of this Agreement. The Owner further agrees to provide a copy of this Agreement to any successor or assign and to forward to the City an Addendum signed by any successor or assign in which the successor or assign states that the successor or assign has read the Agreement, agrees to all its terms and conditions and the successor or assign will obtain and forward to the City's Department of Public Works and Department of Planning and Urban Development a similar Addendum from any other successor or assign.

For the purpose of this agreement and release "Owner" is any person or entity who is a successor or assign and has a legal interest in part, or all, of the real estate and any building. The real estate shown by chart, block and lot number in the records on file in the City Assessor's office shall constitute "the property" that may be entered by the City and lien if the City is not paid all of its costs and charges following the mailing of a written demand for payment to the owner pursuant to the process and with the same force and effect as that established by 36 M.R.S.A. §§ 942 and 943 for real estate tax liens.

Any written notices or demands required by the agreement shall be complete on the date the notice is attached to one or more doors providing entry to any buildings or residential units and mailed by certified mail, return receipt requested or ordinary mail or both to the owner of record as shown on the tax rolls on file in the City Assessor's Office.

If the property has more than one owner on the tax rolls, service shall be complete by mailing it to only the first listed owner. The failure to receive any written notice required by this agreement shall not prevent the City from entering the property and performing maintenance or repairs on the stormwater system, or any component thereof, or liening it or create a cause of action against the City.

[SIGNATURES ON FOLLOWING PAGE]

Dated at Portland, Maine this ____ day of _____, 2021.

[Owner]

STATE OF MAINE
CUMBERLAND, ss.

Name, title

Date: _____

Personally appeared the above-named _____, _____ of _____ and
acknowledged the foregoing instrument to be his/her free act and deed in his/her said capacity.

Before me,

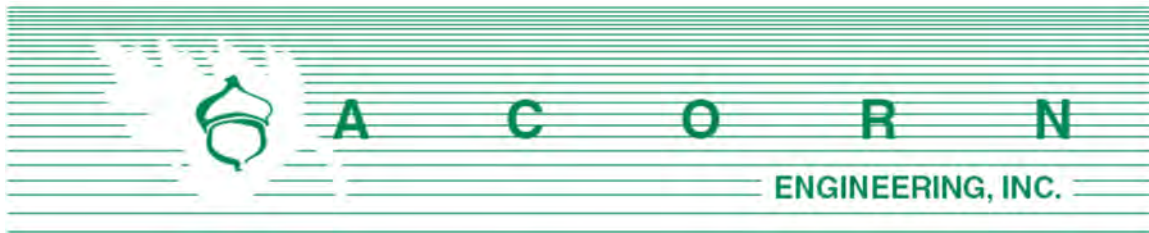
Notary Public/Attorney at Law

Print name: _____

Exhibit A: Stormwater Inspection & Maintenance Plan

Exhibit B: Grading & Drainage Plan

Exhibit C: Stormwater Maintenance and Inspection Log



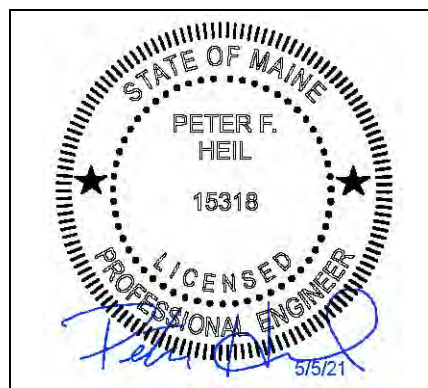
POST CONSTRUCTION - STORMWATER INSPECTION & MAINTENANCE PLAN

Prepared For:

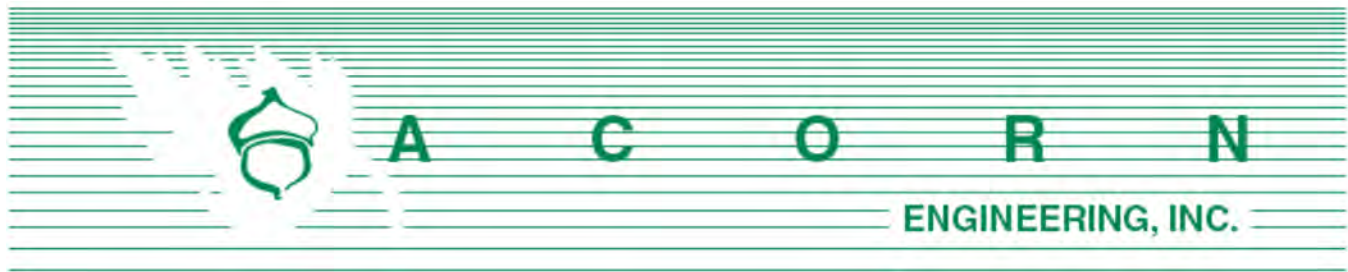
**Redfern Downtown LLC
dba Redfern Properties
PO Box 8816
Portland, ME 04104**

Prepared By:

**Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104**



May 2021



RESPONSIBLE PARTY

The owner, Redfern Downtown LLC, dba Redfern Properties, and or their successor shall be responsible for contracting with a qualified stormwater professional to implement the Inspection and Maintenance Plan. The qualified stormwater professional shall maintain a stormwater log (report) summarizing inspections, maintenance, and corrective action taken. The Qualified Stormwater Professional shall annually submit the Stormwater Log to the Department of Public Works prior to June 30th.

The following is an example of a qualified stormwater professional that the property owner may contract through.

Organization: Peter F. Heil, PE
Acorn Engineering, Inc
Portland, Maine

Phone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #15318
- Maine DEP - Certified Third Party Inspector
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #7071

The inspection and maintenance criteria is based upon the Maine DEP - Stormwater Management for Maine, Volume III: BMPs Technical Design Manual. Refer to the Grading and Drainage Plan for the location of the BMPs.

PURPOSE

This Inspection and Maintenance Plan has been individually tailored to this parcel's stormwater infrastructure, site characteristics, and their respective opportunities and limitations related to reducing the pollutant load on the receiving watershed. The maintenance of a parcel's impervious surfaces and stormwater infrastructure is critical to extending the long term performance and effectiveness of Best Management Practices (BMPs). The Inspection and Maintenance Plan represents the parcel's minimum activities to meet the permit requirements. The parcel shall still be subject to any applicable Civil Site Plans, Permit Applications, Erosion and Sedimentation Control Plans Reports, Stormwater Management Plans, and all Municipal, State, and Federal rules.

OPERATION AND MAINTENANCE ACTIVITY

Pervious Pavers:

The maintenance of the pervious pavers shall be in accordance with the following activities identified below and the most recent version of the Maine DEP Volume III BMPs Technical Design Manual Chapter 7.7 Manmade Pervious Surfaces. Pervious surfaces have the potential to become impervious if not properly maintained. The following need to be planned for and be met:

- Frequent inspections are performed during the first few months following construction. Then, the system is inspected routinely on an annual basis. Inspections should be made after significant storm events to check for surface ponding that could indicate failure due to clogging. Non-routine maintenance may require reconstruction of the surface treatment, and possibly the filter and reservoir layers, to relieve major clogging.
- Prevent sedimentation due to the erosion of areas upgradient the pervious pavement structures.
- Prevent vehicles with muddy wheels from accessing onto areas intended for pervious pavement.
- Sweep, vacuum and/or pressure wash pavement twice annually at a minimum.
- Limit salt use for deicing, and do not use sand.
- Remove leaves and organic debris in the fall.
- Measures should be taken to ensure that an area designed to be porous does not receive a future overlay of conventional non-porous paving.

Sweeping:

Annual sweeping of the pervious pavers following the snow melt, if necessary. Appropriately dispose of all collected material. This activity will largely function as preventative maintenance for the pervious pavers.

Storm Drains:

The storm drain shall be annually inspected for the presence of accumulated sediment or debris. Any sediment shall be removed as required.

- The equipment shall meet the following minimum specifications; power jet and water source for washing down the storm drain, vacuum attachment for catch basin cleaning, and a liquid handling method to dewater the material.
- Inspect and legally dispose of accumulated sediment and debris within the storm drains between basins. Liquids must be decanted on-site and returned to the catch basin.

Catch Basins:

The Catch basin shall be inspected to confirm the structure is operating properly.

- Inspect the presence of accumulated sediment or debris any sediment shall be removed. The equipment shall meet the following minimum specifications; power jet and water source for washing down the storm drain, vacuum attachment for catch basin cleaning, and a liquid handling method to dewater the material.

- Sediment shall be removed when accumulation is within 6 inches of the outfall pipe invert. Legally dispose of accumulated sediment and debris from the bottom of the basin, inlet grates, and inflow channels to the basin.
- Inspect the outlet hood and ensure that the watertight seal is functional.

Landscaped and Vegetated Areas:

Inspect all landscaped and or vegetated areas on an annual basis. Vegetated areas with bare areas or sparse growth (<90% coverage) shall be revegetated. Mulch shall be applied to landscaped areas, as necessary. Dead or decaying landscaping (ground cover, shrubs, trees etc.) shall be replanted in accordance with the approved Landscape Plan.

INSPECTION AND MAINTENANCE TABLE

Inspection and Maintenance Frequency	Spring or Yearly	Summer	Fall	As Necessary
Pervious Pavers	X		X	X
Sweeping	X			X
Storm Drains		X		X
Catch Basins		X		X
Landscaped Areas	X			X



MaineDOT - Stormwater Control BMP Inspection Log

PERVIOUS PAVERS BMP:							
Location: 201 Federal Street W, Portland ME 04101				Latitude: 43.6582 Longitude: -70.2573			
Description of Located Point: Pocket Park				Inspector: Date of Inspection: Weather Conditions:			
DOT Region:							
MATS Asset Number:		WIN:					
				Design Drawings: YES			
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Pervious Pavers							
Pervious Pavers retain the design volume for a drain down time greater than 24-hours and less than 48-hours	☒	☒	☐	☐ Yes ☐ No ☐ N/A			
Maintained in accordance with the manufacturer's specifications	☐	☒	☐	☐ Yes ☐ No ☐ N/A			
Treatment device is working properly and is free of debris and sediment	☐	☒	☐	☐ Yes ☐ No ☐ N/A			
Catch Basins / Field Inlets are working properly and free of debris and sediment	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
Basin outlet hood is working properly	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
The site is clean and swept	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
Underdrain network is functioning properly and free of sediment and debris	☐	☒	☐	☐ Yes ☐ No ☐ N/A			

MaineDOT - Stormwater Control BMP Inspection Log

Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
General							
Access to facility is adequate	☐	☒	☐	☐ Yes ☐ No ☐ N/A			
Photographs of most recent site inspection are included	☐	☒	☐				Photographs are attached.
Additional Comments:							

Stormwater Control BMP Inspection Log

CATCH BASINS:							
Location: 201 Federal Street W, Portland ME 04101				Latitude: 43.6582			
				Longitude: -70.2573			
Description of Located Point: Pocket Park / Parking Area				Inspector:			
				Date of Inspection:			
				Weather Conditions:			
Days since last precipitation:				Design Drawings: YES			
Quantity of last precipitation:							
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Catch Basins							
Catch basin is working properly and is free of debris and sediment	☒	☒	☒	☐ Yes ☐ No ☐ N/A			
Basin outlet hood (if any) is working properly.	☒	☐	☒	☐ Yes ☐ No ☐ N/A			
Inter-basin storm drain is functioning properly and free of sediment and debris.	☒	☐	☒	☐ Yes ☐ No ☐ N/A			
Catch basin sediment further than 6" from invert out. If closer	☒	☐	☒	☐ Yes ☐ No ☐ N/A			
No sign of illicit discharge is present	☒	☐	☒	☐ Yes ☐ No ☐ N/A			
General							
Access to facility is adequate	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
Photographs of most recent site inspection are included	☒	☐	☐				Photographs are attached.
Additional Comments:							

STORMWATER MAINTENANCE AND INSPECTION LOG

STORMWATER PIPE:							
Location: 201 Federal Street W, Portland ME 04101				Latitude: 43.6582			
				Longitude: -70.2573			
Description of Located Point: Pocket Park / Parking Area				Inspector			
				Date of Inspection:			
				Weather Conditions:			
Days since last precipitation:				MEDEP Permit #: N/A			
Quantity of last precipitation (in):				Design Drawings: YES			
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Inlets, Outlets, & Storm Drains							
Pipe is free of obstruction, accumulated sediment and debris	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
Pipe inlet and outlet is free of obstruction, accumulated sediment and debris	☒	☒	☐	☐ Yes ☐ No ☐ N/A			
Pipe, inlet and outlet is free of collapses and structural damage	☒	☒	☐	☐ Yes ☐ No ☐ N/A			
Outlet and inlet are properly conveying stormwater and no erosion is visible	☒	☒	☐	☐ Yes ☐ No ☐ N/A			
General							
Access to facility is adequate	☒	☒	☐	☐ Yes ☐ No ☐ N/A			
Photographs of most recent site inspection are included	☒	☒	☐				Photographs are attached.
Additional Comments:							

LICENSE AGREEMENT

This License Agreement, effective as of June ____, 2020 (the “Effective Date”), is made and entered into by and between **CHESTNUT STRET GARAGE, LLC**, a Maine limited liability company with an address of [_____] (the “Licensor”) and **Redfern Downtown LLC**, a Maine Limited Liability Company with an address of PO Box 8816, Portland Maine 04104 (the “Licensee”).

WHEREAS, Licensor is the owner of the three condominium units comprising the Chestnut Street Parking Condominium, established by the Declaration of Chestnut Street Parking Condominium dated June 29, 1988 and recorded in the Cumberland County Registry of Deeds in Book 8355, Page 105, as amended (the “Parking Facility”);

WHEREAS, Licensee is the owner of certain property adjacent to the Parking Facility, which it intends to develop into a residential property;

WHEREAS, the Parking Facility is managed by United Parking Partners (the “Management Company”); and

WHEREAS, Licensor is willing to grant to Licensee a license to use 125 parking spaces in the Parking Facility, on the terms set forth herein.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. Use of the Parking Facility. Licensor grants Licensee the limited license to the use of one hundred twenty five (125) parking spaces for the parking of motor vehicles in the Parking Facility (the “Licensed Parking Spaces”). Licensee acknowledges that the Licensed Parking Spaces are guaranteed but not reserved or designated and are to be used in common with other users of the Parking Facility. Notwithstanding the foregoing, Licensor shall be permitted to designate the specific location of all or a portion of the Licensed Parking Spaces by giving thirty (30) days prior written notice of Licensee. Additionally, Licensor grants Licensee the limited license to use three (3) Americans With Disabilities Act (“ADA”) compliant spaces in the Parking Facility, consisting of two (2) standard ADA spaces and one (1) van size space (the “Licensed ADA Spaces”). The Licensed ADA Spaces shall be designated spaces, which location shall be determined by Licensor prior to the Commencement Date. The Licensed Parking Spaces and the Licensed ADA Spaces may not be re-licensed by Licensee to third-parties without Licensor’s prior written consent. Licensee’s interest in this License may not be assigned or sublet without Licensor’s prior written consent.

2. Construction of Licensed ADA Spaces. Prior to the Commencement Date, Licensor shall install the Licensed ADA Spaces on the second floor of the Parking Facility, including re-striping an entire section of the Parking Facility, striping the Licensed ADA Spaces, and installing property signage (the “ADA Installation Work”). The ADA Installation Work, including any and all design, permitting, and other modifications or work necessitated by the

installation of the Licensed ADA Spaces shall be made at Licensee's sole cost and expense, which expenses shall be reimbursed to Licensor within thirty (30) days of Licensor's submission of invoices and other reasonable evidence of such expense to Licensee.

3. Compliance with Law. Licensee shall at all times ensure that its use of the Licensed Parking Spaces and Licensed ADA Spaces is in compliance with all federal, state and local laws and regulations.

4. Key Access Cards. Licensor shall provide up to one hundred twenty five (125) key access cards in total to Licensee. Licensee shall be responsible for the issuance of the key cards to its residents and Licensee shall provide Licensor and the Management Company with a completed and executed Parking Garage Registration Form providing such information as Licensor shall reasonably request. Licensee shall further notify Licensor of any changes in the identities of individuals provided access cards and of any changes to any vehicles provided access to the Parking Facility within seven (7) days of said changes. If Licensor is requested to issue a replacement key access card for any reason, then Licensee agrees to pay Licensor the sum of fifteen dollars (\$15.00) for each replacement key access card issued.

5. Security for Key Access Cards. Prior to the Commencement Date, Licensee shall pay to Licensor the sum of One Thousand Two Hundred Fifty Dollars (\$1,250.00) as a security deposit for one hundred twenty five (125) key access cards. The security deposit shall be refunded within fifteen (15) days from the date Licensee returns all one hundred twenty five (125) key access cards to Licensor. Licensee agrees that Licensor may withhold from the refund the sum of [REDACTED] for each key access card not returned within five (5) days from expiration or termination of this Agreement.

6. License Fee. Licensee shall pay the Base License Fee on a monthly basis, in advance on or before the first day of each month. The "Base License Fee" shall be calculated as follows:

For the Licensed Parking Spaces: The Base License Fee for the Licensed Parking Spaces shall be a monthly fee per Licensed Parking Space, as follows:

Term Year	Monthly Base License Fee Per Space	Number of Licensed Parking Spaces	Total Monthly Base License Fee	Total Annual Base License Fee
Year 1	[REDACTED]	125	[REDACTED]	[REDACTED]
Year 2	[REDACTED]	125	[REDACTED]	[REDACTED]
Year 3	[REDACTED]	125	[REDACTED]	[REDACTED]
Year 4	[REDACTED]	125	[REDACTED]	[REDACTED]
Year 5	[REDACTED]	125	[REDACTED]	[REDACTED]
Year 6-10	The Base License Fee will reset at the beginning of the sixth year of the Term and be subject to increase at the then published rates for the Parking Facility, at Licensor's sole discretion, but in no event shall the Base License Fee be less than [REDACTED] or more than [REDACTED] per month per parking			

	space. In Term Years 7 through 10, the Base Licenses Fee shall increase each year by [REDACTED] per space per month over the Base License Fee of the Prior Year.
--	--

For the Licensed ADA Spaces: The Base License Fee for the Licensed ADA Spaces shall be a monthly fee per ADA Space plus those spaces lost to create the ADA Spaces (the "Lost Spaces"). The number of Lost Spaces will be determined upon completion of the construction of the ADA Licensed Spaces. The monthly Base License Fee per space shall be as follows:

Term Year	Monthly Base License Fee Per Space Licensed ADA Space and Lost Space
Year 1	[REDACTED]
Year 2	[REDACTED]
Year 3	[REDACTED]
Year 4	[REDACTED]
Year 5	[REDACTED]
Year 6-10	The Base License Fee for the ADA Spaces will reset at the beginning of the sixth year of the Term and be subject to increase at the then published rates for the Parking Facility, at Licensor's sole discretion but in no even shall the Base License Fee be less than [REDACTED] or more than [REDACTED] per month per parking space. In Term Years 7 through 10, the Base Licenses Fee shall increase each year by [REDACTED] per space per month over the Base License Fee of the Prior Year.

Any monthly Base License Fee not received by Licensor by the fifth (5th) day of the month, shall be considered late and a late fee of 5% shall be added to the monthly Base License Fee which sums shall be promptly payable by Licensee.

7. Term. The term of this Agreement shall be for ten (10) years, commencing _____ (the "Commencement Date") and terminating on _____. This license for shall be non-terminable by Licensee throughout the term of the Agreement.

8. No Bailment. No bailment is created by this Agreement. Licensor shall not be responsible for any damage to, or loss to any of vehicles parked using the Parking Facility under this Agreement, or any component parts thereof or personal property in such vehicles, other than damage or loss directly and solely caused by Licensor. VEHICLES SHALL BE LOCKED AND LICENSOR SHALL NOT BE RESPONSIBLE FOR ANY THEFT OF THE VEHICLE OR ITS CONTENTS OR ANY LOSS OR DAMAGE RESULTING FROM LEAVING KEYS IN THE VEHICLE. This policy may not be rescinded or modified by any Licensor employee, and Licensee acknowledges that the Licensor's employees are not authorized to accept responsibility for storing or safeguarding any vehicles or personal property located therein. Licensee shall be responsible for any damage to the Parking Facility as a result of this Agreement.

9. Release. It is understood and agreed between the parties hereto that Licensor will not be responsible for any damage or loss to vehicles or personal property belonging to Licensee or its employees other than as a result of the gross negligence or intentional misconduct of Licensor or its agents or employees. Licensee hereby indemnifies and holds harmless Licensor from any and all liability claims by Licensee or its employees, agents and invitees that is not in compliance with this Paragraph. Licensee, for itself and its employees, agree that the use of the Garage by Licensee and its employees shall be at its and their own risk.

10. Renovations, Alterations, Improvements, Repairs and Demolition. Licensor shall keep and maintain the Parking Facility in good and clean order and repair, including but not limited to the interior, exterior, foundations, floors, walls, ceilings and lighting thereof. Licensor may make, from time to time, such renovations, alterations, improvements, or repairs to the Parking Facility as Licensor deems advisable. Licensor shall use its commercially reasonable efforts to minimize any disruption of access to the Licensed Parking Spaces and Licensed ADA Spaces during any such renovations, alterations, improvements, or repairs. Licensor reserves the rights, and Licensee expressly acknowledges Licensor's right, to close all or a portion of the Parking Facility, from time to time, and for so long as, in Licensor's reasonable discretion, is necessary for the repair, maintenance, cleaning, renovation, alteration, improvement, construction, restoration or replacement of the Parking Facility. There shall be reduction in the Base License Fee in the event of any unavailability of parking spaces due to such activities.

11. Notices. Any notices which are required hereunder or which either Licensor or Licensee may desire to serve upon the other party shall be in writing and shall be deemed served when delivered personally, or when deposited in the United States Mail, postage prepaid, return receipt requested, addressed as follows:

If to Licensor:

Chestnut Street Garage, LLC

Attn: Drew Sigfridson

With a copy to:

Exchange Street Partners

Attn: Kristen Robichaud

If to Licensee:

ATTN: _____

12. Default. Licensee shall be in default hereunder if it shall fail to perform any of the obligations stated herein within fifteen (15) days after receipt of notice of such failure. Upon such default, Licensors shall have the right at its option, and in addition to any other remedies, to terminate this Agreement by giving Licensee a written default notice and upon the giving of such notice, this Agreement and the term hereof at the option of Licensors shall cease. If this Agreement is terminated due to default of Licensee, Licensee shall remain liable to Licensors for all payments hereunder accrued and unpaid up to the date of such termination. In addition, Licensee shall be responsible for the Base License Fee for the Licensed Parking Spaces and the Licensed ADA Spaces for the balance of the term of this Agreement.

13. Casualty/Eminent Domain/Termination. In the event that the Parking Facility is damaged or destroyed by fire or other casualty, in whole or in part, then Licensors, at its option, may terminate this Agreement upon ten (10) days written notice to Licensee. Licensee shall have no right to terminate this License in the event of such damage or destruction unless as a result thereof, Licensors is unable to provide Licensee with the Licensed Parking Spaces and Licensed ADA Spaces.

14. Subordination. This Agreement is and shall be subject in subordinate in all respects to all mortgages which may now and hereafter affect the property.

15. Estoppel. Licensee agrees, at any time, and from time to time, upon not less than ten (10) days prior request by Licensors, to execute, acknowledge and deliver to Licensors a statement in writing certifying the following information with respect to this Agreement (a) the term of the respective Agreement; (b) the monthly Base License Fee then payable hereunder and thereunder and the date to which such amounts have been paid; (c) that this Agreement is unmodified and in full force and effect (or, if there have been modifications, stating the modifications, and that the respective agreement as modified is in full force and effect), (d) that this Agreement represents the entire agreement between the parties as to parking in the Parking Facility; (e) there are no existing defenses or offsets which Licensee has against the enforcement of this Agreement by Licensors except as set out by Licensee; (f) that there is no default under this Agreement (or specifying what provision is in default); and (g) such other information as Licensors shall reasonably request. It is the intent of the parties that any such statement delivered pursuant to this Section may be relied upon by any prospective purchaser of, any prospective holder of a mortgage upon the Parking Facility.

16. Interruption/Maintenance. Licensors shall not be liable under any circumstances for interference with Licensee's business including, without limitation, loss profits, however occurring, through or in connection with or incidental to any acts or omissions of Licensors. Licensors reserves the right to periodically and temporarily close any portion of the Parking Facility upon prior notice to Licensee for maintenance and/or construction, except that no notice shall be required in the event of an emergency.

17. Amendment. This Agreement may be modified or amended by the mutual consent of the parties hereto; provided, however, that no such modification or amendment to this

Agreement shall be binding unless in writing and signed by both parties.

18. Rules and Regulations. Licensee agrees to abide by all posted or published rules and regulations now or hereinafter in effect pertaining to use of the Parking Facility and agrees to save hold harmless and indemnify Licensor for any expense or damage as a result of any violation thereof, including towing expense of those vehicles parked by customer which obstruct vehicles of other parkers including vehicles of facility owner and/or its employees.

19. Assignment. Licensor may assign its interest under the License Agreement at any time during the term of the Agreement.

20. Attorney's Fees. In the event of any dispute arising out of or in connection with this Agreement, the non-prevailing party agrees to reimburse the prevailing party for its reasonable attorney's fees and costs.

21. Conflict. During the term of this Agreement, the terms hereof shall control any contrary terms in the Reciprocal Agreement. To the extent that the terms of the Reciprocal Agreement are not in conflict with the Reciprocal Agreement, those terms shall continue in full force and effect.

22. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Maine.

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IN WITNESS WHEREOF, the parties have caused this License Agreement to be executed by their duly authorized officers or members as of the day and year first above written.

LICENSOR:

**CHESTNUT STREET GARAGE,
LLC**

**By: Exchange Street Partners, LLC,
its Manager**

By: Drew Sigfridson
Its: Manager

LICENSEE:

Redfern Downtown LLC

By: _____
Name:
Its:



Caitlin Cameron <ccameron@portlandmaine.gov>

PI-001235-2020

1 message

j p <pierress@yahoo.com>
To: ccameron@portlandmaine.gov

Tue, Nov 3, 2020 at 8:31 AM

Good morning

My name is Joseph Palacci, I own 102-104-106 Exchange street, I also own Richbuilding on Exchange street . I am not familiar with the procedure , but I strongly object this project. I t will put a tremendous burden on the block for parking, and put a stress on an already dense area.

I would like to know the procedure for stoping this project !

Thank you

Joseph Palacci

207-450-9000

Sent from Yahoo Mail for iPad



Jennifer Munson <jmy@portlandmaine.gov>

HPB Public Comment 200 Federal Street Tower Project: Historic Background Information

George Rheault <george.rheault@gmail.com>

Wed, Mar 3, 2021 at 11:35 AM

To: Deb Andrews <dga@portlandmaine.gov>, Robert Wiener <rwiener@portlandmaine.gov>, Christine Grimando <cdg@portlandmaine.gov>, jmy <jmy@portlandmaine.gov>

I know Portland's Historic Preservation Board is very allergic to discussions of actual history but I thought it important to introduce some historical information into the conversation surrounding the [200 Federal Street](#) project. See attachments and links below.

Key points to keep in mind from the history provided here:

1) The entire 18-story tower project turns on the ability of its future tenants to park their automobiles in the existing 450-stall Chestnut Street garage that scars the eastern end of West Bayside. Therefore, TWO substantial areas of our downtown will be impacted by this development - not just the politically protected historic district that our elites are obsessively focused upon.

2) The historic fabric of the proposed tower site and the site of the existing Chestnut Street garage have both been effectively obliterated by the clumsy but fervent anti-urbanist, auto-centric redevelopment efforts pushed by our city government (officially beginning in the early 1940s and culminating in the 1980s with assistance from other government partners and private capital). This project should be considered in continuity with this mentality, adjusted somewhat for our contemporary conditions.

3) In an area that has been relentlessly reconfigured by waves of redevelopment in the post-WWII era (including with the introduction of a drab bank drive-thru), the concept of "historic compatibility" when introducing a modern 18-story residential tower into this context circa 2021 is not just embarrassing but downright absurd. Virtually any design recommendations issuing forth from the HPB would either fall into intellectually bankrupt historicism and nostalgia or just pure aesthetic elitism whereby contemporary architecture is commanded to be stripped of its power in order to avoid offending traditionalist/reactionary sensitivities. Please just take a pass on this and admit the HPB should not even have a role here absent Portland's legacy of NIMBYism.

I encourage everyone to follow the links below for even better viewing of the attachments provided.

Congress Street at Temple Street, 1957 (portlandlibrary.com)

https://digitalcommons.portlandlibrary.com/pphnegs_images_street/179/

- High-angle view of northeastern corner of Congress Street and Temple Street, from west. Photo taken from roof of Metropolitan Building ([439 Congress Street](#)).

First Portland National Bank, 1960 (portlandlibrary.com)

https://digitalcommons.portlandlibrary.com/pphnegs_images_business/464/

- Full exterior view of First Portland National Bank building, [400 Congress Street](#), from west. Congress Street at left. Temple Street at right. Western portion of building at [213 Federal Street](#), at right.

Portion of West Bayside neighborhood before mass demolitions (and ultimate redevelopment into the Chestnut Street Garage)

Image 23 of Sanborn Fire Insurance Map from Portland, Cumberland County, Maine. | Library of Congress (loc.gov)

https://www.loc.gov/resource/g3734pm.g3734pm_g03527195401/?sp=23

Temple-Federal Street neighborhood before mass demolitions

Image 25 of Sanborn Fire Insurance Map from Portland, Cumberland County, Maine. | Library of Congress (loc.gov)

https://www.loc.gov/resource/g3734pm.g3734pm_g03527195401/?sp=25&r=-0.81,0,2.619,1.213,0

4 attachments

1954 Sanborn Map - vicinity of Temple & Federal Streets.jpg



182K

**1954 Sanborn Map - vicinity of Chestnut Street Garage.jpg**

196K

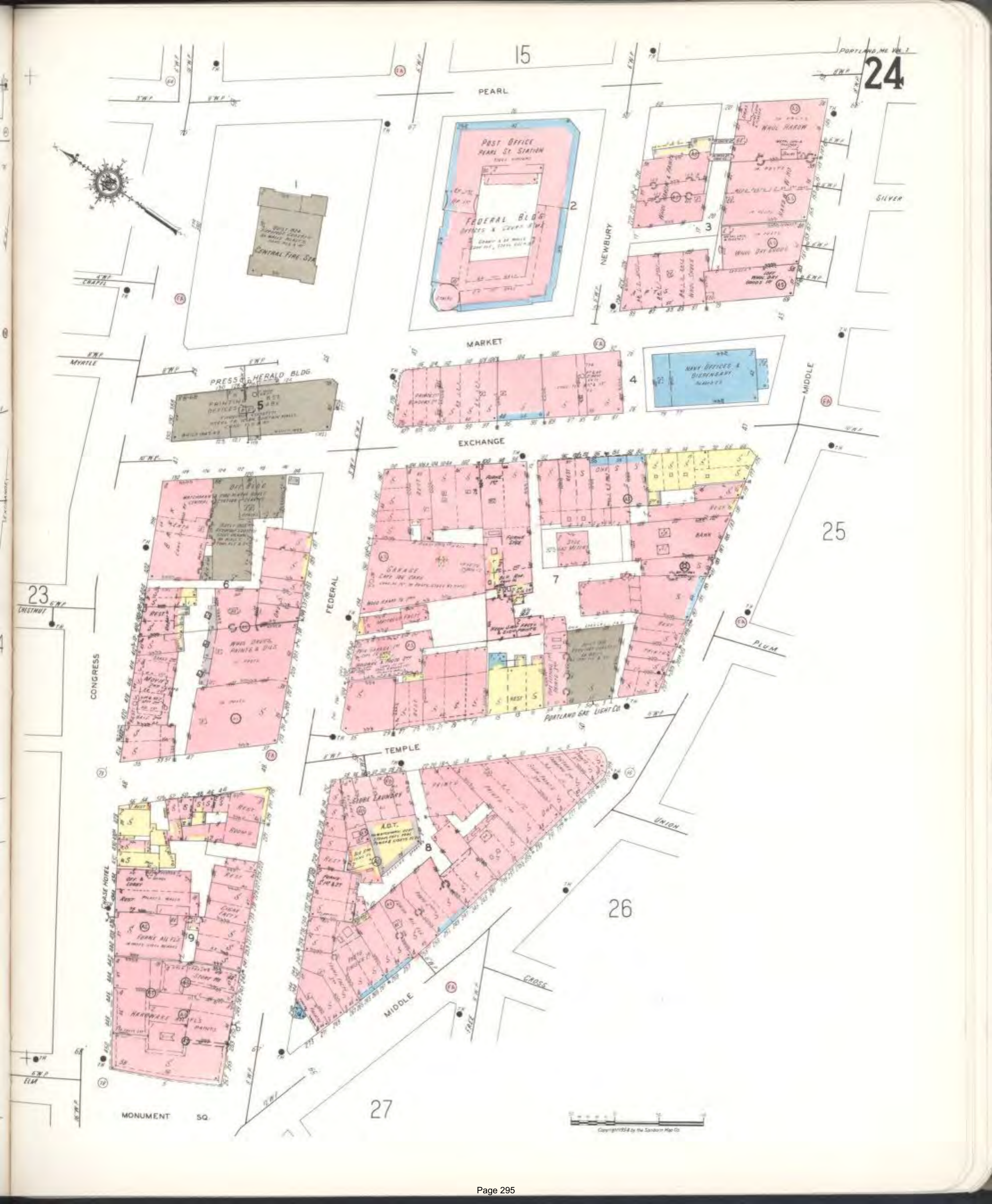
**1957 View of Temple & Congress Streets intersection.pdf**

2763K

**1960 View of Temple & Congress Streets intersection.pdf**

2317K





15

24

PEARL

POST OFFICE
PEARL ST. STATION
FEDERAL BLDG
OFFICES & STORES

NEWBURY

SILVER

MARKET

EXCHANGE

25

23

CONGRESS

FEDERAL

TEMPLE

26

UNION

27

MONUMENT SQ.

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Portland Public Library Archives



Portland Public Library Archives

Lorry Schwellenbach <lorryschwell@gmail.com>
to planningboard@portlandmaine.gov

Mar 11, 2021, 9:42:20 AM (yesterday)



March 11, 2021

To the members of the Portland City Council,

A height variance should not be approved for Redfern Properties. A 190 foot tall building is not allowed in the area of 200 Federal St. based on the Downtown Vision Document. A document that was carefully constructed with purposely planned height limits.

If the city planners feel that the Downtown Vision Document and the height overlay map needs updating then they can open up that process. It should not be altered in a piecemeal fashion, but updated through a thoughtful, thorough and transparent process. Amendments, changes or exceptions to a document that has fared the city well should not be made based on the **wants of a developer** who is looking to **make as much money** from a project as possible.

The proposed sight is a block from the beautiful City Hall building, a block from First Parish Church and the Masonic Temple building, in addition to a block from the Exchange Street shopping area. This is why there are height restrictions, to protect the area.

The planning board approved changing the height restrictions to allow what would become the tallest building in the city to be built at 200 Federal St. I implore the City Council to not allow the height variance.

Yes we need more apartments on the peninsula, and it is happening. 170 units are approved to be built on Hanover St. in an 8 story building. The Mercy Hospital building on State St. is going to be turned into apartments. Redfern added 139 units (the Hiawatha) on Congress St. in an 8 story building. A similar size apartment building would be welcome at 200 Federal Street, not an 18 story building!

Thank you for your time in considering my thoughts and concerns.

Sincerely,

Lorry Schwellenbach

lorryschwell@gmail.com

[207-650-5702](tel:207-650-5702)

Re: Plan No.PL-001235-2020, "The Tallest Building in the State"

Caitlin Cameron, Urban Designer
ccameron@portlandmaine.gov

For Consideration of the Portland City Planning Board:

I read the article in the Portland Press Herald on 3-16-2021 with concern that the proposed, "tallest building in Maine" should be plunked right in the center of town in an already congested historic area. I have great trepidation that this project will eliminate a small and potentially lovely green space in the center of a highly commercial area where it is sorely needed to offer a visual and emotional respite.

The "tallest building in Maine" will affect the location adversely in several ways by; reducing the amount of sunlight afforded this locale, obstructing the lateral view, reducing the approachability of the area by eliminating greenspace, interrupting the character of the surrounding area with an atypical edifice that does not work in concert with its surrounds, (but instead, fights with it), impinging on the historic value of the area which is already been diminished, and by exacerbating the wind-tunnel effect. All of these factors, in my opinion, reduce the overall benefit of the area, so cherished in Portland, and so attractive to tourists.

I believe that additions to the city-scape of Portland must enhance the quality of life on the peninsula and should honor Portland's unique history and character in order to enhance Portland's appeal and stand as an example to other cities, of similar size, seeking to grow in a healthy way, to the benefit of all those who live, work, and recreate there.

Thank you for your kind consideration
Susan McCulley
27 Leisure Lane
Portland, ME 04103

PC5

George Rheault

to Planning, Christine, Kevin, James, Caitlin, me

It is the greatest laugh-inducing irony that Portland's first high-rise project in a generation turns completely on dumping the auto traffic it induces onto a relatively low-rise residential district with a heavy component of subsidized housing.

The chef's kiss is that this parking technically lies OUTSIDE the boundaries of the downtown historic district AND Portland Downtown (formal business improvement district) in which 200 Federal Street sits.

So what is the Planning Board going to do about this state of affairs?

- Will the traffic analysis incorporate the area around the Chestnut Street garage in order to understand new traffic impacts and patterns?
- Will we ever get to see what the BASEMENT of 200 Federal Street looks like with respect to promised bicycle amenities so the public can test whether it would really do much to encourage less auto-use?
- Will impact fees be specifically directed towards making the lives of those closest to the Chestnut Street garage better to mitigate the increased traffic streams?
- Will tree fund payments tied to the 260+ residential units be segregated to most benefit those who will be dealing with all the auto emissions generated by the 200 Federal Street tower?
- Will the Planning Board demand an honest analysis of current parking trends at the existing Chestnut Street garage and how all the residents of 200 Federal Street who will have cars will use their assigned parking location (like which entrance level will serve them? Chestnut? Oxford? Lancaster?) and how this may or may not have knock-on impacts for existing garage users including City of Portland employees?

For recent downtown parking trends, please see the attached parking survey.

**CITY OF PORTLAND PARKING DIVISION
ANNUAL PARKING SURVEY OF
DOWNTOWN GARAGES AND LOTS
DECEMBER 2020**

The information in this survey was is believed to be accurate; however, before quoting from it, we suggest you verify the information with the individual facility.

NOTE: Availability of spaces often changes; therefore, interested parties are encouraged to check with the facility to see if they have a waiting list. Most people have their names on multiple lists. RATES AND AVAILABILITY ARE SUBJECT TO CHANGE.

The Parking Survey consists of the following:

- List of Downtown Parking Facilities
- Detailed list of garages and lots showing the number of spaces and rates
- Map of Downtown Parking Facilities

DOWNTOWN PARKING FACILITIES DECEMBER 2020

NAME	ENTRANCE ADDRESS	MAP #	MGR PHONE	GARAGE LOT PHONE
Garages				
Arts District Garage	48 Brown St	9	615-4406	615-4406
Casco Bay Parking Garage	54 Commercial St. (Maine State Pier)	32	358-7888	774-8653
Chestnut St. Parking Garage	Chestnut / Lancaster / Oxford Sts.	3	747-4230	712-1235
Cumberland County Courthouse Garage	188 Newbury St.	18	871-5890	871-8275
Custom House Square Parking Garage	25 Pearl St.	28	358-7888	774-2203
Elm St. Parking Garage	21 Elm St.	6	874-2842	871-1106
Fore St. Parking Garage	419 Fore St.	21	871-1290	772-7738
Gateway Parking Garage	181 High St.	11	761-1568	761-1568
Harbor Plaza Parking Garage	10 Union St.	26	747-4230	none
Holiday Inn By The Bay	60 Spring St.	24	775-2311	none
Monument Square Parking Garage	Cumberland Ave. & Brown St.	8	747-4230	773-2761
Ocean Gateway Garage	167 Fore St.	37	747-4230	772-6327
One City Center Parking Garage	One City Center	15	871-1080	775-0444
Public Market Garage	Preble St. / Cumberland Ave. / Elm St.	2	774-0027	774-0027
Spring St. Parking Garage	45 Spring St.	13	874-2861	874-2842

NAME	ENTRANCE ADDRESS	MAP #	MGR PHONE	GARAGE LOT PHONE
Temple St. Parking Garage	11 Temple St.	17	358-7888	772-5762
Lots on Map				
2 India St Parking Lot	2 India St	29	747-4230	n/a
385 Congress St	Congress and Pearl	5	747-4230	699-2927
66 Pearl St. Parking Lot	66 Pearl St.	7	747-4230	n/a
Angelo's Acre	441 Commercial St.	1	874-8444	874-8444
Cotton & Center Parking Lot	Center / Cotton / Spring Sts.	23	791-3300	
DiMillo's Parking Lot	25 Long Wharf, Commercial St.	33	747-4230	772-2216
East Brown Cow Parking Lot	75 Commercial St.	31	747-4230	n/a
Fish Pier Parking Lot	300 Commercial St.	35	8742842	874-2842
Fisherman's Wharf Parking Lot	Commercial St.	34	747-4230	747-4230
Free St Parking Opposite Cross Arena	Center & Free Sts.	14	747-4230	n/a
Free St. Parking - Maine Health	120 Free St.	12	662-8065	662-8065
Middle & Pearl Parking Lot	Middle & Pearl Sts.	19	774-1000	n/a
Midtown Parking Lot	44 Free St.	16	774-5908	772-7716
Ocean Gateway Lot	2 Commercial St	38	207-874-8443	207-874-8443
Portland Co/58 Fore Street	58 Fore St	38	693-2677	693-2677
Portland Square Monthly Lower Lot	Cross / Commercial / Center Sts.	25	747-4230	874-6000
Portland Square Upper Visitor Lot	Cotton / Fore / Cross Sts.	22	747-4230	874-6000
Regency Hotel Parking Lot	Silver St.	27	774-1000	n/a
Simba / Hale Parking Lot	Fore St.	30	772-5354	772-5354
Thames St. Lot	Thames St.	36	874-8444	
Top of the Old Port Parking Lot	119 Pearl St.	4	871-1080	828-1212
Venture (VIP) Parking Lot	11 Forest Ave.	10	747-4230	
Lots Not on Map				
101 York Street	101 York St		774-5908	774-5908
14 York St Parking Lot	14 York St		774-5908	
57 York St. Parking Lot	57 Danforth St. & York St.		747-4230	n/a
66 - 68 Danforth St. Parking Lot	66 - 68 Danforth St.		7745908	n/a
68 Commercial St	68 Commercial St		747-4230	
Amato's Federal St. Parking Lot	Federal St.		828-5981	774-3975

NAME	ENTRANCE ADDRESS	MAP #	MGR PHONE	GARAGE LOT PHONE
Baxter Place Lot	305 Commercial St.		772-1131	n/a
Center St. Parking Lot	Center St.		671-8584	
Galli Valet			808-3044	207-808-3044
Hub Furniture Parking Lot	291 Fore St.		773-1789	n/a
Jetport	1001 Westbrook St		207-772-7028	772-7028
Maine Historical Society Parking Lot	Brown St.		747/4230	n/a
Shepley St. Parking Lot	Casco / Shepley / Oak Sts.		747-4230	
Unified Parking Valet			207-747-4230	207-747-4230

City of Portland Parking Survey
Prepared by the Parking Division
DECEMBER 2020

GARAGES

Facility Name	Map No	Total # Spaces	# Monthly Spaces Available	Monthly Rate	Hourly Rate	Daily Rate	Snow ban parking? Hours	Additional Information
Arts District Garage Office: 615-4406 Site: 615-4406	9	270	0	\$160.00	\$5 Just CC	\$45.00	Yes	Open 24 hours. Hourly parking at \$5.00 per hour ground level. Access from Brown St. or Cumberland Ave,
Casco Bay Parking Garage Office: 358-7888 Site: 774-8653	32	419	0	\$170.00	\$5	\$40.00	No	waiting list. Operating hours based on boat schedule. Generally open 1/2 hr before the first boat leaves and close 1/2 hr after last boat gets back. Open 365 Days Per Year
Chestnut St. Parking Garage Office: 747-4230 Site: 712-1235	3	450	10	\$140.00	\$2	\$0.00	No	Access card required. Security cameras in place. *Group discounts available Some Available Spaces!! Call for more info.
Cumberland County Courthouse Garage Office: 871-5890 Site: 871-8275	18	328	0	\$155.00	\$3.5 Cashless	\$18.00	Yes	Fully automated garage including handicap accesible parking. Located less than a block from the ferry terminal, in the heart of the Old Port, we are convenient to shops, restaurants, Merrill Auditorium, and all Government Houses. Cashless
Custom House Square Parking Garage Office: 358-7888 Site: 774-2203	28	761	20	\$170.00	\$5	\$40.00	No	Closed major holidays.
Elm St. Parking Garage Office: 874-2842 Site: 871-1106	6	398	15	\$130.00	\$3	\$28.00	Yes	Open 1/2 hour after Merrill Auditorium events. Snow Ban Parking \$3.00 in after 5pm out by 8am. Closed major holidays: Thanksgiving, Christmas, Memorial Day, July 4th, Accepts Park & Work stamps. 24/7 Access
Fore St. Parking Garage Office: 871-1290 Site: 772-7738	21	423	0	\$195.00	\$6	\$45.00	Yes	Open Sundays thru Labor Day 8:00 a.m.-11:00 p.m.; after Labor Day 10:00 a.m.-11:00 p.m. Special Rates for Monthly Nights Only Snow Ban Hours: In after 6pm out by 8am \$8.00****NOT Effective Jan. 1, 2021 Temporarily Closed for Construction*****
Gateway Parking Garage Office: 761-1568 Site: 761-1568	11	655	100	\$185.00	\$5 5.00 first hour	\$40.00	Yes	Open 24 hours.
Harbor Plaza Parking Garage Office: 747-4230 Site: none	26	195	0				No	Public Parking Nights only; \$5.00 per hr. 4:00p.m.-2:00a.m.; Sat./Sun. all day
Holiday Inn By The Bay Office: 775-2311 Site: none	24	285	0	\$120.00	\$2 Call for monthly rate and availability	\$17.00	No	Call for monthly rate and availability

City of Portland Parking Survey
Prepared by the Parking Division
DECEMBER 2020

GARAGES

Facility Name	Map No	Total # Spaces	# Monthly Spaces Available	Monthly Rate	Hourly Rate	Daily Rate	Snow ban parking? Hours	Additional Information
Monument Square Parking Garage Office: 747-4230 Site: 773-2761	8	340	10	\$145.00	\$3		No	Closed week-ends. Some Available Spaces Call for more info
Ocean Gateway Garage Office: 747-4230 Site: 772-6327	37	720	10	\$180.00	\$5	\$50.00	Yes	Available Spaces!!! Call for more info
One City Center Parking Garage Office: 871-1080 Site: 775-0444	15	600	0	\$150.00	\$5	\$50.00	N/A	Credit Card Only - Open 24/7
Public Market Garage Office: 774-0027 Site: 774-0027	2	600		\$165.00	\$5	\$35.00	Yes	24 hour access for monthly cardholders Closed Weekends
Spring St. Parking Garage Office: 874-2861 Site: 874-2842	13	565	20	\$130.00	\$3 Snow Ban Rate \$3	\$28.00	Yes	Cross Arena event parking available. Snow Ban Parking \$3.00 in after 5pm out by 8am. Closed the major holidays Thanksgiving, Christmas, Memorial Day, July 4th, Labort Day. Accepts Park & Work stamps. Spaces Available!!! 24/7 Access
Temple St. Parking Garage Office: 358-7888 Site: 772-5762	17	620	0	\$170.00	\$5	\$40.00	Yes	24-hour access for monthly parkers only. Open some holidays.

City of Portland Parking Survey
Prepared by the Parking Division
DECEMBER 2020

Lots on Map

Facility Name	Map No	Total # Spaces	# Monthly Spaces Available	Monthly Rate	Hourly Rate	Daily Rate	Snow ban parking? Hours	Additional Information
2 India St Parking Lot Office: 747-4230 Site: n/a	29	20	0	\$150.00	\$5.5		No	Pay and Display machine look for signs.
385 Congress St Office: 747-4230 Site: 699-2927	5	130	0	\$120.00	\$3.5 Event Parking for \$10.00	\$26.00	No	Pay and Display machine look for signs. Hourly Rate \$3.50, 24 Hour, Max \$26.00
66 Pearl St. Parking Lot Office: 747-4230 Site: n/a	7	44	0	\$150.00			No	Tenants only during the day. Free for their customers after 5:30 pm and on weekends. No overnight parking. 2 Hour limit after hours, monitored by Unified
Angelo's Acre Office: 874-8444 Site: 874-8444	1	100				\$5.00	Yes	No monthly parking. No RVs and no Trailors. \$5.00 for 24 HRs . 15 Day Max Pay and Display machine. Look for signs. CC or mobile pay
Cotton & Center Parking Lot Office: 791-3300 Site: none	23	50	2	\$115.00			No	Private Lot, for Memic use only
DiMillo's Parking Lot Office: 747-4230 Site: 772-2216	33	317	10	\$150.00	\$6	\$40.00	No	Parking lot is intended to serve restaurant guests, monthly parkers, and marina tenants. Early bird special \$12.00 in before 10am out before 6pm Off season Winter Rates: \$10 for 9 hours, \$15 for 12 hours, and \$25 for 24 hours
East Brown Cow Parking Lot Office: 747-4230 Site: n/a	31	46	0	\$145.00	\$5		No	No overnight parking. Pay and Display Machine, Credit Card Only
Fish Pier Parking Lot Office: 8742842 Site: 874-2842	35	165	5	\$110.00		\$10.00	No	* Monthly permits need to be purchased at the Spring St. Garage; daily permits are available at the Spring St. Garage and by phone - call 874-2842
Fisherman's Wharf Parking Lot Office: 747-4230 Site: 747-4230	34	250	10	\$150.00	\$7	\$30.00	No	24 hours Pay & Display ATM / pay on foot after Labor Day After hours \$5 for evenings Rates may lower during Winter Call for info
Free St Parking Opposite Cross Arena Office: 747-4230 Site: n/a	14	44	0		\$4.5 Pay by Foot machine after hours		No	Available to tenants during day. Nights and weekends pay machine \$4.50 p/h Look for signs

City of Portland Parking Survey
Prepared by the Parking Division
DECEMBER 2020

Lots on Map

Facility Name	Map No	Total # Spaces	# Monthly Spaces Available	Monthly Rate	Hourly Rate	Daily Rate	Snow ban parking? Hours	Additional Information
Free St. Parking - Maine Health Office: 662-8065 Site: 662-8065	12	155	0				No	Maine Health use only business days. Contact Maine Health for Night and Weekend Use.
Middle & Pearl Parking Lot Office: 774-1000 Site: n/a	19	208	0	\$150.00			No	Pay and Display machine Nights and Weekends look for signs. No overnight parking
Midtown Parking Lot Office: 774-5908 Site: 772-7716	16	175	0	\$120.00	\$2 \$12.00 Early Bird Special in by Noon	\$14.00	No	CCCC events \$12.00 Early Bird Special CLOSED FOR CONSTRUCTION
Ocean Gateway Lot Office: 207-874-8443 Site: 207-874-8443	38	250	0			\$15.00	No	May-October 15 day max, no monthly parking
Portland Co/58 Fore Street Office: 693-2677 Site: 693-2677	38	100	75	\$150.00		\$5.00	No	
Portland Square Monthly Lower Lot Office: 747-4230 Site: 874-6000	25	300	0	\$140.00			No	For monthly parking call 874-6000 and for daily call 747-4230
Portland Square Upper Visitor Lot Office: 747-4230 Site: 874-6000	22	237	0	\$140.00	\$5 for non-validated parking		No	After hours and Civic Center event parking. after 6:00 pm Mon.-Thurs. \$5 for Fri. & Sat. nights. Monthly parking call 874-6000 and for daily parking call 747-4230
Regency Hotel Parking Lot Office: 774-1000 Site: n/a	27	45	0				No	Parking for hotel guests only, never public parking.
Simba / Hale Parking Lot Office: 772-5354 Site: 772-5354	30	115	0	\$130.00		\$15.00	No	Weekend parking available for islanders. \$15 days only/\$30 for 24 hours
Thames St. Lot Office: 874-8444 Site: none	36	30	0			\$10.00	No	No monthly parking. No Buses, No RV's and No Trailers. \$10.00 for 24 hours. 15 Day Max Pay and Display machine look for signs. CC Only
Top of the Old Port Parking Lot Office: 871-1080 Site: 828-1212	4	540	10	\$115.00	\$3	\$16.00	No	Open for Merrill Auditorium events. \$5 per. Group rate: \$80 for groups of 10 or more

City of Portland Parking Survey
Prepared by the Parking Division
DECEMBER 2020

Lots on Map

Facility Name	Map No	Total # Spaces	# Monthly Spaces Available	Monthly Rate	Hourly Rate	Daily Rate	Snow ban parking? Hours	Additional Information
Venture (VIP) Parking Lot Office: 747-4230 Site: none	10	48	0	\$95.00			No	Open evenings and weekends for Portland Stage performances. May add pay and display machine for after hours, look for signs.

City of Portland Parking Survey
Prepared by the Parking Division
DECEMBER 2020

Lots NOT on Map

Facility Name	Map No	Total # Spaces	# Monthly Spaces Available	Monthly Rate	Hourly Rate	Daily Rate	Snow ban parking? Hours	Additional Information
101 York Street Office: 774-5908 Site: 774-5908		105	50	\$125.00	\$4	\$0.00	No	
14 York St Parking Lot Office: 774-5908 Site: none		50	25	\$125.00	\$4	\$0.00	N/A	Monthly Parking Only, Permit Required Business Days. \$2.00 Hourly Rate after 5:00 pm and Weekends Look For Signs
57 York St. Parking Lot Office: 747-4230 Site: n/a		40	0	\$120.00			No	Permit Parking Only (Hang Tags)
66 - 68 Danforth St. Parking Lot Office: 774-5908 Site: n/a		115	50	\$125.00	\$4		No	
68 Commercial St Office: 747-4230 Site: none		17	0	TBD	\$5.5	\$0.00	N/A	Look For Signs
Amato's Federal St. Parking Lot Office: 828-5981 Site: 774-3975		25	0	TBD	\$0	\$0.00	No	
Baxter Place Lot Office: 772-1131 Site: n/a		100	0	\$150.00			No	Private Parking for Tenants Only
Center St. Parking Lot Office: 671-8584 Site: none		63	0				No	Civic Center Event parking available nights/weekends.
Galli Valet Office: 808-3044 Site: 207-808-3044							No	Valet for Casco Bay Islands
Hub Furniture Parking Lot Office: 773-1789 Site: n/a		32	0	\$110.00			No	Some special event and evening parking available. \$10 for Day \$10 for Evening and Special Events
Jetport Office: 207-772-7028 Site: 772-7028					\$2	\$14.00	No	\$48 Daily \$2 per hour short term lot....\$14 daily and \$1 per hour long term... Remote Pink Lot \$1 per hour \$5 max

City of Portland Parking Survey
Prepared by the Parking Division
DECEMBER 2020

Lots NOT on Map

Facility Name	Map No	Total # Spaces	# Monthly Spaces Available	Monthly Rate	Hourly Rate	Daily Rate	Snow ban parking? Hours	Additional Information
Maine Historical Society Parking Lot Office: 747/4230 Site: n/a		37	0				No	For Historical Society Use Only during weekdays, public parking managed by Unified nights and weekends. Pay and Display machine look for signs.
Shepley St. Parking Lot Office: 747-4230 Site: none		59	0	\$95.00	\$3.5 Rear Lot \$50; \$5 for special events.		No	Must have valid permits displayed - or be towed during business days...\$3.50hourly rate after 5:00pm and Weekends, Look for Signs Pay and Display machine look for signs.
Unified Parking Valet Office: 207-747-4230 Site: 207-747-4230							No	Varrious Valet services and lots; including Casco Bay Islands...Call for details

George Rheault

to Planning, Christine, Kevin, James, Caitlin, me

I urge the Planning Board to engage in some authentic analysis (versus rubber-stamping) with respect to the proposed urbanism promised by the 200 Federal Street applicant.

To that end, I am sending along some historical background material I submitted to the HPB as part of their absurd effort to "contextualize" a 21st century residential tower into an area that has seen over 200 years of successive development waves. The Planning Board should be mindful that what looks like a blank slate is not quite as blank as one would think.

And about that pocket park...

1.) As is evident from the old pictures of the First National Bank Building (circa 1957-1960), the area that is slated to be the new pocket park amenity is cast in heavy shade just from the modest height of the old Kendall & Whitney building that once stood on the now existing parking lot. It is unlikely that having an 18-story neighbor will much improve the situation, especially since the contemporary context is also surrounded by shade-casting 10+ story neighbors. Hopefully an honest and thorough shade-study will be available to everyone to understand this all better.

2). Successful, well-liked (meaning = well-used) pocket parks depend on inviting conditions. For example, Paley Park, the Ur-pocket park that sets the standard in midtown Manhattan, has a sunny southern exposure. While it is surrounded by many tall buildings, its designers knew that this southern exposure, combined with the modest heights of its direct abutments, would allow for the park to serve as a very generous light well for its users. Paley Park is also pretty good-sized as pocket parks go - being 42 feet by 100 feet (the applicant's proposed pocket park is less than half this footprint) - so there is a good amount of space for Paley users to spread out AND those users do not have to compete with passersby using the park for adjacent utilitarian functions like they will at 200 Federal Street (people coming and going to the post office branch).

3) Taking these things into consideration, the proposed pocket park by the applicant is likely to be a failure no matter what the applicant does to make it pleasant. A better idea is to require the applicant, since they are affiliated with the next-door post office property (again, whose primary entrance will be served by the pocket park) that once was the First National Bank, to reopen the now-shuttered corner entrance at Congress and Temple Streets. Amalgamating that entrance with the pocket park area (including bringing windows into the existing blank wall along Temple Street and enhanced signage) would be much more likely to create a viable all-season/all-weather storefront-like amenity that would both serve as a gateway to the interior post office branch but also eliminate a hard-to-maintain exterior landscape feature that no one wants or needs. The corner of Congress & Temple desperately requires activation and there are really only two promising corners of that intersection that could ever produce (without a huge investment) a dose of effective urbanism here, so the opportunity should not be lost while we have the chance.

4) One last historical note to add to the material previously submitted to the HPB. The 200 Federal Street site once had a very important antebellum hotel on it, the Elm Tavern, that for much of its existence effectively served as Portland's "Union Station" in the stagecoach era. Between when it opened in 1825 to when it met its end due to the Great Fire of 1866, Portland's population roughly tripled allowing the "town by the sea" to truly be a city center. Time will tell whether the 200 Federal Street project will also assist Portland in enhancing its urban prospects or whether it will just become another outpost of auto-centric regional life in sheep's clothing.

Portland Hotels Exhibit - Elm Tavern Info - from Maine Memory Network

https://www.mainememory.net/sitebuilder/site/2589/slideshow/1591/display?format=slideshow&prev_object_id=4192&slide_num=11

----- Forwarded message -----

From: **George Rheault** <george.rheault@gmail.com>

Date: Wed, Mar 3, 2021 at 11:35 AM

Subject: HPB Public Comment 200 Federal Street Tower Project: Historic Background Information

To: Deb Andrews <dga@portlandmaine.gov>, Robert Wiener <rwiener@portlandmaine.gov>, Christine Grimando <cdg@portlandmaine.gov>, jmy <jmy@portlandmaine.gov>

I know Portland's Historic Preservation Board is very allergic to discussions of actual history but I thought it important to introduce some historical information into the conversation surrounding the 200 Federal Street project. See attachments and links below.

Key points to keep in mind from the history provided here:

1) The entire 18-story tower project turns on the ability of its future tenants to park their automobiles in the existing 450-stall Chestnut Street garage that scars the eastern end of West Bayside. Therefore, TWO substantial areas of our downtown will be impacted by this development - not just the politically protected historic district that our elites are obsessively focused upon.

2) The historic fabric of the proposed tower site and the site of the existing Chestnut Street garage have both been effectively obliterated by the clumsy but fervent anti-urbanist, auto-centric redevelopment efforts pushed by our city government (officially beginning in the early 1940s and culminating in the 1980s with assistance from other government partners and private capital). This project should be considered in continuity with this mentality, adjusted somewhat for our contemporary conditions.

3) In an area that has been relentlessly reconfigured by waves of redevelopment in the post-WWII era (including with the introduction of a drab bank drive-thru), the concept of "historic compatibility" when introducing a modern 18-story residential tower into this context circa 2021 is not just embarrassing but downright absurd. Virtually any design recommendations issuing forth from the HPB would either fall into intellectually bankrupt historicism and nostalgia or just pure aesthetic elitism whereby contemporary architecture is commanded to be stripped of its power in order to avoid offending traditionalist/reactionary sensitivities. Please just take a pass on this and admit the HPB should not even have a role here absent Portland's legacy of NIMBYism.

I encourage everyone to follow the links below for even better viewing of the attachments provided.

Congress Street at Temple Street, 1957 (portlandlibrary.com)

https://digitalcommons.portlandlibrary.com/pphnegs_images_street/179/

- High-angle view of northeastern corner of Congress Street and Temple Street, from west. Photo taken from roof of Metropolitan Building (439 Congress Street).

First Portland National Bank, 1960 (portlandlibrary.com)

https://digitalcommons.portlandlibrary.com/pphnegs_images_business/464/

- Full exterior view of First Portland National Bank building, 400 Congress Street, from west. Congress Street at left. Temple Street at right. Western portion of building at 213 Federal Street, at right.

Portion of West Bayside neighborhood before mass demolitions (and ultimate redevelopment into the Chestnut Street Garage)

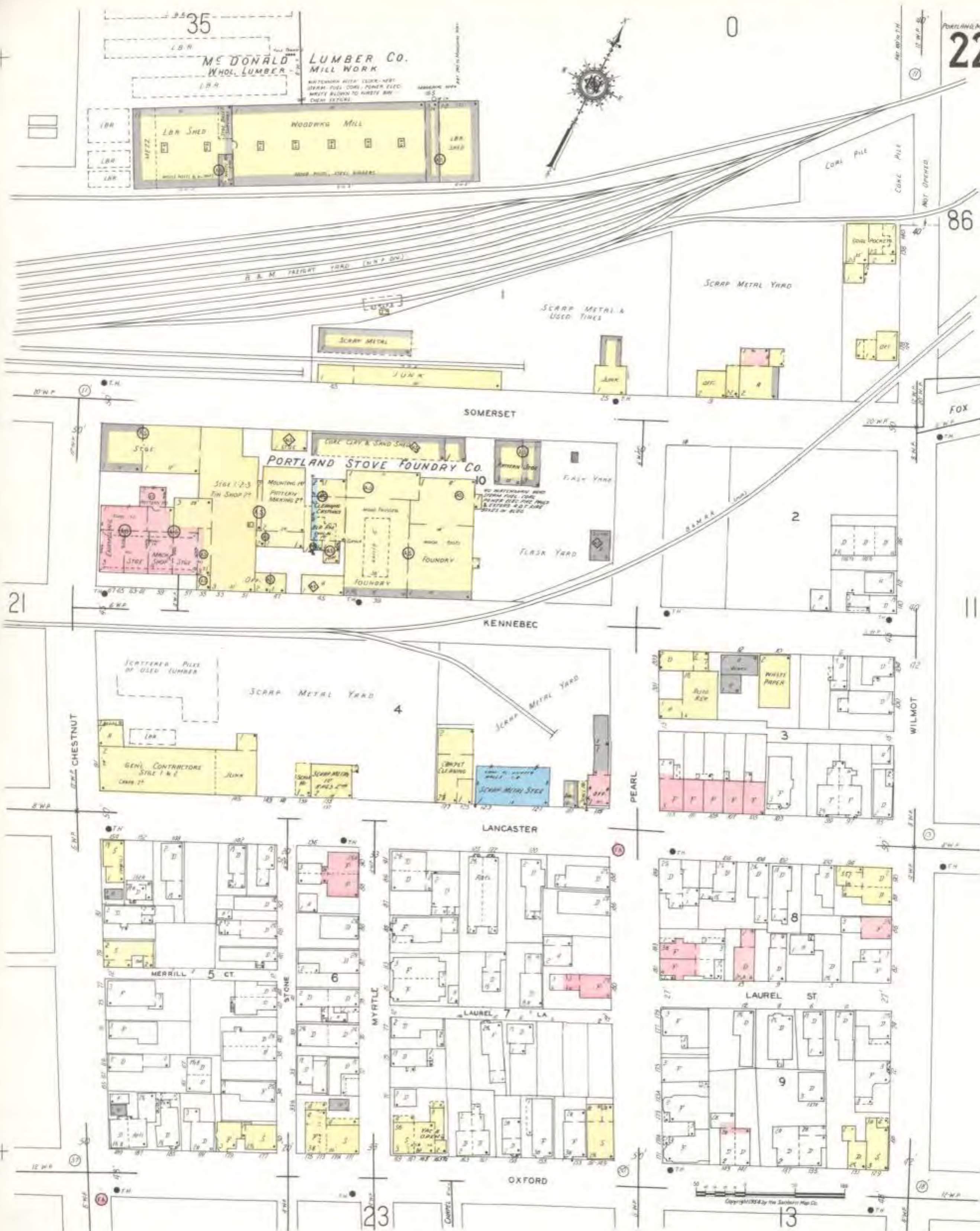
Image 23 of Sanborn Fire Insurance Map from Portland, Cumberland County, Maine. | Library of Congress (loc.gov)

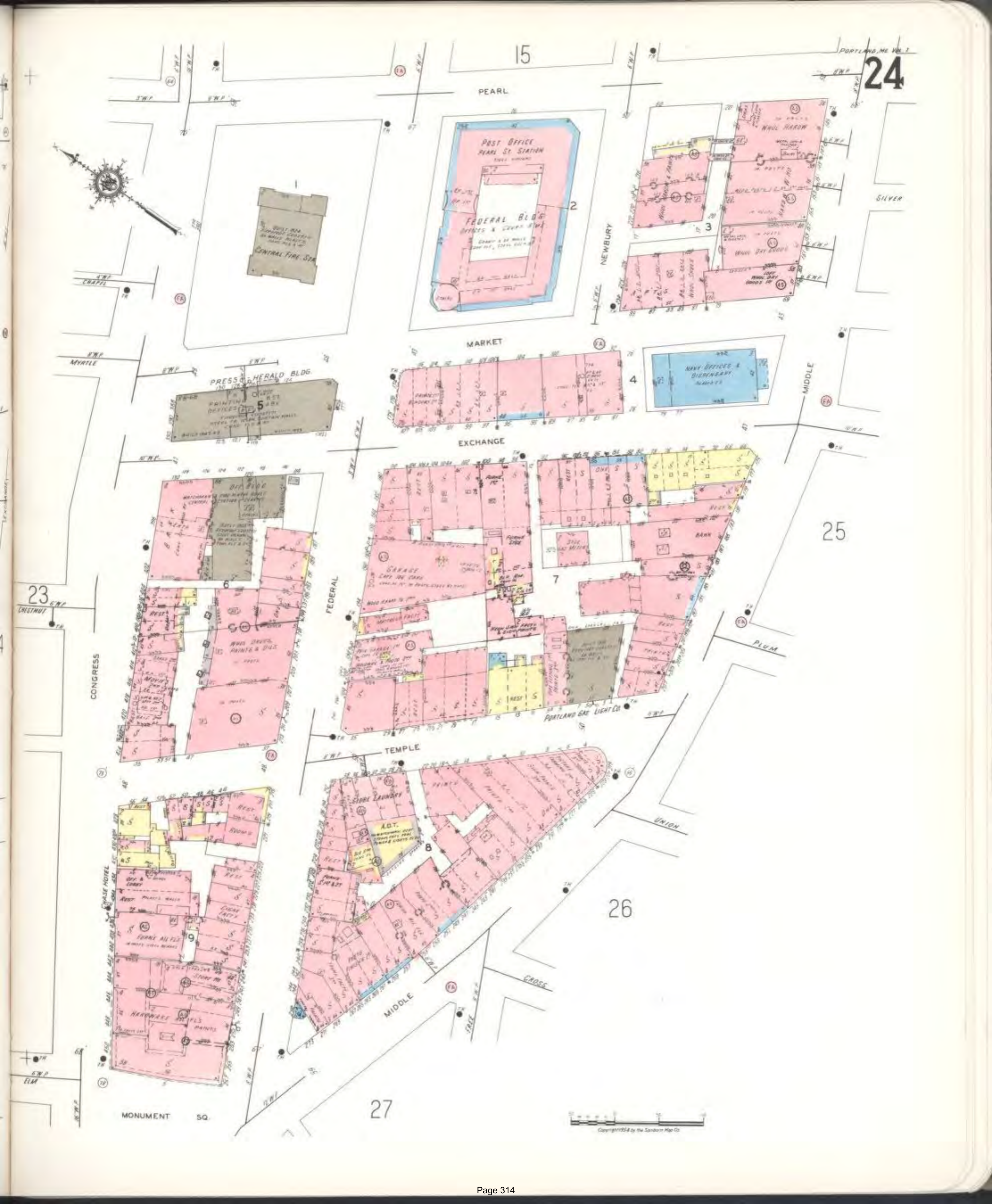
https://www.loc.gov/resource/g3734pm.g3734pm_g03527195401/?sp=23

Temple-Federal Street neighborhood before mass demolitions

Image 25 of Sanborn Fire Insurance Map from Portland, Cumberland County, Maine. | Library of Congress ([loc.gov](https://www.loc.gov))

https://www.loc.gov/resource/g3734pm.g3734pm_g03527195401/?sp=25&r=-0.81,0.2,619,1,213,0





15

24

PEARL

POST OFFICE
PEARL ST. STATION
FEDERAL BLDG
OFFICES & STORES

NEWBURY

SILVER

MARKET

EXCHANGE

25

23

CONGRESS

TEMPLE

26

UNION

27

MONUMENT SQ.

Copyright 1924 by the Standard Map Co.



Portland Public Library Archives



Portland Public Library Archives

200 FEDERAL STREET
REDFERN DOWNTOWN, LLC
PORTLAND, MAINE

LEGEND

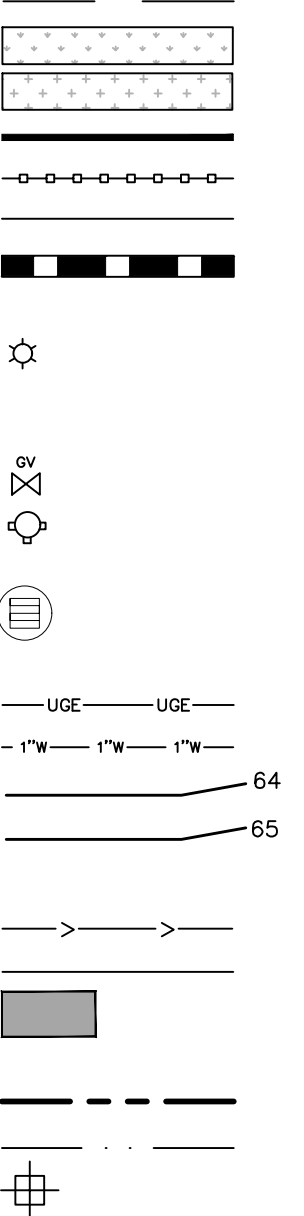
EXISTING

REFER TO THE
EXISTING
CONDITIONS PLAN
FOR ADDITIONAL
INFORMATION



PROPOSED

UNDERDRAIN
GREEN SPACE
UTILITY PAVEMENT CUTS
STRIPING
SEDIMENTATION BARRIER
EDGE OF PAVEMENT
CURB
SIGN
LAMP OR LIGHT POLE
UTILITY POLE
GUY WIRE
WATER VALVE
FIRE HYDRANT
SEWER MANHOLE
CATCH BASIN
DRAIN MANHOLE
UNDERGROUND ELECTRIC LINE
UNDERGROUND WATER LINE
MINOR CONTOURS (1 FT)
MAJOR CONTOURS (5 FT)
GAS LINE
STORM DRAIN LINE
SEWER LINE
EXISTING/PROPOSED BUILDING
OVERHEAD ELECTRICAL/TELEPHONE/CABLE
PROPERTY LINE
SETBACKS
BORING



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1925339 SITE PHOTOMETRIC PLAN – SWANEY LIGHTING ASSOCIATES

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

UTILITIES

SEWER

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

WATER

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

ELECTRIC

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

TELEPHONE

CONSOLIDATED COMMUNICATIONS
(FORMERLY FAIRPOINT)
45 FOREST AVENUE
PORTLAND, MAINE 04101
CONTACT: PAT MORRISON
(207) 745-9363

CABLE

SPECTRUM CABLE
118 JOHNSON ROAD
PORTLAND, MAINE, 04102
CONTACT: MARK PELLETIER
(877) 546-0962

NATURAL GAS

UNITIL SERVICE CORP
1075 FOREST AVENUE
PORTLAND, ME 04103
CONTACT: BRIDGET HARMON
(207) 541-2536

PROJECT TEAM

DEVELOPER

REDFERN DOWNTOWN, LLC
PORTLAND, MAINE
CONTACT: JONATHAN CULLEY
(207) 776-9715

OWNER’S REPRESENTATIVE

CORDJIA CAPITAL PROJECTS GROUP
CAMDEN, MAINE
CONTACT: BLAINE BUCK, P.E., R.A.
(207) 236-9973

ARCHITECT

RYAN SENATORE ARCHITECTURE
PORTLAND, MAINE
CONTACT: RYAN SENATORE, R.A.
(207) 650-6414

SURVEYOR

OWEN HASKELL, INC
FALMOUTH, MAINE
CONTACT: JOHN C. SCHWANDA, P.L.S.
(207) 774-0424

TRAFFIC ENGINEER

TRAFFIC SOLUTIONS
PORTLAND, MAINE
CONTACT: BILL BRAY, P.E.
(207) 774-3603

GEOTECHNICAL ENGINEER

SUMMIT GEOENGINEERING SERVICES
145 LISBON ST SUITE 701
LEWISTON, ME 04240
CONTACT: BILL PETERLEIN, P.E.
(207) 576-3313

STRUCTURAL ENGINEER

STRUCTURAL INTEGRITY CONSULTING ENGINEERS, INC.
PORTLAND, MAINE
CONTACT: AARON JONES, P.E.
(207) 774-4614

CIVIL ENGINEER

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

LANDSCAPE ARCHITECT

ACETO LANDSCAPE ARCHITECTS
PORTLAND, MAINE
CONTACT: NICK ACETO, PLA, ASLA
(207) 7221-3390

FIRE PROTECTION

CODE RED CONSULTANTS
SCARBOROUGH, MA
CONTACT: ZACH BLANCHARD, P.E.;
CARL NELSON, P.E.
(617) 500-7633

GENERAL CONTRACTOR

TBD

MEP DESIGNER

TBD

ABBREVIATIONS

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

APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CB	CATCH BASIN
CF	CUBIC FOOT
CIP	CAST IN PLACE
CL	CENTERLINE
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARD
DI	DUCTILE IRON
DIA.	DIAMETER
DIM.	DIMENSION
EA.	EACH
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FT.	FEET
GAL.	GALVANIZED
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
M.E.P	MECHANICAL, ELECTRICAL, PLUMBING DESIGNER
MFG.	MANUFACTURED
MH	MANHOLE
MIN.	MINIMUM
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OHE/T/C	OVERHEAD ELECTRIC/TELEPHONE/CABLE
PC	PRECAST
PE	PROFESSIONAL ENGINEER
PL	PROPERTY LINE
PLS	PROFESSIONAL LAND SURVEYOR
PROP.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PWD	PORTLAND WATER DISTRICT
R	RADIUS
RD	ROOF DRAIN
RET.	RETAINING
ROW	RIGHT OF WAY
S	SLOPE
SD	STORM DRAIN
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SMH	SEWER MANHOLE
SPEC.	SPECIFICATION
TC	TOP OF CURB
TW	TOP OF WALL
TYP.	TYPICAL
UD	UNDERDRAIN
UGE	UNDERGROUND ELECTRIC



VICINITY MAP
SCALE: 1"=1000'

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR
COST ESTIMATE
PRELIM PRICING
SITE PLAN APPLICATION

BY
DATE
WHS
11/15/19
WHS
9/7/2020
WHS
9/4/2020

COVER SHEET & LEGEND

FEDERAL STREET DEVELOPMENT
ADDRESS:
200 FEDERAL STREET PORTLAND, ME 04101

CLIENT/OWNER:
REDFERN DOWNTOWN, LLC
PORTLAND, ME 04104

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

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED BY THE ENGINEER, SHALL BE INDICATED BY A RED LINE AND SHALL BE SIGNED AND SEALED BY THE ENGINEER.

FILE: 1129_CIVIL
JN: 1129
SCALE: AS NOTED
DESIGNED BY: FRT
DRAWN BY: FRT
CHECKED BY: WHS/PHH

STATE OF MAINE
WILLIAM SAVAGE
No. 1141C
9-28-20
Professional Engineer

DRAWING NO.
C-01

3. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN. IF DEEMED NECESSARY BY THE OWNER OR OWNER'S REPRESENTATIVE (IF APPLICABLE), ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULE BASED ON THE PLANS AND FIELD VERIFICATION BY THE CONTRACTOR. ALL MATERIAL SCHEDULES SHOWN WITHIN THE PLAN SET ARE FOR GENERAL INFORMATION ONLY.
4. ALL CONSTRUCTION METHODS, TESTING AND MATERIALS SHALL CONFORM TO THE MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE CITY OF PORTLAND AND SERVING UTILITY REQUIREMENTS, IF ANY. IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SPECIFICATION SHALL APPLY AT NO ADDITIONAL COST TO THE OWNER.
5. THE SITE CONTRACTOR SHALL MAINTAIN A SET OF PAPER AND CAD DRAWINGS WHICH SHALL RECORD THE ACTUAL LOCATION, DIMENSIONS, ELEVATIONS, MATERIALS OF THEIR WORK, INDICATING THEREON ALL VARIATIONS FROM THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS, IN AUTOCAD FORMAT AND PAPER, STAMPED "AS-BUILT". IF AUTOCAD CAPABILITY IS NOT AVAILABLE, EXCLUDE FROM BID IN WRITING.
6. THE CONTRACTOR WILL REMAIN SOLELY AND COMPLETELY RESPONSIBLE FOR ENFORCEMENT OF AND COMPLIANCE WITH 1) ALL CONTRACT PLANS AND SPECIFICATIONS, 2) APPLICABLE INTERNATIONAL BUILDING CODE REQUIREMENTS, AND 3) ALL SITE WORKING CONDITIONS AND SAFETY REQUIREMENTS, DAY AND NIGHT, FOR BOTH PERSONS AND PROPERTY, IN EACH CASE BOTH BY THE CONTRACTOR AND ITS SUBCONTRACTORS. THESE INCLUDE ALL OSHA, NIOSH, U.S. EPA AND ANY OTHER APPLICABLE GOVERNMENTAL REGULATIONS.
7. EXISTING CONDITIONS, BOUNDARY SURVEY, AND TOPOGRAPHY FROM THE PLAN TITLED BOUNDARY & TOPOGRAPHIC SURVEY BY OWEN HASKELL, INC. DATED 11/12/19, REV 12/3/19.
8. SUBSURFACE DATA HAVE BEEN OBTAINED BY SUMMIT GEOENGINEERING SERVICES, INC. AND SHALL BE INCLUDED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL ALSO REVIEW THE REPORT PRIOR TO SUBMITTING A BID.
9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THE SITE AND ALL ADJACENT PROPERTIES 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.
10. CONSTRUCTION MANAGEMENT PLAN AND SITE LOGISTICS NARRATIVE BY THE CONTRACTOR SHALL BE REFERRED TO FOR ANTICIPATED PROJECT SCHEDULE AND CLOSURES. TRAFFIC CONTROL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
11. CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.
12. 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.
13. 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 ALONG FEDERAL STREET, TEMPLE STREET, EXCHANGE STREET, AND CONGRESS STREET. A COPY OF THE SURVEY SHOULD BE PROVIDED TO THE OWNER. DOCUMENT WITH PICTURES AT A MINIMUM.
14. THE CONTRACTOR SHALL SURVEY ROCK SURFACE PRIOR TO EXCAVATION AND DEVELOP VOLUME CALCULATIONS TO SHARE WITH THE ENGINEER, ACORN ENGINEERING INC. (ACORN), IF ANY.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES AND SHRUBS ON THE PROJECT WHICH ARE NOT TO BE REMOVED.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY TRENCH PAVEMENT THAT HAS EXPERIENCED EXCESSIVE SETTLEMENT, CRACKING, OR OPENING OF JOINTS. REPAIRS MAY INCLUDE OVERLAY. REMOVAL OF WORK MAY BE NECESSARY AFTER THE FINAL ACCEPTANCE OF WORK OR PRIOR TO THE END OF THE WARRANTY PERIOD. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

3. THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO ACORN TO MODIFY THE CONTRACT DOCUMENTS.
2. ALL SHOP, ERECTION, AND CONSTRUCTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMISSION FOR ACORN'S REVIEW. ANY UNCHECKED OR NON-STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
3. CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY EXISTING STRUCTURES AND SITE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS. CONTRACTOR TO NOTIFY ACORN OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. DETAILS SHOWN APPLY TO ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
5. ALTHOUGH ALL DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT ALL DETAILS ARE ILLUSTRATED, NOR IS EVERY EXCEPTION CONDITION ADDRESSED WITHIN THE CONTRACT DOCUMENTS.
6. ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
7. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK, INCLUDING DIMENSION AND LAYOUT VERIFICATION, MATERIALS COORDINATION, SHOP DRAWING REVIEW, AND THE WORK OF ANY SUBCONTRACTORS.
8. UNLESS OTHERWISE SPECIFICALLY INDICATED, THE DRAWINGS DO NOT DESCRIBE OR DIRECT MEANS OR METHODS OF CONSTRUCTION.
9. THE CONTRACTOR, IN THE PROPER SEQUENCE, SHALL PERFORM OR SUPERVISE ALL WORK NECESSARY TO ACHIEVE THE FINAL COMPLETED STRUCTURE, AND TO PROTECT THE STRUCTURE, WORKMEN, AND OTHERS DURING THE CONSTRUCTION. SUCH WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR EXCAVATION, FORMWORK, SCAFFOLDING, SAFETY DEVICES AND PROGRAMS OF ALL KINDS, SUPPORT AND BRACING FOR CRANES AND OTHER ERECTION EQUIPMENT.
10. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE BRACING IS PROVIDED. PRIOR TO BACKFILL, PROVIDE CURING OF CONCRETE FOR 28 DAYS OR AS DIRECTED BY MATERIALS TESTING ENGINEER.
11. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE, IF APPLICABLE.
12. ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
13. ACORN BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND SITE OBSERVATION VISITS DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.
14. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CRF PART 1926.650-652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).
15. ALL TRENCH PAVEMENT REPAIR SHALL BE COMPLETED WITH THE USE OF A STREET PAYER WITH A SCREED WIDTH CAPABLE OF SPANNING THE FULL WIDTH OF THE TRENCH UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

1. ALL SITE SOILS--RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS SHALL BE REVIEWED BY THE PROJECT GEOTECHNICAL ENGINEER.
2. ALL SITE DRAINAGE--RELATED WORK SHALL BE REVIEWED BY ACORN ENGINEERING.
3. NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT.
4. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.
5. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.
6. 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.
7. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINE ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
8. THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT AND ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES. THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, AND NET CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.
9. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN TEN DAYS OF THE FINAL INSPECTION STATING WHETHER THE WORK REQUIRING A SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE AND BELIEF, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE. WORK NOT IN COMPLIANCE SHALL BE NOTED IN THE REPORT.
10. SPECIAL INSPECTION FIRM SHALL BE EMPLOYED BY REDFERN AND COORDINATED BY THE CONTRACTOR.

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

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF SITE PLAN - LEVEL III AND SUBDIVISION PERMIT FROM THE CITY OF PORTLAND.
2. THE CONTRACTOR SHALL REVIEW THE ABOVE REFERENCED PERMITS PRIOR TO SUBMITTING A BID FOR THIS PROJECT, AND INCLUDE COSTS AS NECESSARY TO COMPLY WITH THE CONDITIONS OF THESE PERMITS.
3. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRES A STREET OPENING PERMIT FROM THE CITY OF PORTLAND. ADDITIONALLY, COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS.

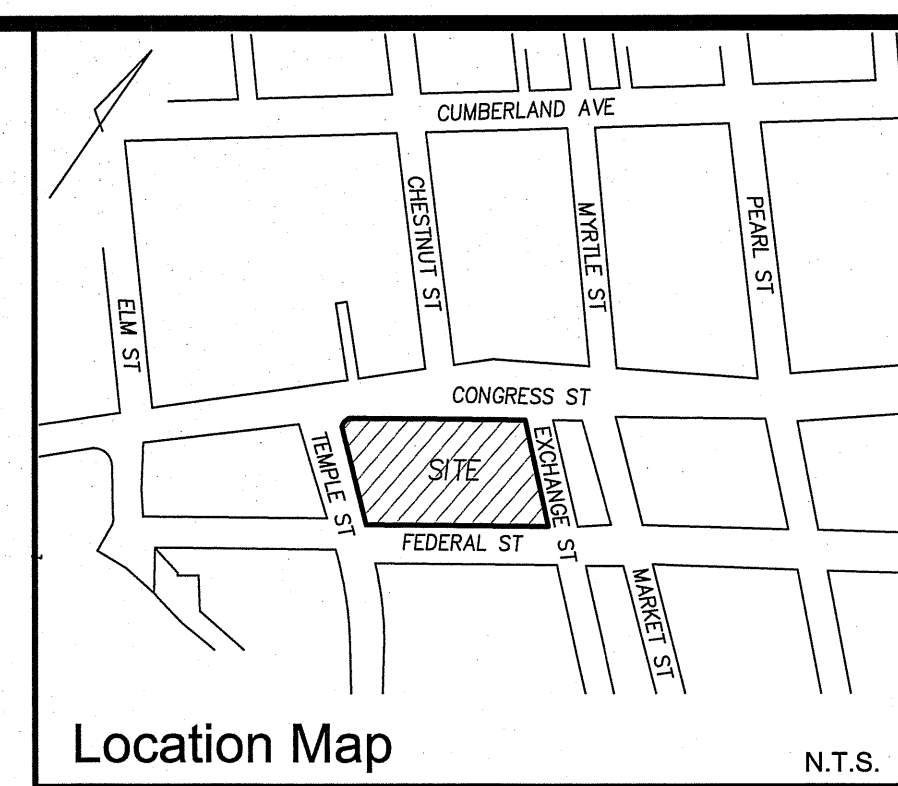
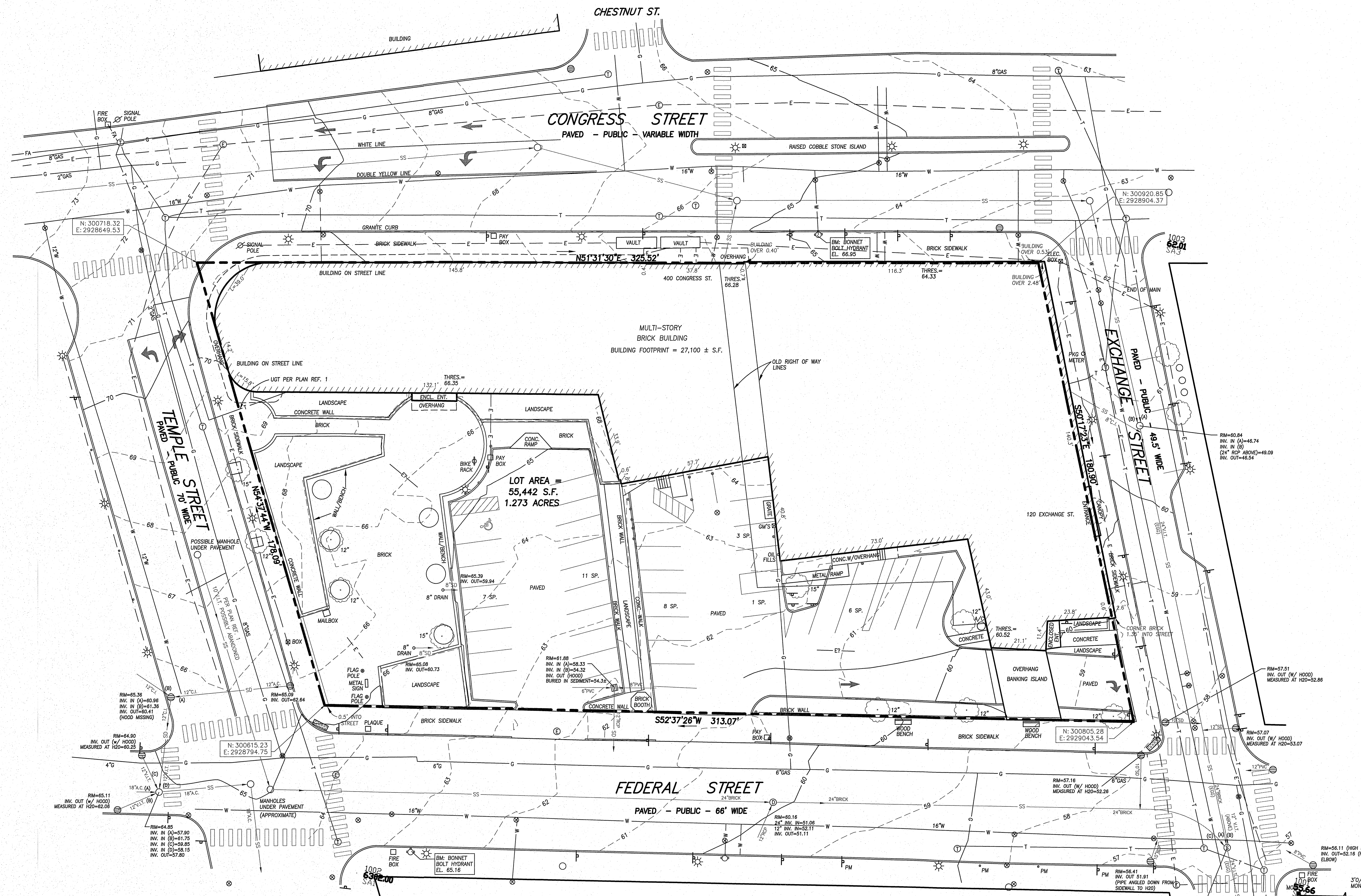
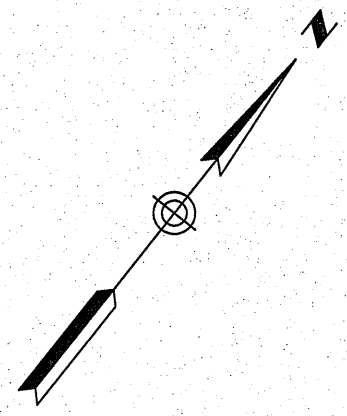
1. TOPSOIL STRIPPED FROM THE SITE THAT IS SUITABLE FOR REUSE AS LOAM (MEETS THE REQUIREMENTS WITHIN SECTION 615 OF THE MDOT STANDARD SPECIFICATIONS, MOST RECENT VERSION AND IS FREE OF TRACEABLE AMOUNTS OF CONTAMINANTS) SHALL BE STOCKPILED WITHIN THE PROPOSED LIMIT OF WORK AREA. THE CONTRACTOR SHALL NOT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

1. ALL ROUTINE MAINTENANCE ACTIVITIES SHALL BE CONDUCTED IN SUCH A WAY TO LIMIT THE AMOUNT OF DISTURBED AREA AT ONE TIME TO THE EXTENT PRACTICABLE.
2. PRIOR TO THE START OF ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL DEVICES SUCH AS PERIMETER SILT FENCE, AND OTHER APPLICABLE MEASURES. IN THE EVENT THE CONTRACTOR IS NOT SURE A EROSION CONTROL MEASURE SHOULD BE IMPLEMENTED, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD TO CONFIRM IMPLEMENTATION OF ANY EROSION CONTROL DEVICES.
3. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCH SHALL BE APPLIED AS SOON AS POSSIBLE WITHIN 7 DAYS FOLLOWING THE COMPLETION OF ANY SOIL DISTURBANCE, AND PRIOR TO ANY STORM EVENT.
4. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL REFERENCE THE APPROVED EROSION AND SEDIMENTATION CONTROL REPORT OR TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET. THE CONTRACTOR MUST ALSO REFER TO THE APPLICABLE PERMIT CONDITIONS AS IDENTIFIED IN PERMITTING NOTES ABOVE, FINDINGS OF FACT AND ORDER (IF ANY), AND THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL, MOST RECENT EDITION, FOR ADDITIONAL INFORMATION.
5. PRIOR TO PAVING, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT FROM STORM DRAINS, CATCH BASINS, AND APPURTENANCES.
6. REFER TO THE EROSION CONTROL DETAILS & NOTES FOR ADDITIONAL INFORMATION.

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEST PIT TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES TO COORDINATE WITH THE PROPOSED CONNECTIONS OR CROSSING. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.
2. CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, CONDUCT EXPLORATORY EXCAVATIONS AT LOCATIONS WHERE PROPOSED EXCAVATION WILL INTERSECT WITH EXISTING UTILITIES, PRIOR TO THE ORDERING OF STRUCTURES.
3. ALL NEW SANITARY MANHOLES SHALL BE VACUUM TESTED BEFORE BACKFILLING. TESTING SHALL BE COMPLETED IN ACCORDANCE WITH TECHNICAL REPORT #16 (TR-16): GUIDES FOR THE DESIGN OF WASTEWATER TREATMENT WORKS, PREPARED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION.
4. SEWER MANHOLES SHALL BE 4' ID UNLESS OTHERWISE STATED ON THE PLANS.
5. CONTRACTOR TO PROVIDE 5'-6" OF COVER FROM TOP OF PIPE TO FINISH GRADE FOR WATER MAINS.
6. THRUST BLOCKS SHOULD BE USED FOR THRUST RESTRAIN ON WATER MAINS. DETAIL AND LIMITS FOR THRUST BLOCKS ARE SHOWN WITHIN THE PLAN SET.
7. WATER INFRASTRUCTURE SHALL BE TESTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT DOCUMENT "WATER AND SEWER CONSTRUCTION SPECIFICATIONS AND PROCEDURE", MOST RECENT REVISION.
8. ALL REQUIRED FITTINGS FOR THE WATER MAIN ARE NOT SHOWN ON DRAWINGS. CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY FITTINGS REQUIRED TO CONSTRUCT THE WATER MAIN IN ACCORDANCE WITH CITY OF PORTLAND, STATE OF MAINE, AND AMERICAN WATER WORKS ASSOCIATION STANDARDS AND REGULATIONS.
9. CONTRACTOR SHALL COORDINATE WORK REGARDING ANY WATER MAIN CONNECTION AND WATER MAIN SHUTDOWN WITH THE PORTLAND WATER DISTRICT AT LEAST SEVEN (7) DAYS PRIOR TO CONSTRUCTION.
10. ALL WATER PIPE INSTALLATION SHALL CONFORM WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS AND PROCEDURES, MOST RECENT EDITION.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
12. SEWER, GAS, TELEPHONE, ELECTRICITY, CABLE, WATER AND ANY OTHER UTILITY CONNECTIONS SHALL BE REVIEWED BY MEP DESIGNER FOR CONSISTENCY WITH THEIR PLANS PRIOR TO CONSTRUCTION.
13. COORDINATE EXIT POINT FOR SECONDARY UTILITY SERVICES WITH THE ARCHITECT/MEP DESIGNER. SECONDARY LINE LOCATIONS NOT PROVIDED BY ACORN WITHIN THE UTILITY PLAN.

1. THE FOLLOWING ITEMS ARE TYPICAL OF MATERIAL WHICH MAY BE ON SITE:
 - ROCK AND CONCRETE FOUNDATIONS
 - CONCRETE SLABS
 - BITUMINOUS ASPHALT PAVEMENT
 - CONCRETE PADS AND BLOCKS
 - FENCE POST AND FENCING
 - UNDERGROUND UTILITY LINES
 - ABOVE AND OR BELOW FUEL OIL AND PROPANE GAS TANKS
 - STORM DRAIN PIPES AND APPURTENANCE STRUCTURES
 - OTHER TRASH & MISCELLANEOUS SOLID WASTES
2. THE CONTRACTOR IS ADVISED TO VISIT THE SITE TO CONFIRM DEMOLITION ITEMS SINCE THE LIST IS NOT INCLUSIVE OF THE SITE CONDITIONS WHICH MAY BE ENCOUNTERED
3. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTORS SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" DEMONSTRATING PROPER DISPOSAL OF ALL MATERIALS.
4. A PHASE I - ENVIRONMENTAL SITE ASSESSMENT FOR THE PROPERTY HAS BEEN DEVELOPED BY WOODARD & CURRAN, DATED MARCH 27, 2019.

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION



- Legend**
- MONUMENT FOUND
 - IRON PIPE OR ROD FOUND
 - MANHOLE
 - HYDRANT
 - WATER VALVE OR SHUTOFF
 - GAS VALVE
 - CATCH BASIN
 - UTILITY POLE
 - LIGHT POLE
 - ELECTRIC OR GAS METER
 - SIGN
 - CURB
 - OHW OVERHEAD WIRES
 - DECIDUOUS TREE
 - N/F NOW OR FORMERLY
 - 000/000 DEED BOOK / PAGE
 - CONC. CONCRETE
 - BOLLARD
 - PM PARKING METER
 - W WATER LINE
 - G GAS LINE
 - T TELEPHONE
 - E UNDERGROUND ELECTRIC
 - FA FIRE ALARM
 - SD STORM DRAIN
 - SS SANITARY SEWER
 - 70 1" CONTOUR

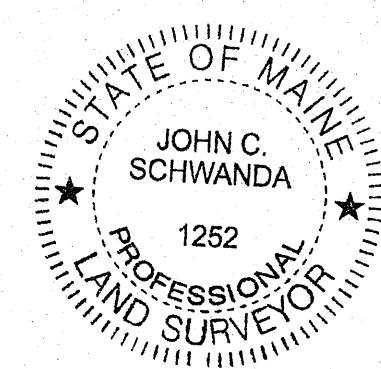
- Plan References**
1. "MAINE NATIONAL BANK, SITE PLAN, SURVEY AND PLAN BY H.I. & E.C. JORDAN SURVEYORS" MARCH 30, 1973 REVISED THROUGH APRIL 25, 1973 ECJ FILE #89.
 2. "CITY OF PORTLAND, MAINE DEPARTMENT OF PUBLIC WORKS, CONGRESS ST., FROM PEARL ST. TO STATE ST. STREET LINE DATA" MAY 6, 1949 CITY FILE NO. 456/43
 3. "PLAN OF PROPERTY IN PORTLAND, ME MADE FOR GANNETT PUBLISHING CO., INC. APRIL 1946" BY H.I. & E.C. JORDAN CIVIL ENGINEERS.
 4. "PLAN OF PROPERTY IN PORTLAND, MAINE, MADE FOR UNION MUTUAL LIFE INSURANCE CO. FEBRUARY 1953" BY H.I. & E.C. JORDAN CIVIL ENGINEERS.
 5. CITY OF PORTLAND ENGINEERING DEPARTMENT STREET LINE PLANS.
 6. H.I. & E.C. JORDAN & CO. SURVEYS OF 1920 AND 1922 (SEE BOOK 1111, PAGE 119)
 7. ALTA/NSPS LAND TITLE SURVEY, 396 CONGRESS STREET (AKA 400 CONGRESS STREET) PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR P O SQUARE PORTLAND LLC AND ITS ASSIGNS, MAY 8, 2019, BY OWEN HASKELL, INC.

- General Notes**
1. OWNER OF RECORD: PO SQUARE BUILDING LLC, 120 EXCHANGE ST., PORTLAND, ME C.C.R.D. BOOK 35640 PAGE 71 TAX MAP 32 BLOCK G LOT 1
 2. BEARINGS ARE BASED ON STATE PLANE COORDINATE SYSTEM, MAINE WEST ZONE, NAD83 PER CITY CONTROL PROVIDED BY THE DEPARTMENT OF PUBLIC WORKS. MONUMENTS USED: L757-32-104 (CEDAR & CUMBERLAND), T124-18-1152 (WHARF & UNION)
 3. ELEVATIONS ARE BASED ON CITY DATUM. CONTROL POINT #23 T-113-44-141 ELEVATION 52.08 USED.
 4. ONLY TWO CITY STREET MONUMENTS WERE FOUND, ON FEDERAL STREET. THE STREET LINES ARE BASED ON THOSE MONUMENTS FOR FEDERAL AND EXCHANGE AND PLAN REFERENCE 1 FOR CONGRESS AND TEMPLE STREETS.
 5. UNDERGROUND UTILITIES IN THE STREET MARKED VIA DIGSAFE. UNDERGROUND UTILITIES ON SITE MARKED BY DIGSMART OF MAINE. PLAN REFERENCE 1 ALSO UTILIZED FOR THE LOCATION OF UNDERGROUND UTILITIES.

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.

10-13-2020 *John C. Schwanda*
DATE JOHN C. SCHWANDA, PLS #1252



REV.3	10-13-20	REVISED COUNTOURS
REV.2	9-02-20	INVERT INFORMATION, ADDITIONAL UTILITES, BEARINGS
REV.1	12-03-19	UNDERGROUND UTILITIES, CITY HORIZONTAL COORDS.

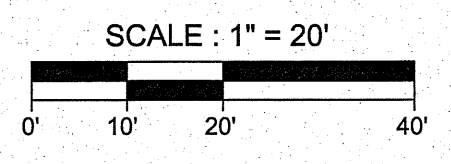
Boundary & Topographic Survey
At
396-400 Congress Street, Portland, Maine
Made for
Acorn Engineering
65 Hanover Street, Portland, Maine

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 US ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424

DRAWN BY:	RS / JLW	DATE:	NOV. 12, 2019	JOB NO.	2019-287 P
CHECKED BY:	JCS	SCALE:	1" = 20'	DRWG. NO.	1

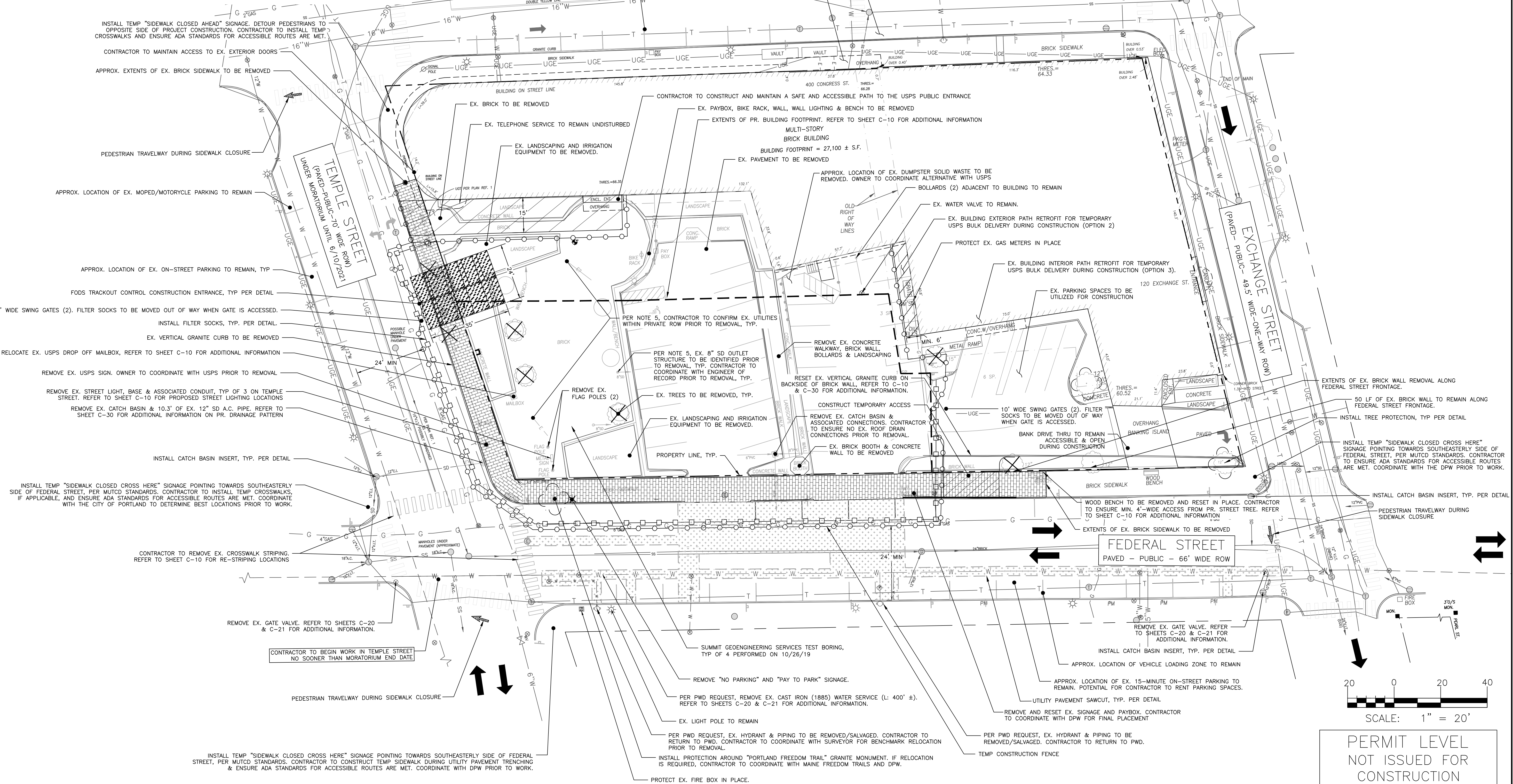
Utility Note

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.



GENERAL NOTES:

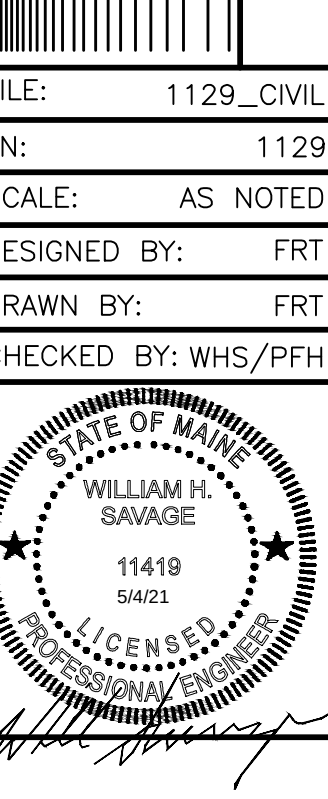
1. EXISTING ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
2. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTOR SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" TO DEMONSTRATE PROPER DISPOSAL OF ALL MATERIALS.
3. SITE DEMOLITION SHALL NOT OCCUR UNTIL PROPER ABATEMENT PROCEDURES HAVE OCCURRED. ABATEMENT, IF NECESSARY, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES IN PUBLIC ROW. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE POTENTIAL CONFLICT WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
5. CONTRACTOR WILL BE RESPONSIBLE FOR UTILIZING A PRIVATE UTILITY LOCATING SERVICE COMPANY PRIOR TO WORK IN PRIVATE ROW.
6. ALL CONSTRUCTION SIGNAGE IS TEMPORARY AND WILL BE REMOVED AT PROJECT COMPLETION. SITE SIGNAGE TO COMPLY WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS. FINAL SIGNAGE WORDING AND PLACEMENT LOCATION TO BE ACCEPTED BY THE CITY.
7. SEDIMENT BARRIERS TO BE PLACED DIRECTLY ON THE FRONT AND SIDE PROPERTY LINES. DOWN GRADIENT OF THE PROPOSED PROJECT WORK PER DETAIL; FENCES ARE OFFSET OF THE PROPERTY LINES AS SHOWN ON THE PLAN FOR CLARITY PURPOSES AND DO NOT NECESSARILY DEPICT THE PHYSICAL LOCATION.
8. DEMOLITION PLAN IS NOT INCLUSIVE OF ALL EXISTING ITEMS TO BE REMOVED AS PART OF SITE CONSTRUCTION INCLUDING BUT NOT LIMITED TO: BRICKS, FOUNDATION MATERIALS, SOILS REQUIRING SPECIAL HANDLING & DISPOSAL, ETC.
9. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING OFF-SITE PARKING TO EMPLOYEES; ON-SITE PARKING WILL NOT BE PROVIDED OR GUARANTEED. CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING THE APPROPRIATE PERMITS FROM THE CITY FOR CLOSING ANY ON-STREET PARKING SPACES DURING THE CONSTRUCTION PERIOD.
10. CONTRACTOR TO COORDINATE WITH OWNER CONCERNING "LANDLORD RESPONSIBILITIES" AS IDENTIFIED IN EXISTING TENANT LEASES.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR SNOW REMOVAL ON-SITE AND ALONG CONSTRUCTION FENCE AND GATE WITHIN PUBLIC ROW.
12. ROCK EXCAVATION MUST BE IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.
13. FOR EXCAVATIONS INTO THE ROW ASSOCIATED WITH A STREET OPENING PERMIT & PRIVATE ROW, CONTRACTOR SHALL ASSUME VARYING DEPTH OF PAVEMENT AND THE POSSIBILITY OF ENCOUNTERING MISCELLANEOUS URBAN FILL DEBRIS INCLUDING, BUT NOT LIMITED TO: BRICKS, FOUNDATION MATERIALS, SOILS REQUIRING SPECIAL HANDLING & DISPOSAL, ETC.
14. POTENTIAL BIDDERS SHALL REFER TO BORING LOGS PERFORMED BY SUMMIT GEOENGINEERING SERVICES FOR FEDERAL STREET NEW MULT-STORY BUILDING, DATED 10/26/19, FOR ADDITIONAL INFORMATION. COPIES WILL BE MADE AVAILABLE UPON REQUEST.



ISSUED FOR	BY	DATE
COST ESTIMATE	WHS	11/15/19
PRECON DESIGN	WHS	11/26/19
PRELIM PRICING	WHS	8/7/2020
SITE PLAN APPLICATION	WHS	4/4/2020
PROGRESS SET	FRT	1/19/2020
CITY COMMENT RESPONSE	PH	3/10/2021
CITY COMMENT RESPONSE	PH	4/23/2021
CITY COMMENT RESPONSE	WHS	9/7/2021

DRAWING NAME	PROJECT NAME/ADDRESS	CLIENT/OWNER
CONSTRUCTION MANAGEMENT PLAN	FEDERAL STREET DEVELOPMENT	REDFERN DOWNTOWN, LLC
	201 FEDERAL STREET W PORTLAND, ME 04101	PORTLAND, ME 04104

FILE	JN	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
1129_CIVIL	1129	AS NOTED	FRT	FRT	WHS/PH



DRAWING NO.
C-03

1. BRICK SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF PORTLAND STANDARD.
2. PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF PORTLAND STANDARDS.
3. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
4. RAMPS SHALL CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT FOR A MAXIMUM RISE OF 30-INCHES.
5. SIGN SENSITIVE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
6. FOLLOWING COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.
7. PAVEMENT JOINTS SHALL BE SAWCUT & TACK COATED PRIOR TO PAVING TO PROVIDE A DURABLE & UNIFORM JOINT

SPACE AND BULK STANDARDS			
B3 DOWNTOWN BUSINESS, DOWNTOWN ENTERTAINMENT OVERLAY ZONE, DOWNTOWN HEIGHT OVERLAY, CONGRESS STREET HISTORIC DISTRICT	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	1.27 AC	1.27 AC
MINIMUM STREET FRONTAGE	15 FT	998 FT	998 FT
MAXIMUM STREET WALL BUILD-TO LINE	5 FT	NA	0 FT
MINIMUM YARD DIMENSIONS	NONE	NA	NA
MINIMUM LOT WIDTH	NONE	NA	NA
MAXIMUM LOT COVERAGE	100%	91.4%	96.0%
MINIMUM BUILDING HEIGHT	35 FT	NA	>35 FT. SEE MAX. HEIGHT
MAXIMUM STREET WALL HEIGHT	90 FT	NA	38 FT ±
MAXIMUM BUILDING HEIGHT*	190 FT	NA	190 FT ±
BICYCLE PARKING	107 INTERIOR**	2 EXTERIOR	10 EXTERIOR 107 INTERIOR
*WHEN UTILIZING 40 FT ARCHITECTURAL CAP ALLOWANCE, PER "DOWNTOWN HEIGHT OVERLAY PORTLAND MAINE" MAP & SEC. 14-220(I)(3), PROPOSED MAP & TEXT AMENDMENT (PLAN ZN-001230-2020) TO ALLOW FOR RESIDENTIAL UNITS WITHIN THE "APPURENANCE."			
**PER SEC. 14-526(A)4B(I)(A): TWO BICYCLE PARKING SPACES FOR EVERY FIVE (5) DWELLING UNITS SHALL BE REQUIRED. 266 UNITS * 0.4 SPACES/UNIT = 107 SPACES REQUIRED			

**201 FEDERAL STREET W
14,187 SF ± FOOTPRINT
MIXED USE**

TEMPLE STREET
(PAVED-PUBLIC-66" WIDE ROW)
(PAVED-PUBLIC-66" WIDE ROW) UNTIL 6/10/2021
UNDER RECONSTRUCTION

FEDERAL STREET
(PAVED-PUBLIC-66" WIDE ROW)

**PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION**

SCALE: 1"=10'

TABLES:

CURB & LANDINGS			
CONCRETE	588	523	
TOTAL (EXCL. ROOF)	22,852	13,140	
TOTAL (INCL. ROOF)	50,555	54,048	

MINIMUM YARD DIMENSIONS			
MINIMUM LOT WIDTH	NONE	NA	NA
MINIMUM LOT DEPTH	NONE	NA	NA
MINIMUM LOT COVERAGE	100%	91.4%	96.0%
MINIMUM BUILDING HEIGHT	35 FT	NA	>35 FT. SEE MAX. HEIGHT
MAXIMUM STREET WALL HEIGHT	90 FT	NA	38 FT ±
MAXIMUM BUILDING HEIGHT*	190 FT	NA	190 FT ±
BICYCLE PARKING	107 INTERIOR**	2 EXTERIOR	10 EXTERIOR 107 INTERIOR

*WHEN UTILIZING 40 FT ARCHITECTURAL CAP ALLOWANCE, PER "DOWNTOWN HEIGHT OVERLAY PORTLAND MAINE" MAP & SEC. 14-220(1)(3), PROPOSED MAP & TEXT AMENDMENT (PLAN ZN-001230-2020) TO ALLOW FOR RESIDENTIAL UNITS WITHIN THE "APPERTENANCE."

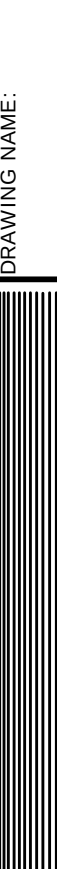
**PER SEC. 14-526(A)(4)(A): TWO BICYCLE PARKING SPACES FOR EVERY FIVE (5) DWELLING UNITS SHALL BE REQUIRED. 266 UNITS * 0.4 SPACES/UNIT = 107 SPACES REQUIRED

PARKING SUMMARY

PARKING DIMENSION	REQUIRED	PROPOSED ON-SITE	PROPOSED ON-STREET	OFFSITE LEASE (TBD)
9'x18'	-	12	-	-
11'x18' (ADA)	-	1	-	-
8'x15' (COMPACT)	-	1	-	-
9'x15' (COMPACT)	-	1	-	-
EXISTING TO REMAIN	-	5	-	-
PARALLEL	-	-	2, 15-MIN SPACES	-
TOTAL:	125*	20	2	125*

*REQUIRED RESIDENTIAL PARKING DEMAND, AS DETERMINED BY PARKING ASSESSMENT PERFORMED BY TRAFFIC SOLUTIONS DATED 10/6/20.

ISSUED FOR		BY
		DATE
PRE-APP MEETING		WHS
CSS MAP & TEXT AMENDMENT		12/21/19
CSS SITE PLAN		WHS
		7/24/2020
		WHS
		8/4/2020
PRELIM PRICING		WHS
		3/7/2020
MAP & TEXT AMENDMENT		WHS
		9/21/2020
SITE PLAN APPLICATION		WHS
		3/24/2020
HP APPLICATION		WHS
		12/8/2020
CITY COMMENT RESPONSE		WHS
		3/10/2021
CITY COMMENT RESPONSE		WHS
		4/28/2021
CITY COMMENT RESPONSE		WHS
		3/4/2021
CITY COMMENT RESPONSE		WHS
		8/26/2021
DRAWING NAME:		
PROJECT NAME/ADDRESS:		
CLIENT/OWNER:		
SITE PLAN FEDERAL STREET DEVELOPMENT 201 FEDERAL STREET W PORTLAND, ME 04101 REDFERN DOWNTOWN, LLC PORTLAND, ME 04104		



ACORN ENGINEERING, INC.

THIS PLAN SHALL NOT BE ASSIGNED 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.
 PO BOX 3372, PORTLAND MAINE 04101
 (207) 775-2855

FILE:	1129_CIVIL
JN:	1129
SCALE:	AS NOTED
DESIGNED BY:	FRT
DRAWN BY:	FRT
CHECKED BY:	WHS/PRH



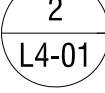
STATE OF MAINE
 WILLIAM H. SAVAGE
 11419
 5/4/21
 LICENSED PROFESSIONAL ENGINEER

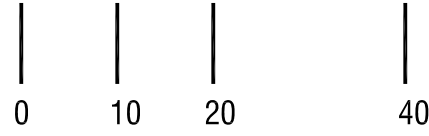
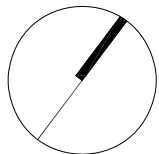
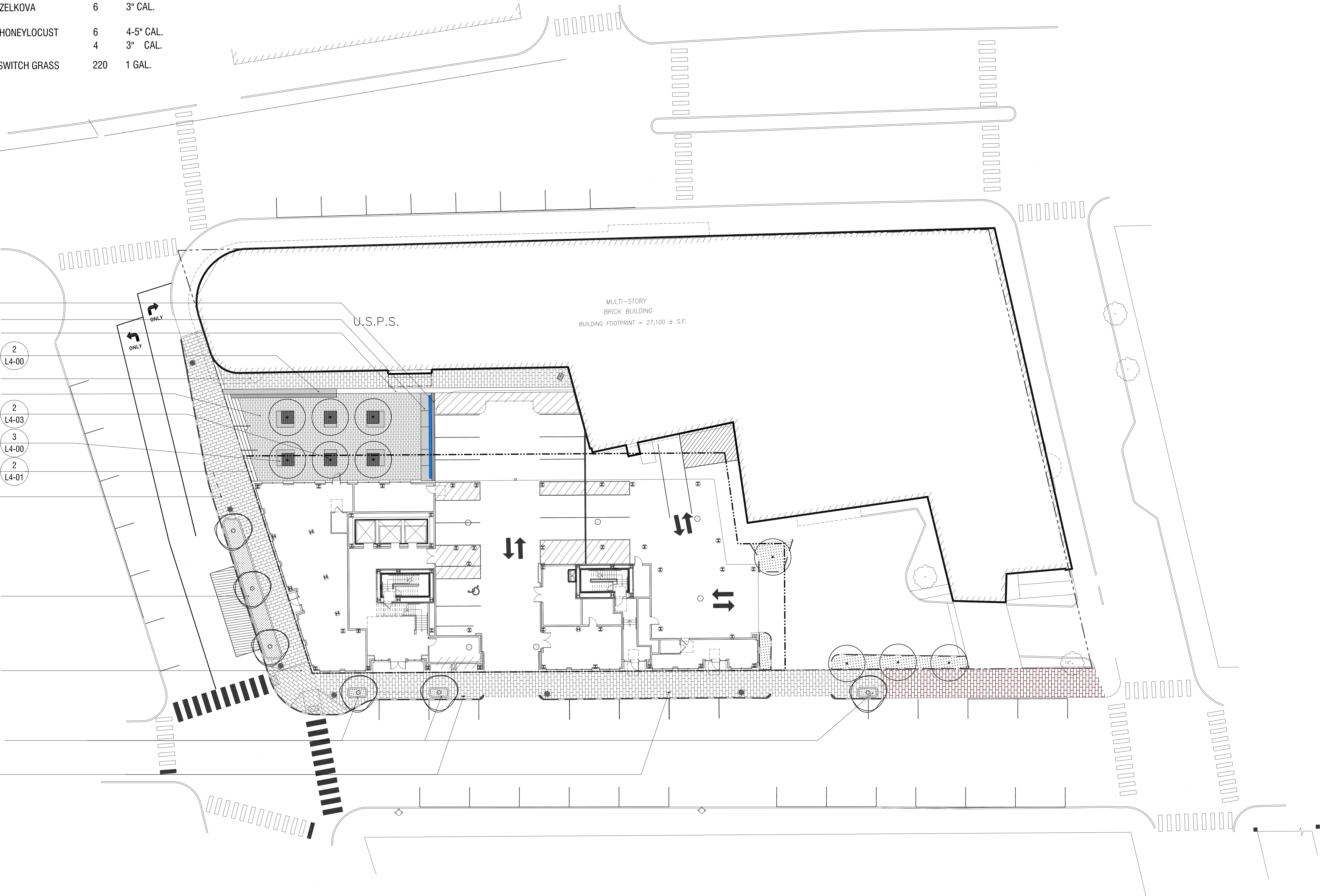
DRAWING NO.

C-10

PLANTING LEGEND

SYM.	BOTANICAL NAME	COMMON NAME	QTY.	SIZE
TREES				
	ZELKOVA SERRATA 'MUSASHINO'	ZELKOVA	6	3" CAL.
	GLEDITSIA TRICANTHOS 'INTERMIS'	HONEYLOCUST	6	4-5" CAL.
			4	3" CAL.
	PANICUM VIRGATUM 'SHENANDOAH'	SWITCH GRASS	220	1 GAL.

- WATERWALL (TBD)
- MASONRY WALL / BENCH
- MASONRY PAVING
- MASONRY WALL W/ WOOD BENCH 
- CITY OF PORTLAND BRICK SIDEWALK (SEE CIVIL)
- PERMEABLE PAVERS (SEE CIVIL)
- TREE GRILLE - STREETLIFE CUSTOM 
- CUSTOM BENCH (TBD) 
- MASONRY STEPS W/ HANDRAIL 
- CITY OF PORTLAND STANDARD BIKE RACK (SEE CIVIL DETAIL)
- RAISED GRANITE PLANTER (TYP. CITY OF PORTLAND DETAIL)
- CITY OF PORTLAND BRICK SIDEWALK (SEE CIVIL)
- RAISED GRANITE PLANTER (TYP. CITY OF PORTLAND DETAIL)
- CITY OF PORTLAND STANDARD BIKE RACK (SEE CIVIL)



PROJECT TITLE

200 FEDERAL STREET
PORTLAND, ME

PREPARED FOR

OWNER:
REDFERN DOWNTOWN LLC
Portland, Maine 04104

REVISIONS	DATE
REVISION #1	04-20-21
REVISION #2	05-05-21
REVISION #3	05-19-21

ISSUE DATE

SITE PLAN APPLICATION
MARCH 9, 2021

SHEET TITLE

SITE & PLANTING PLAN

SHEET INFORMATION

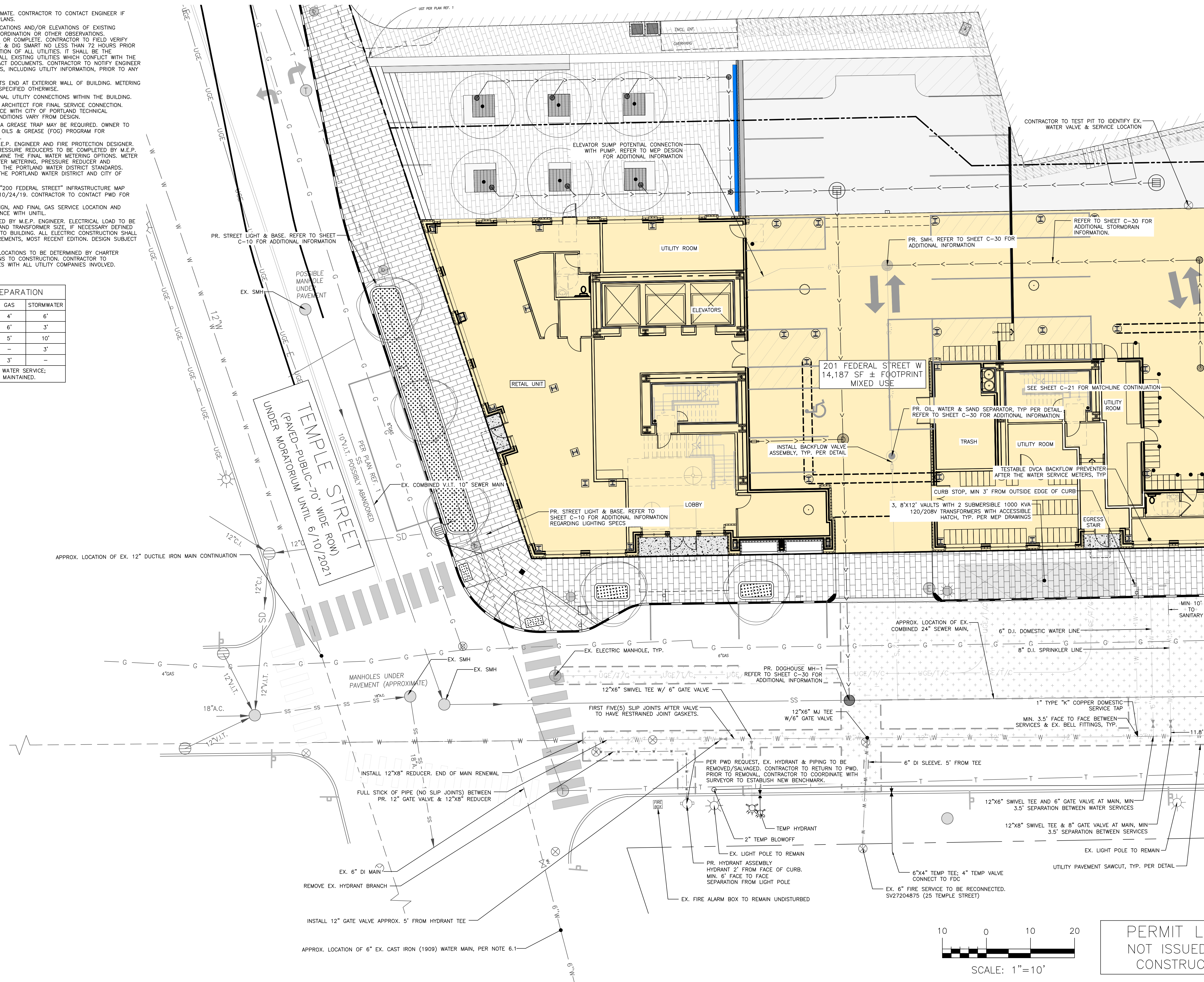
L 1-00
NOT FOR CONSTRUCTION

1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. CONTRACTOR IS NOT TO BE DEPENDENT UPON AN EXACT OR COMPLETE CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANIES, DIG SAFE & DIG SMART NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
3. FOR ALL UTILITIES, ACONR ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE PROVIDED BY CONTRACTOR TO SPECIFIC LOCATIONS OTHER THAN BUILDING.
4. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
5. SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS. CONTACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
- 6.1. DEPENDENT UPON FUTURE RETAIL SPACE USE, A GREASE TRAP MAY BE REQUIRED. OWNER TO COORDINATE WITH THE CITY OF PORTLAND FATS, OILS & GREASE (FOG) PROGRAM FOR FOG REMEDIATION WHICH HAS BEEN DESIGNATED.
- 6.2. WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER SIZING FOR SMALLER DOMESTIC WATER METERING SHALL BE IN ACCORDANCE WITH CITY OF PORTLAND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE PORTLAND WATER DISTRICT AND CITY OF PORTLAND.
- 6.3. APPROXIMATE LOCATION OF WATER MAINS FROM "200 FEDERAL STREET" INFRASTRUCTURE MAP OBTAINED FROM PORTLAND WATER DISTRICT ON 10/24/19. CONTRACTOR TO CONTACT PWD FOR ADDITIONAL INFORMATION.
7. GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E.P. AND IN ACCORDANCE WITH UNTIL.
8. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE PROVIDED BY M.E.P. ENGINEER. METER DESIGN AND METER SIZE, IF NECESSARY, DETERMINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO BUILDING, ALL ELECTRIC CONSTRUCTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
9. CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY CHARTER COMMUNICATIONS. CONTRACTOR TO COORDINATE WITH CHARTER COMMUNICATIONS TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.

MINIMUM HORIZONTAL UTILITY SEPARATION						
UTILITY	UGE/17/C	WATER	SEWER	GAS	STORMWATER	
UGE/7/C	—	6'	—	4'	6'	
WATER	6'	—	5*	6'	3'	
SEWER	5'	5*	—	5'	10'	
GAS	4'	3'	5'	—	3'	
STORMWATER	6'	3'	10'	3'	—	

*PERMISSIBLE ONLY IF SEWER IS LAID MIN. 18" BELOW WATER SERVICE; OTHERWISE, 10' OF HORIZONTAL SEPARATION MUST BE MAINTAINED.

*PERMISSIBLE ONLY IF SEWER IS LAID MIN. 18" BELOW WATER SERVICE;
OTHERWISE, 10' OF HORIZONTAL SEPARATION MUST BE MAINTAINED.



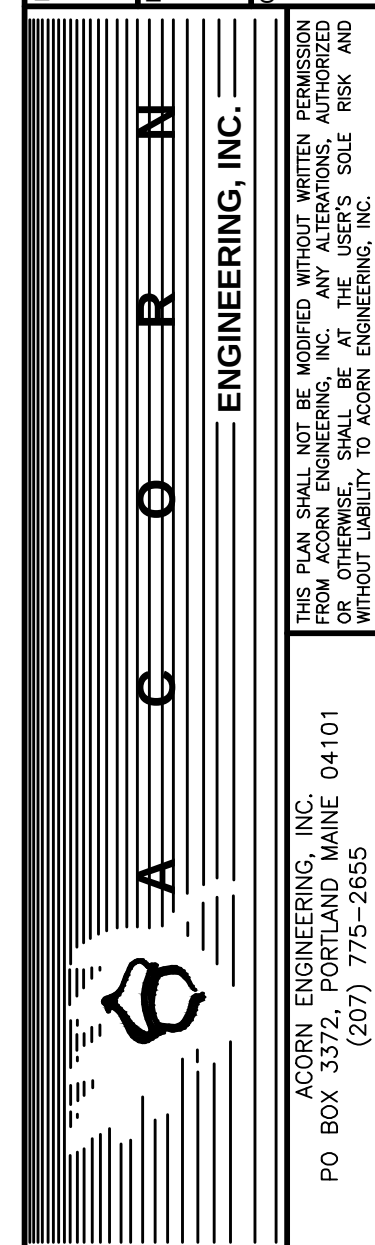
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY DATE
ATS	FRT 11/21/19
PWD REVIEW	FRT 11/25/19
DPW REVIEW	FRT 11/25/19
PWD REVIEW	FRT 11/27/19
COST ESTIMATE	WHS 11/25/19
PRECON DESIGN	WHS 11/20/19
SITE PLAN APPLICATION	WHS 9/4/2020
PROGRESS SET	FRT 1/10/2021
CITY COMMENT RESPONSE	WHS 3/10/2021
CITY COMMENT RESPONSE	PFH 4/22/2021
CITY COMMENT RESPONSE	WHS 4/22/2021
CITY COMMENT RESPONSE	WHS 3/30/2021

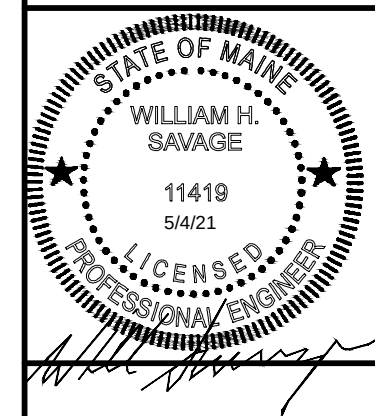
DRAWING NAME: UTILITY PLAN - 1

PROJECT NAME/ADDRESS: FEDERAL STREET DEVELOPMENT
201 FEDERAL STREET W PORTLAND, ME 04101

CLIENT/OWNER: REDFERN DOWNTOWN, LLC
PORTLAND, ME 04104

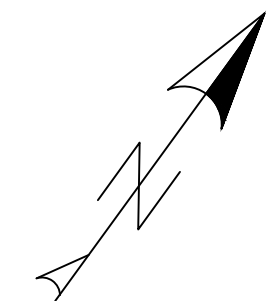


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DESIGNED BY:	FRT
DRAWN BY:	FRT
CHECKED BY:	WHS/PFH



DRAWING NO.
C-20

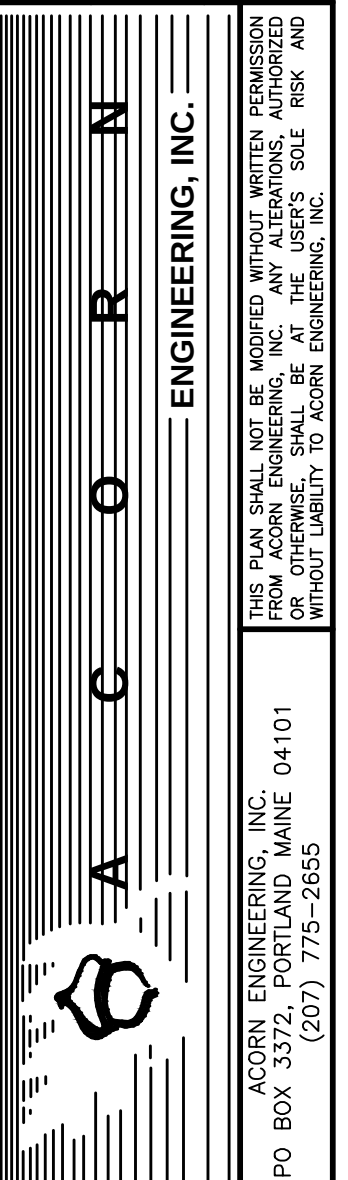
1. PLEASE REFER TO SHEET C-20 FOR GENERAL NOTES & UTILITY SEPARATION TABLE.

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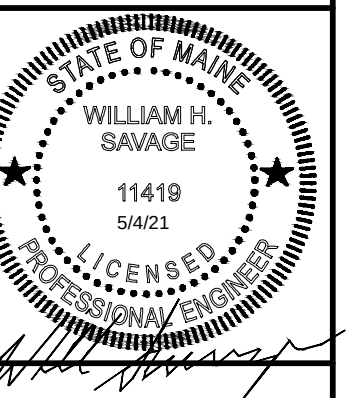
UTILITY PLAN - 2

PROJECT NAME/ADDRESS: **FEDERAL STREET DEVELOPMENT**
201 FEDERAL STREET W PORTLAND, ME 04101

CLIENT/OWNER: REDFERN DOWNTOWN, LLC
PORTLAND, ME 04104



FILE:	1129_CIVIL
IN:	1129
SCALE:	AS NOTED
DESIGNED BY:	FRT
DRAWN BY:	FRT
CHECKED BY:	WHS/PFH



DRAWING NO.
C-21

1. WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
2. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
3. CONTRACTOR SHALL ENSURE THAT UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
4. CONTRACTOR SHALL ENSURE MINIMUM 1% SLOPE PITCHING AWAY FROM FOUNDATION.



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY DATE
COST ESTIMATE	WHS 11/15/19
PRECON DESIGN	WHS 11/20/19
PRELIM PRICING	WHS 8/7/2020
SITE PLAN APPLICATION	WHS 9/4/2020
WORKING	FRT 12/7/2020
CITY COMMENT RESPONSE	PFH 3/10/2021
CITY COMMENT RESPONSE	PFH 4/29/2021
CITY COMMENT RESPONSE	WHS 3/4/2021
CITY COMMENT RESPONSE	WHS 5/26/2021

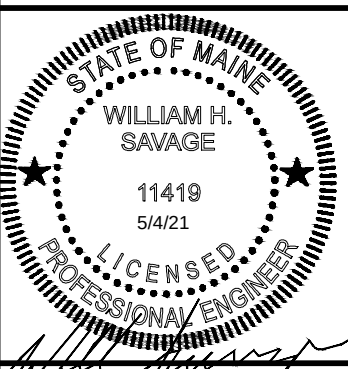
DRAWING NAME: **GRADING & DRAINAGE PLAN**

PROJECT NAME/ADDRESS: **FEDERAL STREET DEVELOPMENT**
201 FEDERAL STREET W PORTLAND, ME 04101

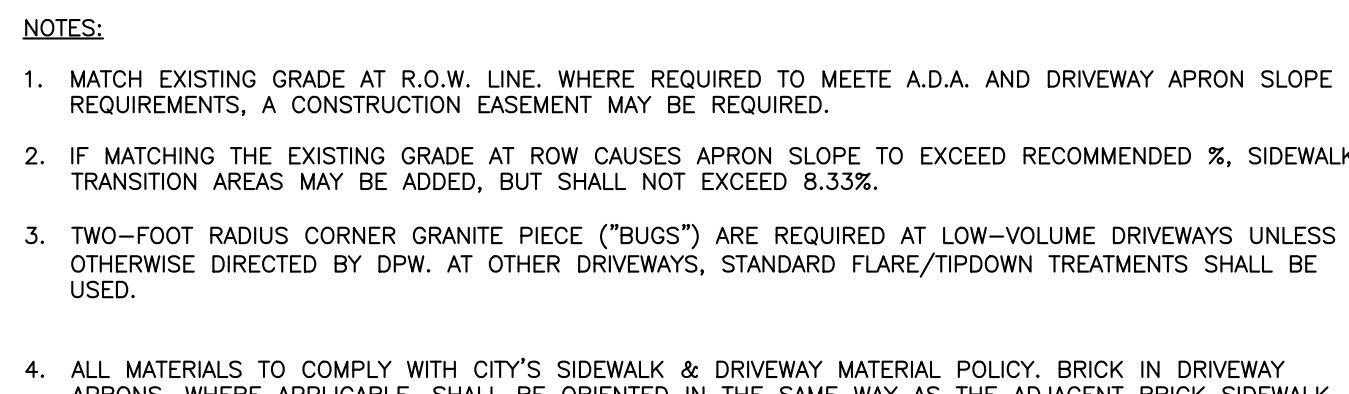
CLIENT/OWNER: **REDFERN DOWNTOWN, LLC**
PORTLAND, ME 04104


ACORN ENGINEERING, INC.
 P.O. BOX 3,000, NEW BRUNSWICK, NJ 08901
 (201) 775-2855
 (201) 775-2855
 FAX: (201) 775-2855
 Telex: 251100
 Cable: 251100
 E-mail: acorn@acorneng.com
 WWW: www.acorneng.com

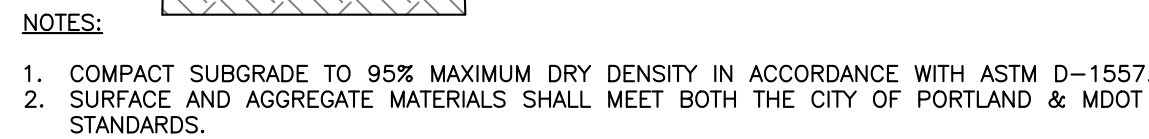
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JN:	1129
SCALE:	AS NOTED
DESIGNED BY:	FRT
DRAWN BY:	FRT
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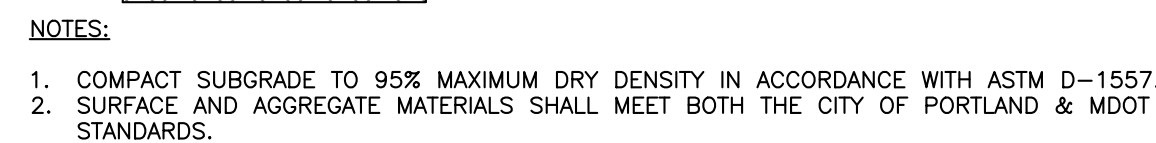
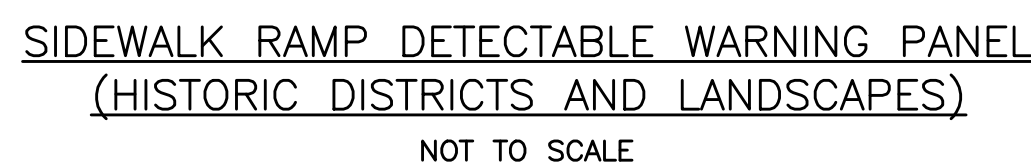
DRAWING NO.
C-30



DRIVEWAY APRON
NOT TO SCALE

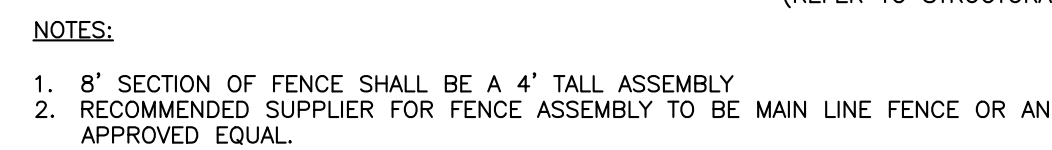


CITY OF PORTLAND COLLECTOR BITUMINOUS PAVEMENT PROFILE
(TEMPLE STREET)
NOT TO SCALE



CITY OF PORTLAND LOCAL BITUMINOUS PAVEMENT PROFILE
(FEDERAL STREET AND INTERNAL)
NOT TO SCALE

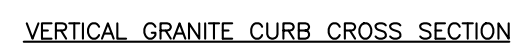
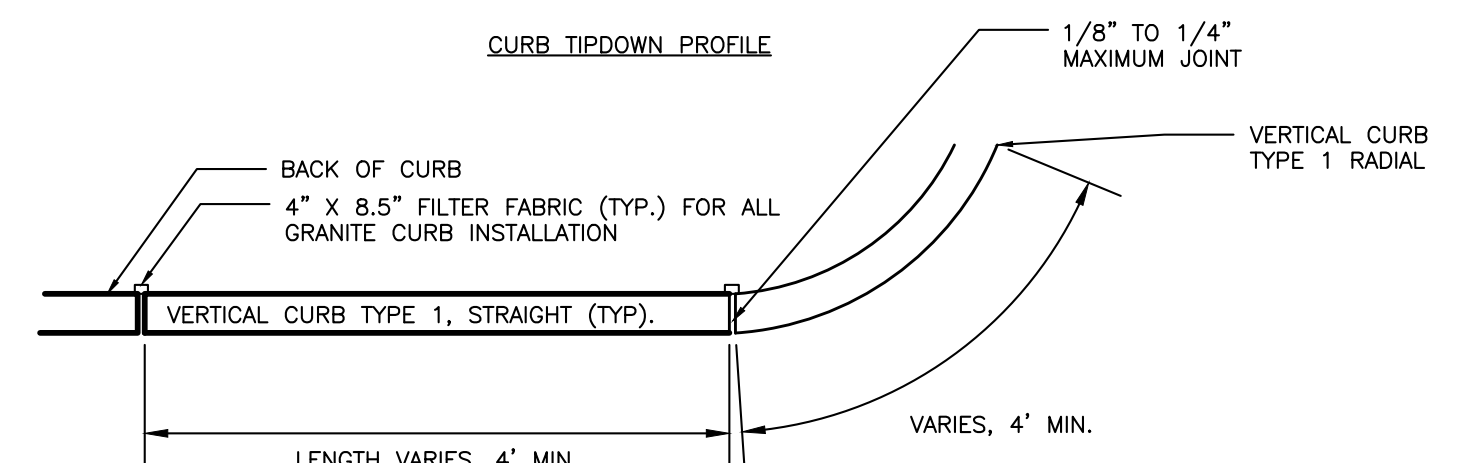
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FENCE INSTALLED ON CAST IN PLACE (CIP)
RETAINING WALL DETAIL
NOT TO SCALE



- PAVEMENT SAWCUT DETAIL
NOT TO SCALE

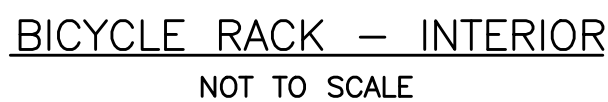


VERTICAL GRANITE CURB AND TIPDOWN INSTALLATION
NOT TO SCALE



- BRICK SIDEWALK WITH BITUMINOUS BASE DETAIL
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

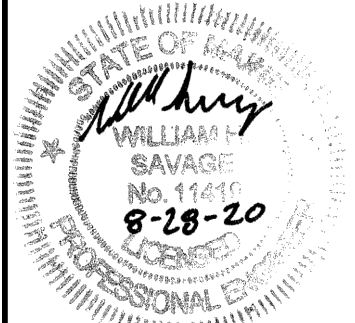
SITE DETAILS - 2

FEDERAL STREET DEVELOPMENT
200 FEDERAL STREET PORTLAND, ME 04101

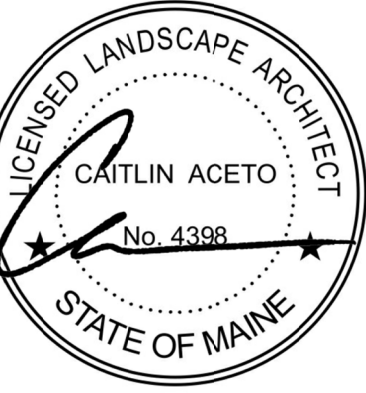
REDFERN DOWNTOWN, LLC
PORTLAND, ME 04104

 ACORN ENGINEERING, INC. PO BOX 3372, PORTLAND MAINE 04101 (207) 779-8655	A C O R N ENGINEERING, INC.	DRAWING NAME:
		PROJECT NAME/ ADDRESS:
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FILE:	1129_CIVIL
JN:	1129
SCALE:	AS NOTED
DESIGNED BY:	FRT
DRAWN BY:	FRT
CHECKED BY:	WHS/PFH



DRAWING NO.
C-41



200 FEDERAL STREET
PORTLAND, ME

OWNER:

REDFERN DOWNTOWN LLC
Portland, Maine 04104

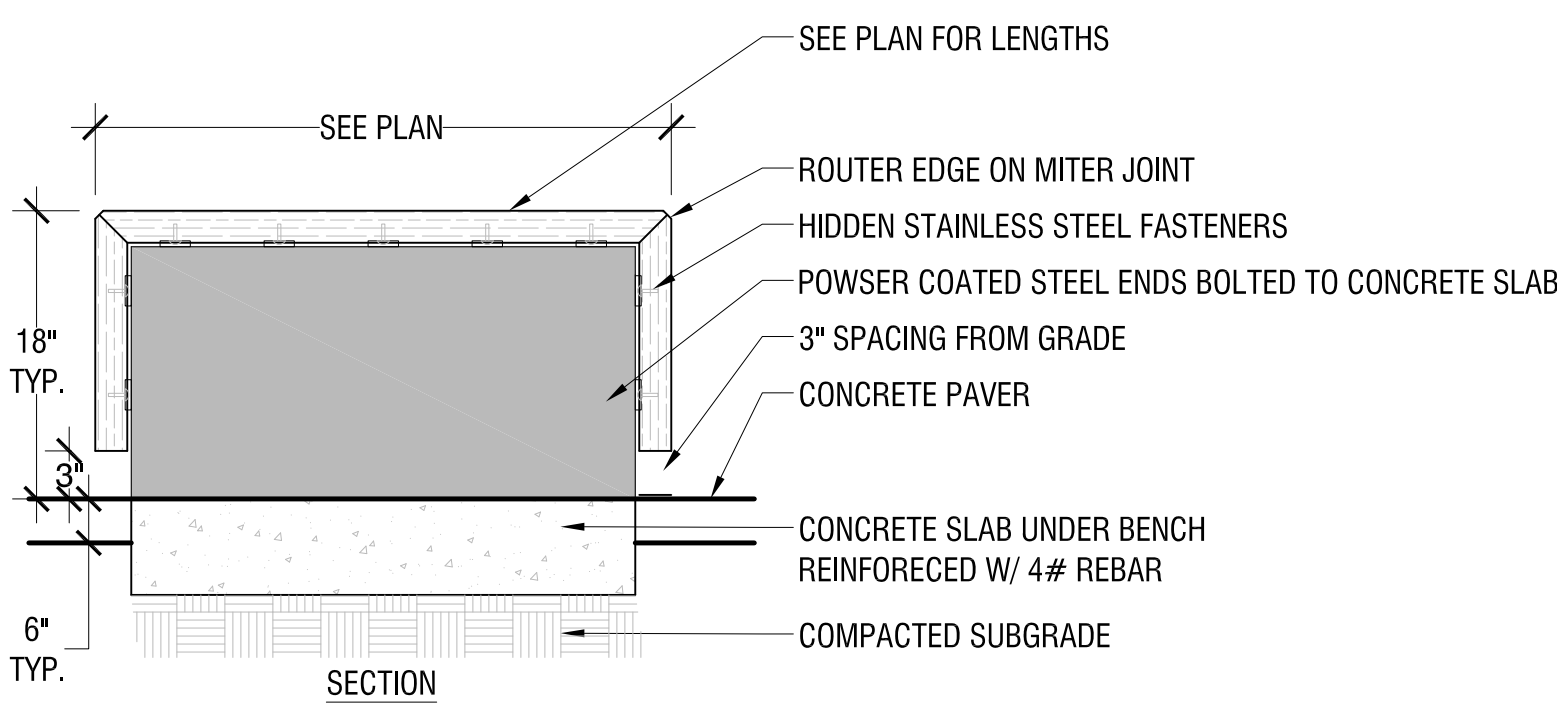
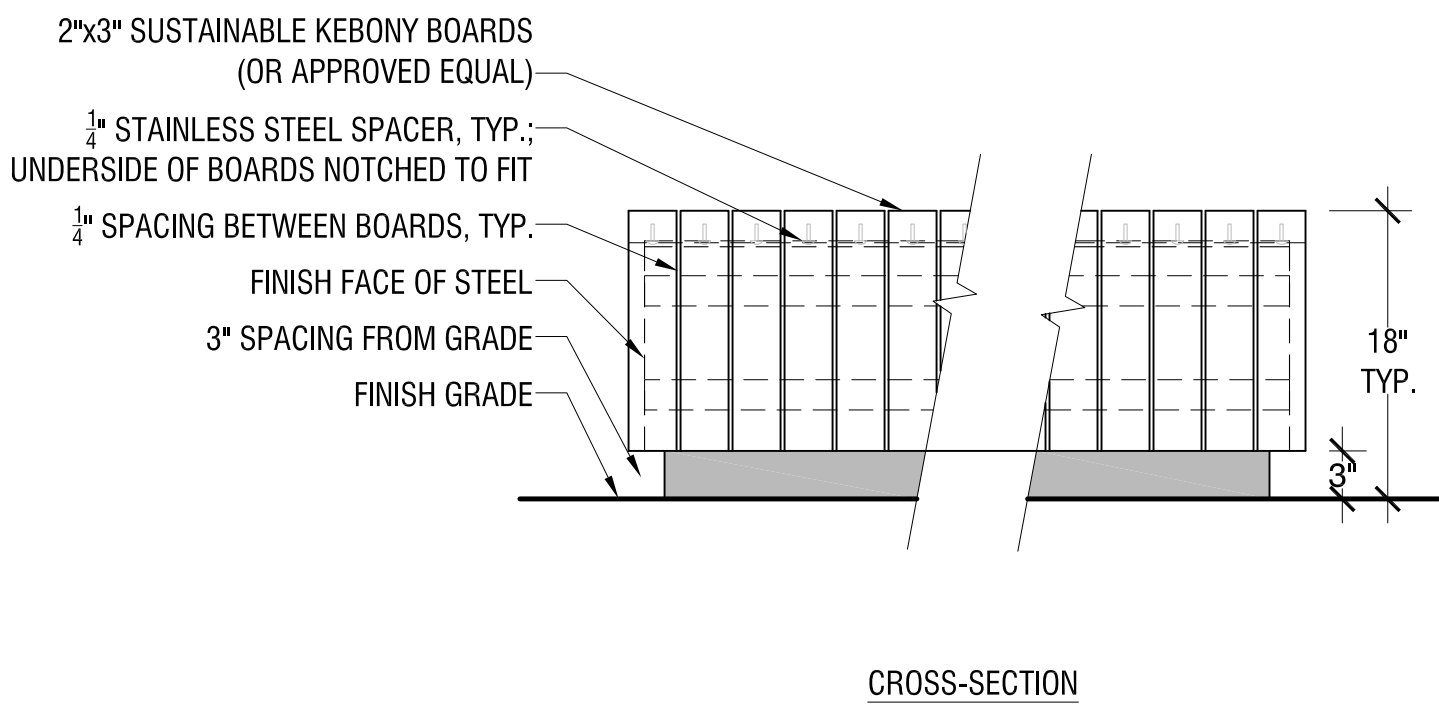
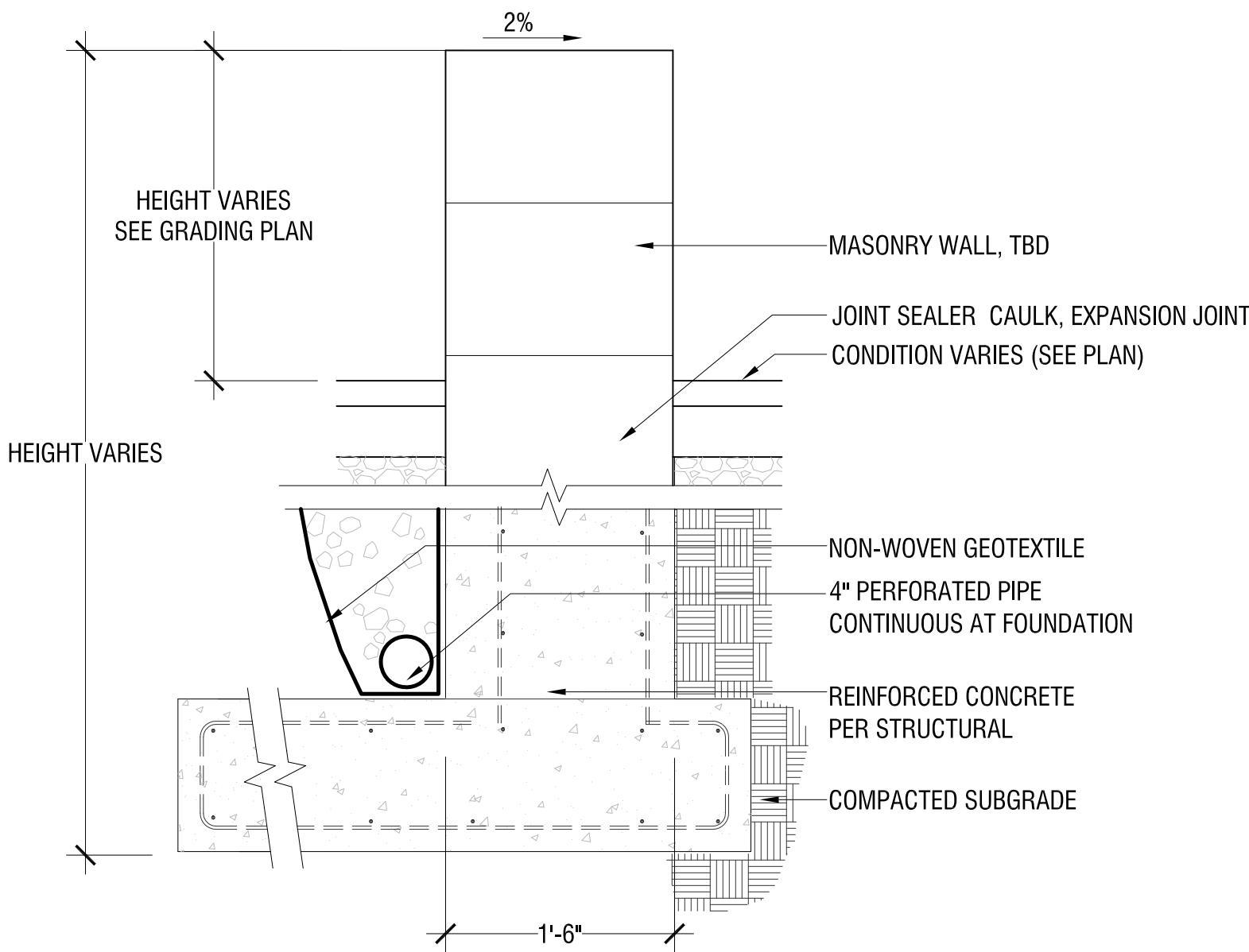
REVISION	04-20-21
REVISION	05-05-21

SITE PLAN APPLICATION
MARCH 9, 2021

SITE DETAILS

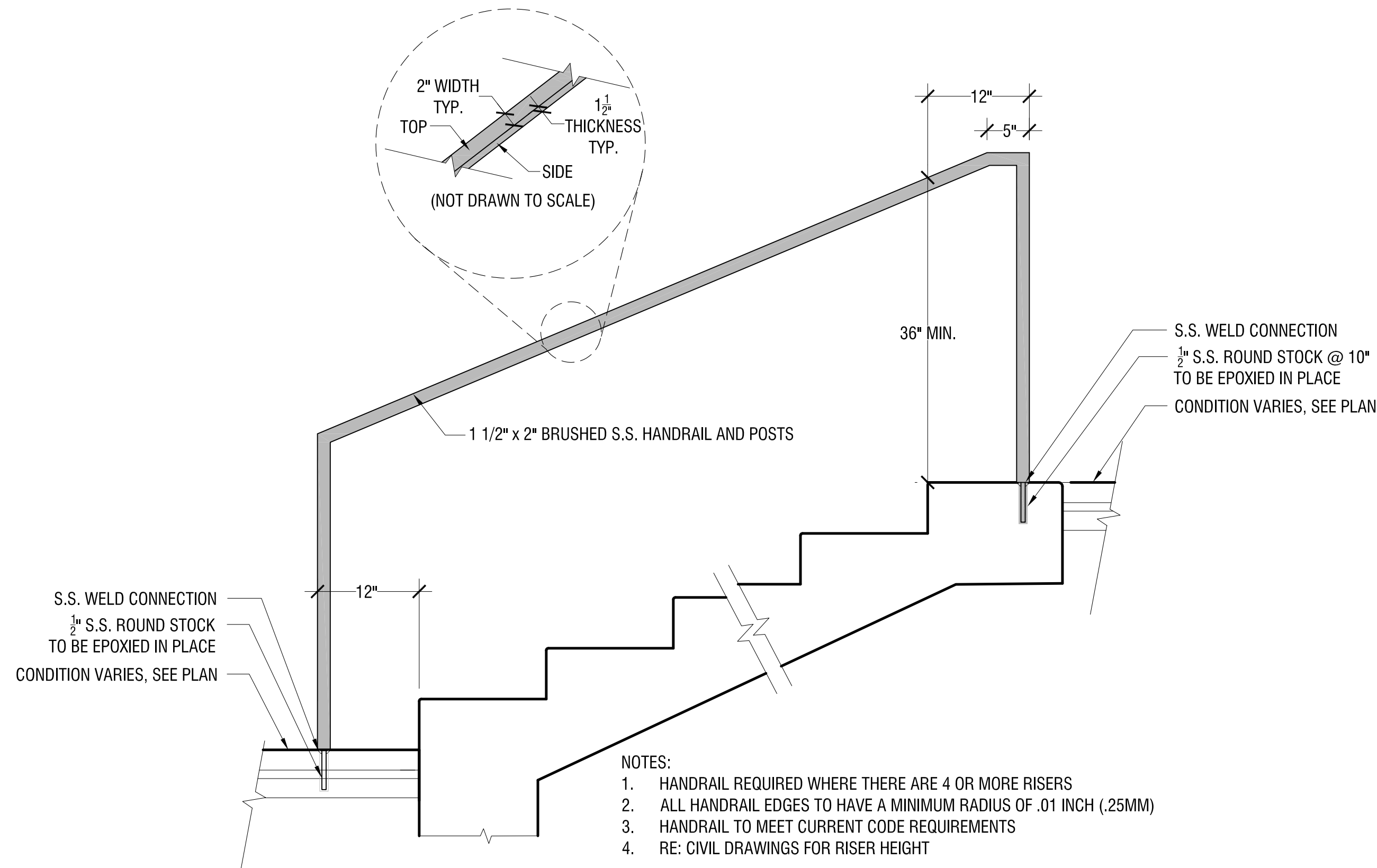
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PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

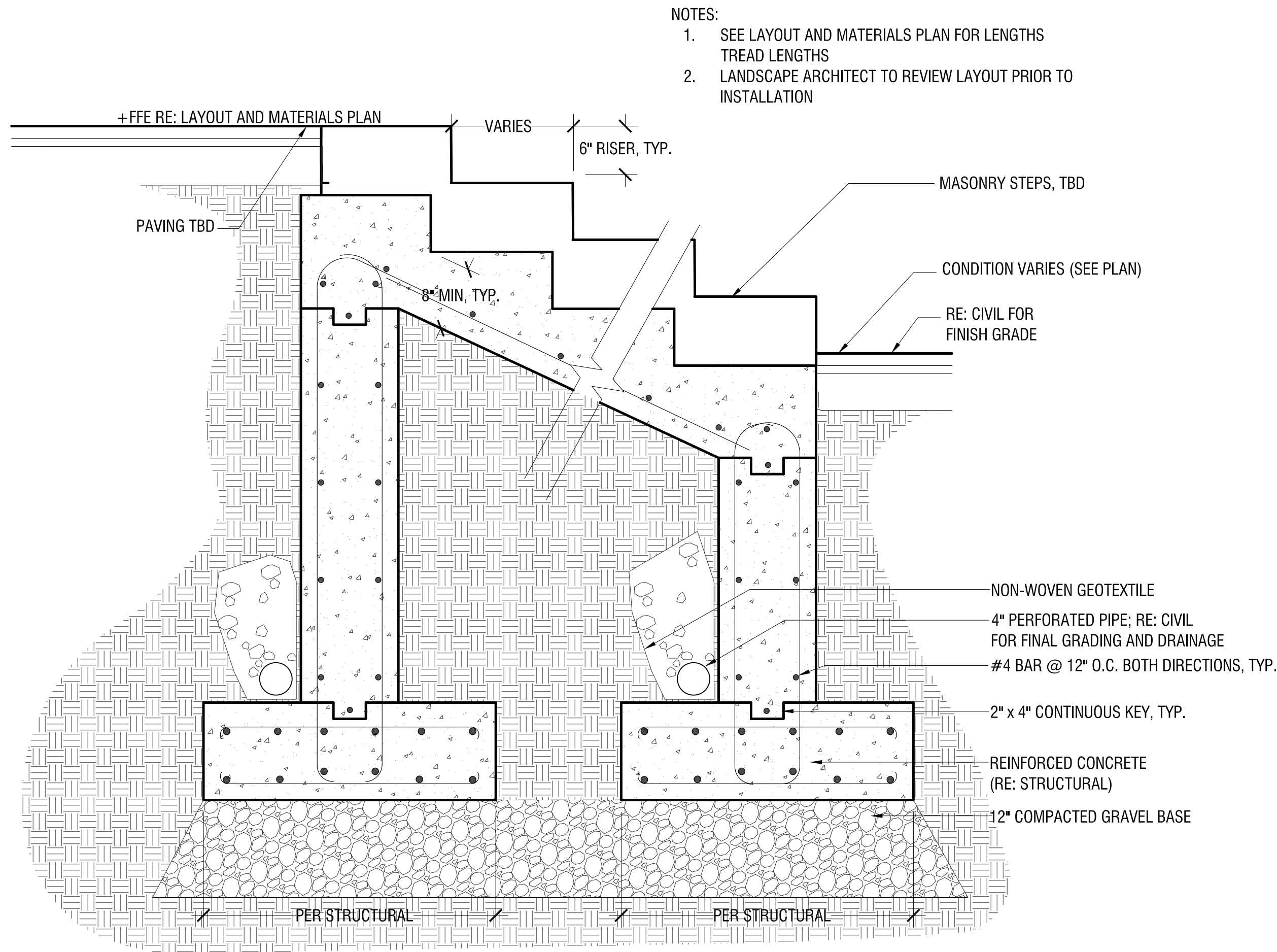


2 MASONRY WALL
1"=1'-0"

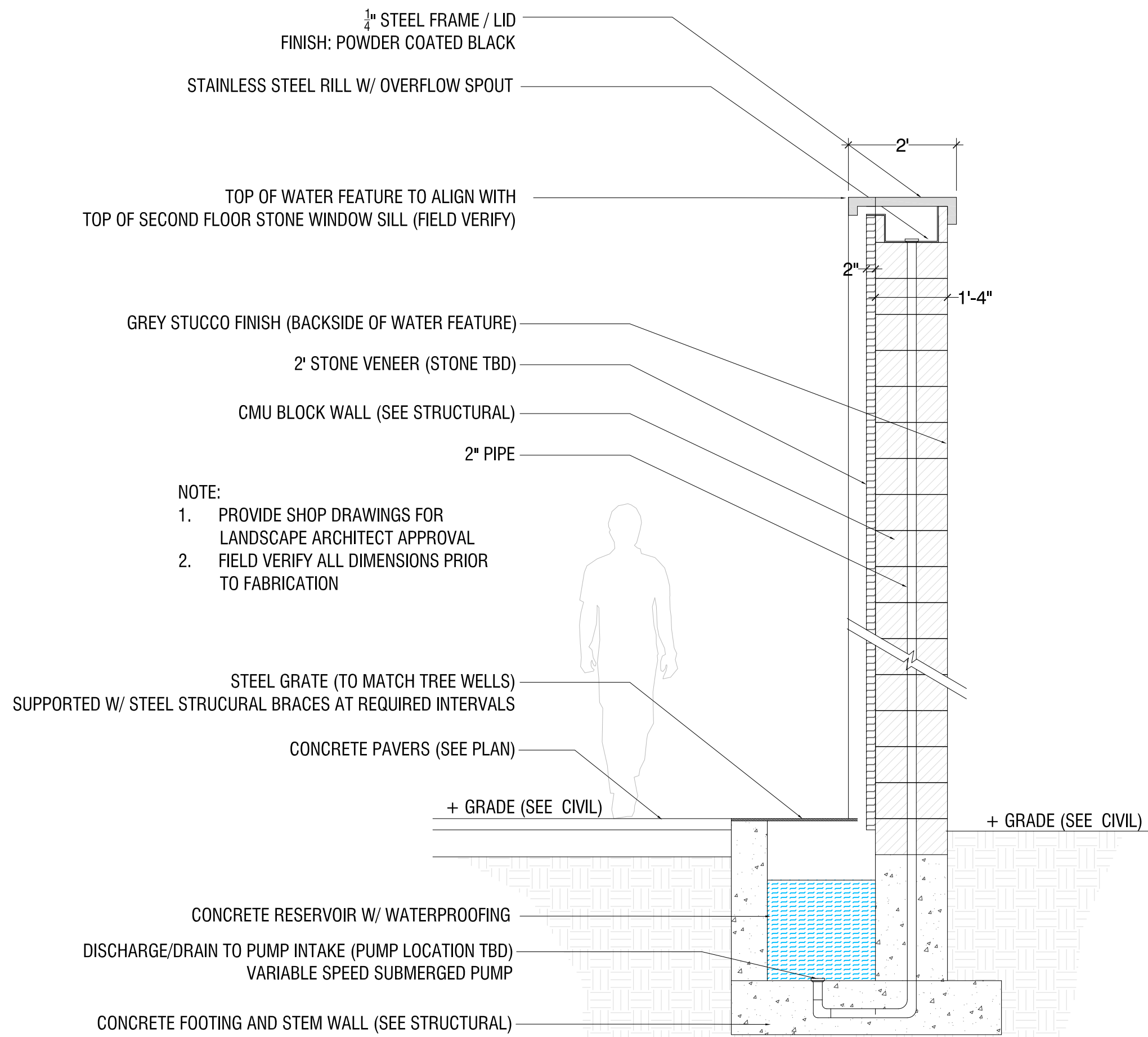
3 CUSTOM BENCH
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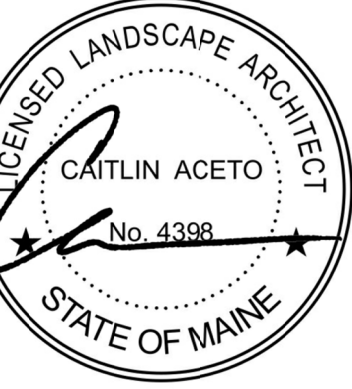
1 HANDRAIL
1":1'-0"



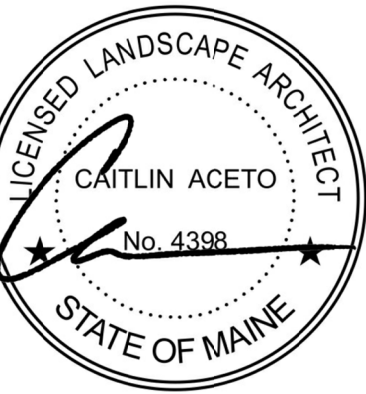
2 MASONRY STEP
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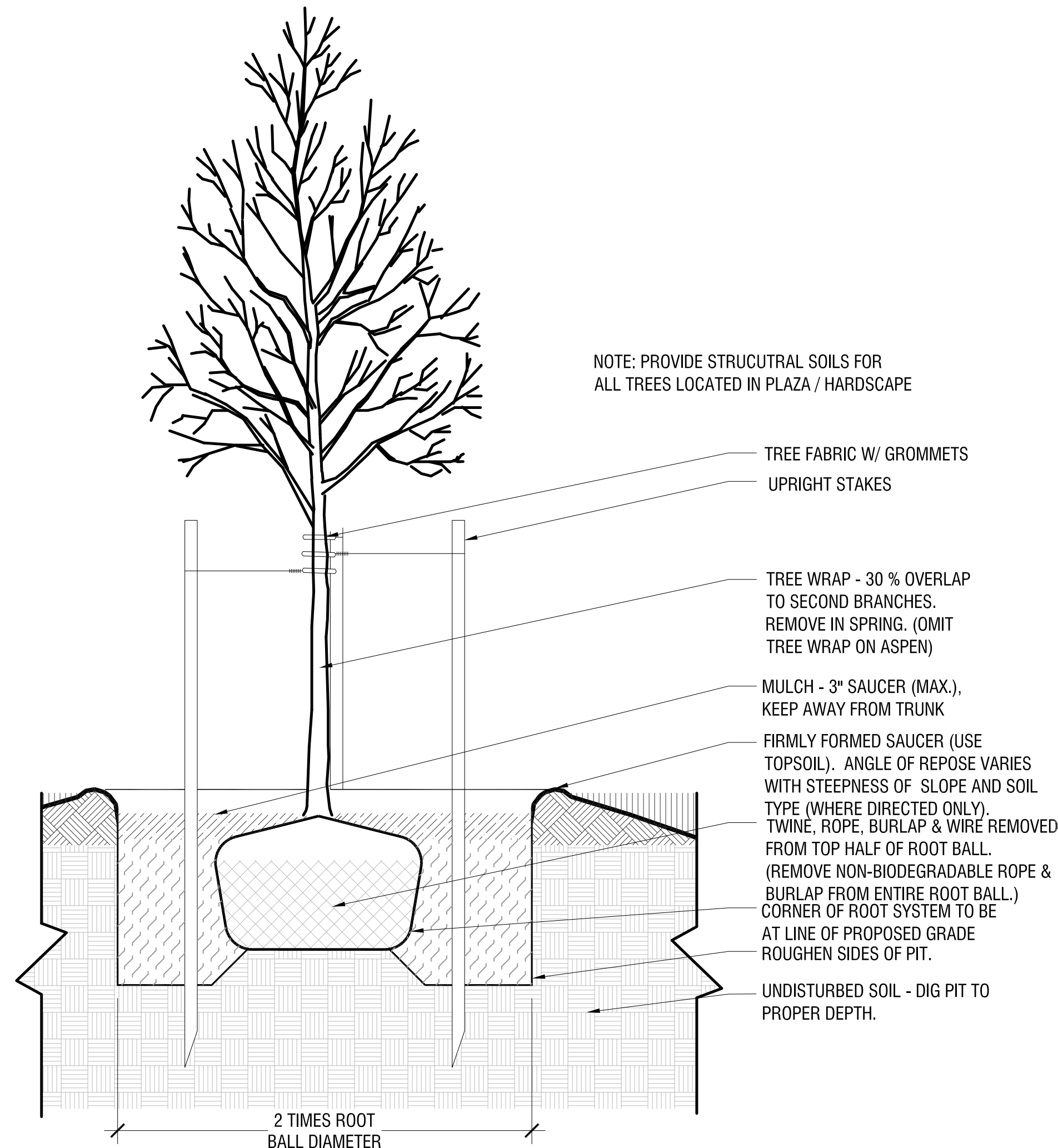
3 WATER WALL
1/2":1'-0"



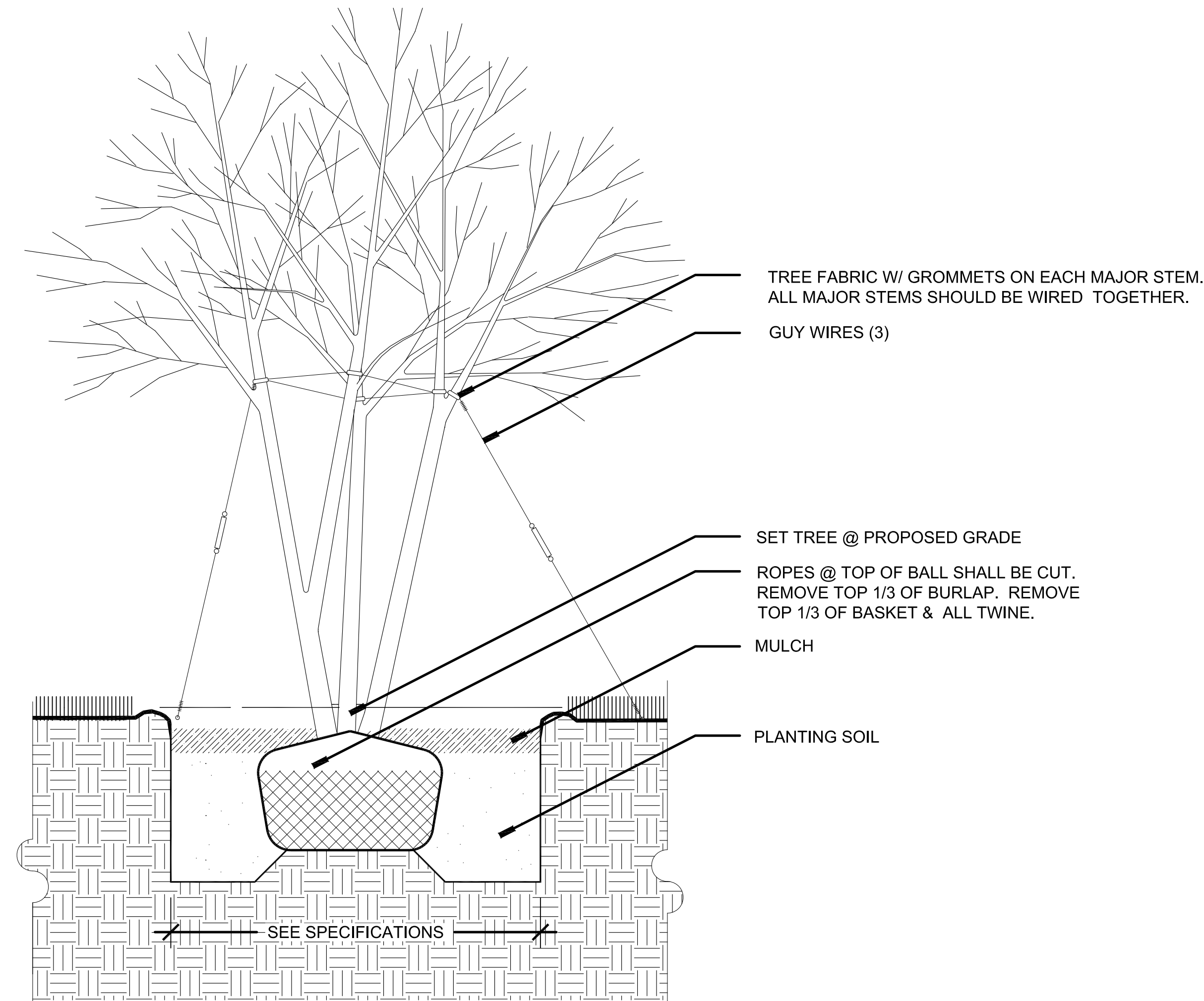
REVISION	04-20-21
REVISION	05-05-21



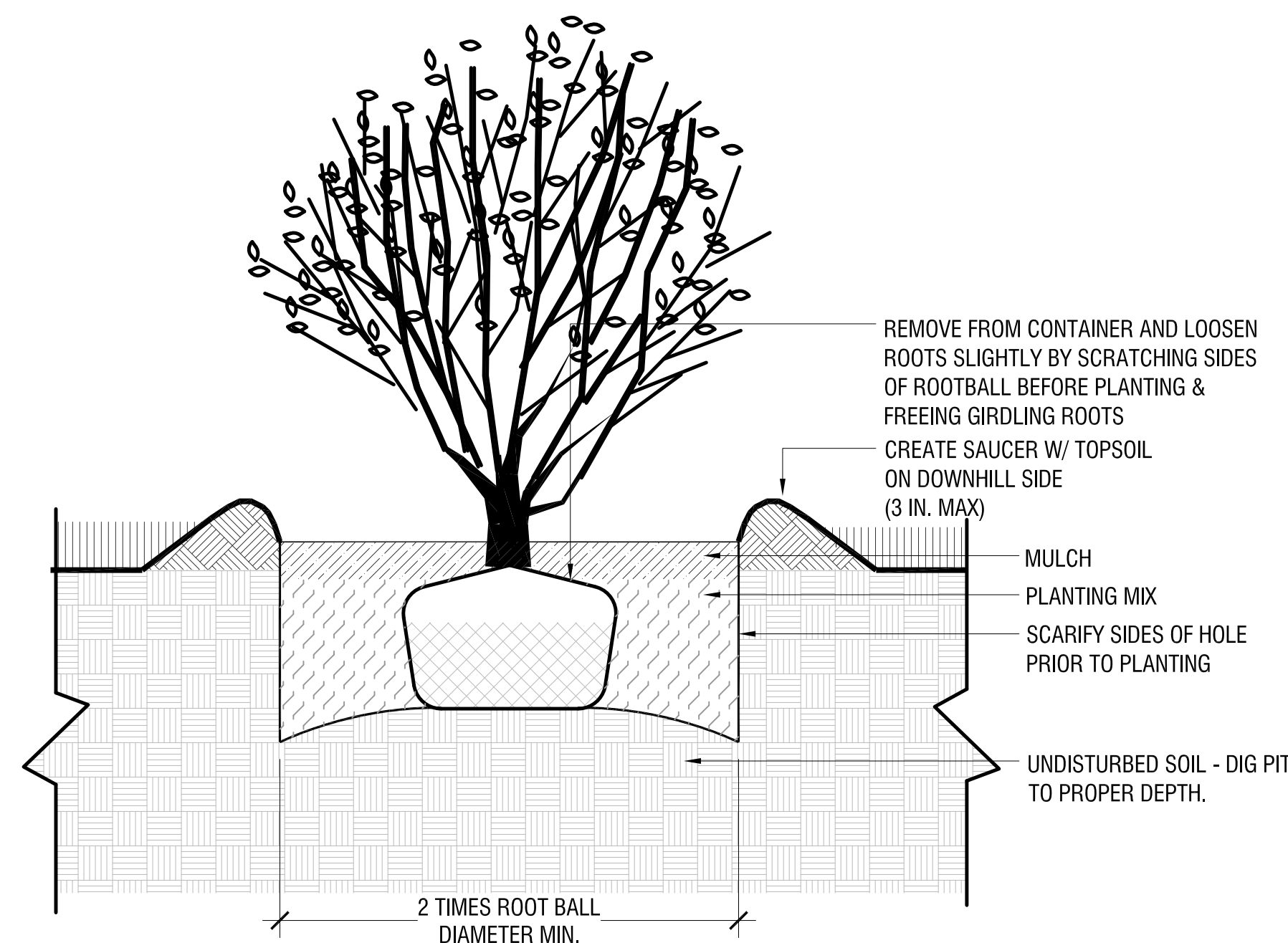
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REVISION	05-05-21



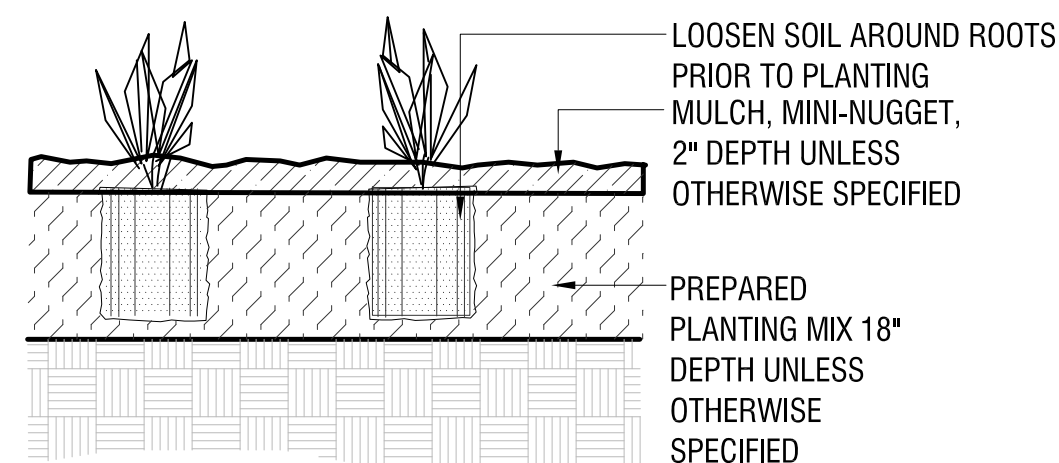
1 DECIDUOUS TREE PLANTING
1":1'-0"



2 MULTI-STEM TREE PLANTING
1":1'-0"



3 SHRUB PLANTING
1":1'-0"



4 PERENNIAL PLANTING
1":1'-0"

200 FEDERAL STREET
PORTLAND, ME

PREPARED FOR

OWNER:

EDFERN DOWNTOWN LLC
Portland, Maine 04104

[illegible]

DUE DATE

TE PLAN APPLICATION
ARCH 9, 2021

EET TITLE

TE FURNISHINGS

EET INFORMATION

4-03

Product Sheet

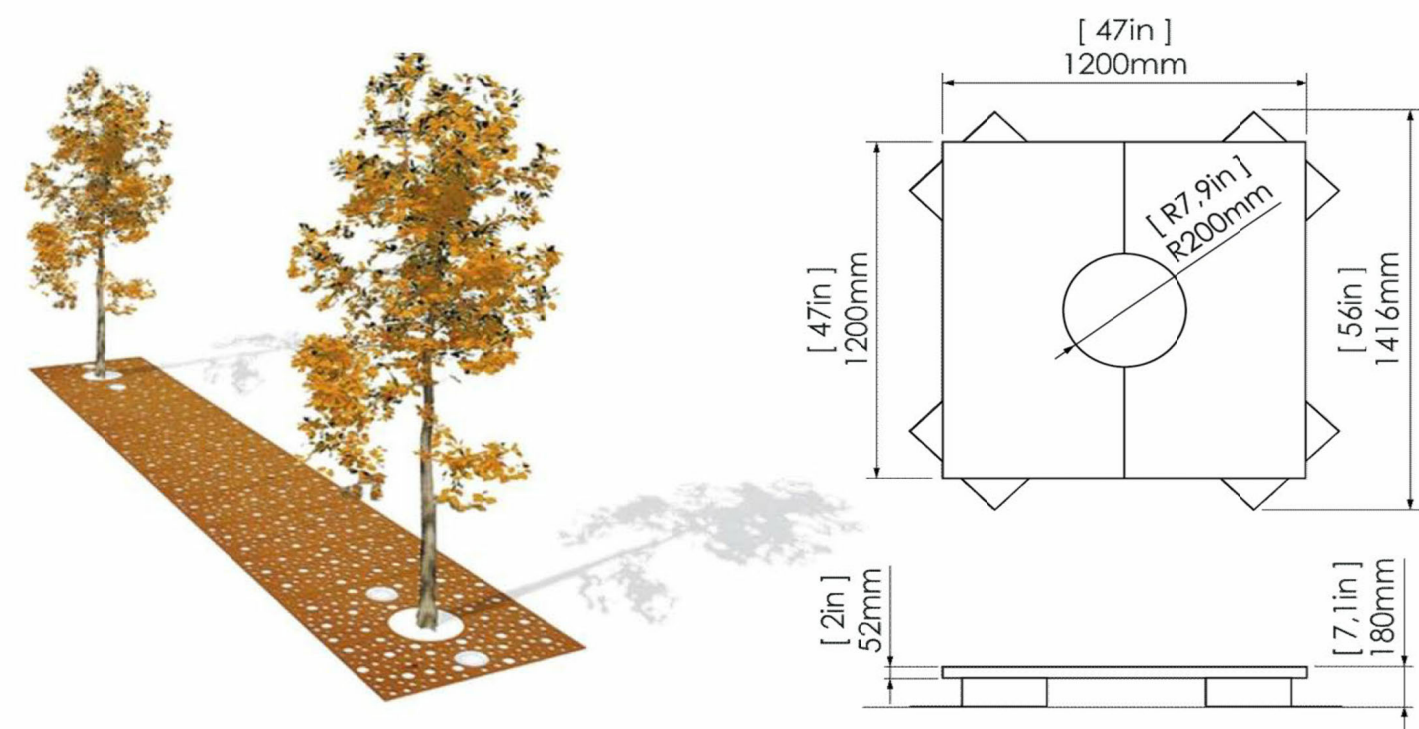
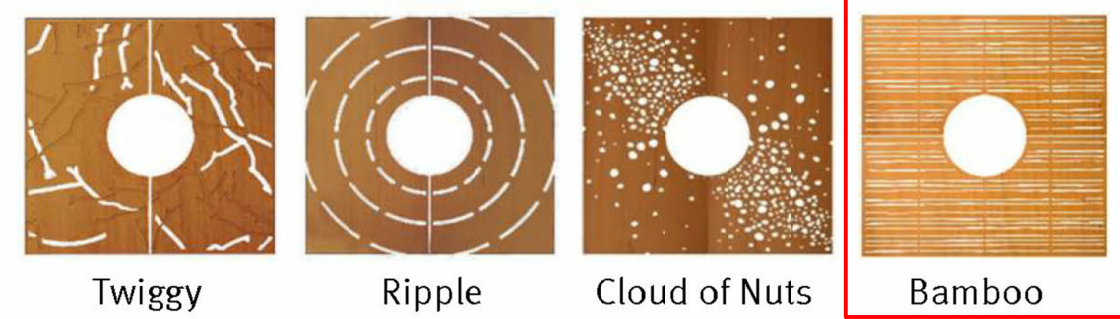
Tree Grille Strips

STREETLIFE®

CorTen steel (weathering steel) tree grid incl. laser cut (standard or bespoke) pattern incl. ground level support frame

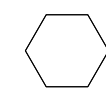


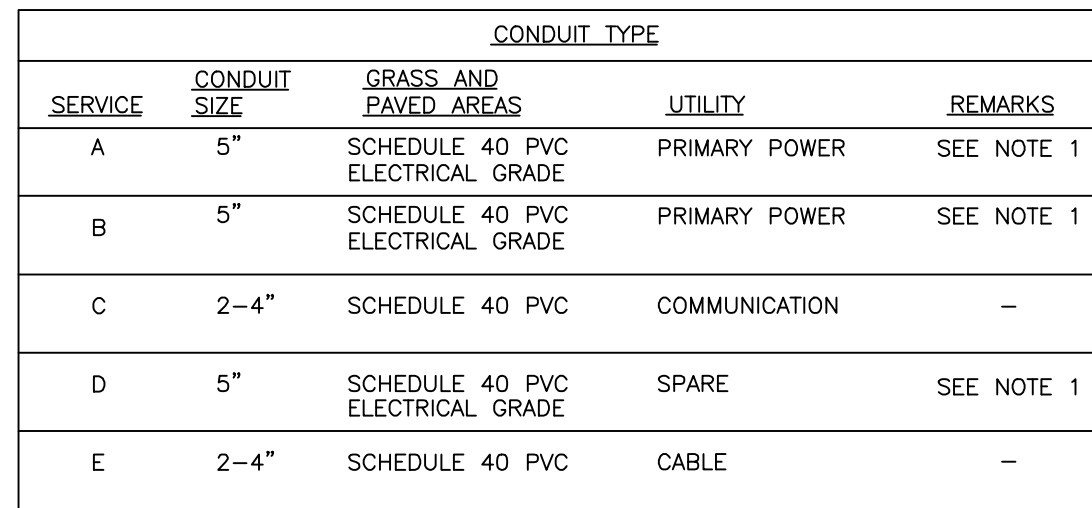
Product Code	TGR-CUSTOM		
Dimensions	In consultation with client	18" LENGTH x 5" WIDTH ; 4.91' LENGTH X 4.91' WIDTH	
Material	Steel: 8mm thick untreated CorTen steel (weathering steel)	POWDER COATED STEEL GRAY	
Optional extras	Tree guard, round or square Tree hole		
Delivery	Frame, grid and mounting tools separate (knock down)		
Handling instructions	Corten steel can be handled without wearing protective gear, however it can leave rust stains, which are not hazardous as such.		



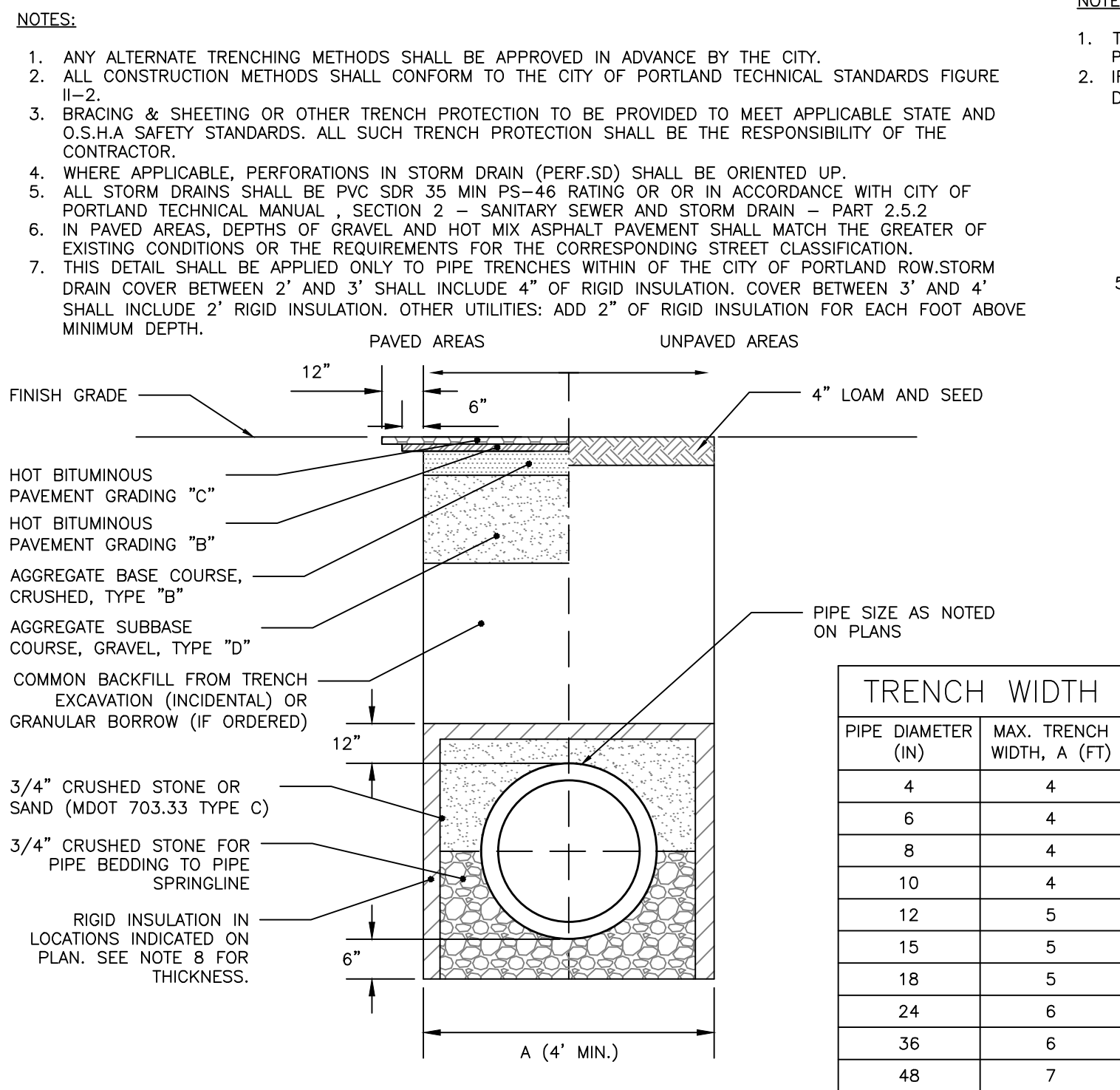
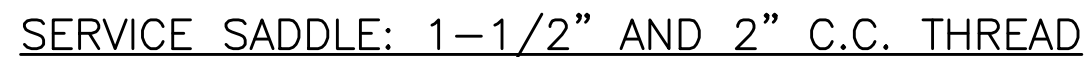
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TREE GRILLE
N.T.S.

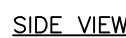




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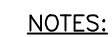
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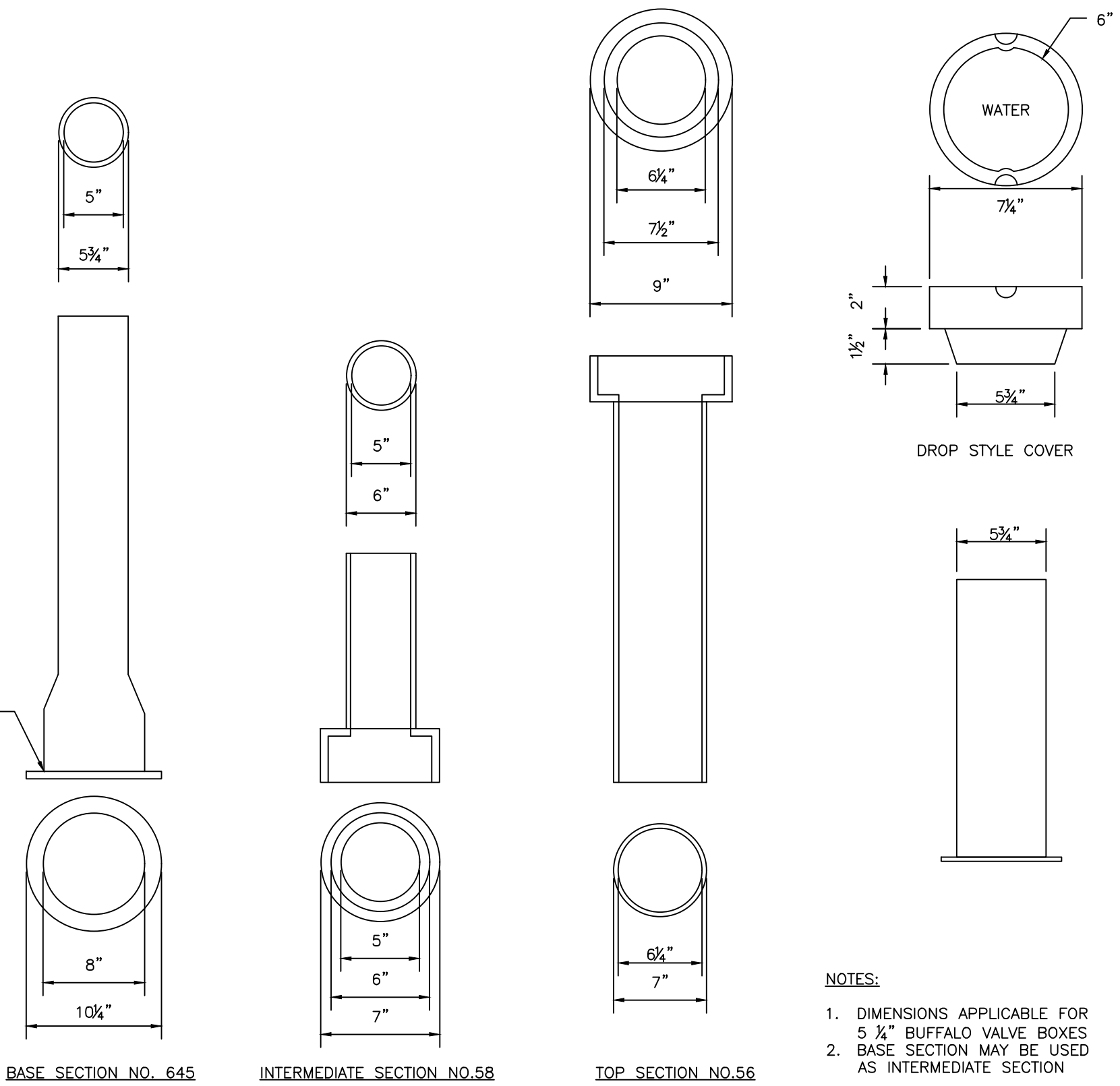


NOT TO SCALE



- NOT TO SCALE

-
- ION FOR EVERY 12" LESS COVER.
- FINISH GRADE
- MAX
- 6"
- 6"
- 2'-0" (MIN)
(4" DIA OR LESS)
- 4" LOAM, SEED, AND MULCH OR PAVEMENT SECTION AS DETAILED IN THIS PLAN SET
- BACKFILL WITH EXCAVATED MATERIAL OR SELECT BACKFILL AS DIRECTED BY ENGINEER
- SAND BEDDING BACKFILL, 703.22 TYPE B
- RIGID INSULATION (SEE NOTE)
- 4" MIN. O.D.



- NOTES:**
1. DIMENSIONS APPLICABLE FOR 5 1/4" BUFFALO VALVE BOXES
 2. BASE SECTION MAY BE USED AS INTERMEDIATE SECTION

NOT TO SCALE



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 LD 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.

NOT TO SCALE

- NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES MUST COMPLY WITH THE CITY OF PORTLAND WATER DISTRICT (PWD) SPECIFICATIONS.
 2. CURB STOP BALL VALVE TO BE MADE OF COPPER OR BRASS.
 3. SERVICE LINE TO BE MADE OF TYPE K COPPER.
 4. CONCRETE BLOCKING SHALL BE ADDED TO THE BASE OF THE CURB STOP TO PROVIDE STRUCTURAL SUPPORT FOR THE CURB STOP AND SERVICE BOX.



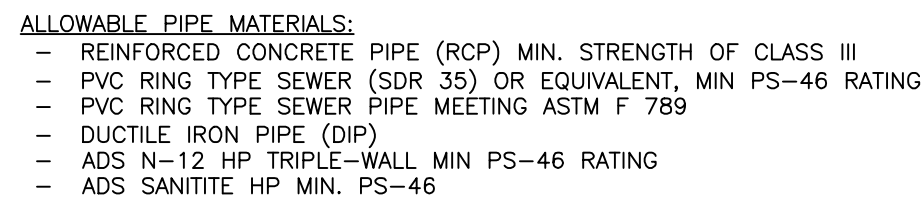
TYPICAL SERVICE CONNECTION

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

DRAWING NAME:	UTILITY DETAILS - 2
PROJECT NAME/ADDRESS:	FEDERAL STREET DEVELOPMENT 200 FEDERAL STREET PORTLAND, ME 04101
CLIENT/OWNER:	REDFERN DOWNTOWN, LLC PORTLAND, ME 04104

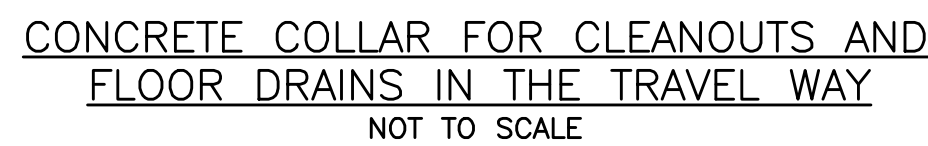
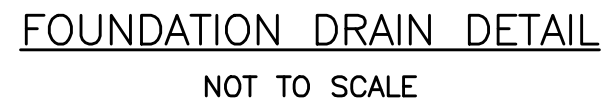
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JN:	1129
SCALE:	AS NOTED
DESIGNED BY:	FRT
DRAWN BY:	FRT
CHECKED BY:	WHS/PFH

A circular professional engineer seal for the State of Maryland. The outer ring contains the text "STATE OF MARYLAND" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. In the center, the name "WILLIAM SAVAGE" is printed above the number "No. 11479". A handwritten signature "William Savage" is written across the center, and the date "8-28-20" is stamped below the number.



NOTES:

1. BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. PIPE COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" THICK OF RIGID INSULATION. COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" THICK RIGID INSULATION. OTHER TRENCHES 4' TO 22' OF RIGID INSULATION FOR EACH FOOT OF COVER LESS THAN THE MINIMUM DEPTH. WIDTH OF INSULATION SHALL BE FOUR TIMES THE DIAMETER OF THE PIPE WITH A MINIMUM WIDTH OF 30".
3. INSTALL WARNING TAPE DIRECTLY ABOVE UTILITIES AT THE TOP OF SUBGRADE.
4. MINIMUM COVER
 - 4.1. 2'-0" - STORM DRAIN
 - 4.2. 5'-0" - SEWER
5. NO TREES SHALL BE PLANTED WITHIN 5' OF A SEWER PIPE OR SERVICE.
6. TRENCHES SHALL BE APPLIED ONLY TO DRAINAGE PIPE TRENCHES OUTSIDE OF THE CITY OF PORTLAND PIPE. THICKNESS AS NOTED BY SURFACE DETAILS.

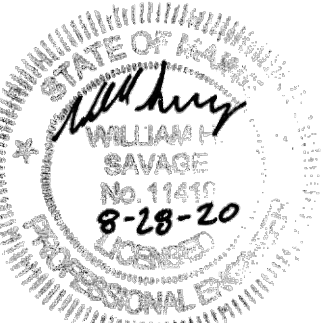


PERMIT LEVEL
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CONSTRUCTION

RAINAGE DETAILS - 1

 A C O R N ENGINEERING, INC.	ACORN ENGINEERING, INC. 04101 PO BOX 35000 PORTLAND, MAINE 04101-0500 (207) 775-8655	THESE TERMS AND CONDITIONS APPLY TO ALL PROJECTS AUTHORIZED BY ACORN ENGINEERING, INC. OR ITS AFFILIATES. NO OTHER TERMS OR CONDITIONS WILL BE APPLICABLE TO ANY PROJECT WITHOUT THE WRITTEN CONSENT OF ACORN ENGINEERING, INC.	PROJECT NAME/ADDRESS:
	CLIENT/OWNER:	PROJECT NO.:	PROJECT DATE:

FILE:	1129_CIVIL
IN:	1129
SCALE:	AS NOTED
DESIGNED BY:	FRT
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CHECKED BY:	WHS/PFH



DRAWING NO.
C-45

1.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

AS PART OF THE SITE DEVELOPMENT, THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE IMPLEMENTED. DEVICES SHALL BE INSTALLED AS DESCRIBED IN THIS REPORT OR WITHIN THE PLAN SET. SEE THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES FOR FURTHER REFERENCE.

1.1 TEMPORARY EROSION CONTROL MEASURES

THE FOLLOWING TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE PLANNED FOR THE PROJECT'S CONSTRUCTION PERIOD:

- 1.1.1 CRUSHED STONE STABILIZED CONSTRUCTION ENTRANCES SHALL BE PLACED AT ALL ACCESS POINTS TO THE PROJECT SITE WHERE THERE ARE DISTURBED AREAS. THE FOLLOWING SPECIFICATIONS SHALL BE FOLLOWED AT A MINIMUM:
- STONE SIZE SHALL BE 2-3 INCHES, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 - THE THICKNESS OF THE ENTRANCE STONE LAYER SHALL BE NO LESS THAN 6 INCHES.
 - THE ENTRANCE SHALL NOT BE LESS THAN 20 FEET WIDE, HOWEVER NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS. THE LENGTH SHALL NOT BE LESS THAN 50 FEET IN LENGTH.
 - GEOTEXTILE FABRIC (WOVEN OR NON-WOVEN) SHALL BE PLACED OVER THE ENTIRE ENTRANCE AREA.
 - THE ENTRANCE/EXIT SHALL BE MAINTAINED TO THE EXTENT THAT IT WILL PREVENT THE TRACKING OF SEDIMENT ONTO PUBLIC ROAD WAYS.
- 1.1.2 FILTER SOCKS SHALL BE INSTALLED DOWN GRADIENT OF ANY DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL PERMANENT STABILIZATION IS ACHIEVED. THE FILTER SOCKS 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 SOCKS. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE SOCKS, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM.
- 1.1.3 HAY MULCH INCLUDING HYDRO SEEDING IS INTENDED TO PROVIDE COVER FOR DENUDEED OR SEEDED AREAS UNTIL REVEGETATION IS ESTABLISHED. MULCH PLACED BETWEEN APRIL 15TH AND NOVEMBER 1ST ON SLOPES OF LESS THAN 15 PERCENT SHALL BE COVERED BY FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. MULCH PLACED BETWEEN NOVEMBER 1ST AND APRIL 15TH ON SLOPES EQUAL TO OR STEEPER THAN 8 PERCENT AND EQUAL TO OR FLATTER THAN 2:1 SHALL USE MATS OR FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
- 1.1.4 AT ANY TIME OF THE YEAR, ALL SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH DOUBLE NET EROSION CONTROL BLANKET BIONET SC1508N BY NORTH AMERICAN GREEN OR APPROVED EQUAL, OR EROSION CONTROL MIX SLOPE PROTECTION AS DETAILED WITHIN THE PLANS.
- 1.1.5 MUD AND DUST FROM THE SITE TRACKED ONTO EXCHANGE STREET, FEDERAL STREET AND TEMPLE STREET SHALL BE REMOVED BY VACUUMING, PRIOR TO A PREDICTED RAIN EVENT, AND AS OTHERWISE DEEMED NECESSARY. ADD ADDITIONAL STONE TO THE STABILIZED CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF MATERIAL OFF THE SITE AND ONTO THE SURROUNDING ROADWAYS.
- 1.1.6 DURING DEMOLITION, CLEARING AND GRUBBING OPERATIONS, STONE CHECK DAMS SHALL BE INSTALLED AT ANY AREAS OF CONCENTRATED FLOW. THE MAXIMUM HEIGHT OF THE CHECK DAM SHALL NOT EXCEED 2 FEET. THE CENTER OF THE CHECK DAM SHALL BE 6 INCHES BELOW THE OUTER EDGES OF THE DAM. THE CONTRACTOR SHALL MULCH THE SIDE SLOPES AND INSTALL STONE CHECK DAMS FOR ALL NEWLY EXCAVATED DITCH LINES WITHIN 24 HOURS OF THEIR CREATION. STORMDRAIN INLET PROTECTION SHALL BE PROVIDED TO STORMDRAINS THROUGH THE USE OF ANY OF THE FOLLOWING: HAY BALE DROP INLET STRUCTURES, SILT FENCE, DROP FILTER, GRAVEL AND WIRE MESH SEDIMENT FILTER, OR SEDIMENT FILTER. SEDIMENT FILTERS SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT AND REPAIRED AS NECESSARY. SEDIMENTS SHALL BE REMOVED WHEN ACCUMULATION HAS REACHED 1/2 THE DESIGN HEIGHT.
- 1.1.9 DUST CONTROL SHALL BE ACCOMPLISHED BY THE USE OF ANY OF THE FOLLOWING: WATER, CALCIUM CHLORIDE, STONE, OR AN APPROVED MOP PRODUCT. DUST CONTROL SHALL BE APPLIED AS NEEDED TO ACCOMPLISH DUST CONTROL.
- 1.1.10 TEMPORARY LOAM, SEED, AND MULCHING SHALL BE USED IN AREAS WHERE NO OTHER EROSION CONTROL MEASURE IS USED. APPLICATION RATES FOR SEEDING ARE PROVIDED AT THE END OF THIS REPORT.
- 1.1.11 STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS OF FORMATION UNLESS A SCHEDULED RAIN EVENT OCCURS PRIOR TO THE 7 DAY WINDOW, IN WHICH CASE THE STOCKPILE SHALL BE STABILIZED PRIOR TO THE RAIN EVENT. METHODS OF STABILIZATION SHALL BE MULCH, EROSION CONTROL MIX, OR EROSION CONTROL BLANKETS/MATS. SILT FENCE OR A WOOD WATTLE COMPOST FILTER BERM SHALL BE PLACED DOWNHILL OF ANY SOIL STOCKPILE LOCATION.
- 1.1.12 FOR DISTURBANCE BETWEEN NOVEMBER 1 AND APRIL 15, PLEASE REFER TO WINTER STABILIZATION PLAN IN THIS REPORT AND THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR FURTHER INFORMATION.
- 1.1.13 IT IS OF THE UTMOST IMPORTANCE THAT STORMWATER RUNOFF AND POTENTIAL SEDIMENT FROM THE CONSTRUCTION SITE BE DIVERTED AROUND THE PROPOSED UNDERDRAINS UNTIL TRENCH IS BACKFILLED.

1.2 PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES ARE INTENDED FOR POST DISTURBANCE AREAS OF THE PROJECT.

- 1.2.1 ALL DISTURBED AREAS DURING CONSTRUCTION, NOT SUBJECT TO OTHER PROPOSED CONDITIONS, SHALL RECEIVE A MINIMUM 4" OF LOAM, LIMED, AND MULCHED. EROSION CONTROL BLANKETS OR MATS SHALL BE PLACED OVER THE MULCH IN AREAS NOTED IN PARAGRAPH 4.1 OF THIS REPORT.
- 1.2.2 ALL STORMWATER DEVICES SHALL BE INSTALLED AND TRIBUTARY AREAS STABILIZED PRIOR RECEIVING STORMWATER.
- 1.2.3 REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

2.0 EROSION AND SEDIMENTATION CONTROL PLAN

- 2.1 THE EROSION AND SEDIMENTATION CONTROL PLAN IS INCLUDED WITHIN THE PLAN SET.

3.0 DETAILS AND SPECIFICATIONS

- 3.1 EROSION CONTROL DETAILS AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET.

4.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

WINTER CONSTRUCTION CONSISTS OF EARTHWORK DISTURBANCE BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15. IF A CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 90% 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 UNSTABILIZED.

THE CONTRACTOR SHALL LIMIT THE WORK AREA TO AREAS THAT WORK WILL OCCUR IN DURING THE SUBSEQUENT 15 DAYS AND SO THAT IT CAN BE MULCHED ONE DAY PRIOR TO A SNOW EVENT. THE CONTRACTOR SHALL STABILIZE WORK AREAS PRIOR TO OPENING ADDITIONAL WORK AREAS TO MINIMIZE AREAS WITHOUT EROSION CONTROL MEASURES.

THE FOLLOWING MEASURES SHALL BE IMPLEMENTED DURING WINTER CONSTRUCTION PERIODS:

4.1 SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS, FILTER SOCKS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

4.2 MULCHING

ALL AREAS SHALL BE CONSIDERED TO BE DENUDEED 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 EROSION CONTROL MIX OR EROSION CONTROL MATS. 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.

4.3 SOIL STOCKPILING

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A FOUR-INCH LAYER OF EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL.

4.4 SEEDING

BETWEEN THE DATES OF OCTOBER 15TH AND APRIL 1ST, LOAM OR SEED SHALL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED. SEEDING OF INSPECTION UNITS SUCH AS AT LEAST ONCE EVERY TWO WORKING WEEKS. 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 90% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

4.5 OVER WINTER STABILIZATION OF DISTURBED SLOPES

BY SEPTEMBER 15TH, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% SHALL BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS SHALL BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION – BY OCTOBER 1ST, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3LBS PER 1,000 S.F., LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 LBS PER 1,000 S.F., AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1ST, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION.
- STABILIZE THE SOIL WITH SOD – STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
- STABILIZE THE SOIL WITH MULCH – BY NOVEMBER 15TH, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 LBS PER 1,000 S.F. ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

4.6 OVER WINTER STABILIZATION OF DISTURBED SLOPES

ALL STONE-COVERED SLOPES SHALL BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15TH. ALL SLOPES TO BE VEGETATED SHALL BE SEEDED AND MULCHED BY SEPTEMBER 1ST. A SLOPE IS CONSIDERED A GRADE GREATER THAN 15%. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1ST, THEN ONE OF THE FOLLOWING ACTION SHALL BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS – BY OCTOBER 1ST THE DISTURBED SLOPE SHALL BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1,000 S.F. AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 90% F 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.

5.0 INSPECTION AND MAINTENANCE

A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROLS, 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 WORKING WEEKS. WELL AS AFTER A "STORM EVENT." A "STORM EVENT" SHALL CONSIST OF 0.5 INCHES OF RAIN OR SNOWMELT WITHIN A 24 HOUR PERIOD. THE FOLLOWING EROSION AND SEDIMENT CONTROL – BEST MANAGEMENT PRACTICES (BMP'S) SHALL INSPECTED IN THE MANNER AS DESCRIBED. THE SCOPE OF INSPECTIONS INCLUDE DISTURBED AND IMPERVIOUS AREAS, MATERIAL STORAGE AREAS, VEHICLE ACCESS POINTS & ANY OTHER EROSION CONTROL MEASURES NOT DIRECTLY LISTED. THE CONTRACTOR SHALL PERFORM CORRECTIVE ACTION AS REQUIRED TO ENSURE EROSION CONTROL MEASURES PERFORM AS DESIGNED. IF CORRECTIVE ACTION IS REQUIRED, REPAIR WORK SHALL BE STARTED BY NO LATER THAN THE END OF THE FOLLOWING WORKDAY AND COMPLETED WITHIN ONE WEEK, OR BEFORE THE NEXT PREDICTED "STORM EVENT." THE CONTRACTOR SHALL PROVIDE ALL NECESSARY REGULATING AGENCIES WITH WRITTEN DOCUMENTATION DESCRIBING INSPECTION DATES AND NECESSARY WORK TO MAINTAIN EROSION CONTROL MEASURES MEETING THE REQUIREMENTS SPECIFIED IN THIS PLAN SET.

5.1 SEDIMENT BARRIERS

HAY BALE BARRIERS, SILT FENCES AND FILTER BERMS SHALL BE INSPECTED AND REPAIRED FOR THE FOLLOWING IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. FILTER BERMS SHOULD BE RESHAPED AS NEEDED. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

5.2 FODS TRACKOUT CONTROL ENTRANCES

- THE FOLLOWING NOTES HIGHLIGHT THE INSTALLATION PROCEDURE FOR THE FODS TRACKOUT CONTROL ENTRANCES DURING THE PROJECT'S CONSTRUCTION PERIOD
- 5.2.1 CONTRACTOR TO FOLLOW THE MOST RECENT VERSION OF MANUFACTURER'S SPECIFICATIONS.
- 5.2.2 FOLLOW MANUFACTURER'S PROCEDURES FOR HANDLING AND SHIPPING.
- 5.2.3 FODS TRACKOUT CONTROL MAT SYSTEM: MANUFACTURER FODS, 844-200-3637
- 5.2.4 EXAMINE AREA WHERE TRACKING PAD WILL BE PLACED, TO DETERMINE WHAT PREPARATION IS NEEDED.
- 5.2.5 EXAMINE PANELS WHEN THEY ARRIVE ON THE SITE TO VERIFY THEY ARE UNDAMAGED AND SUITABLE FOR INTENDED PURPOSE.
- 5.2.6 GRADE TOPSOIL TO INSURE THAT INSTALLATION SITE IS FLAT, WITHOUT UNNEEDED HIGH SPOTS OR LOW SPOTS.
- 5.2.7 IF NECESSARY, REMOVE UNSUITABLE MATERIAL AND REPLACE WITH MATERIAL CAPABLE OF SUPPORTING CONSTRUCTION LOADS. COMPACT AS REQUIRED.
- 5.2.8 IF SUBSTRATE HAS A CBR OF 4 OR LESS, INCORPORATE AGGREGATE, GEOTEXTILE OR GEORGRID INTO THE SUPPORTING STRATA.
- 5.2.9 INSTALL CULVERT, IF NEEDED, BEFORE INSTALLING TRACKING PAD, BACKFILL TO ADEQUATELY SUPPORT MINIMUM H-20 TRAFFIC LOADING.
- 5.2.10 INSTALL TRACKING PAD TO THE APPROXIMATE LINES AND GRADES INDICATED ON THE DRAWINGS. SIZE SHALL BE AS INDICATED ON THE DRAWINGS, OR, IF NO SIZE IS INDICATED, PAD LENGTH SHALL BE THE GREATER OF: 35 FEET; OR 3 TIMES THE CIRCUMFERENCE OF THE LARGEST TIRE THAT WILL CROSS IT DURING THE PROJECT.
- 5.2.11 PROVIDE NUMBER OF INDIVIDUAL PANELS OF TRACKING PAD TO MAKE UP THE SIZE REQUIRED. ADJACENT PANELS SHALL BE BUTTED TOGETHER AND BE AT APPROXIMATELY THE SAME ELEVATION. ANCHOR PANELS AGAINST SLIDING ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- 5.2.12 PLACE H-BRACKET BETWEEN FIRST AND SECOND MAT, AND ALL ADJACENT MATS.
- 5.2.13 CONNECT MATS TOGETHER USING LONG-STEEL STRAPS PER MANUFACTURER'S INSTRUCTIONS.
- 5.2.14 ANCHOR MATS TO SURFACE PER MANUFACTURER'S SPECIFICATION PER SUBSTRATE.
- 5.2.15 PROVIDE EXTRA PANELS FOR TURNING RADII, IF NEEDED TO PREVENT TRUCKS FROM RUNNING OFF THE PAD DURING TURNS.
- 5.2.16 CLEAN DIRT AND DEBRIS FROM TRACKING PAD AS OFTEN AS NECESSARY OR ONCE DEBRIS HAS REACHED 2.5" IN THE LANE OF TRAVEL. PROPERLY DISPOSE OF MATERIAL REMOVED SO IT DOES NOT LEAVE THE SITE OR ENTER DITCHES OF STORMWATER PIPES.
- 5.2.17 ONCE THE SITE IS STABILIZED, OR WHEN THE PROJECT MOVES INTO A NEW PHASE SUCH THAT THE TRACKING PAD IS NO LONGER REQUIRED, REMOVE TRACKING PAD, TAKING CARE TO PROPERLY DISPOSE OF DIRT AND DEBRIS, AND RESTORE THE AREA AS DESCRIBED IN SECTION 31 25 01.

5.3 MULCHED AREAS

ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION, IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, RE-INSTALL THE NETS AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE. WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE. REPAIR AS NEEDED.

5.4 DUST CONTROL

WHEN TEMPORARY DUST CONTROL MEASURES ARE USED, REPETITIVE TREATMENT SHALL BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

5.5 STORMWATER APPURTENANCES

ALL UNDERDRAINS, STORM DRAINS, AND CATCH BASINS NEED TO BE OPERATING EFFECTIVELY AND FREE OF DEBRIS.

5.6 THE APPLICANT BEARS THE RESPONSIBILITY OF MAINTAINING FOR AT LEAST FIVE (5) YEARS, THE INSPECTION FORMS AND DOCUMENTATION OF CORRECTIVE ACTIONS TAKEN DURING CONSTRUCTION.

5.7 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.

6.0 IMPLEMENTATION SCHEDULE

THE FOLLOWING IMPLEMENTATION SEQUENCE IS INTENDED TO MAXIMIZE THE EFFECTIVENESS OF THE ABOVE DESCRIBED EROSION CONTROL MEASURES. CONTRACTORS SHOULD AVOID OVEREXPOSING DISTURBED AREAS AND LIMIT THE AMOUNT OF STABILIZATION AREA.

- INSTALL A STABILIZED CONSTRUCTION ENTRANCE IN ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL ENTER AND EXIT THE SITE.
- INSTALL PERIMETER SILT FENCE OR EROSION CONTROL BERM.
- INSTALL ALL OTHER EROSION CONTROL DEVICES AS NECESSARY THROUGHOUT THE REMAINDER OF THIS SCHEDULE.
- COMMENCE INSTALLATION OF DRAINAGE INFRASTRUCTURE.
- RELOCATE EXISTING UTILITIES.
- COMMENCE EARTHWORK OPERATIONS, WALL AND FOUNDATION INSTALLATION.
- COMMENCE INSTALLATION OF UTILITIES.
- CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION.
- COMPLETE INSTALLATION OF DRAINAGE INFRASTRUCTURE, AS WELL AS OTHER UTILITY WORK.
- COMPLETE REMAINING EARTHWORK OPERATIONS.
- INSTALL SUB-BASE AND BASE GRAVELS IN PAVED AREAS.
- INSTALL PAVING, CURBING AND BRICKWORK.
- LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS AND COMPLETE ALL LANDSCAPING.
- 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.
- TOUCH UP AREAS WITHOUT A VIGOROUS CATCH OF GRASS WITH LOAM AND SEED.
- COMPLETE SITE SIGNAGE AND STRIPING.
- EXECUTE PROPER MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES THROUGHOUT THE PROJECT.

THE ABOVE IMPLEMENTATION SEQUENCE SHOULD BE GENERALLY FOLLOWED BY THE SITE CONTRACTOR. HOWEVER, THE CONTRACTOR MAY CONSTRUCT SEVERAL ITEMS SIMULTANEOUSLY. THE CONTRACTOR SHALL SUBMIT TO THE OWNER A SCHEDULE OF THE COMPLETION OF THE WORK. IF THE CONTRACTOR IS TO COMMENCE THE CONSTRUCTION OF MORE THAN ONE ITEM ABOVE, THEY SHALL LIMIT THE AMOUNT OF EXPOSED AREAS TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE FOLLOWING 30 DAYS.

THE CONTRACTOR SHALL RE-VEGETATE DISTURBED AREAS AS RAPIDLY AS POSSIBLE. ALL AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR BEFORE A STORM EVENT. THE CONTRACTOR SHALL INCORPORATE PLANNED INLETS AND DRAINAGE SYSTEMS AS EARLY AS POSSIBLE INTO THE CONSTRUCTION PHASE.

7.0 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.

SEEDING PLAN

SITE PREPARATION

THE SEEDED AREAS SHALL BE FEASIBLY GRADED OUT TO PROVIDE THE USE OF EQUIPMENT FOR SEEDED 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-P205-K20) OR EQUIVALENT. FERTILIZER SHALL NOT BE APPLIED TO INFILTRATION BASIN ONCE AMENDED.

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:

TEMPORARY SEED APPLICATION RATES			
SEED	LBS / ACRE	LBS / 1,000 SF	RECOMMENDED SEEDING DATES
WINTER RYE	112	2.6	8/15 TO 10/1
OATS	80	1.8	4/1 TO 7/1 8/15 TO 9/15
ANNUAL RYEGRASS	40	0.9	4/1 TO 7/1
SUDANGRASS	40	0.9	5/15 TO 8/15
PERENNIAL	40	0.9	8/15 TO 9/15
TOTAL	312	7.1	

PERMANENT SEED APPLICATION RATES	
SEED	LBS / ACRE
KENTUCKY BLUEGRASS	20.00
CREeping RED FESCUE	20.00
PERENNIAL RYEGRASS	4.80
TOTAL	44.8 LBS/ACRE

MULCHING

MULCH SHALL BE HARDWOOD AND APPLIED AT A RATE OF 70 LBS – 90 LBS PER 1,000 SQUARE FEET. THE MULCH SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4 INCHES. THE SEEDED AREA SHALL BE MULCHED IMMEDIATELY AFTER SEED IS APPLIED. MULCHING DURING THE WINTER SEASON SHALL BE DOUBLE THE NORMAL AMOUNT. REFER TO DETAIL FOR MORE INFORMATION.

CONCLUSION

PLEASE REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION PERTAINING TO TEMPORARY SEEDING AND MULCHING.

HOUSEKEEPING

1. SPILL PREVENTION. CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.

NOTE: ANY SPILL OR RELEASE OF TOXIC OR HAZARDOUS SUBSTANCES MUST BE REPORTED TO THE DEPARTMENT. FOR OIL SPILLS, CALL 1-800-482-0777 WHICH IS AVAILABLE 24 HOURS A DAY. FOR SPILLS OF TOXIC OR HAZARDOUS MATERIAL, CALL 1-800-452-4664 WHICH IS AVAILABLE 24 HOURS A DAY. FOR MORE INFORMATION, VISIT THE DEPARTMENT'S WEBSITE AT : [HTTP://WWW.MAINE.GOV/DEP/SPILLS/EMERGENCIES/P](http://WWW.MAINE.GOV/DEP/SPILLS/EMERGENCIES/P)

2. GROUNDWATER PROTECTION. DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE-TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.

SEE APPENDIX D FOR LICENSE BY RULE STANDARDS FOR INFILTRATION OF STORMWATER.

NOTE: LACK OF APPROPRIATE POLLUTANT REMOVAL BEST MANAGEMENT PRACTICES (BMPs) MAY RESULT IN VIOLATIONS OF THE GROUNDWATER QUALITY STANDARD ESTABLISHED BY 38 M.R.S.A. §485-(C1).

3. FUGITIVE SEDIMENT AND DUST. ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WATER ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SCE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF-SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEEP IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.

NOTE: DEWATERING A STREAM WITHOUT A PERMIT FROM THE DEPARTMENT MAY VIOLATE STATE WATER QUALITY STANDARDS AND THE NATURAL RESOURCES PROTECTION ACT.

4. DEBRIS AND OTHER MATERIALS. MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

NOTE: TO PREVENT THESE MATERIALS FROM BECOMING A SOURCE OF POLLUTANTS, CONSTRUCTION AND POST-CONSTRUCTION ACTIVITIES RELATED TO A PROJECT MAY BE REQUIRED TO COMPLY WITH APPLICABLE PROVISIONS OF RULES RELATED TO SOLID, UNIVERSAL, AND HAZARDOUS WASTE, INCLUDING, BUT NOT LIMITED TO, THE MAINE SOLID WASTE AND HAZARDOUS WASTE MANAGEMENT RULES; MAINE HAZARDOUS WASTE MANAGEMENT RULES; MAINE OIL CONVEYANCE AND STORAGE RULES; AND MAINE PESTICIDE REQUIREMENTS.

5. EXCAVATION DE-WATERING. EXCAVATION DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SLOPED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. ALLOW ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.

NOTE: DEWATERING CONTROLS ARE DISCUSSED IN THE "MAINE EROSION AND SEDIMENT CONTROL BMPs, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION."

6. UNAUTHORIZED NON-STORMWATER DISCHARGES. IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:

(a) DISCHARGES FROM FIREFIGHTING ACTIVITY;

(b) FIRE HYDRANT FLUSHINGS;

(c) VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);

(d) DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3);

(e) ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;

(f) PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;

(g) UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;

(h) UNCONTAMINATED GROUNDWATER OR SPRING WATER;

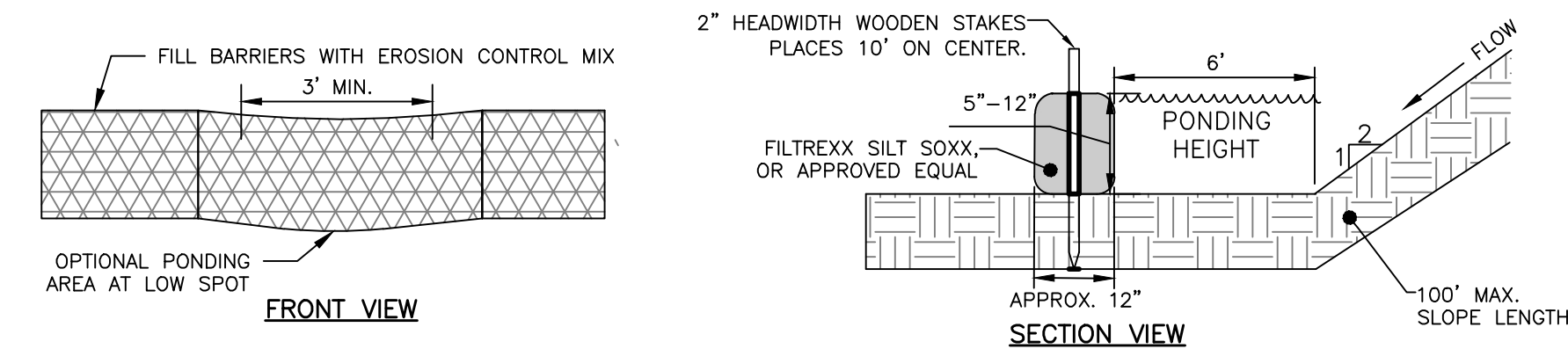
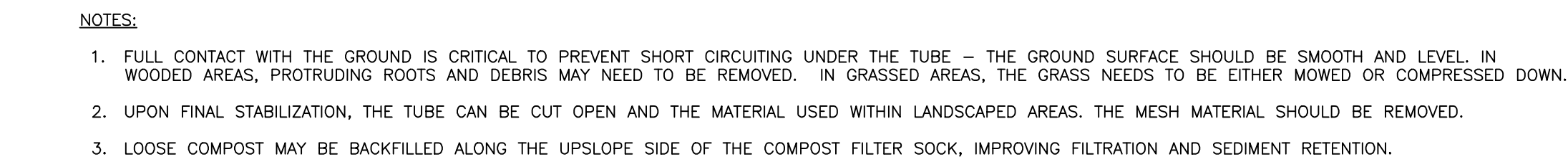
(i) FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;

[illegible]

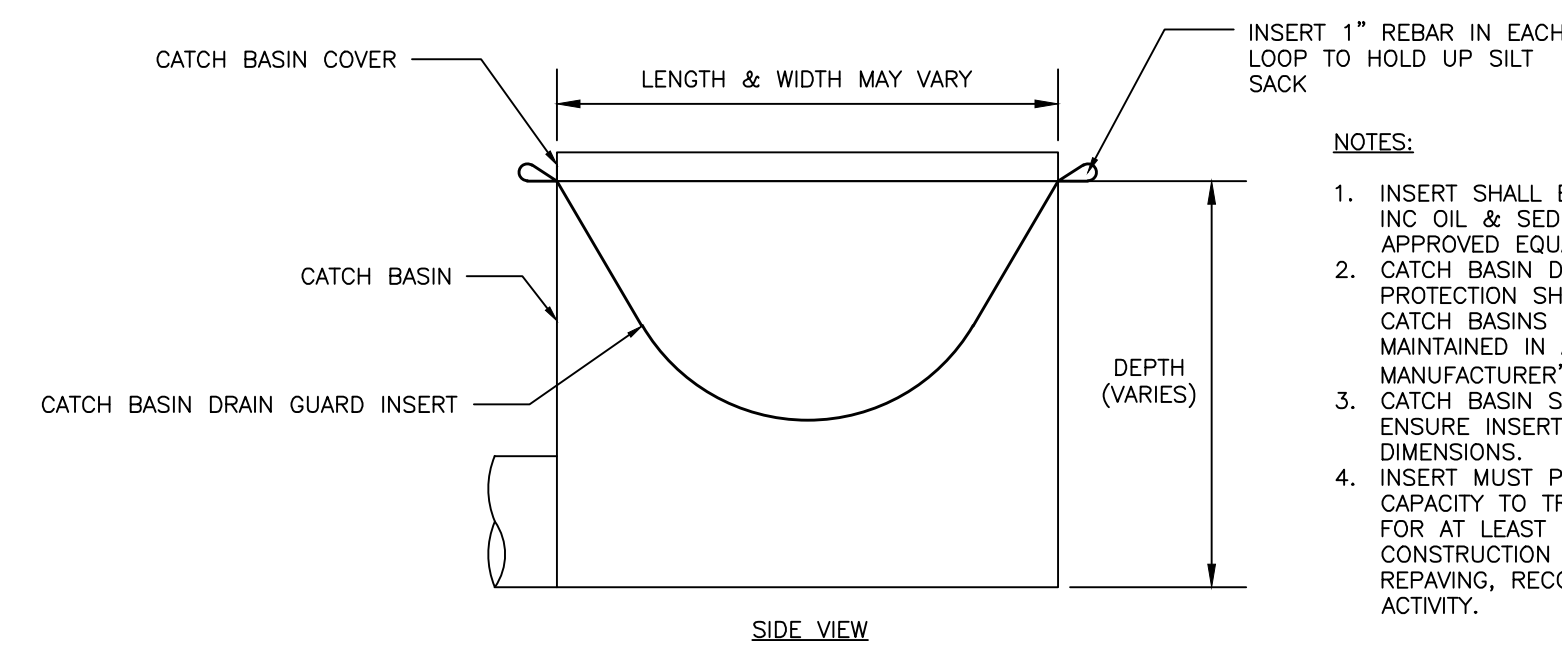
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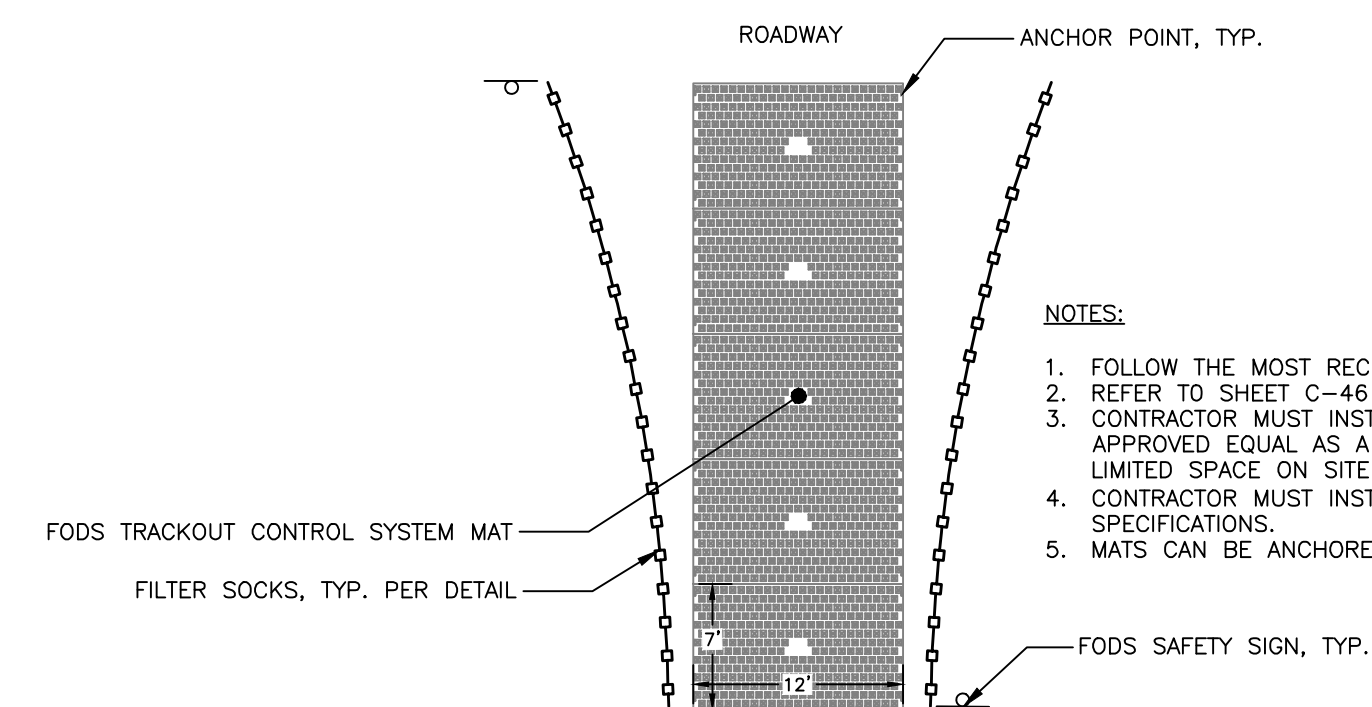
CLIENT/OWNER: REDEERN DOWNTOWN LLC



FILTER SOCK DETAIL
NOT TO SCALE



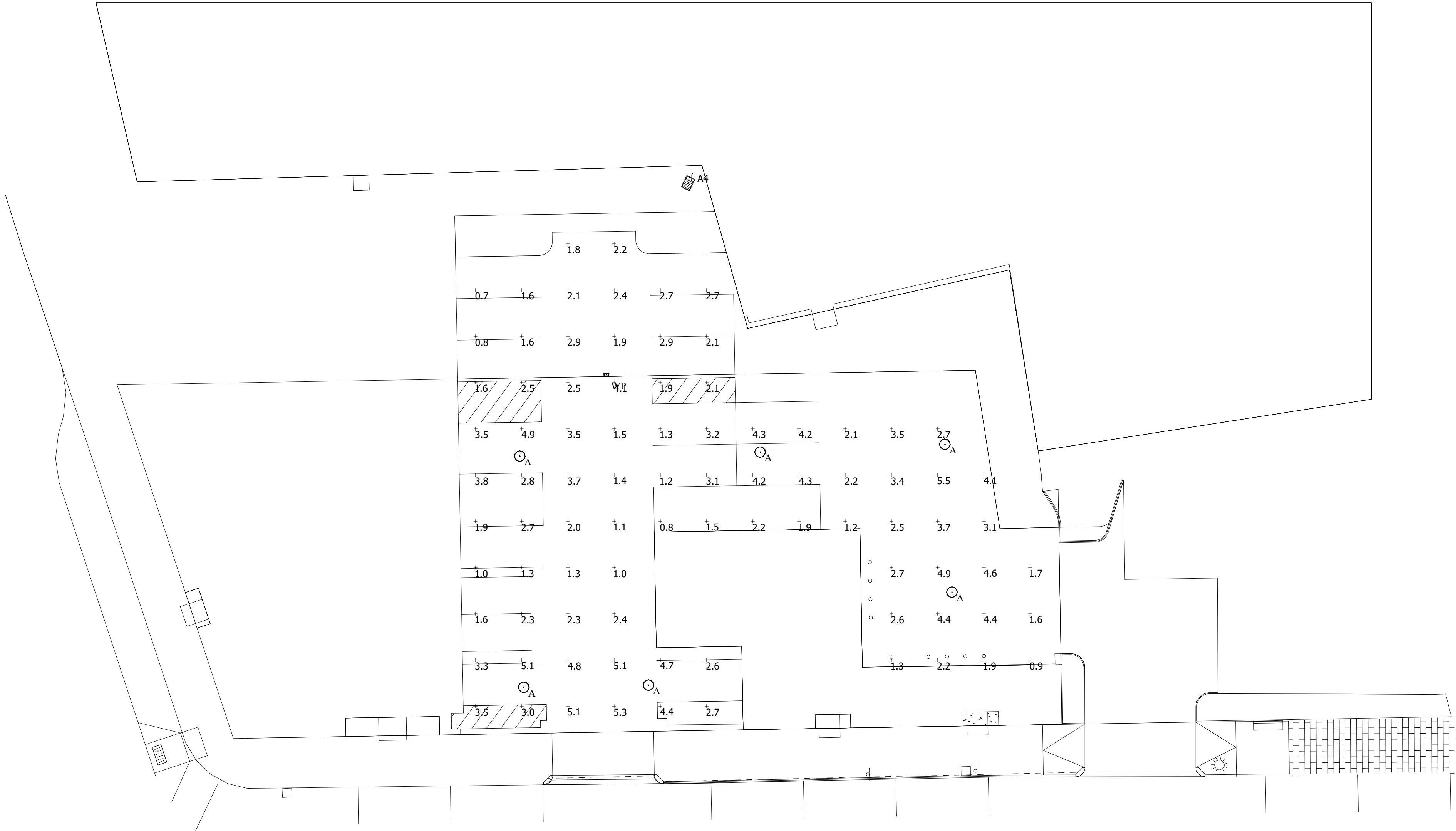
ULTRATECH DRAIN GUARD CATCH BASIN INSERT
NOT TO SCALE



FODS TRACKOUT CONTROL SYSTEM
CONSTRUCTION ENTRANCE
NOT TO SCALE

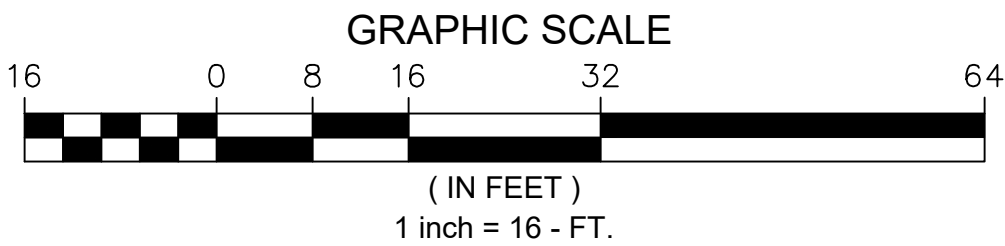
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

DRAWING NO.
C-47



Luminaire Schedule							
Symbol	Qty	Label	Mounting Height	LLF	Lum. Lumens	Lum. Watts	Description
⊙	6	A	9' - 0" AFG	0.900	6089	51.2	SRT2-50-4K7-5QW
⊞	1	WP	12' - 0" AFG	0.900	2789	28	TRP1-12L30-4K7-4
⊞	1	A4	12' - 0" AFG	0.900	5909	55	VP-S-24L-55-4K7-4W

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Overall Area	Illuminance	Fc	2.74	5.5	0.7	3.91	7.86



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:

FEDERAL STREET DEVELOPMENT
PORTLAND, ME
SITE PHOTOMETRIC PLAN

REVISED FROM DRAWING NUMBER(S):

R1: 11/14/20

R2: 12/01/20

R3: 12/07/20

R4: 12/09/20



Hubbell Lighting, Inc.
701 MILLENNIUM BLVD.
GREENVILLE, SC 29607

DN BY:
DHK

REV BY:
DHK

QUOTE:
N/A

DATE:
11/14/19

DATE:
12/09/20

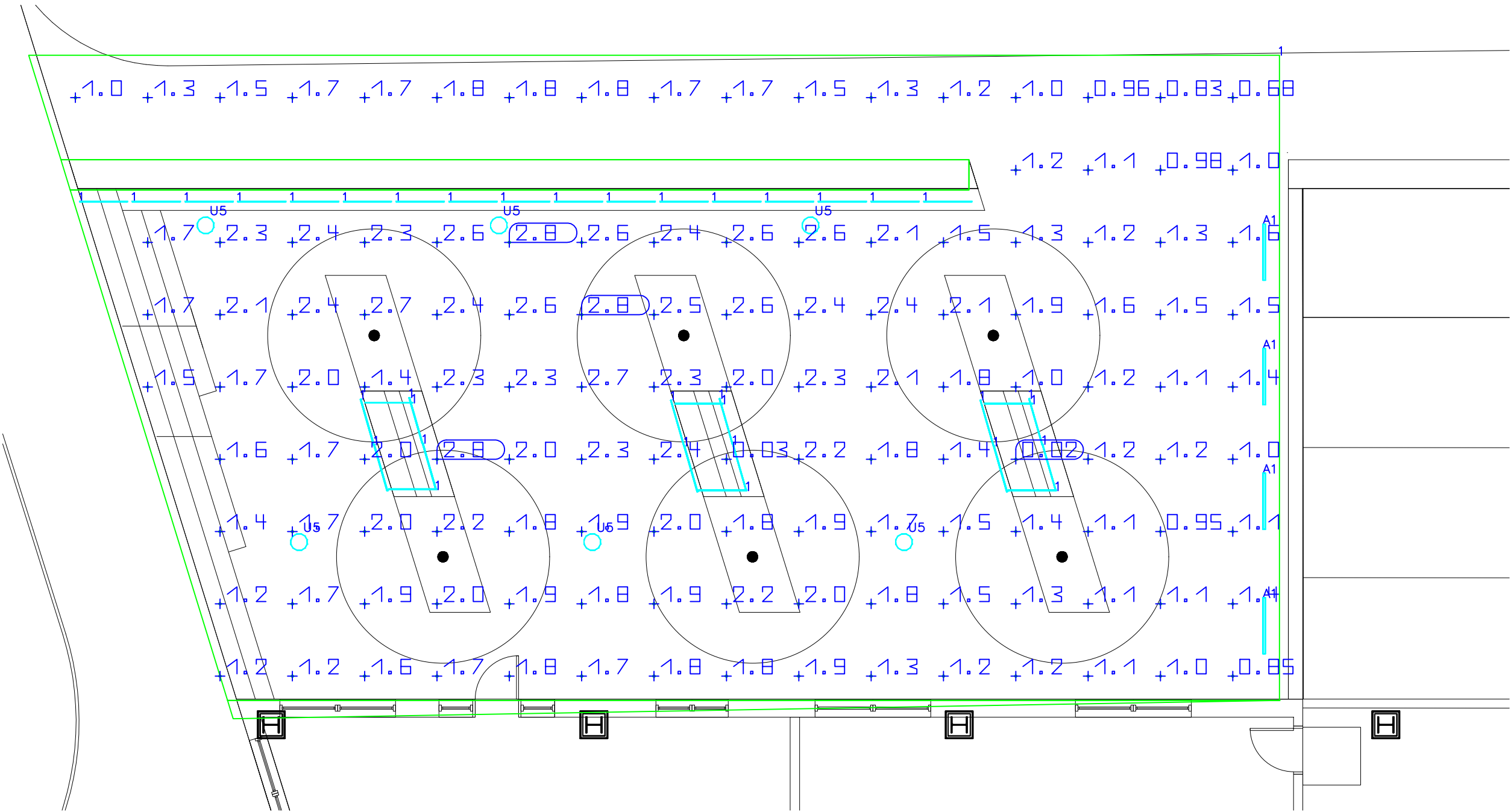
DRAWING / DESIGN NO.:

CHK BY:
N/A

SCALE:
AS NOTED

1925339R4

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Luminaire list (Site 1)							
Index	Manufacturer	Article name	Item number	Luminous flux	Light loss factor	Connected load	Quantity
A1	KIM LIGHTING	INTENT WHITE	INT-4-48L-80-3K7-WG	9513 lm	0.90	78.6 W	4
F1	TMB	RGBW Tape	FTPPX1RGBW with FTP-X1 Tall-V1 channel (no diffusion) - RGBW	143 lm	0.90	5.1 W	35
U5	Beacon Products	URBAN SERIES	URB-21-24NB-27-3K-T5W	2601 lm	0.90	55.8 W	6

#	Name	Parameter	Min	Max	Average	Mean/Min	Max/Min
1	Courtyard	Perpendicular illuminance	0.017 fc	2.84 fc	1.70 fc	98.60	164.1



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.

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3. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.

TITLE:

FEDERAL STREET
THE URBAN OASIS
EXTERIOR LIGHTING PLAN

REVISED FROM DRAWING NUMBER(S):

R1: 11/24/20
R2: 04/08/21

HUBBELL®
Hubbell Lighting, Inc.
701 MILLENNIUM BLVD.
GREENVILLE, SC 29607

ON BY:
DHK
REV BY:
DHK
QUOTE:
N/A

DATE:
11/08/20
DATE:
04/08/21

CHK BY:
N/A
SCALE:
AS NOTED

DRAWING / DESIGN NO.:
2027109R2

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MIXED-USE HIGH-RISE

200 FEDERAL STREET
PORTLAND, MAINE

PROGRESS DRAWINGS

JULY 20, 2020



ARCHITECT

RYAN SENATORE **ARCHITECTURE**

500 CONGRESS STREET, SECOND FLOOR, PORTLAND, MAINE 04101
207-650-6414

DRAWING LIST

SHEET NUMBER

G0-0 TITLE SHEET

ARCHITECTURAL

0-1 INTERIOR WALL AND PARTITION TYPES
0-2 SLAB, FLOOR AND ROOF TYPES

1-1 FIRST FLOOR PLAN
1-2 SECOND FLOOR PLAN
1-3 THIRD FLOOR PLAN
1-4 FOURTH FLOOR PLAN
1-18 EIGHTEENTH FLOOR PLAN
1-19 ROOF PLAN

A2-0 SOUTH ELEVATION
A2-1 NORTH ELEVATION
A2-2 EAST AND WEST ELEVATION

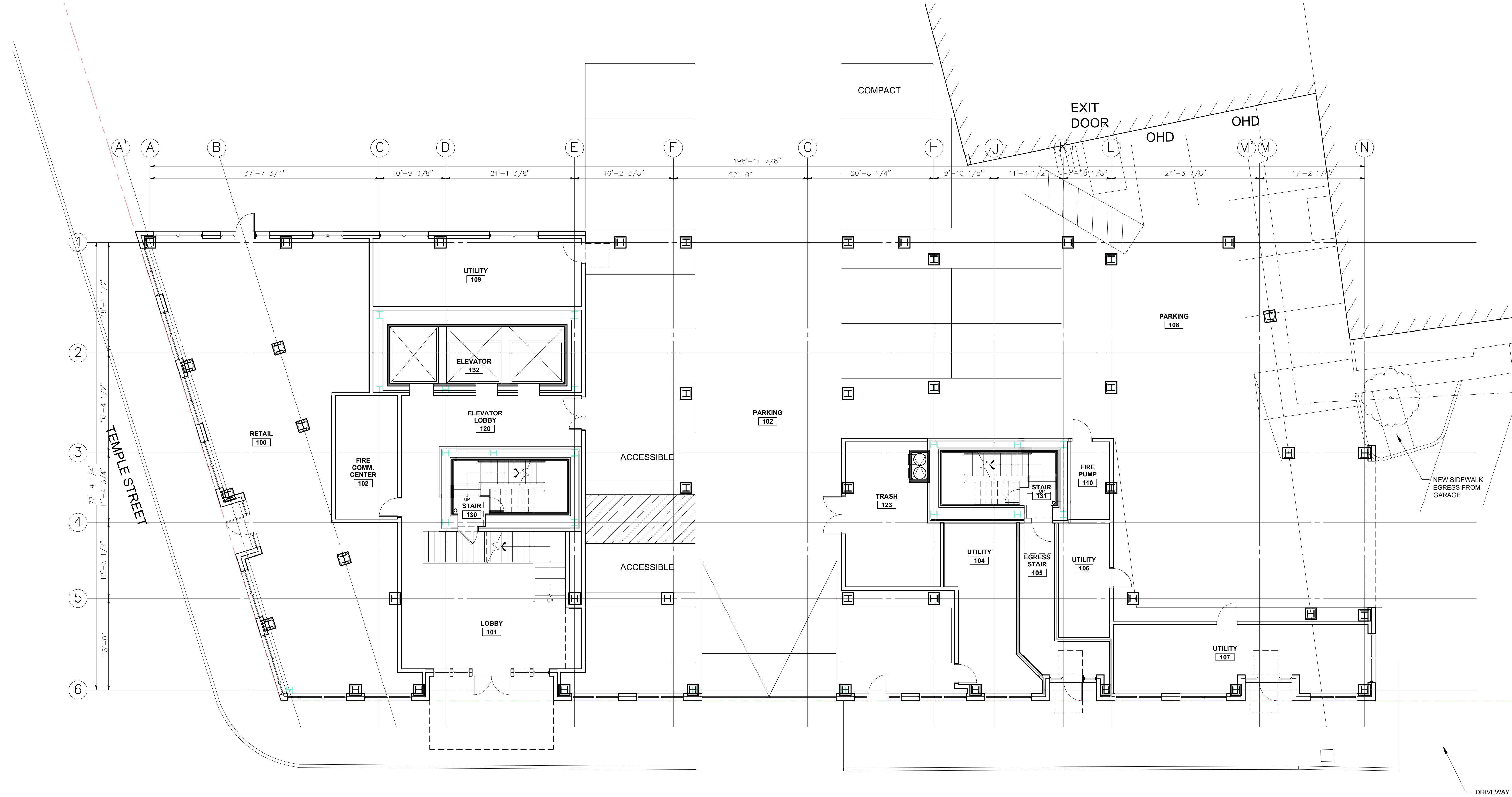
A3-0 WALL SECTIONS

A5-0 DETAILS
A5-1 DETAILS

A7-0 WINDOW SCHEDULE
A7-0A PINNACLE WINDOW 1
A7-0B PINNACLE WINDOW 2

1 CONCEPT IMAGE
2 CONCEPT IMAGE
3 CONCEPT IMAGE
4 CONCEPT IMAGE
5 CONCEPT IMAGE
6 CONCEPT IMAGE

1 SITE CONTEXT IMAGE
2 SITE CONTEXT IMAGE



1 FIRST FLOOR PLAN
1/8" = 1'-0"

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ARCHITECTURE

MIXED-USE HIGH-RISE
200 FEDERAL STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-6414
senatorearchitecture.com

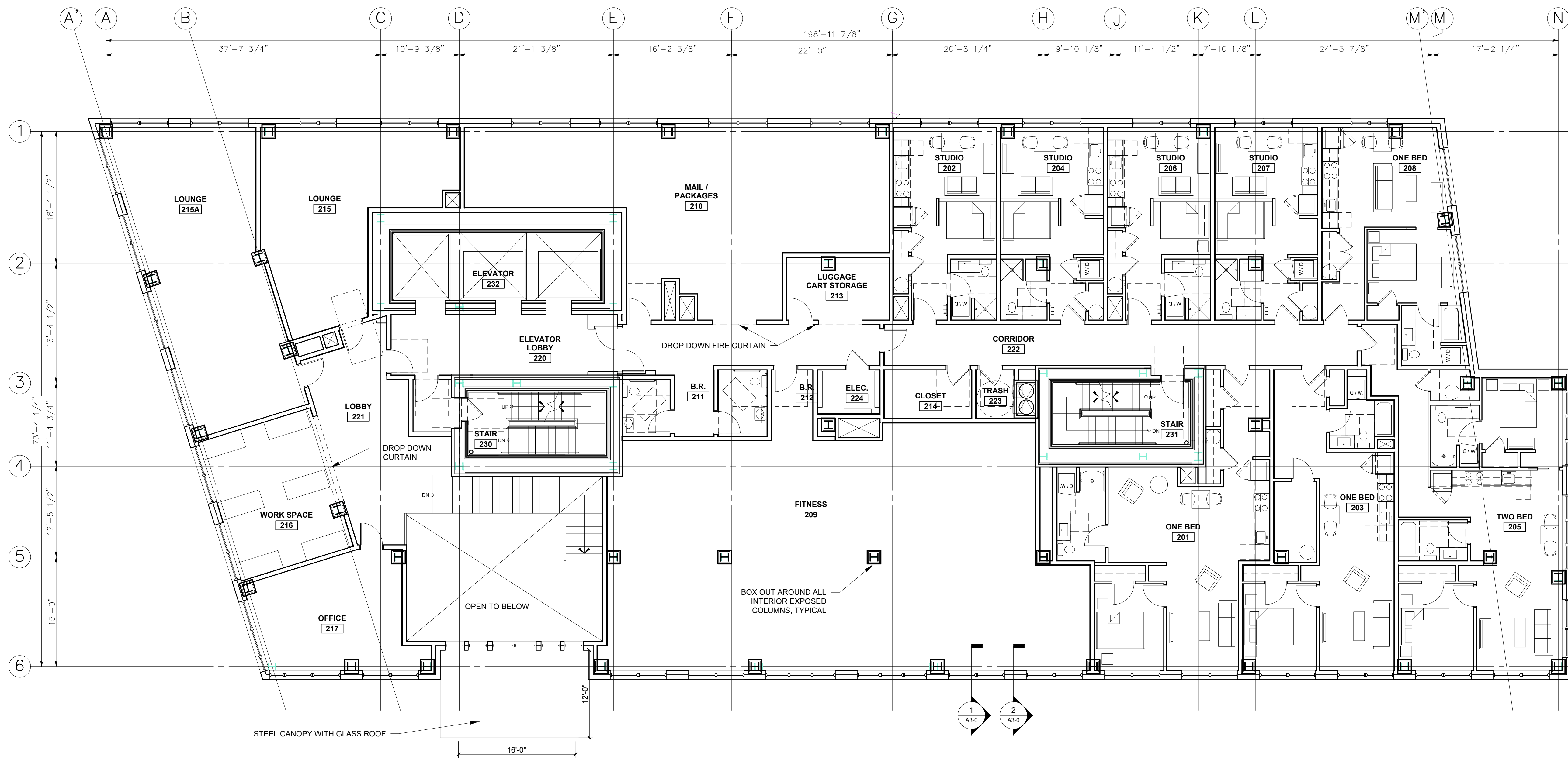
CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
AUGUST 20, 2020

DATE: _____
PROJECT No. 1947
DRAWN BY: RRT, RJS
CHECKED BY: RJS
SCALE: AS NOTED

SHEET TITLE:
FIRST FLOOR
PLAN

A1-1



1 SECOND FLOOR PLAN
1/8" = 1'-0"

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ARCHITECTURE

MIXED-USE HIGH-RISE
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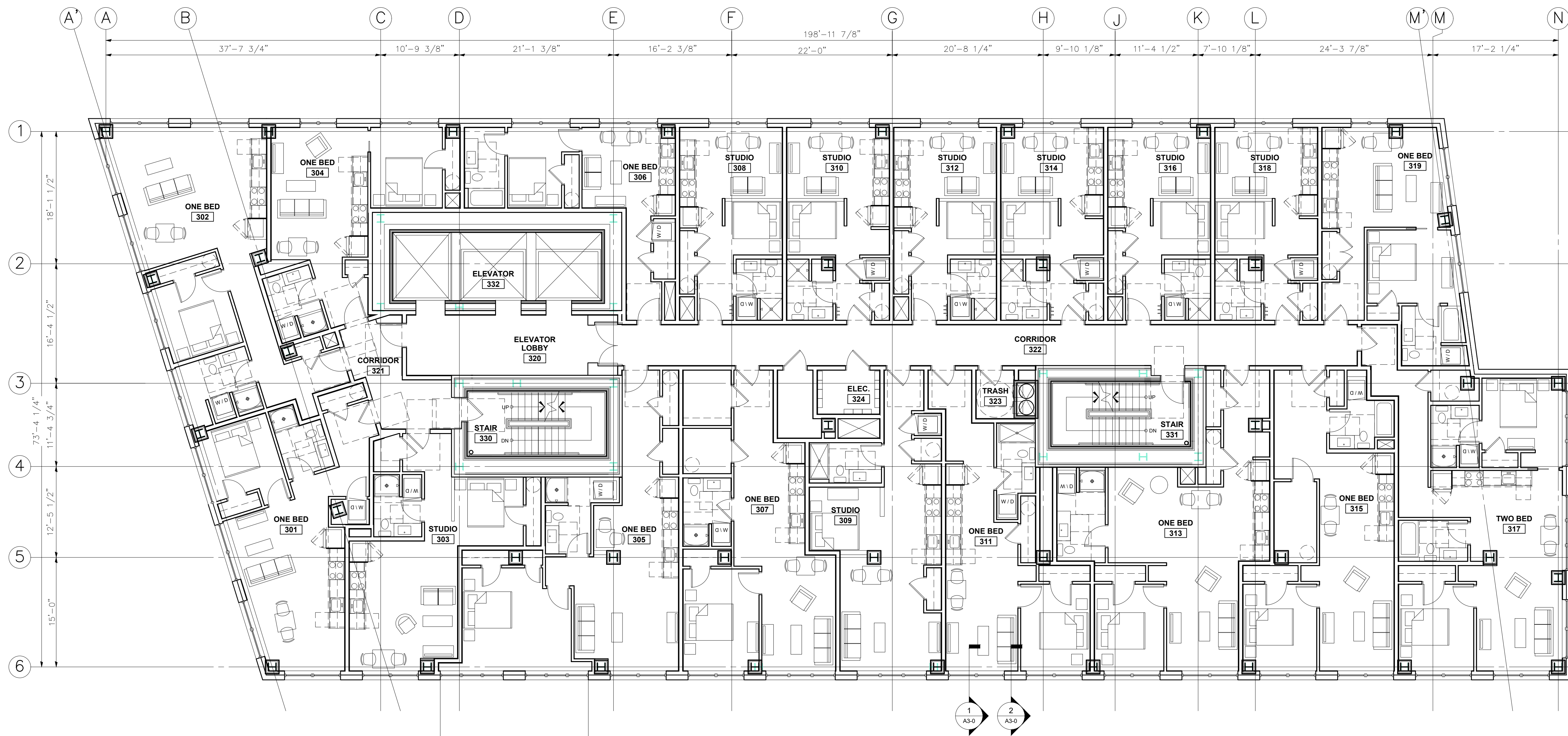
DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
SECOND FLOOR
PLAN

A1-2



1 THIRD FLOOR PLAN
1/8" = 1'-0"

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MIXED-USE HIGH-RISE
200 FEDERAL STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-6414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
AUGUST 20, 2020

DATE:

PROJECT No. 1947

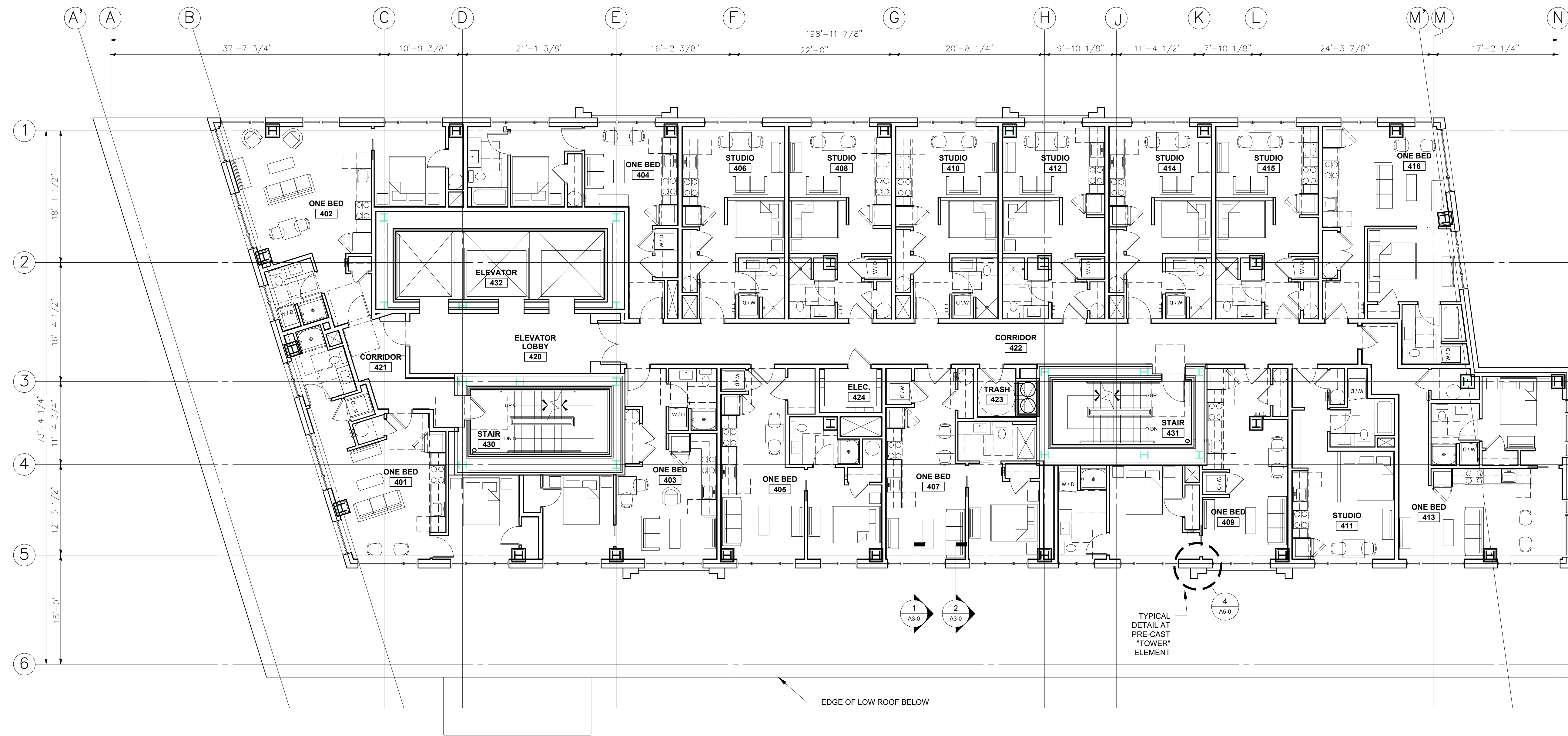
DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
THIRD FLOOR
PLAN

A1-3



1 FOURTH FLOOR PLAN
1/8" = 1'-0"

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ARCHITECTURE

MIXED-USE HIGH-RISE
200 FEDERAL STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-6414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
AUGUST 20, 2020

DATE:

PROJECT No. 1947

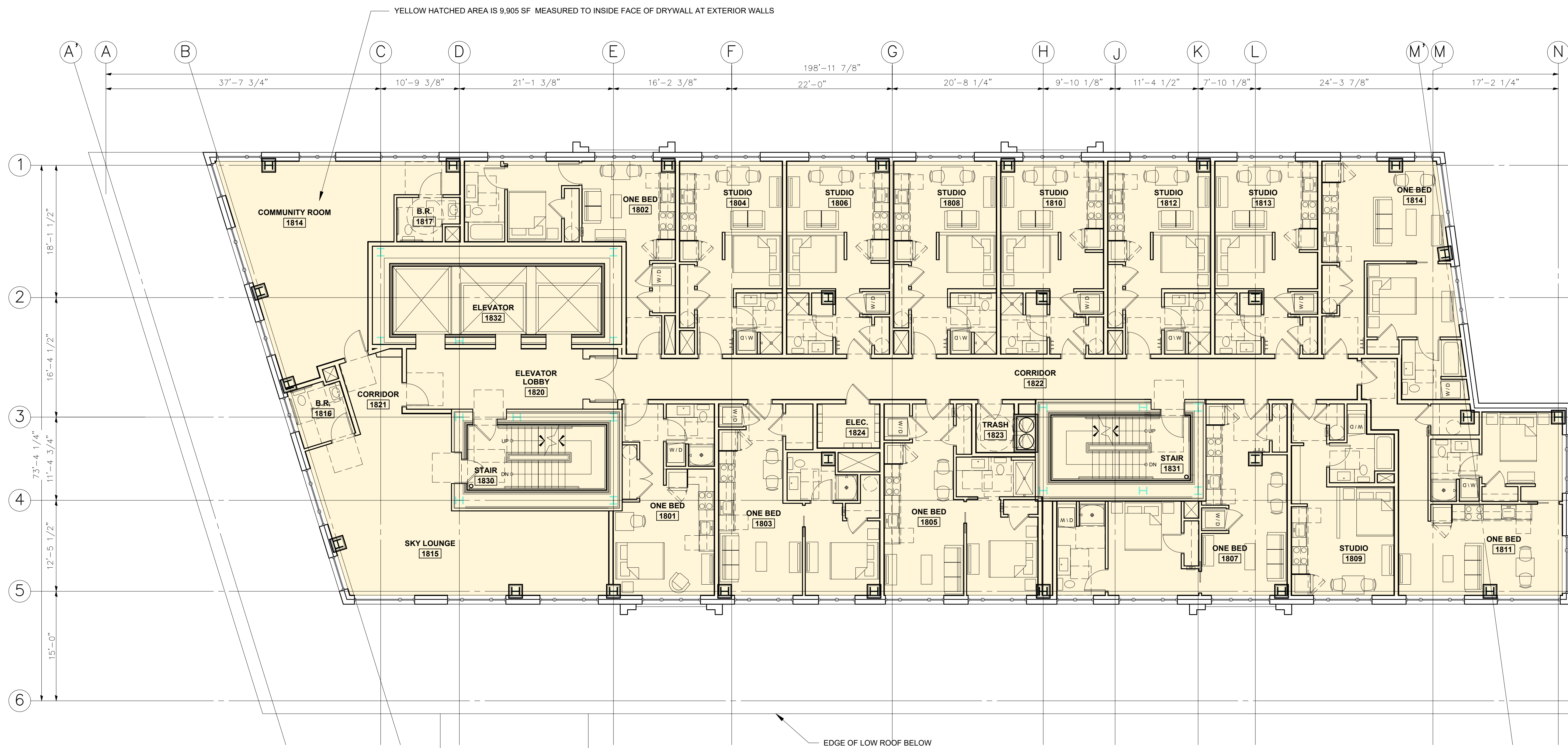
DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
FOURTH FLOOR
PLAN

A1-4



1 EIGHTEENTH FLOOR PLAN
1/8" = 1'-0"

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ARCHITECTURE

MIXED-USE HIGH-RISE
200 FEDERAL STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-6414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
AUGUST 20, 2020

DATE:

PROJECT No. 1947

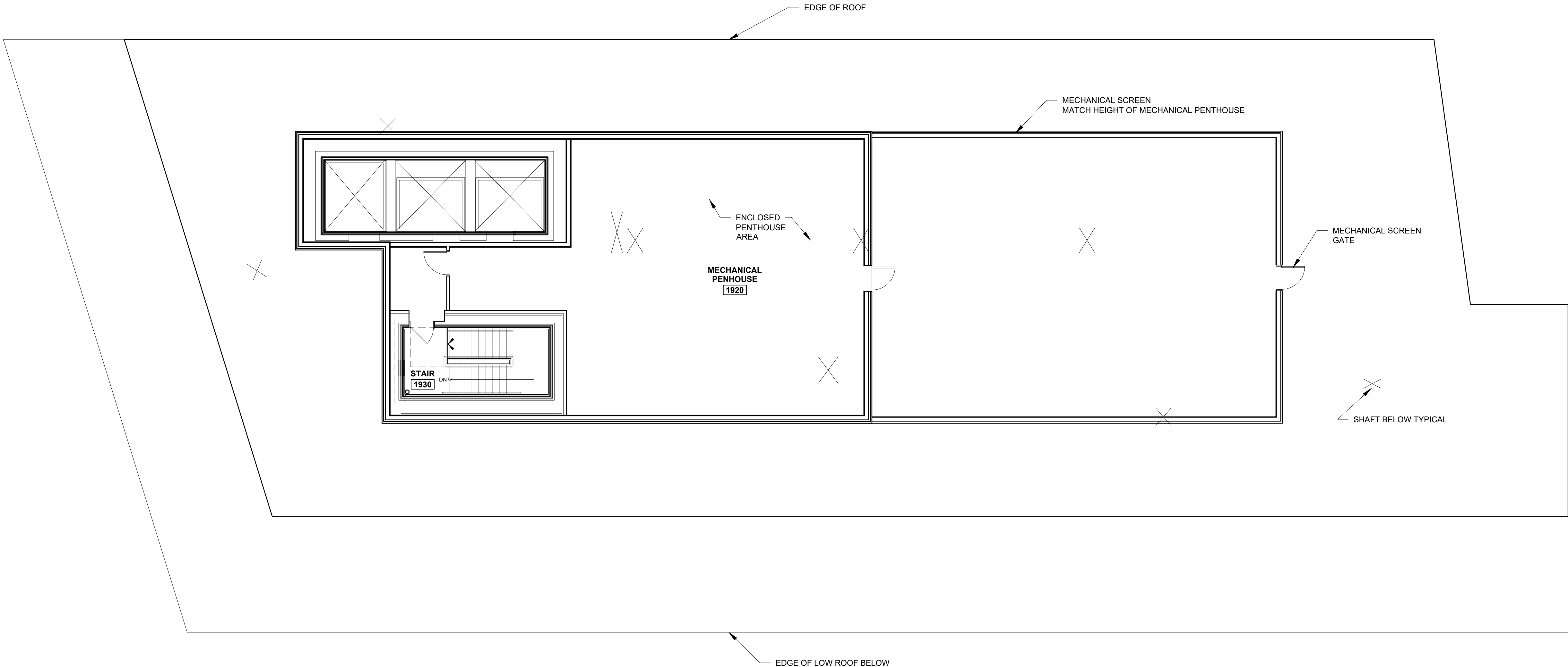
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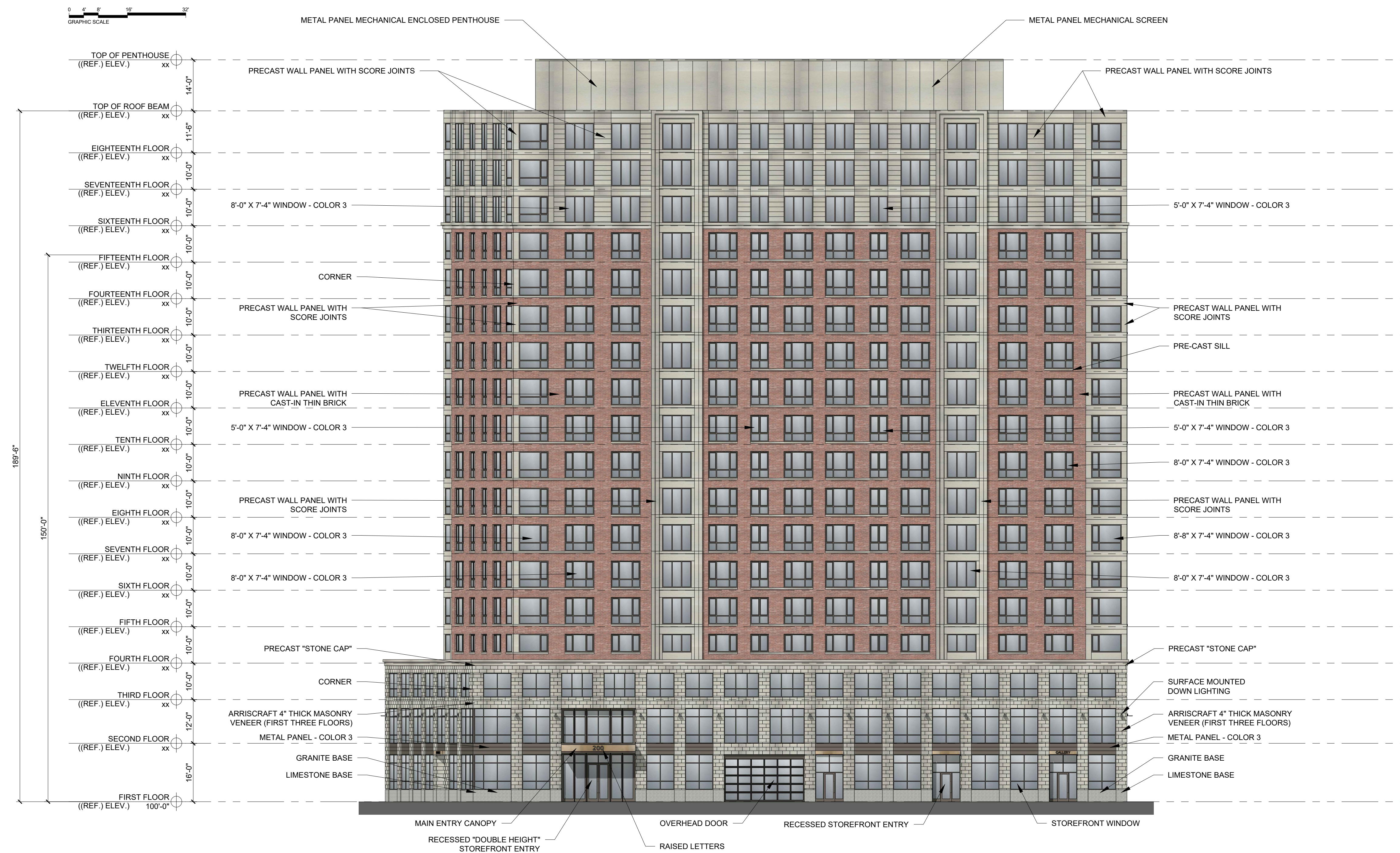
CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
EIGHTEENTH
FLOOR PLAN

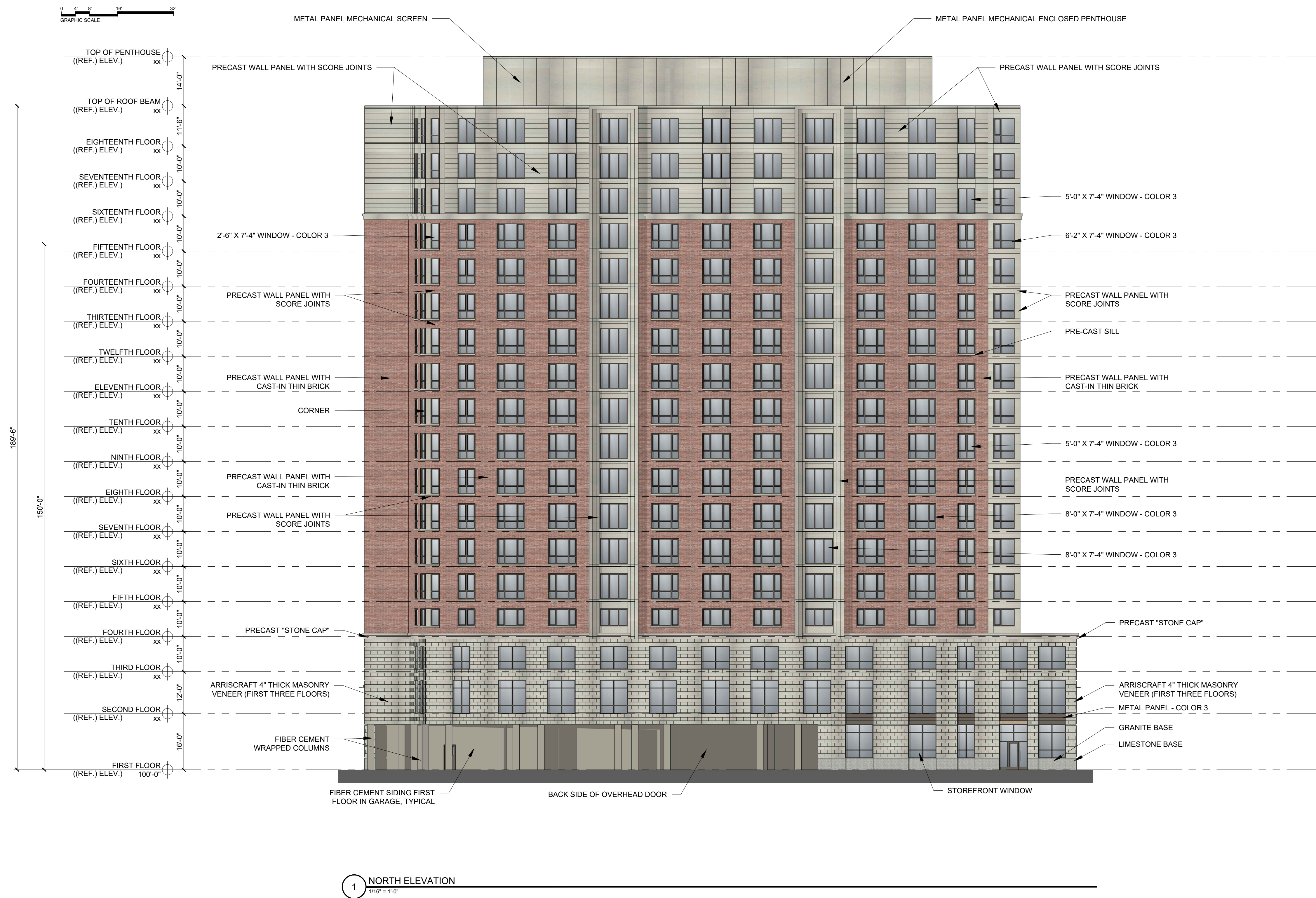
A1-18



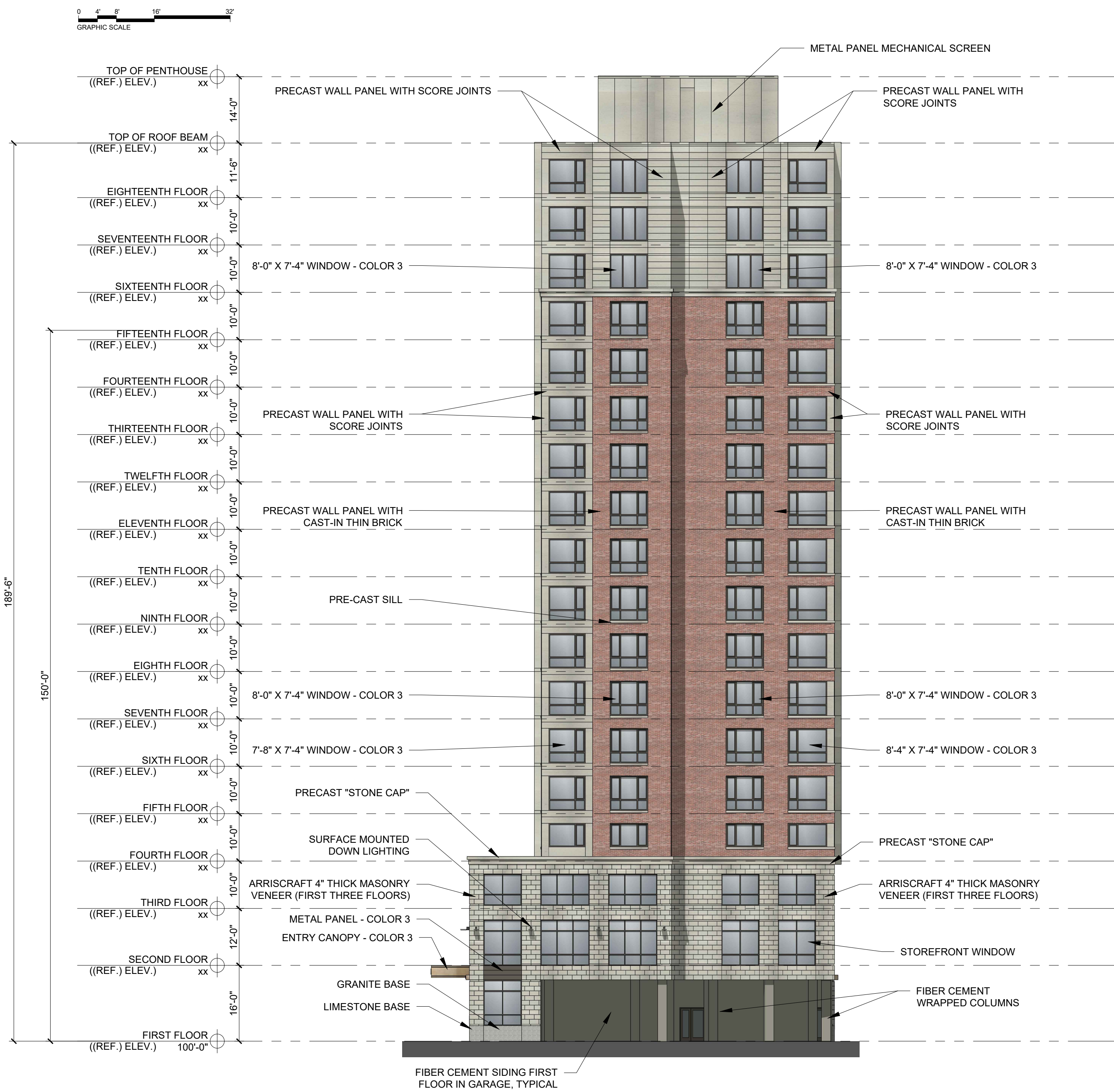


1 SOUTH ELEVATION
1/16" = 1'-0"

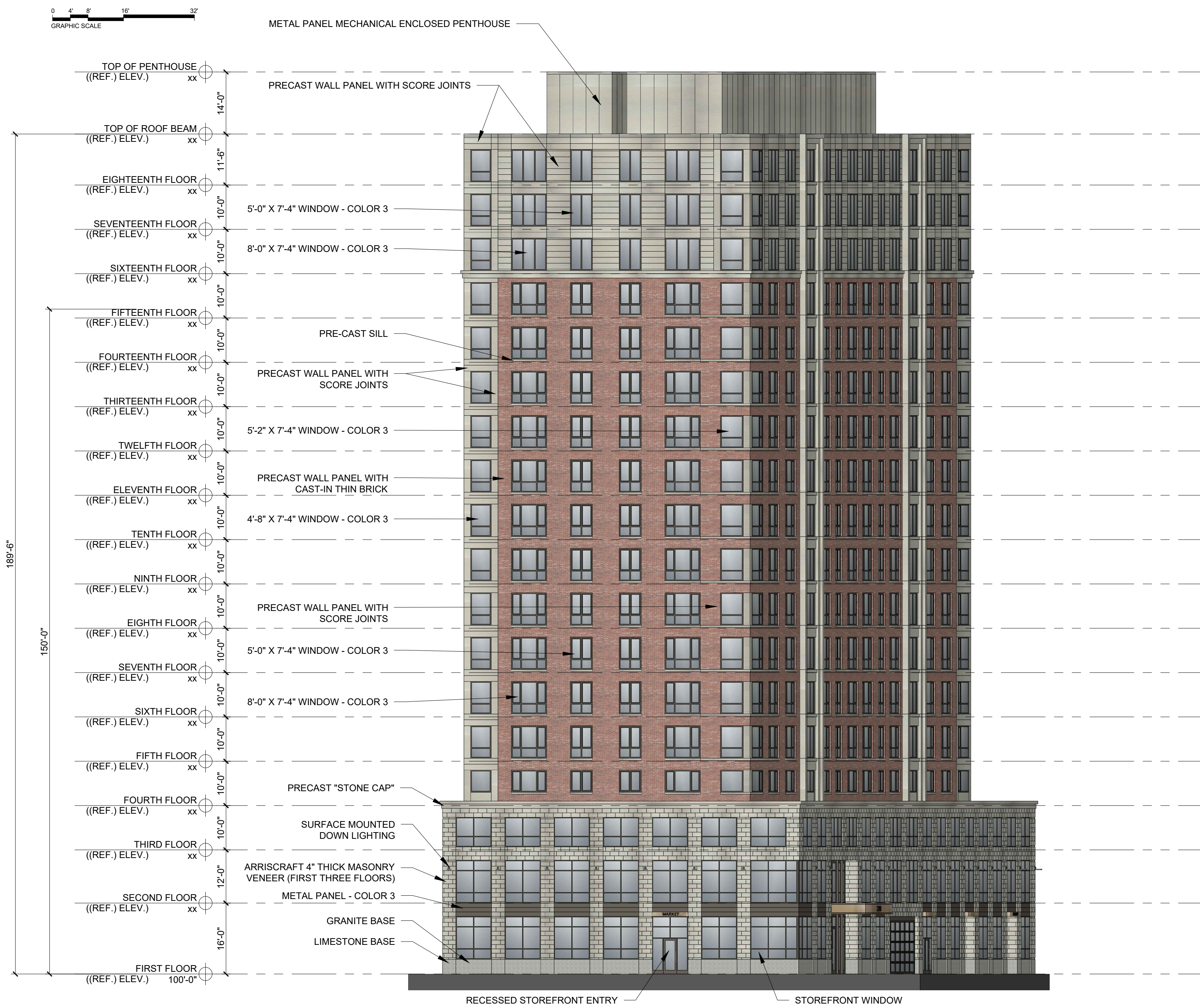
PROGRESS PRINT ONLY
Not for Construction



PROGRESS PRINT ONLY
Not for Construction

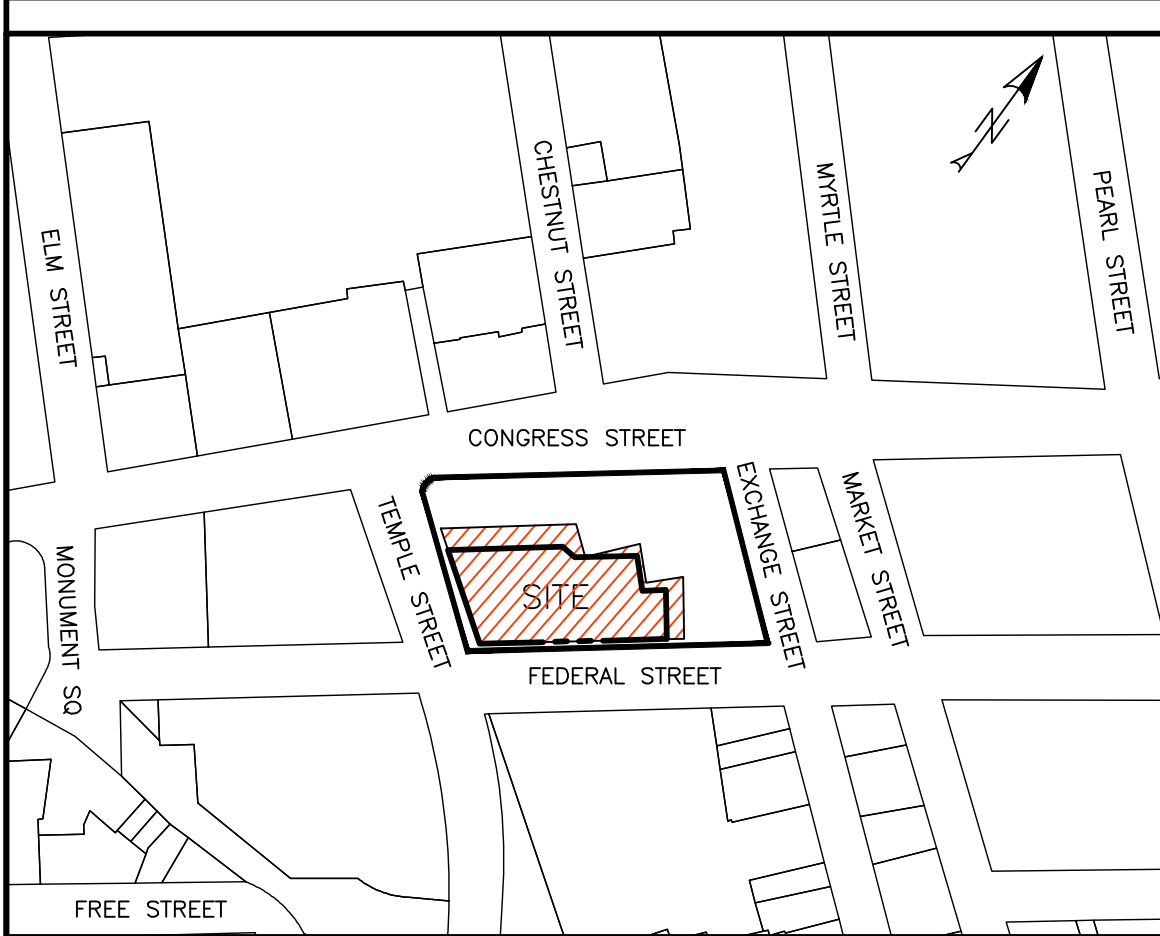


1 EAST ELEVATION
1/16" = 1'-0"



1 WEST ELEVATION
1/16" = 1'-0"

PROGRESS PRINT ONLY
Not for Construction



VICINITY MAP
1"=200'

SURVEY GENERAL NOTES & PLAN REFERENCES:

GENERAL NOTES:

- OWNER OF RECORD:
PO SQUARE BUILDING LLC, 120 EXCHANGE ST., PORTLAND, ME
C.C.R.D. BOOK 35640 PAGE 71
TAX MAP 32 BLOCK G LOT 1
- BEARINGS ARE BASED ON STATE PLANE COORDINATE SYSTEM, MAINE WEST ZONE, NAD83 PER CITY CONTROL PROVIDED BY THE DEPARTMENT OF PUBLIC WORKS. MONUMENTS USED: L757-32-104 (CEDAR + CUMBERLAND), T124-18-1152 (WHARF + UNION)
- ELEVATIONS ARE BASED ON CITY DATUM. CONTROL POINT #23 T-113-44-141 ELEVATION 52.08 USED.
- ONLY TWO CITY STREET MONUMENTS WERE FOUND, ON FEDERAL STREET. THE STREET LINES ARE BASED ON THOSE MONUMENTS FOR FEDERAL AND EXCHANGE AND PLAN REFERENCE 1 FOR CONGRESS AND TEMPLE STREETS.
- UNDERGROUND UTILITIES IN THE STREET MARKED VIA DIGSAFE. UNDERGROUND UTILITIES ON SITE MARKED BY DIGSMART OF MAINE. PLAN REFERENCE 1 ALSO UTILIZED FOR THE LOCATION OF UNDERGROUND UTILITIES.

PLAN REFERENCES:

- "MAINE NATIONAL BANK, SITE PLAN, SURVEY AND PLAN BY H.I. & E.C. JORDAN SURVEYORS" MARCH 30, 1973 REVISED THROUGH APRIL 25, 1973 ECJ FILE #89.
- "CITY OF PORTLAND, MAINE DEPARTMENT OF PUBLIC WORKS, CONGRESS ST., FROM PEARL ST. TO STATE ST. STREET LINE DATA" MAY 6, 1949 CITY FILE NO. 456/43
- "PLAN OF PROPERTY IN PORTLAND, ME MADE FOR GANNETT PUBLISHING CO., INC. APRIL 1946" BY H.I. & E.C. JORDAN CIVIL ENGINEERS.
- "PLAN OF PROPERTY IN PORTLAND, MAINE, MADE FOR UNION MUTUAL LIFE INSURANCE CO. FEBRUARY 1953" BY H.I. & E.C. JORDAN CIVIL ENGINEERS.
- CITY OF PORTLAND ENGINEERING DEPARTMENT STREET LINE PLANS.
- H.I. & E.C. JORDAN & CO. SURVEYS OF 1920 AND 1922 (SEE BOOK 1111, PAGE 119)
- ALTA/NSPS LAND TITLE SURVEY, 396 CONGRESS STREET (AKA 400 CONGRESS STREET) PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR P O SQUARE PORTLAND LLC AND ITS ASSIGNS, MAY 8, 2019, BY OWEN HASKELL, INC.

GENERAL NOTES:

- FOR INFORMATION REGARDING PROPOSED GROUND LEVEL LAYOUT, REFER TO THE SITE PLAN, SHEET C-10, MOST RECENT VERSION.
- FOR INFORMATION REGARDING PROPOSED UTILITIES, REFER TO THE UTILITY PLAN, SHEET C-20, MOST RECENT VERSION.
- FOR INFORMATION REGARDING PROPOSED GRADING AND STORMWATER, REFER TO THE GRADING & DRAINAGE PLAN, SHEET C-30, MOST RECENT VERSION.
- UNIT TABULATION PROVIDED BY RYAN SENATORE ARCHITECTURE; REFER TO ARCHITECTURAL PLANS FOR FLOOR PLANS AND BUILDING HEIGHTS.
- TOTAL SITE AREA INCLUDES 1.273 ACRES (55,442 S.F.). R.O.W. WIDTH FOR FEDERAL STREET IS 66 FEET PER EXISTING CONDITIONS PLAN. REFER TO EXISTING CONDITIONS PLAN COMPLETED BY OWEN HASKELL, INC. DATED NOVEMBER 12TH, 2019.
- SITE BOUNDARIES PER BOUNDARY SURVEY AND TOPOGRAPHIC MAP WITH EXISTING CONDITIONS PROVIDED BY OWEN HASKELL, INC. ON A PLAN ENTITLED BOUNDARY AND TOPOGRAPHIC SURVEY AT 396-400 CONGRESS STREET, PORTLAND, MAINE MADE FOR ACORN ENGINEERING 65 HANOVER STREET, PORTLAND, MAINE DATED NOVEMBER 12TH, 2019.
- AS OF 10/9/20, SITE IS BOUNDED BY THE B3 ZONE ON ALL SIDES PER CITY OF PORTLAND GIS WEBSITE.
- LOCUS IS SHOWN ON THE CITY OF PORTLAND ASSESSOR'S MAP 32 BLOCK G LOT 1.
- LOCUS PARCEL DOES NOT FALL IN A SPECIAL FLOOD HAZARD AREA PER FEMA FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 2300510013B, INDEX DATED 7/17/1986.
- ALL BUILDING CORNER OFFSETS TO BOUNDARY LINES ARE FROM THE BUILDING FOUNDATION, UNLESS OTHERWISE NOTED.
- THIS SHEET IS THE SUBDIVISION PLAT FOR THE CREATION OF UP TO FIFTY-ONE (51) DWELLING UNITS, FIVE (5) COMMERCIAL UNITS AND THIRTY-SEVEN (37) PARKING UNITS ON THE EXISTING SUBJECT PROPERTY.
- THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SIDEWALKS, STORMWATER DEVICES, SITE LIGHTING, TRASH REMOVAL, RETAINING WALLS, AND SNOW REMOVAL.
- THE OWNER SHALL BE RESPONSIBLE FOR COMPLYING WITH THE CONDITIONS OF THE SUBMITTED STORMWATER MANAGEMENT PLAN AND THE APPROVED PLANS, AND MEET CITY STANDARDS AND STATE GUIDELINES.
- THE PROPOSED DEVELOPMENT MUST COMPLY TO THE FOLLOWING AS APPROVED BY THE CITY:
14.1. ... BOOK _____ PAGE _____

INCLUSIONARY ZONING CONDITIONAL USE

- PER CITY OF PORTLAND CHAPTER 14 LAND USE SEC 14-487, AS OF SUBMITTED DATE, THIS SUBDIVISION PLAT WILL INCLUDE FIVE (5) WORKFORCE UNITS WITH A TOTAL OF SEVEN (7) BEDROOMS. THE APPLICANT WILL PAY A FRACTIONAL FEE IN-LIEU IN THE AMOUNT OF \$10,639 AT THE TIME OF CERTIFICATE OF OCCUPANCY ISSUANCE.

SPACE AND BULK STANDARDS			
B3 DOWNTOWN BUSINESS, DOWNTOWN ENTERTAINMENT OVERLAY ZONE, DOWNTOWN HEIGHT OVERLAY, CONGRESS STREET HISTORIC DISTRICT	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	1.27 AC	1.27 AC
MINIMUM STREET FRONTAGE	15 FT	998 FT	998 FT
MAXIMUM STREET WALL BUILD-TO LINE	5 FT	NA	0 FT
MINIMUM YARD DIMENSIONS	NONE	NA	NA
MINIMUM LOT WIDTH	NONE	NA	NA
MAXIMUM LOT COVERAGE	100%	91.4%	96.0%
MINIMUM BUILDING HEIGHT	35 FT	NA	>35 FT. SEE MAX. HEIGHT
MAXIMUM STREET WALL HEIGHT	90 FT	NA	38 FT ±
MAXIMUM BUILDING HEIGHT*	190 FT	NA	190 FT ±
BICYCLE PARKING	107 INTERIOR**	2 EXTERIOR	10 EXTERIOR 107 INTERIOR
*WHEN UTILIZING 40 FT ARCHITECTURAL CAP ALLOWANCE, PER "DOWNTOWN HEIGHT OVERLAY PORTLAND MAINE" MAP & SEC. 14-220(I)(3), PROPOSED MAP & TEXT AMENDMENT (PLAN ZN-001230-2020) TO ALLOW FOR RESIDENTIAL UNITS WITHIN THE "APPERTENANCE."			
**PER SEC. 14-526(A)4B(I)(A): TWO BICYCLE PARKING SPACES FOR EVERY FIVE (5) DWELLING UNITS SHALL BE REQUIRED. 266 UNITS * 0.4 SPACES/UNIT = 107 SPACES REQUIRED			

PARKING SUMMARY				
PARKING DIMENSION	REQUIRED	PROPOSED ON-SITE	PROPOSED ON-STREET	OFFSITE LEASE (TBD)
9'X18'	-	12	-	-
11'X18' (ADA)	-	1	-	-
8'X15' (COMPACT)	-	1	-	-
9'X15' (COMPACT)	-	1	-	-
EXISTING TO REMAIN	-	5	-	-
PARALLEL	-	-	2, 15-MIN SPACES	-
TOTAL:	125*	20	2	125*
*REQUIRED RESIDENTIAL PARKING DEMAND, AS DETERMINED BY PARKING ASSESSMENT PERFORMED BY TRAFFIC SOLUTIONS DATED 10/6/20.				

IMPERVIOUS AREA WITHIN PROPERTY		
LOCATION	EXISTING (SF)	PROPOSED (SF)
ROOF	27,703	40,908
STAIRS/RAMP	172	140
PAVEMENT	14,394	8,496
BRICK	6,718	3,703
CURB & LANDINGS	980	278
CONCRETE	588	523
TOTAL (EXCL. ROOF)	22,852	13,140
TOTAL (INCL. ROOF)	50,555	54,048

DEVELOPER/OWNER OF RECORD

REDFERN DOWNTOWN LLC
DBA REDFERN PROPERTIES
PO BOX 8816
PORTLAND, MAINE 04104

CIVIL/SITE ENGINEER:

ACORN ENGINEERING, INC.
65 HANOVER STREET, SUITE 1
PORTLAND, MAINE
CONTACT: WILL SAVAGE, P.E.

SURVEYOR

OWEN HASKELL, INC.
390 US ROUTE 1, UNIT 10
FALMOUTH, MAINE 04105
CONTACT: JOHN C. SCHWANDA, P.L.S.

RECORDING INFORMATION STATE OF MAINE, CUMBERLAND COUNTY
REGISTRY OF DEEDS (CCRD)

RECEIVED: _____

RECORDED IN _____

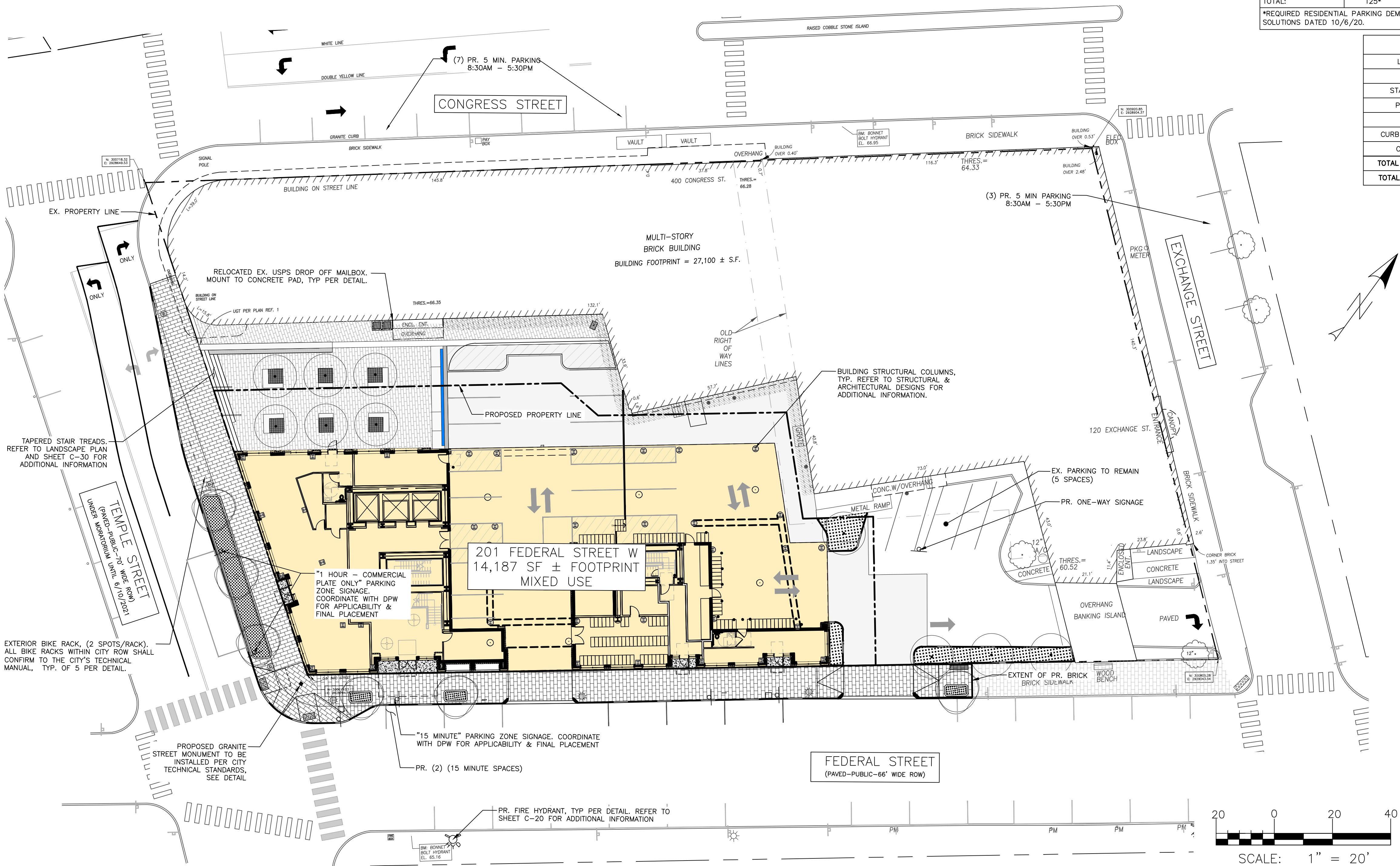
ATTEST: _____ REGISTRAR

APPROVED: PORTLAND PLANNING BOARD
CHAIRPERSON: _____ DATE: _____

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

JOHN C. SCHWANDA, MAINE P.L.S. #1252 DATE: _____
OWEN HASKELL, INC.
NOTE: FOR BOUNDARIES AND EXISTING CONDITIONS ONLY

UNIT TABULATION	
UNIT NUMBER	SIZE (SF)
RETAIL UNIT ONE	2,078
RETAIL UNIT TWO	560
201,313	869
203,315	788
205,317	1067
202,204,206,207,308,310,312,314,316,318	408
208,319	588
301	710
302	853
303	595
304	585
305	869
306	529
307	780
309	628
311	723
313	873
401-1701	588
402-1702	638
403-1703	510
404-1704	452
405-1705	569
406-1706	408
408-1708	408
410-1710	408
412-1712	408
414-1714	408
415-1715	408
405-1705	553
407-1707	520
409-1709	594
411-1711	381
413-1713	668
416-1716	560
1801	390
1802	452
1803	569
1804	408
1805	520
1806	408
1807	594
1808	408
1809	381
1810	408
1811	668
1812	408
1813	408
1814	560
*TABULATION VALUES AS PROVIDED BY RYAN SENATORE ARCHITECTURE.	



ISSUED FOR: _____ BY: _____ DATE: _____

SUBDIVISION PLAT

FEDERAL STREET DEVELOPMENT

PROJECT NAME/ADDRESS: 201 FEDERAL STREET W PORTLAND, ME 04101

CLIENT/OWNER: REDFERN DOWNTOWN, LLC PORTLAND, ME 04104

ACORN ENGINEERING, INC.

STATE OF MAINE

PROFESSIONAL ENGINEER

WILLIAM H. SAVAGE

11419

54623

FILE: 1129_CIVIL

JN: 1129

SCALE: AS NOTED

DESIGNED BY: FRT

DRAWN BY: FRT

CHECKED BY: WHS/PPH

DRAWING NO. C-11



PLANNING BOARD REPORT PORTLAND, MAINE

387 Commercial Street (Hobson's Landing Phase III)

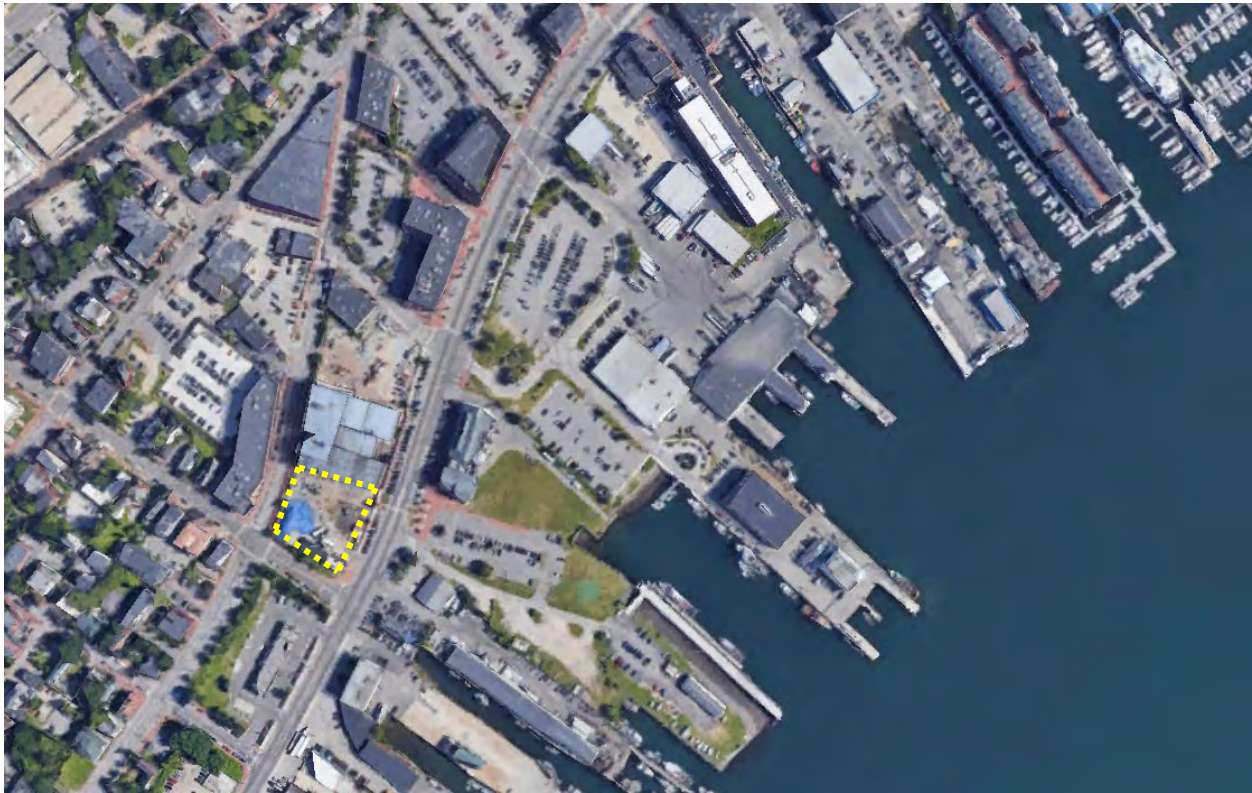
Level III Site Plan & Subdivision Review

DPD Lot 3, LLC, Applicant

PL-001348-2020 CBL: 042 A002001

Submitted to: Portland Planning Board
Public Hearing Date: May 25, 2021

Prepared by: Andrew Tufts, Planner
Date: May 21, 2021



The surrounding context of 387 Commercial Street, outlined in yellow

I. INTRODUCTION

DPD Lot 3, LLC, has submitted a Level III Site Plan application to facilitate the development of a seven-story, 35,100 square foot mixed-use building with 64 residential units (Condos) and 8,857 square feet of ground-floor retail space at 387 Commercial Street. The 34,957 square foot subject property is located on the corner of Commercial, York and High streets and is zoned B-5b Urban Commercial Mixed Use. The applicant has also submitted a related Conditional Use permit application (CU-1435-2020) for the residential element of the project in reference to the City's Inclusionary Zoning Ordinance.

Notices for the Planning Board public hearing were sent to 181 property owners and a legal advertisement was published in the May 14th and May 15th editions of the Portland Press Herald.

Owner/Applicant: DPD Lot 3, LLC

Applicant Representatives: Joseph Dasco, Applicant; Richard Meek, Sebago Technics; Ginny Stanley, Archetype PA

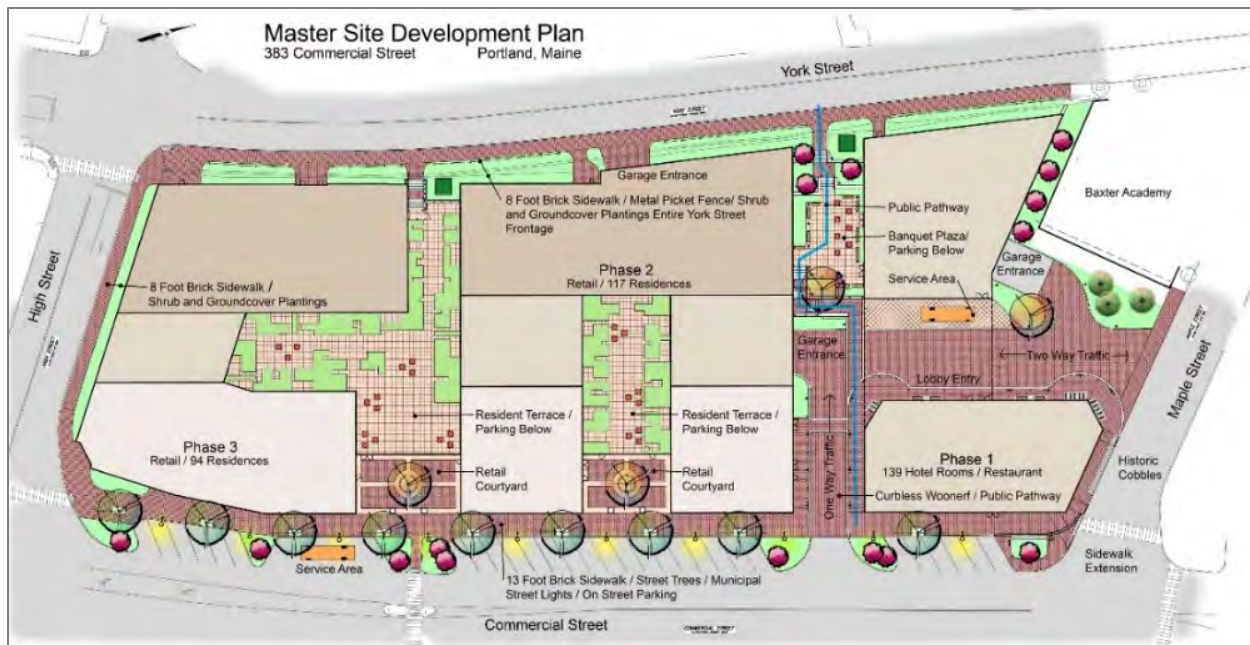
II. REQUIRED REVIEWS

<i>Review</i>	<i>Applicable Standards</i>
Site Plan	<i>Section 14-526</i>
Subdivision	<i>Section 14-497</i>
Conditional Use – Inclusionary Zoning	<i>Section 14-487</i>
Design Review	B-5b Urban Commercial Business Zone Standards 14-526(d)9

III. PROJECT DATA

Existing Zoning	B-5b Urban Commercial Mixed Use Zone
Existing Use	Office/ Vacant lot
Proposed Use	Residential/ Commercial
Proposed Development Program	Ten (10) one-bedroom residential units, forty five (45) two-bedroom residential units, nine (9) three bedroom residential units, and commercial spaces on the lower level.
Parcel Size	.806 Acres
Total Area of Site (SF)	34,957.64 SF
Disturbed Area	34,957.64 SF

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	2,870 SF	35,100 SF	+ 32,230 SF
Building Floor Area	2,870 SF	Commercial: 8,857 SF Residential: 89,403 SF	+ 95,390 SF
Impervious Surface Area	30,479 SF	34,339 SF	+ 3,860 SF
Parking Spaces	0	130	+ 130
Bicycle Parking Spaces	0	13	+ 13



Master Development Site Plan

III. BACKGROUND

The Rufus Deering site is a prominent parcel on Commercial Street and was formerly occupied by Rufus Deering Lumber Company. The proposed project is Phase 3 of the larger 383 Commercial Street Master Development Plan (MDP), which was approved in its entirety by the Planning Board on December 13, 2017.

On June 26, 2018, the Planning Board approved the Level III Phase I & II developments of the Rufus Deering Site, located on the two eastern-most lots of the three lots comprising the MDP approved in December 2017. The approval comprised of a hotel and public passageway on Lot 1 nearest to Maple Street, and 89 condominiums above four retail units along with structured parking on Lot 2.

A Traffic Movement Permit (TMP) was required as part of the MDP. A Transportation Demand Management Plan (TDM) was also required for the Hotel portion of the development.

It should be noted that the MDP and associated requirements established the general parameters for the development, including the supporting documentation for overall dimensions, general types of uses, building coverage, generalized open space plans and infrastructure systems. It is not a final authorization for development but it does confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of the approval for as long as the MDP approval remains valid (six years initially), including permissible extensions up to a total of 10 years. All Level III site plans for each phase shall be in general conformance with the approved MDP.

West Commercial Street Multi-Modal Corridor Study: In 2016, the City released the West Commercial Street Multi-Modal Corridor Study, which identified the City's vision to safely accommodate all modes

of transportation along an important gateway corridor into Portland's waterfront. To support this vision the original MDP approval included conditions that would facilitate the extension of the West Commercial Street Pathway in front of the proposed Phase III building. These conditions are discussed in detail in the Master Development Plan and Transportation Standards sections of this report.

IV. EXISTING CONDITIONS



Existing Conditions – Source: Google Earth

The overall MDP site is 2.58 acres and is bounded by Commercial, Maple, York and High streets in the B-5b zone. The overall site has approximately 600 feet of frontage on Commercial Street and abuts the Old Port Historic District to the north. To the south is a gas station and to the north is the Marriot Courtyard Hotel. To the west across York Street is a new five story mixed use development. To the west (across Commercial Street) is the Gulf of Maine Research Institute and the waterfront.

The Phase 3 development site is 0.806 acres in size and is currently utilized by the applicant for office space, show rooms, and staging areas. Phases 1 & 2, approved in 2018, are currently under construction and are both nearing completion. The adjacent condominium project (Phase 2) will have a shared parking program with the proposed Phase III building.



Proposed Full Build Out Rendering

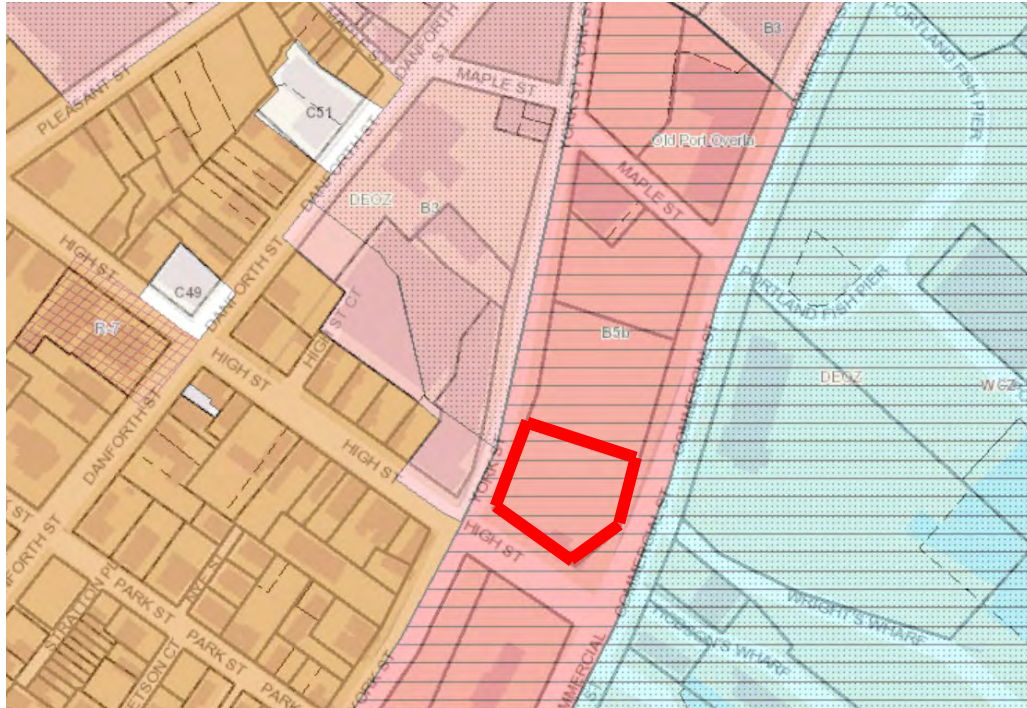
V. DEVELOPMENT PROPOSAL

As part of the Phase III proposal the existing two-story building on the western edge of the site would be demolished and the lot would be redeveloped into a new seven-story, mixed-use building totaling approximately 35,100 square feet. The building would include 64 residential units (Condos) and 8,857 square feet of retail space located along the Commercial Street frontage. The proposed building would encompass the majority of the lot and would have a maximum building height of 61 feet along Commercial Street and 65 feet on York Street. 160 covered parking spaces will be provided onsite accessed by the driveway entrance on Commercial Street. The residential component is subject to the City's Inclusionary Zoning Ordinance and the developer has chosen to pay the fee-in-lieu rather than provide affordable units on site. The \$707,130 in-lieu fee will be paid into the City's Housing Trust Fund.

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

The owner of the property is DPD Lot 3, LLC. The applicant has provided a copy of the Deed, which is recorded at the Cumberland County Registry of Deeds in CCRD Book 35343 page 112, which demonstrates their right, title, and interest in the property.

Additionally, documentation has been provided by the applicant team citing their technical capacity to design and construct the project, as well as a letter from the applicant's bank describing the applicant's financial capacity to undertake the project.



Existing Zoning Map – Phase III Site outlined in red

VII. ZONING ANALYSIS

A. DIMENSIONAL AND USE REQUIREMENTS

As the Master Development Plan for this project was approved in 2017, this application is subject to the Land Use Code that was in effect prior to December 1, 2020, and all code references in this memo will be cited accordingly. The subject property is located within the B-5b Urban Commercial Mixed Use Zone. Below is an excerpt from the land-use code providing the purpose of the B-5 zone.

“To provide areas of the peninsula near the downtown where a mixture of uses, including marine, industrial, commercial, and residential, is encouraged. The B-5 and B-5b zones are characterized by larger underdeveloped lots with great potential for denser, clustered, urban mixed-use development and more efficient reuse of existing land and buildings. It is anticipated that the dense, mixed-uses of the B-5 and B-5b zones will rely on a shared infrastructure system, including service alleys, parking lots, public transportation facilities, stormwater management, and driveways.”

The proposed uses of multifamily housing and general retail establishments are permitted uses in this zone. The project is subject to the dimensional requirements of the B-5b zone. The project was reviewed by City staff and was determined to meet the dimensional requirements of the B-5b zone. The zoning requirements and staff analysis are summarized below.

Zoning Requirements	B-5b	Provided	+/-
Minimum Lot Size	None	0.806 AC	+ 0.806 AC
Area Per Dwelling Unit	435 SF	548 SF	113 SF
Dwelling Units	-	64 units	64 units
Minimum Street Frontage	None	546 ft	+ 546 ft
Front Yard Maximum	10 ft.	0 ft	None
Min. Rear Yard	None	0 ft	None
Min. Yard Right	None	0 ft	None
Min. Yard Left	None	0 ft	None
Side Street Setback	None	None	None
Step Back	None	None	None
Maximum Lot Coverage	100%	100%	
Minimum Lot Coverage	N/A	N/A	N/A
Maximum Height	65 ft	65 ft	
Maximum Impervious Area	None	95%	N/A
Parking Minimum	0 spaces	130 spaces	+ 130 spaces
Bicycle Parking	13 spaces	13 spaces	0 spaces

B. CONDITIONAL USE – INCLUSIONARY ZONING

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, 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. The number of units required is rounded down to a whole number whether the Workforce Units are provided on or off-site. 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 ordinance under Section 14-487 e 4 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.

As an alternative to providing workforce housing units, developers shall pay a fee-in-lieu of some or all of the units. The fee for affordable units not provided shall be \$100,000 per unit, adjusted annually in the same way as the fee under Division 29 for Housing Replacement. The calculation of dwelling units not provided will be calculated on a fractional value to one tenth. For example, if a developer prefers to pay a fee-in-lieu on a proposed 16 unit project, the developer would be required to pay 1.6 times the adjusted fee. The in-lieu fee shall be 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 project located at 387 Commercial Street proposes the creation of 64 residential condo units. The applicant has chosen to fulfill the inclusionary zoning requirements by paying a fee-in-lieu. The proposed project would thus be required to pay a total fee of $6.4 \times \$110,489 = \$707,130$ into the City's Housing Trust Fund in-lieu of providing workforce units. As such, the project has met the minimum requirements set forth in Section 14-487.

Staff recommends the agreed upon fee-in-lieu of \$707,130 be paid into the City's Housing Trust Fund prior to issuance of the certificate of occupancy for 387 Commercial Street. Should at a later date any change in total unit count be considered, a revised proportional fee-in-lieu payment would also be required.



Site Plan

DEVELOPMENT REVIEW

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

MASTER DEVELOPMENT PLAN REQUIREMENTS

In 2017, a Master Development Plan was approved by the Planning Board with a number of conditions of approval which applies to Phase III. Prior to the workshop, one outstanding condition remained to be addressed in regard to the Commercial Street sidewalk frontage. The applicant worked with staff on a revised frontage to meet the condition that required a 10' clear width.

B. SUBDIVISION (Section 14-497)

Staff have reviewed the proposed development for conformance with the relevant review standards of Portland's Subdivision Ordinance and applicable regulations.

1. Will Not Result in Undue Water or Air Pollution (Section 14-497 (a) 1)

Since the site was previously developed, the site was evaluated based on the Maine DEP Chapter 500 Standards for redevelopment as well as other applicable stormwater standards. The City's consulting civil engineer has reviewed the application materials and provided

preliminary comments (Attachment 2) concerning the erosion and sedimentation control measures and stormwater treatment. Public Works staff reviewed the submitted materials in conjunction with the City's consultant to confirm that the above standard is met.

2. Sufficient Water Available For The Reasonably foreseeable needs of the subdivision (Section 14-497 (a)2)

The applicant is awaiting an ability to serve letter (Attachment P) from the Portland Water District, and is therefore a condition of approval for this application.

3. Will not cause unreasonable burden on an existing water supply (Section 14-497 (a)3)

The applicant received an ability to serve letter from the Portland Water District.

4. Will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result (Section 14-497 (a)4)

Overall staff finds the proposed development to be in conformance with the standard.

Lauren Swett, Consulting Civil Engineer, provided comments prior to the workshop regarding drainage to High Street. The applicant has amended the plans to address the comment by incorporating notations on the grading and drainage plans.

5. Will not cause unreasonable highway or public road congestion or unsafe conditions with respect to use of the highway or public roads existing or proposed (Section 14-497 (a)5)

The applicant was required to submit both a Traffic Movement Permit (TMP) and Transportation Demand Management (TDM) plan for earlier phases as part of the MDP. The applicant intends to implement a number of TDM program measures which include car sharing, proximity to public transit, and on-site bicycle storage.

6. Will provide for adequate sanitary waste and storm water disposal and will not cause an unreasonable burden on municipal services if they are utilized (Section 14-497 (a)6)

The applicant has submitted a capacity to serve request for wastewater/sewer which was reviewed and approved by Public Works.

7. Will not cause an unreasonable burden on the ability of the City to dispose of solid waste and sewage if municipal services are to be utilized (Section 14-497 (a)7)

The dumpster is proposed to be located within the parking garage on the ground level as shown on the Site Plan. Solid waste removal will be handled privately, and included in the Condominium documents.

8. Will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat identified by the Department of Inland Fisheries and Wildlife or by the City, rare and irreplaceable natural areas, or any public rights for physical or visual access to the shoreline. For subdivisions within local

historic districts, the Planning Board shall apply the standards of Subsection 17.8.3(C). The Planning Board may request that the Historic Preservation Board prepare an evaluation of the proposed subdivision based upon the standards of Subsection 17.8.3(C); (Section 14-497 (a)8).

The proposed project is not in a historic district and is located on a previously developed site and is not deemed to have an adverse impact on the scenic beauty of the area.

9. Is in conformance with the Comprehensive Plan or its successor (Section 14-497 (a)9).

Staff find that the current proposal is consistent with the housing policy goals listed in [Portland's Plan 2030](#) to "increase, preserve, and modify the overall supply of housing city-wide to meet the needs, preferences, and financial capabilities of all Portland residents," and to "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."

10. The subdivider has adequate financial and technical capacity to meet the standards of this subsection (Section 14-497 (a)10).

Please refer to Section VI above summarizing how the applicant team has both financial and technical capacity required under this section.

11. Wetland/Water Body Impacts (Section 14-497(a)11)

There are no anticipated impacts to wetlands or water bodies.

12. Will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater (Section 14-497 (a)12).

Please see subdivision item 1, above.

13. Is or is not in a flood prone area, based on the Federal Emergency Management Agency's flood boundary and floodway maps and flood insurance rate maps, and information presented by the applicant. If the subdivision, or any part of it, is in such an area, the subdivider shall determine the 100-year flood elevation and flood hazard boundaries within the subdivision. The proposed subdivision plan must include a condition of plan approval requiring that principal structures in the subdivision will be constructed with their lowest floor, including the basement, at least one foot above the 100-year flood elevation (Section 14-497 (a)13).

Per the City's existing flood maps, the site is not located in a flood zone and therefore this standard is not applicable.

14. Will provide for adequate stormwater management (Section 14-497 (a)14).

There are no anticipated impacts to wetlands or water bodies. The applicant has provided a stormwater report which has been reviewed by City Staff and Consultants. The project falls under Redevelopment standards and therefor is in conformance.

C. SITE PLAN STANDARDS (Section 14-526)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's site plan ordinance.

a) Transportation Standards

Impact on Surrounding Street Systems (Section 14-526(a)1)

The provisions for vehicular loading and unloading, parking, and vehicular and pedestrian circulation on the site and onto adjacent public streets and ways and the incremental volume of traffic will not:

- 1. Create or aggravate any significant hazard to safety on the surrounding street network.*
- 2. Substantially increase congestion on any street which is already at a level of service below Level "D" without mitigation proportionate to the level of impact*

The applicant submitted and underwent a review for both a TMP and TDM in earlier phases of the overall development site. These reviews encompassed the potential buildout of the Phase III development and were reviewed by staff. The traffic signal and mast arm will be replaced at the intersection of York and High Streets. The mast arm in question is over 50 years old which is twice the normal lifespan. As the signal is being replaced, DPW has requested that the mast arm be replaced and not reused.

Access and Circulation (Section 14-526(a)2)

1. Site Access and Circulation

The site is accessible to vehicles via an existing driveway off Commercial Street that was built to also provide access to the Phase II condominiums. The site is surrounded by existing sidewalks which will be replaced or reused. Pedestrian entrances are located along Commercial and York streets.

2. Loading and servicing. All developments served by delivery or other service vehicles shall provide access that permits safe turning and backing for all vehicles that would service the development. Loading and servicing access shall not impede vehicle circulation, bicycle or pedestrian movements, or parking.

There are two proposed loading and servicing locations, one internal (off entrance drive) and one external along the Commercial Street frontage. DPW has reviewed the locations and finds the loading and servicing to meet the standards.

3. Curb and sidewalks

At the time of the workshop, City Staff encouraged the applicant to explore expanding the sidewalk along Commercial Street to achieve a 10 foot clearance for pedestrians. Following the workshop the applicant revised the plans to include:

- Expansion of Commercial Street sidewalk
- Removal of (1) street tree in conflict with 10' clear width & building entrance
- Addition of two bicycle racks adjacent to tree well

Based on the materials provided staff has reviewed the revisions and find that this standard is met.

Public Transit Access Section 14-526(a)3)

1. For any residential development consisting of 20 or more dwelling units and all commercial and institutional developments of at least 20,000 square feet gross floor area shall provide a transit shelter adjacent to or within the public right-of-way along its frontage when the following criteria are met:

a. The development is proposed along an existing public transit route on a principal or minor arterial roadway, as shown in the Federal Street Classification Map.

b. The nearest existing transit shelter on the route is more than ¼ mile from the site, measured along rights-of-way. 2. Transit facilities shall be connected to the public sidewalk system.

There are three South Portland bus lines that travel past the site and make a loop around Monument Square. There is also a Portland bus route (8-line, peninsula loop) that runs north of the project site with the closest stop being near the intersection of High and Danforth Streets.

The Master Development Plan includes a condition for the location for a future shuttle/transit stop on the corner of Commercial and Maple Streets. The proposed transit access is in conformance with the standards.

Parking (Section 14-526(a)4)

1. Location and Required Number of Vehicular Parking Spaces

The proposal would provide 130 vehicle parking spaces to be contained within the buildings two-story parking deck. There would be 67 spaces on level one and 63 spaces on level two. Meter parking will be provided for two spaces along the sites frontage on Commercial Street. A third space will include signage for temporary parking.

Five (5) ADA accessible spaces are provided, two of which would be van accessible spaces.

2. Location and Required Number of Bicycle Parking Spaces

The proposed development would include 13 bicycle spaces which is the required number of spaces per zoning. City Staff encourages the applicant to consider options for additional spaces.

Bruce Hyman, City Transportation Program Manager, provided the following comments:

The site frontage would benefit from the addition of bicycle racks to serve the retail customers and visitors to the residents of the development.

The applicant revised the plan to include two additional spaces along the sites frontage. Staff finds this standard sufficiently met.

3. Motorcycle and Scooter Parking

The applicant has stated that while no specific areas have been designated, there are a number of areas both internal and external that could potentially be used for scooters and motorcycles.

4. Snow storage

The applicant has stated that snow collection will be handled internally and outlined in Condo Documents.

5. Electric Vehicle (EV) charging

The proposed development includes a charging station on the first level within the two-level garage.

Transportation Demand Management (TDM) (Section 14-526(a)5)

A TDM was submitted as part of the approval process for Phase I & II. The TDM was only required for the hotel portion of the development and therefore is not required for the current phase being reviewed.

b) Environmental Quality Standards (Section 14-526(b))

Preservation of Significant Natural Features (Section 14-526(b)1)

There are no known significant natural features on the site. Due to the site's prior use as a lumber yard the majority of the site was covered with impervious surfaces, both buildings and surface parking, therefore this standard is not applicable.

Landscape Preservation (Section 14-526(b)2)

The applicant has elected to build out to the maximum footprint. The City Arborist encouraged the applicant to include street trees along High Street in lieu of preserving the existing vegetation along the High Street frontage. The applicant revised the plan to include three additional street trees along High Street.

Site landscaping and buffers (Section 14-526(b)(2)(b))

All loading and servicing areas, trash and recycling areas, storage areas, and roof- and ground-mounted utility structures, except for renewable energy systems, shall be screened from view from

public sidewalks. Loading, servicing, trash/recycling, and storage areas will all be within the parking garage and not visible from the sidewalk.

The proposal originally called for five street trees along the Commercial Street frontage, and one Red Maple along York Street. Given the widening of the High Street sidewalk, Staff encouraged the applicant to include street trees along the sites High Street frontage. Due to sidewalk constraints, the applicant worked with city staff to revise the street tree plan to include two along Commercial Street, three along High Street, and one on York Street.

With 64 proposed residential units, the applicant is required to account for 64 street trees or acceptable alternatives. The current landscaping plan proposes planting six street trees, and the applicant is expected to pay \$23,200 into the City's street tree fund (\$400 per additional required tree).

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

Please refer to Subdivision standards above.

c) Public Infrastructure and Community Safety Standards (Section 14-526(c))

Consistency with City master plans (Section 14-526(c)1)

See Item 9 of Subdivision above.

Public safety and fire prevention (Section 14-526(b)2)

The site has been designed to allow for proper surveillance of walkways, entrances, and parking areas. There is adequate access to the site for emergency vehicles. The plans were reviewed by the City's Life Safety Division and found to be in conformance with the standards.

Public utilities (Section 14-526(b)3)

The proposed developments electrical service has been designed to be underground. An ability to serve letter has been granted by the Portland Water District. The electrical lines will be underground and serviced by Central Maine Power.

d) Site Design Standards (Section 14-526(d))

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

The applicant has shown on the proposed site plan that the building would not result in health or safety problems from a reduction in ventilation. Additionally, the proposed building is in keeping with the neighborhood scale in regard to massing and height.

Shadows (Section 14-526(d)2)

The design review found the proposed development to be in conformance with standards relating to building shadows. The site is located within a B-5b zone a moderate to high-density zone

mapped along arterials. The proposed building will have a maximum height of 65 feet, similar to adjacent buildings and is the permitted maximum height in the B-5b zone.

Snow and Ice Loading (Section 14-526(d)3)

The applicant has indicated that snow removal will be the responsibility of the owner and a note has been added to the plat and site plan to state the burden of responsibility. The final language on the plat will be reviewed by Corporation Counsel prior to a plat being finalized.

View Corridors (Section 14-526(d)4)

The project site is not located within any view corridors.

Historic Resources (Section 14-526(d)5)

The site is not located within a historic district, though it is in the vicinity of both the West End and Old Port Historic Districts and therefore underwent a historic preservation staff advisory review.

Exterior Lighting (Section 14-526(d)6)

Planning staff reviewed the submitted photometric plan and lighting cutsheets for the proposed lighting (Attachment N), and found them to be in conformance with the standards. The submitted materials demonstrate exterior light fixtures are full cutoff and meet all other specifications outlined in the Technical Manual.

Noise and Vibration (Section 14-526(d)7)

The applicant indicates in their response to comments (Attachment 7) that any rooftop mechanical equipment installed on the new building will be screened from view. This screening has been reviewed by the City's Urban Designer. Any residential HVAC equipment will be within the unit or on the roof, set back from the edge. Following the workshop, the applicant added screening around the corner of the rooftop facing York and High Streets.

Signage and Wayfinding (Section 14-526(d)8)

No new wayfinding signage is proposed. Any future sign permits will be subject to the requirements under Division 22 of the City Code.

Zoning Related Design Standards (Section 14-526(d)9)

The project at 387 Commercial Street, Phase III for multi-family residential buildings was reviewed according to the approved Master Development Plan criteria, the B-5 Design Standards, and the multi-family design standards.

This project was previously subject to the *Master Development Plan Standards of Review*. The project is also within 100' of a historic district and included an advisory design review by Historic Preservation Staff.

The City's Urban Designer reviewed the proposal based on the criteria outlined above and determined that all standards are sufficiently addressed (Attachment 2).

Construction Management Plan

The construction management plan and narrative were submitted to and reviewed by City staff. The (CM) plan was revised so as to not encroach on the southbound travel lane on High Street. A double row of barricades is proposed along Commercial Street to provide a protected walkway from the crosswalk to High Street.

A temporary bituminous sidewalk will be provided along the south side of High Street. The CM proposed to reduce High Street from Commercial to York Street to one-way only.

Mike Tremblay, DPW Senior Engineer, provided comments related to the construction management plan, which can be found as an attachment to this report. Overall staff finds that the CM plan sufficiently meets the standards.

VIII. NEIGHBORHOOD MEETING & PUBLIC NOTICE/COMMENT

The applicant hosted a neighborhood meeting on February 2, 2021. Approximately eight members of the public attended. Meeting minutes and materials were submitted by the applicant for the public record (Attachment K).

At the time of writing this report only two written public comments have been received. Primary concerns were focused on traffic impacts and construction management.

IX. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Department staff recommends that the Planning Board approve the proposed development at 387 Commercial Street.

X. PROPOSED MOTIONS FOR THE BOARD TO CONSIDER

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 May 25, 2021 for application # PL-001348-2020 relevant to Portland's Conditional Use Standards and other regulations, and the testimony presented at the Planning Board hearing, the Planning Board **[finds/does not find]** the proposed conditional use for workforce housing meets the standards of Land Use Code Section 14-484 with the following condition

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

1. A financial contribution of \$707,130 shall be paid into the City's Housing Trust Fund as a fee-in-lieu to satisfy the Inclusionary Zoning requirements for a sixty-four (64) unit residential building. In the event that the unit count changes, the contribution to be collected shall be recalculated and confirmed by the Housing Program Manager prior to contribution of the fee-in-lieu or as an alternative the project may include the required workforce housing units.

B. SUBDIVISION REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing on May 25, 2021 for application # PL-001348-2020 relevant to the subdivision regulations, and the testimony presented at the Planning Board hearing, the Planning Board **[finds/does not find]** that the plan is in conformance with the subdivision standards of the Land Use Code subject to the following conditions of approval:

PRIOR TO THE SUBMISSION OF THE PLAT FOR PLANNING BOARD SIGNATURE

1. The subdivision plat shall be finalized to the satisfaction of the Planning Authority, Corporation Counsel and Department of Public Works and include clear descriptions of the number, location, type and size of all subdivided units, along with relevant notes and conditions.

PRIOR TO ISSUANCE OF A BUILDING PERMIT

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

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

3. Condominium documents shall be finalized to the satisfaction of the Planning Authority and Corporation Counsel before being recorded.

B. SITE PLAN REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on May 25, 2021, for application #PL-001348-2020, relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board **[finds/does not find]** that the plan is in conformance with the site plan standards of the Land Use Code, subject to the following condition of approval:

PRIOR TO APPLYING FOR A BUILDING PERMIT

1. The applicant shall submit a detailed traffic control plan prepared by the selected building construction manager, for the proposed development for review and approval by the Planning Authority, and Department of Public Works.

PRIOR TO ISSUANCE OF A BUILDING PERMIT

2. The applicant shall submit a stormwater maintenance agreement for the proposed development for review and approval by the Planning Authority, Department of Public Works and Corporation Counsel.
3. A financial contribution totaling \$23,000, to be paid into the city's street tree fund, shall be provided for the required fifty-eight (58) street trees not provided on-site. The applicant may also choose to pursue a street tree alternative as listed in the City's site plan ordinance 14.526.

XI. ATTACHMENTS

Planning Board Report Attachments

1. Public Comments
2. Design review comments

3. IZ Summary

Applicant's Submittal

- a. Project Summary
- b. Location Map
- c. Checklist
- d. Deed
- e. Purchase & Sales Agreement
- f. Evidence of Approvals
- g. Zoning Table
- h. Financial & Technical Capacity
- i. Transportation Analysis
- j. Standards
- k. Neighborhood Meeting Certification with attachments
- l. Comment Response
- m. Ability to Serve Determination
- n. Construction Management Narrative
- o. Historic Resources
- p. Zone Related Design Standards
- q. Stormwater Report
- r. Exhibit of Sidewalk Access Agreement Area

Plans

- P1. Cover
- P2. Existing Conditions
- P3. Demolition
- P4. Site Plans
- P5. Grading & Utility Plans
- P6. Landscape Plans
- P7. Notes & Details
- P8. Construction Management Plan
- P9. Architectural Plans
- P10. Traffic Plan
- P11. Context Rendering Aerial View York Street
- P12. Context Rendering West Street View
- P13. Neighborhood Meeting Slides



Housing and Economic Development Department
Housing and Community Development Division

To: Andrew Tufts, Planner, Planning & Urban Development Department
 From: Victoria Volent, Housing Program Manager, Housing & Community Development Division
 Date: May 17, 2021
 Subject: 387 Commercial Street – Inclusionary Zoning Conditional Use

Please note, 387 Commercial Street is entitled to consideration under Division 30 regulations in effect as of the date of the December 13, 2017 Planning Board Public Hearing further defined as follows.

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, 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. The number of units required is rounded down to a whole number whether the Workforce Units are provided on or off-site. 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 ordinance under Section 14-487 e 4 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.

As an alternative to providing workforce housing units, developers shall pay a fee-in-lieu of some or all of the units. The fee for affordable units not provided shall be \$100,000 per unit, adjusted annually in the same way as the fee under Division 29 for Housing Replacement. The calculation of dwelling units not provided will be calculated on a fractional value to one tenth. For example, if a developer prefers to pay a fee-in-lieu on a proposed 16 unit project, the developer would be required to pay 1.6 times the adjusted fee. The in-lieu fee shall be 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 project located at 387 Commercial Street proposes the creation of 64 residential condo units. The applicant has chosen to fulfill the inclusionary zoning requirements by paying a fee-in-lieu. The proposed project would thus be required to pay a total fee of $6.4 \times \$110,489 = \$707,130$ into the City's Housing Trust Fund in-lieu of creation of actual housing units for workforce households. As such, the project has met the minimum requirements set forth in Section 14-487.

Staff recommends the agreed upon fee-in-lieu of \$707,130 be paid into the City's Housing Trust Fund prior to issuance of the certificate of occupancy for 387 Commercial Street. Should at a later date any change in total unit count be considered, a revised proportional fee-in-lieu payment would also be required.

Victoria Volent
 Housing Program Manager

Planning and Urban Development Department Planning Division



Subject: B-5 Design Review – 387 Commercial Street

Written by: Caitlin Cameron, Urban Designer

Date of Review: Thursday, April 29, 2021

The project at 387 Commercial Street, Phase III for multi-family residential buildings was reviewed according to the approved Master Plan criteria, the B-5 Design Standards, and the multi-family design standards.

This project was previously subject to the *Master Development Plan Standards of Review*. The project is also within 100' of a historic district and included an advisory design review by the Historic Preservation Board.

Questions/Request for Clarification:

MDP Design Standards (adopted as part of the Master Plan to be applied to subsequent Site Plan applications)

The following architectural characteristics are integral to the approved Master Development Plan:

- o *Mid-block breaks* – Met - The physical break in the residential building facing Commercial Street creating a light court and courtyard on the upper level for residents and breaking the massing of the building on Commercial Street.
- o *Stepped roof forms* – Met - the stepped roof forms appear on the residential building. However, as described in the historic preservation review, a key characteristic of buildings on Commercial Street is the horizontal proportions of the buildings with a strong and clear flat roof line. **This proposal was reviewed with consideration for the number and arrangement of rooftop appurtenances – some revisions were made to minimize the visually disruption of these appurtenances (stair towers facing Commercial Street, mechanicals visible from York Street approach). The stair towers were lowered in height, reduced in number, and the siding color is recessive – Staff are satisfied that the impact from Commercial Street has been minimized. The rooftop mechanicals are consolidated to the center of the building and screened from the York Street approach. The impact on the immediate streetscape has been minimized, however, these may still be visible from long views.**
- o *Consistent and cohesive character among the residential buildings* – the residential building has a consistent treatment across the project creating a cohesiveness. The applicant confirmed the materials and character are consistent with the master plan and previous phases of construction. The roof forms and massing are also consistent including placement and integration of rooftop elements on Commercial and York streets. This is especially critical for long-views approaching on York and Commercial.

- o *Street-facing, emphasized building entrances* – Met - this standard is met through highly transparent ground floors on Commercial, street-facing entries, and entry court. On York Street, the residential entry is indicated with a canopy and massing variation. Comfort and scale are introduced with canopies at major entrances, landscape planters, and window mullion/munton scale.
- o *Commercial Street: Strong, articulated building bases that follow the proportion and character of the historic Commercial Street buildings* – Met – details and openings articulate the base of each building that continues the established pattern of a tall base on Commercial Street.
- o *Commercial Street: Active ground floor* – Met – high level of fenestration, active uses (commercial/retail), direct entries, entry courts.
- o *Commercial Street: Regular pattern of windows* - Met

Materials

- o **Commercial Street** – *Material placement, detail, and articulation should emphasize the established historic Commercial Street patterns of massing, proportions, and façade composition regulating lines and building base. Material selection on the residential buildings will predominantly use red brick and granite with glass curtain wall as an accent.*

Staff Comment: These guidelines established in the MDP above have been carried through in the Site Plan application.

- o **York, High, and Maple Streets** – *These streets are not part of the historic district and the context is varied. Residential building materials should be consistent and be rationally placed based on interior uses or massing variation. A consistent base line is recommended to be carried through the residential buildings.*

Staff Comment: There is a consistency on each street-facing façade of the buildings that reflects the cohesive and simple approach to the traditional buildings in the context. Materials are placed according to their nature, to create the base and floor delineation, and to add visual interest.

- o **Quality Exterior Materials** *includes the detailing, articulation, transition, durability, and visual interest of the materials, not only their selection and placement. These aspects will be reviewed with special attention to the ground floors and areas most visible to pedestrians.*

Staff Comment: Project proposes to use granite and brick with storefront on the ground levels (traditional and time-tested materials). The ground floor materials will provide texture, reveal, and a grounded, durable base. **Metal panel accents should be thick gauge to avoid oil canning or rippling effects.**

Façade Composition - *In Site Plan review the design shall provide depth, articulation, visual interest, and quality transitions. Historic buildings in the surrounding context should be considered precedent examples, especially on Commercial Street.*

- o **Commercial Street** - *Commercial Street has a strong, consistent pattern of a tall base story, overall horizontal proportion, and regular window patterns. Commercial Street facades will continue these characteristics with contemporary interpretation. The ground floors will consider pedestrian comfort and scale, especially in the placement of*

doors, windows, canopies, and details in the materials and articulation. The residential buildings should have a cohesive visual relationship with material palette, window type and pattern, roofline, and articulation elements. Simple and consistent material type and color will be used across the Commercial Street streetscape.

Staff Comment: This standard is met.

- o **York Street** – *Window and material placement should follow a rationale tied to the building uses or changes in massing. Visual interest should be provided through articulation, façade plane changes, and fenestration.*

Staff Comment: This standard is met.

Streetscape Design

Lighting: The City is in the process of revising the Technical Manual Street Light section. The project should follow the proposed new fixture selection which for this site will be the City standard LED cobraheads. The decorative lighting on Commercial Street will not be continued. Staff will work with the applicant to determine the correct specification and spacing for these fixtures on all streets.

- o **Commercial, High, and Maple Streets** – *Character = Predominantly commercial, active uses fronting the street. The sidewalk should be as wide as possible. Where the sidewalk is at least 13’ wide, street trees should be provided in raised granite planters in the furnishing zone. Planters or landscape areas should not be placed between the sidewalk and the building – this is not consistent with the established urban streetscape. Final design shall be coordinated with City staff, especially to ensure viability of street trees and ease of maintenance.*

Staff comment: Commercial Street continues to have a commercial character with the strong street wall and highly transparent and active storefront along most frontages. Regular street trees provided with a 13’ sidewalk on Commercial. Some curb extensions are also proposed where street tree and landscape will be provided per the standards.

- o **York Street** – *Character = predominantly residential uses fronting the street. The private uses justify a landscape buffer between the street and the residential use. Landscape areas should be raised with either a curb or a seating wall. The sidewalk width should be consistent for the whole block.*

Staff Comment: These standards are met. Refer to the detail sheets – planted buffer areas provided between sidewalk and building, shall have a raised granite curb, 8’ wide sidewalk, and buried landscape.

(c) B-5 and B-5b Urban Commercial Business Zones

Standard (1) a. Shared Infrastructure – Met – All phases of this project share infrastructure for parking and traffic circulation.

Standard (1) b. Buildings and Uses shall be located close to the street . . . – Met- The building is built close to the property line and continues the street wall established on Commercial Street and York Street. Retail and commercial uses are set close to the street. The residential portions of the building are set back slightly on York Street to provide a privacy buffer, to mitigate the

scale of the buildings on a street with a narrow sidewalk, and to allow projections such as balconies to occur within the private property. Residential floors are slightly raised on this façade to provide privacy.

The corner of High and Commercial streets uses a rounded form to create an emphasis and encourage circulation up/down High Street without obstructed sight lines.

Standard (1) c. Buildings shall be oriented toward the street . . . – Met – Primary entrances are provided directly onto Commercial Street. Other commercial spaces on Commercial Street will be accessed from plaza spaces. There are also retail and residential entries on York Street. High Street is treated like a “B” street – because of the grade change and orientation to Commercial and York, no entrances are provided on High.

Standard (1) d. Parking lots shall be located to the maximum extent practicable toward the rear . . . – Met – Parking shall be provided interior to the lot in structured parking lined by active buildings on the street frontages.

(i) Multiple-family:

Standard (1) – Met – See comments above. Nearest residential context is the new multi-family building on York Street which is a similar scale and material palette. This building is mid-block and relates most immediately to the Old Port commercial buildings which is the rationale for the stylistic nod to the industrial building type in the fenestration patterns here. The building uses regular patterns in the vertical elements and window alignment. The Commercial Street facades are very regular in pattern and adopt the tall base with traditional materials as guided by the Historic Preservation, MDP, and staff review process.

Standard (2) – Met – This building is at the edge of existing development and is extending the existing built pattern and street wall edge established on Commercial Street. On York Street, this block is a transition area from the larger scale, more wharf buildings of the Old Port across High Street towards a smaller scale residential neighborhood. The architecture appropriately relates to the existing, brick industrial and medium-scale buildings preceding it to the east. These patterns include the height, the building materials, and an articulation and elements that make reference to those existing industrial and wharf buildings.

Standard (3) – Met – Open space is provided in the form of balconies for some units as well as an elevated, landscaped courtyard common area between the buildings for resident use only. The commercial courtyard from Commercial Street will be available to the public realm.

Standard (4) – Met – Project includes ample windows for light and air and storage opportunities.

Standard (5) – Parking is predominantly provided in structured parking interior to the lot and screened by active building liners.

Standard (6) – Not applicable



October 19th 2020
16324

Andrew Tufts
City Planner
Department of Planning and Urban Development City of Portland
4th Floor, City Hall
389 Congress Street
Portland, ME 04101

**RE: Phase 3- 387 Commercial Street
Project Summary**

Dear Andrew:

On behalf of DPD Lot 3 LLC, we are pleased to submit the attached plans and supporting documents for Site Plan review for Phase 3 of the former Rufus Deering Lumber site located at 387 Commercial Street. DPD Lot 3 LLC has retained Sebago Technics, and Archetype PA to provide planning, design, permitting and construction admin services for the project.

This project represents the final phase of a previously approved Master Plan of Development granted by the City of Portland in 2018. It includes the demolition of a 2-story wood-framed building currently being used as a construction office for the initial phases of the project. The remainder of the site has previously been cleared and is being used as parking, staging, and lay-down areas in support of phases 1 (the hotel) and 2 (the initial condo building.)

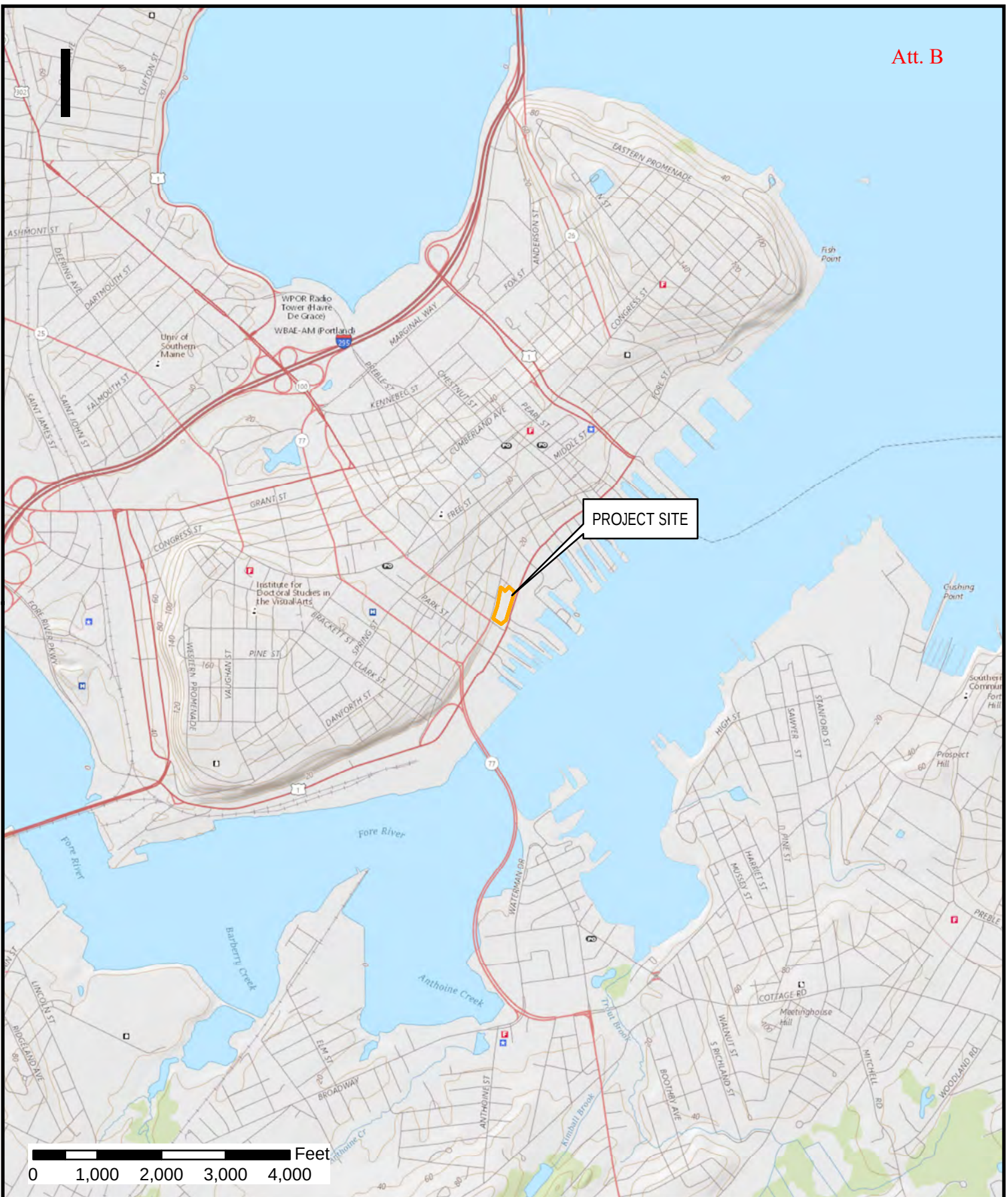
The proposed 35,100 sf building includes 7 stories of Residential and commercial spaces, with access from York Street, and Commercial Street. Parking for this phase is contained within the footprint of the buildings, and includes 130 parking spaces (12 ADA) to be connected to phase two's parking deck. The building's façade will match the other phases of this project to create a uniform block along both Commercial Street, and York Street. Street trees are proposed along Commercial street, and landscape beds along the façade are proposed along York Street.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Richard L. Meek". The signature is fluid and cursive, with the first name "Richard" and last name "Meek" clearly legible.

Richard L. Meek, P.E., LEED-AP
Sr. Project Engineer



SEBAGO
TECHNICS

WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd., Suite 1A
South Portland, ME 04106
Tel. 207-290-2100

TITLE SITE LOCATION MAP
FOR: Deering Property Management, LLC

LOCATION:
383 Commercial Street
Portland, ME 04101

INFORMATION:
USGS Quadrangle: Portland West/ Portland East

SCALE: 1" = 2,000'
DATE: 08/06/2018

CITY OF PORTLAND
Planning & Urban Development Department

LEVEL II and LEVEL III SITE PLAN GENERAL DOCUMENT AND DRAWINGS CHECKLIST		
* Please upload each document <u>and</u> drawing as a separate PDF file * Please upload all drawings in a <u>24 x 36 sheet size</u> * Please confirm each item by electronically checking the boxes to the left for each document/drawing * Please fill out and upload separately the <u>zoning assessment table and waiver table</u> (At the time of application submission, please contact the Department of Public Works regarding E-911 addressing of your project)		
GENERAL APPLICATION DOCUMENTS		
Yes ☐	NA ☐	Project Description Cover Letter with detailed project description
Yes ☒	NA ☐	Completed Checklist – Level II and Level III Site Plan (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

* Please provide assessment of compliance with standards and include supplemental documentation, as applicable

* Please upload 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 as separate pdfs

(ALL drawings must be uploaded in a 24 x 36 sheet size)

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

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

QUITCLAIM DEED WITH COVENANT

DLN: 1001840046036

Deering Property Development LLC, a Maine limited liability company with a mailing address of 2730 Transit Road, West Seneca, New York, 14224, grants to **DPD Lot 3 LLC**, a Maine limited liability company with a mailing address of 2730 Transit Road, West Seneca, New York, 14224, WITH QUITCLAIM COVENANT, a parcel of land, together with all appurtenant rights and easements, located at or near 383 Commercial Street in the City of Portland, County of Cumberland and State of Maine, such parcel being more particularly described on **Exhibit A** attached hereto.

IN WITNESS WHEREOF, Deering Property Development LLC has caused this instrument to be executed and delivered by its duly-authorized Manager this 30th day of November, 2018.

Deering Property Development LLC

Witness

By:


Gordon Reger
Its Duly Authorized Manager

State of New York
County of Erie

November 30th, 2018

PERSONALLY APPEARED before me the above-named Gordon Reger, Manager of Deering Property Development LLC, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said limited liability company.

Edith M Bluhm
Name:
Notary Public
My Commission Expires:

Edith M Bluhm
Notary Public State of New York
Erie County
Lic. #01BL6180099
Commission Expires 1/7/2020

Exhibit A

A parcel of land located at or near 383 Commercial Street, Portland, Cumberland County, Maine, and being Lot 3 as shown on that certain "Subdivision Plan of: 383 Commercial Street" (2 Sheets) prepared by Sebago Technics for Deering Property Development LLC, last dated October 22, 2018, and recorded in the Cumberland County Registry of Deeds in Plan Book 218, Pages 510-511.

Subject to and with the benefit of a Declaration of Reciprocal Easements dated November 30, 2018, and recorded in said Registry of Deeds in Book 35338, Page 45.

Received
Recorded Register of Deeds
Dec 10, 2018 03:08:43P
Cumberland County
Nancy A. Lane

PURCHASE AND SALE AGREEMENT

This Purchase and Sale Agreement ("Agreement") is made and entered into as of this 8TH day of July 2016 (the "Effective Date"), by and between Milliken Smith Block, LLC, a Maine limited liability company with a mailing address of c/o William M. Moody Jr., 5 High Street, Yarmouth, ME., 04096 ("Seller") and Deering Property Development LLC, a Maine limited liability company with a mailing address of 2730 Transit Road, West Seneca, New York 14224 Attn: Gordon Reger ("Buyer").

In consideration of the mutual covenants and promises hereinafter set forth, Seller and Buyer agree as follows:

1. PREMISES. Seller agrees to sell and Buyer agrees to purchase, on the terms and conditions contained in this Agreement, the approximately 110,000 square foot parcel of land located at or near 383 Commercial Street in Portland, Cumberland County, Maine, and bounded by Commercial Street, High Street, York Street, and Maple Street, and all other improvements remaining thereon on the date of Closing and all rights and easements appurtenant thereto (together, the "Premises"). The Premises is approximately depicted on Exhibit A attached hereto and shown on Tax Map 42, Block A as Lot 1. The Premises does not include the building currently occupied by the Charter School and related land located on the northwest corner of the block described above and depicted on Tax Map 42, Block A as Lot 7, and the related 15-foot wide passageway depicted on Tax Map 42, Block A as Lot 8 (together, the "Charter School Property"). The Premises does not include the lumber business currently operated on the Premises by Rufus Deering Lumber Company ("RDC") pursuant to a lease by and between Seller and RDC (the "RDC Lease").

2. PURCHASE PRICE Subject to any adjustments and prorations hereinafter described, the purchase price for the Premises shall be [REDACTED] Dollars per square foot of land area in the Premises, which would be [REDACTED] (\$ [REDACTED]) based on the estimated land area of 110,000 square feet, to be paid by immediately-available funds at the Closing. The actual purchase price paid by Buyer at Closing shall be calculated using the foregoing price per square foot and the actual land area of the Premises as determined according to an ALTA/NSPS survey of the Premises performed by a reputable surveyor, which Buyer agrees to obtain at Buyer's expense.

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1-6-16

Promptly upon full execution of this Agreement, Buyer shall deliver to Malone Commercial ("Escrow Agent"), an earnest money deposit (the "Deposit") in the amount of [REDACTED] U.S. Dollars (\$ [REDACTED]), as security for Buyer's performance under this Agreement. The Deposit shall be held in escrow by Escrow Agent pursuant to this Agreement. Upon the expiration of the initial 60-day Inspection Contingency Period, unless Buyer has terminated this Agreement, the Deposit shall become non-refundable.

If Buyer has not terminated this Agreement by the expiration of the Inspection Contingency Period and not terminated this agreement pursuant to Buyer's Approvals Contingency in Paragraph 6 below, Buyer shall make the following monthly payments, all of which payments shall be nonrefundable (except in the event of a Seller default) and included in the definition of Deposit:

(a) Beginning on or before ninety (90) days from the Effective Date and continuing on or before the first day of each month until [REDACTED] Buyer shall deliver to Escrow Agent [REDACTED] Dollars (\$ [REDACTED]) per month, prorated for any portion of a month.

(b) Beginning [REDACTED], and continuing on or before the first day of each month until [REDACTED] Buyer shall deliver to Escrow Agent [REDACTED] Dollars (\$ [REDACTED]) per month, prorated for any portion of a month.

(c) Beginning [REDACTED], and continuing on or before the first day of each month until the Approvals Contingency Period Expiration, Buyer shall deliver to Escrow Agent [REDACTED] Dollars (\$ [REDACTED]) per month, prorated for any portion of a month.

Buyer shall not be in default of this Agreement for failure to make any of the Deposit payments above unless and until Buyer fails to make such payment within seven (7) days of when due. All of the Deposit shall be credited towards the purchase price at the Closing or otherwise disbursed in accordance with this Agreement.

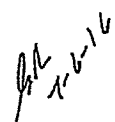
3. TITLE. Seller shall convey the Premises to Buyer at the Closing in fee simple, subject to the Permitted Encumbrances (as defined below), but free and clear of all liens, except for liens for real estate taxes not yet due and payable. Seller may, at the time of delivery of the deed, use the purchase proceeds or any portion thereof to clear the title of liens and encumbrances that are not Permitted Encumbrances, including without limitation consideration for the early termination of the RDC lease, provided that all instruments so procured are delivered simultaneously with the delivery of the deed.

Within sixty (60) days of the Effective Date (the "Title Review Period"), Buyer shall notify Seller in

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writing (the "Title Objection Notice") of matters of record at the Cumberland County Registry of Deeds adversely affecting title to the Premises that are objectionable to Buyer in Buyer's sole discretion ("Title Defects"). Buyer shall be deemed to have waived the right to object to any matter affecting title as of the Effective Date, excluding any mortgage, tax lien, mechanics' lien, judgment lien, or other liens encumbering the Premises (for which no title objection is required), if Buyer fails to specifically identify such matters in the Title Objection Notice (each matter not objected to being a "Permitted Encumbrance"). The RDC Lease shall not be a Permitted Encumbrance. Seller shall use good faith efforts to cure such Title Defects and shall have a period of not more than sixty (60) days after Seller's receipt of the Title Objection Notice within which to cure any such Title Defects (the "Title Cure Period"). Seller agrees that after the Effective Date, it shall not permit or suffer encumbrance of the Premises with any liens, easements, leases, or other encumbrances. On or before the Closing, Seller shall remove at its sole cost any matters affecting the title to the Premises suffered or created by or consented to by Seller, whether voluntarily or involuntarily, after the Effective Date that are not approved in writing by Buyer. If Seller fails to cure any Title Defects within the Title Cure Period, then Buyer shall elect, by written notice to Seller on or before ten (10) days from the expiration of the Title Cure Period, either (i) to accept title to the Premises subject to such uncured Title Defects without reduction of the purchase price and without any liability on the part of Seller therefor, in which case such Title Defects shall be Permitted Encumbrances, or (ii) to terminate this Agreement, whereupon the Deposit immediately shall be returned to Buyer and neither party shall have any further obligations under this Agreement, except for provisions that expressly survive termination. In the event that Buyer does not timely elect either option (i) or (ii) above, Buyer shall be deemed to have elected option (i).

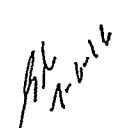
4. BUYER'S INSPECTION AND INVESTIGATIONS CONTINGENCY. Buyer or its agents may enter onto the Premises at any time after the date of this Agreement until the Closing, subject to compliance with the conditions below in this paragraph 4, in order to conduct surveys, engineering studies, soil studies, and such other investigations of the Premises as Buyer elects. Following the exercise of any of Buyer's inspection rights hereunder, Buyer promptly shall use reasonable efforts to restore any portion of the Premises disturbed to its condition prior to disturbance. Buyer shall indemnify and hold Seller harmless for all claims, damages, causes of action, judgments, penalties, fines, costs and expenses, including without limitation attorneys', paralegals' and expert witnesses' fees and court costs, incurred by Seller in connection with the exercise by Buyer or its employees, agents, or contractors, of the investigation and inspection rights contained in this paragraph except for pre-existing conditions and matters



resulting from Seller's negligence, which indemnity shall survive the Closing or any termination of this Agreement. Buyer also intends to investigate the zoning and other land use restrictions on the Premises, which investigations may include discussions with City of Portland officials, and investigate the feasibility of development of the Premises. In the event that Buyer is not satisfied with any of Buyer's inspections or other investigations of the Premises or the potential development of the Premises, in Buyer's sole discretion, Buyer shall so notify Seller in writing (which notice does not have to set forth the reasons for termination) within [REDACTED] days from the Effective Date (the "Inspection Contingency Period"), whereupon this Agreement shall automatically terminate, and the Deposit promptly shall be returned to Buyer, and thereafter, neither party shall have any further obligations under this Agreement, except for indemnities and other provisions that expressly survive termination. In the event that Buyer does not terminate this Agreement by the expiration of the Inspection Contingency Period, Buyer shall be deemed to have waived the foregoing inspection contingency. In the event that Buyer terminates this Agreement pursuant to this Section 4, Buyer shall deliver to Seller simultaneously with such termination notice copies of all reports, studies, plans, surveys, title insurance commitments, and other matters prepared by or for Buyer in connection with its inspections and investigations.

Buyer shall coordinate all due diligence that requires physical inspection or investigation on the Premises with Seller and have such on-site work performed when RDC is not open to the public and only after Seller approves by email the scope, time, and manner of any physical inspection or investigation on the Property, such approval not to be unreasonably withheld, conditioned, or delayed. All of Buyer's due diligence reports relating to the Premises will be owned by Buyer. Buyer shall have such reports certified to Seller, or provide Seller with a reliance letter from the consultant producing such reports, and deliver copies of such reports to Seller, all to the end that Seller may rely on such reports in the event that Buyer does not proceed with the purchase of the Premises. Seller shall not use or disclose the contents of any such report unless the Agreement is terminated or the Closing otherwise fails to occur. Buyer shall obtain from those due diligence consultants conducting on-site investigations confidentiality agreements reasonably satisfactory to Seller, for the benefit of Seller and RDC, the parties acknowledging that RDC's business could be adversely impacted if the potential sale of the Premises became known to RDC's employees or the public.

5. SELLER DELIVERABLES. Within five (5) days of the Effective Date, Seller shall deliver to Buyer the following: (i) a copy of any surveys and plans of the Premises; (ii) any Phase I or Phase II Environmental



Site Assessments; (iii) copies of any soils engineering reports, all to the extent such items are in Seller's possession or control that are in effect on the date of this Agreement (together, the "Seller Deliverables"). For purposes of this paragraph, "control" means in the possession of a person who Seller has contractually engaged to provide services to Seller. Buyer acknowledges and agrees that (a) the Seller Deliverables are being provided by Seller to Buyer as a courtesy, and therefore, Seller makes no representation or warranty regarding the accuracy and/or completeness of the Seller Deliverables, and (b) Buyer and any person to whom Buyer provides the Seller Deliverables shall rely on the same at their own risk.

Buyer agrees, acknowledges and represents that except as specifically set forth in this Agreement, Buyer is entering into this Agreement and shall perform all of its obligations hereunder and consummate the transaction contemplated by this Agreement solely in reliance on and as a result of Buyer's own investigations and efforts (including Buyer's inspection of the Premises and such other investigations, examinations and inspections as Buyer has chosen to make or has made) and at Buyer's sole risk, cost and expense, including, without limitation, the risk that Buyer's inspection of the Premises and such other investigations, examinations and inspections may not reveal any or all adverse or existing conditions, aspects or attributes of the Premises. Buyer acknowledges that Seller has afforded, and, during the Inspection Contingency Period, shall afford, Buyer the opportunity for full and complete investigation, examination and inspection of the Land. Buyer acknowledges that this paragraph was a negotiated part of this Agreement and serves as an essential component of consideration for the same. Without limiting the generality of the foregoing, the parties specifically acknowledge that Buyer has had, and, during the Inspection Contingency Period shall have, an opportunity to fully inspect the Premises, including, but not limited to, the physical condition of the Premises (including all environmental concerns), and the purchase price has been negotiated to eliminate all claims except those arising under representations, warranties or agreements contained in this Agreement, whether known or unknown, relating to the condition of the Premises as of the date of this Agreement and all aspects and attributes thereof, including, without limitation, all environmental matters. Buyer acknowledges and agrees that Seller has made and shall make no representation or warranty with respect to the Premises, except as expressly set forth in this Agreement. The Premises shall be sold and conveyed "AS IS, WHERE IS" without representation or warranty of any kind except as otherwise explicitly set forth herein.

6. BUYER APPROVALS CONTINGENCY. Buyer's obligation to close on the purchase of the

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Premises shall be conditioned upon Buyer's receipt of all necessary, final and unappealable, land-use approvals (the "Approvals") for Buyer's intended development of the Premises (the "Development") by [REDACTED]. Buyer shall notify Seller of the Approvals required for the Development by [REDACTED], which notification shall include Buyer's estimate of the milestone dates to obtain the Approvals. In the event that Buyer is unable to obtain the Approvals by [REDACTED], Buyer's approvals contingency deadline automatically shall be extended to [REDACTED], provided that Buyer continues to make good faith effort to obtain the Approvals. In the event that Buyer is unable to obtain the Approvals (or Buyer's earlier determines in its sole discretion that the Approvals are unlikely to be obtained) by [REDACTED] or [REDACTED], if the Approvals deadline is extended as provided above (as such date is determined, the "Approvals Contingency Expiration"), Buyer shall so notify Seller in writing on or before the Approvals Contingency Expiration whereupon this Agreement shall automatically terminate, and the Deposit shall be delivered by Escrow Agent to Seller and thereafter neither party shall have any further obligations under this Agreement, except for indemnities and other provisions that expressly survive termination. Seller agrees to cooperate with Buyer is applying for and seeking any Approvals, such cooperation to include joining as the land owner in any applications for Approvals, provided that Seller shall not be obligated to incur any material out-of-pocket expense to provide such cooperation.

7. CLOSING: DEED. The closing shall take place on the business day that is closest to sixty (60) days from the Approvals Contingency Expiration at 10:00 a.m., at the offices of Bernstein Shur, 100 Middle Street, Portland, Maine, or at such other time and place as Seller and Buyer may mutually agree upon in writing (as determined, the "Closing"). At the Closing, Seller shall execute and deliver to Buyer, or Buyer's nominee, against payment of the balance of the purchase price, a Quitclaim Deed with Covenant for the Premises in accordance with the Short Form Deeds Act, 33 M.R.S.A. 761 et seq. (the "Deed"). Seller also shall execute and deliver to Buyer at the Closing the following: a customary and reasonable title insurance Seller's Affidavit regarding persons in possession and mechanics' liens; a 1099-S data form, a FIRPTA affidavit; REW-3; W-9 form; an underground storage tank affidavit to comply with 38 M.R.S.A. § 563(6); evidence of Seller's existence and authority to satisfy the customary seller authority requirements for issuance of an owner's title insurance policy; a real estate transfer tax declaration of value form; and a settlement statement.

8. REPRESENTATIONS.

- (a) Except as actually known to Buyer prior to Closing as a result of Buyer's investigations of the

GA
1-6-16

Land, Seller represents and warrants to Buyer as follows, which representations and warranties, and the restatement thereof at Closing, shall survive Closing for a period of one (1) year:

(i) Seller has the legal right, power and authority to enter into this Agreement and to perform all of its obligations hereunder, and the execution and delivery of this Agreement and the performance by Seller of its obligations hereunder will not conflict with, or result in breach of any regulation, order, judgment, injunction or decree of any court or governmental authority or any agreement or instrument to which Seller is a party or by which it is bound.

(ii) There are no tenancies, occupancies or licenses affecting the Premises, except for the RDC Lease.

(b) Buyer has the legal right, power and authority to enter into this Agreement and to perform all of its obligations hereunder, and the execution and delivery of this Agreement and the performance by Buyer of its obligations hereunder will not conflict with, or result in breach of any regulation, order, judgment, injunction or decree of any court or governmental authority or any agreement or instrument to which Buyer is a party or by which it is bound.

9. AFFIRMATIVE COVENANTS OF SELLER. Seller agrees, pending closing, that:

(a) Seller shall pay, when due, all taxes and assessments of every type or nature levied or assessed against the Premises and any valid lien against the Premises.

(b) Seller (i) shall not commit or suffer waste and (ii) shall materially comply with all laws, ordinances, regulations, covenants, conditions and restrictions affecting the Premises and will not suffer or permit any material violation thereof.

10. ADJUSTMENTS, PRORATIONS AND CLOSING COSTS.

(a) Real estate taxes and municipal assessments shall be prorated as of the Closing on the basis of the latest available tax bill.

(b) The Maine real estate transfer tax shall be paid equally by Seller and Buyer in accordance with 36 M.R.S.A. Section 4641-A.

(c) The recording fee for the deed of conveyance and any expenses related to any financing for Buyer in connection with the purchase of the Premises shall be paid by Buyer.

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(d) A portion of the purchase price shall be withheld at the Closing by Buyer if required by 36 M.R.S.A. § 5250-A.

11. POSSESSION. Seller shall deliver possession of the Premises to Buyer at the Closing, free of all leases, tenancies or occupancies, including without limitation the RDC Lease. Seller or RDC may remove from the Premises any and all equipment, fixtures and improvements provide that no debris or waste therefrom remains on the Premises and none of RDC's hazardous, toxic, or special materials inventory or wastes remain on the Premises. RDC shall have the right to occupy the Premises for the operation of its business until the Closing.

12. DEFAULT; REMEDIES. In the event that Buyer fails to close hereunder for a reason other than the default of Seller, Seller may terminate this Agreement by written notice to Buyer and thereupon Seller shall be entitled to the Deposit as Seller's sole and exclusive remedy for Buyer's breach, and Escrow Agent shall be authorized to disburse the Deposit to Seller. Seller and Buyer acknowledge and agree that the damages for Buyer's breach of this Agreement are difficult to calculate and that the Deposit is a reasonable estimate of such damages. In the event that Seller breaches this Agreement for a reason other than the default of Buyer, Buyer shall be entitled to either (i) terminate this Agreement by written notice to the Seller, in which case Buyer shall be entitled to a return of the Deposit and Escrow Agent shall be authorized to disburse the Deposit to Buyer or (ii) pursue the remedy of specific performance. In the event of litigation regarding breach of this Agreement by either party, the party who obtains a final, un-appealable judgment in its favor shall be entitled to collect its reasonable attorneys' and paralegals' fees and court costs from the other party.

13. BROKERAGE/ESCROW AGENT. Seller and Buyer each represent to the other that they have not dealt or had contact with any broker in connection with this transaction other than Malone Commercial. Seller shall pay Malone Commercial a commission equal to [REDACTED] of the purchase price at the Closing, and Buyer shall pay Malone Commercial a commission equal to [REDACTED] of the purchase price at the Closing.

14. MISCELLANEOUS.

(a) Time. Time is of the essence hereof.

(b) Notices. Except as expressly provided to the contrary in this Agreement, all notices,

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demands and other communications hereunder shall be in writing and shall be given by electronic mail: if to Seller:

William Moody ([REDACTED]) and Mike Pearce (mpearce@pearcedow.com), and if to Buyer: Gordon Reger ([REDACTED]) and Tom Hanson (thanson@bssn.com), with a copy of such notice to Seller or Buyer at their addresses set forth in the preamble to this Agreement sent by certified mail, return receipt requested. Notices and communications of any kind shall never be sent to Bill Moody or anyone else at RDC or care of the RDC address. All notices shall be deemed to have been duly given if the electronic mail time stamp is prior to the expiration date and time specified herein. Attorneys are authorized to give notices on behalf of their clients. Either party may change the notice electronic mail addresses and certified mail notice addresses for purposes of this subparagraph by giving the other party notice of the new address in the manner described herein.

(c) Assignment. Buyer's rights under this Agreement may not be assigned without Seller's prior written approval, which approval shall be conditioned on Seller being satisfied that Buyer's assignee has in Seller's opinion the financial ability to acquire the Premises; notwithstanding the foregoing, Buyer may assign this Agreement to any entity of which Reger Holdings, LLC or Gordon Reger or his family or some combination thereof are the controlling principals without Seller consent, but with notice to the Seller. Buyer shall remain liable under this Agreement notwithstanding any such assignment. This Agreement will inure to the benefit of and bind the respective successors and assigns of Seller and Buyer.

(d) 1031 Exchange. Seller may elect to perform an IRC §1031 tax deferred exchange. Buyer agrees to cooperate in such an exchange and to sign the documents customarily used in such an exchange, provided that such documents do not modify the terms and conditions of this Agreement or impose additional liabilities or obligations on Buyer.

(e) Entire Agreement. This Agreement constitutes the entire agreement between Seller and Buyer with respect to the sale of the Premises, and there are no representations, warranties, agreements or understandings between the parties except as set forth herein.

(f) Construction. This Agreement shall be governed by and construed in accordance with the laws of Maine, without taking into account choice of law principles. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining provisions hereof.

(g) Confidentiality. Seller, Buyer and Escrow Agent agree not to disclose the terms, conditions or existence of this Agreement to any persons except lawyers, accountants, financial advisors, lenders,

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appraisers, and consultants to the parties. The terms and conditions of a certain Confidentiality Agreement by and between Seller, RDC, Reger Holdings, LLC and Gordon Reger dated May 27, 2016 (the "CA"), are incorporated by reference. It shall not be a breach of this provision or the CA for Seller or its consultants to discuss the development of the Premises with City of Portland officials or to submit applications for Approvals to the City of Portland pursuant to Buyer's Approvals Contingency.

(h) Counterpart Execution. This Agreement may be executed in one or more counterpart signatures, and together the signed counterparts shall be deemed to be a fully-executed contract.

IN WITNESS WHEREOF, Seller and Buyer have executed this Agreement as of the date first above written.

WITNESS:

Seller: Milliken Smith Bock, LLC

By:

William Moody
Its duly-authorized Manager

Buyer: Deering Property Development LLC

Edith M. Blum

By:

Gordon Reger
Its duly-authorized Manager

Malone Commercial Brokers as Escrow Agent

By:

Joseph Malone

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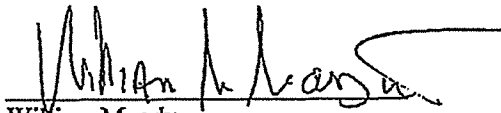
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WITNESS:

Seller: Milliken Smith Bock, LLC



By: 
William Moody
Its duly-authorized Manager

Buyer: Deering Property Development LLC

By: _____
Gordon Reger
Its duly-authorized Manager

Malone Commercial Brokers as Escrow Agent

By: _____
Joseph Malone

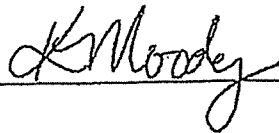
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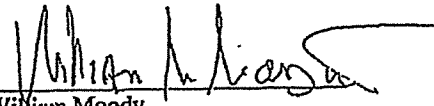
IN WITNESS WHEREOF, Seller and Buyer have executed this Agreement as of the date first above written.

WITNESS:

Seller: Milliken Smith Bock, LLC



By:



William Moody
Its duly-authorized Manager

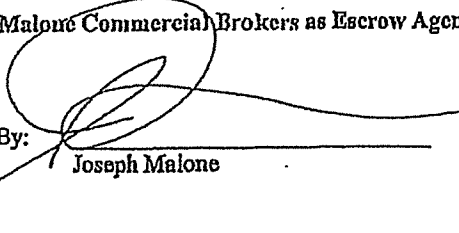
Buyer: Deering Property Development LLC

By:

Gordon Reger
Its duly-authorized Manager

Malone Commercial Brokers as Escrow Agent

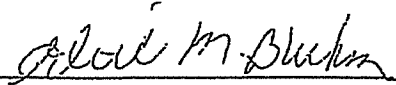
By:



Joseph Malone

Reger Holdings, LLC hereby joins this Agreement, jointly and severally with Buyer, with respect to Buyer's obligations under this Agreement.

Reger Holdings, LLC



By:


Gordon Reger
Its duly-authorized Manager

Evidence of State or Federal Approvals

The parcel is subject to the conditions of approval associated with an Existing Chapter 500 – Stormwater permit, which was approved during the Master Plan process. No Federal permitting was required for the development of this parcel.



ZONING ANALYSIS Relevant Zone(s) B5b Urban Commercial Business

All Projects:

	Required	Proposed
Lot Size	none	0.806 acre
Area Per Dwelling Unit		
Minimum Street Frontage	none	546 ft.
Front Yard Minimum	none	none
Front Yard Maximum	10 ft	0 ft.
Rear Yard	none	none
Yard Right	none	none
Yard Left	none	none
Side Street Setback	none	none
Step Back		
Maximum Lot Coverage	100%	100%
Minimum Lot Coverage		
Maximum Height	65 ft	65 ft
Open Space		
Maximum Impervious Area		
Pavement Setback		
Floor Area Ratio		
Off Street Parking Spaces		130
Loading Bays		On Com. St.
Other 1		
Other 2		
Other 3		

Planned Residential Unit Developments (PRUD) Requirements

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

Affordable Housing Density Bonuses (if applicable)

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

Financial Capability

The applicant's financial capability is evidenced by the attached letter from its financing partner. In addition, a letter from Reger Holdings, LLC is provided to clarify the connection between Gordon Reger and Deering Property Development, LLC.

Deering Property Development, LLC has retained Archetype PA as project Architect and Sebago Technics, Inc. as the Landscape Architect/Civil Engineer.



December 22, 2016

Mrs. Barbara Barhydt
Portland Planning Staff
Portland City Hall
389 Congress Street
Portland, ME 04101

RE: Commercial Street in Portland

Dear Mrs. Barhydt:

I'm writing regarding the future development of Commercial Street in Portland being proposed by Reger Holdings. Our firm NGKF and my prior firm has acted as a financing intermediary for Reger Holdings for the past 15 years on numerous projects from condominiums to industrial. In the last 3 years alone, we arranged the financing for over \$100 million of development in Maine, Massachusetts and South Carolina. One example locally was the Bay House Condominiums in Downtown Portland; a \$20 million dollar construction loan arranged with a Boston Bank that had a very successful sellout.

NGKF Debt group in Boston has the capacity to finance large development projects thru our long term relationships. We also have access to sources thru our owner BGC Partners (NYSE: BGCP) and our proprietary lending platforms in Canter Commercial and Berkeley Point Capital.

Reger Holdings is a third generation well respected real estate company with numerous holdings and experience. The company is run and spearheaded by Mr. Gordon Reger. Our dealing with him and his firm have always been handled in a first class manner. As a result, we would highly recommend Reger Holdings for the development of Commercial Street.

If I can be of any assistance in your decision, please do not hesitate to give me a call. Thank you.

Regards,

David M. Douvadjian

A handwritten signature in dark ink, appearing to read "David M. Douvadjian", written over the printed name and title.

Head of Mortgage Banking

New England

(617) 863-8388

ddouvadjian@ngkf.com



HOLDINGS, LLC
2730 TRANSIT ROAD
WEST SENECA, NY 14224

PHONE: (716) 675-1200

www.REGERHOLDINGS.COM FAX: (716) 674-2947

SENT VIA EMAIL

March 13, 2017

To whom it may concern:

We are writing to help confirm the relationships between Gordon Reger, Reger Holdings, LLC, and Deering Property Development, LLC. Reger Holdings and our affiliated companies typically form a new LLC for each specific project we acquire which is the case with Deering Property Development LLC that was formed for the Commercial Street project. Gordon Reger is the majority shareholder and managing member of both Reger Holdings and Deering Property Development LLC. Therefore, Gordon Reger is the individual legally associated with and responsible for funding both of these entities.

The letter confirming financial capacity references Reger Holdings given that it is the portfolio company that is the main operating company for which Gordon Reger runs the day to day real estate investment and development operations. However, we believe the letter is intended to indirectly confirm the broader capacity of Gordon Reger as the individual with the financial capacity given the business dealings referenced in the letter have spanned across several companies affiliated directly with Reger Holdings and Gordon Reger all of which he has been the majority shareholder and managing member. We would be happy to request any clarification to the letter that may be necessary.

Should you need any additional information please feel free to contact me.

Regards,

Joseph Armenia
Chief Financial Officer

Technical Capability

There is a highly qualified team of developer, architects, and engineers for this proposed project.

The project team includes:

Reger Dasco Properties (applicant) is a Portland-based partnership between Gordon Reger, Principal of Reger Holdings in West Seneca, NY, Demetri Dasco, Principal of Atlas Investment Group in Boston, MA and Joseph Dasco, Principal of Boulder Hill Development in western Massachusetts. Please see the attached writeup for more detailed information.

The applicant has demonstrated its technical ability as evidenced by the successful completion of the Bay House, a mixed-use retail/residential project with a parking garage; and Seaport Lofts, a residential project. Both of these are located within the India Street project area.

Archetype is an experienced professional architecture and planning firm located on the Portland waterfront. Their staff, headed by Principal David Lloyd, have extensive design talent and knowledge of building construction requirements.

Sebago Technics, Inc. (STI) is a multi-disciplined engineering firm with over 35 years of experience, that offers a wide range of services specializing in land development, planning, permitting and engineering design services. We maintain a staff of multi-disciplinary professionals to provide services in the areas of general civil engineering, road and utility infrastructure design, construction management, permitting, landscape architecture, soil science, wetlands science, land surveying, and environmental engineering.

STI is the design firm of record for the Bay House, Seaport Lofts, Maine Medical Center, Whole Foods, and several additional project in Portland, including projects for the City.

Reger Dasco Properties

Reger Dasco Properties is a Portland-based partnership between Gordon Reger, Principal of Reger Holdings in West Seneca, NY, Demetri Dasco, Principal of Atlas Investment Group in Boston, MA and Joseph Dasco, Principal of Boulder Hill Development in western Massachusetts. Reger Dasco Properties has extensive experience with real estate investments, high-quality residential developments and mixed-use projects.

Gordon's career path began with Marc Equity Corporation, where he headed the company's new residential development division. His responsibilities included overseeing land development and new residential construction in western New York. Gordon also worked on numerous condominium conversions and new residential construction projects in Pennsylvania, Florida, South Carolina and Texas. Later in his career, as CEO of Reger Holdings, Gordon became involved in the redevelopment of historic buildings into luxury residences in Boston's Back Bay. One of his most notable projects was the Gateway Terraces, a premier, 230,000 sf, mixed-use development in the city's South End. Gordon led every aspect of the project, from concept to land acquisition, development, and retail sell-off.

Demetri established Atlas Investment Group in 2001 and currently oversees development acquisitions, construction management, and investment operations of the company's real estate portfolio. Under his leadership, Atlas has created transformational housing and retail opportunities, building strong, thriving, and diverse communities working in partnership with neighborhoods, residents, businesses and community groups. Demetri brings more than 25 years of experience to commercial real estate and development. Prior to founding Atlas Investment Group, Demetri was co-founder and president of his own specialty construction firm. Under his leadership, it grew into one of Boston's premier construction restoration companies

Joe started his career with Arthur Andersen and Company, a global accounting and consulting firm where he earned his CPA certification. Along with one of his Arthur Andersen associates, Joe later purchased AV Associates Inc., an Arthur Andersen client located in Storrs, CT. Together, they grew the multi-media/communications business from \$2.5 million annual revenues to a \$40 million business serving the large-scale needs of its Fortune 100 clients. Joe and his partner later sold the business to MCSI, a NASDAQ listed company. Joe then founded and continues to operate Boulder Hill Development, a boutique design-build real estate development and construction company located in western Massachusetts. Joe is also responsible for the day to day operations at Reger Dasco Properties.

Reger Dasco Properties has been working in Portland since 2006. The project resume in Portland includes, The Bay House, a mixed-use project which consists of 86 residential condominiums and over 6,000 square feet of commercial space, 113 Newbury Street, consisting of 35 residential condominiums, The Mason Block which consists of 27 condominiums and approximately 4,000 square feet of commercial space and Hobson's Landing which is currently under construction which is a multi-phase project consisting of a 150 room hotel (being developed by others), 85 condominiums, approximately 7,000 square feet of commercial space with an additional phase currently under design.

RICHARD L. MEEK, PE, LEED-AP

Senior Project Engineer



Mr. Meek joined the staff of Sebago Technics, Inc. in 2002 as a Design Engineer. Since then, he has performed project engineering for numerous municipal, commercial and residential design projects in Maine and New Hampshire. His specialties include hydrologic and hydraulic analyses for open and closed roadway drainage systems, roadway design and plan preparation, utility coordination, design of temporary traffic control schemes, and environmental permitting associated with state and municipal transportation related projects. Rick is LEED certified and as such he has a particular interest in providing our projects with innovative water quality treatment solutions to stormwater management. He is proficient in the use of the latest design software including AutoCAD and MicroStation, HydroCAD, Hydra-Flow, HY-8, and the full suite of Microsoft Office products. Rick is currently leading one of three Project Delivery Teams within the Engineering Group at Sebago Technics.

EXPERIENCE



Subdivisions:

- Shannon Woods – Saco, ME
- Mitchell Hill Heights – Scarborough, ME
- Sea Ridge at Blue Point – Scarborough, ME
- Park North and The Cascades – Saco, ME
- Dunstan Crossing – Scarborough, ME
- Heath Overlook – Saco, ME
- Regal Pines – South Portland, ME
- McKearney Village – Yarmouth, ME

Transportation:

- I-91 Bridge Replacement – Brattleboro, VT
- Sara Mildred Long Bridge Replacement – Kittery, ME and Portsmouth, NH
- Rochester St. Reconstruction – North Berwick, ME
- Boothbay Roundabout – Boothbay, ME
- MTA - York Toll Plaza – York, ME

Municipal:

- Portsmouth Public Library – Portsmouth, NH
- Yarmouth Public Works – Yarmouth, ME
- Bedford Street CSO – Portland, ME

Site Plans:

- Moody's Collision Center – Gorham, ME
- Shaw Brothers Site – Gorham, ME
- DoubleTree Hotel Redevelopment – South Portland, ME
- Western Avenue Crossing - South Portland, ME
- Monkey Trunks – Saco, ME
- L.L. Bean Order Fulfillment Center – Freeport, ME
- Freeport Village Station – Freeport, ME
- Allagash Brewing – Portland, ME
- Boothbay Harbor Country Club – Boothbay, ME

TRAINING

University of New Hampshire's
Stormwater Center, 2013

Certified Professional in Erosion and
Sediment Control, 2011

Phosphorus Management Design, 2008

Biofilter Media Design, 2008

Maintenance and Inspection of
Stormwater BMP's, 2009

Low Impact Development, 2005

EDUCATION



Auburn University, Auburn, AL
Bachelor of Science,
Civil Engineering, 1999

New Hampshire Technical College,
Stratham, NH
Associate in Applied Science,
Electro-Mechanical Drafting, 1990

REGISTRATIONS

Professional Engineer: Maine #10668

LEED Accredited Professional

MEMBERSHIPS

American Society of Civil Engineers



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

Provisions have been made at the site to allow for the safe circulation of vehicles and pedestrians within the site. Please see the vehicle tracking plan for additional information.

Environmental and Landscape Features**Preservation of significant Natural Features (14-526 (b) 1)**

The proposed project involves the re-development of a previously developed urban lot. There are no existing significant natural features on the site. The site has been designed to complement the surrounding area and includes a landscaping plan. Please see the site plan and landscape plan for additional information.

Landscaping and Landscape Preservation (14-526 (b) 2 a)

- (i) The proposed project involves little tree removal. The existing conditions at the site are of a previously developed, urban parcel. The proposed design has incorporated landscaping in the site design. Please see the landscape plan.
- (ii) No trees with a 10-inch DBH or greater within the setback are to be impacted. Please see the site plan.
- (iii) Vegetation will be protected during construction in accordance with tree preservation standards listed in Section 4 of the Technical Manual.
- (iv) No waivers for vegetation are sought.
- (v) Not Applicable. The proposed project site is not located in the Shoreland Zone.

Site Landscaping (14-526 (b) 2 b)

The proposed project has been designed in accordance to the requirements of the City Ordinance.

An additional street tree (red maple) is proposed in a raised granite tree well on York Street. The existing street trees along Commercial are to remain and no trees are proposed on High Street.

Please see the plan set for detailed information on the courtyard plantings.

Parking Lot Landscaping (14-526 (b) 2 b ii)

There are no landscaped islands proposed for the development as parking will predominately be provided by a proposed parking garage structure located within the development. There will also be some parking located along Commercial Street. There will be street trees included as part of the landscape plan.

Please see the Site Plan and Landscape Plan for more detailed information.

Street Trees (14-526 (b) 2 b iii)

The proposed planting plan was designed in accordance to the specifications of Section 4 of the City's Technical Manual. Please see the Site Plan and landscape plan for more detailed information on proposed street tree locations.

Environmental and Stormwater

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

The proposed site has been designed in accordance to City and Chapter 500 requirements to minimize the amount of stormwater leaving the site.

Please see this exhibit for the Stormwater Management Plan.

Consistency with City Master Plans (14-526 (c) 1)

The proposed development is consistent with the City Master Plan. The development will not result in any unreasonable burdens to the City's resources, nor the unnecessary decrease of undeveloped parcels. The proposed use is consistent with the surrounding area.

The development of Lot 3 is part of the larger planned development of 383 Commercial Street which underwent Master Plan review and approval in 2018.

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

- a. Crime Prevention - The proposed facility has been designed with planting that will complement the site but will not provide concealment for illegal activities. The parking area is secure and well lit.
- The site has been designed to allow for proper surveillance of walkways, entrances, and parking areas.
 - Lighting at the site meets the City's technical standards as detailed in Section 12 of the City Technical Manual.

Please see the plan set for additional information.

- b. There is adequate access to the site for emergency vehicles. Please see the plan set.
- c. The site has been designed to be consistent with the standards of the City of Portland Technical Manual. Please see the plan set.

Fire Checklist will be submitted under separate cover.

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

- a. The development will not overburden sanitary sewers and storm drains, water lines, or other public infrastructure and utilities.
- b. Electrical service has been designed to be underground.
- c. All proposed sanitary sewers, storm drains, water lines or other utilities meet the provisions of the City Technical manual.
- d. The proposed development will connect to an existing sewer line.
- e. All proposed sanitary sewer and stormwater utilities are designed to City standards.
- f. The proposed development will have a solid waste removal plan. Please see the Site Plan for the dumpster location.

Massing, Ventilations and Wind Impact (14-526 (d) 1)

- a. The bulk and height of the proposed building will not result in health or safety problems from a reduction in ventilation to abutting structures. Please see the site plan.
- b. The bulk, location, and height of the proposed building will not minimize the value or utility of the neighboring buildings. The proposed development is in keeping with the neighborhood. Please see the plan set.
- c. The HVAC venting mechanisms have not been sited on the plan as the appropriately sized system has not yet been determined. The building will be constructed with the all venting systems directed away from public spaces and residential properties.

Shadows (14-526 (d) 2)

Not applicable. There are no open public spaces surrounding the property.

Snow and Ice Loading (14-526 (d) 3)

The building will be designed to prevent significant amounts of accumulated snow and ice from loading or falling onto adjacent properties or public ways.

View Corridor (14-526 (d)4)

Protection of designated view corridors (Portland Design Manual, Appendix 1)

Not applicable. The site is not located in a view corridor as identified in the City of Portland Downtown Vision View Corridor Protection Plan, Portland Design Manual, Appendix 1.

Historic Resources (14-526 (d) 5)

The proposed development will not impact nor is it in close proximity of any historic resources. Other than historic cobbles within Maple Street, no historic resources were discussed during the Master Plan process.

Exterior Lighting (14-526 (d) 6)

Included with this section please find the lighting product cutsheets. Please see the plan set for the lighting plan.

RSW Series

RSW™ LED Street Luminaire – Medium

Product Description

The RSW Series, utilizing WaveMax® Technology, will transform the way utilities and municipalities light their residential streets, interchanges, and expressways. With the first viable LED streetlight at warm CCT, the RSW Series delivers up to 121 LPW, enhanced visual comfort with reduced glare and high color contrast leading to improved overall illumination using less energy. The RSW Series provides warm, inviting dark sky friendly lighting that makes good economic sense.

Applications: Residential roads, collector roads, parking lots, and general area spaces

Performance Summary

Utilizes WaveMax® Technology

Assembled in the U.S.A. of U.S. and imported parts

Initial Delivered Lumens: Up to 9,325

Efficacy: Up to 121 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5000K); 80 CRI (2700K, 3000K, 4000K & 5000K)

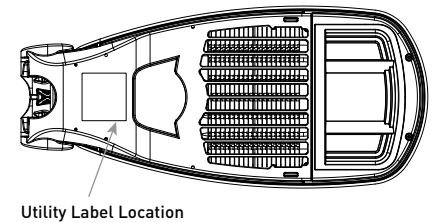
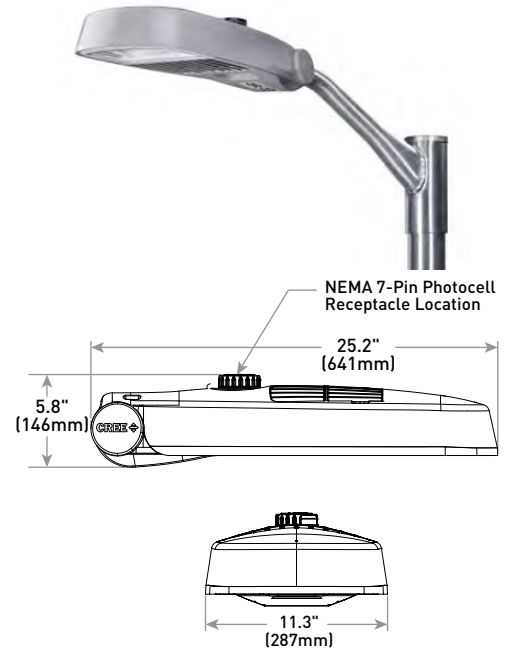
CCT: 2700K, 3000K, 4000K, 5000K

Limited Warranty*: 10 years

* See <http://creelighting.com/warranty> for warranty terms

Accessories

Field-Installed	
Backlight Control Shield RSW-BLSM - Provides 1 mounting height cutoff - 0.5" (13mm) 301 stainless steel construction - Refer to initial delivered lumen tables for lumen output	Cul-De-Sac Shield RSW-CLSM - Provides backlight and sidelight control - 0.5" (13mm) 301 stainless steel construction - Lumen multiplier: 0.77
Bird Guard RSW-BRDGRDM - 5052-H32 aluminum construction	Front Light Shield RSW-FLSM - Provides front light control - 0.5" (13mm) 301 stainless steel construction - Lumen multiplier: 0.87
Shorting Cap XA-XSLSHRT	



Weight*
15.6 lbs. (7.1kg)

* RSW-BLSM Accessory: add 0.4 lbs. (0.2kg); RSW-CLSM or RSW-FLSM Accessories: add 0.6 lbs. (0.3kg)

Ordering Information

Example: RSWM-A-HT-2ME-9L-27K8-UL-GY-N

RSWM	A	HT		9L		UL		N	
Product	Version	Mounting	Optic	Lumen Package**	CCT/CRI	Voltage	Color Options	Utility Label/Receptacle	Options
RSWM Medium	A	HT Horizontal Tenon	2LG* Type II Long 2ME* Type II Medium 3ME* Type III Medium	9L 9,000 Lumens	27K8 2700K, 80 CRI 30K7 3000K, 70 CRI 30K8 3000K, 80 CRI 40K7 4000K, 70CRI 40K8 4000K, 80 CRI 50K7 5000K, 70CRI 50K8 5000K, 80CRI	UL Universal 120-277V	BK Black BZ Bronze GY Grey	N Utility Label and NEMA® 7-Pin Photocell Receptacle - External wattage label per ANSI C136.15 - 7-pin receptacle per ANSI C136.41 - Factory connected 0-10V dim leads - Requires photocell or shorting cap by others	PP Pallet Packaging - Multiple luminaires (up to 22 maximum per pallet) Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1 Field Adjustable Lumen Output - Must select Q8, Q7, Q6, Q5, Q4, Q3, Q2, or Q1 - Offers full range lumen adjustability - Includes wattage label for setting selected - Refer to pages 7 & 8 for power and lumen values - Luminaire may also be dimmed through 7-Pin receptacle with use of dimming control by others - Refer to dimming spec sheet for dimming multipliers SS Stainless Steel Bolts X7/X6/X5/X4/X3/X2/X1 Locked Lumen Output - Must select X7, X6, X5, X4, X3, X2, or X1 - Lumen output is permanently locked to the setting selected - Includes wattage label for setting selected - Refer to pages 7 & 8 for power and lumen values - Dimming is only available through 7-Pin receptacle with use of dimming control by others - Refer to dimming spec sheet for dimming multipliers

* Available with Backlight Shield when ordered with field-installed accessory (see table above)

** Lumen Package codes identify approximate light output only. Actual lumen output levels vary depending on CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values



US: creelighting.com (800) 236-6800

Canada: creelighting-canada.com (800) 473-1234

RSW™ LED Street Luminaire – Medium

Product Specifications

WAVEMAX® TECHNOLOGY

Featuring up to 90% optical efficiency and precise control, WaveMax® Technology provides unmatched comfort and decreased LED source luminance by smoothly spreading brightness over a broader area. When integrated with luminous surfaces made of a polymer medium engineered with DiamondFacet™ optical elements, extremely high efficacy luminaires are the result – ultimately creating more visually comfortable and appealing environments while exceeding illumination performance.

CONSTRUCTION & MATERIALS

- Housing constructed of high strength, lightweight bulk molding compound for long weathering and durability
- UV stabilized polymeric door with handle pocket for tool-less entry
- Straight in wiring to terminal block for power input (#6-#14 AWG)
- Optic box and driver enclosure inside optic box meet IP66 requirements
- Mounts on 1.25" [32mm] IP, 1.66" [42mm] O.D. or 2" [51mm] IP, 2.375" [60mm] O.D. horizontal tenon (minimum 8" [203mm] in length) and is adjustable +/- 5° in 2.5° increments to allow for fixture leveling (two axis T-level included)
- Luminaire secures with two grade 5 steel mounting bolts w/clear zinc clad finish standard; optional 316 stainless steel mounting bolts available with SS option
- Comes standard with Utility Label per ANSI C136.15 and 7-pin NEMA® Photocell Receptacle per ANSI C136.41
- Weight:** 15.6 lbs. (7.1kg); add 0.4 lbs. (0.2kg) for RSW-BLSM accessory; add 0.6 lbs. (0.3kg) for RSW-CLSM or RSW-FLSM accessories

ELECTRICAL SYSTEM

- Input Voltage:** 120-277V, 50/60Hz, Class 1 drivers
- Power Factor:** > 0.9 at full load
- Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- 10V Source Current:** 0.15mA
- Operating Temperature Range:** -40°C - +50°C (-40°F - + 122°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- Meets CALTrans 611 Vibration testing
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Meets Buy American requirements within ARRA
- RoHS compliance. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 27K or 30K CCT. Please refer to <https://www.darksky.org/our-work/lighting/lighting-for-industry/fsa/fsa-products/> for most current information
- DLC and DLC Premium qualified versions available. Please refer to <https://www.designlights.org/search/> for most current information
- CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Electrical Data*								
Lumen Package	CCT/CRI	System Watts 120-277V	Utility Label Wattage	Efficacy	Total Current (A)			
					120V	208V	240V	277V
9L	27K8	83	80	98	0.74	0.42	0.36	0.32
	30K7	83	80	112	0.74	0.42	0.36	0.32
	30K8	83	80	105	0.74	0.42	0.36	0.32
	40K7	78	80	120	0.70	0.40	0.34	0.30
	40K8	83	80	111	0.74	0.42	0.36	0.32
	50K7	77	80	121	0.69	0.39	0.34	0.29
	50K8	80	80	117	0.72	0.41	0.35	0.31

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V +/- 10%

RSW Series (RSWM) Ambient Adjusted Lumen Maintenance ¹					
Ambient	Initial LMF	25K hr Reported ² LMF	50K hr Reported ² LMF	75K hr Estimated ³ LMF	100K hr Estimated ³ LMF
5°C (41°F)	1.04	1.04	1.04	1.04	1.04
10°C (50°F)	1.03	1.03	1.03	1.03	1.03
15°C (59°F)	1.02	1.02	1.02	1.02	1.02
20°C (68°F)	1.01	1.01	1.01	1.01	1.01
25°C (77°F)	1.00	1.00	1.00	1.00	1.00

¹ Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the [Temperature Zone Reference Document](#) for outdoor average nighttime ambient conditions.

² In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED

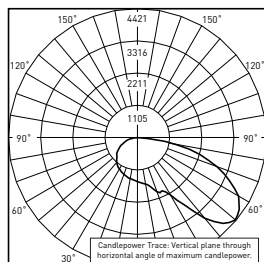
³ Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED

RSW™ LED Street Luminaire – Medium

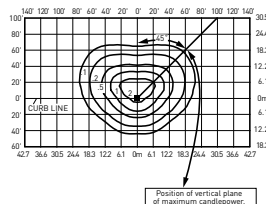
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards. To obtain an IES file specific to your project consult:
<https://creelighting.com/products/outdoor/street-and-roadway/rsw-series>

3ME



UL Verification Services Test Report #:
 12311460.02
 RSWM-A-**-3ME-9L-30K7-UL-**-N
 Initial Delivered Lumens: 9,302

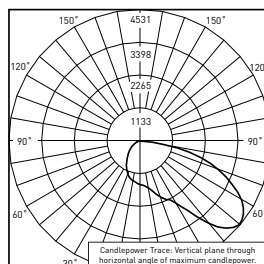


RSWM-A-**-3ME-9L-30K7-UL-**-N
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 9,325
 Initial FC at grade

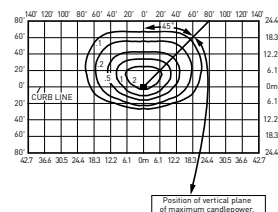
Type III Medium Distribution									
Lumen Package	CRI	2700K		3000K		4000K		5000K	
		Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
9L	70	N/A	N/A	9,325	B2 U0 G2	9,325	B2 U0 G2	9,325	B2 U0 G2
	80	8,175	B2 U0 G2	8,700	B2 U0 G2	9,200	B2 U0 G2	9,325	B2 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt



UL Verification Services Test Report #
 11705478.03
 RSWM-A-**-3ME-9L-30K7-UL-**-N
 w/RSW-BLSM
 Initial Delivered Lumens: 8,532



RSWM-A-**-3ME-9L-30K7-UL-**-N
 w/RSW-BLSM
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 8,550
 Initial FC at grade

Type III Medium w/BLS Distribution									
Lumen Package	CRI	2700K		3000K		4000K		5000K	
		Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
9L	70	N/A	N/A	8,550	B2 U1 G2	8,550	B2 U1 G2	8,550	B2 U1 G2
	80	7,500	B1 U1 G2	7,975	B1 U1 G2	8,450	B2 U1 G2	8,550	B2 U1 G2

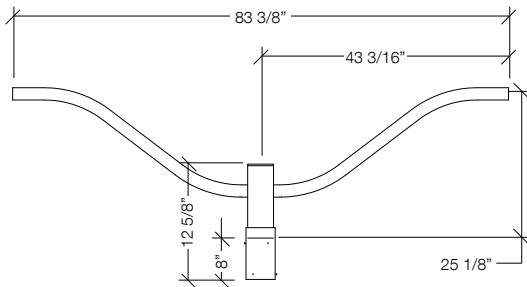
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

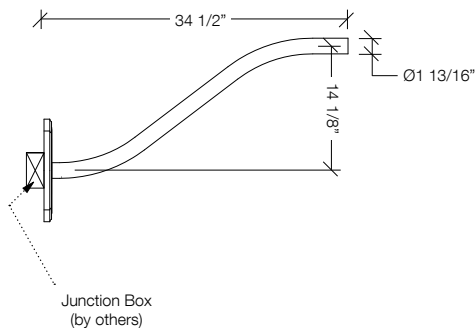
Type:
Project Name:
Notes:

Sample AA-10 S 4 B P BBT
Ordering / / / / /
A B C D E F

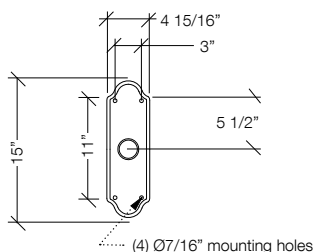
DETAILS



WALL BRACKET DETAILS



WALL PLATE DETAILS



Due to our continued efforts to improve our products, product specifications are subject to change without notice.

A. MODEL

AA-10 Cobra

B. POST SHAFT PROFILE

W wall mount

S smooth

F fluted

C. POST SHAFT DIAMETER

4 4"

5 5"

6 6"

OTHER _____

D. ARRANGEMENT

_____ see arrangement table below

E. LUMINAIRE MOUNTING

P pendant

F. COLOR

BBT basic black textured

BMT black matte textured

WHT white textured

MBT metallic bronze textured

BZT bronze textured

DBT dark bronze textured

GYS gray smooth

DPS dark platinum smooth

GNT green textured

MST metallic silver textured

MTT metallic titanium textured

OWI old world iron

RAL _____

Construction: All cast aluminum parts shall be low copper alloy A356. All extruded aluminum parts shall be alloy 6061-T6, 6063-T5 or equal.

EPA (effective projected area): EPA is de-fined as (projected surface area X drag factor) and measured in ft². Allowable post, luminaire arm, luminaire and accessory EPAs are derived from the most current published AASHTO (American Association of State Highway and Transportation Officials) standard, currently AASHTO 2001 (50yr design life). Customer assumes all responsibility for selecting the appropriate post for installation (consult factory for assistance). Luminaire arm, luminaire and accessory EPA must be equal to or less than allowable EPA of post. Consult a professional engineer for compliance with local codes and standards.

Fasteners: All fasteners shall be Corrosion Resistant. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, available at additional cost).

Finish: Finish shall be a Beacote V polyester powder-coat electro-statically applied and thermocured. Beacote V finish shall consist 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 shall meet the AAMA 605.2 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-pound.

Limited Warranty: Beacon Products warrants its products, to the original purchaser, against defects in materials and workmanship for proper usage for a period of 5 years after date of production, when properly installed, maintained and appropriately specified. See Warranty Information on www.beaconproducts.com for complete details and exclusions.

		arrangement (EPA index ft ² / weight (lbs))									
		A	B	C	D	E	F	G	H	I	J
shaft Ø		A	B	C	D	E	F	G	H	I	J
wall	weight	7	-	-	-	-	-	-	-	-	-
Ø4"	EPA	-	1.04	1.63	-	1.39	1.39	-	1.63	1.63	-
	weight	-	10	15	-	15	20	-	20	24	-
Ø5"	EPA	-	1.15	1.74	-	1.50	1.50	-	1.74	1.74	-
	weight	-	12	17	-	17	21	-	21	26	-
Ø6"	EPA	-	1.26	1.85	-	1.61	1.61	-	1.85	1.85	-
	weight	-	17	18	-	18	23	-	23	27	-

RSA-B-SHO-S SERIES POLES

ROUND STRAIGHT ALUMINUM

Cat.#

Job

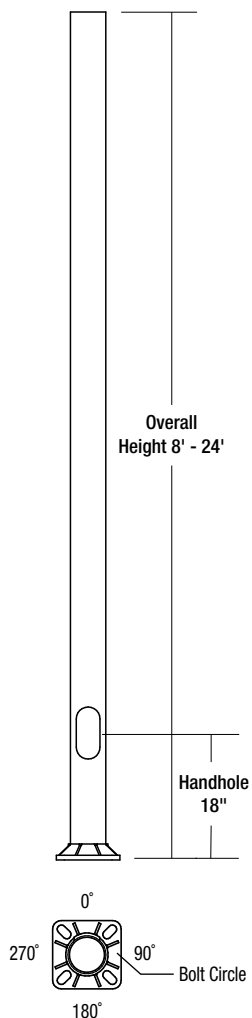
Type

Approvals



BEACON
design . performance . technology

TYPE S1



APPLICATIONS

- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

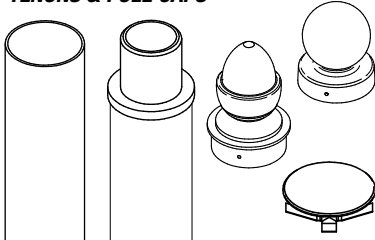
CONSTRUCTION

- SHAFT:** One-piece straight aluminum with round cross section; Extruded shafts of 6061-T6 aluminum in 1/8", 3/16", or 1/4" thickness. Base plate of 356 cast aluminum.
- POLE CAP OR FINALS:** Cap or decorative finials available for side mounted luminaires. Open top or tenons provided for post top mounted luminaires.
- HAND HOLE:** Aluminum hand hole frame; Mounting provisions for grounding lug located behind cover
- ANCHOR BOLTS:** Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling

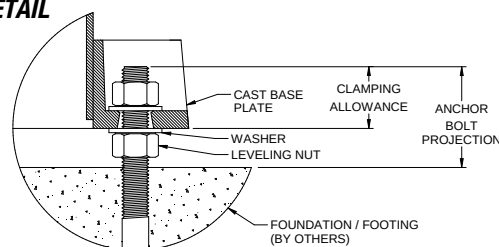
FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Powder paint finish coat available in twelve standard colors; Custom colors available; RAL number preferable.

TENONS & POLE CAPS



BASE DETAIL



ORDERING EXAMPLE:

RSA-B-SHO-S		16	40	A/B/C	CAP	2L	B3	DBT	VM2
SERIES		HEIGHT	SHAFT	THICKNESS	MOUNTING		FINISH		OPTIONS
RSA-B-SHO-S Round Straight Aluminum Pole Beacon Smooth		Reference page 2 Ordering matrix	Reference page 2 Ordering matrix	Reference page 2 Ordering matrix	1 Single arm mount 2 Two fixtures at 180° 2L Two fixtures at 90° 3T Three fixtures at 90° 3Y Three at 120° 4 Four fixtures at 90° OT ⁴ Open top (includes pole cap) TN3 ⁴ Tenon 3 x 3 ² TN4 ⁴ Tenon 3 x 4 ² TN5 ⁴ Tenon 4 x 5 ³ TN8 ⁴ Tenon 4 x 8 ³ ARC ⁴ Acorn Finial BAL ⁴ Ball Finial CAP ⁴ Flat Cap		BL Black Textured DB Dark Bronze Textured GT Graphite Textured GYS Light Gray Smooth PS Platinum Silver Smooth WH White Textured BBT Basic Black Textured BZT Bronze Textured CC Custom Color		GFI ¹ 20 Amp GFCI Receptacle and Cover EHH ¹ Extra Handhole C05 ¹ .5" Coupling C07 ¹ .75" Coupling C20 ¹ 2" Coupling VM2 2nd mode vibration damper LAB Less Anchor Bolts
MOUNTING ORIENTATION									
Denotes handhole location									
ACCESSORIES - Order Separately									
Catalog Number		Description							
VM2SXX		2nd mode vibration damper							
DRILL PATTERN									
B1		Cruzer, "AM" arm							
B3		2 bolt (2-½" spacing), Viper "A" arm							
S2		2 bolt (3-½" spacing), Viper "AD" arm							

- Specify option location using logic found on page 2 (**Option Orientation**)
- TN3 and TN4 not available on 3" diameter poles
- TN5 and TN8 not available on 4" diameter poles
- Specify pole top



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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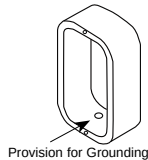
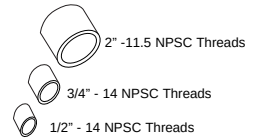
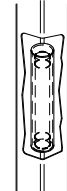
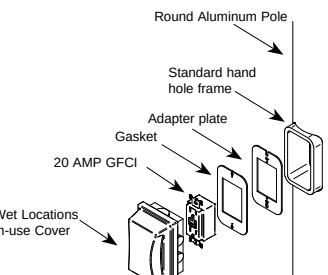


HUBBELL
Lighting

ORDERING INFORMATION Cont.

Catalog Number	Height		Nominal Shaft Dimensions	Wall Thickness	Bolt Circle (suggested)	Bolt Square	Base Plate Size	Anchor Bolt Size	Bolt Projection	Pole weight (lbs)
	Feet	Meters								
RSA-B-SHO-S-08-30-A	8	2.4	3"	0.125	6"		7.25" TRIANGULAR	5/8 x 24 x 3	2-3/4"	15
RSA-B-SHO-S-10-30-A	10	3	3"	0.125	6"		7.25" TRIANGULAR	5/8 x 24 x 3	2-3/4"	18
RSA-B-SHO-S-12-30-A	12	3.7	3"	0.125	6"		7.25" TRIANGULAR	5/8 x 24 x 3	2-3/4"	21
RSA-B-SHO-S-14-30-A	14	4.3	3"	0.125	6"		7.25" TRIANGULAR	5/8 x 24 x 3	2-3/4"	23
RSA-B-SHO-S-12-30-C	12	3.7	3"	0.25	6"		7.25" TRIANGULAR	5/8 x 24 x 3	2-3/4"	35
RSA-B-SHO-S-14-30-C	14	4.3	3"	0.25	6"		7.25" TRIANGULAR	5/8 x 24 x 3	2-3/4"	40
RSA-B-SHO-S-16-30-C	16	4.9	3"	0.25	6"		7.25" TRIANGULAR	5/8 x 24 x 3	2-3/4"	45
RSA-B-SHO-S-18-30-C	18	5.5	3"	0.25	6"		7.25" TRIANGULAR	5/8 x 24 x 3	2-3/4"	50
RSA-B-SHO-S-20-30-C	20	6.1	3"	0.25	6"		7.25" TRIANGULAR	5/8 x 24 x 3	2-3/4"	55
RSA-B-SHO-S-08-40-A	8	2.4	4"	0.125	7"	4.95"	8.5" Square	5/8 x 24 x 3	3"	20
RSA-B-SHO-S-10-40-A	10	3	4"	0.125	7"	4.95"	8.5" Square	5/8 x 24 x 3	3"	24
RSA-B-SHO-S-12-40-A	12	3.7	4"	0.125	7"	4.95"	8.5" Square	5/8 x 24 x 3	3"	27
RSA-B-SHO-S-14-40-A	14	4.3	4"	0.125	7"	4.95"	8.5" Square	5/8 x 24 x 3	3"	31
RSA-B-SHO-S-12-40-B	12	3.7	4"	0.188	7"	4.95"	8.5" Square	5/8 x 24 x 3	3"	37
RSA-B-SHO-S-14-40-B	14	4.3	4"	0.188	7"	4.95"	8.5" Square	5/8 x 24 x 3	3"	43
RSA-B-SHO-S-16-40-B	16	4.9	4"	0.188	7"	4.95"	8.5" Square	5/8 x 24 x 3	3"	48
RSA-B-SHO-S-18-40-B	18	5.5	4"	0.188	7"	4.95"	8.5" Square	5/8 x 24 x 3	3"	53
RSA-B-SHO-S-20-40-B	20	6.1	4"	0.189	7"	4.95"	8.5" Square	5/8 x 24 x 3	3"	59
RSA-B-SHO-S-16-40-C	16	4.9	4"	0.25	7"	4.95"	8.5" Square	5/8 x 24 x 3	3"	61
RSA-B-SHO-S-18-40-C	18	5.5	4"	0.25	7"	4.95"	8.5" Square	5/8 x 24 x 3	3"	68
RSA-B-SHO-S-20-40-C	20	6.1	4"	0.25	7"	4.95"	8.5" Square	5/8 x 24 x 3	3"	75
RSA-B-SHO-S-22-40-C	22	6.7	4"	0.25	7"	4.95"	8.5" Square	5/8 x 24 x 3	3"	82
RSA-B-SHO-S-12-50-B	12	3.7	5"	0.188	8.5"	6.0"	9.0" Square	3/4 x 30 x 3	3-1/4"	46
RSA-B-SHO-S-14-50-B	14	4.3	5"	0.188	8.5"	6.0"	9.0" Square	3/4 x 30 x 3	3-1/4"	52
RSA-B-SHO-S-16-50-B	16	4.9	5"	0.188	8.5"	6.0"	9.0" Square	3/4 x 30 x 3	3-1/4"	59
RSA-B-SHO-S-18-50-B	18	5.5	5"	0.188	8.5"	6.0"	9.0" Square	3/4 x 30 x 3	3-1/4"	66
RSA-B-SHO-S-20-50-B	20	6.1	5"	0.188	8.5"	6.0"	9.0" Square	3/4 x 30 x 3	3-1/4"	73
RSA-B-SHO-S-18-50-C	18	5.5	5"	0.25	8.5"	6.0"	9.0" Square	3/4 x 30 x 3	3-1/4"	85
RSA-B-SHO-S-20-50-C	20	6.1	5"	0.25	8.5"	6.0"	9.0" Square	3/4 x 30 x 3	3-1/4"	93
RSA-B-SHO-S-22-50-C	22	6.7	5"	0.25	8.5"	6.0"	9.0" Square	3/4 x 30 x 3	3-1/4"	102
RSA-B-SHO-S-24-50-C	24	7.3	5"	0.25	8.5"	6.0"	9.0" Square	3/4 x 30 x 3	3-1/4"	111
RSA-B-SHO-S-25-50-C	25	7.6	5"	0.25	8.5"	6.0"	9.0" Square	3/4 x 30 x 3	3-1/4"	116
RSA-B-SHO-S-14-60-A	14	4.3	6"	0.125	9.5"	6.72"	10.25" Square	3/4 x 30 x 3	3-1/2"	44
RSA-B-SHO-S-16-60-A	16	4.9	6"	0.125	9.5"	6.72"	10.25" Square	3/4 x 30 x 3	3-1/2"	49
RSA-B-SHO-S-18-60-A	18	5.5	6"	0.125	9.5"	6.72"	10.25" Square	3/4 x 30 x 3	3-1/2"	55
RSA-B-SHO-S-20-60-A	20	6.1	6"	0.125	9.5"	6.72"	10.25" Square	3/4 x 30 x 3	3-1/2"	60
RSA-B-SHO-S-22-60-A	22	6.7	6"	0.125	9.5"	6.72"	10.25" Square	3/4 x 30 x 3	3-1/2"	65
RSA-B-SHO-S-24-60-A	24	7.3	6"	0.125	9.5"	6.72"	10.25" Square	3/4 x 30 x 3	3-1/2"	71
RSA-B-SHO-S-25-60-A	25	7.6	6"	0.125	9.5"	6.72"	10.25" Square	3/4 x 30 x 3	3-1/2"	74
RSA-B-SHO-S-18-60-C	18	5.5	6"	0.25	9.5"	6.72"	10.25" Square	3/4 x 30 x 3	3-1/2"	101
RSA-B-SHO-S-20-60-C	20	6.1	6"	0.25	9.5"	6.72"	10.25" Square	3/4 x 30 x 3	3-1/2"	112
RSA-B-SHO-S-22-60-C	22	6.7	6"	0.25	9.5"	6.72"	10.25" Square	3/4 x 30 x 3	3-1/2"	123
RSA-B-SHO-S-24-60-C	24	7.3	6"	0.25	9.5"	6.72"	10.25" Square	3/4 x 30 x 3	3-1/2"	133
RSA-B-SHO-S-25-60-C	25	7.6	6"	0.25	9.5"	6.72"	10.25" Square	3/4 x 30 x 3	3-1/2"	138
RSA-B-SHO-S-30-60-C	30	9.1	6"	0.25	9.5"	6.72"	10.25" Square	3/4 x 30 x 3	3-1/2"	163

NOTE Factory supplied template must be used when setting anchor bolts. Hubbell Lighting will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.

EHH - EXTRA HANDHOLE  Provision for Grounding	C05 - C07 - C20 - COUPLING  2" - 11.5 NPS Threads 3/4" - 14 NPS Threads 1/2" - 14 NPS Threads	VM2 - VIBRATION DAMPER 2ND MODE  Factory installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.	GFI - 20 AMP GFCI RECEPTACLE & COVER  Round Aluminum Pole Standard hand hole frame Adapter plate Gasket 20 AMP GFCI Wet Locations In-use Cover
OPTION ORIENTATION Follow the logic below when ordering location specific options. For each option, include its orientation (in degrees) and its height (in feet). Example: Option C07 should be ordered as: RSA-B-SHO-S16-40B-TN3-DBT-C05-0-15 (.5" coupling on the handhole/arm side of pole, 15 feet up from the pole base) 1" spacing required between option. Consult factory for other configurations.		VM2SXX - VIBRATION DAMPER 2ND MODE Field installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration. VM2S08 - 8' VM2S12 - 12' VM2S16 - 16' VM2S20 - 20' VM2S24 - 24'	

For more information about pole vibration and vibration dampers, please consult http://cdn.spauldinglighting.com/content/products/literature/literature_files/Pole_Wind_Induced_Flyer_HL010022.pdf
Due to our continued efforts to improve our products, product specifications are subject to change without notice.



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Cimarron LED

HIGH PERFORMANCE LED AREA/SITE LIGHTER

FEATURES

- A unique vertically-finned die-cast housing that optimizes heat transfer to keep the fixture cool and maximize component life
- Mounting versatility with choice of traditional straight, architectural upswept die-cast aluminum or mast arm fitter designs
- Optional vandal resistant guard provides additional protection when necessary
- 20kA surge protection with an end of life LED indicator
- Maintenance free housing designed to IP65 and 60,000 hours life



RELATED PRODUCTS

- | | | |
|-------------------------------|----------------------------|----------------------------|
| Cimarron CL1S | RAR1 Ratio | RAR2 Ratio |
| Arceos™ ARA3 | Airo | Viper |



*3000K and warmer CCTs only

SPECIFICATIONS

HOUSING

- Stylish vertically finned die-cast solid top housing for maximum heat dissipation; Stops collection of unsightly debris from gathering on top of the housing
- Rugged lower die-cast aluminum heat sink accelerates thermal management and optimizes PCB and optical performance
- One piece die cut silicone gasket ensures weather proof seal around each individual LED for IP65 rating
- Separate optical and electrical compartment for optimum component operation
- Backlight Control (BC) option available for 85% spill light reduction, doesn't change fixture appearance or EPA, recommended for Type III and Type IV distributions
- Stamped bezel provides mechanical compression to seal the optical assembly
- Suitable for applications requiring 3G testing prescribed by ANSI C136.31
- TGIC thermoset polyester powder paint finish applied at nominal 2.5 mil thickness

OPTICS

- Choice of 30, 60 or 90 high brightness LED with individual acrylic lenses specially designed for IES Type II, III, IV and V distributions

OPTICS (CONTINUED)

- Auto optics designed for front row 1A and interior rows 2A
- CCT: 3000K (70 CRI), 4000K (70 CRI), 5000K (70 CRI), and turtle friendly Amber LED options

INSTALLATION

- Two die-cast aluminum arm designs: The decorative arm offers a sleek upswept look while the straight arm follows the housing's contoured lines for continuity of style
- Fixture ships with arm installed for ease of installation and mounts to #2 drill pattern
- Wall bracket, mast arm fitter and pole accessories are also available allowing easy mounting for virtually any application

ELECTRICAL

- Drivers have greater than 90% power factor and less than 10% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Optional continuous dimming to 10% or dual circuitry available
- Universal input voltage 120-277 VAC, 50/60 Hz
- Surge protection – 20KA; Turns fixture off at end of life; Has LED for end of life indication

OPTIONS/CONTROLS

- Drivers are 0-10V dimming standard. Photocell, occupancy sensor and wireless controls available for complete on/off and dimming control

CERTIFICATIONS

- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Listed to UL1598 and CSA C22.2#250.024 for wet locations
- IDA approved
- IP65

WARRANTY

- 5 year limited warranty
- See [HLI Standard Warranty](#) for additional information

KEY DATA	
Lumen Range	6,500–30,000
Wattage Range	70–350w
Efficacy Range (LPW)	73–122
Fixture Projected Life (Hours)	60K
Weights lbs. (kg)	45 (20.4)





Cimarron LED

HIGH PERFORMANCE LED AREA/SITE LIGHTER

ORDERING GUIDE

Example: CL1-A-90LU-5K-3-DB-RPA3

CATALOG #

ORDERING INFORMATION

CL1						
Series	Mounting	No. of LEDs	Voltage	CCT	Distribution	Drive Current
CL1 Cimarron LED	A Arm mount AD Decorative arm mount MAF Mast arm fitter	90L 90 High brightness LEDs 60L 60 High brightness LEDs 30L 90 High brightness LEDs	U¹ 120-277, 50/60 Hz 1 120 2 208 3 240 4 277 5 480, 60 Hz F 347, 60 Hz E⁴ 220, 50 Hz	3K 3000K 4K 4000K 5K 5000K AM⁴ Amber, 590 nm available	2 Type II 3 Type III 4 Type IV 5M V Medium 5S V Short 5W V Wide L Optic Rotation Left R Optic Rotation Right	Blank 700mA 035 350mA Amber CCT only 105 1050mA

ORDERING INFORMATION CONTINUED

Color	Options
DB Dark Bronze	BC³ Backlight control
BL Black	CD Continuous dimming
WH White	WB⁶ Wall Bracket
BR Gray	RPA3⁶ 3" Round pole adapter
PS Platinum Silver	RPA4⁶ 4" Round pole adapter
CC Custom Color	RPA5^{6,12} 5" Round pole adapter
	RPA6^{6,12} 6" Round pole adapter
	F(X)² Fusing (replace X with voltage: 1-120, 2-208, 3-240, 4-277, 5-480, F-347)
	VG Vandal guard

CONTROLS

Control Options	
Standalone	
7PR	Photocell receptacle
SCO_F	On/Off control ^{6,7,9}
SCL_F	Add-on occupancy sensor for use with ext. wireless control device connected thru 7PR receptacle ^{6,7,9}
SCP_F	Programmable Occupancy Sensor w/ daylight control ^{9,13,14}
SWP	SiteSync Pre-Commission ^{5,6,7,9}
SWPM	SiteSync Pre-Commssion w/ Sensor ^{9,10,11}
Networked – Wireless	
WIR	wiSCAPE Fixture Module, in-fixture relay for wireless lighting control ⁸
WIRSC	wiSCAPE Fixture Module, in-fixture relay for wireless lighting control and motion/occupancy control ^{6,8}

Notes:

- Fuse option not available with universal voltage
- Select F3 fusing option for 220V
- Recommended for Type III and IV distributions only
- Available in 350mA drive current only Type IV, 5M
- 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, must order minimum of one SCP-REMOTE control to program dimming settings (see accessories)
- Not available with AD arm
- Not available with WIR or WIRSC
- Not available with SCO, SCL, or SCP
- Specify mounting height; 8 = 8' or less, 40 = 9' to 40'
- Specify group and zone. See SiteSync product page www.hubbelllighting.com/controls/SiteSync for more details
- Not available in 90L-700mA or 1050mA versions
- Not available with AD decorative arm
- Not available with other wireless control or sensor options
- Order at least one SCP-REMOTE per project location to program and control the occupancy sensor





Cimarron LED

HIGH PERFORMANCE LED AREA/SITE LIGHTER

ENERGY SAVING DATA

# of LEDs	Drive Current	System Watts		Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
		120-277V	347-480V		Lumens	LPW ¹	B	U	G	Lumens	LPW ¹	B	U	G	Lumens	LPW ¹	B	U	G
30	700mA	70W	80W	1A	8244	118	1	0	1	8162	117	1	0	1	6775	97	1	0	1
				2A	8202	117	1	0	1	8121	116	1	0	1	6740	96	1	0	1
				2	7715	110	2	0	3	7639	109	2	0	2	6340	91	2	0	2
				3	7712	110	2	0	2	7635	109	2	0	2	6371	91	1	0	2
				4	7803	111	1	0	2	7726	110	1	0	2	6412	92	1	0	2
				5S	8374	120	3	0	0	8291	118	3	0	0	6882	98	3	0	0
				5M	7940	113	3	0	1	7862	112	3	0	1	6525	93	3	0	1
				5W	7667	110	3	0	2	7591	108	3	0	2	6301	90	3	0	2
60	700mA	135W	150W	1A	16171	120	1	0	2	16011	119	1	0	1	13289	98	1	0	1
				2A	16088	119	1	0	2	15929	118	1	0	2	13221	98	1	0	2
				2	15134	112	3	0	3	14984	111	3	0	3	12437	92	3	0	3
				3	15127	112	3	0	3	14977	111	3	0	3	12498	93	2	0	3
				4	15306	113	2	0	3	15154	112	2	0	3	12578	93	2	0	3
				5S	16426	122	4	0	0	16263	120	4	0	0	13498	100	4	0	0
				5M	15575	115	4	0	2	15421	114	4	0	2	12799	95	3	0	2
				5W	15040	111	4	0	3	14891	110	4	0	3	12360	92	4	0	3
60	1050mA	220W	235W	1A	21139	96	2	0	2	20929	95	2	0	2	17371	79	2	0	2
				2A	21030	96	2	0	2	20822	95	2	0	2	17282	79	2	0	2
				2	19783	90	4	0	5	19587	89	3	0	5	16257	74	3	0	5
				3	19774	90	3	0	4	19578	89	3	0	4	16250	74	3	0	4
				4	20007	91	3	0	5	19809	90	3	0	5	16442	75	3	0	5
				5S	21471	98	5	0	0	21259	97	5	0	0	17645	80	5	0	0
				5M	20359	93	5	0	3	20158	92	5	0	3	16731	76	5	0	3
				5W	19660	89	5	0	4	19465	88	5	0	4	16156	73	5	0	4
90	700mA	205W	225W	1A	23781	116	2	0	2	23546	115	2	0	2	19543	95	2	0	2
				2A	23659	115	2	0	2	23425	114	2	0	2	19443	95	2	0	2
				2	22255	109	3	0	4	22035	107	3	0	4	18289	89	3	0	4
				3	22246	109	3	0	4	22026	107	3	0	4	18379	90	3	0	3
				4	22509	110	3	0	4	22286	109	3	0	4	18497	90	2	0	4
				5S	24156	118	5	0	0	23916	117	5	0	0	19851	97	4	0	0
				5M	22905	112	4	0	2	22678	111	4	0	2	18823	92	4	0	2
				5W	22117	108	5	0	3	21899	107	5	0	3	18176	89	5	0	3
90	1050mA	325W	350W	1A	31708	98	2	0	2	31394	97	2	0	2	26057	80	2	0	2
				2A	31545	97	2	0	2	31233	96	2	0	2	25923	80	2	0	2
				2	29674	91	4	0	5	29380	90	3	0	5	24385	75	3	0	4
				3	29661	91	3	0	4	29367	90	3	0	4	24505	75	3	0	4
				4	30011	92	3	0	5	29714	91	3	0	5	24663	76	3	0	4
				5S	32207	99	5	0	0	31888	98	5	0	0	26467	81	5	0	0
				5M	30539	94	5	0	3	30237	93	5	0	3	25097	77	4	0	2
				5W	29490	91	5	0	4	29198	90	5	0	4	24234	75	5	0	4





Cimarron LED

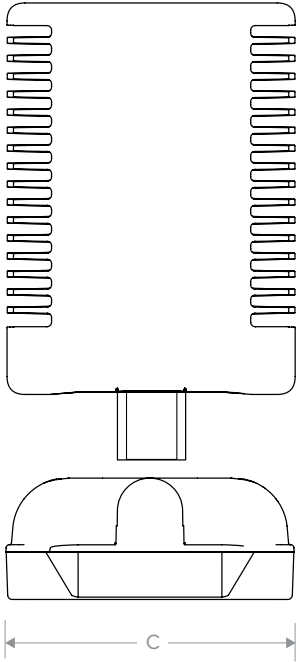
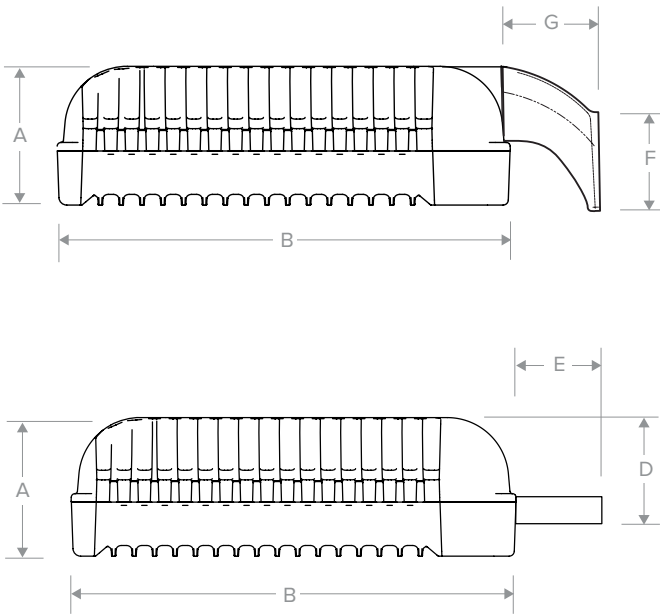
HIGH PERFORMANCE LED AREA/SITE LIGHTER

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ENERGY SAVING DATA

# of LEDs	Drive Current	System Watts	Amber			
		120-277V	Lumens	B	U	G
60	350mA	135W	2488	0	0	1
			2533	2	0	1
90	350mA	205W	3558	1	0	1
			3596	2	0	1

DIMENSIONS



A	B	C	D	E	F	G
6 3/4" (171mm)	21 3/4" (552mm)	16" (168mm)	6 5/8" (160mm)	6 5/16" (160mm)	5 5/8" (143mm)	6 1/8" (155mm)





Cimarron LED

HIGH PERFORMANCE LED AREA/SITE LIGHTER

FEATURES

- A unique vertically-finned die-cast housing that optimizes heat transfer to keep the fixture cool and maximize component life
- Mounting versatility with choice of traditional straight, architectural upswept die-cast aluminum or mast arm fitter designs
- Optional vandal resistant guard provides additional protection when necessary
- 20kA surge protection with an end of life LED indicator
- Maintenance free housing designed to IP65 and 60,000 hours life



RELATED PRODUCTS

θ [Cimarron CL1S](#)

θ [RAR1 Ratio](#)

θ [RAR2 Ratio](#)

θ [Arceos™ ARA3](#)

θ [Airo](#)

θ [Viper](#)



*3000K and warmer CCTs only

SPECIFICATIONS

HOUSING

- Stylish vertically finned die-cast solid top housing for maximum heat dissipation; Stops collection of unsightly debris from gathering on top of the housing
- Rugged lower die-cast aluminum heat sink accelerates thermal management and optimizes PCB and optical performance
- One piece die cut silicone gasket ensures weather proof seal around each individual LED for IP65 rating
- Separate optical and electrical compartment for optimum component operation
- Backlight Control (BC) option available for 85% spill light reduction, doesn't change fixture appearance or EPA, recommended for Type III and Type IV distributions
- Stamped bezel provides mechanical compression to seal the optical assembly
- Suitable for applications requiring 3G testing prescribed by ANSI C136.31
- TGIC thermoset polyester powder paint finish applied at nominal 2.5 mil thickness

OPTICS

- Choice of 30, 60 or 90 high brightness LED with individual acrylic lenses specially designed for IES Type II, III, IV and V distributions

OPTICS (CONTINUED)

- Auto optics designed for front row 1A and interior rows 2A
- CCT: 3000K (70 CRI), 4000K (70 CRI), 5000K (70 CRI), and turtle friendly Amber LED options

INSTALLATION

- Two die-cast aluminum arm designs: The decorative arm offers a sleek upswept look while the straight arm follows the housing's contoured lines for continuity of style
- Fixture ships with arm installed for ease of installation and mounts to #2 drill pattern
- Wall bracket, mast arm fitter and pole accessories are also available allowing easy mounting for virtually any application

ELECTRICAL

- Drivers have greater than 90% power factor and less than 10% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Optional continuous dimming to 10% or dual circuitry available
- Universal input voltage 120-277 VAC, 50/60 Hz
- Surge protection – 20KA; Turns fixture off at end of life; Has LED for end of life indication

OPTIONS/CONTROLS

- Drivers are 0-10V dimming standard. Photocell, occupancy sensor and wireless controls available for complete on/off and dimming control

CERTIFICATIONS

- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Listed to UL1598 and CSA C22.2#250.024 for wet locations
- IDA approved
- IP65

WARRANTY

- 5 year limited warranty
- See [HLI Standard Warranty](#) for additional information

KEY DATA	
Lumen Range	6,500–30,000
Wattage Range	70–350w
Efficacy Range (LPW)	73–122
Fixture Projected Life (Hours)	60K
Weights lbs. (kg)	45 (20.4)





Cimarron LED

HIGH PERFORMANCE LED AREA/SITE LIGHTER

ORDERING GUIDE

Example: CL1-A-90LU-5K-3-DB-RPA3

CATALOG #

ORDERING INFORMATION

CL1						
Series	Mounting	No. of LEDs	Voltage	CCT	Distribution	Drive Current
CL1 Cimarron LED	A Arm mount AD Decorative arm mount MAF Mast arm fitter	90L 90 High brightness LEDs 60L 60 High brightness LEDs 30L 90 High brightness LEDs	U¹ 120-277, 50/60 Hz 1 120 2 208 3 240 4 277 5 480, 60 Hz F 347, 60 Hz E⁴ 220, 50 Hz	3K 3000K 4K 4000K 5K 5000K AM⁴ Amber, 590 nm available	2 Type II 3 Type III 4 Type IV 5M V Medium 5S V Short 5W V Wide L Optic Rotation Left R Optic Rotation Right	Blank 700mA 035 350mA Amber CCT only 105 1050mA

ORDERING INFORMATION CONTINUED

Color	Options
DB Dark Bronze	BC³ Backlight control
BL Black	CD Continuous dimming
WH White	WB⁶ Wall Bracket
BR Gray	RPA3⁶ 3" Round pole adapter
PS Platinum Silver	RPA4⁶ 4" Round pole adapter
CC Custom Color	RPA5^{6,12} 5" Round pole adapter
	RPA6^{6,12} 6" Round pole adapter
	F(X)² Fusing (replace X with voltage: 1-120, 2-208, 3-240, 4-277, 5-480, F-347)
	VG Vandal guard

CONTROLS

Control Options

Standalone

7PR	Photocell receptacle
SCO_F	On/Off control ^{6,7,9}
SCL_F	Add-on occupancy sensor for use with ext. wireless control device connected thru 7PR receptacle ^{6,7,9}
SCP_F	Programmable Occupancy Sensor w/ daylight control ^{9,13,14}
SWP	SiteSync Pre-Commission ^{5,6,7,9}
SWPM	SiteSync Pre-Commssion w/ Sensor ^{9,10,11}

Networked – Wireless

WIR	wiSCAPE Fixture Module, in-fixture relay for wireless lighting control ⁸
WIRSC	wiSCAPE Fixture Module, in-fixture relay for wireless lighting control and motion/occupancy control ^{6,8}

Notes:

- Fuse option not available with universal voltage
- Select F3 fusing option for 220V
- Recommended for Type III and IV distributions only
- Available in 350mA drive current only Type IV, 5M
- 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, must order minimum of one SCP-REMOTE control to program dimming settings (see accessories)
- Not available with AD arm
- Not available with WIR or WIRSC
- Not available with SCO, SCL, or SCP
- Specify mounting height; 8 = 8' or less, 40 = 9' to 40'
- Specify group and zone. See SiteSync product page www.hubbellighting.com/controls/SiteSync for more details
- Not available in 90L-700mA or 1050mA versions
- Not available with AD decorative arm
- Not available with other wireless control or sensor options
- Order at least one SCP-REMOTE per project location to program and control the occupancy sensor





Cimarron LED

HIGH PERFORMANCE LED AREA/SITE LIGHTER

ENERGY SAVING DATA

# of LEDs	Drive Current	System Watts		Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
		120-277V	347-480V		Lumens	LPW ¹	B	U	G	Lumens	LPW ¹	B	U	G	Lumens	LPW ¹	B	U	G
30	700mA	70W	80W	1A	8244	118	1	0	1	8162	117	1	0	1	6775	97	1	0	1
				2A	8202	117	1	0	1	8121	116	1	0	1	6740	96	1	0	1
				2	7715	110	2	0	3	7639	109	2	0	2	6340	91	2	0	2
				3	7712	110	2	0	2	7635	109	2	0	2	6371	91	1	0	2
				4	7803	111	1	0	2	7726	110	1	0	2	6412	92	1	0	2
				5S	8374	120	3	0	0	8291	118	3	0	0	6882	98	3	0	0
				5M	7940	113	3	0	1	7862	112	3	0	1	6525	93	3	0	1
				5W	7667	110	3	0	2	7591	108	3	0	2	6301	90	3	0	2
60	700mA	135W	150W	1A	16171	120	1	0	2	16011	119	1	0	1	13289	98	1	0	1
				2A	16088	119	1	0	2	15929	118	1	0	2	13221	98	1	0	2
				2	15134	112	3	0	3	14984	111	3	0	3	12437	92	3	0	3
				3	15127	112	3	0	3	14977	111	3	0	3	12498	93	2	0	3
				4	15306	113	2	0	3	15154	112	2	0	3	12578	93	2	0	3
				5S	16426	122	4	0	0	16263	120	4	0	0	13498	100	4	0	0
				5M	15575	115	4	0	2	15421	114	4	0	2	12799	95	3	0	2
				5W	15040	111	4	0	3	14891	110	4	0	3	12360	92	4	0	3
60	1050mA	220W	235W	1A	21139	96	2	0	2	20929	95	2	0	2	17371	79	2	0	2
				2A	21030	96	2	0	2	20822	95	2	0	2	17282	79	2	0	2
				2	19783	90	4	0	5	19587	89	3	0	5	16257	74	3	0	5
				3	19774	90	3	0	4	19578	89	3	0	4	16250	74	3	0	4
				4	20007	91	3	0	5	19809	90	3	0	5	16442	75	3	0	5
				5S	21471	98	5	0	0	21259	97	5	0	0	17645	80	5	0	0
				5M	20359	93	5	0	3	20158	92	5	0	3	16731	76	5	0	3
				5W	19660	89	5	0	4	19465	88	5	0	4	16156	73	5	0	4
90	700mA	205W	225W	1A	23781	116	2	0	2	23546	115	2	0	2	19543	95	2	0	2
				2A	23659	115	2	0	2	23425	114	2	0	2	19443	95	2	0	2
				2	22255	109	3	0	4	22035	107	3	0	4	18289	89	3	0	4
				3	22246	109	3	0	4	22026	107	3	0	4	18379	90	3	0	3
				4	22509	110	3	0	4	22286	109	3	0	4	18497	90	2	0	4
				5S	24156	118	5	0	0	23916	117	5	0	0	19851	97	4	0	0
				5M	22905	112	4	0	2	22678	111	4	0	2	18823	92	4	0	2
				5W	22117	108	5	0	3	21899	107	5	0	3	18176	89	5	0	3
90	1050mA	325W	350W	1A	31708	98	2	0	2	31394	97	2	0	2	26057	80	2	0	2
				2A	31545	97	2	0	2	31233	96	2	0	2	25923	80	2	0	2
				2	29674	91	4	0	5	29380	90	3	0	5	24385	75	3	0	4
				3	29661	91	3	0	4	29367	90	3	0	4	24505	75	3	0	4
				4	30011	92	3	0	5	29714	91	3	0	5	24663	76	3	0	4
				5S	32207	99	5	0	0	31888	98	5	0	0	26467	81	5	0	0
				5M	30539	94	5	0	3	30237	93	5	0	3	25097	77	4	0	2
				5W	29490	91	5	0	4	29198	90	5	0	4	24234	75	5	0	4



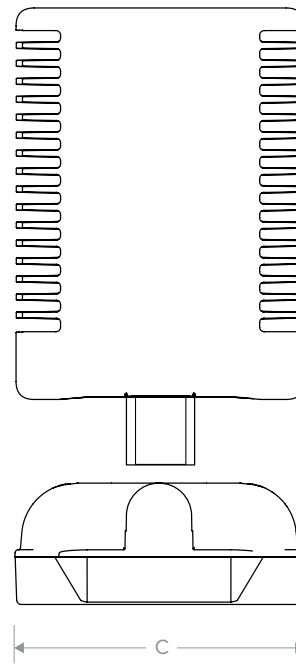
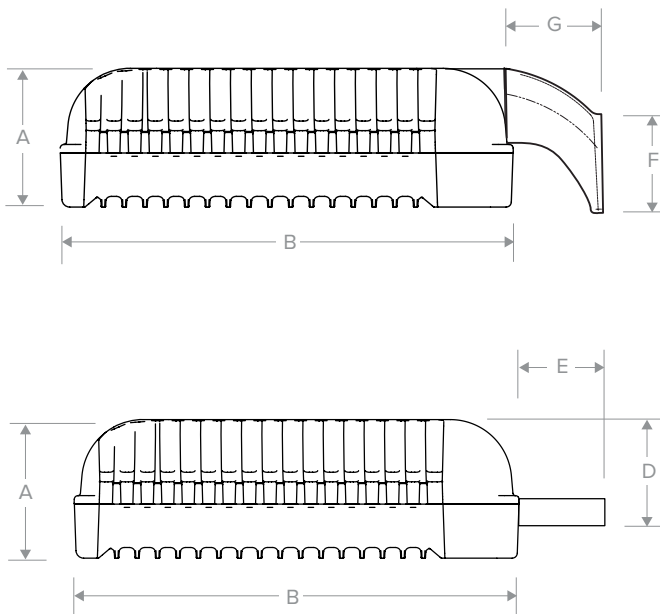
Cimarron LED

HIGH PERFORMANCE LED AREA/SITE LIGHTER

ENERGY SAVING DATA

# of LEDs	Drive Current	System Watts	Amber			
		120-277V	Lumens	B	U	G
60	350mA	135W	2488	0	0	1
			2533	2	0	1
90	350mA	205W	3558	1	0	1
			3596	2	0	1

DIMENSIONS



A	B	C	D	E	F	G
6 3/4" (171mm)	21 3/4" (552mm)	16" (168mm)	6 5/8" (160mm)	6 5/16" (160mm)	5 5/8" (143mm)	6 1/8" (155mm)



LED pole-top luminaires - asymmetric light distribution

Application

LED pole-top luminaires with asymmetric wide spread light distribution ideal for illuminating streets and pathways. Provided with slip fitter to fit 3" O.D. poles.

Materials

Luminaire housing and constructed of die-cast and spun marine grade, copper free ($\leq 0.3\%$ copper content) A360.0 aluminum alloy
Clear safety glass
Reflector made of pure anodized aluminum
High temperature silicone gasket
Mechanically captive stainless steel fasteners

NRTL listed to North American Standards, suitable for wet locations

Protection class IP 65

Weight: 32.2 lbs.

EPA (Effective projection area): 1.5 sq. ft.

Electrical

Operating voltage	120-277V AC
Minimum start temperature	-30° C
LED module wattage	23.6 W
System wattage	26.0 W
Controllability	0-10V dimmable
Color rendering index	Ra > 80
Luminaire lumens	2,397 lumens (3000K)
Lifetime at Ta = 15° C	> 500,000 h (L70)
Lifetime at Ta = 55° C	153,000 h (L70)

LED color temperature

4000K - Product number + **K4**

3500K - Product number + **K35**

3000K - Product number + K3

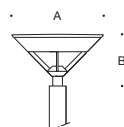
2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish

All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

Available colors	Black (BLK)	White (WHT)	RAL:
	Bronze (BRZ)	Silver (SLV)	CUS:



Pole-top - Asymmetric

	LED	A	B
84 403	23.6 W	28	14 1/4

Recommended for use with 14' to 16' poles.

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com

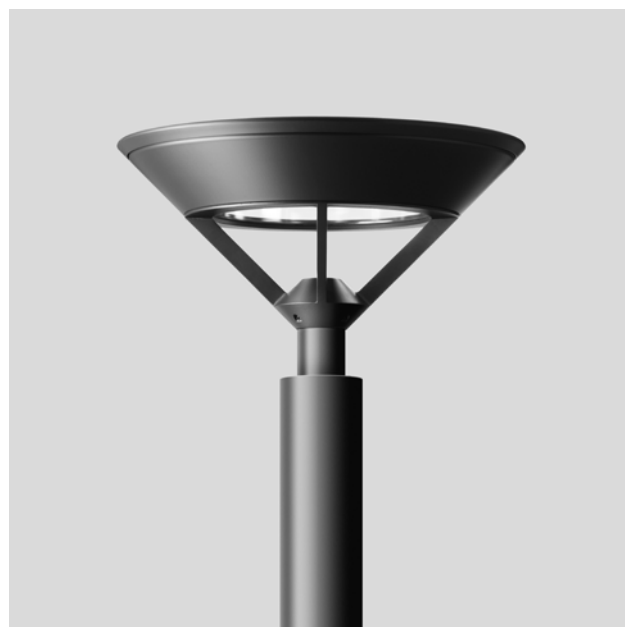
Due to the dynamic nature of lighting products and the associated technologies, luminaire data on this sheet is subject to change at the discretion of BEGA North America. For the most current technical data, please refer to bega-us.com
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Type:

BEGA Product:

Project:

Modified:

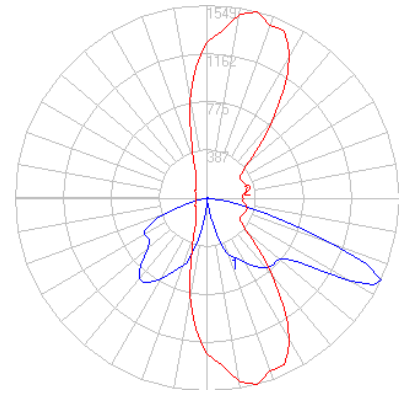


BEGA

TYPE S4

Photometric Filename: 84403.ies

TEST: BE_84403
TEST LAB: BEGA
DATE: 6/27/2017
LUMINAIRE: 84 403
LAMP: 23.6W LED



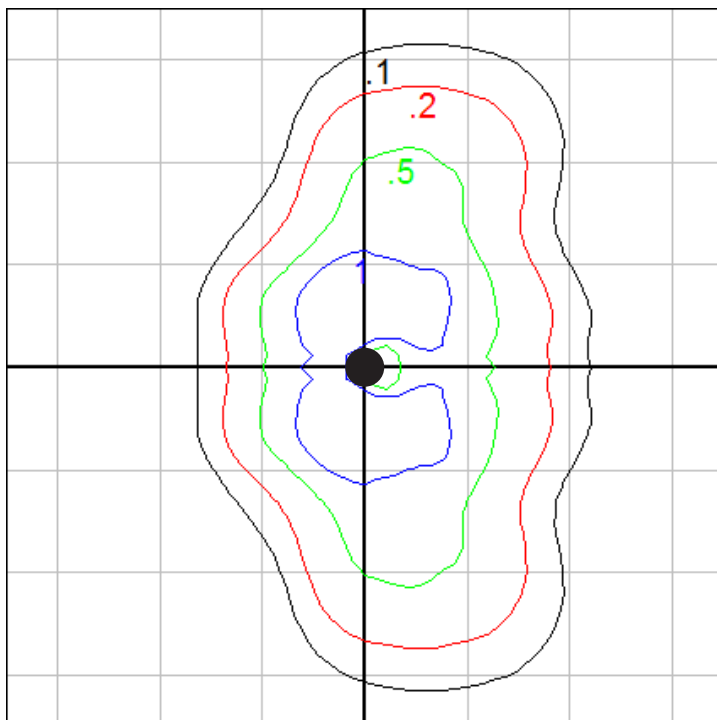
Characteristics

IES Classification	Type II
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2397
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	92
Total Luminaire Watts	26
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Max. Cd.	1549 (285H, 65V)
Max. Cd. (<90 Vert.)	1549 (285H, 65V)
Max. Cd. (At 90 Deg. Vert.)	3 (0.1%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	199.9 (8.3%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

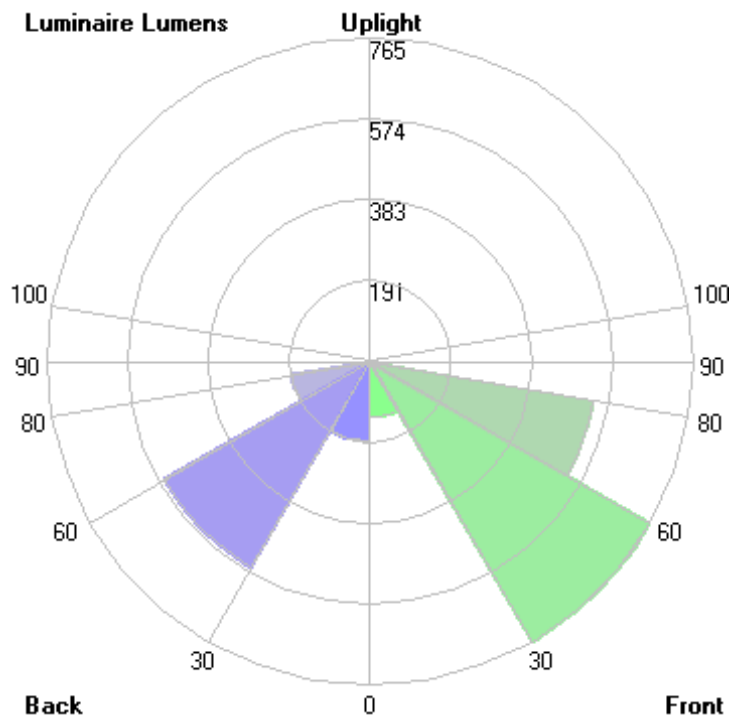
Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	132.4	N.A.	5.5
FM (30-60)	765.2	N.A.	31.9
FH (60-80)	538.1	N.A.	22.5
FVH (80-90)	16.7	N.A.	0.7
BL (0-30)	188.2	N.A.	7.9
BM (30-60)	561.2	N.A.	23.4
BH (60-80)	187.6	N.A.	7.8
BVH (80-90)	7.2	N.A.	0.3
UL (90-100)	0.0	N.A.	0.0
UH (100-180)	0.0	N.A.	0.0
Total	2396.6	N.A.	100.0

BUG Rating **B1-U0-G1**



Mounting Height = 15 ft. 8 in. (Pole - 1508HR)
Grid Spacing = 15 ft.



In the interest of product improvement, BEGA reserves the right to make technical changes without notice.

BEGA 1000 Bega Way, Carpinteria, CA 93013 (805)684-0533 Fax (805)566-9474 www.bega-us.com © Copyright BEGA-US 2018

6/11/2018

Type:
 Project:
 Options:
 Modified:
 Luminaire:
 Fixture EPA:
 Optional Tenon: ☐ 2 $\frac{3}{8}$ " ϕ x 3 $\frac{1}{2}$ " H
 GCO: ☐
 GFI: ☐

Approval:

928 Tapered round base pole

Shaft: Extruded from all new seamless 6063 aluminum alloy tubing, heat treated to a T-6 condition.

Bell base: Round cast aluminum A356 alloy, heat treated to a T-6 condition. Anchor base and shaft continuously welded internally - no exposed welds..

Anchor base: Internal anchor base casting accepts bell base of pole. Four (4) socket head stainless steel bolts threaded into stainless steel inserts retain pole.

Access door: Flush, covered wiring access holesis provided, centered 27 $\frac{3}{8}$ " above base. Opening is 4" x 11 $\frac{1}{4}$ ".

Anchorage: Supplied with 8986A anchorage.

GCO or GFI: Standard GCO/GFI location inside the handhole.

Disclaimer

BEGA-US warrants the specific anchor bolts and pole combination according to the product number(s) and description(s) indicated on this submittal sheet. Structural changes to the pole requested by the customer, including changes to pole length, may affect the compatibility of the anchor bolts and corresponding poles. BEGA-US is not responsible for the incompatibility of the anchor bolts and poles resulting from such structural changes without review by the BEGA-US engineering department. This includes, but is not limited to, any labor charges, charges for replacement materials and shipping.

Pole wind load rating:

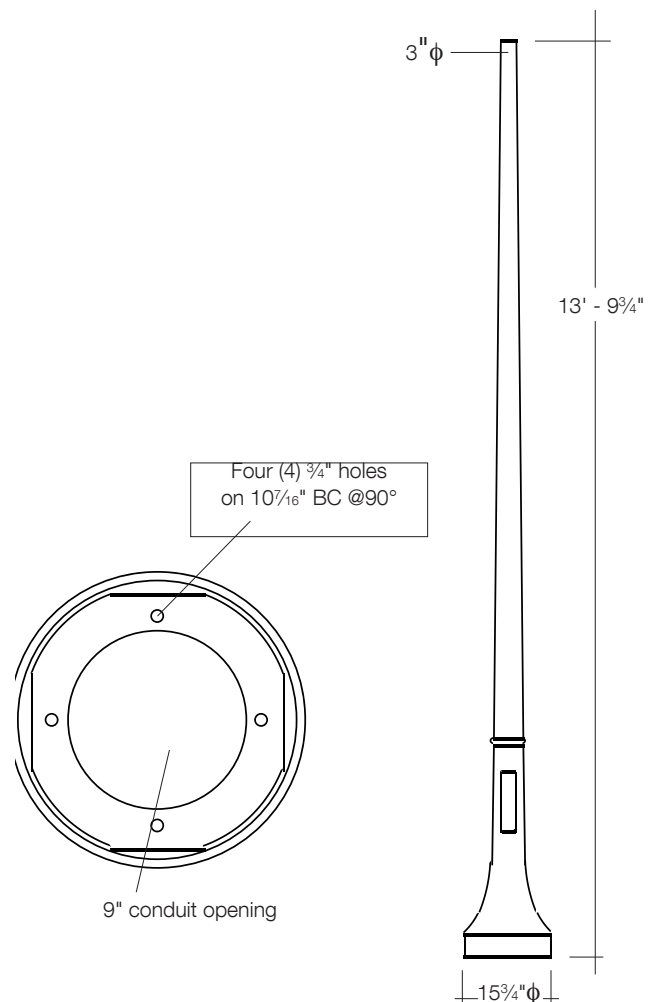
MPH: 70 80 90 100 120

EPA: 16.2 11.9 9.0 7.1 4.6

Note: Data above assumes grade level installation and a maximum luminaire weight of 50 lbs.

BEGA-US 1000 BEGA Way, Carpinteria, CA 93013 [P] 805-684-0533 [F] 805-684-6682

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Cimarron LED

HIGH PERFORMANCE LED AREA/SITE LIGHTER

FEATURES

- A unique vertically-finned die-cast housing that optimizes heat transfer to keep the fixture cool and maximize component life
- Mounting versatility with choice of traditional straight, architectural upswept die-cast aluminum or mast arm fitter designs
- Optional vandal resistant guard provides additional protection when necessary
- 20kA surge protection with an end of life LED indicator
- Maintenance free housing designed to IP65 and 60,000 hours life



RELATED PRODUCTS

[Cimarron CL1S](#)

[RAR1 Ratio](#)

[RAR2 Ratio](#)

[Arceos™ ARA3](#)

[Airo](#)

[Viper](#)



*3000K and warmer CCTs only

SPECIFICATIONS

HOUSING

- Stylish vertically finned die-cast solid top housing for maximum heat dissipation; Stops collection of unsightly debris from gathering on top of the housing
- Rugged lower die-cast aluminum heat sink accelerates thermal management and optimizes PCB and optical performance
- One piece die cut silicone gasket ensures weather proof seal around each individual LED for IP65 rating
- Separate optical and electrical compartment for optimum component operation
- Backlight Control (BC) option available for 85% spill light reduction, doesn't change fixture appearance or EPA, recommended for Type III and Type IV distributions
- Stamped bezel provides mechanical compression to seal the optical assembly
- Suitable for applications requiring 3G testing prescribed by ANSI C136.31
- TGIC thermoset polyester powder paint finish applied at nominal 2.5 mil thickness

OPTICS

- Choice of 30, 60 or 90 high brightness LED with individual acrylic lenses specially designed for IES Type II, III, IV and V distributions

OPTICS (CONTINUED)

- Auto optics designed for front row 1A and interior rows 2A
- CCT: 3000K (70 CRI), 4000K (70 CRI), 5000K (70 CRI), and turtle friendly Amber LED options

INSTALLATION

- Two die-cast aluminum arm designs: The decorative arm offers a sleek upswept look while the straight arm follows the housing's contoured lines for continuity of style
- Fixture ships with arm installed for ease of installation and mounts to #2 drill pattern
- Wall bracket, mast arm fitter and pole accessories are also available allowing easy mounting for virtually any application

ELECTRICAL

- Drivers have greater than 90% power factor and less than 10% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Optional continuous dimming to 10% or dual circuitry available
- Universal input voltage 120-277 VAC, 50/60 Hz
- Surge protection – 20KA; Turns fixture off at end of life; Has LED for end of life indication

OPTIONS/CONTROLS

- Drivers are 0-10V dimming standard. Photocell, occupancy sensor and wireless controls available for complete on/off and dimming control

CERTIFICATIONS

- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Listed to UL1598 and CSA C22.2#250.024 for wet locations
- IDA approved
- IP65

WARRANTY

- 5 year limited warranty
- See [HLI Standard Warranty](#) for additional information

KEY DATA	
Lumen Range	6,500–30,000
Wattage Range	70–350w
Efficacy Range (LPW)	73–122
Fixture Projected Life (Hours)	60K
Weights lbs. (kg)	45 (20.4)





Cimarron LED

HIGH PERFORMANCE LED AREA/SITE LIGHTER

ORDERING GUIDE

Example: CL1-A-90LU-5K-3-DB-RPA3

CATALOG #

ORDERING INFORMATION

CL1						
Series	Mounting	No. of LEDs	Voltage	CCT	Distribution	Drive Current
CL1 Cimarron LED	A Arm mount AD Decorative arm mount MAF Mast arm fitter	90L 90 High brightness LEDs 60L 60 High brightness LEDs 30L 90 High brightness LEDs	U 120-277, 50/60 Hz 1 120 2 208 3 240 4 277 5 480, 60 Hz F 347, 60 Hz E⁴ 220, 50 Hz	3K 3000K 4K 4000K 5K 5000K AM⁴ Amber, 590 nm available	2 Type II 3 Type III 4 Type IV 5M V Medium 5S V Short 5W V Wide L Optic Rotation Left R Optic Rotation Right	Blank 700mA 035 350mA Amber CCT only 105 1050mA

ORDERING INFORMATION CONTINUED

Color	Options
DB Dark Bronze	BC³ Backlight control
BL Black	CD Continuous dimming
WH White	WB⁶ Wall Bracket
BR Gray	RPA3⁶ 3" Round pole adapter
PS Platinum Silver	RPA4⁶ 4" Round pole adapter
CC Custom Color	RPA5^{6,12} 5" Round pole adapter
	RPA6^{6,12} 6" Round pole adapter
	F(X)² Fusing (replace X with voltage: 1-120, 2-208, 3-240, 4-277, 5-480, F-347)
	VG Vandal guard

CONTROLS

Control Options

Standalone

7PR	Photocell receptacle
SCO_F	On/Off control ^{6,7,9}
SCL_F	Add-on occupancy sensor for use with ext. wireless control device connected thru 7PR receptacle ^{6,7,9}
SCP_F	Programmable Occupancy Sensor w/ daylight control ^{9,13,14}
SWP	SiteSync Pre-Commission ^{5,6,7,9}
SWPM	SiteSync Pre-Commssion w/ Sensor ^{9,10,11}

Networked – Wireless

WIR	wiSCAPE Fixture Module, in-fixture relay for wireless lighting control ⁸
WIRSC	wiSCAPE Fixture Module, in-fixture relay for wireless lighting control and motion/occupancy control ^{6,8}

Notes:

- Fuse option not available with universal voltage
- Select F3 fusing option for 220V
- Recommended for Type III and IV distributions only
- Available in 350mA drive current only Type IV, 5M
- 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, must order minimum of one SCP-REMOTE control to program dimming settings (see accessories)
- Not available with AD arm
- Not available with WIR or WIRSC
- Not available with SCO, SCL, or SCP
- Specify mounting height; 8 = 8' or less, 40 = 9' to 40'
- Specify group and zone. See SiteSync product page www.hubbellighting.com/controls/SiteSync for more details
- Not available in 90L-700mA or 1050mA versions
- Not available with AD decorative arm
- Not available with other wireless control or sensor options
- Order at least one SCP-REMOTE per project location to program and control the occupancy sensor





Cimarron LED

HIGH PERFORMANCE LED AREA/SITE LIGHTER

ENERGY SAVING DATA

# of LEDs	Drive Current	System Watts		Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
		120-277V	347-480V		Lumens	LPW ¹	B	U	G	Lumens	LPW ¹	B	U	G	Lumens	LPW ¹	B	U	G
30	700mA	70W	80W	1A	8244	118	1	0	1	8162	117	1	0	1	6775	97	1	0	1
				2A	8202	117	1	0	1	8121	116	1	0	1	6740	96	1	0	1
				2	7715	110	2	0	3	7639	109	2	0	2	6340	91	2	0	2
				3	7712	110	2	0	2	7635	109	2	0	2	6371	91	1	0	2
				4	7803	111	1	0	2	7726	110	1	0	2	6412	92	1	0	2
				5S	8374	120	3	0	0	8291	118	3	0	0	6882	98	3	0	0
				5M	7940	113	3	0	1	7862	112	3	0	1	6525	93	3	0	1
				5W	7667	110	3	0	2	7591	108	3	0	2	6301	90	3	0	2
60	700mA	135W	150W	1A	16171	120	1	0	2	16011	119	1	0	1	13289	98	1	0	1
				2A	16088	119	1	0	2	15929	118	1	0	2	13221	98	1	0	2
				2	15134	112	3	0	3	14984	111	3	0	3	12437	92	3	0	3
				3	15127	112	3	0	3	14977	111	3	0	3	12498	93	2	0	3
				4	15306	113	2	0	3	15154	112	2	0	3	12578	93	2	0	3
				5S	16426	122	4	0	0	16263	120	4	0	0	13498	100	4	0	0
				5M	15575	115	4	0	2	15421	114	4	0	2	12799	95	3	0	2
				5W	15040	111	4	0	3	14891	110	4	0	3	12360	92	4	0	3
60	1050mA	220W	235W	1A	21139	96	2	0	2	20929	95	2	0	2	17371	79	2	0	2
				2A	21030	96	2	0	2	20822	95	2	0	2	17282	79	2	0	2
				2	19783	90	4	0	5	19587	89	3	0	5	16257	74	3	0	5
				3	19774	90	3	0	4	19578	89	3	0	4	16250	74	3	0	4
				4	20007	91	3	0	5	19809	90	3	0	5	16442	75	3	0	5
				5S	21471	98	5	0	0	21259	97	5	0	0	17645	80	5	0	0
				5M	20359	93	5	0	3	20158	92	5	0	3	16731	76	5	0	3
				5W	19660	89	5	0	4	19465	88	5	0	4	16156	73	5	0	4
90	700mA	205W	225W	1A	23781	116	2	0	2	23546	115	2	0	2	19543	95	2	0	2
				2A	23659	115	2	0	2	23425	114	2	0	2	19443	95	2	0	2
				2	22255	109	3	0	4	22035	107	3	0	4	18289	89	3	0	4
				3	22246	109	3	0	4	22026	107	3	0	4	18379	90	3	0	3
				4	22509	110	3	0	4	22286	109	3	0	4	18497	90	2	0	4
				5S	24156	118	5	0	0	23916	117	5	0	0	19851	97	4	0	0
				5M	22905	112	4	0	2	22678	111	4	0	2	18823	92	4	0	2
				5W	22117	108	5	0	3	21899	107	5	0	3	18176	89	5	0	3
90	1050mA	325W	350W	1A	31708	98	2	0	2	31394	97	2	0	2	26057	80	2	0	2
				2A	31545	97	2	0	2	31233	96	2	0	2	25923	80	2	0	2
				2	29674	91	4	0	5	29380	90	3	0	5	24385	75	3	0	4
				3	29661	91	3	0	4	29367	90	3	0	4	24505	75	3	0	4
				4	30011	92	3	0	5	29714	91	3	0	5	24663	76	3	0	4
				5S	32207	99	5	0	0	31888	98	5	0	0	26467	81	5	0	0
				5M	30539	94	5	0	3	30237	93	5	0	3	25097	77	4	0	2
				5W	29490	91	5	0	4	29198	90	5	0	4	24234	75	5	0	4





DATE:	LOCATION:	TYPE S5
TYPE:	PROJECT:	
CATALOG #:		

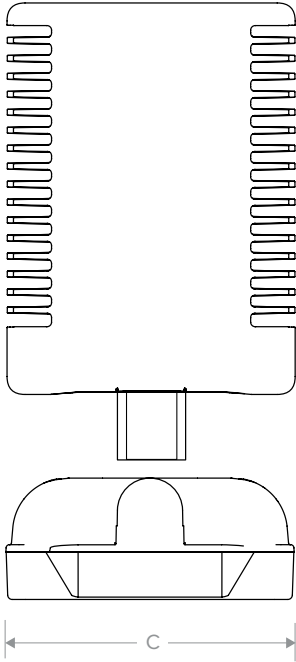
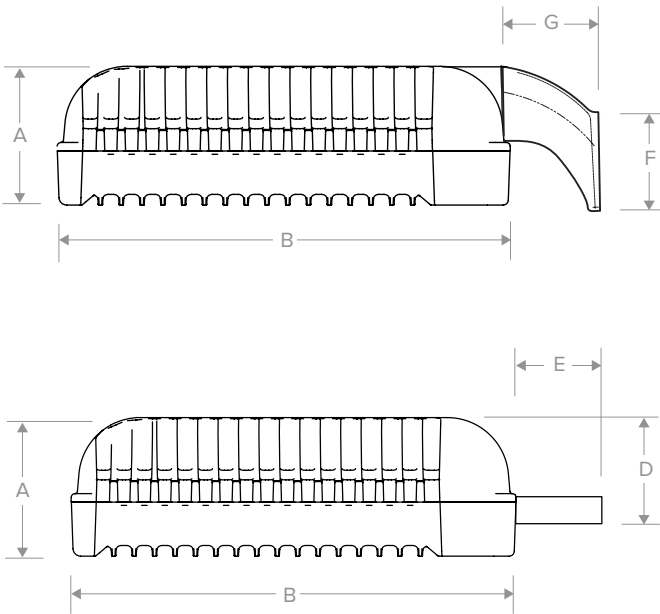
Cimarron LED

HIGH PERFORMANCE LED AREA/SITE LIGHTER

ENERGY SAVING DATA

# of LEDs	Drive Current	System Watts	Amber			
		120-277V	Lumens	B	U	G
60	350mA	135W	2488	0	0	1
			2533	2	0	1
90	350mA	205W	3558	1	0	1
			3596	2	0	1

DIMENSIONS



A	B	C	D	E	F	G
6 3/4" (171mm)	21 3/4" (552mm)	16" (168mm)	6 5/8" (160mm)	6 5/16" (160mm)	5 5/8" (143mm)	6 1/8" (155mm)



Cimarron LED

HIGH PERFORMANCE LED AREA/SITE LIGHTER

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

TYPE S6

FEATURES

- A unique vertically-finned die-cast housing that optimizes heat transfer to keep the fixture cool and maximize component life
- Mounting versatility with choice of traditional straight, architectural upswept die-cast aluminum or mast arm fitter designs
- Optional vandal resistant guard provides additional protection when necessary
- 20kA surge protection with an end of life LED indicator
- Maintenance free housing designed to IP65 and 60,000 hours life



RELATED PRODUCTS

- ◊ [Cimarron CL1S](#)
- ◊ [RAR1 Ratio](#)
- ◊ [RAR2 Ratio](#)
- ◊ [Arceos™ ARA3](#)
- ◊ [Airo](#)
- ◊ [Viper](#)



*3000K and warmer CCTs only

SPECIFICATIONS

HOUSING

- Stylish vertically finned die-cast solid top housing for maximum heat dissipation; Stops collection of unsightly debris from gathering on top of the housing
- Rugged lower die-cast aluminum heat sink accelerates thermal management and optimizes PCB and optical performance
- One piece die cut silicone gasket ensures weather proof seal around each individual LED for IP65 rating
- Separate optical and electrical compartment for optimum component operation
- Backlight Control (BC) option available for 85% spill light reduction, doesn't change fixture appearance or EPA, recommended for Type III and Type IV distributions
- Stamped bezel provides mechanical compression to seal the optical assembly
- Suitable for applications requiring 3G testing prescribed by ANSI C136.31
- TGIC thermoset polyester powder paint finish applied at nominal 2.5 mil thickness

OPTICS

- Choice of 30, 60 or 90 high brightness LED with individual acrylic lenses specially designed for IES Type II, III, IV and V distributions

OPTICS (CONTINUED)

- Auto optics designed for front row 1A and interior rows 2A
- CCT: 3000K (70 CRI), 4000K (70 CRI), 5000K (70 CRI), and turtle friendly Amber LED options

INSTALLATION

- Two die-cast aluminum arm designs: The decorative arm offers a sleek upswept look while the straight arm follows the housing's contoured lines for continuity of style
- Fixture ships with arm installed for ease of installation and mounts to #2 drill pattern
- Wall bracket, mast arm fitter and pole accessories are also available allowing easy mounting for virtually any application

ELECTRICAL

- Drivers have greater than 90% power factor and less than 10% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Optional continuous dimming to 10% or dual circuitry available
- Universal input voltage 120-277 VAC, 50/60 Hz
- Surge protection – 20KA; Turns fixture off at end of life; Has LED for end of life indication

OPTIONS/CONTROLS

- Drivers are 0-10V dimming standard. Photocell, occupancy sensor and wireless controls available for complete on/off and dimming control

CERTIFICATIONS

- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Listed to UL1598 and CSA C22.2#250.024 for wet locations
- IDA approved
- IP65

WARRANTY

- 5 year limited warranty
- See [HLI Standard Warranty](#) for additional information

KEY DATA	
Lumen Range	6,500–30,000
Wattage Range	70–350w
Efficacy Range (LPW)	73–122
Fixture Projected Life (Hours)	60K
Weights lbs. (kg)	45 (20.4)



Cimarron LED

HIGH PERFORMANCE LED AREA/SITE LIGHTER

ORDERING GUIDE

Example: CL1-A-90LU-5K-3-DB-RPA3

CATALOG #

ORDERING INFORMATION

CL1						
Series	Mounting	No. of LEDs	Voltage	CCT	Distribution	Drive Current
CL1 Cimarron LED	A Arm mount AD Decorative arm mount MAF Mast arm fitter	90L 90 High brightness LEDs 60L 60 High brightness LEDs 30L 90 High brightness LEDs	U¹ 120-277, 50/60 Hz 1 120 2 208 3 240 4 277 5 480, 60 Hz F 347, 60 Hz E⁴ 220, 50 Hz	3K 3000K 4K 4000K 5K 5000K AM⁴ Amber, 590 nm available	2 Type II 3 Type III 4 Type IV 5M V Medium 5S V Short 5W V Wide L Optic Rotation Left R Optic Rotation Right	Blank 700mA 035 350mA Amber CCT only 105 1050mA

ORDERING INFORMATION CONTINUED

Color	Options
DB Dark Bronze	BC³ Backlight control
BL Black	CD Continuous dimming
WH White	WB⁶ Wall Bracket
BR Gray	RPA3⁶ 3" Round pole adapter
PS Platinum Silver	RPA4⁶ 4" Round pole adapter
CC Custom Color	RPA5^{6,12} 5" Round pole adapter
	RPA6^{6,12} 6" Round pole adapter
	F(X)² Fusing (replace X with voltage: 1-120, 2-208, 3-240, 4-277, 5-480, F-347)
	VG Vandal guard

CONTROLS

Control Options	
Standalone	
7PR	Photocell receptacle
SCO_F	On/Off control ^{6,7,9}
SCL_F	Add-on occupancy sensor for use with ext. wireless control device connected thru 7PR receptacle ^{6,7,9}
SCP_F	Programmable Occupancy Sensor w/ daylight control ^{9,13,14}
SWP	SiteSync Pre-Commission ^{5,6,7,9}
SWPM	SiteSync Pre-Commssion w/ Sensor ^{9,10,11}
Networked – Wireless	
WIR	wiSCAPE Fixture Module, in-fixture relay for wireless lighting control ⁸
WIRSC	wiSCAPE Fixture Module, in-fixture relay for wireless lighting control and motion/occupancy control ^{6,8}

Notes:

- Fuse option not available with universal voltage
- Select F3 fusing option for 220V
- Recommended for Type III and IV distributions only
- Available in 350mA drive current only Type IV, 5M
- 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, must order minimum of one SCP-REMOTE control to program dimming settings (see accessories)
- Not available with AD arm
- Not available with WIR or WIRSC
- Not available with SCO, SCL, or SCP
- Specify mounting height; 8 = 8' or less, 40 = 9' to 40'
- Specify group and zone. See SiteSync product page www.hubbellighting.com/controls/SiteSync for more details
- Not available in 90L-700mA or 1050mA versions
- Not available with AD decorative arm
- Not available with other wireless control or sensor options
- Order at least one SCP-REMOTE per project location to program and control the occupancy sensor





Cimarron LED

HIGH PERFORMANCE LED AREA/SITE LIGHTER

ENERGY SAVING DATA

# of LEDs	Drive Current	System Watts		Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
		120-277V	347-480V		Lumens	LPW ¹	B	U	G	Lumens	LPW ¹	B	U	G	Lumens	LPW ¹	B	U	G
30	700mA	70W	80W	1A	8244	118	1	0	1	8162	117	1	0	1	6775	97	1	0	1
				2A	8202	117	1	0	1	8121	116	1	0	1	6740	96	1	0	1
				2	7715	110	2	0	3	7639	109	2	0	2	6340	91	2	0	2
				3	7712	110	2	0	2	7635	109	2	0	2	6371	91	1	0	2
				4	7803	111	1	0	2	7726	110	1	0	2	6412	92	1	0	2
				5S	8374	120	3	0	0	8291	118	3	0	0	6882	98	3	0	0
				5M	7940	113	3	0	1	7862	112	3	0	1	6525	93	3	0	1
				5W	7667	110	3	0	2	7591	108	3	0	2	6301	90	3	0	2
60	700mA	135W	150W	1A	16171	120	1	0	2	16011	119	1	0	1	13289	98	1	0	1
				2A	16088	119	1	0	2	15929	118	1	0	2	13221	98	1	0	2
				2	15134	112	3	0	3	14984	111	3	0	3	12437	92	3	0	3
				3	15127	112	3	0	3	14977	111	3	0	3	12498	93	2	0	3
				4	15306	113	2	0	3	15154	112	2	0	3	12578	93	2	0	3
				5S	16426	122	4	0	0	16263	120	4	0	0	13498	100	4	0	0
				5M	15575	115	4	0	2	15421	114	4	0	2	12799	95	3	0	2
				5W	15040	111	4	0	3	14891	110	4	0	3	12360	92	4	0	3
60	1050mA	220W	235W	1A	21139	96	2	0	2	20929	95	2	0	2	17371	79	2	0	2
				2A	21030	96	2	0	2	20822	95	2	0	2	17282	79	2	0	2
				2	19783	90	4	0	5	19587	89	3	0	5	16257	74	3	0	5
				3	19774	90	3	0	4	19578	89	3	0	4	16250	74	3	0	4
				4	20007	91	3	0	5	19809	90	3	0	5	16442	75	3	0	5
				5S	21471	98	5	0	0	21259	97	5	0	0	17645	80	5	0	0
				5M	20359	93	5	0	3	20158	92	5	0	3	16731	76	5	0	3
				5W	19660	89	5	0	4	19465	88	5	0	4	16156	73	5	0	4
90	700mA	205W	225W	1A	23781	116	2	0	2	23546	115	2	0	2	19543	95	2	0	2
				2A	23659	115	2	0	2	23425	114	2	0	2	19443	95	2	0	2
				2	22255	109	3	0	4	22035	107	3	0	4	18289	89	3	0	4
				3	22246	109	3	0	4	22026	107	3	0	4	18379	90	3	0	3
				4	22509	110	3	0	4	22286	109	3	0	4	18497	90	2	0	4
				5S	24156	118	5	0	0	23916	117	5	0	0	19851	97	4	0	0
				5M	22905	112	4	0	2	22678	111	4	0	2	18823	92	4	0	2
				5W	22117	108	5	0	3	21899	107	5	0	3	18176	89	5	0	3
90	1050mA	325W	350W	1A	31708	98	2	0	2	31394	97	2	0	2	26057	80	2	0	2
				2A	31545	97	2	0	2	31233	96	2	0	2	25923	80	2	0	2
				2	29674	91	4	0	5	29380	90	3	0	5	24385	75	3	0	4
				3	29661	91	3	0	4	29367	90	3	0	4	24505	75	3	0	4
				4	30011	92	3	0	5	29714	91	3	0	5	24663	76	3	0	4
				5S	32207	99	5	0	0	31888	98	5	0	0	26467	81	5	0	0
				5M	30539	94	5	0	3	30237	93	5	0	3	25097	77	4	0	2
				5W	29490	91	5	0	4	29198	90	5	0	4	24234	75	5	0	4





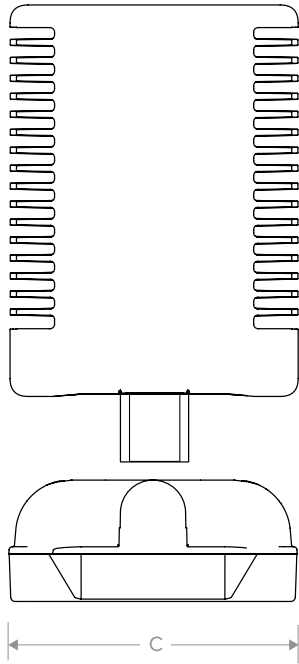
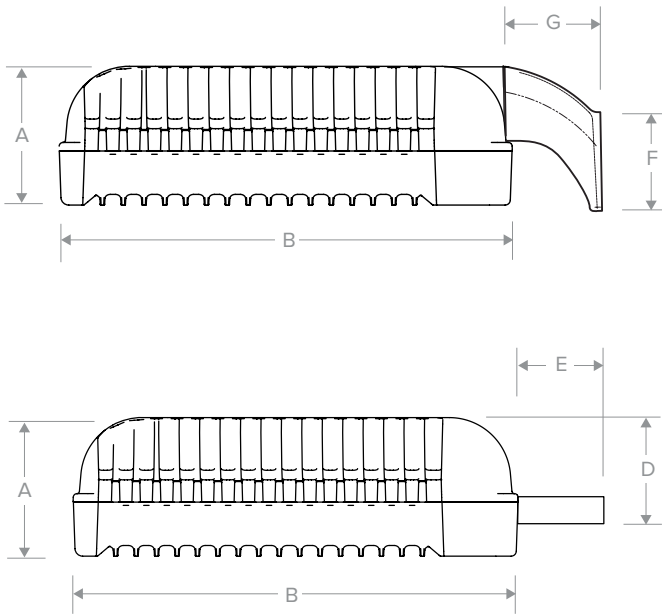
Cimarron LED

HIGH PERFORMANCE LED AREA/SITE LIGHTER

ENERGY SAVING DATA

# of LEDs	Drive Current	System Watts	Amber			
		120-277V	Lumens	B	U	G
60	350mA	135W	2488	0	0	1
			2533	2	0	1
90	350mA	205W	3558	1	0	1
			3596	2	0	1

DIMENSIONS



A	B	C	D	E	F	G
6 3/4" (171mm)	21 3/4" (552mm)	16" (168mm)	6 5/8" (160mm)	6 5/16" (160mm)	5 5/8" (143mm)	6 1/8" (155mm)



RSS-H SERIES POLES

ROUND STRAIGHT STEEL

Cat.#

Job

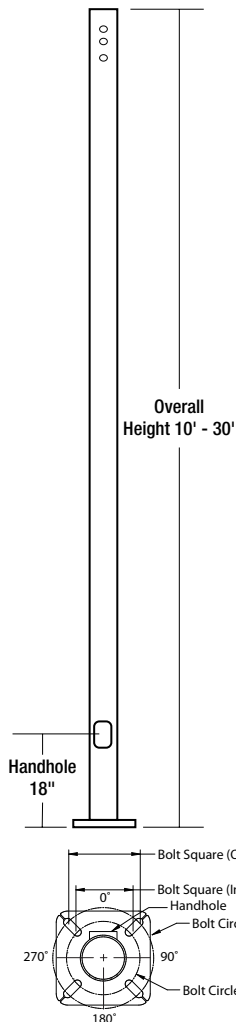
Type



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Approvals

TYPE S6



APPLICATIONS

- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

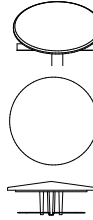
CONSTRUCTION

- SHAFT:** One-piece straight steel with round cross section, Minimum yield of 46,000 psi (ASTM-A500, Grade C); Longitudinal weld seam to appear flush in shaft wall; Steel base plate with axial bolt circle slots welded flush to pole shaft having minimum yield of 36,000 psi (ASTM A36)
- BASE COVER:** Two-piece square aluminum base cover included standard
- POLE CAP:** Pole shaft supplied with removable cover when applicable; Tenon and post-top configurations also available
- HAND HOLE:** Rectangular 3x5 steel hand hole frame (2.38" x 4.38" opening); Mounting provisions for grounding lug located behind gasketed cover
- ANCHOR BOLTS:** Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling

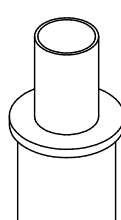
FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method
- Decorative finish coat available in seven standard colors; Custom colors available; RAL number preferable; Internal protective coating available

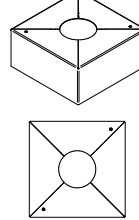
POLE CAP



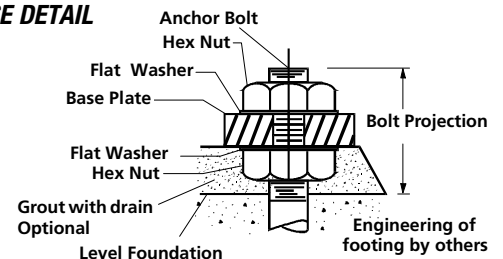
TENON



BASE COVER



BASE DETAIL



ORDERING INFORMATION

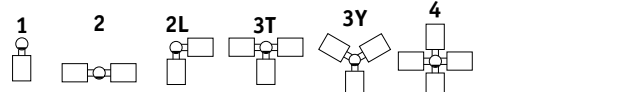
ORDERING EXAMPLE:

RSS-H - 20 - 40 - A/B/C - 2L - S2 - DB - UL

Reference page 2 for available configurations

SERIES	HEIGHT	SHAFT	THICKNESS	MOUNTING	DRILL PATTERN	FINISH	OPTIONS
RSS-H Round Straight Steel Pole Hubbell Outdoor	Reference page 2 Ordering matrix	Reference page 2 Ordering matrix	Reference page 2 Ordering matrix	1 Single arm mount 2 Two fixtures at 180° 2L Two fixtures at 90° 3T Three fixtures at 90° 3Y Three fixtures at 120° 4 Four fixtures at 90° TA Tenon (2.375" OD) TB Tenon (2.875" OD) TC Tenon (3.5" OD) OT No drilling (includes pole cap)	S2 #2 2 bolt 3.5" pattern 	DB Dark Bronze Textured BL Black Textured WH White Textured GR Gray Textured PS Platinum Silver Smooth CC Custom Color	HSC Internal Coating (Hubbell Seal) GFI' 20 Amp GFCI Receptacle and Cover EHH' Extra Handhole C05' .5" Coupling C07' .75" Coupling C20' 2" Coupling MPB' Mid-pole Luminaire Bracket VM2 2nd mode vibration damper LAB Less Anchor Bolts UL UL Certified RBC Round Base Cover

MOUNTING ORIENTATION



ACCESSORIES- Order Separately

Catalog Number	Description
VM2SXX	2nd mode vibration damper

1 Specify option location using logic found on page 2 (Option Orientation)



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Due to our continued efforts to improve our products, product specifications are subject to change without notice.

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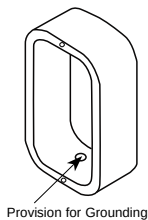
HUBBELL
Lighting

ORDERING INFORMATION Cont.

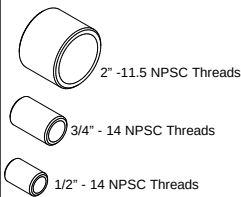
Catalog Number	Height		Nominal Shaft Dimensions	Wall Thickness	Bolt Circle (suggested)	Bolt Circle (range)	Bolt Square (range)	Base Plate Square	Base Plate Thickness	Anchor bolt size	Bolt Projection	Pole weight
	Feet	Meters										
RSS-H-10-40-A	10	3.0	4" round	0.125"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	52
RSS-H-12-40-A	12	3.7	4" round	0.125"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	62
RSS-H-14-40-A	14	4.3	4" round	0.125"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	72
RSS-H-16-40-A	16	4.9	4" round	0.125"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	83
RSS-H-18-40-A	18	5.5	4" round	0.125"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	93
RSS-H-20-40-A	20	6.1	4" round	0.125"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	103
RSS-H-10-40-B	10	3.0	4" round	0.188"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	77
RSS-H-12-40-B	12	3.7	4" round	0.188"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	92
RSS-H-14-40-B	14	4.3	4" round	0.188"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	107
RSS-H-16-40-B	16	4.9	4" round	0.188"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	122
RSS-H-18-40-B	18	5.5	4" round	0.188"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	138
RSS-H-20-40-B	20	6.1	4" round	0.188"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	153
RSS-H-10-45-A	10	3.0	4.5" round	0.125"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	58
RSS-H-12-45-A	12	3.7	4.5" round	0.125"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	70
RSS-H-14-45-A	14	4.3	4.5" round	0.125"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	82
RSS-H-16-45-A	16	4.9	4.5" round	0.125"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	93
RSS-H-18-45-A	18	5.5	4.5" round	0.125"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	105
RSS-H-20-45-A	20	6.1	4.5" round	0.125"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	117
RSS-H-25-45-A	25	7.6	4.5" round	0.125"	9"	7.5" - 10"	5.30" - 7.07"	9"	0.75	3/4" x 30" x 3"	3.5"	146
RSS-H-10-50-B	10	3.0	5" round	0.188"	11"	8.0" - 11"	5.66" - 7.78"	10.25	1.0	1" x 36" x 4"	4.5"	97
RSS-H-12-50-B	12	3.7	5" round	0.188"	11"	8.0" - 11"	5.66" - 7.78"	10.25	1.0	1" x 36" x 4"	4.5"	116
RSS-H-14-50-B	14	4.3	5" round	0.188"	11"	8.0" - 11"	5.66" - 7.78"	10.25	1.0	1" x 36" x 4"	4.5"	135
RSS-H-16-50-B	16	4.9	5" round	0.188"	11"	8.0" - 11"	5.66" - 7.78"	10.25	1.0	1" x 36" x 4"	4.5"	155
RSS-H-18-50-B	18	5.5	5" round	0.188"	11"	8.0" - 11"	5.66" - 7.78"	10.25	1.0	1" x 36" x 4"	4.5"	174
RSS-H-20-50-B	20	6.1	5" round	0.188"	11"	8.0" - 11"	5.66" - 7.78"	10.25	1.0	1" x 36" x 4"	4.5"	193
RSS-H-25-50-B	25	7.6	5" round	0.188"	11"	8.0" - 11"	5.66" - 7.78"	10.25	1.0	1" x 36" x 4"	4.5"	242
RSS-H-20-60-C	20	6.1	6" round	0.250"	11"	9.0" - 11"	6.36" - 7.78"	10.25	1.0	1" x 36" x 4"	4.5"	307
RSS-H-25-60-C	25	7.6	6" round	0.250"	11"	9.0" - 11"	6.36" - 7.78"	10.25	1.0	1" x 36" x 4"	4.5"	384
RSS-H-30-60-C	30	9.1	6" round	0.250"	11"	9.0" - 11"	6.36" - 7.78"	10.25	1.0	1" x 36" x 4"	4.5"	461

NOTE Factory supplied template must be used when setting anchor bolts. Hubbell Lighting will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.

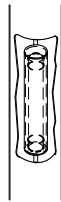
EHH - EXTRA HANDHOLE



C05 - C07 - C20 - COUPLING



VM2 - VIBRATION DAMPER 2ND MODE



Factory installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

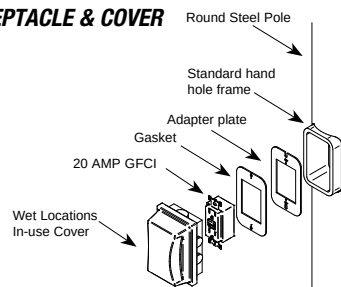
VM2SXX - VIBRATION DAMPER 2ND MODE



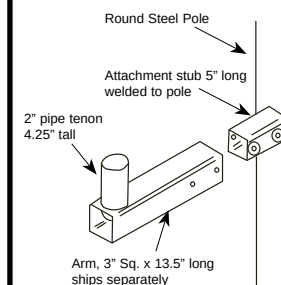
VM2S08 - 8'
VM2S12 - 12'
VM2S16 - 16'
VM2S20 - 20'
VM2S24 - 24'

Field installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

GFI - 20 AMP GFCI RECEPTACLE & COVER

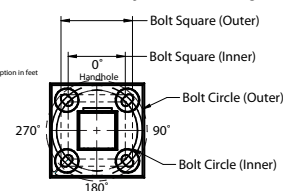


MPB - MID POLE BRACKET



OPTION ORIENTATION

Follow the logic below when ordering location specific options. For each option, include its orientation (in degrees) and its height (in feet). Example: Option C07 should be ordered as: **RSS-H-20-40-A-TA-DB-C05-0-15** (.5" coupling on the handhole/arm side of pole, 15 feet up from the pole base) 1' spacing required between option. Consult factory for other configurations.



For more information about pole vibration and vibration dampers, please consult http://cdn.hubbelloutdoor.com/content/products/literature/files/Pole_Wind_Induced_Flyer_HLOI0022.pdf
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HUBBELL
Lighting

Printed in USA RSS-H POLES-SPEC 11/16



LOUVERED BRICK STAR™

PROJECT:	TYPE S7
TYPE:	
CATALOG NUMBER:	
SOURCE:	
NOTES:	

CATALOG NUMBER LOGIC

Example: **B** - **BQL** - **LED** - **e101** - **A9** - **MAC** - **D**

Material
Blank - Aluminum
B - Brass
S - Stainless

Series
BQL - Louvered Brick Star™

Source
LED - 'e' Technology with Integral Dimming Driver (See Specifications for Dimming)
Designed for use with remote 12VAC BKSSL* transformers. Requires magnetic Low Voltage dimmer.

LED Type
e100 - 5WLED/2.7K
e101 - 5WLED/3K
e102 - 5WLED/4K
e103 - 5WLED/Amber

Adjust-e-Lume® Output Intensity (Choose factory setting)
A9 (Standard), A8, A7, A6, A5, A4, A3, A2, A1

Finish

Aluminum Finish			Brass Finish		Premium Finish		
Powder Coat Color	Satin	Wrinkle	Machined	MAC	ABP Antique Brass Powder	CMG Cascade Mountain Granite	RMG Rocky Mountain Granite
Bronze	BZP	BZW	Polished	POL	AMG Aleutian Mountain Granite	CRI Cracked Ice	SDS Sonoran Desert Sandstone
Black	BLP	BLW	Mitique™	MIT	AQW Antique White	CRM Cream	SMG Sierra Mountain Granite
White (Gloss)	WHP	WHW	Stainless Finish		BCM Black Chrome	HUG Hunter Green	TXF Textured Forest
Aluminum	SAP	—	Machined	MAC	BGE Beige	MDS Mojave Desert Sandstone	WCP Weathered Copper
Verde	—	VER	Polished	POL	BPP Brown Patina Powder	NBP Natural Brass Powder	WIR Weathered Iron
			Brushed	BRU Interior use only.	CAP Clear Anodized Powder	OCP Old Copper	Also available in RAL Finishes See submittal SUB-1439-00

Louver
D - Rectangular, 30°

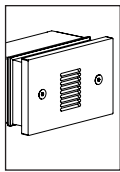
B-K LIGHTING

40429 Brickyard Drive • Madera, CA 93636 • USA
559.438.5800 • FAX 559.438.5900
www.bklighting.com • info@bklighting.com

RELEASED
01-04-18

DRAWING NUMBER
SUB001013

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BKSSL
SOLID STATE LIGHTING



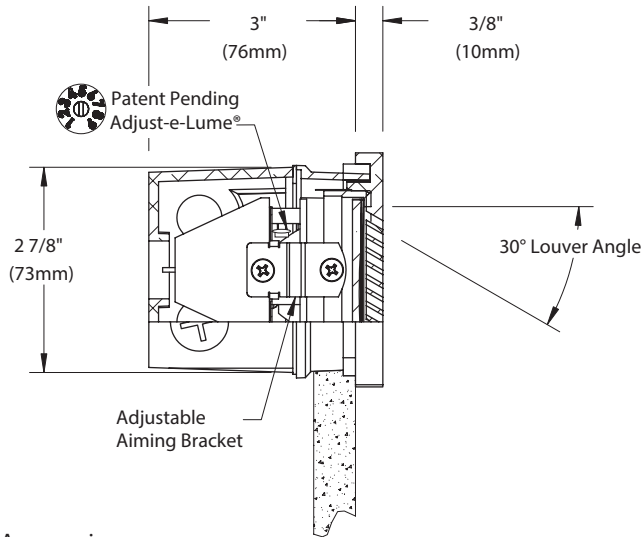
LOUVERED BRICK STAR™

PROJECT:

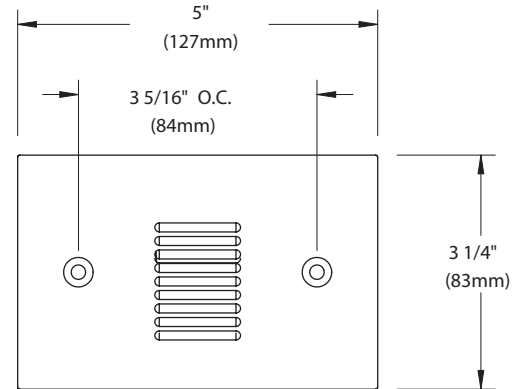
TYPE:

TYPE S7

SIDE VIEW



FACEPLATE DETAIL



Accessories (Configure separately)

Remote options:



TR Series



UPMRM™

All dimensions indicated on this submittal are nominal.
Contact Technical Sales if you require more stringent specifications.

SPECIFICATIONS

GreenSource Initiative™

Metal and packaging components are made from recycled materials. Manufactured using renewable solar energy, produced on site. Returnable to manufacturer at end of life to ensure cradle-to-cradle handling. Packaging contains no chlorofluorocarbons (CFC's). Use of this product may qualify for GreenSource efficacy and recycling rebate(s). Consult www.bklighting.com/greensource for program requirements.

Materials

Furnished in Copper-Free Aluminum (Type 6061-T6) or Brass (Type 360) or Stainless Steel (Type 304).

Backbox

Rectangular, 4-5/8" x 2-7/8" deep, cast aluminum construction. Front access for wire connection and inspection. Provided with [5] 1/2" NPS tapped holes (2 on each end and 1 on the back) and [4] plugs. Suitable for concrete pour.

Faceplate

Fully machined from solid billet. Countersunk holes provide for flush hardware mounting with [2] tamper-resistant, stainless steel mounting screws. 1/8" thick HT-805A silicone foam gasket with acrylic adhesive for water-tight seal.

Lens

Shock resistant, tempered, glass lens is factory adhered to faceplate.

BKSSL®

Integrated solid state system with 'e' technology is scalable for field upgrade. Modular design with electrical quick disconnects permit field maintenance. High power, forward throw source complies with ANSI C78.377 binning requirements. Exceeds ENERGY STAR® lumen maintenance requirements. LM-80 certified components.

Integral, constant current driver. 12VAC/VDC input. 50/60Hz. Proprietary input control scheme achieves power factor correction and eliminates inrush current. Output, over-voltage, open-circuit, and short circuit protected. Inrush current limited to <1A (non-dimming). Conforms to Safety Std. C22.2 No. 250.13-12.

Dimming

Line voltage dimmable via magnetic low voltage dimmer. For use with low voltage dimmer with dedicated neutral conductor. For purposes of dimming: Remote magnetic transformer with BKSSL® Power of 'e' technology loads should be loaded to 25% of the transformer VA (watts) rated value.

Optics

Rectilinear design provides wide lateral distribution and long forward throw.

Adjust-e-Lume® (Pat. Pending)

Integral electronics allows dynamic lumen response at the individual fixture. Indexed (100% to 25% nom.) lumen output. Maintains output at desired level or may be changed as conditions require. Specify factory preset output intensity.

Louvers and Aiming

Louver pattern is machined into faceplate to prevent direct view to the source at nadir. 30° optical cutoff for mounting heights well below typical visual glare angles. Adjustable lamp bracket provides up to 24° vertical aiming.

Remote Transformer

For use with 12VAC BKSSL remote transformer or magnetic transformers only. B-K Lighting cannot guarantee performance with third party manufacturers' transformers.

Wiring

Teflon® coated, 18AWG, 600V, 250° C rated and certified to UL 1659 standard.

Hardware

Tamper-resistant, stainless steel hardware. Faceplate screws are additionally black oxide treated for additional corrosion resistance.

Finish

StarGuard®, our exclusive RoHs compliant, 15 stage chromate-free process cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating. Brass components are available in powder coat or handcrafted metal finish. Stainless steel components are available in handcrafted metal finish. (Brushed finish for interior use only).

Warranty

5 year limited warranty.

Certification and Listing

ITL tested to IESNA LM-79. UL Listed. Certified to CAN/CSA/ANSI Standards. RoHs compliant. Suitable for indoor or outdoor use. Suitable for installation in combustible materials (Type Non-IC). Suitable for use in wet locations. Suitable for installation within 4' of the ground. IP65 Rated. Made in USA.



*Teflon is a registered trademark of DuPont Corporation.

*Energy Star is a registered trademark of the United States Environmental Protection Agency.

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RELEASED
01-04-18

DRAWING NUMBER
SUB001013

LAMP & DRIVER DATA

e100, e101, e102, e103

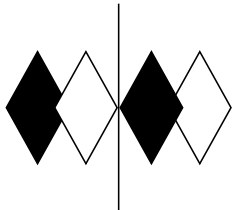
TYPE S7

DRIVER DATA	Input Volts	InRush Current	Operating	Dimmable	Operation Ambient Temperature
	12VAC/DC 50/60Hz	<250mA (non-dimmed)	500mA	Magnetic Low Voltage Dimmer	-22°F-194°F (-30°C - 90°C)

LM79 DATA				L70 DATA		OPTICAL DATA	
BK No.	CCT (Typ.)	CRI (Typ.)	Input Watts (Typ.)	Minimum Rated Life (hrs.) 70% of initial lumens (L70)		Louver Angle	Delivered Lumens
e100	2700K	80	5	50,000		C-30°	59
e101	3000K	80	5	50,000		C-30°	60
e102	4000K	80	5	50,000		C-30°	68
e103	Amber (590nm)	~	5	50,000		~	~

FOR USE WITH

SSL	Louvered Step Star™
BQL	Louvered Brick Star™
SQL	Louvered Square Step Star™
VBL	Louvered Vertical Brick Star™
PSL	Louvered Path Star™
BSL	Louvered Bollard Star™



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PHONE: (303) 442-1255

FAX: (970) 535-3114

E-MAIL: itl@itlboulder.com

WEBSITE: www.itlboulder.com

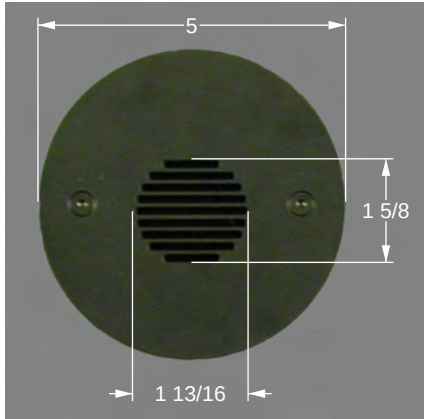
NVLAP
NVLAP LAB CODE: 200925-0

INDEPENDENT TESTING LABORATORIES, INC.
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION

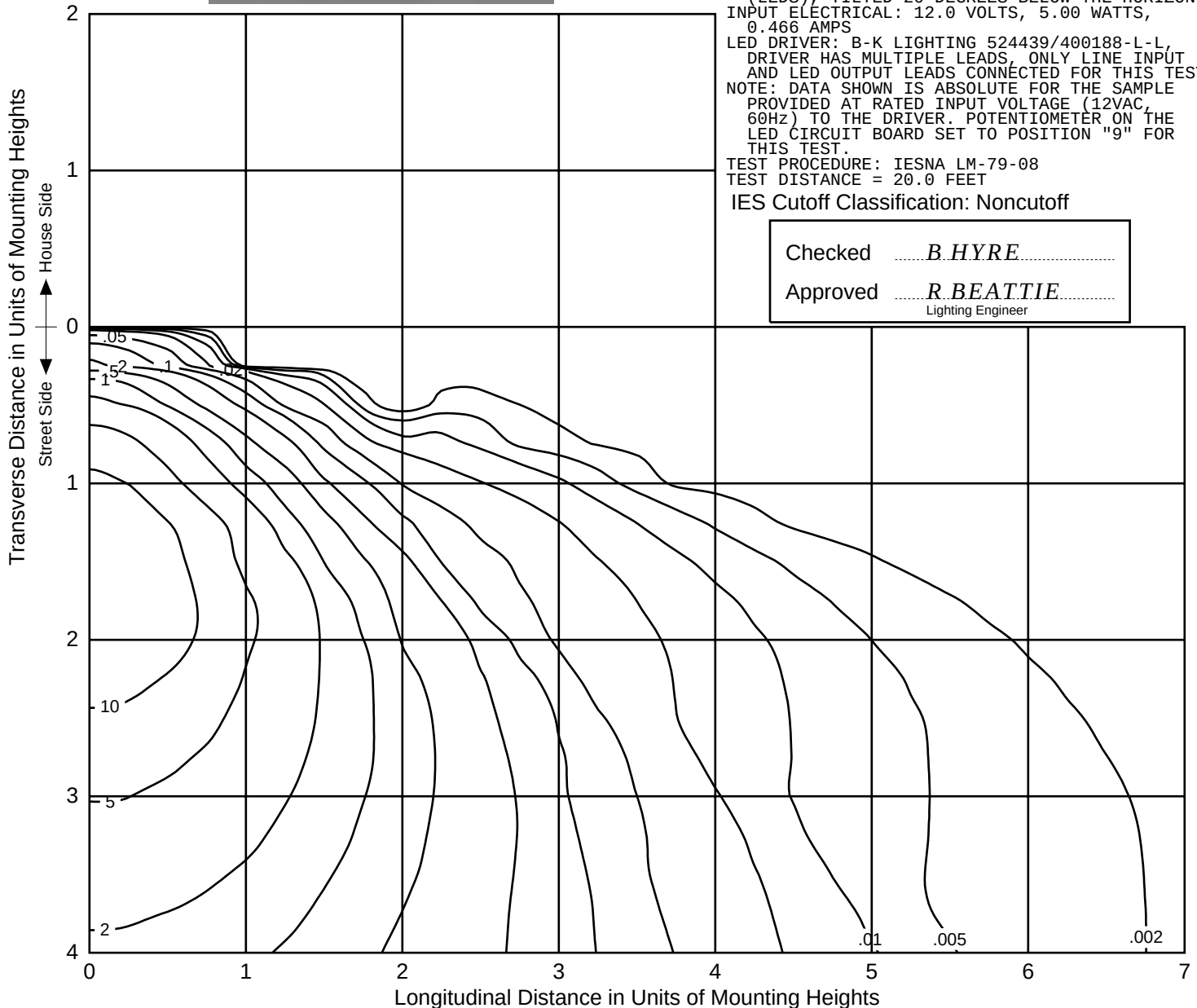
Values based on 1 foot mounting height.

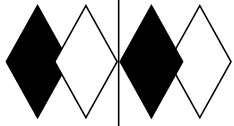
TYPE S7



REPORT NUMBER: ITL86654
ISSUE DATE: 03/02/16 PAGE: 1 OF 8
PREPARED FOR: B-K LIGHTING, INC.
CATALOG NUMBER: SSL-LED-e102-C-20-DEGREES,
BQL-LED-e102-C-20-DEGREES, SQL-LED-e102-C-
20-DEGREES, VBL-LED-e102-C-20-DEGREES
LUMINAIRE: CAST METAL WALL MOUNTING HOUSING,
ONE ADJUSTABLE LED MODULE CONSISTING OF:
MACHINED BLACK FINISHED METAL HEAT SINK,
ONE BLACK CIRCUIT BOARD WITH 3 LEDS, ONE
CLEAR CONICAL PLASTIC OPTIC PER LED WITH
FROSTED SURFACE OPPOSITE LED, MOLDED BLACK
PLASTIC OPTIC MOUNTING FRAME. FABRICATED
DIFFUSE METAL LED MODULE MOUNTING BRACKETS,
MACHINED BLACK FINISHED METAL OPTIC
ASSEMBLY MOUNTING COLLAR, CLEAR FLAT LINEAR
PRISMATIC GLASS LENS, CAST BLACK PAINTED
LOUVERED METAL FACEPLATE, LENS PRISMS OUT
AND VERTICAL. LED MODULE TILTED 20-DEGREES
BELOW THE HORIZON.
LAMPS: THREE WHITE LIGHT EMITTING DIODES
(LEDS), TILTED 20-DEGREES BELOW THE HORIZON.
INPUT ELECTRICAL: 12.0 VOLTS, 5.00 WATTS,
0.466 AMPS
LED DRIVER: B-K LIGHTING 524439/400188-L-L,
DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT
AND LED OUTPUT LEADS CONNECTED FOR THIS TEST.
NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE
PROVIDED AT RATED INPUT VOLTAGE (12VAC,
60HZ) TO THE DRIVER. POTENTIOMETER ON THE
LED CIRCUIT BOARD SET TO POSITION "9" FOR
THIS TEST.
TEST PROCEDURE: IESNA LM-79-08
TEST DISTANCE = 20.0 FEET
IES Cutoff Classification: Noncutoff

Checked *B. HYRE*
Approved *R. BEATTIE*
Lighting Engineer





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NVLAP
NVLAP LAB CODE: 200925-0

INDEPENDENT TESTING LABORATORIES, INC.
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL86654

ISSUE DATE: 03/02/16 PAGE: 2 OF 8

PREPARED FOR: B-K LIGHTING, INC.

CATALOG NUMBER: SSL-LED-e102-C-20-DEGREES, BQL-LED-e102-C-20-DEGREES, SQL-LED-e102-C-20-DEGREES, VBL-LED-e102-C-20-DEGREES

LUMINAIRE: CAST METAL WALL MOUNTING HOUSING, ONE ADJUSTABLE LED MODULE CONSISTING OF: MACHINED BLACK FINISHED METAL HEAT SINK, ONE BLACK CIRCUIT BOARD WITH 3 LEDS, ONE CLEAR CONICAL PLASTIC OPTIC PER LED WITH FROSTED SURFACE OPPOSITE LED, MOLDED BLACK PLASTIC OPTIC MOUNTING FRAME. FABRICATED DIFFUSE METAL LED MODULE MOUNTING BRACKETS, MACHINED BLACK FINISHED METAL OPTIC ASSEMBLY MOUNTING COLLAR, CLEAR FLAT LINEAR PRISMATIC GLASS LENS, CAST BLACK PAINTED LOUVERED METAL FACEPLATE, LENS PRISMS OUT AND VERTICAL. LED MODULE TILTED 20-DEGREES BELOW THE HORIZON.

LAMPS: THREE WHITE LIGHT EMITTING DIODES (LEDs), TILTED 20-DEGREES BELOW THE HORIZON.

INPUT ELECTRICAL: 12.0 VOLTS, 5.00 WATTS, 0.466 AMPS

LED DRIVER: B-K LIGHTING 524439/400188-L-L, DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST.

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (12VAC, 60Hz) TO THE DRIVER.

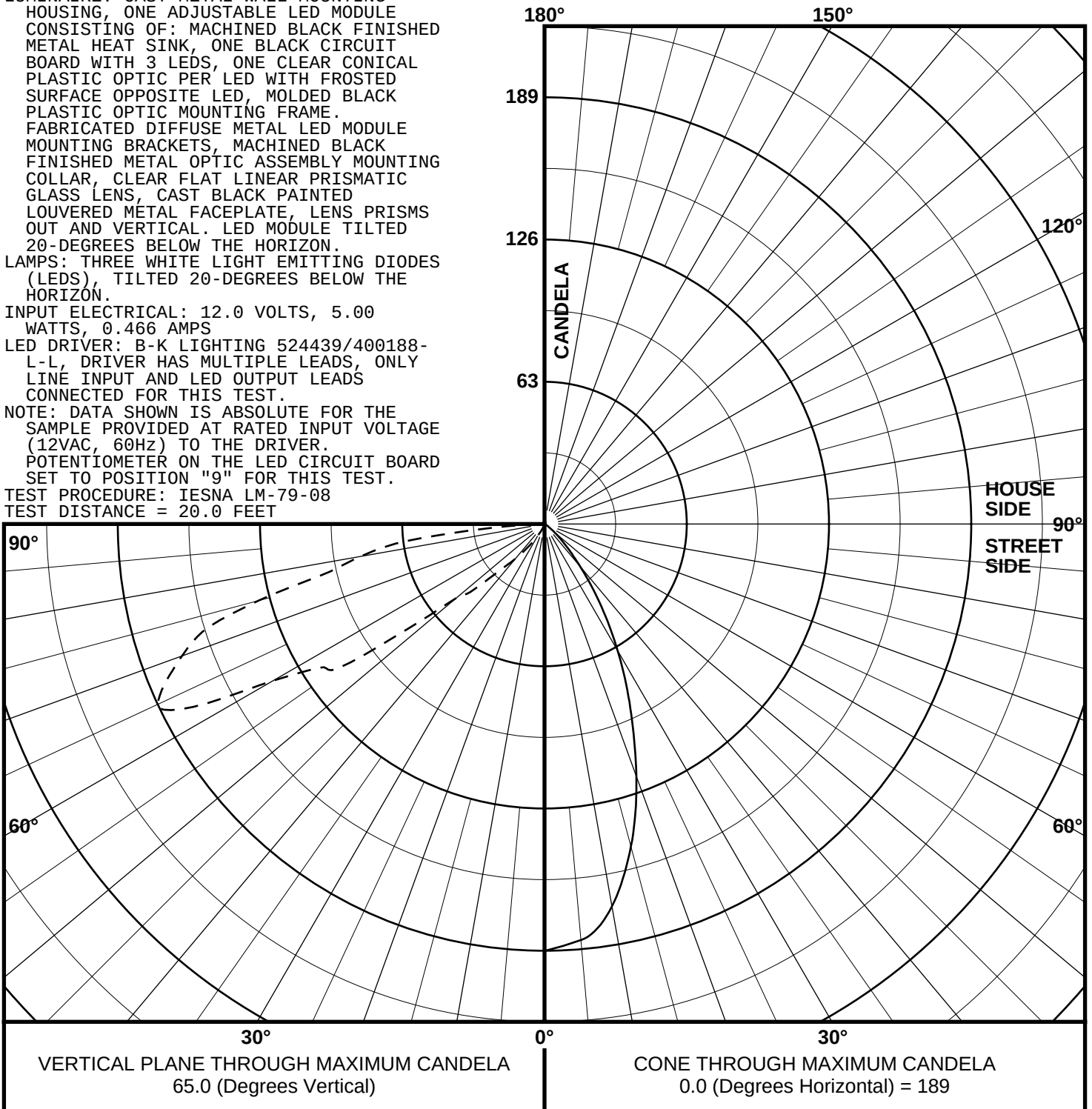
POTENTIOMETER ON THE LED CIRCUIT BOARD SET TO POSITION "9" FOR THIS TEST.

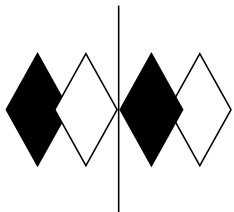
TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 20.0 FEET

TYPE S7

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA



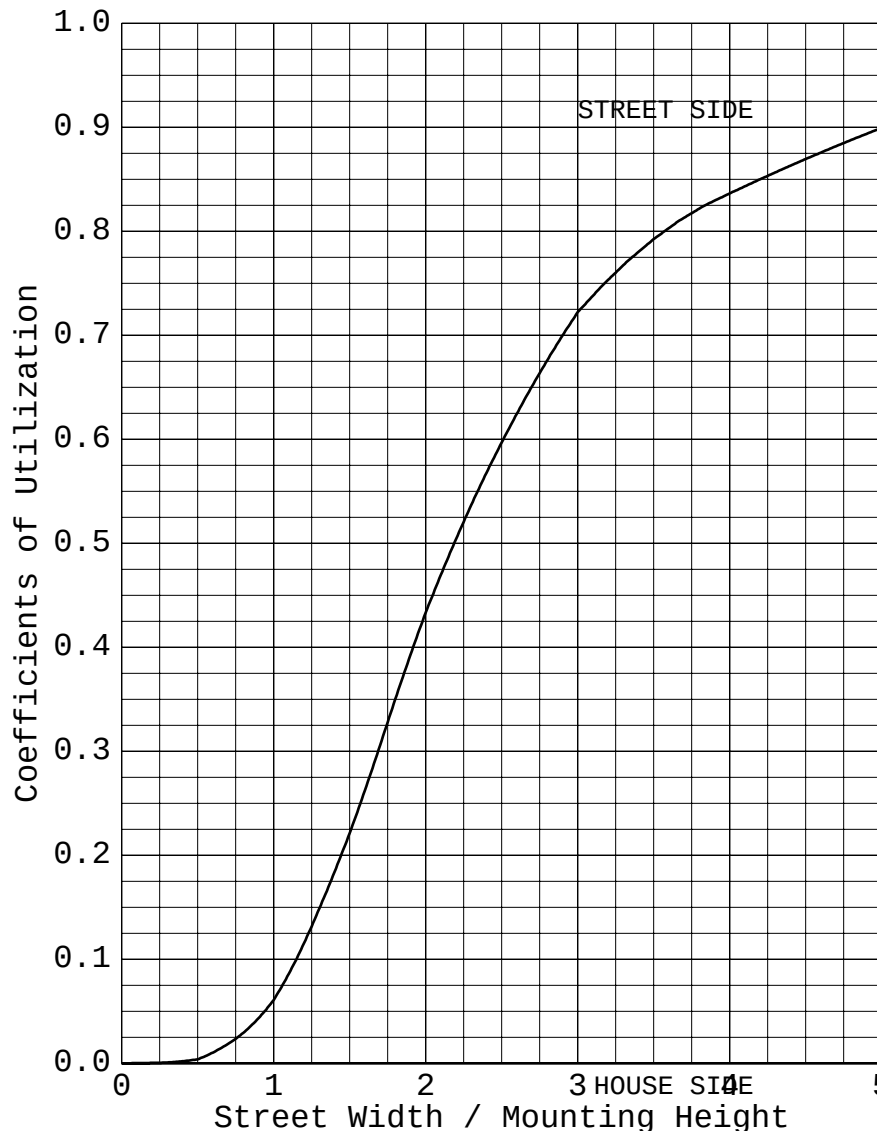


REPORT NUMBER: ITL86654
ISSUE DATE: 03/02/16
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PAGE: 3 OF 8

COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION

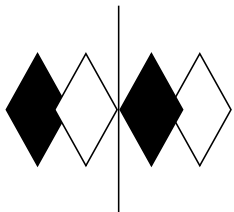
TYPE S7



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	67.3	99.6
DOWNWARD HOUSE SIDE	0.0	0.0
DOWNWARD TOTAL	67.3	99.6
UPWARD STREET SIDE	0.3	0.4
UPWARD HOUSE SIDE	0.0	0.0
UPWARD TOTAL	0.3	0.4
TOTAL FLUX	67.6	100.0

EFFICACY = 13.5 lm/W

ALL CANDELA AND LUMENS IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY.
THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE
LUMEN OUTPUT OF THIS LUMINAIRE SAMPLE.



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TYPE S7

REPORT NUMBER: ITL86654
ISSUE DATE: 03/02/16
PREPARED FOR: B-K LIGHTING, INC.

PAGE: 4 OF 8

FLUX DISTRIBUTION BY SOLID ANGLE

(PER IESNA TM-15-11, LUMINAIRE CLASSIFICATION
SYSTEM FOR OUTDOOR LUMINAIRES)

	LUMENS	PERCENT OF FIXTURE	BUG ZONE RATINGS
FORWARD LIGHT	67.3	99.6	
FL (0- 30)	0.3	0.4	
FM (30- 60)	17.9	26.5	
FH (60- 80)	43.5	64.3	G0
FVH(80- 90)	5.7	8.4	G0
BACK LIGHT	0.0	0.0	
BL (0- 30)	0.0	0.0	B0
BM (30- 60)	0.0	0.0	B0
BH (60- 80)	0.0	0.0	B0 G0
BVH(80- 90)	0.0	0.0	G0
UPLIGHT	0.3	0.4	
UL (90-100)	0.2	0.3	U1
UH (100-180)	0.1	0.1	U1
TRAPPED LIGHT	0.0	0.0	
TOTAL FLUX	67.6	100.0	

BACKLIGHT, UPLIGHT, AND GLARE (BUG) RATINGS
(PER ADDENDUM A FOR IESNA TM-15-11)

BUG RATING: B0 U1 G0

CB12R – Contemporary Concrete Bollard – 12" Round | TYPE

TYPE S8

- Warm white (3000K), neutral white (4000K) or bright white (5000K)
- Body and cap are composed of precast concrete reinforced with an internal cage structure of steel
- Grilles are cast aluminum with stainless steel hardware
- Inner lens is sealed to the grille frame
- Integral prewired driver module
- Electrical module is silicone gasketed for weather tight operations
- Color of grilles feature TGIC polyester powder finish coating with choice of 13 standard colors.



CB12R

1. MODEL	2. STYLE	3. LIGHT ENGINE	3. CONCRETE FINISH	5. GRILLE FINISH	6. OPTIONS	7. MOUNTING
CB12 R						

1. MODEL

CB12R Concrete Bollard, 12"Ø

2. STYLE

24" OAH internal or external mounting
 24-CO-FLAT cutoff grille, flat top
 24-HORZ-FLAT horizontal grille, flat top
 24-VERT-FLAT vertical grille, flat top
 24-VERT-DOME vertical grille, dome top

26" OAH internal or external mounting
 26-CO-DOME cutoff grille, dome top
 26-HORZ-DOME horizontal grille, dome top

36" OAH internal mounting
 36-CO-FLAT cutoff grille, flat top
 36-HORZ-FLAT horizontal grille, flat top
 36-VERT-FLAT vertical grille, flat top
 36-VERT-DOME vertical grille, dome top

37" OAH external mounting
 37-CO-FLAT cutoff grille, flat top
 37-HORZ-FLAT horizontal grille, flat top
 37-VERT-FLAT vertical grille, flat top
 37-VERT-DOME vertical grille, dome top

38" OAH internal mounting
 38-CO-DOME cutoff grille, dome top
 38-HORZ-DOME horizontal grille, dome top

39" OAH external mounting
 39-CO-DOME cutoff grille, dome top
 39-HORZ-DOME horizontal grille, dome top

41" OAH internal mounting
 41-CO-FLAT cutoff grille, flat top
 41-HORZ-FLAT horizontal grille, flat top
 41-VERT-FLAT vertical grille, flat top
 41-VERT-DOME vertical grille, dome top

42" OAH external mounting
 42-CO-FLAT cutoff grille, flat top
 42-HORZ-FLAT horizontal grille, flat top
 42-VERT-FLAT vertical grille, flat top
 42-VERT-DOME vertical grille, dome top

43" OAH internal mounting
 43-CO-DOME cutoff grille, dome top
 43-HORZ-DOME horizontal grille, dome top

44" OAH external mounting
 44-CO-DOME cutoff grille, dome top
 44-HORZ-DOME horizontal grille, dome top

3. LIGHT ENGINE

36LED-BW 5000K, 42w, 70 CRI
 36LED-NW 4000K, 42w, 70 CRI
 36LED-WW 3000K, 42w, 70 CRI

4. CONCRETE FINISH

MSB Medium sandblast, natural color finish
 AGR Exposed aggregate finish
 MSB-CC Medium sandblast, custom color ^{1 2}
 AGR-CC Exposed aggregate finish, custom color ^{1 2}

5. GRILLE FINISH

Standard Color

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

Premium Color

SHK Shamrock
 SPP Salt and Pepper
 SFM Seafoam
 WCP Weathered Copper
 RAL RAL 4 digit Color
 CUSTOM Custom Color

6. OPTIONS

HSS House side shield -180°
 RBC Single gang electrical box, cast in place with weatherproof cover. ¹

7. MOUNTING

INT Internal, for 24", 26", 36", 38", 41" or 43" OAH only
EXT External, for 24", 26", 37", 39", 42" or 44" OAH only

¹ Consult Factory.

² Based on Davis colors. For custom color and aggregate, customer must provide aggregate, sand, and colorant.

SPECIFICATIONS

CONCRETE BODY AND CAP

The body and caps are composed of precast concrete reinforced with an internal cage structure of steel. The concrete bodies are one-piece castings with a minimum wall thickness of 3"/75mm. All threaded inserts are welded to the steel reinforcing cage and cast in place. The base plate for anchoring is 1/4" hot dipped galvanized steel.

GRILLE

Grilles are cast aluminum, minimum wall thickness of .250 inches. All castings are pure aluminum #356 alloy, free of any foreign material or porosity. Grilles have cast-in-place, integral mounting lugs for attachment to the concrete base. The inner lens is sealed to the grille frame. All LED models have an opal DR acrylic lens. The grill assembly has a silicone gasket on the top and bottom for weather tight operation. Recessed stainless steel screws are loosened to remove the top cap for relamping.

CUTOFF

Models with cutoff grille provide IES cutoff classification meaning less than 2.5% of light is emitted above 90° horizontal.

ELECTRICAL MODULE

The electrical module consists of the electrical module and lamp housing. All housing parts are aluminum with stainless steel hardware. The electrical module is prewired on an aluminum strap mounted to the underside of the lamp housing. The electrical module is silicone gasketed for weather tight operation. LED components are 120 thru 277 volt. LED constant current driver operates at 350mA.

FINISH

Concrete surface finish is natural concrete with a medium sandblast etch or exposed aggregate. Medium sandblast finish includes a clear anti-vandal sealer.

Grill finish consists of a five stage pretreatment

See next page

JOB _____
 TYPE _____
 NOTES _____



ARCHITECTURAL AREA LIGHTING
 17760 Rowland Street | City of Industry | CA 91748
 P 626.968.5666 | F 626.369.2695 | www.aal.net
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TYPE

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

CERTIFICATION

All bollards shall be listed with ETL for outdoor, wet location use, UL1598 and Canadian CSA Std. C22.2 no.250

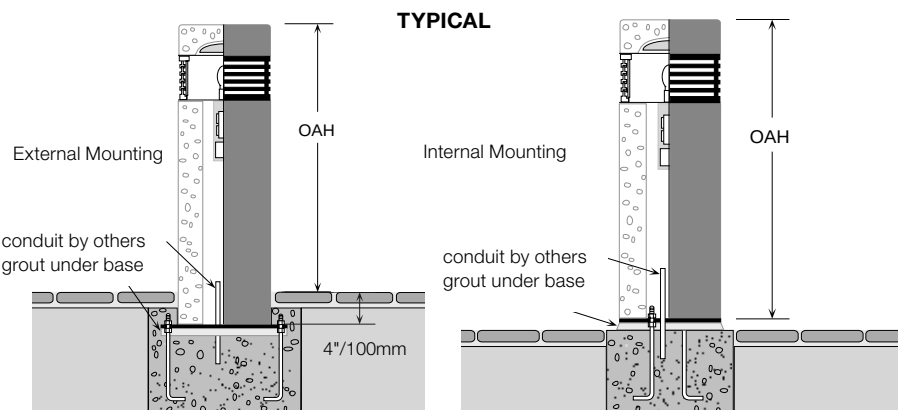
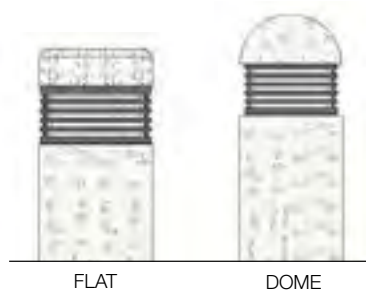
WARRANTY / TERMS AND CONDITIONS OF SALE

Download:

<http://www.hubbellighting.com/resources/warranty/>

MODEL	OAH	GRILLE	TOP	MOUNTING	WT (LBS)
CB12R	24"	CO	FLAT	EXTERNAL	139
				INTERNAL	116
		HORZ	FLAT	EXTERNAL	139
				INTERNAL	116
		VERT	DOME	EXTERNAL	135
				INTERNAL	112
			FLAT	EXTERNAL	150
				INTERNAL	127
	26"	CO	DOME	EXTERNAL	135
				INTERNAL	112
		HORZ	DOME	EXTERNAL	135
				INTERNAL	112
	36"	CO	FLAT	INTERNAL	186
		HORZ			
		VERT	DOME	INTERNAL	182
			FLAT	INTERNAL	197
	37"	CO	FLAT	EXTERNAL	214
		HORZ			
		VERT	DOME	EXTERNAL	210
			FLAT	EXTERNAL	225
	38"	CO	DOME	INTERNAL	182
		HORZ			
	39"	CO	DOME	EXTERNAL	210
		HORZ			
	41"	CO	FLAT	INTERNAL	214
		HORZ			
		VERT	DOME	INTERNAL	210
			FLAT	INTERNAL	225
42"	CO	FLAT	EXTERNAL	244	
	HORZ	DOME	EXTERNAL	240	
		FLAT	EXTERNAL	255	
	43"	CO	DOME	INTERNAL	210
HORZ					
44"	CO	DOME	EXTERNAL	240	
	HORZ				

DIMENSIONS



CB12R VERT 36LED-WW

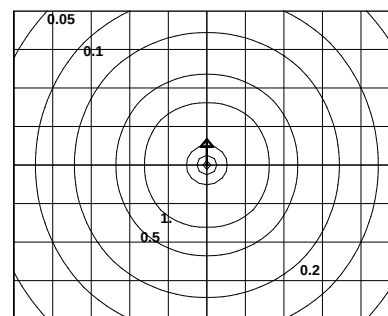
WATTAGE: 37.7

LUMEN OUTPUT: 663

EFFICACY: 17.6 Lm/W

B1 U2 G1

FORWARD LIGHT		LUMEN	
FL	30°	1.3%	8
FM	60°	16.5%	110
FH	80°	17.0%	113
FVH	90°	5.9%	39
BACK LIGHT			
BL	30°	1.3%	8
BM	60°	16.5%	110
BH	80°	17.0%	113
BVH	90°	5.9%	39
UPLIGHT			
UL	100°	6.8%	45
UH	180°	11.7%	78



UPLIGHT 18.5%
DOWNLIGHT 81.5%

3.5' MOUNTING HEIGHT

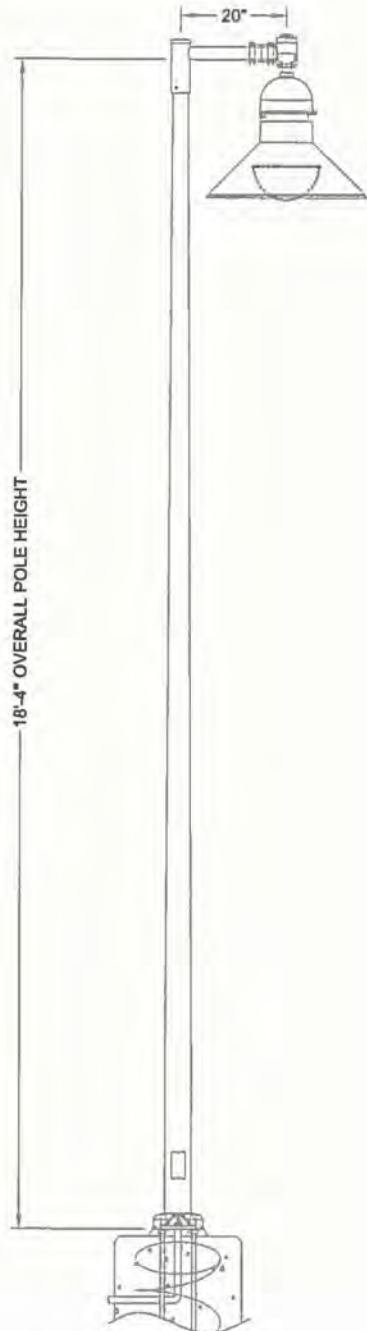
AAL reserves the right to change product specifications without notice.

IES files can be found at www.aal.net



PORTLAND | me

Street & Sidewalk Lighting DECORATIVE LIGHT - TRAIL/WATERFRONT



LUMINAIRE

Holophane GlasWerks LED Hallbrook Series
Model: GELB-050-3K-AS-4-B-3-P7E-DM

Pendant mount
IES Type IV Distribution
Thermal resistant prismatic glass lens held in a formed aluminum door frame.
50 watts
Universal Voltage (120-277V)
Dimming driver with 7-pin photocontrol receptacle
LED 3000K color temperature

BRACKET ARM

Aluminum crossarm with a post-top fitting for a 2-3/8" by 6" tenon.

SLIP FITTER

Holophane Glasswerks Slip Fitter
Model SG20/1-BK

2-3/8" O.D. with swivel cast fitter.

LIGHTING POLE

Holophane
Model: RTA1850E-PL-ND-BK-4

Aluminum pole shaft rated for a 90 mph wind load with a 1.3 gust factor.

Provide four hot-dipped galvanized steel L-type anchor bolts. Lighting pole shall be hot dipped galvanized prior to powder coat paint.

DIMENSIONS

Overall Height = 18' 4"
Bracket Arm = 1' 6"

FINISH

Black (standard) - polyester powder coat

APPLICATION

Trails: Appropriate for any city trail installation.
Waterfront (Commercial/Thames St): Supplemental pedestrian lighting to standard cobrahead lighting.

Spacing:
One side: 90' - 125' on center
Alternating sides: 175' - 225' ft on center

Follow established pattern. Single arm oriented over trail or street; Double-arm used in medians or similar.

Date:
March, 2019

**CITY OF PORTLAND, MAINE
TECHNICAL MANUAL**

**MUNICIPAL STREET
LIGHTING STANDARDS
SECTION 10**

Figure:

X-8B

Revised Date:

**TRAILS / WATERFRONT
(COMMERCIAL/THAMES STREET)**

TYPE S10

Application

As an individual luminaire with low mounting heights, it can be used for marking danger areas or in rows for illuminating corridors and passageways. With high mounting heights it can be used as a wall luminaire next to doors or for lighting small wall areas.

Materials

Luminaire housing constructed of die-cast marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy
Matte safety glass
High temperature silicone gasket
Mechanically captive stainless steel fasteners

NRTL listed to North American Standards, suitable for wet locations
Protection class IP 64
Weight: 1.1 lbs

Electrical

Operating voltage	120-277V AC
Minimum start temperature	-30° C
LED module wattage	3.0 W
System wattage	5.8 W
Controllability	0-10V dimmable
Color rendering index	Ra > 80
Luminaire lumens	204 lumens (3000K)
Lifetime at Ta = 15° C	>500,000 h (L70)
Lifetime at Ta = 40° C	250,000 h (L70)

LED color temperature

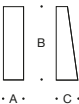
- ☐ 4000K - Product number + **K4**
- ☐ 3500K - Product number + **K35**
- ☒ 3000K - Product number + **K3 (EXPRESS)**
- ☐ 2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish

All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

- Available colors ☒ Black (BLK) ☐ White (WHT) ☐ RAL:
☐ Bronze (BRZ) ☐ Silver (SLV) ☐ CUS :



LED wall luminaire · directed light					
		LED	A	B	C
33514	ADA	3.0 W	2 1/8	7 7/8	2 3/8
					Required wiring box
					19545

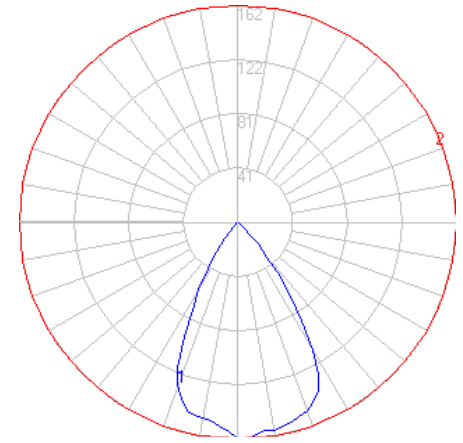


BEGA

TYPE S10

Photometric Filename: 33514.IES

TEST: BE_33514
TEST LAB: BEGA
DATE: 9/20/2017
LUMINAIRE: 33 514
LAMP: 3W LED



TYPE S11

Application

LED wall luminaire with asymmetrical light distribution designed for illuminating horizontal surfaces from vertical mounting surfaces.

Materials

Luminaire housing and faceplate constructed of die-cast marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy
Clear safety glass
Reflector made of pure anodized aluminum
Silicone applied robotically to casting, plasma treated for increased adhesion
High temperature silicone gasket
Mechanically captive stainless steel fasteners

NRTL listed to North American Standards, suitable for wet locations
Protection class IP 65
Weight: 11.5 lbs

Electrical

Operating voltage	120-277V AC
Minimum start temperature	-30° C
LED module wattage	55.3 W
System wattage	61.0 W
Controllability	0-10V dimmable
Color rendering index	Ra > 80
Luminaire lumens	6,674 lumens (4000K)
Lifetime at Ta = 15° C	232,000 h (L70)
Lifetime at Ta = 35° C	73,000 h (L70)

LED color temperature

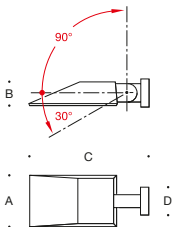
- ☐ 4000K - Product number + **K4**
- ☐ 3500K - Product number + **K35**
- ☒ 3000K - Product number + **K3**
- ☐ 2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish

All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

- | | | | |
|------------------|---|---------------------------------------|-------------------------------|
| Available colors | ☒ Black (BLK) | ☐ White (WHT) | ☐ RAL: |
| | ☐ Bronze (BRZ) | ☐ Silver (SLV) | ☐ CUS: |



LED wall luminaire · surface washer				
	LED	A	B	C
24816	55.3 W	8 7⁄8	4	19 1⁄4

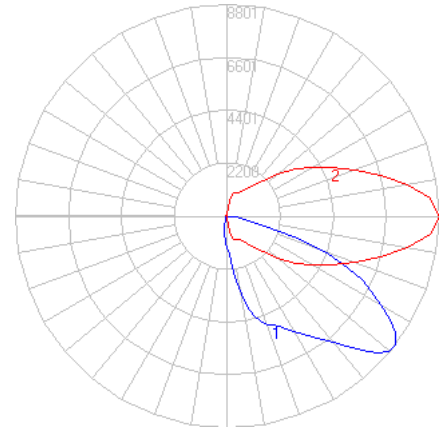


BEGA

TYPE S11

Photometric Filename: 24816.ies

TEST: BE_24816
TEST LAB: BEGA
DATE: 11/30/2016
LUMINAIRE: 24 816
LAMP: 55.3W LED



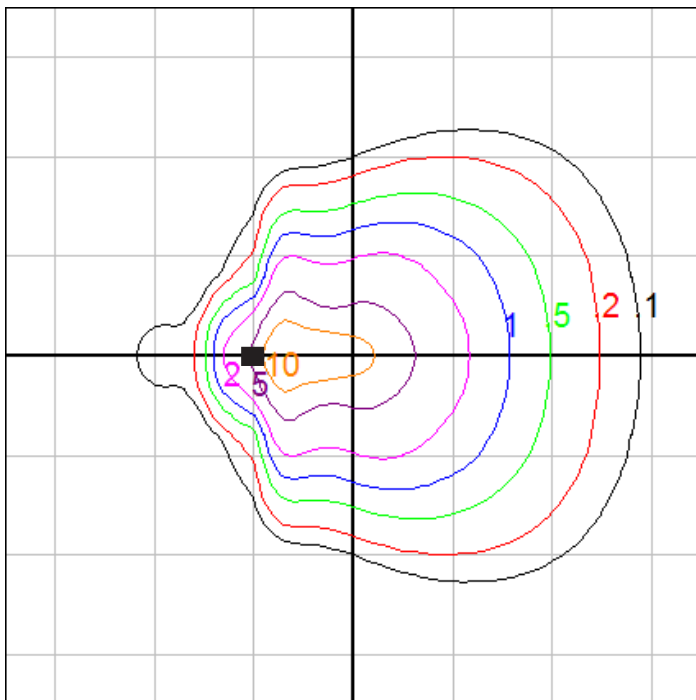
Characteristics

IES Classification	Type III
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6672
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	61
Ballast Factor	1.00
Upward Waste Light Ratio	N.A.
Max. Cd.	8801 (0H, 52.5V)
Max. Cd. (<90 Vert.)	8801 (0H, 52.5V)
Max. Cd. (At 90 Deg. Vert.)	2.4 (0.0%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	551.2 (8.3%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	1181.6	N.A.	17.7
FM (30-60)	3467.0	N.A.	52.0
FH (60-80)	1690.9	N.A.	25.3
FVH (80-90)	39.4	N.A.	0.6
BL (0-30)	203.0	N.A.	3.0
BM (30-60)	72.8	N.A.	1.1
BH (60-80)	14.8	N.A.	0.2
BVH (80-90)	2.4	N.A.	0.0
UL (90-100)	0.0	N.A.	0.0
UH (100-180)	0.0	N.A.	0.0
Total	6672.0	N.A.	100.0

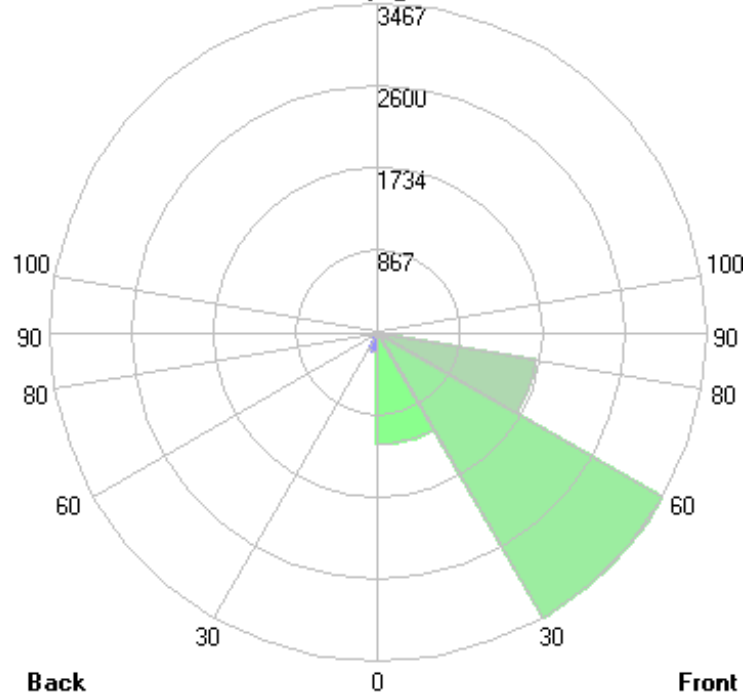
BUG Rating B1-U0-G1



Mounting Height = 15 ft Grid Spacing = 15 ft.

Luminaire Lumens

Uplight



In the interest of product improvement, BEGA reserves the right to make technical changes without notice.

BEGA 1000 Bega Way, Carpinteria, CA 93013 (805)684-0533 Fax (805)566-9474 www.bega-us.com © Copyright BEGA-US 2018

2/7/2018

TYPE S12

Application

LED semi-recessed ceiling luminaire with partially frosted crystal glass and symmetrical wide beam light distribution designed for downlighting atriums, passages and other interior and exterior locations.

Materials

Luminaire housing constructed of die-cast marine grade, copper free ($\leq 0.3\%$ copper content) A360.0 aluminum alloy
Stainless steel trim ring
Partially frosted crystal glass
Reflector made of pure anodized aluminum
High temperature silicone gasket
Stainless steel screw clamps
Galvanized steel rough in ceiling pan with through wiring box

NRTL listed to North American Standards, suitable for wet locations
Protection class IP 65
Weight: 2.6lbs

Electrical

Operating voltage	120-277V AC
Minimum start temperature	-30° C
LED module wattage	12.7 W
System wattage	15.5 W
Controllability	0-10V dimming down to 0.1%
Color rendering index	Ra > 85
Luminaire lumens	802 lumens (3000K)
Lifetime at Ta = 15° C	450,000 h (L70)
Lifetime at Ta = 35° C	300,000 h (L70)

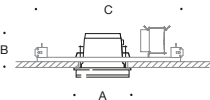
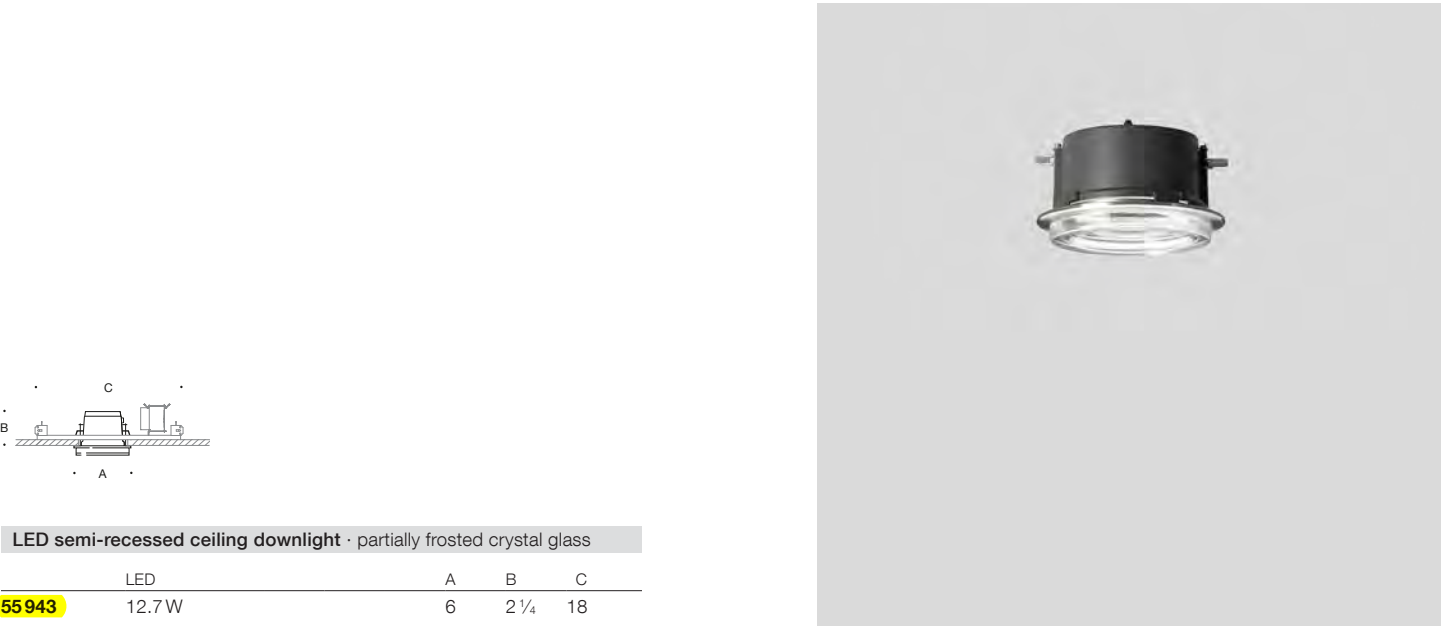
LED color temperature

- ☐ 4000K - Product number + **K4**
- ☐ 3500K - Product number + **K35**
- ☐ 3000K - Product number + **K3**
- ☐ 2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish

#4 brushed stainless steel.
Custom colors are not available.
Stainless steel requires regular cleaning and maintenance, much like household appliances to maintain its luster and prevent tarnishing or the appearance of rust like stains.



LED semi-recessed ceiling downlight · partially frosted crystal glass				
	LED	A	B	C
55943	12.7 W	6	2 ¼	18

TYPE S13

Application

Wall luminaire with directed light. As individual luminaires with low mounting height, they can be used for marking danger areas or in rows for illuminating corridors and passageways. With high mounting heights they can be used as wall luminaires next to doors or for lighting small wall areas.

Materials

Luminaire housing constructed of die-cast marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy
Matte safety glass
High temperature silicone gasket
Mechanically captive stainless steel fasteners

NRTL listed to North American Standards, suitable for wet locations
Protection class IP 64
Weight: 0.9lbs

Electrical

Operating voltage	120-277V AC
Minimum start temperature	-20° C
LED module wattage	2.1 W
System wattage	3.0W
Controllability	Dimming not available
Color rendering index	Ra > 90
Luminaire lumens	172 lumens (4000K)
LED service life (L70)	60,000 hours

LED color temperature

- ☐ 4000K - Product number + **K4**
- ☐ 3500K - Product number + **K35**
- ☒ 3000K - Product number + **K3**
- ☐ 2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish

All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

- Available colors ☒ **Black (BLK)** ☐ White (WHT) ☐ RAL:
 ☐ Bronze (BRZ) ☐ Silver (SLV) ☐ CUS:



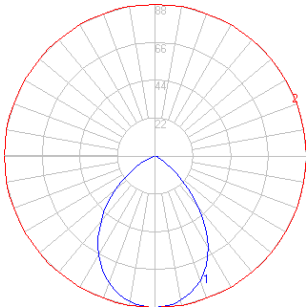
Wall luminaire - directed light					Required wiring box
	LED	A	B	C	
22 215	ADA 2.1 W	3 1/2	3 3/4	2 3/8	19 538





Photometric Filename: 22215.ies

TEST: BE22215
TEST LAB: BEGA
DATE: 9/18/2015
LUMINAIRE: 22 215
LAMP: 2.1W LED

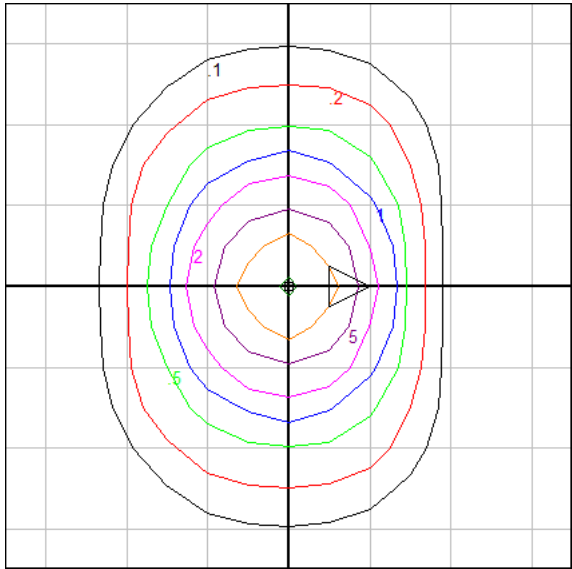


Characteristics

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	173
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	58
Total Luminaire Watts	3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.22
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.10 ft
Luminous Width (90-270)	0.26 ft
Luminous Height	0.00 ft
R9 Value	54.10

Zonal Lumen Summary

Zone	Lumens
0-10	8.26
10-20	23.19
20-30	33.47
30-40	36.38
40-50	31.68
50-60	22.07
60-70	12.27
70-80	4.99
80-90	0.80
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



Mounting Height = 2 ft. Grid Spacing = 2 ft.

Noise and Vibration (14-526 (d) 7)

Not Applicable. There is no equipment associated with the proposed use that would result in the generation of noise or vibrations.

Signage and Wayfinding (14-526 (d) 8)

Please see the plan set for signage information.

Access and Circulation (14-526 (a) 2 a)

- (i) The development provides safe and reasonable access and internal circulation for the entire site for all users of the site and complies with the standards set forth in Section 1 of the Technical Manual. Please see the vehicle tracking plan.
- (ii) The points of access and egress have been located to avoid conflicts with the existing turning movements and traffic flows. Please see the vehicle tracking plan.
- (iii) Not applicable. There are no drive-up features associated with this project.

Loading and Servicing (14-526 (a) 2 b)

- (i) The development has been designed for proper circulation of delivery and other service vehicles. Please see the plan set for the designated loading areas.

Sidewalks (14-526 (a) 2 c)

- (i) The development has been designed with the appropriate sidewalk and curb layout. Please see the site plan.
- (ii) The proposed development will utilize the existing City sidewalk network.
- (iii) Internal sidewalks have been designed in accordance with the requirements of the City code. Please see the plan set for additional information.

Public Transit (14-526 (a) 3)

There are three South Portland bus lines that travel past the project site and make a loop around Monument Square. There is also a Portland bus route (the 8-line, Peninsula Loop) that runs north of the project site with the closest stop being near the intersection of High and Danforth Streets.

Off-Street Parking: Vehicle & Motorcycle/Scooter (14-526 (a) 4 a and c)

- a. The proposed project meets the parking requirements for the zone and development size. The parking spaces have been designed in accordance with City Regulations. The proposed project includes the construction of a parking garage that is integrated into the building design. Please see the site plan for additional information.
- c. The proposed parking areas can accommodate motorcycle and scooter parking, though no spaces have been created specifically for motorcycle or scooter parking. Please see the site plan.

Bicycle Parking (14-526 (a) 4 b)

The proposed project provides bicycle parking on site. Please see the site plan for the bicycle rack location. A detail for the proposed bicycle rack has been included on a detail sheet within the plan set.

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

- (i) The majority of the site will be developed with building structures. The majority of parking for the site is covered. As a result, it is not anticipated that large volumes of snow storage will occur onsite. The sidewalks and garage entry drive will be cleared after each snow event. Should a snow event result in such quantities of snow that safe passage of the sidewalks is hindered, snow will be hauled off site. Please see the site plan.
- (ii) There are no proposed snow storage areas that will encroach on areas designated to meet minimum parking requirements or pedestrian walkways. There are no snow storage areas located in such a way as will interfere with the storm water management plan of the site.

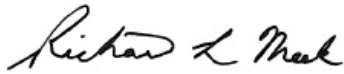
Neighborhood Meeting Certification

I, Richard Meek, PE, hereby certify that a neighborhood meeting was held on February 2, 2021 via a zoom meeting at 5:00 pm for the proposed project located at 383-387 Commercial St., Portland, ME.

I also certify that on January 22, 2021, notices were mailed to the following:

1. All addresses on the mailing list provide by the Planning Division which includes property owners within 500 feet of the proposed development.
2. Residents on the "interested parties" list.

Signed,

A handwritten signature in black ink that reads "Richard L. Meek". The signature is written in a cursive style with a large 'R' and 'M'.

Richard Meek, PE
Sr. Project Engineer
February 3, 2021

Attachments:

1. Copy of notice sent
2. Sign-in Sheet
3. Meeting minutes
4. Abutter comments (email)

January 22, 2021
16324

Dear Neighbor:

DPD Lot 3 LLC, invites you to a virtual neighborhood meeting to discuss plans for the development at 383-387 Commercial Street in Portland. The proposed construction is the final phase of the Approved Master Plan for this property and includes an approximately 35,100 square foot building with seven stories of residential and commercial spaces. The development will include two levels of parking, including 130 parking spaces, which will connect to the previously constructed parking decks. The property is located within the B5-B Urban Commercial Mixed-Use Zone and is identified as lot A-001 on Tax Maps 42, with a total land area of approximately 2.59 acres.

As a property owner within 500 feet of the project, you are invited to participate in a neighborhood meeting. Attendance will be recorded and minutes of the meeting will be taken. Both the attendance list and minutes will be submitted to the Planning Department. The virtual meeting will take place via Zoom and can be accessed online using the link shown below.

Meeting Date: February 2, 2021
Meeting Time: 5:00PM

Meeting Location: Virtual - Zoom

Register in advance for this webinar:

https://us02web.zoom.us/webinar/register/WN_DqK11bY1RNWktYqH5WR1yg

(You may type the link into your web browser)

After registering, you will receive a confirmation email containing information about joining the webinar. If you have any questions, please call Richard Meek at Sebago Technics, Inc. at 207-200-2100.

Sincerely,

SEBAGO TECHNICS, INC.

A handwritten signature in black ink that reads "Richard L. Meek". The signature is written in a cursive, flowing style.

Richard L. Meek, P.E.
Senior Project Engineer

RLM

Neighborhood Meeting Sign-in Sheet

February 2, 2021

Zoom Meeting

PL-001348-2020.Level III Site Plan (383 (387) Commercial St)

Members of the Public in Attendance:

Name:	Email:
Sandra Welch	stanw522@yahoo.com
Tim Reich	treich@gmri.org
Tom Lyons	stly0ns1@gmail.com
Paul Smith	psmith@hakins.com
Patricia O'Donnell	podonnel@maine.edu
Kristy Morse	kristy.morse@ey.com
Mark Rosenshein	mark@trademark.boston
Jason Price	Jason.price14@gmail.com

Developer and Consultant Team in Attendance:

Name:	Email:
Joe Dasco	joedasco@comcast.net
Ginny Stanley	virginie@archetypepa.com
Rick Meek	rmeek@sebagotechnics.com
Dan Danvers	ddanvers@sebagotechnics.com
Dylan Stuart	dstuart@sebagotechnics.com

Neighborhood Meeting 387 Commercial Street- 5:00 pm 02/02/2021

Participants (8)

- Sandra Welch
- Tim Reich
- Tom Lyons
- Paul Smith
- Patricia O'Donnell
- Kristy Morse
- Mark Rosenshein
- Jason Price

Meeting began at 5:03 pm via zoom

Project team introduces themselves

- Joe Dasco- Applicant
- Ginny Stanley – Archetype
- Dan Danvers RLA- Sebago Technics
- Richard Meek PE- Sebago Technics
- Dylan Stuart- Sebago Technics

Project team introduces the master plan and highlights the final phase of design

Joe highlights that phase three is labeled to be 94 residences in the master plan is currently being proposed as 64 residential units. However- the project was previously approved at a master plan level.

Rick Meek presents an early rendering depicting phase 2 with an open-air parking area in the footprint of phase three. The applicant clarified that the plan for the parking area was in case there was an extended period of time between construction of phase 2 and 3.

Ginny Stanley describes the mixed-use characteristic of the project.

Rick introduced the construction management plan describing vehicle traffic during construction. He describes that a portion of high street will be closed to facilitate construction- but one-way traffic heading uphill would remain open.

Rick and Ginny discuss the first, second and third floor architectural plans

Questions from Attendees

Tim Reich asks: Would the City put in a temporary crosswalk across commercial street. Say from Becky's to the Irving?

Response: The applicant- We can consider adding a Jersey barrier protected path for pedestrians adjacent to the construction site at Commercial St.

Tim Continues: With the construction deliveries, staff, workers etc.- Wants to ensure the Gulf of Maine parking area is respected and not utilized by any construction operations.

Response: The applicant offered additional signage clarifying that Gulf of Maine parking area is not allowed to be utilized by construction vehicles.

Sandra Welch: What is the distance between the courtyard facing edges of the balconies in Phase 2 and phase three. In other words what is the narrowest distance?

Response: 29 feet building-to-building

Tom Lyons: What about putting in a sidewalk along the other side of High Street (for construction purposes)

Response: We don't own the land on the other side of High Street. Not sure if the city wants to encourage pedestrian traffic on the other side of High Street.

Mrs. Lyons: Is there a sidewalk? Will the existing sidewalk be retained through construction? Concerned they will be left without a pedestrian access along High Street. Requests clarification regarding vehicular and pedestrian circulation.

Response: We will consider additional provisions to facilitate a pedestrian connection from York Street to Commercial Street in coordination with the City. Noted that during construction of Phase 3 the pedestrian connection between phase two and the hotel will be open to the public.

Mark Rosenshein: Representing the Hotel next door- Speaking in favor of the project. And comments about the pedestrian connection between phase 2 and the hotel.

Kristy Morse: When will construction starts and finish

Response: If all goes well-, we are looking at construction beginning late spring- early summer 2021. Anticipating an 18 month – 24-month construction period.

No further questions at 5:40

Richard Meek

From: Henry Hess
Sent: Tuesday, January 26, 2021 9:28 AM
To: Richard Meek
Subject: FW: questions regarding DPD Lot 3 LLC, 387 Commercial St. Portland ME.
Attachments: 383 Commercial Street.docx

Importance: High

See comment from concerned neighbor who would like a response to her questions.

--

Regards,

Henry Hess, RLA

Maine Licensed Landscape Architect

Sebago Technics, Inc. | An Employee-Owned Company
75 John Roberts Rd., Suite 4A, South Portland, ME 04106
Office: 207.200.2100 | Direct: 207.200.2086 | Fax: 207.856.2206
hhess@sebagotechnics.com | www.sebagotechnics.com



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From: Susan Lyons <susan.lyons01@gmail.com>
Sent: Tuesday, January 26, 2021 9:05 AM
To: Henry Hess <hhess@sebagotechnics.com>
Subject: questions regarding DPD Lot 3 LLC, 387 Commercial St. Portland ME.

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear H. Hess,
You've indicated in your link (My husband and I are attending via his computer) that we could address questions to you, and so I'm sending you via attachment the same concerns I addressed in this attachment to Andrew Tufts, the Portland planner for this project.

In short, they're based on the artist's renderings that show phase 3 taking up the entire remaining footprint but do not show the existence of the 25 High Street condos; they express concerns about staging, and, in particular, the impacts of construction so close to High Street and its intersections at York and Commercial.

I understand this zoom meeting is a webinar which, in my experience, limits discussion. I would appreciate your comments, especially any that speak to a change in the building footprint, an error in the artist's renditions, or staging during construction.

Thank you.

Susan Lyons
25 High Street, #301
860-235-4786

Concerns based on artists renderings in “the vicinity of 383 Commercial Street”



The rendering above from the Hobson’s Landing brochure indicates a big parking lot and small tavern on the north side of York Street. The third phase building visualized here takes up the entire remaining space abutting York, High, and Commercial Streets.

Photo below shows 25 High Street condos (63 residences) and an underground parking garage on York Street, already in existence in 2018 when Hobson’s Landing was still Deering Lumberyard. Note the breadth of the sidewalk between High Street and 25 High Street condos.



Questions

- **Where is the staging area for new construction?** Currently, the proposed new building site is used for the staging and construction of phases one and two. The project seems to be running about six months behind schedule, despite what seems like a very well-run project. Onsite equipment includes but has not been limited to cranes, dumpsters, loaders, dozers, elevators and other scaffolding as well as the building materials, contractors' trucks and vans, and portable toilets. Where will all this go during phase three?
- **How will High Street, York Street, and Commercial Street and their intersections be impacted?** During phases 1 and 2, Commercial Street has jersey barriers around the construction site. York Street has lost a sidewalk and bike path and, on occasion, has been closed as well, including access to and from the York Street garage. Additionally, Maple Street off Commercial Street has been regularly closed to traffic. Assuming the same construction techniques are used in phase 3, we would expect to see at least the same amount of disruption during construction. Presumably, Commercial Street could continue to absorb the impact. However, York Street will have to be further blocked. Also, the rendition has the building so close to High Street that it will have to be closed as well for significant periods of time. As you probably know, the intersection of York and High already floods easily and significantly during storms. It can only get worse during additional construction.
- **How are the impacts on bicyclists, pedestrians, and vehicle traffic being addressed?**
 - **Bicyclists** In the 2018 photo, you can see bike paths on both sides of York Street. One bike path has since been lost to construction. Bicyclists riding into Portland from the Casco Bay Bridge stay on York Street as an alternative to Danforth and Commercial Streets.
 - **Pedestrians** Many residents on York, High, or Danforth live in this neighborhood because of its walkability. The tourist season (which we hope to see one of these days!) adds additional walkers, particularly from the West End. Many of our neighborhood residents who are in city or sheltered housing are walkers, not drivers, and regularly walk to the nearest convenience store (Circle K). That being said, the intersection of High and York Streets is already one of the trickiest pedestrian intersections (right up there with State and Congress, or Congress and High Streets). Additionally, the section of High between York and Commercial has only one sidewalk, which abuts the phase 3 proposal.
 - **Vehicles** This should be a city concern as well as a neighborhood one. Prior to the pandemic, Friday night and weekly commuting traffic were already chaotic at the intersection of York and High, and even with reduced traffic we continue to hear lots of horns and screeching brakes. The most recent accident we witnessed at this intersection happened during a storm and was caused by a large loaded truck taking too tight a turn and knocking over a pedestrian light pole. During the December 2020 snowstorm cars and trucks got stuck on the High Street ascent. One truck had to be towed. Other vehicles had to detour. Police closed the road at the intersection of York and High. One woman using a walker was trying to navigate her way down High, probably to the Circle K, using the street because the sidewalks were impassable (The

police officer who stopped for the truck ended up escorting the woman through the intersection).

Here's why all this is so problematic: York Street carries a significant amount of commercial, local, and commuting traffic from the Casco Bay Bridge, including emergency vehicles which routinely turn onto High Street. Vehicles coming into downtown Portland via 295 or 95 on Commercial Street also turn onto High. The last thing this intersection needs is more stress from construction.

Additional concerns related to accuracy of any studies on density and traffic impacts

- As noted earlier, the rendition does not indicate the presence of 25 High Street (63 residential units plus the York Street Garage and currently-unleased commercial space). Is this presence considered in the approved Master Development Plan PL-001348-2020? If not, it should be. Phases one and two add 89 residential units plus commercial space to the preexisting 63 condos and commercial space at 25 High Street.

Suggestions

- Delay any permits until the impact of the presence of both 25 High Street and the occupied portion of Hobson's Landing phases 1 and 2 (plus potential parking and traffic density) are better understood (Sooner or later we'll return to more regular patterns than we've seen during the pandemic.)
- Put a sidewalk on the west side of High Street between York and Commercial.
- Describe how the staging will work in this third phase, including what non-site spaces will be needed during construction.
- Construct the phase 3 building on a smaller footprint that leaves enough space for staging onsite and does not require that High Street be closed to traffic. This may be the most difficult, but also the most important, change.



April 7, 2021
16324

Andrew Tufts, Planner
Planning & Urban Development Department
City of Portland
389 Congress Street
Portland, ME 04101

Staff Review Comment Response
387 Commercial Street Development, Portland, Maine

Dear Andrew,

On behalf of DPD Lot 3, LLC, we are pleased to provide this letter, revised plans and supplemental information in response to staff review comments for the site improvements at 387 Commercial Street.

The comments presented in your email dated February 24, 2021 are presented below in italics for reference, followed by our response.

Site Plan:

1. *The Applicant should show on the site plan where loading and delivery activities for the site will occur, as well as solid waste pick-up.*

An on-street parking and loading area is provided along the frontage on Commercial Street. The loading area is designated on the Site Plan, Sheet 3 of 11.. The revised site plan provides for a loading area and three (3) parallel parking spaces.

The alignment of the curb line and the width of the sidewalk in this area have been revised to allow for a minimum 10' clearance from the building and from open doors along the frontage as required by the Development's Master Plan conditions of approval and as discussed in an on-site meeting with Staff held on March 25, 2021.

The parking spaces are located to allow for a 5' wide bike lane along Commercial Street as represented on the City's' current Bikeway and Pedestrian Network map which calls for on-street bike way with bike lane at this location.

2. *The site plan indicates that brick sidewalks will only be partially rebuilt on all three frontages, and that some existing sidewalk will remain. It is unlikely that brick sidewalks adjacent to staging and laydown areas will remain in good condition throughout construction. Matching existing and new brick walkways may prove difficult, especially in the vicinity of pedestrian ramps. At the corner of Commercial and High streets, the breaks between new and existing sidewalk are curved and cannot be a realistic depiction of what is expected to be constructed. Breaks in grade along such sidewalks will not be permitted. It is strongly recommended that the Applicant show all new brick sidewalks along all frontages. Otherwise, the site plan should indicate that any*

damaged or heaved sections of brick sidewalk along the project's frontages shall be reconstructed (regardless of whether the damage was caused by construction activity). It is acceptable to remove and reuse existing bricks that are in good condition.

General Note 4 on Site Plan Sheet 3 has been revised to read "Replace existing brick sidewalk with new brick pavers meeting the specifications in the City of Portland Technical Standards. Existing undamaged sidewalk bricks may be salvaged and reset".

3. *5-foot x 8-foot tree planters are large, and pinch the available sidewalk space to undesirable levels in some locations. The Applicant should work with DPW and Jeff Tarling to determine the appropriate size and material of these tree planters.*

The size and materials for these tree planters was previously coordinated with DPW and Jeff Tarling as part of the Phases 1 and Phase 2 project. The planters proposed for Phase 3 match this design. The locations and the planters have been adjusted to allow for additional sidewalk clear space along Commercial Street.

4. *One tree planter appears to be located directly in front of the entrances of two of the units in the proposed site. This tree planter should be moved elsewhere to avoid a pinch point where thru pedestrian traffic is not forced to walk through the door-opening zone of the building.*

The tree planter locations have been adjusted along Commercial Street, relocating the planters away from the front of the entrances for the two units and to provide the 10' minimum clear sidewalk width required by the Projects Master Plan conditions of approval.

5. *All curbs are shown to be existing-to-remain with the exception of a short segment on Commercial Street. Similar to brick sidewalks, it is possible that construction activity damages, sinks, or shifts existing granite curbs. The Applicant shall be responsible for resetting, and possibly replacing, any failing curb or any curb that has less than 5 inches of reveal along the project's three frontages, regardless of whether the issue was caused by the project.*

The plans have been revised to require resetting curb with additional reveal. A clarifying note has been added to the Site Plan, Sheet 3.

6. *The 5-foot pedestrian path crosses into the project ROW at several locations, typically at tree planters. Sidewalk access agreements will be required.*

A sidewalk access agreement will be executed with the City prior to the start of construction. An exhibit titled Exhibit of Sidewalk Access Agreement area dated 03/29/2021 is attached identifying the proposed easement areas.

7. *It is unclear what is being proposed for the area where the existing driveway is being closed. The curb tapers in from a diagonal/perpendicular parking area to the existing curb line. Is this area intended for loading? The applicant should clarify.*

The Site Plan Sheet 3 has been revised to show the location and dimensions of new curb and brick sidewalk at this location along with striping and signage for on street parallel parking spaces and a loading area. The area was reviewed on site with Staff on March 25, 2021.

8. *Any proposed changes to on-street parking shall be documented on the site plan. City-standard parking signs shall be installed in coordination with the Traffic Operations division.*

The existing parking arrangement at the site is documented on the existing conditions plan within the plan set. The proposed parking and loading areas are shown on the site plan, Sheet 3. Notes have been added to Sheet 3 requiring City Standard parking signs to be installed at locations approved by the City of Portland Traffic Operations Division. The on street parking and loading areas are shown on the revised Sheet 3.

9. *While 6 ADA spaces are provided, it does not appear that any of them are van-accessible spaces. One of every 6 ADA spaces (rounded up) is required to be van-accessible, with 11 feet in width adjacent to a 5-foot landing or 8 feet in width adjacent to an 8-foot landing.*

The proposed Lot 3 parking levels include a total of 130 spaces. The ADA standard for parking facilities with between 101 -150 spaces requires a total of (5) ADA accessible spaces, (2) of which must be van accessible. The parking garage striping and marking has been revised to provide (5) ADA accessible spaces including (2) van accessible spaces. The parking layout has been revised to remove the (4) accessible spaces in the center parking bays due to the width restrictions presented by the building columns flanking those spaces.

10. *A summary of the total number of parking spaces provided on-site, (numbers of standard, compact, and ADA spaces) should be provided.*

The Conditions of Approval for the approved Subdivision Plan required a total of (210) spaces including (154) spaces on Lot 1 and Lot 2 and (56) temporary surface spaces on Lot 3 until the Lot 3 project was developed.

A parking summary table has been added to the Site Plan Sheet 3. The project's parking requirement, based on the as built condition of Phases 1 and 2 and the proposed Phase 3 is as follows:

Use	REQUIRED PARKING	
	Requirement	Spaces Required
157 Hotel Rooms, Lot 1	1 space /4 rooms	40
85 Condo Units, Lot 2	1 space/unit	85
64 Condo Units Proposed Lot 3	1 Space/unit	64
	Total	189

The parking requirement is met by existing parking located on Lot 1 and Lot 2 and proposed parking on Lot 3 as follows:

PROPOSED PARKING	
Use	Spaces Provided
Lot 1 Level 1 Hotel Garage (approved)	22
Lot 2 Level 1 Condominium Garage (approved)	72
Lot 2 Level 2 Garage (approved)	60
Lot 3 Level 1 Garage (proposed)	66
Lot 3 Level 2 Garage (proposed)	63
Total:	283

The proposed Lot 3 parking includes a total of 129 spaces, of which:

- (55) are full dimension 9'x18' standard spaces or accessible spaces meeting ADA standards
- (63) are reduced width spaces. These are spaces striped as full size standard at 9'x18' with column encasements encroaching on a portion of the striped width. These spaces provide a clear width of between 8' and 9'
- (11) are true compact spaces, striped at 8' width or where columns reduce clear width to 7.5' minimum, or are less than 18' long.

The building columns including their fire proofing and protective encasements are typically 18" square. In general, columns are located at the head of the stall where they will not restrict door swing or door clearance between vehicles. This column condition is not an unusual condition in residential scale parking structures. The reduced- width stalls are dedicated to unit owners who will be aware of the column locations and do not typically represent a high use/turnover parking location.

The minimum required parking (189) spaces is met by the (154) spaces constructed on Lot 1 and Lot 2 and the (55) proposed full dimension spaces in the Lot 3 garage.

11. *Parking space dimensions should not be inclusive of any width taken up by columns. Spaces adjacent to columns are likely 8.5 feet in width or less, depending on the true size of the column. Parking space lines should be shifted so that columns do not occupy any portion of parking spaces. The true dimension of the parking space should be assessed and reflected on the table discussed in the above comment. The Applicant should confirm that the column sizes are representative of the actual columns that will be present in the parking area. If the actual columns are larger, than adjacent spaces will be narrowed even further. Note that ADA spaces cannot be smaller than 8 feet x 18 feet, exclusive of intrusion by columns or other vertical elements.*

As noted in comment 10 above, the building columns include encasement for fire proofing and impact protection. The outside dimension of the encasements is typically 18" square. Based on the encasement requirements the (63) reduced width, standard length stalls will vary from 8'2" to 8'10" wide. The (11) compact spaces with a clear width at the column locations are not required to meet the minimum parking requirements based on the Ordinance and master plan.

In general, columns are located at the head of the stall where they will not restrict door swing or door clearance between vehicles. This column condition is not an unusual condition in residential parking structures. The reduced-width stalls are dedicated to unit owners who will be aware of the column locations and do not typically represent a high-turnover parking condition.

The parking plans have been revised to remove the ADA accessible parking from the center bays of the parking where a column might encroach within the 8' stall width. The accessible spaces have been relocated to perimeter locations adjacent to doors with access to the building elevators where full accessible spaces and accessible access aisles are provided.

Grading and Utility Plan:

- 12. The proposed 6" water service runs through a tree planter, with the 4" water service within a few feet of the edge of the tree planter. Depending on the proposed tree species, a mature tree's roots may eventually interfere with water lines. The Applicant should consult with Jeff Tarling and PWD on proximity of tree roots to water services.*

The 4" and 6" water services have been shifted to avoid interference with the proposed tree planters in the courtyard.

- 13. Commercial Street is under a 5-year pavement moratorium until May 25, 2021. Any excavation before this date shall require Director of Public Works approval and shall require a moratorium repair of at least 100 feet in length, extending in width up to the closest undisturbed pavement seam. This moratorium was discussed in previous project phases. It is strongly recommended and preferred that no excavation occur in Commercial Street until the moratorium expires.*

The applicant and contractor will take into the account the schedule of the moratorium for Commercial Street when determining the construction schedule for Phase 3 and will address moratorium requirements if necessary. Construction in the street is not likely to begin during the moratorium period.

CM Plan:

- 14. The CM plan shows jersey barriers extending entirely across the westbound travel lanes. The CM plan should show how traffic will be managed in areas where construction equipment occupies travel lanes.*

For purposes of this response, it is assumed that Commercial Street and York Street run north-south and High Street east-west.

The Construction Management (CM) plan has been revised so that the proposed closure areas along Commercial Street do not encroach on the southbound travel lane. The existing crosswalk and island in Commercial Street at the northerly limit of the project will remain. In response to comments made at the project's public information meeting, a double row of barricades is proposed along Commercial Street to provide a protected pedestrian walkway from the existing cross walk to High Street. This location will also serve as the proposed bike lane in the proposed condition.

The proposed barricades on High Street at York Street have been relocated and do not project into the northbound travel lane at York Street. The plan has been revised to clarify the location of fencing along York Street to maintain the existing bike lane at 3' minimum clear from the travel lane to the temporary fencing.

15. *Jersey barriers in the ROW shall be installed with the appropriate end treatment, such as a tapered approach, crash attenuation, etc. These details should be shown in the CM plan.*

The plan has been revised adjusted to provide tapered approaches and crash attenuators at the ends of the fencing/barricades where tapers are impracticable due to existing curbs, parking and other factors. Construction cones and barrels and barricades meeting MUTCD standards will be employed. The plan has been revised to show typical minimum requirements. We request that the City consider a condition of approval related to the submittal of a more specific construction traffic control plan, prepared by the selected building contractor/construction manager so that the traffic control plan can be tailored to construction sequencing and needs.

16. *The CM plan shows a sidewalk closure on High Street, with pedestrian access on the west side of High Street. There is no pedestrian access currently provided on this side of High Street. The Applicant should construct a temporary bituminous sidewalk to complete this connection, to remain after construction is completed. This CM plan does not work without an adequate pedestrian connection up High Street.*

The CM plan and site plans have been revised to include a new bituminous sidewalk on the south side of High Street. A callout to construct a bituminous pedestrian sidewalk on the south side of High Street has also been added to the revised CM plan.

17. *The CM plan indicates that all construction traffic entering the site will come from Commercial Street eastbound. It seems likely that some traffic will arrive via Commercial Street eastbound; this traffic may have difficulty entering the angled site fence.*

The revised barricade locations allow improved turning movements into the site. However, due to the necessary proximity of the site to Commercial Street's southbound travel lanes, it is expected that smaller vehicles may enter from either direction and that larger vehicles will be required to enter by left turn from the northbound lane only. The project construction manager, once selected, will be required to schedule and manage their vendors and subcontractors so that larger vehicles are aware of the need for a northbound, left turn approach. This is a common condition for work on the peninsula and is not expected to be difficult to manage.

If necessary, the owner/contractor has access to private off site areas where deliveries requiring larger vehicles or extended off loading time can be staged until access from the northbound lane is available.

18. *The CM plan shows a staging and laydown area. It may be advantageous if this area could be accessed from both sides. The area could be shortened somewhat to allow an easterly gate. This could potentially serve traffic arriving from Commercial Street eastbound as well.*

In response to comments made during the project's neighborhood meeting, it is the CM plan's intent to maintain the existing curbed crossing bump-out at the north end of the site on Commercial Street for pedestrian access. The revised CM plan includes a double row of barricades for a protected pedestrian/ bike way past the project. This arrangement does not favor a entrance to the staging area at the north end of the site.

19. *The CM plan indicates that all traffic will arrive from Commercial Street WB and depart on Commercial Street EB or along York Street to the east. The applicant should clarify the regional traffic routes for construction vehicles; notably, the intersection of York/Center/Pleasant streets experiences congestion and safety issues and should be avoided.*

The CM plan proposes to reduce High Street from Commercial Street to York Street to one-way only, westbound with construction traffic following the same east-to west travel as the preferred direction. This is not intended to preclude other travel directions, when traffic is managed with appropriate flaggers.

The predominant route for construction traffic approaching this site appears to be via to I-295 along the Fore River Parkway or the Veterans Memorial Bridge and Commercial Street from the south/west and to return to I-295 via York Street southbound to Beach Street then Commercial Street westbound to the Veterans Memorial Bridge and Fore River Parkway. Some vehicles may travel along High Street westbound to I-295 at Forest Avenue or York Street northbound toward I-295 using the Franklin Arterial, however these do not appear to be the most advantageous routes.

We request that the City consider a condition of approval requiring the submittal of a more detailed traffic control plan, prepared by the selected building construction manager, for review prior to the start of construction so that the traffic control plan can be better tailored to the construction schedule and sequencing.

20. *The CM plan should include all necessary vehicular and pedestrian detour signage, including, but not necessarily limited to, SIDEWALK CLOSED (Ahead) \ CROSS HERE signs for pedestrians, vehicle detour signs as needed, DO NOT ENTER signs on High Street near Gate 2 facing southbound, and any regional signage that may help the public navigate around the site. All signage shall be MUTCD-standard to the extent possible.*

The CM plan has been revised to include the minimum requirements to implement traffic control and detour signage in accordance with MUTCD standards.

We request that the City consider a condition of approval requiring the submittal of a more detailed traffic control plan, prepared by the selected building construction manager for review prior to the start of construction so that the traffic control plan can be better tailored to the construction schedule and sequencing.

21. *Gate 2 includes a jersey barrier that juts into the York Street EB travel lane (or comes close). Traffic should be tapered using striping and/or vertical delineators to guide traffic around*

barriers. Barriers nearest to traffic should be made more visible using retroreflective tape or other means. This barrier also appears to make it quite difficult for vehicles, especially non-passenger vehicles, to make a right turn. The applicant should revisit.

The layout at Gate 2 has been relocated to the east so that it no longer projects into the York Street travel lane. The plan has been revised to indicate the required closure of the southbound left turns from your street onto High Street.

22. *The Applicant should indicate the size of trucks that they expect to use Gate 1. It appears trucks will need to back in in order to utilize the staging and laydown area; this may cause additional traffic congestion and safety issues.*

All road legal vehicles may access Gate 1. The staging and laydown area is intended for storage and staging of construction materials. It is not intended for vehicle loading and unloading. It is expected that vehicles transporting materials will enter Gate 1 westbound from Commercial Street (with larger vehicles approaching from the south) and pull onto the closed portion of High Street where they will be unloaded by fork lift or crane and their materials placed in laydown area.

If necessary, based on the stage of construction, vehicles can enter onto the closed section of High Street and back into the staging area to be unloaded.

Transportation/ Traffic:

23. *It would be helpful for the applicant to define Phase 3 components and confirm that it meets assumptions in the Traffic Movement Permit traffic study.*

The following table summarizes the land uses of the development used for the submitted Section 7 TMP Traffic Study, dated 5/23/2018, compared to how the project has been built out. As shown, the build out has consisted of slightly fewer residential units than was assumed for the traffic study. Therefore, the assumptions made for the Traffic Movement Permit traffic study are in line with the buildout of the overall development.

	TMP Traffic Study			Actual Buildout			Difference		
	Units	Rooms	Retail (SF)	Units	Rooms	Retail (SF)	Units	Rooms	Retail (SF)
Phase 1		157			157			0	
Phase 2	89		7,100	85		7,100	-4		0
Phase 3	94		11,446	64		8,857	-30		-2,589

24. *A similar effort should be documented for parking. That the proposed supply meets prior parking demand analyses.*

Please refer to our response to Comment 10 above.

25. *The applicant shall provide dimensions for the parking garage levels to confirm it meets City standards.*

Please refer to our response to Comment 10 above.

Comments from Lauren Swett:

26. *The grading plan should be clarified with regards to the drainage connection to High Street. The demolition plan shows this as existing to remain, and the grading plan appears to show two connection locations (one bold double line, one lighter single line). I believe it has already been installed, but the plan should clarify.*

A note has been added to the Grading and Utility Plan Sheet 5 that explains that the drainage system has been previously installed in Phase 2. The line type and structure style has been updated to show the drainage system as existing.

27. *Letters from utilities verifying ability have not been included as part of this application, and have likely been included with prior phases. The Applicant should still provide verification from utilities for the current design. My experience in particular with the Portland Water District is that any changes from prior plans will need to be reviewed and approved by the district.*

A request for a revised ability to serve letter has been made and an ability to serve letter reflecting the current plans will be forwarded when it is provided. We request that the City consider a condition of approval that the revised letter be provided to the City prior to the start of construction.

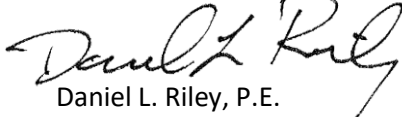
Other Revisions

The Sheet 3 Site Plan – Lower Level (Sheet 3) has been revised to show the limits of a proposed license area for the building footings within the right of way along Commercial Street and along the corner of the building at High and Commercial Street. The applicant is requesting a license from the City to install footings into the right of way and for the installation of excavation support shoring (to remain in place below grade) required to construct the building footings in this area.

Please call with any questions or if you require additional information. Thank you for your consideration.

Sincerely,

SEBAGO TECHNICS, INC.


Daniel L. Riley, P.E.
Vice President, Engineering

DLR/

Cc: Joseph Dasco



Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

May 19, 2021

Dylan Stuart
75 John Roberts Rd., Suite 4A
South Portland, ME 04106

Re: 387 Commercial Street, PO
Ability to Serve with PWD Water

Dear Mr. Stuart:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on March 22, 2021. Based on the information provided per plans dated May 19, 2021, we can confirm that the District will be able to serve the proposed project as further described in this letter. **Please note that this letter constitutes approval of the water system as currently designed and is valid for eighteen (18) months after the date of issue. Any changes affecting the approved water system will require further review and approval by PWD.**

Conditions of Service

The following conditions of service apply:

- A new 6-inch fire service and a 4-inch domestic water service, with a 3-inch meter, may be installed from the renewed water main in Commercial Street. The service should enter through the property's frontage on Commercial Street at least 10-feet from any side property lines.
- The Portland Water District does not have record of any other existing infrastructure in public roads and recommends a survey and test pitting be performed by the development team prior to construction. Any conflicts that arise during construction are at the risk of the developer and may result in job shutdown until new plans are submitted by the developer and reviewed and approved by PWD.
- An approved testable backflow prevention device must be installed on each service line directly after the meter and before the sprinkler riser prior to service activation. Please refer to the PWD website for more information on cross-connection control policies.
- The existing site is currently served with a 3/4-inch domestic water service and 5/8-inch meter; the size of this service is undersized for the proposed use. This service must be terminated by shutting the corporation valve and cutting the pipe from the water main. The building will be without water while the existing service is retired and the proposed services are installed. This process will take at least one day, and may take several days depending on the project.

Prior to construction, the owner or contractor will need to complete a Service Application and pay all necessary fees for each proposed service. When the project is ready for construction, an Application for each service can be requested by contacting the MEANS Group at MEANS@pwd.org or 207-774-5961 ext. 3199. Once a completed Application has been submitted with payment, please allow seven (7) days for processing.



Existing Site Service

According to District records, the project site does currently have existing water service. A 3/4-inch diameter copper domestic service line provides water service to the site. Please refer to the "Conditions of Service" section of this letter for requirements related to the use of this service.

Water System Characteristics

According to District records, there is an 12-inch diameter cast iron water main in Commercial Street and a public fire hydrant located adjacent to the site. The most recent static pressure reading was 110 psi. A portion of the existing water main will be renewed in Commercial Street as part of the project.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the City of Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants. An existing hydrant will be renewed as part of the project.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project. Based on the high water pressure in this area, we recommend that you consider the installation of pressure reducing devices that comply with state plumbing codes.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

Should you disagree with this determination, you may request a review by the District's Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District



Robert A. Bartels, P.E.
Senior Project Engineer

September 24, 2020



387 Commercial Street Construction Management Plan

Prepared For: Portland Department of Planning & Urban Development Department
Project Proponent: Deering Property Development LLC
Construction Manager: Consigli Construction

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Construction Principles

The purpose of this Construction Management plan is to identify, mitigate and plan for all potential impacts throughout the duration of building the Mixed-Use Development at 387 Commercial Street. Consigli Construction will be the contractor associated with the mix use retail and residential project.

Throughout this CM plan we will refer to specific examples of potential construction practices, traffic control scenarios, neighboring building considerations and public safety; as well as measures in which these items will be managed throughout the project to accommodate the community as much as possible. While we will take the necessary precautions to meet City and State requirements for traffic, noise, dust, vibration, etc., this project will be disruptive to adjacent properties compared to the current condition. Along with our subcontractor team members, it is imperative that we have complete participation from all parties affiliated with the project to maintain our strict safety requirements and ensure a quality building for DPD.

The Mixed-Use Development at 387 Commercial Street includes the construction of a new 5 - 7 story building, consisting of 64 Residential Units, 130 structured parking spaces, and 5 Retail Shell Spaces. The building totals approximately 132,000 sf that will be primarily built out of steel and concrete.

Consigli has planned the project's site logistics and safety protocols that will be thoroughly covered in this report with graphics and narratives. This CM plan will continually be updated to meet the needs of the project, community and the city as the project progresses. We aim to deliver a safe and quality project to DPD, their employees and the City of Portland by means of communication, teamwork and stewardship.

Construction Administration and Communication

Consigli Construction will be the Construction Manager on site throughout the duration of the project. As such, there will be a dedicated team of individuals tasked with managing quality, schedule, site logistics and safety. These personnel will manage and enforce the proposed CMP with all associated subcontractors and material vendors.

Thomas Weeks – Project Executive
207.232.6416, tweeks@consigli.com

Andy Miller – Project Manager
207.405.1288, amiller@consigli.com

Mike Carpentier – Project Superintendent
774.217.2233, mcarpentier@consigli.com

Site Communication

With the proximity to occupied buildings, community outreach and communication will be imperative throughout construction to keep the public informed of the expected turbulence caused by the project. Site signage will be prominently displayed to show pedestrian access around the site and any updates to the proposed CMP.

Quarterly reporting and updating of the CMP will be required to update the City and community of the following activities:

- 1) Construction schedule updates
- 2) Material deliveries, including notice of any oversized loads that may impact public traffic
- 3) Requests for upcoming off-hours work including weekends and holidays
- 4) Notice of any upcoming activities that may produce strong noise, vibration or dust that could adversely affect the neighboring communities.
- 5) Requests for any street closings or public sidewalk work to be completed as part of the construction contract

Construction Schedule

Project Work Hours

Construction work hours will be in accordance with section 17-18.

The project site is located within zoning group B2 – Business Community but is within 500 feet of buildings used for residential purposes. As such, work hours will be limited to Monday – Friday 7:00 am – 6:00 pm. Should work extend into Saturdays, the use of heavy equipment will be kept within the time constraints of 8:00 am – 4:00 pm.

Project Schedule/Logistics

The project is anticipated to be approximately 21 months in duration. Beginning in June 2021 the project will be turned over to DPD in March 2023.

Regarding scheduled work to take place within public streets and sidewalks, this work will comply with Section 25-129 – Noise, dust and debris. The installation and connection to public utilities, traffic lane reconfigurations, and sidewalk construction will require work to be executed within Commercial Street, York Street, and High Street. This work will be scheduled and planned with the City of Portland prior to the execution. All logistical concerns will be addressed with the City prior to starting the work. The connection to public utilities is tentatively scheduled to happen in the Fall of 2021, with sidewalk construction tentatively scheduled to occur during the late Summer of 2022 and Spring of 2023. Temporary barricades, fencing, and signage will be required during the installation to control pedestrian/vehicle movements around the work.

Material Deliveries

The construction will require coordination of material deliveries throughout the duration of the project. The Site Logistics Plan included in this CMP shows the planned lay-down areas, truck routes and safety protocols that will be in place throughout the duration of construction.

1. During the concrete and steel work or other large deliveries, traffic turning off Commercial Street from the south into the project site may be tight. A flagger will be employed as needed to assist in navigating these loads to the project site.

Construction activities whether it be work going in place or material and equipment deliveries will create more activity along Commercial Street, York Street, and High Street.

Material Storage and Laydown Areas

The construction will require careful planning and management of the daily occurrences within the site limits. The proposed Site Logistics Plan requires closing one lane of High Street, leaving the remaining lane open to one-way traffic heading north on High Street. In addition, the plan is for construction to occupy the parking spaces directly in front of the site on the north side of Commercial Street. This will allow for the construction staging, lay down and temporary storage the project needs, all secured by temporary fencing and barricades.

Contractor Parking

At the peak of construction, Consigli anticipates that up to 100 people will be on site working various trades associated with the building. All contractors, subcontractors and their employees will be prohibited from parking in on-street City spaces in the vicinity of the site and be required to park off-site in private parking lots secured specifically for the project. All subcontractors will be educated during the bidding process of this requirement. Language restricting off-street parking will be incorporated into the contract, and each employee will be informed of this requirement during their site safety orientation their first day on-site.

Consigli on-site construction staff will monitor parking abutting the construction site on Commercial, High, and York Street. Fines may be issued to construction workers associated with Hobson Landing found parking anywhere within a two-block district of the construction site. The area would extend to Park, Danforth and Center Street.

Fire Protection for Construction Activities

The 2013 Standard for Safeguarding Construction, Alteration and Demolition Operations will be enforced on this project by utilizing best management practices to mitigate the fire risks associated with the construction. Consigli and its subcontractors will execute the following measures to provide a safe and secure work place:

- 1) PFD Fire Command Center: This centralized location will hold all current project information and will act as the first responders meeting point to obtain the most up to date information of construction. The following documents will be found at this location:
 - a. Hot Work Permits: To be filled out daily by any person performing work that will generate a spark or create a potential fire risk on the job site. The permits are to be completed and approved by Consigli prior to work starting.
 - b. Updated Construction Schedule
 - c. Updated Site Logistics Plan
 - d. Pre-Incident Fire Plan
- 2) On-Site Fuel Storage: There will be a requirement for different flammable liquids throughout construction. A free-standing, 30-minute fire-rated enclosure will be built to safely and securely store all flammable liquids and gases. Fueling trucks will be used as needed but under no circumstances be allowed to be parked or stored on site for any extended period.
- 3) Means of Egress: The buildings will be permanently equipped with (3) 2-way stair assemblies for means of egress. During construction it is the intent to install the stair leading to the roof in the building first to provide emergency egress throughout construction. These stairs will be identified with temporary signage throughout construction indicating the floor level and exit path direction.
- 4) Good Housekeeping: Consigli Construction will provide necessary dumpsters for the removal of debris from the site. All subcontractors are responsible for the daily clean-up of their work areas to ensure that no materials or tools are left out over night that could pose a hazard to the building. Daily safety walks by the Construction Superintendent will be utilized to ensure that all working floors are equipped with an inspected fire extinguisher and clear means of egress in the event of an emergency. Trash chutes and/or material hoists may be utilized to safely and efficiently remove all debris from the project.
- 5) On-site Security: The project site will be secured everyday by means of a temporary, post driven construction fence and scrim. Lockable gates will be located at (2) locations for site access.

- 6) Rapid Communication: Evacuation notification will be provided by means of 2-way radios/cellular devices as well as strategically positioned air horns. Upon evacuation of the building all project personnel will report to the muster point location where the Construction Manager and all subcontractor foremen will perform accountability checks. The General Contractor field staff will then be dispatched to all project entry points and the PFD Command Center. Upon arrival of the first responders to the PFD Command Center the General Contractor will provide an accountability and incident briefing.

Public Safety

The construction will be near pedestrian right of ways and will interact with public traffic throughout the duration of the project. Material deliveries, the use of cranes, lifts and other heavy machinery all have the potential to impact typical public activity. As a member of the Portland community, Consigli will strive to limit, mitigate and avoid these potential impacts as much as possible by means of controlling noise, on-site dust, vibrations and traffic. By educating and informing the neighborhoods to the construction activities taking place we will aim to build a project that produces the minimal of impacts to the Commercial Street, York Street, and High Street communities.

Snow Removal

Jersey Barriers will be utilized to separate the construction site from Commercial Street and High Street to facilitate snow removal operations along these public streets.

Noise

Construction activities throughout the project will create noise that leaves the project site. It is the intent of the project team to limit the exposure to the noise by following section 17-18 of the City of Portland Code of Ordinances. This project site is located within 500 feet of buildings classified as residential. As such, the project hours will be limited the 7:00 am – 6:00 pm, Monday – Friday. Should any weekend or holiday work be required the use of heavy machinery will not commence before 8:00 am. When this work is required, no less than 2-week advanced notice will be provided to DPD and the neighboring communities.

Work related to the ground improvements, foundations, and structural steel will likely be the loudest activity experienced during construction. This work will take place from June 2021 – February 2022. Recently, many local projects have utilized similar means of construction to much success around Portland.

Dust Control/Air Quality

Maintaining an environmentally conscious project site will be a major priority for the project team to ensure safety not only for the neighboring communities but also for the construction workers on site day after day. All soils and debris will be kept within the project limits following the State of Maine Department of Environmental Protection erosion control Best Management Practices:

- 1) Erosion controlled construction entrances
- 2) Tarped dump trucks leaving the site with soil/debris
- 3) On-going sidewalk and street cleaning activities
- 4) The installation of temporary, compacted staging areas within the job site
- 5) Using wetting agents to control dust
- 6) Covering stock piles when material is to be piled for long periods of time
- 7) Smoking will not be allowed on the job site

Vibration Monitoring

Some of construction practices required for this project will result in ground vibration waves that may transmit to nearby buildings. Prior to any potential vibration causing activities taking place a pre-construction survey will be conducted to review and document existing conditions. The survey will encompass all properties abutting the proposed project site to include the following addresses:

- 350 Commercial St (Gulf of Maine Research Institute)
- 25 High St. (Corner of High & York Street)

Structure demolition, site removals, vibratory compaction and ground improvements will be employed on this project and will be monitored by a third-party monitoring company. A pre-construction meeting will be planned with abutting property owners to discuss geological conditions, construction specifications and methods of installation that create vibration.

Traffic Control

Throughout the construction process Commercial Street, York Street, and High Street will experience increased traffic due to construction activities. Material deliveries, contractor access and public utility integration will be encountered and mitigated through a coordinated Site Logistics Plan (provided within this CM Plan), on-site safety personnel, way-finding signage and well-organized traffic control devices. Consigli will strive to inform and direct the neighborhood to the activities taking place in public areas as they progress through completion. During the Summer of 2022 public utility connections will be made in Commercial Street and York Street. During the Summer/Fall of 2022 and Spring of 2023, sidewalk improvements will be made adjacent to Commercial Street, High Street, and York Street.

The main access points to the construction project will be through the Southwest gate off Commercial Street. To navigate tractor-trailers and other large vehicles to the project site a flagger may be stationed at Commercial Street as needed to usher the trucks into the right of way.

Historic Resources (14-526 (d) 5)

The proposed development will not impact nor is it in close proximity of any historic resources. Other than historic cobbles within Maple Street, no historic resources were discussed during the Master Plan process.

Zone Related Design Standards (14-526 (d) 5)

The Proposed project has been designed to meet the design requirements of the B5b zone outlined in the City of Portland Design Manual:

- a. *Shared infrastructure: Shared circulation, parking, and transportation infrastructure shall be provided to the extent practicable, with utilization of joint curb cuts, walkways, service alleys, bus pull-out areas and related infrastructure shared with abutting lots and roadways. Easements of access for abutting properties and shared internal access points at property lines shall be provided where possible to facilitate present or future sharing of access and infrastructure.*

The proposed development is Phase 3 of the 383 Commercial Street project and has been designed to work in a cohesive manner with Phase 1 and 2 (Lots 1 & 2). The three phases share a parking garage. There are existing easements in place for drainage and utilities, as well as the Vehicular, pedestrian access and parking.

- b. *Buildings and uses shall be located close to the street where practicable. Corner lots shall fill into the corner and shall provide an architectural presence and focus to mark the corner.*

The proposed development has been designed with the appropriate street setbacks for the zone.

- c. *Buildings shall be oriented toward the street and shall include prominent facades with windows and entrances oriented toward the street. Uses that include public access to a building or commercial/office uses in mixed-use developments shall be oriented toward major streets whenever possible.*

The proposed development has been oriented towards Commercial Street. The development is mixed-use with retail space located along Commercial Street on the first floor and residential space on the upper levels.

- d. *Parking lots shall be located to the maximum extent practicable toward the rear of the property and shall be located along property lines where joint use or combined parking areas with abutting properties are proposed or anticipated.*

The proposed parking garage is shared by the three lots that comprise the 383 Commercial Street block. The garage is located behind the retail and residential space that is situated along Commercial Street.

For more detailed information please see the site plan.



STORMWATER MANAGEMENT REPORT

For

**383 COMMERCIAL STREET – PHASE 3
PORTLAND, MAINE**

Prepared for

Deering Property Development, LLC
2730 Transit Road
West Seneca, New York 14224

June 2020

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**STORMWATER MANAGEMENT REPORT
383 COMMERCIAL STREET – PHASE 3
PORTLAND, MAINE**

I. Introduction

This Stormwater Management Plan Report has been prepared to present analyses performed to address the potential impacts associated with the project due to proposed modification in stormwater runoff characteristics and land cover changes. The stormwater management controls that are outlined in this report have been designed to suit the proposed development and to comply with applicable regulatory requirements.

The project was originally proposed to be constructed in three phases and consist of redevelopment of a 2.59-acre parcel. In phases one and two, six of the seven existing buildings were removed to allow for the construction of a multi-story hotel, residential, and retail building with two parking levels. The three phases were permitted in 2018 through the City of Portland for Level III site plan approval. The first two phases were designed and permitted for the construction of a hotel as well as a residential and retail space. The third phase was originally designed as a vacant parking lot that would eventually be constructed into future building space. The third phase of the project was analyzed as full impervious area to take into account any future buildout.

An amendment to the current stormwater management plan is being prepared for a proposed building in phase 3 as well as additional landscaped area that will be associated with the new development. This new development will be a redevelopment of the parking area that was permitted for Phase 3 in 2018. The new redeveloped area in Phase 3 will be treated by the stormfilter system that was installed in Phase 2.

Based upon the anticipated development, the project is subject to the Chapter 500 Basic and General standards. The proposed erosion controls, inspection and maintenance criteria, and the stormwater management systems have been designed to meet MDEP and City of Portland requirements.

II. Existing Conditions

The site is located in the City block bordered by Commercial Street (east side), York Street (west side), High Street (south side) and Maple Street (north side). The parcel was originally fully developed with seven buildings and extensive paved areas and was the former location of Deering Lumber Company. The existing site currently consists of the construction of phase 1 and 2 as designed and permitted in the previous submittal, while the existing site at the phase 3 location consists of a paved area and an existing building that formerly served as the Rufus Deering Lumber Company building.

Stormwater from this site is currently collected through the new storm drainage systems that were constructed and is routed to the City's storm drainage infrastructure in Maple, Commercial, and High Streets. The City's storm drainage is discharged to the brackish portion of the Fore River.

The proposed development area of the site is not located in an identified flood zone per the FEMA Flood Insurance Rate Map for the City of Portland, Community Panel 230051 0013 B dated July 17, 1986. A copy of the Flood Insurance Rate Map is attached in appendix 6.

III. Soils

Soil information for the site was obtained via the USDS United States Department of Agriculture and natural Resource Conservation Service's Web Soil Survey. The Hydrologic Groups (HSG) of the soils on site as classified by the Soil Conservation Service is as follows:

Soil Map Symbol	Soil Name	Slope (%)	HSG
Cu	Cut and fill land	0-35	A
HIB	Hinckley loam sand	3-8	A

Hydrologic Soil Group boundaries are delineated on the Watershed Map. A copy of the Medium Intensity Soil Survey is included as Appendix 4.

IV. Proposed Site Improvements

The developer proposes to construct a multi-story residential and retail building with two parking levels. Phase 3 of this site is accessed via an existing driveway from Commercial Street and two driveway access aisles from the project that were constructed to the north.

Phases one and two are currently in the construction phase and the area of phase 3 will be redeveloped from the surface parking lot into the proposed residential and retail space. The stormwater analysis for the permitting of phases 1 and 2 was developed to consider the future development of phase 3 which will include the demolition of the remaining existing building and construction of a new building effectively redeveloping the remainder of the site.

The total proposed development (including phases 1, 2, and 3) will result in the following:

Total disturbed/developed area = 2.59 acres
Total impervious area = 2.38 acres

v. Existing Conditions Model

The pre-development watershed plan consists of three subcatchments labeled 1, through 3 in the HydroCAD model. One location is identified as Point of Analysis (POA) for comparing peak runoff rates. This POA models the City of Portland stormwater infrastructure in Commercial Street.

POA-1 is located along the easterly side of the lot where runoff leaves the site into the City of Portland Stormwater Infrastructure. Watersheds 1, 2, and 3 contribute runoff to this study point with an overall runoff area of approximately 2.70 acres.

vi. Proposed Conditions Model

The post-development watershed area consists of the same overall area as the pre-development plan, however, the pre-development subcatchments have been broken into smaller watersheds as a result of the proposed development.

POA1: Post-development subcatchments 13, 14, and 21 represent the areas that drain away from the site and are left untreated. Subcatchments 11, 12, 23, 24, 25, 27, and 28 represent the areas that were developed in Phases 1 and 2. Subcatchments 22 and 26 represent the proposed areas of development in Phase 3. The overall tributary area associated with POA-1 is approximately 2.70 acres.

The two Best Management Practices (Stormfilters) have been designed and sized by Contech Engineered Solutions for proper treatment and detention for the proposed impervious and developed area. Sizing calculations used for the 2018 design can be found in Appendix 1.

vii. Stormwater Management

Basic Standard - Chapter 500, Section 4(B)

Since the project will disturb more than one (1) acre of land area, MDEP Basic Standards apply, requiring that grading or other construction activities on the site do not impede or otherwise alter drainage ways to have an unreasonable adverse impact. We have avoided adverse impacts by providing an Erosion & Sedimentation Control Plan, and an Inspection, Maintenance and Housekeeping Plan (Appendix 3) to be implemented during construction and post-construction stabilization of the site. These construction requirements have been developed following Best Management Practice guidelines.

General Standard - Chapter 500, Section 4(C)

Since the project will create more than one (1) acre of impervious surface, MDEP General Standards apply, which require a project's stormwater management system to include

treatment measures that will mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts. The General Standards require treatment of no less than 95% of the site's created impervious area and no less than 80% of the site's created developed area (landscaped area and impervious area combined). Redevelopment standards apply because the proposed building will replace existing buildings and pavement areas. After completing the calculations outlined in §4.C(2)(d) of Chapter 500, the ranked impact change due to redevelopment is calculated to be -0.10, requiring that 0.0% of developed area be treated. However, the minimum level of treatment required by the City of Portland Technical manual is 50% for redevelopment projects.

The attached treatment table summarizes the total impervious and developed areas for the proposed development and indicates the BMP measures proposed for treating the impervious areas. The conclusion is a tabulation of the effective treatment percentages for the proposed development. The results of this tabulation indicate the following:

- The post-development area requiring treatment includes approximately 2.38 acres of impervious area and a total of approximately 2.59 acres of developed area.
- The redevelopment standard requires treatment for 50% of the new impervious areas. As such, the site is required to provide treatment for a minimum of 1.19 acres. The total area receiving treatment is approximately 1.25 acres or 52.57%.
- The redevelopment standard requires treatment for 50% of the new developed areas. As such, the site is required to provide treatment for a minimum of 1.35 acres. The total area receiving treatment is approximately 1.39 acres or 51.71%.

To mitigate the changes in hydrologic patterns due to the development of this project, two stormfilter systems designed and sized by Contech Engineered Solutions have been implemented into the stormwater management infrastructure. Filtration BMPs are very effective at removing a wide range of pollutants through the use of organic soil filter media.

BMP sizing information from Contech and treatment calculations are provided in Appendix 1.

Through the use of the aforementioned BMP's 52.57% of new impervious area and 51.71% of new developed area will be receiving treatment. This meets the requirements for the Maine DEP Redevelopment Standards.

Flooding Standard - Chapter 500, Section 4(F)

Since the planned project will create less than three (3) acres of impervious surface, MDEP Flooding Standards are not required to be met. The Flooding Standard requires a project's

stormwater management system detain, retain, or result in the infiltration of stormwater from 24-hour storms of the 2, 10, and 25-year frequencies such that the peak flows of stormwater from the project site do not exceed the peak flows of stormwater prior to undertaking the project. As such, a runoff evaluation was performed using the methodology outlined in the USDA Soil Conservation Service's "Urban Hydrology for Small Watersheds - Technical Release #55 (TR-55)". HydroCAD computer software was utilized to perform the calculations. The stormwater system has been adequately sized however, to detain the stormwater such that the peak flow rates in the post-development model do not exceed the peak flow rates in the pre-development model.

City of Portland:

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

Runoff curve numbers were determined for each of the watersheds by measuring the area of each hydrologic soil group within each type of land cover. The type of land cover was determined based on survey data, field reconnaissance and aerial photography. Times of concentration were determined from site topographic maps in accordance with SCS procedures.

The 24-hour rainfall values utilized in the hydrologic model were obtained from Appendix H of MDEP's Chapter 500: Stormwater Management (effective date August 2015). Rainfall values for Cumberland County are listed in the table below.

Storm Frequency Precipitation (in./24 hr) Cumberland County	
2-year	3.1
10-year	4.6
25-year	5.8

The following table presents the results of the peak runoff calculations at the analysis points for the existing and proposed conditions.

Peak Runoff Rate Summary Table			
Analysis Point	Storm Event	Existing Conditions (cfs)	Proposed Conditions (cfs)
POA-1	2-year	7.1	6.6
	10-year	11.0	10.6
	25-year	14.2	13.7

The HydroCAD Data output sheets from this analysis are appended to this report (Appendix 2) along with the Stormwater Management Plans (Appendix 5). The model predicts that the peak runoff rates in the post-development condition at Point of Analysis 1 are at or below pre-development runoff rates for the 2, 10, and 25-year storm events with implantation of the proposed stormwater management practices.

VIII. Summary

Erosion and sedimentation controls, inspection and maintenance procedures and general housekeeping requirements have been outlined to prevent unreasonable impacts on the site and to the surrounding environment.

By utilizing Best Management practices, stormwater quality treatment has been provided for at least 50% of the total impervious area and at least 50% of the total developed area. Based on the modeling data, the post-development peak rates of runoff for the 2-year, 10-year and 25-year storm events demonstrate decreases in the peak rates of runoff when compared to the pre-development peak rates of runoff.

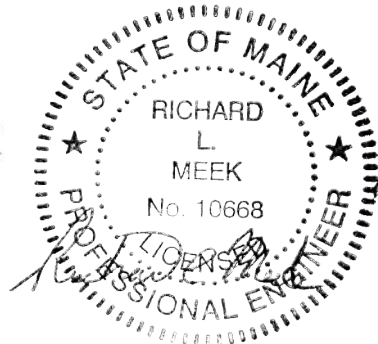
With the incorporation of the above referenced erosion control, treatment and detention measures, the project has been designed in conformance with the Maine Department of Environmental Protection Chapter 500 Stormwater Law and City of Portland Stormwater Management Standards. Accordingly, it is anticipated that stormwater runoff from the proposed development will not cause a significant adverse effect to off-site receiving channels or downstream properties.

Prepared by:
SEBAGO TECHNICS, INC.



Richard L. Meek, P.E.
Senior Project Engineer

RLM



Appendix 1

Stormwater Quality Calculations

Table 1: MDEP GENERAL STANDARD CALCULATIONS

Job # 16324

*

AREA ID	WATERSHED SIZE (S.F.)	EXISTING IMPERVIOUS AREA (S.F.)	NEW IMPERVIOUS AREA (S.F.)	EXISTING LANDSCAPED AREA (S.F.)	NEW ONSITE LANDSCAPED AREA (S.F.)	NET NEW DEVELOPED AREA (S.F.)	NET EXISTING DEVELOPED AREAS (S.F.)	TREATMENT PROVIDED?	IMPERVIOUS AREA TREATED (S.F.)	LANDSCAPED AREA TREATED* (S.F.)	DEVELOPED AREA TREATED (S.F.)	TREATMENT BMP
11	14,039	0	13,415	0	624	14,039	0	NO	0	0	0	None
12	21,188	0	19,144	0	2,044	21,188	0	YES	19,144	2,044	21,188	Storm Filter 1
13	678	678	0	0	0	0	678	NO	0	0	0	None
14	8,008	0	3,874	0	4,134	8,008	0	NO	0	0	0	None
21	2,427	0	2,427	0	0	2,427	0	NO	0	0	0	None
22	18,158	0	15,629	0	2,529	18,158	0	NO	0	0	0	None
23	13,872	0	13,872	0	0	13,872	0	NO	0	0	0	None
24	14,780	0	13,246	0	1,534	14,780	0	YES	13,246	1,534	14,780	Storm Filter 2
25	1,705	0	1,705	0	0	1,705	0	YES	1,705	0	1,705	Storm Filter 2
26	17,094	0	14,707	0	2,387	17,094	0	YES	14,707	2,387	17,094	Storm Filter 2
27	2,880	0	2,880	0	0	2,880	0	YES	2,880	0	2,880	Storm Filter 2
28	2,868	0	2,868	0	0	2,868	0	YES	2,868	0	2,868	Storm Filter 2
TOTAL (S.F.)	117,697	678	103,767	0	13,252	117,019	678		54,550	5,965	60,515	

TOTAL NEW IMPERVIOUS AREA (S.F.)	103,767	TOTAL DEVELOPED AREA (S.F.)	117,019
TOTAL IMPERVIOUS AREA RECEIVING TREATMENT (S.F.)	54,550	TOTAL DEV. AREA RECEIVING TREATMENT (S.F.)	60,515
% OF IMPERVIOUS AREA RECEIVING TREATMENT	52.57%	% OF DEV. AREA RECEIVING TREATMENT	51.71%

Table 2: MDEP GENERAL STANDARD CALCULATIONS: 383 Commercial Street, Portland, Maine

Existing Areas by Pollutant Ranking (S.F.)							Proposed Areas by Pollutant Ranking (S.F.)						
0	1	2	3	4	5	SUM	0	1	2	3	4	5	SUM
10,554	0	1,473	105,670	0	0	117,697	0	5,105	34,563	78,029	0	0	117,697

Existing Areas by Pollutant Ranking (acres)							Proposed Areas by Pollutant Ranking (S.F.)						
0	1	2	3	4	5	SUM	0	1	2	3	4	5	SUM
0.24	0.00	0.03	2.43	0.00	0.00	2.70	0.00	0.12	0.79	1.79	0.00	0.00	2.70

Existing Weighted Average (Item A)	Proposed Weighted Average (Item B)
7.35	7.08

Total Existing Development Area (acres)	Total Redevelopment Area (acres)
2.70	2.70

Total Existing Development Area (acres) - Excludes Area With Pollutant Impact Ranking of 0	Ranked Impact Change Due to Redevelopment (Item E)
2.46	-0.10

Percent Increase in Developed Area
8.97%

Treatment Levels for Redevelopment Projects	
Ranked Impact Change Due to Redevelopment (Item E)	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

Determining Number of Cartridges for Systems Downstream of Detention

CONTECH Engineered Solutions Engineer:
Date Prepared:

NTB
5/3/2018

Site Information

Project Name
Project State
Project Location
Drainage Area, Ad
Impervious Area, Ai
Pervious Area, Ap
% Impervious
Runoff Coefficient, Rc

383 Commercial Street - Phase 2
Maine
Portland

0.44 ac
0.44 ac
0.00
100%
0.95

Upstream Detention System

Water Quality Volume
24-hr release rate
Detention pretreatment credit

1601 cf
8.32 gpm
50%

Mass loading calculations

Mean Annual Rainfall, P
Agency required % removal
Percent Runoff Capture
MEDEP Mean Annual Runoff, Vt
Event Mean Concentration of Pollutant, EMC
Annual Mass Load, M_{total}

47 in
85%
85%
64,402 ft³
70 mg/l
281.26 lbs

Filter System

Filtration brand
Cartridge height
Specific Flow Rate per MEDEP authorization

StormFilter
27 in
3.00 gpm/cart

Number of cartridges - mass loading

Mass removed by pretreatment system, M_{pre}
Mass load to filters after pretreatment, M_{pass1}
Estimate the required filter efficiency, E_{filter}
Mass to be captured by filters, M_{filter}
Allowable Cartridge Flow rate, Q_{cart}
Mass load per cartridge, M_{cart} (lbs)
Number of Cartridges required, N_{mass}
Treatment Capacity

140.63 lbs
140.63 lbs
0.70
98.44 lbs
22.50
54.00 lbs
2
6.00 gpm

Determine Critical Sizing Value

Number of Cartridges using $Q_{release\ treat}$, N_{flow}

3

Method to Use:

HYDRAULIC

SUMMARY	
Hydraulic	
Treatment Flow Rate (gpm)	8.32
Cartridge Flow Rate (gpm)	3.0
Number of Cartridges	3
Mass Loading	
Treatment Mass (lbs)	98.44
Cartridge Mass Capacity (lbs)	54.00
Number of Cartridges	2



Determining Number of Cartridges for Systems Downstream of Detention

CONTECH Engineered Solutions Engineer:
Date Prepared:

NTB
5/3/2018

Site Information

Project Name
Project State
Project Location
Drainage Area, Ad
Impervious Area, Ai
Pervious Area, Ap
% Impervious
Runoff Coefficient, Rc

383 Commercial Street - Phase 2
Maine
Portland

0.82 ac
0.82 ac
0.00
100%
0.95

Upstream Detention System

Water Quality Volume
24-hr release rate
Detention pretreatment credit

2977 cf
15.47 gpm
50%

Mass loading calculations

Mean Annual Rainfall, P
Agency required % removal
Percent Runoff Capture
MEDEP Mean Annual Runoff, Vt
Event Mean Concentration of Pollutant, EMC
Annual Mass Load, M_{total}

47 in
85%
85%
119,750 ft³
70 mg/l
522.99 lbs

Filter System

Filtration brand
Cartridge height
Specific Flow Rate per MEDEP authorization

StormFilter
27 in
3.00 gpm/cart

Number of cartridges - mass loading

Mass removed by pretreatment system, M_{pre}
Mass load to filters after pretreatment, M_{pass1}
Estimate the required filter efficiency, E_{filter}
Mass to be captured by filters, M_{filter}
Allowable Cartridge Flow rate, Q_{cart}
Mass load per cartridge, M_{cart} (lbs)
Number of Cartridges required, N_{mass}
Treatment Capacity

261.49 lbs
261.49 lbs
0.70
183.05 lbs
22.50
54.00 lbs
4
12.00 gpm

Determine Critical Sizing Value

Number of Cartridges using $Q_{release\ treat}$, N_{flow}

6

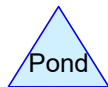
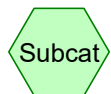
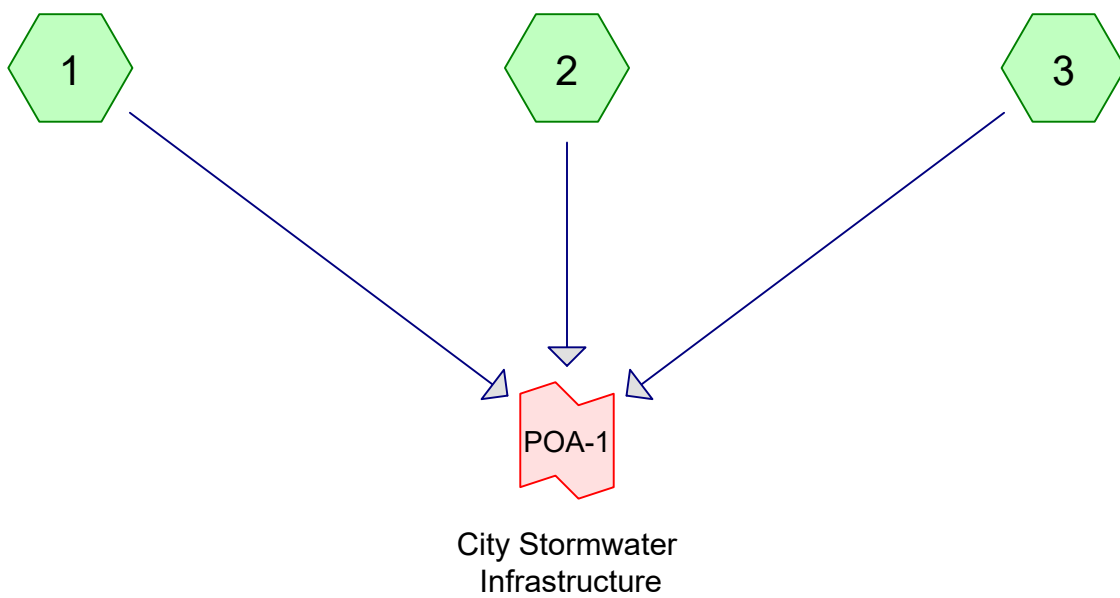
Method to Use:

HYDRAULIC

SUMMARY	
Hydraulic	
Treatment Flow Rate (gpm)	15.47
Cartridge Flow Rate (gpm)	3.0
Number of Cartridges	6
Mass Loading	
Treatment Mass (lbs)	183.05
Cartridge Mass Capacity (lbs)	54.00
Number of Cartridges	4

Appendix 2A

Hydrologic Modeling Existing Conditions HydroCAD Summary



Routing Diagram for 16324-Phase 3_Pre 2020-02-27
Prepared by Sebago Technics, Inc., Printed 3/24/2020
HydroCAD® 10.00-24 s/n 01856 © 2018 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.206	39	>75% Grass cover, Good, HSG A (1, 3)
2.496	98	Impervious (1, 2, 3)
2.702	94	TOTAL AREA

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: Runoff Area=52,431 sf 89.92% Impervious Runoff Depth>2.13"
Tc=6.0 min CN=92 Runoff=3.0 cfs 0.213 af

Subcatchment2: Runoff Area=60,163 sf 100.00% Impervious Runoff Depth>2.68"
Tc=6.0 min CN=98 Runoff=4.1 cfs 0.309 af

Subcatchment3: Runoff Area=5,103 sf 28.04% Impervious Runoff Depth>0.21"
Tc=6.0 min CN=56 Runoff=0.0 cfs 0.002 af

Link POA-1: City Stormwater Infrastructure Inflow=7.1 cfs 0.524 af
Primary=7.1 cfs 0.524 af

Total Runoff Area = 2.702 ac Runoff Volume = 0.524 af Average Runoff Depth = 2.33"
7.61% Pervious = 0.206 ac 92.39% Impervious = 2.496 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: Runoff Area=52,431 sf 89.92% Impervious Runoff Depth>3.50"
Tc=6.0 min CN=92 Runoff=4.9 cfs 0.351 af

Subcatchment2: Runoff Area=60,163 sf 100.00% Impervious Runoff Depth>4.05"
Tc=6.0 min CN=98 Runoff=6.1 cfs 0.467 af

Subcatchment3: Runoff Area=5,103 sf 28.04% Impervious Runoff Depth>0.75"
Tc=6.0 min CN=56 Runoff=0.1 cfs 0.007 af

Link POA-1: City Stormwater Infrastructure Inflow=11.0 cfs 0.825 af
Primary=11.0 cfs 0.825 af

Total Runoff Area = 2.702 ac Runoff Volume = 0.825 af Average Runoff Depth = 3.66"
7.61% Pervious = 0.206 ac 92.39% Impervious = 2.496 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: Runoff Area=52,431 sf 89.92% Impervious Runoff Depth>4.60"
Tc=6.0 min CN=92 Runoff=6.3 cfs 0.462 af

Subcatchment2: Runoff Area=60,163 sf 100.00% Impervious Runoff Depth>5.15"
Tc=6.0 min CN=98 Runoff=7.7 cfs 0.592 af

Subcatchment3: Runoff Area=5,103 sf 28.04% Impervious Runoff Depth>1.33"
Tc=6.0 min CN=56 Runoff=0.2 cfs 0.013 af

Link POA-1: City Stormwater Infrastructure

Inflow=14.2 cfs 1.067 af
Primary=14.2 cfs 1.067 af

Total Runoff Area = 2.702 ac Runoff Volume = 1.067 af Average Runoff Depth = 4.74"
7.61% Pervious = 0.206 ac 92.39% Impervious = 2.496 ac

Summary for Subcatchment 1:

Runoff = 6.3 cfs @ 12.09 hrs, Volume= 0.462 af, Depth> 4.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
5,284	39	>75% Grass cover, Good, HSG A
* 47,147	98	Impervious
52,431	92	Weighted Average
5,284		10.08% Pervious Area
47,147		89.92% Impervious Area

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

Summary for Subcatchment 2:

Runoff = 7.7 cfs @ 12.09 hrs, Volume= 0.592 af, Depth> 5.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
* 60,163	98	Impervious
60,163		100.00% Impervious Area

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

Summary for Subcatchment 3:

Runoff = 0.2 cfs @ 12.10 hrs, Volume= 0.013 af, Depth> 1.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
3,672	39	>75% Grass cover, Good, HSG A
* 1,431	98	Impervious
5,103	56	Weighted Average
3,672		71.96% Pervious Area
1,431		28.04% Impervious Area

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

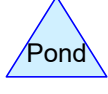
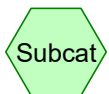
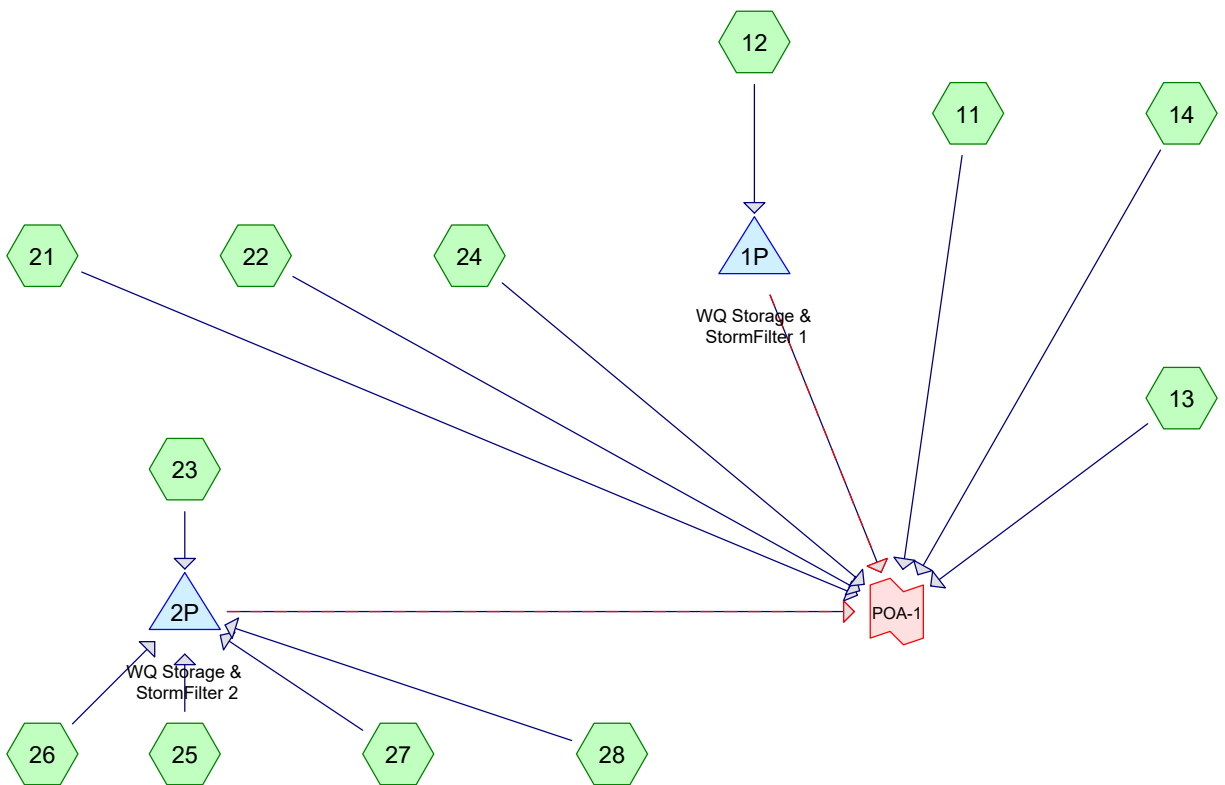
Summary for Link POA-1: City Stormwater Infrastructure

Inflow Area = 2.702 ac, 92.39% Impervious, Inflow Depth > 4.74" for 25-Year event
 Inflow = 14.2 cfs @ 12.09 hrs, Volume= 1.067 af
 Primary = 14.2 cfs @ 12.09 hrs, Volume= 1.067 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Appendix 2B

Hydrologic Modeling Proposed Conditions HydroCAD Summary



Routing Diagram for 16324-Phase 3_Post 2020-02-27
 Prepared by Sebago Technics, Inc., Printed 3/24/2020
 HydroCAD® 10.00-24 s/n 01856 © 2018 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.304	39	>75% Grass cover, Good, HSG A (11, 12, 14, 22, 24, 26)
2.398	98	Impervious (11, 12, 13, 14, 21, 22, 23, 24, 25, 26, 27, 28)
2.702	91	TOTAL AREA

Time span=0.00-60.00 hrs, dt=0.05 hrs, 1201 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

Subcatchment11: Runoff Area=14,039 sf 95.56% Impervious Runoff Depth=2.55"
 Tc=6.0 min CN=95 Runoff=0.9 cfs 0.068 af

Subcatchment12: Runoff Area=21,188 sf 90.35% Impervious Runoff Depth=2.26"
 Tc=6.0 min CN=92 Runoff=1.2 cfs 0.091 af

Subcatchment13: Runoff Area=678 sf 100.00% Impervious Runoff Depth=2.87"
 Tc=6.0 min CN=98 Runoff=0.0 cfs 0.004 af

Subcatchment14: Runoff Area=8,008 sf 48.38% Impervious Runoff Depth=0.68"
 Tc=6.0 min CN=68 Runoff=0.1 cfs 0.010 af

Subcatchment21: Runoff Area=2,427 sf 100.00% Impervious Runoff Depth=2.87"
 Tc=6.0 min CN=98 Runoff=0.2 cfs 0.013 af

Subcatchment22: Runoff Area=18,158 sf 86.07% Impervious Runoff Depth=2.08"
 Tc=6.0 min CN=90 Runoff=1.0 cfs 0.072 af

Subcatchment23: Runoff Area=13,872 sf 100.00% Impervious Runoff Depth=2.87"
 Tc=6.0 min CN=98 Runoff=0.9 cfs 0.076 af

Subcatchment24: Runoff Area=14,780 sf 89.62% Impervious Runoff Depth=2.26"
 Tc=6.0 min CN=92 Runoff=0.9 cfs 0.064 af

Subcatchment25: Runoff Area=1,705 sf 100.00% Impervious Runoff Depth=2.87"
 Tc=6.0 min CN=98 Runoff=0.1 cfs 0.009 af

Subcatchment26: Runoff Area=17,094 sf 86.04% Impervious Runoff Depth=2.08"
 Tc=6.0 min CN=90 Runoff=0.9 cfs 0.068 af

Subcatchment27: Runoff Area=2,880 sf 100.00% Impervious Runoff Depth=2.87"
 Tc=6.0 min CN=98 Runoff=0.2 cfs 0.016 af

Subcatchment28: Runoff Area=2,868 sf 100.00% Impervious Runoff Depth=2.87"
 Tc=6.0 min CN=98 Runoff=0.2 cfs 0.016 af

Pond 1P: WQ Storage & StormFilter 1 Peak Elev=8.03' Storage=610 cf Inflow=1.2 cfs 0.091 af
 Primary=0.0 cfs 0.028 af Secondary=1.2 cfs 0.064 af Outflow=1.2 cfs 0.091 af

Pond 2P: WQ Storage & StormFilter 2 Peak Elev=9.16' Storage=1,888 cf Inflow=2.4 cfs 0.185 af
 Primary=0.0 cfs 0.089 af Secondary=2.3 cfs 0.096 af Outflow=2.4 cfs 0.185 af

Link POA-1: Inflow=6.6 cfs 0.508 af
 Primary=6.6 cfs 0.508 af

Total Runoff Area = 2.702 ac Runoff Volume = 0.508 af Average Runoff Depth = 2.26"
11.26% Pervious = 0.304 ac 88.74% Impervious = 2.398 ac

Time span=0.00-60.00 hrs, dt=0.05 hrs, 1201 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

Subcatchment11: Runoff Area=14,039 sf 95.56% Impervious Runoff Depth=4.02"
 Tc=6.0 min CN=95 Runoff=1.4 cfs 0.108 af

Subcatchment12: Runoff Area=21,188 sf 90.35% Impervious Runoff Depth=3.70"
 Tc=6.0 min CN=92 Runoff=2.0 cfs 0.150 af

Subcatchment13: Runoff Area=678 sf 100.00% Impervious Runoff Depth=4.36"
 Tc=6.0 min CN=98 Runoff=0.1 cfs 0.006 af

Subcatchment14: Runoff Area=8,008 sf 48.38% Impervious Runoff Depth=1.60"
 Tc=6.0 min CN=68 Runoff=0.3 cfs 0.025 af

Subcatchment21: Runoff Area=2,427 sf 100.00% Impervious Runoff Depth=4.36"
 Tc=6.0 min CN=98 Runoff=0.2 cfs 0.020 af

Subcatchment22: Runoff Area=18,158 sf 86.07% Impervious Runoff Depth=3.49"
 Tc=6.0 min CN=90 Runoff=1.6 cfs 0.121 af

Subcatchment23: Runoff Area=13,872 sf 100.00% Impervious Runoff Depth=4.36"
 Tc=6.0 min CN=98 Runoff=1.4 cfs 0.116 af

Subcatchment24: Runoff Area=14,780 sf 89.62% Impervious Runoff Depth=3.70"
 Tc=6.0 min CN=92 Runoff=1.4 cfs 0.105 af

Subcatchment25: Runoff Area=1,705 sf 100.00% Impervious Runoff Depth=4.36"
 Tc=6.0 min CN=98 Runoff=0.2 cfs 0.014 af

Subcatchment26: Runoff Area=17,094 sf 86.04% Impervious Runoff Depth=3.49"
 Tc=6.0 min CN=90 Runoff=1.5 cfs 0.114 af

Subcatchment27: Runoff Area=2,880 sf 100.00% Impervious Runoff Depth=4.36"
 Tc=6.0 min CN=98 Runoff=0.3 cfs 0.024 af

Subcatchment28: Runoff Area=2,868 sf 100.00% Impervious Runoff Depth=4.36"
 Tc=6.0 min CN=98 Runoff=0.3 cfs 0.024 af

Pond 1P: WQ Storage & StormFilter 1 Peak Elev=8.13' Storage=652 cf Inflow=2.0 cfs 0.150 af
 Primary=0.0 cfs 0.029 af Secondary=1.9 cfs 0.121 af Outflow=1.9 cfs 0.150 af

Pond 2P: WQ Storage & StormFilter 2 Peak Elev=9.32' Storage=1,905 cf Inflow=3.7 cfs 0.292 af
 Primary=0.0 cfs 0.099 af Secondary=3.7 cfs 0.194 af Outflow=3.7 cfs 0.292 af

Link POA-1: Inflow=10.6 cfs 0.827 af
 Primary=10.6 cfs 0.827 af

Total Runoff Area = 2.702 ac Runoff Volume = 0.827 af Average Runoff Depth = 3.67"
11.26% Pervious = 0.304 ac 88.74% Impervious = 2.398 ac

Time span=0.00-60.00 hrs, dt=0.05 hrs, 1201 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

Subcatchment11: Runoff Area=14,039 sf 95.56% Impervious Runoff Depth=5.21"
 Tc=6.0 min CN=95 Runoff=1.8 cfs 0.140 af

Subcatchment12: Runoff Area=21,188 sf 90.35% Impervious Runoff Depth=4.87"
 Tc=6.0 min CN=92 Runoff=2.6 cfs 0.198 af

Subcatchment13: Runoff Area=678 sf 100.00% Impervious Runoff Depth=5.56"
 Tc=6.0 min CN=98 Runoff=0.1 cfs 0.007 af

Subcatchment14: Runoff Area=8,008 sf 48.38% Impervious Runoff Depth=2.47"
 Tc=6.0 min CN=68 Runoff=0.5 cfs 0.038 af

Subcatchment21: Runoff Area=2,427 sf 100.00% Impervious Runoff Depth=5.56"
 Tc=6.0 min CN=98 Runoff=0.3 cfs 0.026 af

Subcatchment22: Runoff Area=18,158 sf 86.07% Impervious Runoff Depth=4.65"
 Tc=6.0 min CN=90 Runoff=2.1 cfs 0.162 af

Subcatchment23: Runoff Area=13,872 sf 100.00% Impervious Runoff Depth=5.56"
 Tc=6.0 min CN=98 Runoff=1.8 cfs 0.148 af

Subcatchment24: Runoff Area=14,780 sf 89.62% Impervious Runoff Depth=4.87"
 Tc=6.0 min CN=92 Runoff=1.8 cfs 0.138 af

Subcatchment25: Runoff Area=1,705 sf 100.00% Impervious Runoff Depth=5.56"
 Tc=6.0 min CN=98 Runoff=0.2 cfs 0.018 af

Subcatchment26: Runoff Area=17,094 sf 86.04% Impervious Runoff Depth=4.65"
 Tc=6.0 min CN=90 Runoff=2.0 cfs 0.152 af

Subcatchment27: Runoff Area=2,880 sf 100.00% Impervious Runoff Depth=5.56"
 Tc=6.0 min CN=98 Runoff=0.4 cfs 0.031 af

Subcatchment28: Runoff Area=2,868 sf 100.00% Impervious Runoff Depth=5.56"
 Tc=6.0 min CN=98 Runoff=0.4 cfs 0.031 af

Pond 1P: WQ Storage & StormFilter 1 Peak Elev=8.20' Storage=681 cf Inflow=2.6 cfs 0.198 af
 Primary=0.0 cfs 0.030 af Secondary=2.5 cfs 0.168 af Outflow=2.5 cfs 0.198 af

Pond 2P: WQ Storage & StormFilter 2 Peak Elev=9.42' Storage=1,905 cf Inflow=4.7 cfs 0.379 af
 Primary=0.0 cfs 0.102 af Secondary=4.6 cfs 0.277 af Outflow=4.7 cfs 0.379 af

Link POA-1: Inflow=13.7 cfs 1.087 af
 Primary=13.7 cfs 1.087 af

Total Runoff Area = 2.702 ac Runoff Volume = 1.087 af Average Runoff Depth = 4.83"
11.26% Pervious = 0.304 ac 88.74% Impervious = 2.398 ac

Summary for Subcatchment 11:

Runoff = 1.8 cfs @ 12.09 hrs, Volume= 0.140 af, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	13,415	98	Impervious
	624	39	>75% Grass cover, Good, HSG A
	14,039	95	Weighted Average
	624		4.44% Pervious Area
	13,415		95.56% Impervious Area

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

Summary for Subcatchment 12:

Runoff = 2.6 cfs @ 12.09 hrs, Volume= 0.198 af, Depth= 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	19,144	98	Impervious
	2,044	39	>75% Grass cover, Good, HSG A
	21,188	92	Weighted Average
	2,044		9.65% Pervious Area
	19,144		90.35% Impervious Area

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

Summary for Subcatchment 13:

Runoff = 0.1 cfs @ 12.09 hrs, Volume= 0.007 af, Depth= 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	678	98	Impervious
	678		100.00% Impervious Area

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

Summary for Subcatchment 14:

Runoff = 0.5 cfs @ 12.10 hrs, Volume= 0.038 af, Depth= 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
* 3,874	98	Impervious
4,134	39	>75% Grass cover, Good, HSG A
8,008	68	Weighted Average
4,134		51.62% Pervious Area
3,874		48.38% Impervious Area

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

Summary for Subcatchment 21:

Runoff = 0.3 cfs @ 12.09 hrs, Volume= 0.026 af, Depth= 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
* 2,427	98	Impervious
2,427		100.00% Impervious Area

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

Summary for Subcatchment 22:

Runoff = 2.1 cfs @ 12.09 hrs, Volume= 0.162 af, Depth= 4.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
* 15,629	98	Impervious
2,529	39	>75% Grass cover, Good, HSG A
18,158	90	Weighted Average
2,529		13.93% Pervious Area
15,629		86.07% Impervious Area

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

Summary for Subcatchment 23:

Runoff = 1.8 cfs @ 12.09 hrs, Volume= 0.148 af, Depth= 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
* 13,872	98	Impervious
13,872		100.00% Impervious Area

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

Summary for Subcatchment 24:

Runoff = 1.8 cfs @ 12.09 hrs, Volume= 0.138 af, Depth= 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
* 13,246	98	Impervious
1,534	39	>75% Grass cover, Good, HSG A
14,780	92	Weighted Average
1,534		10.38% Pervious Area
13,246		89.62% Impervious Area

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

Summary for Subcatchment 25:

Runoff = 0.2 cfs @ 12.09 hrs, Volume= 0.018 af, Depth= 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
* 1,705	98	Impervious
1,705		100.00% Impervious Area

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

Summary for Subcatchment 26:

Runoff = 2.0 cfs @ 12.09 hrs, Volume= 0.152 af, Depth= 4.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
* 14,707	98	Impervious
2,387	39	>75% Grass cover, Good, HSG A
17,094	90	Weighted Average
2,387		13.96% Pervious Area
14,707		86.04% Impervious Area

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

Summary for Subcatchment 27:

Runoff = 0.4 cfs @ 12.09 hrs, Volume= 0.031 af, Depth= 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
* 2,880	98	Impervious
2,880		100.00% Impervious Area

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

Summary for Subcatchment 28:

Runoff = 0.4 cfs @ 12.09 hrs, Volume= 0.031 af, Depth= 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
* 2,868	98	Impervious
2,868		100.00% Impervious Area

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

Summary for Pond 1P: WQ Storage & StormFilter 1

Inflow Area = 0.486 ac, 90.35% Impervious, Inflow Depth = 4.87" for 25-Year event
 Inflow = 2.6 cfs @ 12.09 hrs, Volume= 0.198 af
 Outflow = 2.5 cfs @ 12.10 hrs, Volume= 0.198 af, Atten= 1%, Lag= 0.9 min
 Primary = 0.0 cfs @ 12.10 hrs, Volume= 0.030 af
 Secondary = 2.5 cfs @ 12.10 hrs, Volume= 0.168 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.05 hrs
 Peak Elev= 8.20' @ 12.10 hrs Surf.Area= 415 sf Storage= 681 cf

Plug-Flow detention time= 77.0 min calculated for 0.197 af (100% of inflow)
 Center-of-Mass det. time= 77.6 min (855.7 - 778.2)

Volume	Invert	Avail.Storage	Storage Description
#1	6.21'	1,135 cf	41.3" Round Pipe Storage x 2 L= 61.0'

Device	Routing	Invert	Outlet Devices (Turned on 1 times)
#1	Primary	5.68'	Tube/Siphon/Float Valve X 3.00 0.350" Diameter, C= 0.600, 0.250" Trickle Diameter Starts@7.93' Breaks@6.05'
#2	Secondary	7.75'	2.8' 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

Primary OutFlow Max=0.0 cfs @ 12.10 hrs HW=8.20' TW=0.00' (Dynamic Tailwater)
 ↑1=Tube/Siphon/Float Valve (Orifice Controls 0.0 cfs @ 7.64 fps)

Secondary OutFlow Max=2.5 cfs @ 12.10 hrs HW=8.20' TW=0.00' (Dynamic Tailwater)
 ↑2=Broad-Crested Rectangular Weir (Weir Controls 2.5 cfs @ 1.99 fps)

Summary for Pond 2P: WQ Storage & StormFilter 2

Inflow Area = 0.882 ac, 93.79% Impervious, Inflow Depth = 5.16" for 25-Year event
 Inflow = 4.7 cfs @ 12.09 hrs, Volume= 0.379 af
 Outflow = 4.7 cfs @ 12.08 hrs, Volume= 0.379 af, Atten= 1%, Lag= 0.0 min
 Primary = 0.0 cfs @ 12.08 hrs, Volume= 0.102 af
 Secondary = 4.6 cfs @ 12.08 hrs, Volume= 0.277 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.05 hrs
 Peak Elev= 9.42' @ 12.08 hrs Surf.Area= 0 sf Storage= 1,905 cf

Plug-Flow detention time= 147.2 min calculated for 0.379 af (100% of inflow)
 Center-of-Mass det. time= 147.9 min (909.7 - 761.8)

Volume	Invert	Avail.Storage	Storage Description
#1	4.39'	1,905 cf	59.1" Round Pipe Storage L= 100.0'

Device	Routing	Invert	Outlet Devices (Turned on 1 times)
#1	Primary	3.83'	Tube/Siphon/Float Valve X 6.00 0.350" Diameter, C= 0.600, 0.250" Trickle Diameter Starts@6.08' Breaks@4.20'
#2	Secondary	8.65'	2.1' 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

Primary OutFlow Max=0.0 cfs @ 12.08 hrs HW=9.41' TW=0.00' (Dynamic Tailwater)

↑**1=Tube/Siphon/Float Valve** (Orifice Controls 0.0 cfs @ 11.37 fps)

Secondary OutFlow Max=4.5 cfs @ 12.08 hrs HW=9.41' TW=0.00' (Dynamic Tailwater)

↑**2=Broad-Crested Rectangular Weir** (Weir Controls 4.5 cfs @ 2.83 fps)

Summary for Link POA-1:

Inflow Area = 2.702 ac, 88.74% Impervious, Inflow Depth = 4.83" for 25-Year event
 Inflow = 13.7 cfs @ 12.09 hrs, Volume= 1.087 af
 Primary = 13.7 cfs @ 12.09 hrs, Volume= 1.087 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-60.00 hrs, dt= 0.05 hrs

Appendix 3

Inspection, Maintenance and Housekeeping Plan

INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN

383 Commercial Street – Phase 3 Portland, ME

**Prepared by Richard Meek, P.E.
Sebago Technics, Inc.**

Introduction

The owner of the development is Deering Property Development, LLC. The owner's address is 2730 Transit Road, West Seneca, NY 14224. The owner of the proposed project will be responsible for the maintenance of all stormwater management structures, the establishment of any contract services required to implement the program, and the keeping of records and maintenance logbook. The owner will assure that the following maintenance program will be adhered.

Records of all inspections and maintenance work accomplished must be kept on file and retained for a minimum 5-year time span. The maintenance logbook will be made available to the Maine Department of Environmental Protection (MDEP) and the City of Portland upon request. At a minimum, the appropriate and relevant activities for each of the stormwater management systems will be performed on the prescribed schedule.

The following plan outlines the anticipated inspection, maintenance, and housekeeping procedures for the erosion and sedimentation controls as well as stormwater management devices for the project site. Also, this plan outlines several housekeeping requirements that shall be followed during and after construction. These procedures should be followed in order to ensure the intended function of the designed measures and to prevent unreasonable adverse impacts to the surrounding environment.

The procedures outlined in the Inspection, Maintenance, and Housekeeping Plan are provided as an overview of the anticipated practices to be used on this site. In some instances, additional measures may be required due to unexpected conditions. For additional details on any of the erosion and sedimentation control measures or stormwater management devices to be utilized on this project, refer to the most recently revised edition of the "Maine Erosion and Sedimentation Control BMP" manual and/or the "Stormwater Management for Maine: Best Management Practices" manual as published by the MDEP.

During Construction

1. **Inspection:** During the construction process, it is the Contractor's responsibility to comply with the inspection and maintenance procedures outlined in this section. These responsibilities include inspecting disturbed and impervious areas, erosion control measures, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the

site. These areas shall be inspected at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in any applicable permits, shall conduct the inspections.

2. **Maintenance:** All measures shall be maintained in an effective operating condition until areas are permanently stabilized. If Best Management Practices (BMPs) need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation must be completed within seven (7) calendar days and prior to any storm event (rainfall).
3. **Documentation:** A log summarizing the inspections and any corrective action taken must be maintained on-site. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, material storage areas, and vehicle access points to the site. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken.

The log must be made accessible to the appropriate regulatory agency upon request. The permittee shall retain a copy of the log for a period of at least three (3) years from the completion of permanent stabilization.

4. **Specific Inspection and Maintenance Tasks:** The following is a list of erosion control and stormwater management measures and the specific inspection and maintenance tasks to be performed during construction.

A. Sediment Barriers:

- Hay bale barriers, silt fences, and filter berms shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
- If the fabric on a silt fence or filter barrier should decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, it shall be replaced.
- Sediment deposits should be removed after each storm event. They must be removed before deposits reach approximately one-half the height of the barrier.
- Filter berms shall be reshaped as needed.
- Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared, and seeded.

B. Erosion Control Blankets:

- Inspect these reinforced areas semi-annually and after significant rainfall events for slumping, sliding, seepage, and scour. Pay close attention to unreinforced areas adjacent to the erosion control blankets, which may experience accelerated erosion.
- Review all applicable inspection and maintenance procedures recommended by the specific blanket manufacturer. These tasks shall be included in addition to this plan.

C. Temporary Storm Drain Inlet Protection:

- The inlet protection structure shall be inspected before each rain event and repaired as necessary.
- Sediment shall be removed and the storm drain sediment barrier restored to its original dimensions when the sediment has accumulated to half of the design depth of the trap.
- Structures shall be removed upon permanent stabilization of the tributary area.
- Upon removal of the structure, all accumulated sediments downstream of the structure shall be cleaned from the storm drain system.

D. Stabilized Construction Entrances/Exits:

- The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way.
- When the control pad becomes ineffective, the stone shall be removed along with the collected soil material. The entrance should then be reconstructed.
- Areas that have received mud-tracking or sediment deposits shall be swept or washed. Washing shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device (not into storm drains, ditches, or waterways).

E. Temporary Seed and Mulch:

- Mulched areas should be inspected after rain events to check for rill erosion.
- If less than 90% of the soil surface is covered by mulch, additional mulch shall be applied in bare areas.
- In applications where seeding and mulch have been applied in conjunction with erosion control blankets, the blankets must be inspected after rain events for dislocation or undercutting.
- Mulch shall continue to be reapplied until 95% of the soil surface has established temporary vegetative cover.

F. Stabilized Drainage Swales:

- Sediment accumulation in the swale shall be removed once the cross section of the swale is reduced by 25%.
- The swales shall be inspected after rainfall events. Any evidence of sloughing of the side slopes or channel erosion shall be repaired and corrective action should be taken to prevent reoccurrence of the problem.
- In addition to the stabilized lining of the channel (i.e. erosion control blankets), stone check dams may be needed to further reduce channel velocity.

5. **Housekeeping:** The following general performance standards apply to the proposed project.

- A. Spill Prevention: Controls must be used to prevent pollutants from being discharged from materials on-site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.
- B. Groundwater Protection: During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors, accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.
- C. Fugitive Sediment and Dust: Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.
- D. Debris and Other Materials: Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.
- E. Trench or Foundation Dewatering: Trench dewatering is the removal of water from trenches, foundations, cofferdams, ponds, and other areas within the construction area that retain water after excavation. In most cases, the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved.

After Construction

1. **Inspection:** After construction, the owner or operator shall hire a qualified post-construction stormwater inspector to at least annually, inspect the BMPs, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.

Maintenance, and repair: If a BMP requires maintenance, repair or replacement to function as intended by the approved post-construction stormwater management plan, the owner or operator shall take corrective actions to address the deficiency or deficiencies as soon as possible after the deficiency is discovered and shall provide a record of the deficiency and corrective actions to the Department of Public Services (DPS). The following is a list of permanent erosion control and stormwater management measures and the inspection, maintenance, and housekeeping tasks to be performed after construction.

A. Vegetated Areas:

- Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems.
- Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

B. Winter Sanding:

- Clear accumulations of winter sand in parking lots and along roadways at least once a year, preferably in the spring.
- Accumulations on pavement may be removed by pavement sweeping.
- Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader or other acceptable method.

C. Catch Basins:

- Inspect and, if required, clean-out catch basins at least once a year, preferably in early spring.
- Clean out must include the removal and legal disposal of accumulated sediments and debris at the bottom of the basin, at any inlet grates, at any inflow channels to the basin, and at any pipes between basins.

D. Stormfilter:

- Refer to Contech – Stormfilter operation manual for guidance on required maintenance and inspection.

3. **Annual Report:** The owner or operator or a qualified post-construction stormwater inspector hired by that person, shall, on or by June 30 of each year, provide a completed and signed certification that the person has inspected the BMPs and that they are adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they require maintenance or repair, including the record of the deficiency and corrective actions taken.
4. **Duration of Maintenance:** Perform maintenance as described and required for any associated permits unless and until the system is formally accepted by a municipality or quasi-municipal district, or is placed under the jurisdiction of a legally created association that will be responsible for the maintenance of the system. If a municipality or quasi-municipal district chooses to accept a stormwater management system, or a component of a stormwater system, it must provide a letter to the MDEP stating that it assumes responsibility for the system. The letter must specify the components of the system for which the municipality or district will assume responsibility, and that the municipality or district agrees to maintain those components of the system in compliance with MDEP standards. Upon such assumption of responsibility, and approval by the MDEP, the municipality, quasi-municipal district, or association becomes a co-permittee for this purpose only and must comply with all terms and conditions of the permit.

Attachments

Attachment 1 – Sample Stormwater Inspection and Maintenance Form

Attachment 1 - Sample Stormwater Inspection and Maintenance Form

383 Commercial Street Portland, ME

This log is intended to accompany the stormwater Inspection, Maintenance and Housekeeping Plan for 383 Commercial Street. The following items shall be checked, cleaned and maintained on a regular basis as specified in the Maintenance Plan and as described in the table below. This log shall be kept on file for a minimum of five (5) years and shall be available for review. Qualified personnel familiar with drainage systems and soils shall perform all inspections. Attached is a copy of the construction and post-construction maintenance logs.

Item	Maintenance Required & Frequency	Date Completed	Maintenance Personnel	Comments
Ditches and Swales	Inspect after major rainfall event producing greater than 3" of rain in 2 hours.			
	Repair erosion or damage immediately.			
Catch Basins and Culverts	Remove accumulated sediment and debris			
	Sump depth			
Vegetated Areas	Inspect Slopes			
	Replant Bare Areas			
	Check after Major Storms			
Winter Sanding	Clean annually (Spring)			
	Remove sand and sediment from roadway shoulders			
Stormfilter	Inspect annually			

StormFilter Inspection and Maintenance Procedures



Maintenance Guidelines

The primary purpose of the Stormwater Management StormFilter® is to filter and prevent pollutants from entering our waterways. Like any effective filtration system, periodically these pollutants must be removed to restore the StormFilter to its full efficiency and effectiveness.

Maintenance requirements and frequency are dependent on the pollutant load characteristics of each site. Maintenance activities may be required in the event of a chemical spill or due to excessive sediment loading from site erosion or extreme storms. It is a good practice to inspect the system after major storm events.

Maintenance Procedures

Although there are many effective maintenance options, we believe the following procedure to be efficient, using common equipment and existing maintenance protocols. The following two-step procedure is recommended::

1. Inspection

- Inspection of the vault interior to determine the need for maintenance.

2. Maintenance

- Cartridge replacement
- Sediment removal

Inspection and Maintenance Timing

At least one scheduled inspection should take place per year with maintenance following as warranted.

First, an inspection should be done before the winter season. During the inspection the need for maintenance should be determined and, if disposal during maintenance will be required, samples of the accumulated sediments and media should be obtained.

Second, if warranted, a maintenance (replacement of the filter cartridges and removal of accumulated sediments) should be performed during periods of dry weather.

In addition to these two activities, it is important to check the condition of the StormFilter unit after major storms for potential damage caused by high flows and for high sediment accumulation that may be caused by localized erosion in the drainage area. It may be necessary to adjust the inspection/maintenance schedule depending on the actual operating conditions encountered by the system. In general, inspection activities can be conducted at any time, and maintenance should occur, if warranted, during dryer months in late summer to early fall.

Maintenance Frequency

The primary factor for determining frequency of maintenance for the StormFilter is sediment loading.

A properly functioning system will remove solids from water by trapping particulates in the porous structure of the filter media inside the cartridges. The flow through the system will naturally decrease as more and more particulates are trapped. Eventually the flow through the cartridges will be low enough to require replacement. It may be possible to extend the usable span of the cartridges by removing sediment from upstream trapping devices on a routine as-needed basis, in order to prevent material from being re-suspended and discharged to the StormFilter treatment system.

The average maintenance lifecycle is approximately 1-5 years. Site conditions greatly influence maintenance requirements. StormFilter units located in areas with erosion or active construction may need to be inspected and maintained more often than those with fully stabilized surface conditions.

Regulatory requirements or a chemical spill can shift maintenance timing as well. The maintenance frequency may be adjusted as additional monitoring information becomes available during the inspection program. Areas that develop known problems should be inspected more frequently than areas that demonstrate no problems, particularly after major storms. Ultimately, inspection and maintenance activities should be scheduled based on the historic records and characteristics of an individual StormFilter system or site. It is recommended that the site owner develop a database to properly manage StormFilter inspection and maintenance programs..





Inspection Procedures

The primary goal of an inspection is to assess the condition of the cartridges relative to the level of visual sediment loading as it relates to decreased treatment capacity. It may be desirable to conduct this inspection during a storm to observe the relative flow through the filter cartridges. If the submerged cartridges are severely plugged, then typically large amounts of sediments will be present and very little flow will be discharged from the drainage pipes. If this is the case, then maintenance is warranted and the cartridges need to be replaced.

Warning: In the case of a spill, the worker should abort inspection activities until the proper guidance is obtained. Notify the local hazard control agency and Contech Engineered Solutions immediately.

To conduct an inspection:

Important: Inspection should be performed by a person who is familiar with the operation and configuration of the StormFilter treatment unit.

1. If applicable, set up safety equipment to protect and notify surrounding vehicle and pedestrian traffic.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the access portals to the vault and allow the system vent.
4. Without entering the vault, visually inspect the inside of the unit, and note accumulations of liquids and solids.
5. Be sure to record the level of sediment build-up on the floor of the vault, in the forebay, and on top of the cartridges. If flow is occurring, note the flow of water per drainage pipe. Record all observations. Digital pictures are valuable for historical documentation.
6. Close and fasten the access portals.
7. Remove safety equipment.
8. If appropriate, make notes about the local drainage area relative to ongoing construction, erosion problems, or high loading of other materials to the system.
9. Discuss conditions that suggest maintenance and make decision as to whether or not maintenance is needed.

Maintenance Decision Tree

The need for maintenance is typically based on results of the inspection. The following Maintenance Decision Tree should be used as a general guide. (Other factors, such as Regulatory Requirements, may need to be considered)

1. Sediment loading on the vault floor.
 - a. If $>4"$ of accumulated sediment, maintenance is required.
2. Sediment loading on top of the cartridge.
 - a. If $>1/4"$ of accumulation, maintenance is required.
3. Submerged cartridges.
 - a. If $>4"$ of static water above cartridge bottom for more than 24 hours after end of rain event, maintenance is required. (Catch basins have standing water in the cartridge bay.)
4. Plugged media.
 - a. If pore space between media granules is absent, maintenance is required.
5. Bypass condition.
 - a. If inspection is conducted during an average rain fall event and StormFilter remains in bypass condition (water over the internal outlet baffle wall or submerged cartridges), maintenance is required.
6. Hazardous material release.
 - a. If hazardous material release (automotive fluids or other) is reported, maintenance is required.
7. Pronounced scum line.
 - a. If pronounced scum line (say $\geq 1/4"$ thick) is present above top cap, maintenance is required.



Maintenance

Depending on the configuration of the particular system, maintenance personnel will be required to enter the vault to perform the maintenance.

Important: If vault entry is required, OSHA rules for confined space entry must be followed.

Filter cartridge replacement should occur during dry weather. It may be necessary to plug the filter inlet pipe if base flows is occurring.

Replacement cartridges can be delivered to the site or customers facility. Information concerning how to obtain the replacement cartridges is available from Contech Engineered Solutions.

Warning: In the case of a spill, the maintenance personnel should abort maintenance activities until the proper guidance is obtained. Notify the local hazard control agency and Contech Engineered Solutions immediately.

To conduct cartridge replacement and sediment removal maintenance:

1. If applicable, set up safety equipment to protect maintenance personnel and pedestrians from site hazards.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the doors (access portals) to the vault and allow the system to vent.
4. Without entering the vault, give the inside of the unit, including components, a general condition inspection.
5. Make notes about the external and internal condition of the vault. Give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
6. Using appropriate equipment offload the replacement cartridges (up to 150 lbs. each) and set aside.
7. Remove used cartridges from the vault using one of the following methods:

Method 1:

- A. This activity will require that maintenance personnel enter the vault to remove the cartridges from the under drain manifold and place them under the vault opening for lifting (removal). Disconnect each filter cartridge from the underdrain connector by rotating counterclockwise 1/4 of a turn. Roll the loose cartridge, on edge, to a convenient spot beneath the vault access.

Using appropriate hoisting equipment, attach a cable from the boom, crane, or tripod to the loose cartridge. Contact Contech Engineered Solutions for suggested attachment devices.

- B. Remove the used cartridges (up to 250 lbs. each) from the vault.



Important: Care must be used to avoid damaging the cartridges during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner.

- C. Set the used cartridge aside or load onto the hauling truck.
- D. Continue steps a through c until all cartridges have been removed.

Method 2:

- A. This activity will require that maintenance personnel enter the vault to remove the cartridges from the under drain manifold and place them under the vault opening for lifting (removal). Disconnect each filter cartridge from the underdrain connector by rotating counterclockwise 1/4 of a turn. Roll the loose cartridge, on edge, to a convenient spot beneath the vault access.
- B. Unscrew the cartridge cap.
- C. Remove the cartridge hood and float.
- D. At location under structure access, tip the cartridge on its side.
- E. Empty the cartridge onto the vault floor. Reassemble the empty cartridge.
- F. Set the empty, used cartridge aside or load onto the hauling truck.
- G. Continue steps a through e until all cartridges have been removed.

8. Remove accumulated sediment from the floor of the vault and from the forebay. This can most effectively be accomplished by use of a vacuum truck.
9. Once the sediments are removed, assess the condition of the vault and the condition of the connectors.
10. Using the vacuum truck boom, crane, or tripod, lower and install the new cartridges. Once again, take care not to damage connections.
11. Close and fasten the door.
12. Remove safety equipment.
13. Finally, dispose of the accumulated materials in accordance with applicable regulations. Make arrangements to return the used **empty** cartridges to Contech Engineered Solutions.

Related Maintenance Activities - Performed on an as-needed basis

StormFilter units are often just one of many structures in a more comprehensive stormwater drainage and treatment system.

In order for maintenance of the StormFilter to be successful, it is imperative that all other components be properly maintained. The maintenance/repair of upstream facilities should be carried out prior to StormFilter maintenance activities.

In addition to considering upstream facilities, it is also important to correct any problems identified in the drainage area. Drainage area concerns may include: erosion problems, heavy oil loading, and discharges of inappropriate materials.

Material Disposal

The accumulated sediment found in stormwater treatment and conveyance systems must be handled and disposed of in accordance with regulatory protocols. It is possible for sediments to contain measurable concentrations of heavy metals and organic chemicals (such as pesticides and petroleum products). Areas with the greatest potential for high pollutant loading include industrial areas and heavily traveled roads.

Sediments and water must be disposed of in accordance with all applicable waste disposal regulations. When scheduling maintenance, consideration must be made for the disposal of solid and liquid wastes. This typically requires coordination with a local landfill for solid waste disposal. For liquid waste disposal a number of options are available including a municipal vacuum truck decant facility, local waste water treatment plant or on-site treatment and discharge.



Inspection Report

Date: Personnel:

Location: _____ System Size: _____

System Type: Vault ☐ Cast-In-Place ☐ Linear Catch Basin ☐ Manhole ☐ Other ☐

Sediment Thickness in Forebay: _____ Date: _____

Sediment Depth on Vault Floor: _____

Structural Damage: _____

Estimated Flow from Drainage Pipes (if available): _____

Cartridges Submerged: Yes ☐ No ☐ Depth of Standing Water: _____

StormFilter Maintenance Activities (check off if done and give description)

☐ Trash and Debris Removal: _____

☐ Minor Structural Repairs: _____

☐ Drainage Area Report _____

Excessive Oil Loading: Yes ☐ No ☐ Source: _____

Sediment Accumulation on Pavement: Yes ☐ No ☐ Source: _____

Erosion of Landscaped Areas: Yes ☐ No ☐ Source: _____

Items Needing Further Work: _____

Owners should contact the local public works department and inquire about how the department disposes of their street waste residuals.

Other Comments:

Review the condition reports from the previous inspection visits.

StormFilter Maintenance Report

Date: _____ Personnel: _____

Location: _____ System Size: _____

System Type: Vault ☐ Cast-In-Place ☐ Linear Catch Basin ☐ Manhole ☐ Other ☐

List Safety Procedures and Equipment Used: _____

System Observations

Months in Service: _____

Oil in Forebay (if present): Yes ☐ No ☐

Sediment Depth in Forebay (if present): _____

Sediment Depth on Vault Floor: _____

Structural Damage: _____

Drainage Area Report

Excessive Oil Loading: Yes ☐ No ☐ Source: _____

Sediment Accumulation on Pavement: Yes ☐ No ☐ Source: _____

Erosion of Landscaped Areas: Yes ☐ No ☐ Source: _____

StormFilter Cartridge Replacement Maintenance Activities

Remove Trash and Debris: Yes ☐ No ☐ Details: _____

Replace Cartridges: Yes ☐ No ☐ Details: _____

Sediment Removed: Yes ☐ No ☐ Details: _____

Quantity of Sediment Removed (estimate?): _____

Minor Structural Repairs: Yes ☐ No ☐ Details: _____

Residuals (debris, sediment) Disposal Methods: _____

Notes:



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Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, sanitary sewer, stormwater and earth stabilization products. For information on other Contech division offerings, visit www.ContechES.com or call 800.338.1122.

Support

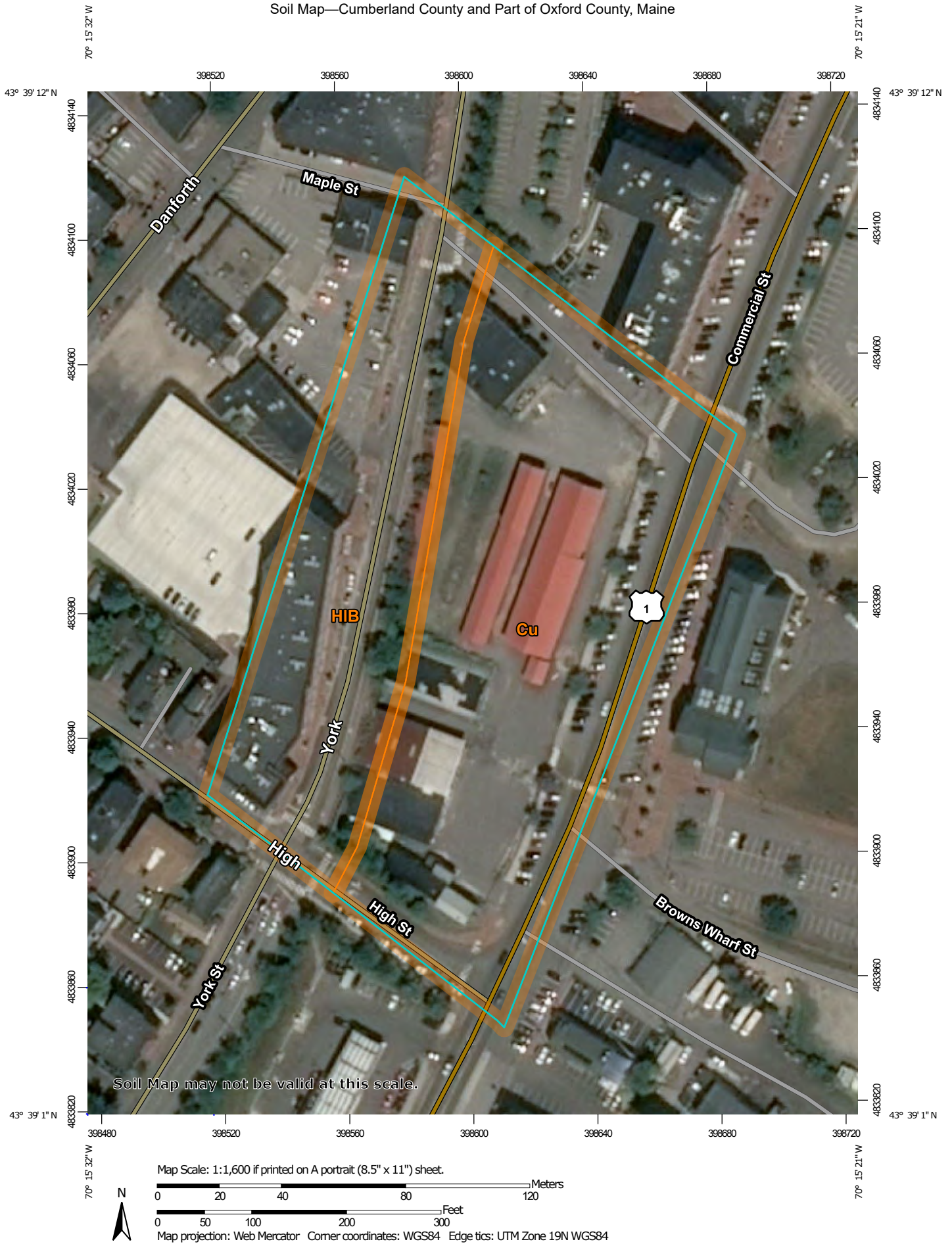
- Drawings and specifications are available at www.conteches.com.
- Site-specific design support is available from our engineers.

NOTHING IN THIS CATALOG SHOULD BE CONSTRUED AS A WARRANTY. APPLICATIONS SUGGESTED HEREIN ARE DESCRIBED ONLY TO HELP READERS MAKE THEIR OWN EVALUATIONS AND DECISIONS, AND ARE NEITHER GUARANTEES NOR WARRANTIES OF SUITABILITY FOR ANY APPLICATION. CONTECH MAKES NO WARRANTY WHATSOEVER, EXPRESS OR IMPLIED, RELATED TO THE APPLICATIONS, MATERIALS, COATINGS, OR PRODUCTS DISCUSSED HEREIN. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND ALL IMPLIED WARRANTIES OF FITNESS FOR ANY PARTICULAR PURPOSE ARE DISCLAIMED BY CONTECH. SEE CONTECH'S CONDITIONS OF SALE (AVAILABLE AT WWW.CONTECHES.COM/COS) FOR MORE INFORMATION.

Appendix 4

Subsurface Investigations

Soil Map—Cumberland County and Part of Oxford County, Maine



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.

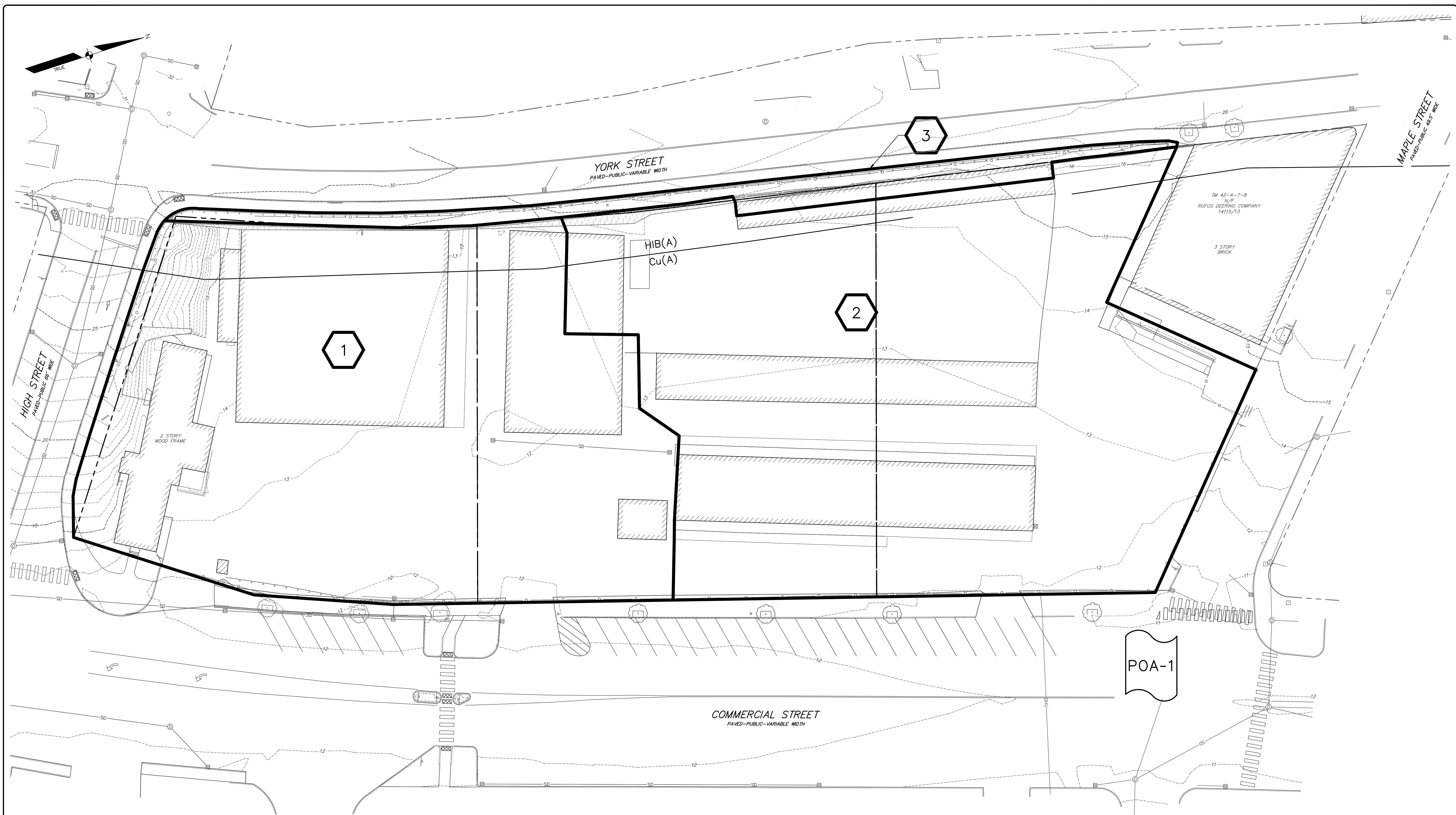
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Cu	Cut and fill land	4.0	63.7%
HIB	Hinckley loamy sand, 3 to 8 percent slopes	2.3	36.3%
Totals for Area of Interest		6.2	100.0%

Appendix 5

Stormwater Management Plans

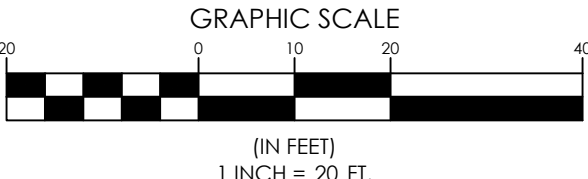


STORMWATER PEAK DISCHARGE SUMMARY TABLE						
STUDY POINT	2-YEAR STORM		10-YEAR STORM		25-YEAR STORM	
	PRE (CFS)	POST (CFS)	PRE (CFS)	POST (CFS)	PRE (CFS)	POST (CFS)
POA-1	7.1	6.6	11.0	10.6	14.2	13.7

LEGEND

- WATERSHED BOUNDARY
- TIME OF CONCENTRATION
- REACH
- SUB-CATCHMENT LABEL
- REACH
- POINT OF ANALYSIS
- SOILS BOUNDARY

- EXISTING
- PROPERTY LINE/R.O.W.
- MONUMENT
- IRON PIPE/ROD
- BUILDING
- DECK/STEPS/OVERHANG
- EDGE PAVEMENT
- EDGE CONCRETE
- EDGE GRAVEL
- CURB LINE
- CONTOURS
- CHAIN LINK FENCE
- GUARD RAIL
- RETAINING WALL
- DECIDUOUS TREE
- CONIFEROUS TREE
- BOLLARD
- SIGN
- STORM DRAIN
- DRAINAGE MANHOLE
- CATCH BASIN



PRE-DEVELOPMENT WATERSHED PLAN
OF:
383 COMMERCIAL STREET
PORTLAND, MAINE
FOR:
DEERING PROPERTY DEVELOPMENT, LLC
2730 TRANSIT ROAD
WEST SENeca, NEW YORK 14224

PROJECT NO. 16324
SCALE 1" = 20'

SHEET 1 OF 2

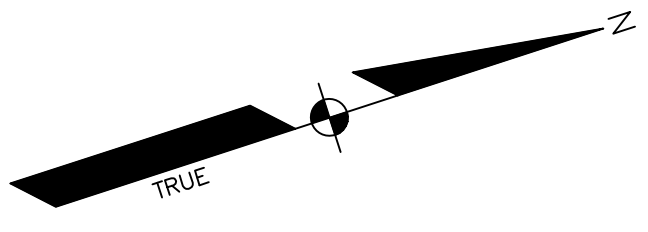
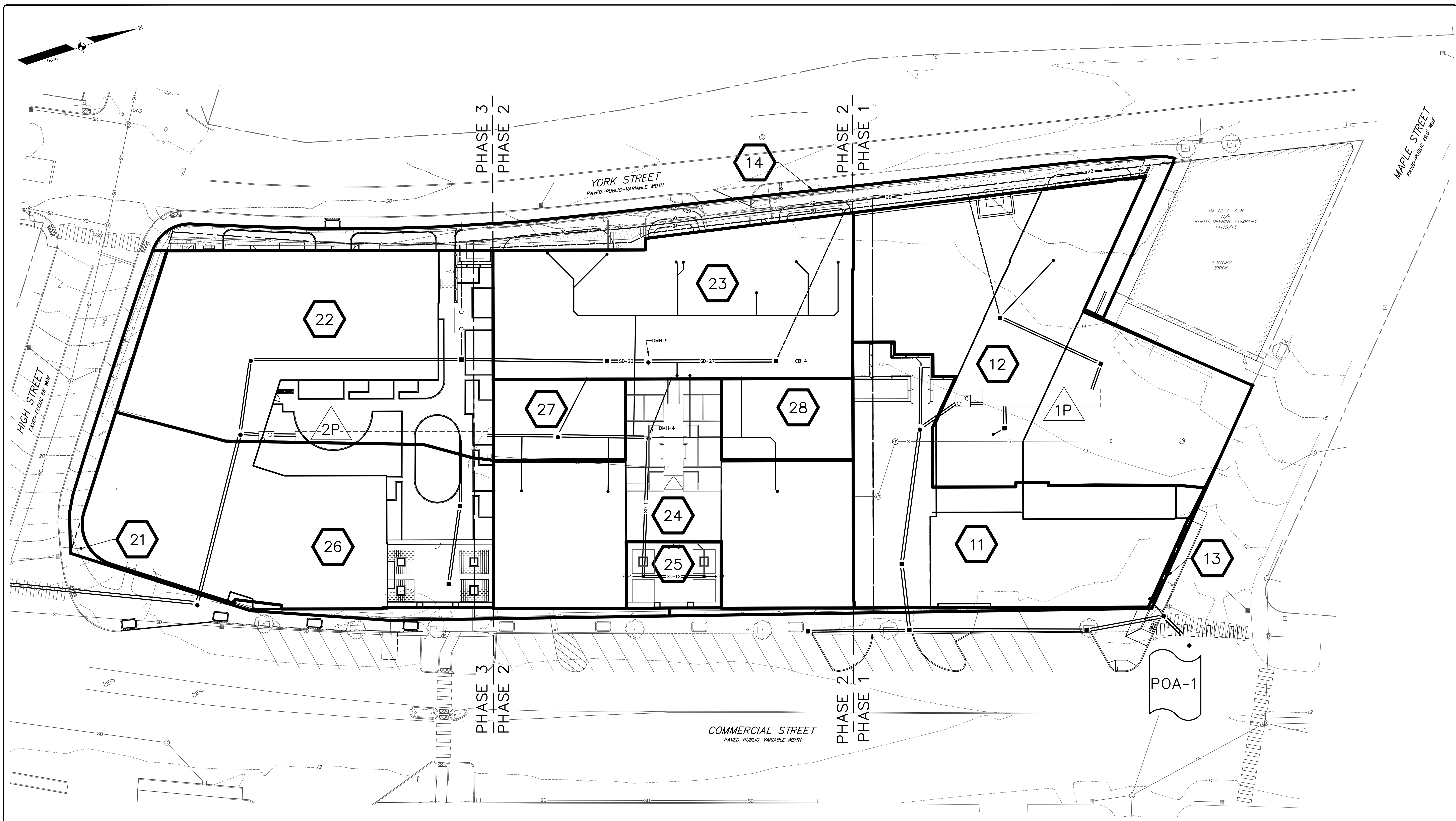
SEBAGO
TECHNICALS
75 John Roberts Rd.
Suite 400
South Portland, ME 04106
Tel: 207-200-2100
WWW.SEBAGOTECHNICALS.COM

DESIGNED: DJS
CHECKED: RLM

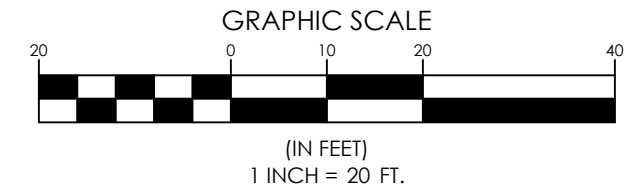
DATE: 06/26/2018
STATUS: FINAL
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICALS, INC. ANY ALTERATIONS AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICALS, INC.

RICHARD L. MEER, P.E. 10668

06/26/20



STORMWATER PEAK DISCHARGE SUMMARY TABLE						
STUDY POINT	2-YEAR STORM		10-YEAR STORM		25-YEAR STORM	
	PRE (CFS)	POST (CFS)	PRE (CFS)	POST (CFS)	PRE (CFS)	POST (CFS)
POA-1	7.1	6.6	11.0	10.6	14.2	13.7



- LEGEND**
- WATERSHED BOUNDARY
 - TIME OF CONCENTRATION
 - REACH
 - WATERSHED LABEL
 - REACH
 - POINT OF ANALYSIS
 - SOILS BOUNDARY

- LEGEND**
- | EXISTING | PROPOSED |
|----------------------|----------|
| PROPERTY LINE/R.O.W. | |
| MONUMENT | |
| IRON PIPE/ROD | |
| BUILDING | |
| DECK/STEPS/OVERHANG | |
| EDGE PAVEMENT | |
| PAVEMENT SAWCUT | |
| EDGE CONCRETE | |
| EDGE GRAVEL | |
| CURB LINE | |
| CONTOURS | |
| SPOT GRADE | |
| CHAIN LINK FENCE | |
| GUARD RAIL | |
| RETAINING WALL | |
| DECIDUOUS TREE | |
| CONIFEROUS TREE | |
| MULCH LINE | |
| BOLLARD | |
| SIGN | |
| STORM DRAIN | |
| UNDER DRAIN | |
| DRAINAGE MANHOLE | |
| CATCH BASIN | |

POST-DEVELOPMENT WATERSHED PLAN
OF:
383 COMMERCIAL STREET
FOR: DEERING PROPERTY DEVELOPMENT, LLC
2230 TRANSIT ROAD
WEST SENeca, NEW YORK 14224

PROJECT NO. 16324
SCALE 1" = 20'

SHEET 2 OF 2

SEBAGO TECHNICALS
75 John Roberts Rd.
South Saline Ave. 04106
Tel. 207-200-2100

DESIGNED: DJS
CHECKED: RLM

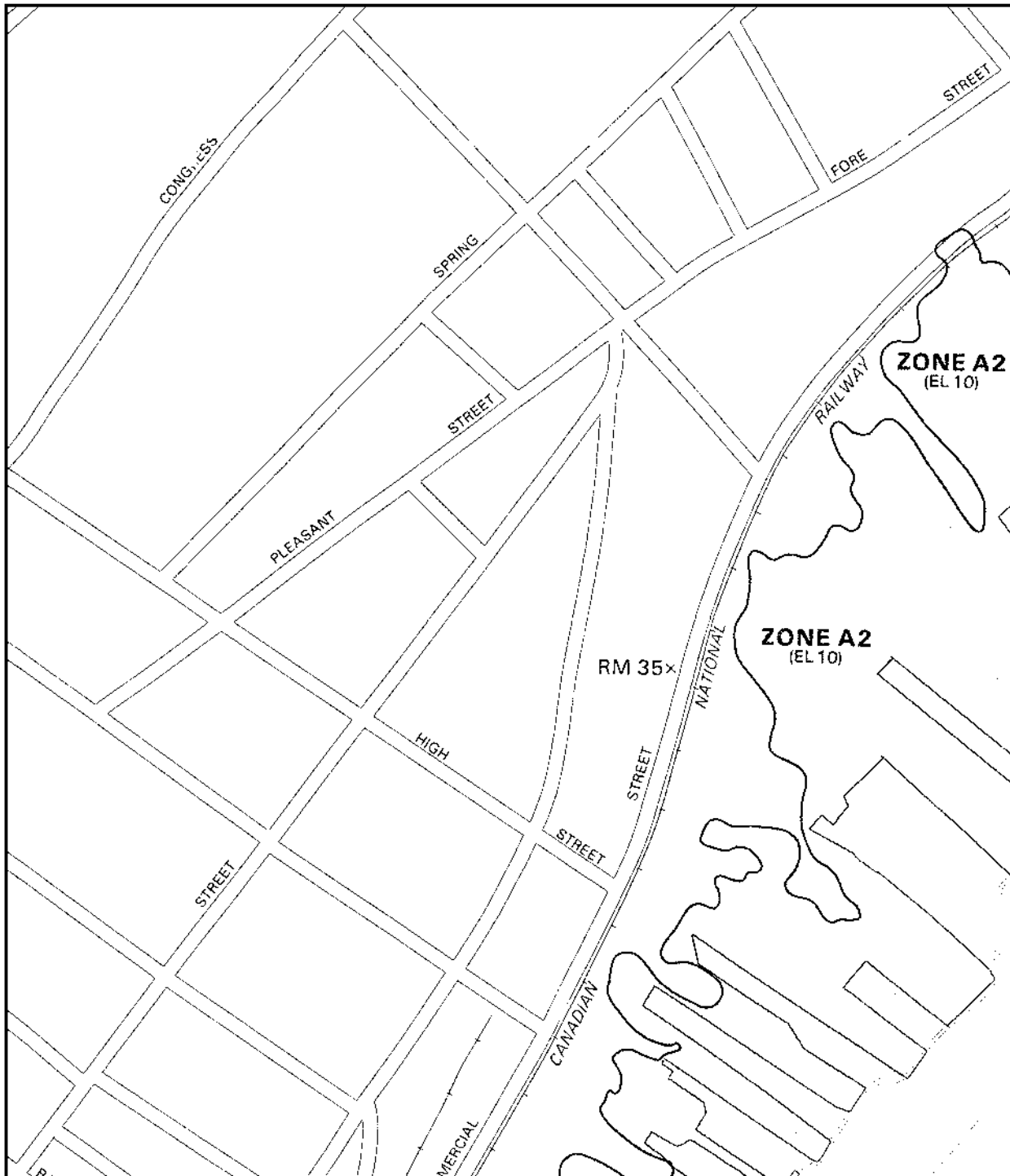
A. RLM 06/26/20 LEVEL III SITE PLAN SUBMISSION
REVISIONS
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICALS, INC. ANY ALTERATIONS AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICALS, INC.

RICHARD L. MEER, P.E. 10668

06/26/20

Appendix 6

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)

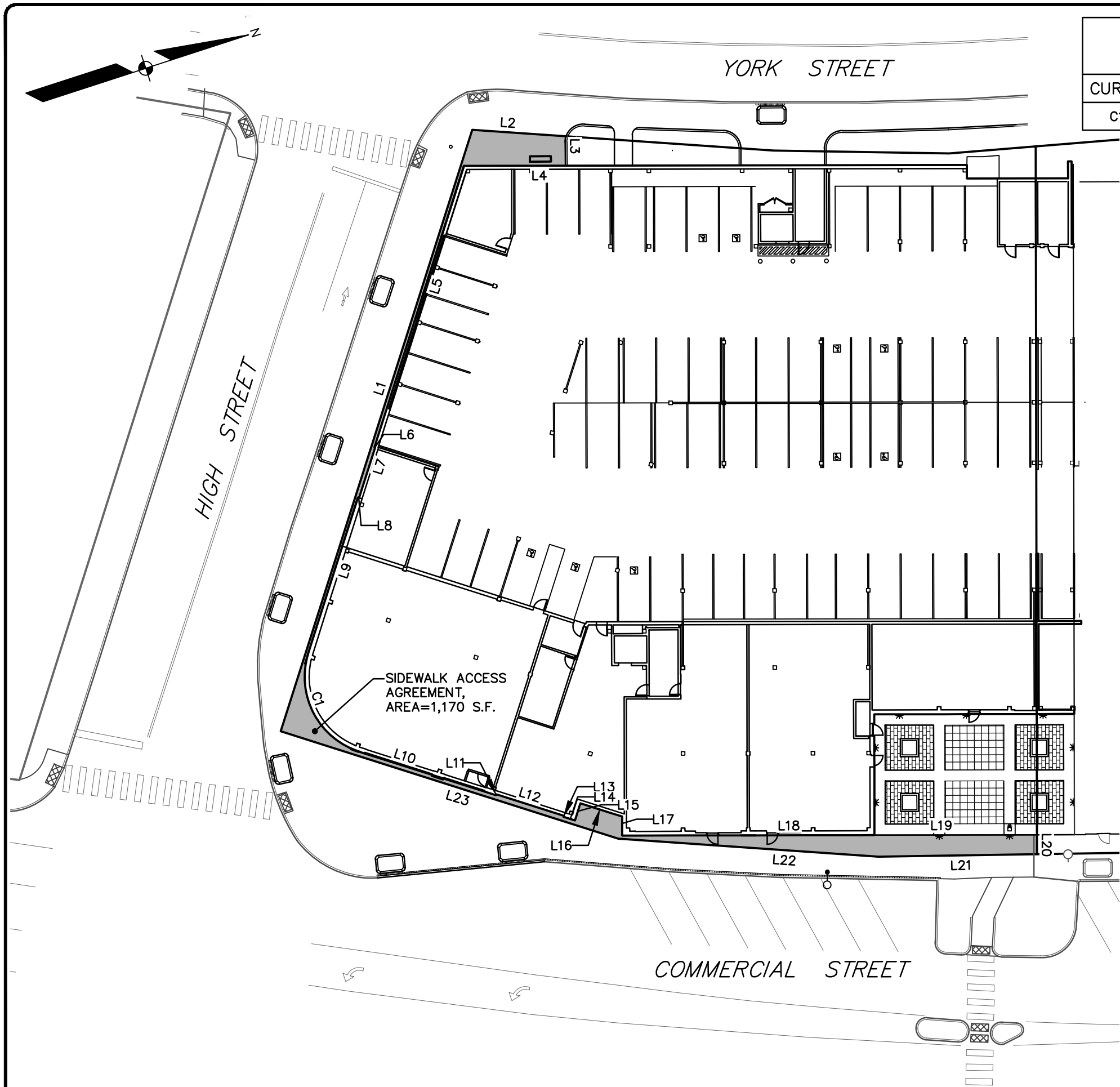
COMMUNITY-PANEL NUMBER
230051 0013 B

EFFECTIVE DATE:
JULY 17, 1986



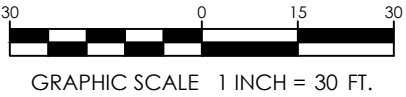
Federal Emergency Management Agency

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



EASEMENT CURVE TABLE				
CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C1	34.37'	21.75'	N 79°55'37" E	30.90'

EASEMENT LINE TABLE		
LINE	DIRECTION	DISTANCE
L1	N 54°19'43" W	175.06'
L2	N 21°55'27" E	25.87'
L3	S 72°06'21" E	8.16'
L4	S 17°53'40" W	28.11'
L5	S 54°19'43" E	81.97'
L6	N 35°40'17" E	0.24'
L7	S 54°19'43" E	14.62'
L8	S 35°40'17" W	0.36'
L9	S 54°19'43" E	45.52'
L10	N 35°40'17" E	39.48'
L11	N 54°19'43" W	0.30'
L12	N 35°40'17" E	19.64'
L13	S 54°19'43" E	0.30'
L14	N 35°40'17" E	3.33'
L15	N 54°19'43" W	5.00'
L16	N 35°40'17" E	12.15'
L17	S 72°06'21" E	5.28'
L18	N 17°53'39" E	70.00'
L19	N 17°53'39" E	45.08'
L20	S 72°06'21" E	5.37'
L21	S 17°06'02" W	43.98'
L22	S 21°57'02" W	72.37'
L23	S 35°40'17" W	98.29'



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SEBAGO

TECHNICS

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

EXHIBIT

OF: SIDEWALK ACCESS AGREEMENT AREA
COMMERCIAL/YORK/HIGH STREETS
PORTLAND, MAINE

FOR: DEERING PROPERTY DEVELOPMENT, LLC
2730 TRANSIT ROAD
WEST SENECA, NY 14224

DRAWN	DESIGNED
MAL	DLR
DATE	CHECKED
03-29-21	SRM
PROJECT NO.	SCALE
16324	1"=30'

SHEET 1 OF 1

Michael Adams and Rhonda Rittenberg

383 Commercial Street, Unit 516

Portland ME 04101

m.f.adams505@gmail.com

rhonda.rittenberg@gmail.com

City of Portland Planning Board

389 Congress St.

Portland, ME 04101

planningboard@portlandmaine.gov

RE: 387 (383) Commercial Street/Phase 3-Hobson's Landing

Dear Members of the Board:

We are owners at Hobson's Landing, 383 Commercial Street, and have public safety concerns we hope you will address prior to the final approval and/or commencement of construction of Phase 3 to the Hobson's Landing project, namely the building at 387 Commercial Street.

Prior to purchasing our unit, the developer (and its representatives), represented to us- both in printed materials and on the Hobson's Landing website- that owners would enjoy "Secured Garage Parking." As we have since discovered, these representations appear to have been false and misleading. There are two levels of garage parking at 383 Commercial Street. The second level, with an entrance on York Street, does, in fact, provide secured garage parking as it has a full roller door system which not only prevents unauthorized vehicles, but also prevents access by unauthorized persons. In contrast, the developer has only recently advised that it only intends to install an arm gate in the first-floor garage. This will be a completely unsecured garage providing a target rich environment that exposes unit owners parking on that level to harm, both to their person and property. This could easily be remedied by utilizing the roller door system for the entrance and egress. This system would still allow ready access to authorized unit owners and the hotel valet personnel. When we asked the developer what the impediments were that made it unable/unwilling to utilize this type of feature, it responded as follows:

With regards to the garage, we need to let the hotel residents have access to their vehicles when they are parked there , even if the valet is the ones parking the vehicle. I also think there will be

the need to have guests self - park as well. This is one of the reasons we do not have roll up doors. As far as other uses, we currently do not have the capacity for any other uses except, residents, hotel guests and we need to keep some spaces available to support the commercial units. Once the next phase is complete, we will have some excess capacity for which we may allow some public parking including guests/visitors to Hobson owners. This has always been the plan as it was approved by the city.

Hotel self-parking on the first-floor garage (along with public parking as part of Phase 3) was news to us. We had only been told that hotel valet parking would be permitted. And, even if hotel self-parking on the first-floor garage along with public parking in the Phase 3 garage are ultimately allowed, it still begs the question as to why the first-floor garage cannot be made secured with a roller door system.

Prior to any final approval of Phase 3, we would ask the Planning Board to require full disclosure and complete transparency from the developer, not only with respect to the first-floor garage at 383 Commercial Street, but the garage security for Phase 3, and to hold the developer accountable for addressing these and any related public safety issues and designing/executing a solution that meets the level of secured garage parking as promised.

Thank you for your consideration.

Sincerely,

/s/

Michael Adams

Rhonda Rittenberg

Rittenberg, Rhonda

May 20, 2021, 8:32:47 PM (12 hours ago)



to planni...@portlandmaine.gov, Michael Adams

Good evening,

In advance of the May 25, 2021 public hearing on 387 (383) Commercial Street (Phase 3 of Hobson's Landing), please see the attached letter to the Planning Board.

Thank you,

Michael Adams and Rhonda Rittenberg

387 COMMERCIAL STREET-PHASE 3

387 COMMERCIAL STREET
PORTLAND, MAINE

APPLICANT:
DEERING PROPERTY
DEVELOPMENT, LLC
2730 TRANSIT ROAD
WEST SENECA, NEW YORK

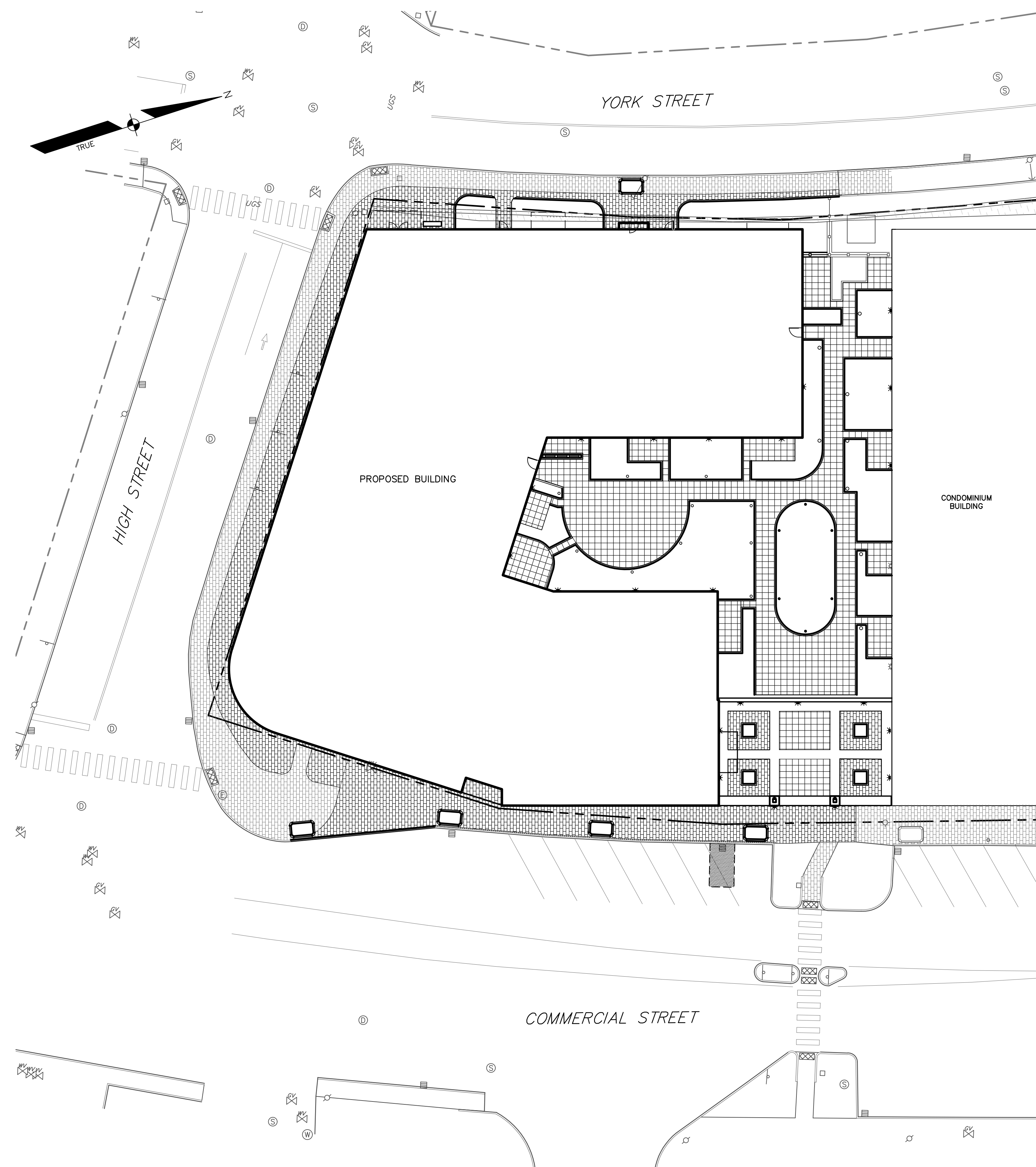
ENGINEER/SURVEYOR:

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

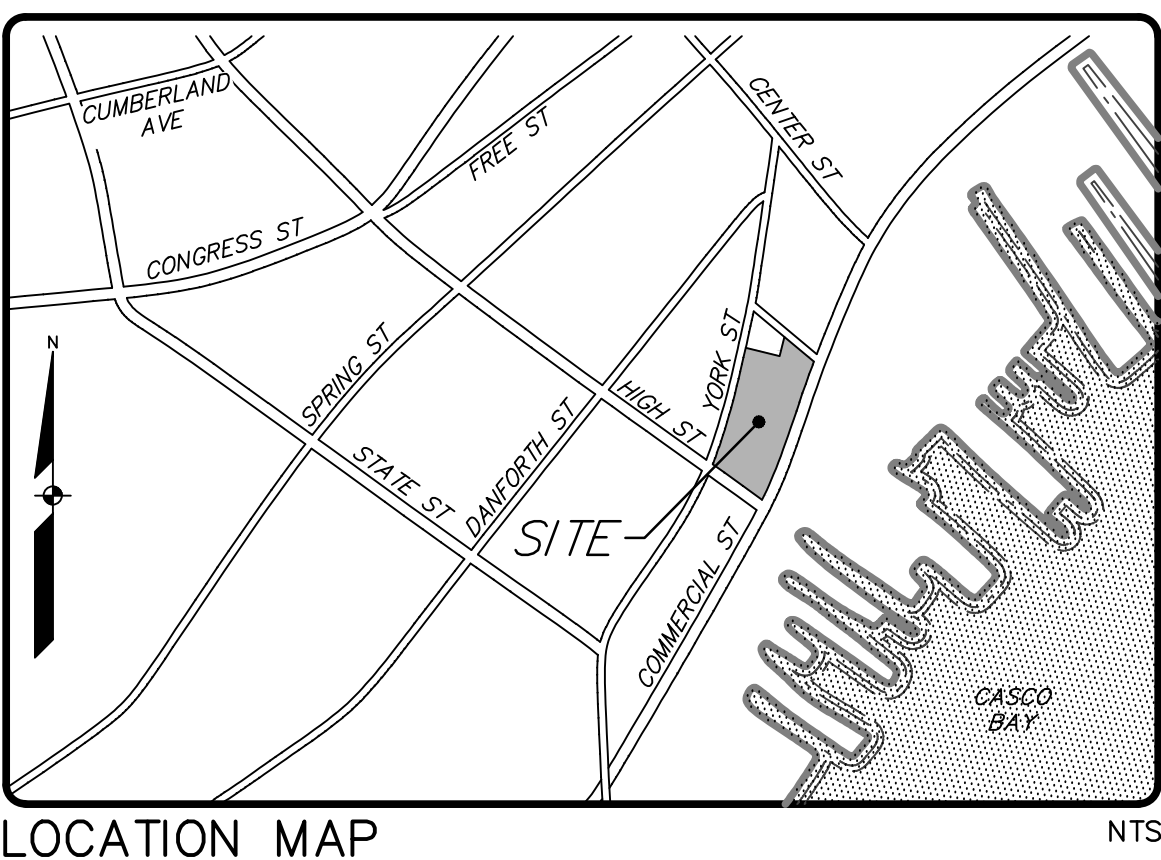
PROJECT ARCHITECT:

ARCHETYPE
ARCHITECTS
48 UNION WHARF
PORTLAND, MAINE 04101

LEGEND (TYPICAL ALL SHEETS)		
EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY LINE/R.O.W.	---
---	ABUTTER LINE/R.O.W.	---
---	DEED LINE/R.O.W.	---
---	TIE LINE	---
---	SETBACK	---
---	EASEMENT	---
---	BUFFER	---
---	CENTERLINE	---
---	BUILDING	---
---	EDGE PAVEMENT	---
---	PAVEMENT SAWCUT	---
---	EDGE CONCRETE	---
---	PAVEMENT PAINT	---
---	EDGE GRAVEL	---
---	CURB LINE	---
---	EDGE OF WATER	---
---	TREELINE	---
---	CONTOURS	---
---	SPOT GRADE	---
---	CHAIN LINK FENCE	---
---	STOCKADE FENCE	---
---	RETAINING WALL	---
---	DECIDUOUS TREE	---
---	CONIFEROUS TREE	---
---	MULCH LINE	---
---	BOLLARD	---
---	SIGN	---
---	RAILROAD	---
---	GAS	---
---	GAS GATE VALVE	---
---	GAS METER	---
---	GAS MANHOLE	---
---	WATER	---
---	WATER GATE VALVE	---
---	WATER SHUT OFF	---
---	HYDRANT	---
---	WATER MANHOLE	---
---	WELL	---
---	SANITARY SEWER	---
---	FORCE MAIN	---
---	SANITARY MANHOLE	---
---	STORM DRAIN	---
---	UNDER DRAIN	---
---	DRAINAGE MANHOLE	---
---	CATCH BASIN	---
---	OVERHEAD UTILITY	---
---	UNDERGROUND UTILITY	---
---	TRANSFORMER PAD	---
---	ELECTRICAL MANHOLE	---
---	ELECTRIC METER	---
---	HVAC UNIT	---
---	TELEPHONE MANHOLE	---
---	LIGHT POLE	---
---	UTILITY POLE	---
---	GUY WIRE	---
---	FILTER BARRIER	---
---	INLET PROTECTION	---

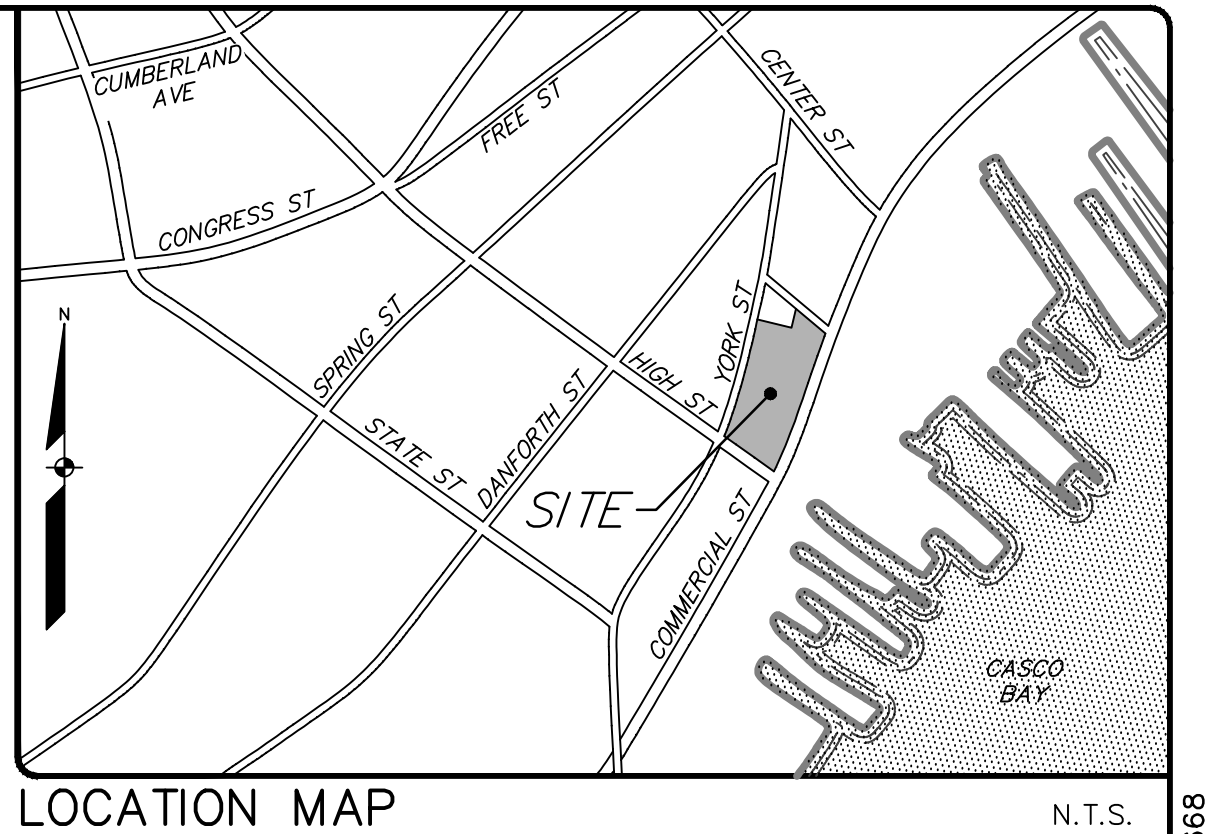
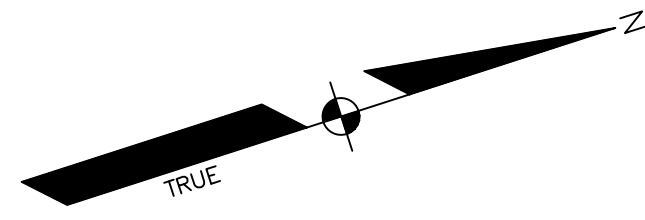


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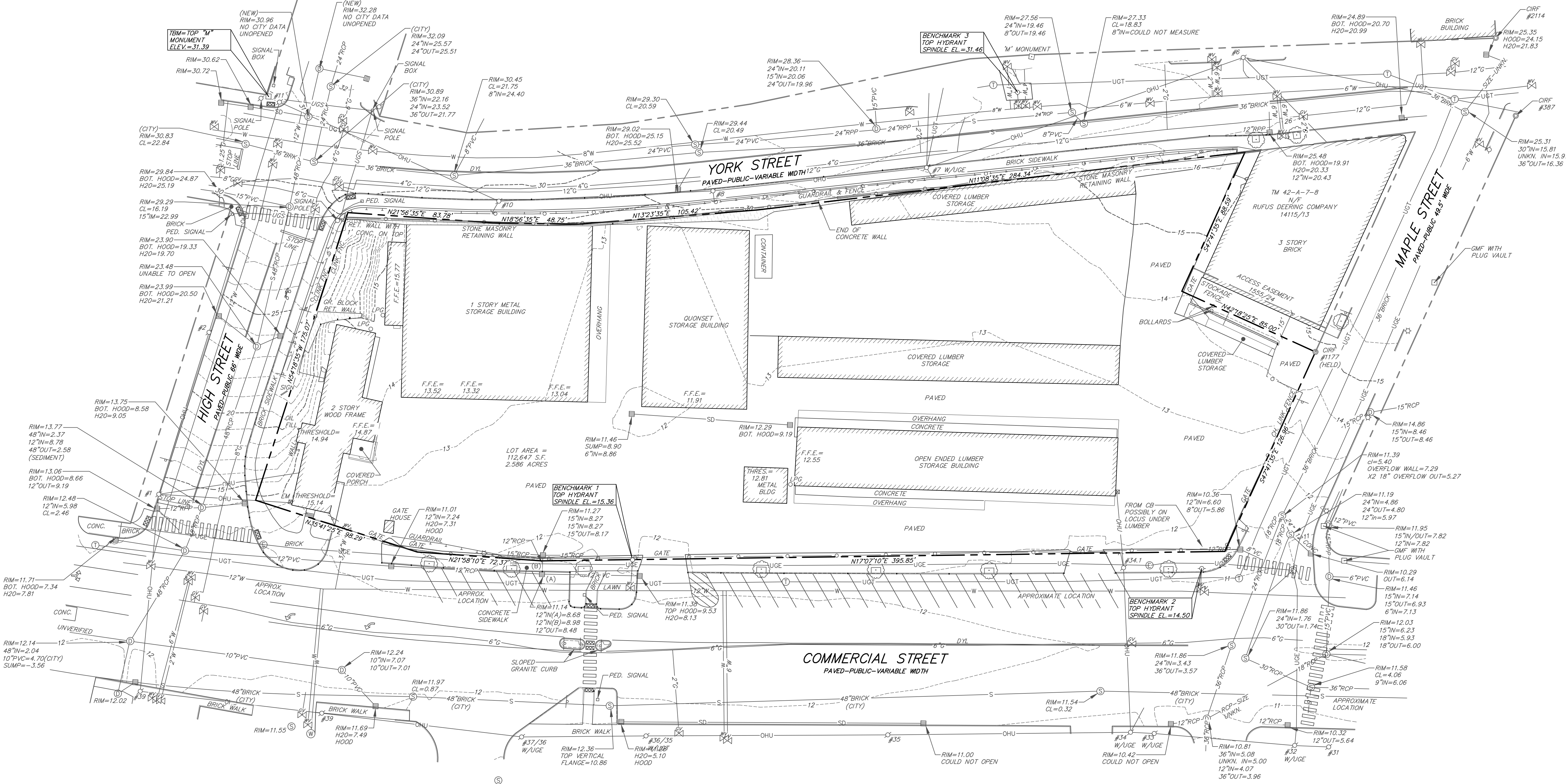
INDEX OF PLANS

SHEET NO.	SHEET TITLE
1	COVER
2	DEMOLITION PLAN
3	SITE PLAN - LOWER LEVEL
4	SITE PLAN - UPPER LEVEL
5	GRADING & UTILITY PLAN - LOWER LEVEL
6	GRADING & UTILITY PLAN - UPPER LEVEL
7	LANDSCAPE PLAN - LOWER LEVEL
8	LANDSCAPE PLAN - UPPER LEVEL
9	EROSION CONTROL NOTES & DETAILS
10	DETAILS
11	DETAILS
1 OF 1	EXISTING CONDITIONS PLAN



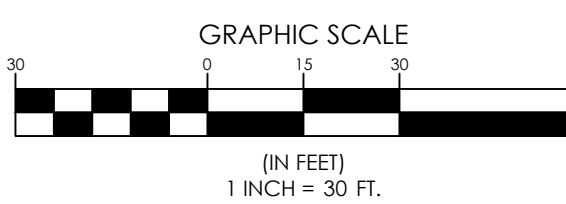
GENERAL NOTES

- THE RECORD OWNER OF THE PARCEL IS MILKEN SMITH BLOCK LLC BY DEED RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 22473, PAGE 307. THE PROPERTY IS SHOWN AS LOT A-001 ON THE CITY OF PORTLAND TAX MAP 42 AND IS LOCATED IN THE B5-b URBAN COMMERCIAL MIXED USE ZONE.
- SPACE AND BULK CRITERIA FOR THE B5-b URBAN COMMERCIAL MIXED USE ZONE ARE AS FOLLOWS:
MINIMUM LOT SIZE: NONE
MINIMUM STREET FRONTAGE: NONE
MINIMUM FRONT YARD: NONE
MINIMUM SIDE YARD: NONE
MINIMUM REAR YARD: NONE
MAXIMUM FRONT YARD: 10 FEET
MAXIMUM BUILDING HEIGHT: 35 FEET
MAXIMUM BUILDING COVERAGE: 100%
* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.
- TOTAL AREA OF PARCEL IS APPROXIMATELY 2.586 ACRES.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED SOLELY UPON PLAN REFERENCE A.
- ELEVATIONS ARE BASED ON CITY DATUM.
- PLAN REFERENCE:
A. PLAN ENTITLED "BOUNDARY & TOPOGRAPHIC SURVEY ON 383 COMMERCIAL STREET, PORTLAND, MAINE" FOR BERNSTEIN SHUR, PREPARED BY OWEN HASKELL, INC. DATED SEPTEMBER 6, 2016.
- BEARINGS ARE TRUE NORTH.
- UTILITY INFORMATION DEPICTED HEREON IS COMPILED USING PHYSICAL EVIDENCE LOCATED IN THE FIELD. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
- THE LOCUS PROPERTY AS DEPICTED HEREON DOES/DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR PORTLAND, MAINE, CUMBERLAND COUNTY, COMMUNITY-PANEL NUMBER 230051-0013-B, HAVING AN EFFECTIVE DATE OF JULY 17, 1986. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE G, AREAS OF MINIMAL FLOODING.



LEGEND

- EXISTING**
- PROPERTY LINE/R.O.W.
 - ABUTTER LINE/R.O.W.
 - EASEMENT
 - MONUMENT
 - IRON PIPE/ROD
 - CURVE/LINE NO.
 - C1/L1
 - BENCHMARK
 - BENCHMARK DESCRIPTION WITH ELEVATION
 - BUILDING
 - DECK/STEPS/OVERHANG
 - EDGE PAVEMENT
 - EDGE CONCRETE
 - PAVEMENT PAINT
 - CURB LINE
 - CONTOURS
 - CHAIN LINK FENCE
 - BARB WIRE FENCE
 - STOCKADE FENCE
 - GUARD RAIL
 - RETAINING WALL
 - DECIDUOUS TREE
 - CONIFEROUS TREE
 - MULCH LINE
 - BOLLARD
 - SIGN
 - GAS
 - GAS GATE VALVE
 - WATER
 - WATER GATE VALVE
 - HYDRANT
 - SANITARY SEWER
 - SANITARY MANHOLE
 - STORM DRAIN
 - DRAINAGE MANHOLE
 - CATCH BASIN
 - OVERHEAD UTILITY
 - UNDERGROUND UTILITY
 - ELECTRICAL MANHOLE
 - TELEPHONE MANHOLE
 - LIGHT POLE
 - UTILITY POLE
 - GUY WIRE



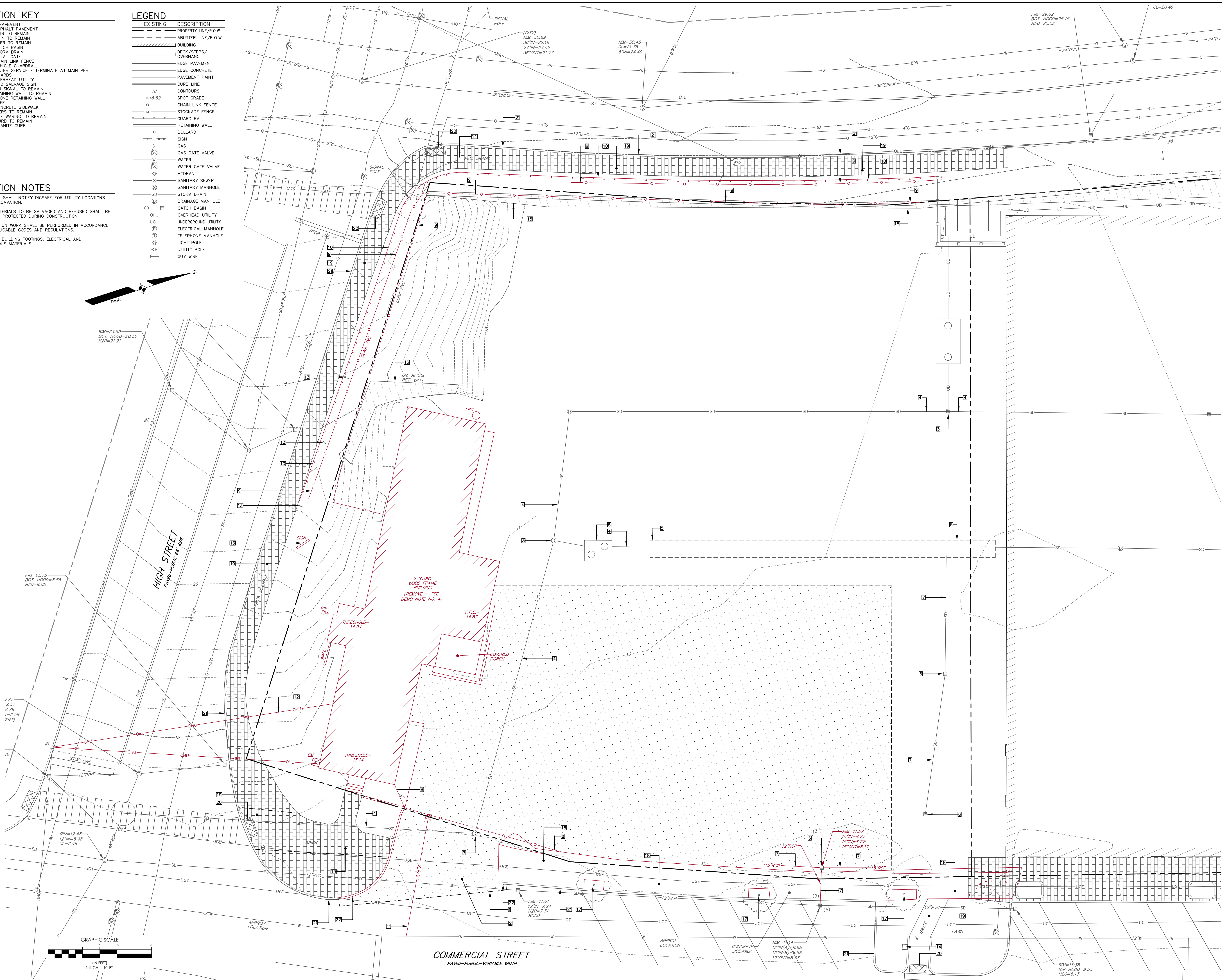
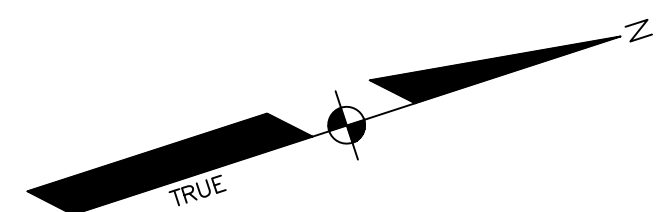
EXISTING CONDITIONS PLAN
OF
383 COMMERCIAL STREET-PHASE 1
PORTLAND, MAINE
FOR:
DEERING PROPERTY DEVELOPMENT, LLC
2730 TRANSIT ROAD
WEST BENECA, NEW YORK

PROJECT NO. 16324
SCALE 1" = 30'
SHEET 1 OF 1

- 1 SAW CUT PAVEMENT
- 2 REMOVE ASPHALT PAVEMENT
- 3 CATCH BASIN TO REMAIN
- 4 STORM DRAIN TO REMAIN
- 5 STORM FILTER TO REMAIN
- 6 REMOVE CATCH BASIN
- 7 REMOVE STORM DRAIN
- 8 REMOVE METAL GATE
- 9 REMOVE CHAIN LINK FENCE
- 10 REMOVE VEHICLE GUARDRAIL
- 11 REMOVE WATER SERVICE - TERMINATE AT MAIN PER
PMD STANDARDS
- 12 REMOVE OVERHEAD UTILITY
- 13 REMOVE AND SALVAGE SIGN
- 14 PEDESTRIAN SIGNAL TO REMAIN
- 15 STONE RETAINING WALL TO REMAIN
- 16 STONE RETAINING WALL
- 17 REMOVE TREE
- 18 REMOVE CONCRETE SIDEWALK
- 19 BRICK PAVERS TO REMAIN
- 20 ADD TACILE WARPING TO REMAIN
- 21 GRANITE CURB TO REMAIN
- 22 REMOVE GRANITE CURB

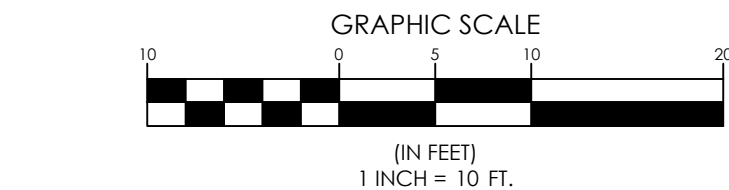
EXISTING	DESCRIPTION
=====	PROPERTY LINE/R.O.W.
=====	ABUTTER LINE/R.O.W.
=====	BUILDING
=====	DECK/STEPS/ OVERHANG
=====	EDGE PAVEMENT
=====	EDGE CONCRETE
=====	PAVEMENT PAINT
=====	CURB LINE
=====	CONTOURS
o 18.52	SPOT GRADE
o	CHAIN LINK FENCE
o	STOCKADE FENCE
=====	GUARD RAIL
=====	RETAINING WALL
o	BOLLARD
=====	SIGN
o	GAS
	GAS GAS VALVE
W	WATER
	WATER GAS VALVE
	HYDRANT
+	SANITARY SEWER
+	SANITARY MANHOLE
SD	STORM DRAIN
	DRAINAGE MANHOLE
	CATCH BASIN
OHU	OVERHEAD UTILITY
U	UNDERGROUND UTILITY
	ELECTRICAL MANHOLE
	TELEPHONE MANHOLE
	LIGHT POLE
U	UTILITY POLE
←	GUY WIRE

1. CONTRACTOR SHALL NOTIFY DIGSAFE FOR UTILITY LOCATIONS PRIOR TO EXCAVATION.
2. EXISTING MATERIALS TO BE SALVAGED AND RE-USED SHALL BE STORED AND PROTECTED DURING CONSTRUCTION.
3. ALL DEMOLITION WORK SHALL BE PERFORMED IN ACCORDANCE TO ALL APPLICABLE CODES AND REGULATIONS.
4. REMOVE ALL BUILDING FOOTINGS, ELECTRICAL AND MISCELLANEOUS MATERIALS.

[illegible]

- 1 NEW VERTICAL GRANITE CURB
- 2 EXISTING GRANITE CURB TO REMAIN
- 3 BRICK PAVESIDEWALK
- 4 REPLACE EXISTING BRICK SIDEWALK WITH NEW BRICK PAVERS MEETING THE SPECIFICATIONS
- 5 OF PORTLAND TECHNICAL STANDARDS EXISTING UNDAMGAGED SIDEWALK BRICK
- 6 MAY BE SALVAGED AND RESET
- 7 PAVEMENT SAW CUT
- 8 VEHICULAR ASPHALT PAVING
- 9 4" CONCRETE PAVING
- 10 6" RAISED GRANITE CURB / TREE WELL - 5 FT. x 8 FT. OUTSIDE DIMENSIONS
- 11 6" RAISED GRANITE CURB / TREE WELL - 5 FT. x 5 FT. OUTSIDE DIMENSIONS
- 12 BRICK RACK - DERO BIKE HITCH, COLOR BLACK
- 13 NEW 4" WHITE PAINT STOPPING
- 14 BLUE ADA PAINTED STRIPING
- 15 ADA PARKING SIGN - MOUNTED 5 FT. ABOVE GRADE
- 16 EXISTING TREE TO REMAIN
- 17 24" X 24" PEDESTAL PAVERS, TYPICAL
- 18 6" 12" X 48" PRECAST CONCRETE CURB, TYPICAL
- 19 24" X 24" CONCRETE PAVESIDEWALK, TYPICAL
- 20 BENCH, LANDSCAPE FORMS FGP 70" BACKLESS, W/ WOOD SEATS, TYPICAL
- 21 FINAL DETAIL AT CURB ANGLES TO BE AGREED IN WRITING WITH THE CITY PLANNING
- 22 DEPARTMENT PRIOR TO ORDERING MATERIAL
- 23 MILL AND GRIND 1/5" OF EXISTING ASPHALT, REPLACE WITH 1/5" COURSE OF 9.5MM
- 24 PAVEMENT
- 25 BRICK HEADER COURSE, TYPICAL
- 26 (2) 6" STEP RISERS
- 27 "C" CURB, 6" HIGH, 1/2" NO PARKING SIGN, MOUNT 5 FT. ABOVE GRADE
- 28 CONTRACTOR TO FURNISH ONLY, NO POST AND SIGN FOR LOADING LOADING AREA.
- 29 LANGUAGE FOR THE SIGN TO BE CONFIRMED BY THE CITY OF PORTLAND PARKING DIVISION
- 30 (2) 6" STEP RISERS, 6" HIGH, 1/2" NO PARKING SIGN, (2) PLACES LANGUAGE
- 31 FOR STREET SIGN TO BE CONFIRMED BY WITH THE CITY OF PORTLAND PARKING DIVISION
- 32 CITY PARKING METER. POSTS AND METER FURNISHED BY CITY, POST TO BE INSTALLED BY
- 33 CONTRACTOR
- 34 CITY STANDARD BAKE RACKS (2) PLACES. SET RACK 2' CLEAR OF PLANTER, SPACING 6'
- 35 O.C.
- 36 (NOTED THIS SHEET)
- 37 PROPOSED 6" PEDESTAL POLE ON 24" DIA. FOUNDATION. REMOVE AND RESET EXISTING
- 38 PEDESTAL SIGN/HEAD TO PUSHBUTTON FROM EXISTING MAIN ARM TO NEW PEDESTAL
- 39 POLE. SEE TRAFFIC SIGNAL PLAN
- 40 REMOVE EXISTING FOUNDATION AND INSTALL NEW JUNCTION BOX. SEE TRAFFIC SIGNAL
- 41 PLAN
- 42 INSTALL NEW FOUNDATION AND +25" MAIN ARM. REMOVE AND RESET EXISTING VEHICULAR
- 43 SIGNAL HEADS TO NEW MAIN ARM
- 44 EXISTING PEDESTRIAN SIGN TO REMAIN
- 45 REMOVE EXISTING JUNCTION BOX
- 46 "C" CURB, 6" HIGH, 1/2" NO PARKING SIGN, (2) PLACES. REFER TO CITY OF PORTLAND TECHNICAL
- 47 MANUAL, SECTION TO FIGURE XBB
- 48 CITY OF PORTLAND STANDARD "C" CURB POLE-WATERFRONT" POLE AND STANDARD
- 49 "C" CURB, 6" HIGH, 1/2" NO PARKING SIGN, (2) PLACES. REFER TO CITY OF PORTLAND TECHNICAL, SECTION 10,
- 50 FIGURES X-2E AND X-2F

LEVEL 1		LEVEL 2	
PROPOSED STANDARD SPACES:	22	PROPOSED STANDARD SPACES:	28
PROPOSED REDUCED WIDTH SPACES:	42	PROPOSED REDUCED WIDTH SPACES:	32
PROPOSED ADA STANDARD SPACES:	1	PROPOSED ADA STANDARD SPACES:	2
PROPOSED ADA VAN ACCESSIBLE SPACES:	1	PROPOSED ADA VAN ACCESSIBLE SPACES:	1
TOTAL	66	TOTAL	63



1. THE RECORD OWNER OF THE PARCEL IS SEABERG PROPERTY DEVELOPMENT,
INC BY DEED RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS
(CORD) IN BOOK 34512, PAGE 192.

2. THE PROPERTY IS SHOWN AS LOT A-001 ON THE CITY OF PORTLAND TAX
MAP AND IS LOCATED WITHIN B-8 URBAN COMMERCIAL MIXED USE ZONE.

3. SEABERG TECHNICS, INC. HAS NOT PERFORMED ANY INDEPENDENT RECORDS
RESEARCH OR FIELD SURVEY IN CONJUNCTION WITH THE ISSUANCE OF THIS
MAP. THE RELIABLE SOURCE FOR THE INFORMATION CONTAINED HEREON
HEREON IS BASED SOLELY UPON PLAN REFERENCE A. THE SURVEYORS STAMP
LINES ONLY TO THE INTERNAL PROPERTY AND EASEMENT

4. LOT AREA IS 112,647 SF. / 2.586 ACRES PER PLAN REFERENCE A.

5. BASIS OF BEARINGS ARE TRUE NORTH ON PLAN REFERENCE A.
THE COORDINATES SHOWN HEREON ARE BASED UPON 2011 NORTH DAKOTA
STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83, BASED ON MAJOR
FREQUENCY

6. ELEVATIONS ARE SHOWN ON CITY DATUM PER PLAN REFERENCE A. AS A
CHECK OF THE CITY DATUM THE CITY PROVIDED SEABERG TECHNICS WITH A
UTILITY POLE #11 AT THE WESTERN CORNER OF HIGH STREET AND YORK
STREET. THIS POINT WAS USED TO CHECK THE ELEVATION OF THE BEARINGS
SHOWN ON PLAN REFERENCE A. SEABERG TECHNICS FOUND THE CITY DATUM
TO BE 0.01 FEET HIGHER THAN THE STATE DATUM. THEREFORE, THEY WERE
TO ADJUST THE ELEVATIONS SHOWN ON PLAN REFERENCE A. TO
CONTOURS SHOWN TO CITY DATUM, ADD 0.01 FEET.

ALL UTILITIES SHOWN HEREON ARE BASED SOLELY UPON PLAN REFERENCE A.
SEABERG TECHNICS HAS NOT CONDUCTED ANY FIELD SURVEY OF ALL UTILITIES
UTILITIES, CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIO-SAFE
(1988) 333-1100 FOR MORE INFORMATION REGARDING EXISTING UTILITIES PRIOR
TO CONSTRUCTION AND/OR EXCAVATION.

8. SPACE AND BULK REQUIREMENTS IN B-5-B-ZONE:

DESIGNED		CHECKED	
DMD		DLR	
J	DLR 05-26-21	REVISED PER CITY REVIEW COMMENTS	
I	DLR 05-19-21	REVISED PER PWD COMMENTS	
H	DLR 05-17-21	REVISED PER CITY REVIEW COMMENTS	
G	DLR 04-30-21	REVISED PER PWD COMMENTS	
F	DLR 04-29-21	CONSISTENT WITH PROCESS SET	
E	DLR 04-05-21	CONSISTENT WITH CITY REVIEW COMMENTS	
D	RLM 03-04-21	ISSUED FOR PRICING	
REVIEW BY: DATE: STATUS:			

THIS PLAN PACKET SHOULD NOT BE ADJUSTED WITHOUT WRITTEN PERMISSION FROM SERAGO ENGINEERS. NO ANY ALTERATIONS.
 SERAGO ENGINEERS, INC. 10000 W. 10TH AVE. SUITE 400, DENVER, CO 80202-3100
 TEL: 303.751.8600 FAX: 303.751.8604 WWW.SERAGOENGINEERS.COM

SEBAGO
TECHNICS

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

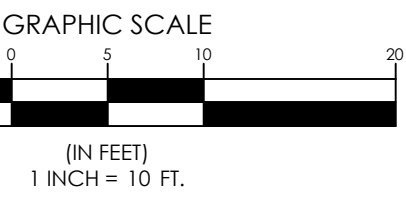
SITE PLAN - LOWER LEVEL
OF:
387 COMMERCIAL STREET
COMMERCIAL STREET
PORTLAND, MAINE
FOR:
DEERING PROPERTY DEVELOPMENT, LLC
2730 TRANST ROAD
WEST SEAFORD NEW YORK 14224

- 5 NEW VERTICAL GRANITE CURB
- 6 INSTALL GRANITE CURB TO REMAIN
- 7 BRICK PAVEMENT SIDEWALK
- 8 REPLACE EXISTING BRICK SIDEWALK WITH NEW BRICK PAVERS. SALVAGE AND REUSE
- 9 EXISTING BRICKS THAT ARE IN GOOD CONDITION
- 10 PAVEMENT SAW CUT
- 11 VEHICULAR ASPHALT PAVING
- 12 4" CONCRETE PAVING
- 13 6" RAISED GRANITE CURB / TREE WELL - 5 FT. x 8 FT. OUTSIDE DIMENSIONS
- 14 6" RAISED GRANITE CURB / TREE WELL - 0 FT. x 5 FT. OUTSIDE DIMENSIONS
- 15 BIKE RACK - DERBO BIKE HITCH, COLOR BLACK
- 16 NEW 4" WHITE PAINT STRIPING
- 17 BLUE AREA PAINTED SIGNAGE
- 18 ADA PARKING SIGN - WALL MOUNTED 5 FT. ABOVE GRADE
- 19 EXISTING TREES TO REMAIN
- 20 24" x 24" PEDESTAL PAVERS, TYPICAL
- 21 6" x 12" x 48" PRECAST CONCRETE CURB, TYPICAL
- 22 24" x 24" CONCRETE PAVES, TYPICAL
- 23 BENCH, LANDSCAPE FORMS FOR 70" BACKLESS, WOOD SEATS, TYPICAL
- 24 DETAIL AT CURB TO BE ADDED TO AGREED WRITING WITH THE CITY PLANNING
- 25 AUTHORITY PRIOR TO ORDERING MATERIALS
- 26 MILL AND GRIND 1.5" OF EXISTING ASPHALT, REPLACE WITH 1.5" COURSE OF 9.5MM
- 27 PAVEMENT
- 28 BRICK HEADER COURSE, TYPICAL
- 29 6" STEP RISERS
- 30 12" x 18" SERVICE VEHICLES ONLY NO PARKING SIGN, WALL MOUNTED 5 FT. ABOVE GRADE
- 31 INSTALL FENCE FOR PEDESTAL STAIRS
- 32 CAST IN PLACE CONCRETE SLABS
- 33 VERTICAL GRANITE CURB SET WITH PAVING
- 34 INSTALL FENCE FOR PEDESTAL STAIRS
- 35 24" TALL MASTER HALCO MODEL IMPERIAL B - 3/4" PICKET
- 36 PANEL COLOR CROWN, SEE DETAIL
- 37 6" TALL OAK WALL
- 38 PROPOSED 8" PEDESTAL POLE ON NEW TALL MASTER HALCO FOUNDATION, REMOVE AND RESET EXISTING
- 39 PEDESTAL SIGNAL HEAD AND PUSHBUTTON FROM EXISTING MAIN BOX TO NEW PEDESTAL
- 40 SIGNAL HEAD AND PUSHBUTTON
- 41 REMOVE EXISTING FOUNDATION AND INSTALL NEW JUNCTION BOX. SEE TRAFFIC SIGNAL
- 42
- 43 INSTALL NEW FOUNDATION AND ±25' MAST ARM. REMOVE AND RESET EXISTING VEHICULAR
- 44 SIGNAL HEADS TO NEW MAST ARM
- 45 DETAIL EXISTING PEDESTAL
- 46 DETAIL EXISTING PEDESTAL



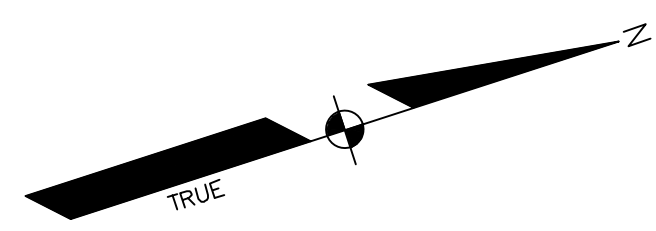
COMMERCIAL STREET
PAVED-PUBLIC-VARIABLE WIDTH

PEDESTRIAN ACCESS EASEMENT TO THE CITY OF PORTLAND IDENTIFIED AS "EASEMENT NO. 2" ON THE HOBSON'S LANDING CONDOMINIUM PLAT DATED FEBRUARY 2, 2021.



PROJECT NO.	SCALE
16324	1"=10'

SHEET 4 OF 11



DESIGNED	CHECKED
DMD	DLR
DLR 05-20-21 REVISED PER CITY REVIEW COMMENTS	
DLR 05-19-21 REVISED PER PWD COMMENTS	
DLR 04-19-21 REVISED PER PWD COMMENTS	
DLR 04-10-21 REVISED PER PWD COMMENTS	
DLR 04-16-21 CONSTRUCTION PROGRESS SET	
DLR 04-07-21 REVISED PER CITY REVIEW COMMENTS	
DLR 03-04-21 ISSUED FOR PRICING	
REC'D BY:	DATE:
STATUS:	

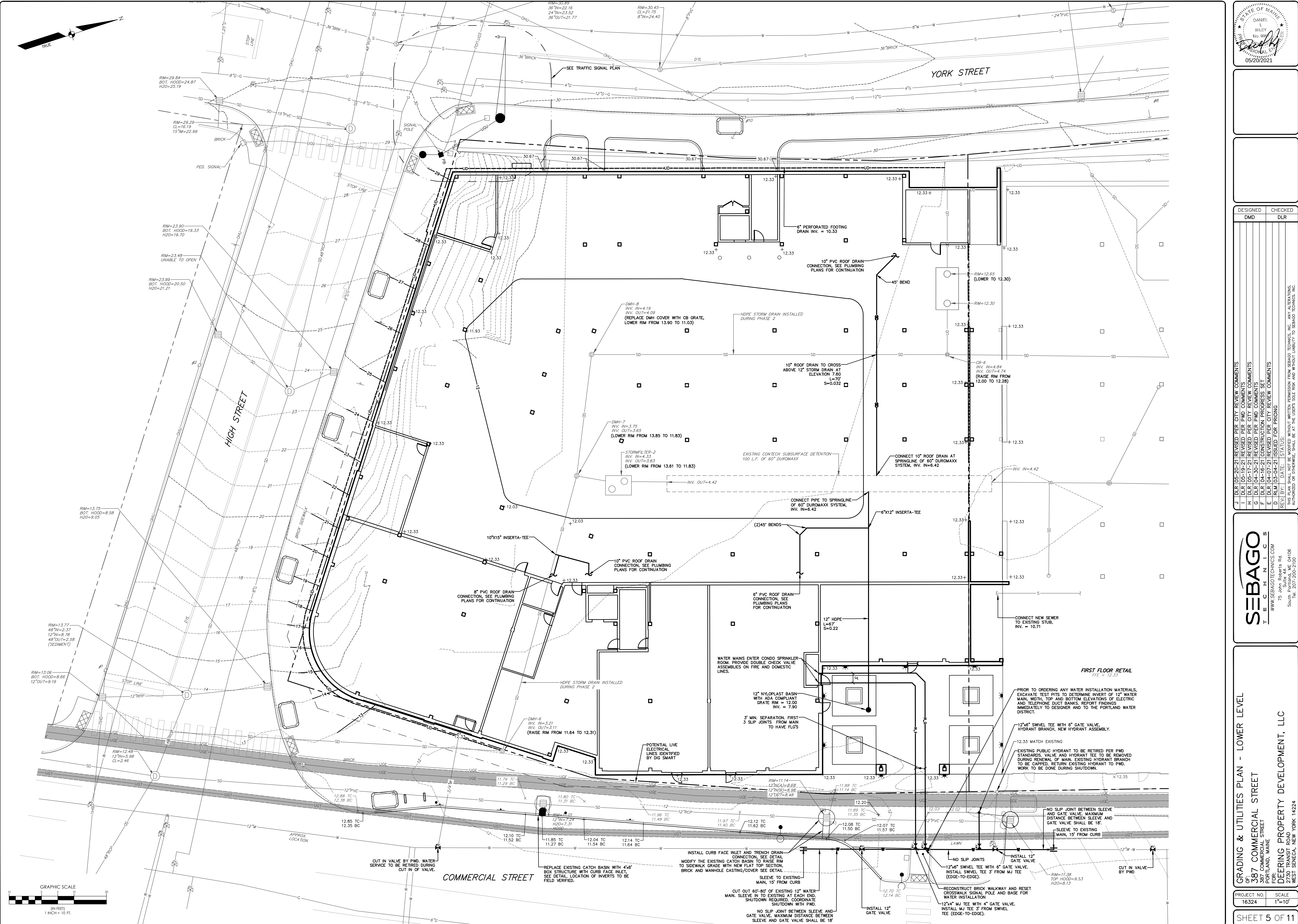
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNIQS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNIQS, INC.

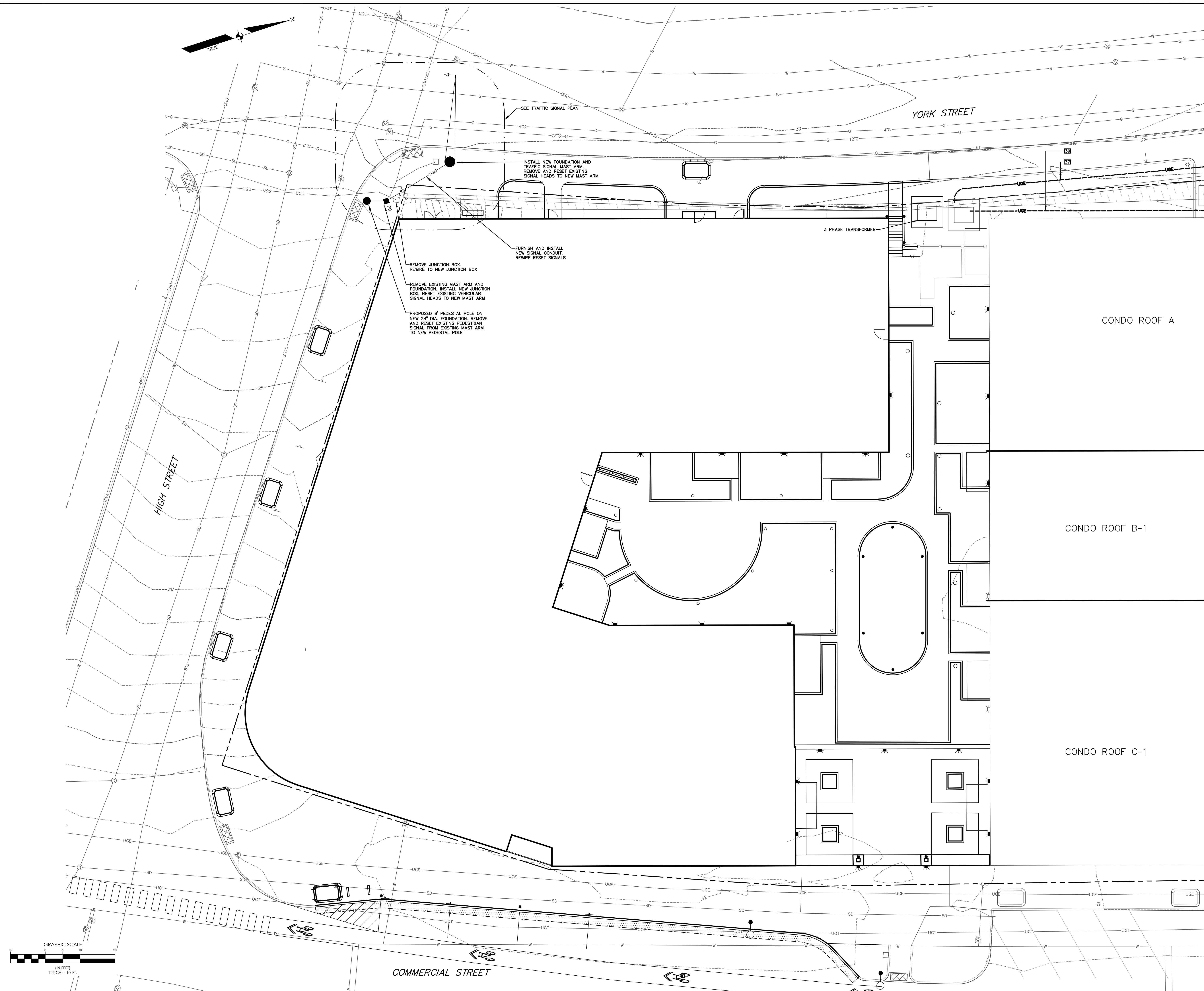


GRADING & UTILITIES PLAN - LOWER LEVEL
OF: 387 COMMERCIAL STREET
387 COMMERCIAL STREET
PORTLAND, MAINE
FOR: DEERING PROPERTY DEVELOPMENT, LLC
2730 TRANSIT ROAD
WEST SEBACA, NEW YORK 14224

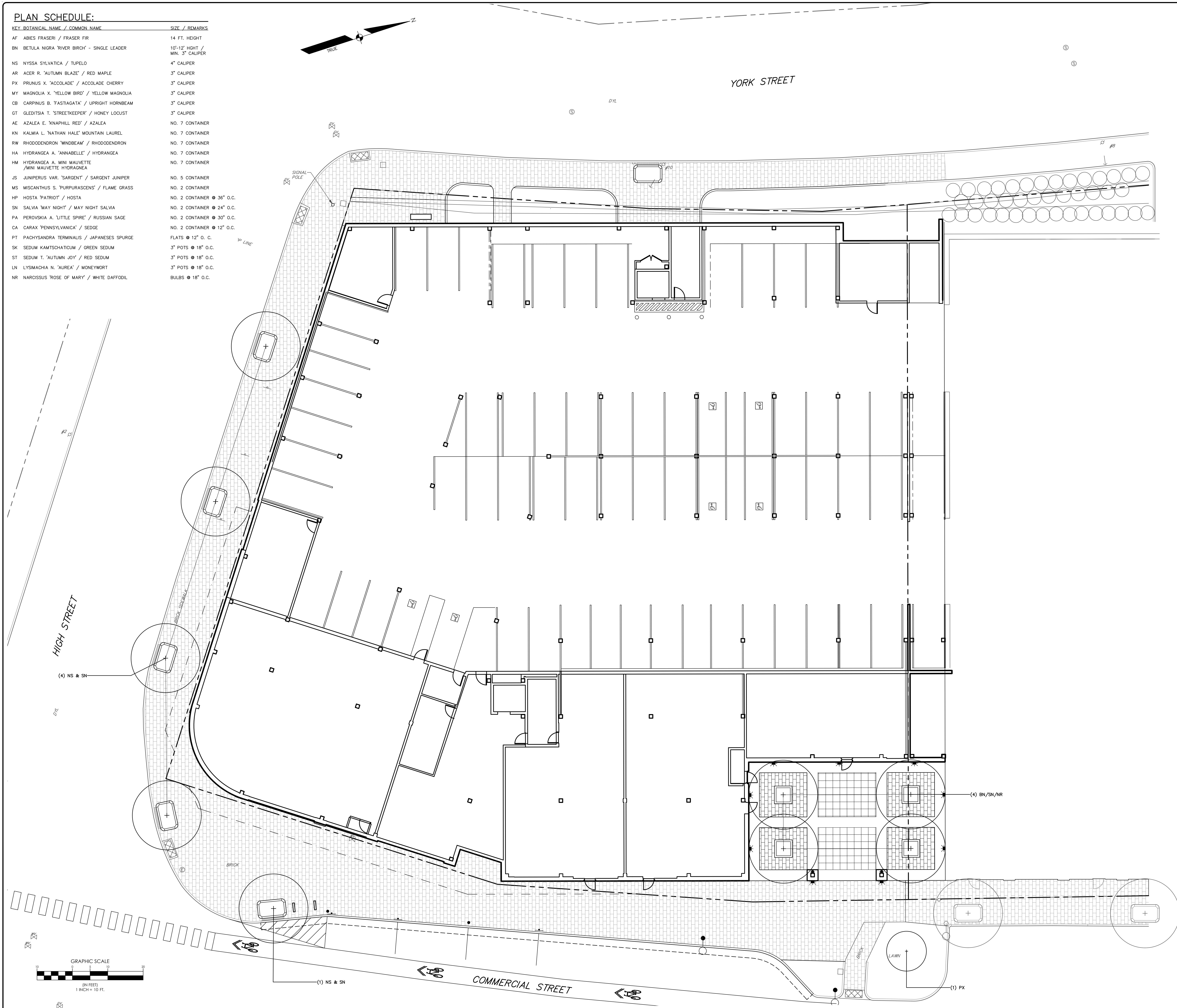
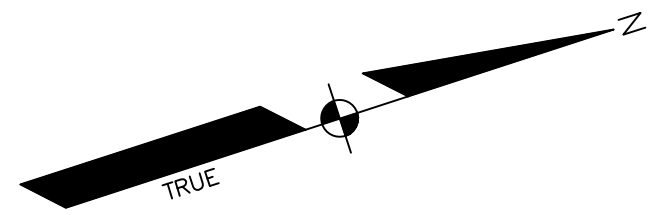
PROJECT NO.	SCALE
16324	1"=10'

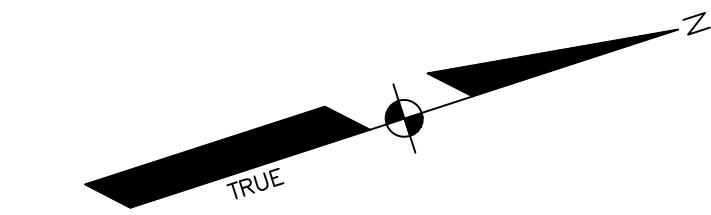
SHEET 5 OF 11





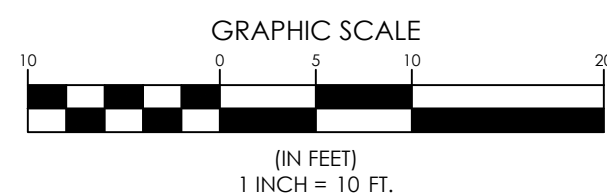
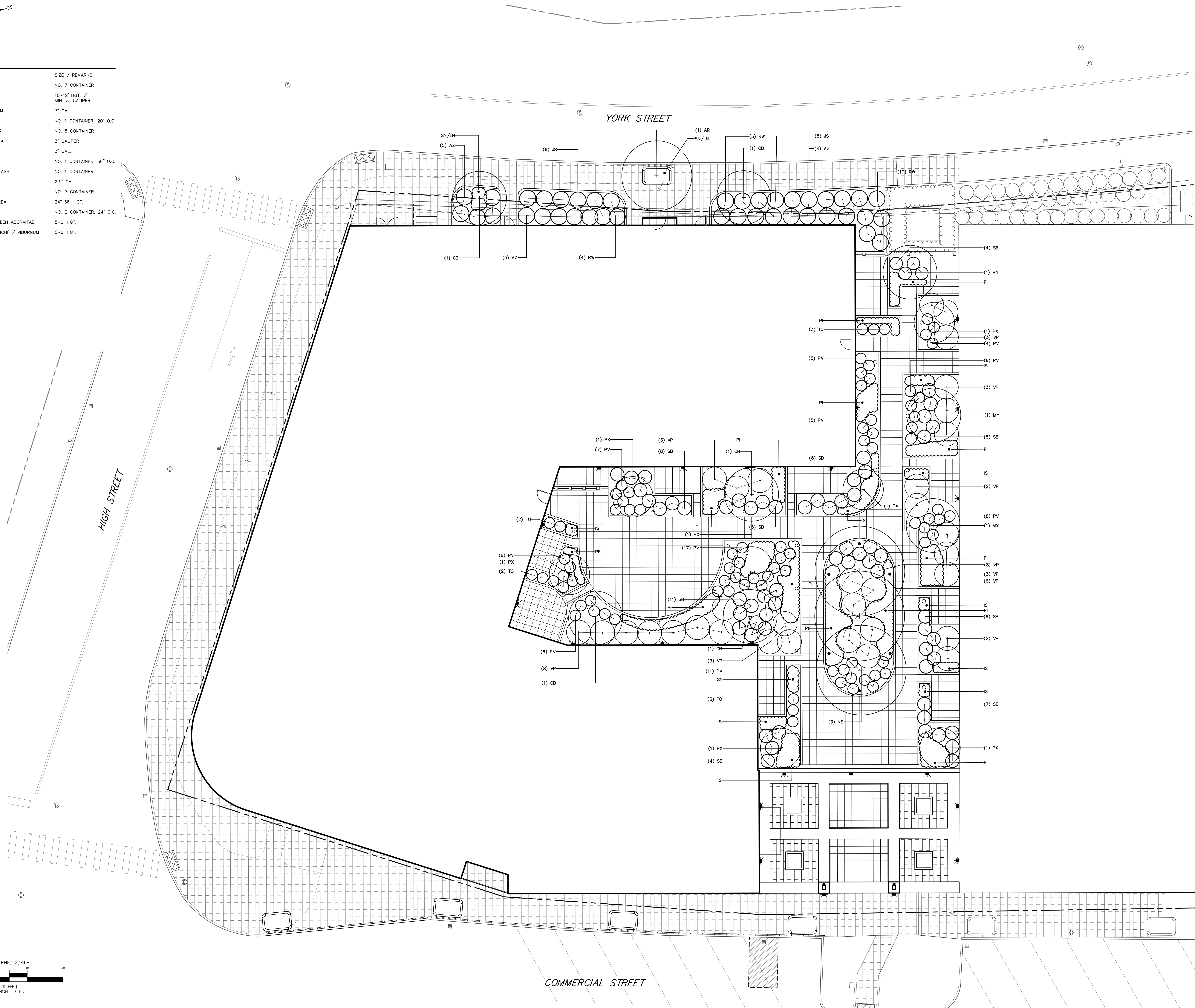
KEY BOTANICAL NAME / COMMON NAME	SIZE / REMARKS
AF ABIES FRASERI / FRASER FIR	14 FT. HEIGHT
BN BETULA NIGRA 'RIVER BIRCH' - SINGLE LEADER	10'-12" HIGHT / MIN. 3" CALIPER
NS NYSSA SYLVATICA / TUPELO	4" CALIPER
AR ACER R. 'AUTUMN BLAZE' / RED MAPLE	3" CALIPER
PX PRUNUS X. 'ACCOLADE' / ACCOLADE CHERRY	3" CALIPER
MY MAGNOLIA X. 'YELLOW BIRD' / YELLOW MAGNOLIA	3" CALIPER
CB CARPINUS B. 'PASTAGATA' / UPRIGHT HORNBREAM	3" CALIPER
GT GLEDITSIA T. 'STREETKEEPER' / HONEY LOCUST	3" CALIPER
AE AZALEA E. 'KNAPHILL RED' / AZALEA	NO. 7 CONTAINER
KR KALMIA L. 'NATHAN LAKE' MOUNTAIN LAUREL	NO. 7 CONTAINER
RW RHODODENDRON 'WINDBEM' / RHODODENDRON	NO. 7 CONTAINER
HA HYDRANGEA A. 'ANNABELLE' / HYDRANGEA	NO. 7 CONTAINER
HM HYDRANGEA A. MINI MAUVEETTE / MINI MAUVEETTE HYDRANGEA	NO. 7 CONTAINER
JS JUNIPERUS VAR. 'SARGENT' / SARGENT JUNIPER	NO. 5 CONTAINER
MS MISCANTHUS S. 'PURPURASCENS' / FLAME GRASS	NO. 2 CONTAINER
HP HOSTA 'PATRIOT' / HOSTA	NO. 2 CONTAINER
SN SALVIA 'MAY NIGHT' / MAY NIGHT SALVIA	NO. 2 CONTAINER
PA PEROVSKIA A. 'LITTLE SPIRE' / RUSSIAN SAGE	NO. 2 CONTAINER
CA CARAX PENNSYLVANICA / SEDGE	NO. 2 CONTAINER
PT PACHYANDRA TERMINALIS / JAPANESE SPURGE	FLATS @ 12" O.
SK SEDUM KAMTSCHATICUM / GREEN SEDUM	3" POTS @ 18" O.
ST SEDUM T. 'AUTUMN JOY' / RED SEDUM	3" POTS @ 18" O.
LN NYSSA MAGNIA N. 'AUREA' / WAXY	3" POTS @ 18" O.
NR LACYNOPSIS B. OF MONEY / WHITE DAFFODIL	BULBS @ 18" O.





PLAN SCHEDULE:

KEY BOTANICAL NAME / COMMON NAME	SIZE / REMARKS
AZ AZLEA E. 'KNAPHILL RED' / AZALEA	NO. 7 CONTAINER
BN BETULA NIGRA 'RIVER BIRCH' - SINGLE LEADER	10'-12" HGT. / MIN. 3" CALIPER
CB CARPINUS B. 'FASTIGIATA' / UPRIGHT HORNBEAM	3" CAL.
IS IRIS SIBERICA 'CEASERS BROTHER' / IRIS	NO. 1 CONTAINER, 20" O.C.
JS JUNIPERUS VAR. 'SARGENT' / SARGENT JUNIPER	NO. 5 CONTAINER
MY MAGNOLIA X. 'YELLOW BIRD' / YELLOW MAGNOLIA	3" CALIPER
NS NYSSA SYLVATICA / BLACK TUPELO	3" CAL.
PI PEONIA ITOH 'FIRST ARRIVAL' / PEONY	NO. 1 CONTAINER, 36" O.C.
PV PANICUM VIRGATUM 'CAPE BREEZE' / SWITCHGRASS	NO. 1 CONTAINER
PX PRUNUS X. 'ACCOLADE' / ACCOLADE CHERRY	2.5" CAL.
RW RHODODENDRON 'WINDBEAM' / RHODODENDRON	NO. 7 CONTAINER
SB SPIREA x BUMALDA 'ANTHONY WATERER' / SPIREA	24"-36" HGT.
SN SALVIA 'MAYNIGHT' / MAY NIGHT SALVIA	NO. 2 CONTAINER, 24" O.C.
TO TUJA OCCIDENTALIS 'SMARAGO' / EMERALD GREEN ABORVITAE	5'-6" HGT.
VP VIBURNUM PULCATUM VAR. TOMENTOSUM 'SHOSHONI' / VIBURNUM	5'-6" HGT.



DANIEL M. DAWERS, R.L.A. #815

09/28/2020

DESIGNED	CHECKED
DMD	RLM
B RLM 09-28-20 SUBMIT TO CITY	
A RLM 06-26-20 SUBMIT TO CLIENT	
REV. BY:	DATE:
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNIQUES, INC. ANY ALTERATIONS, APPROVED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNIQUES, INC.	

WWW.SEBAGOTECHNIQUES.COM

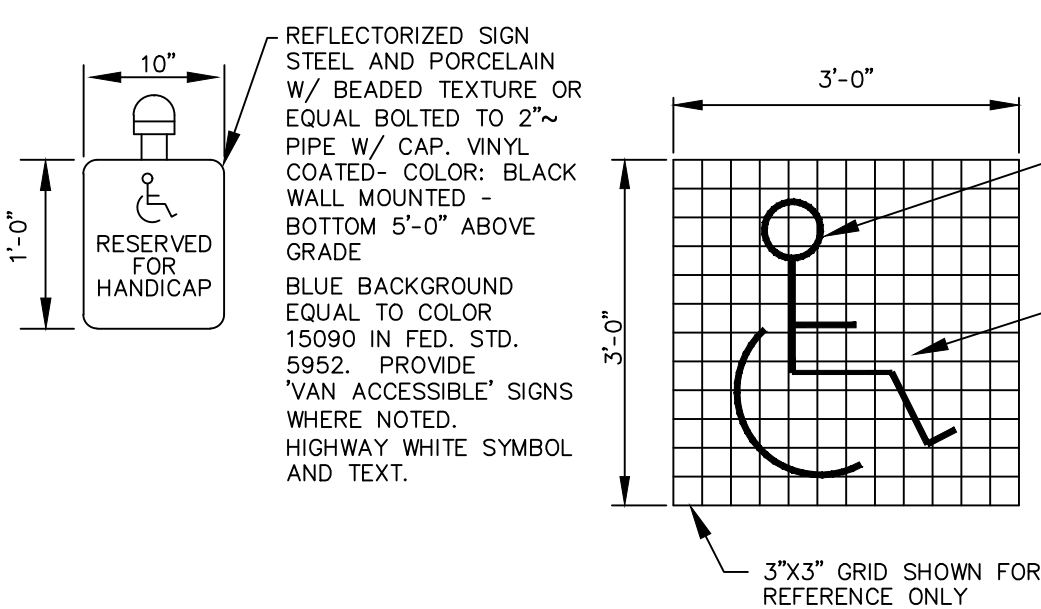
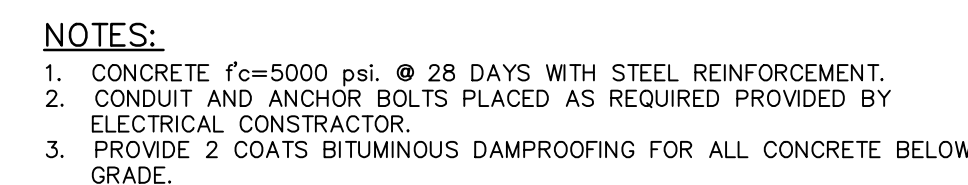
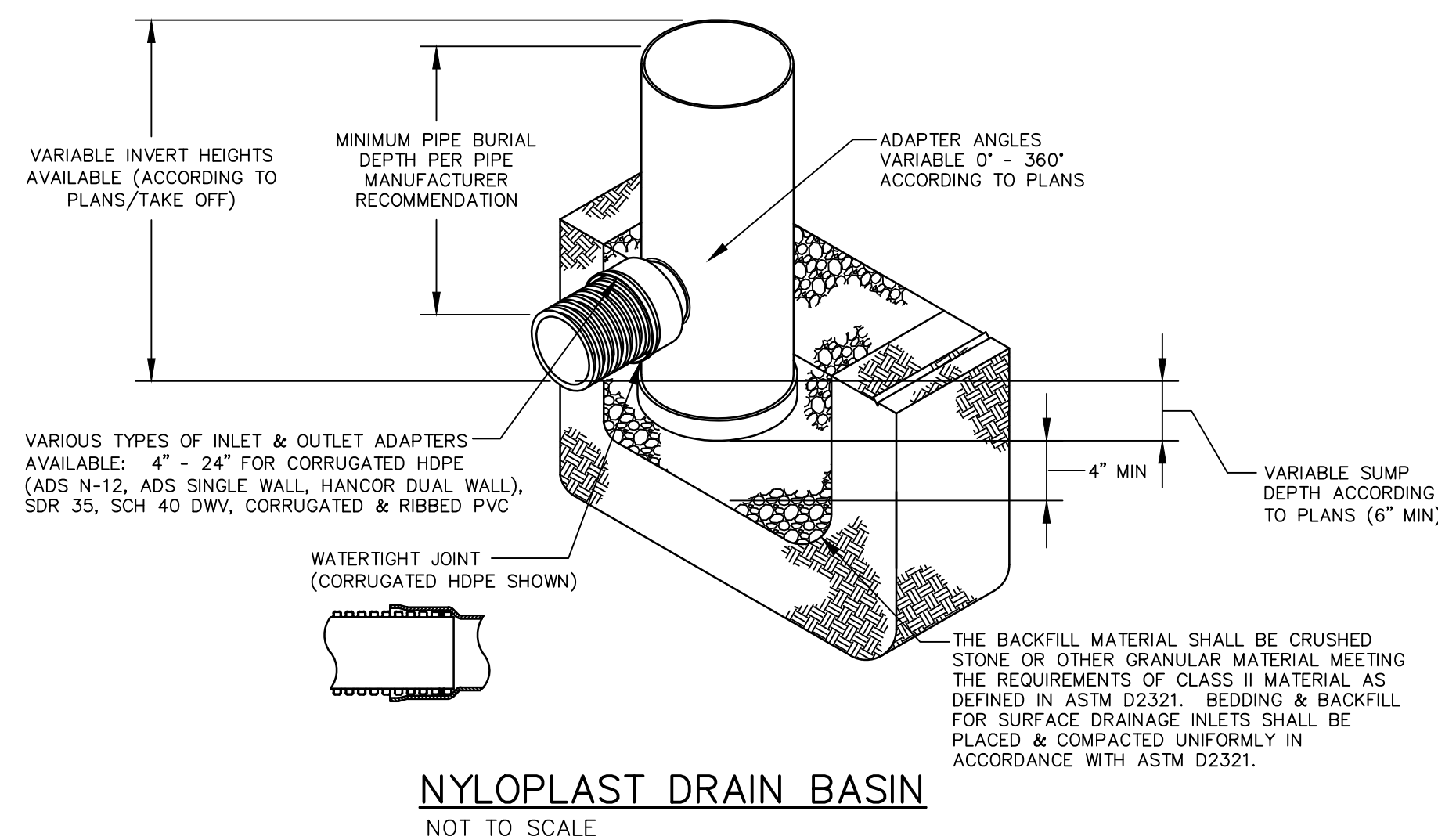
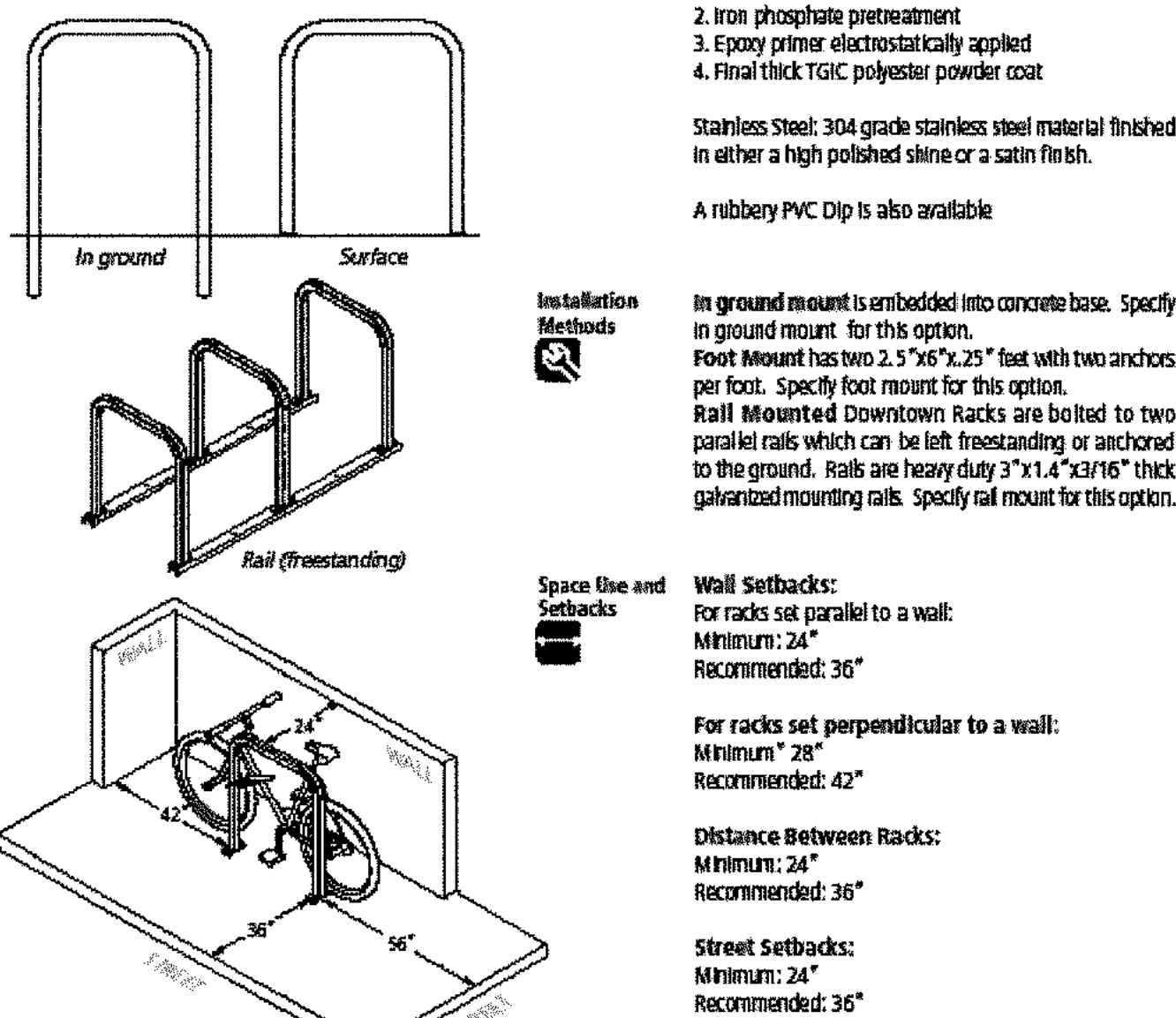
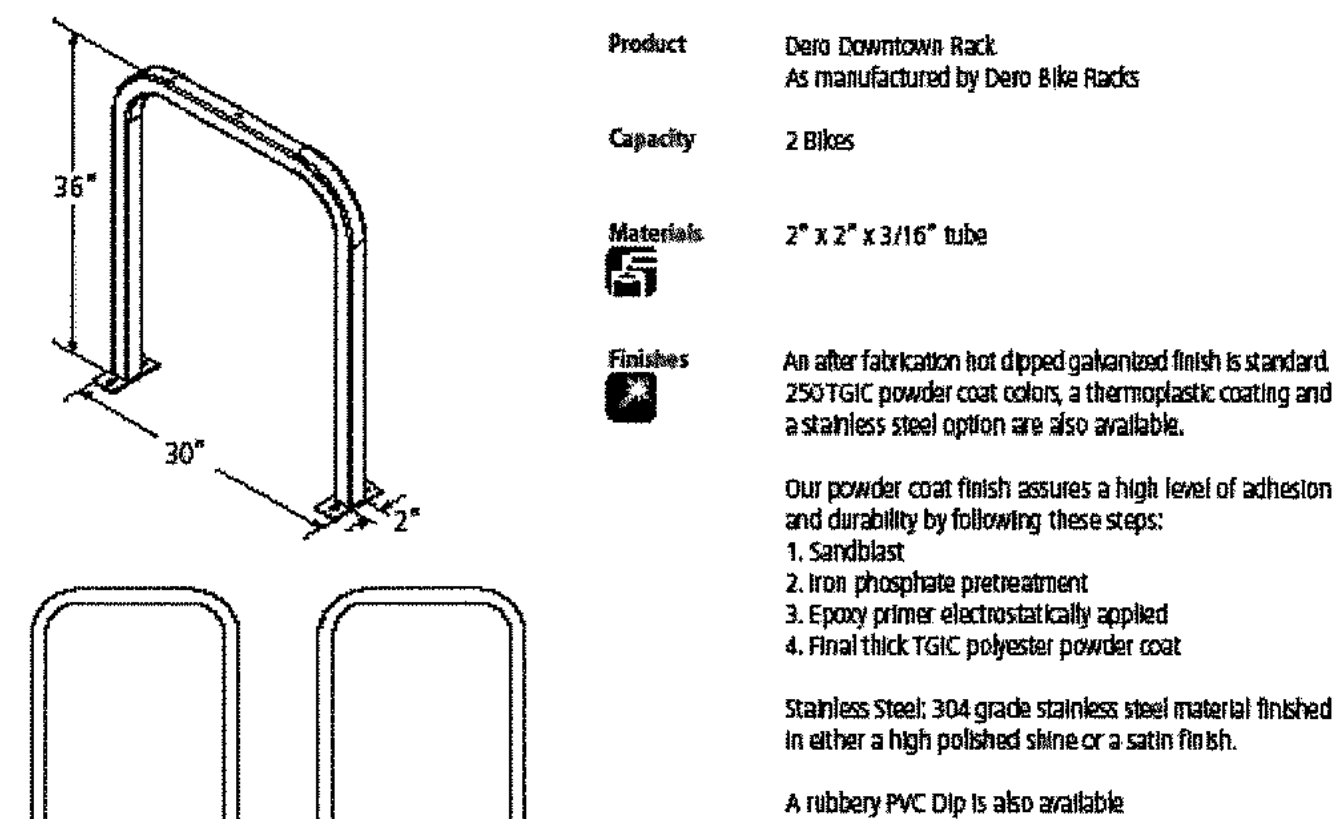
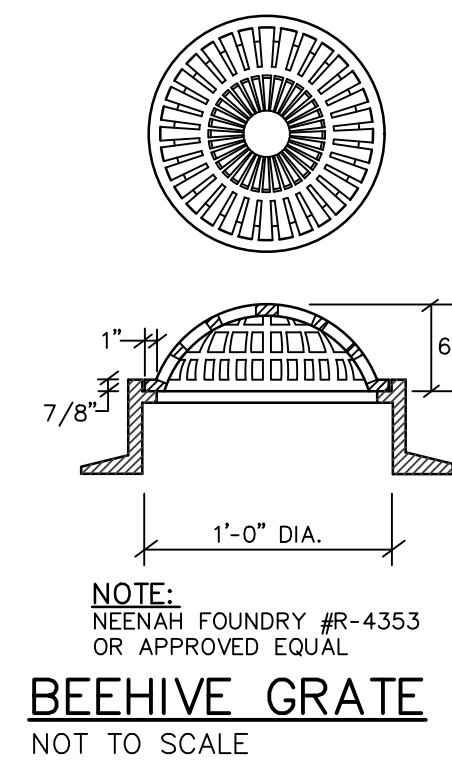
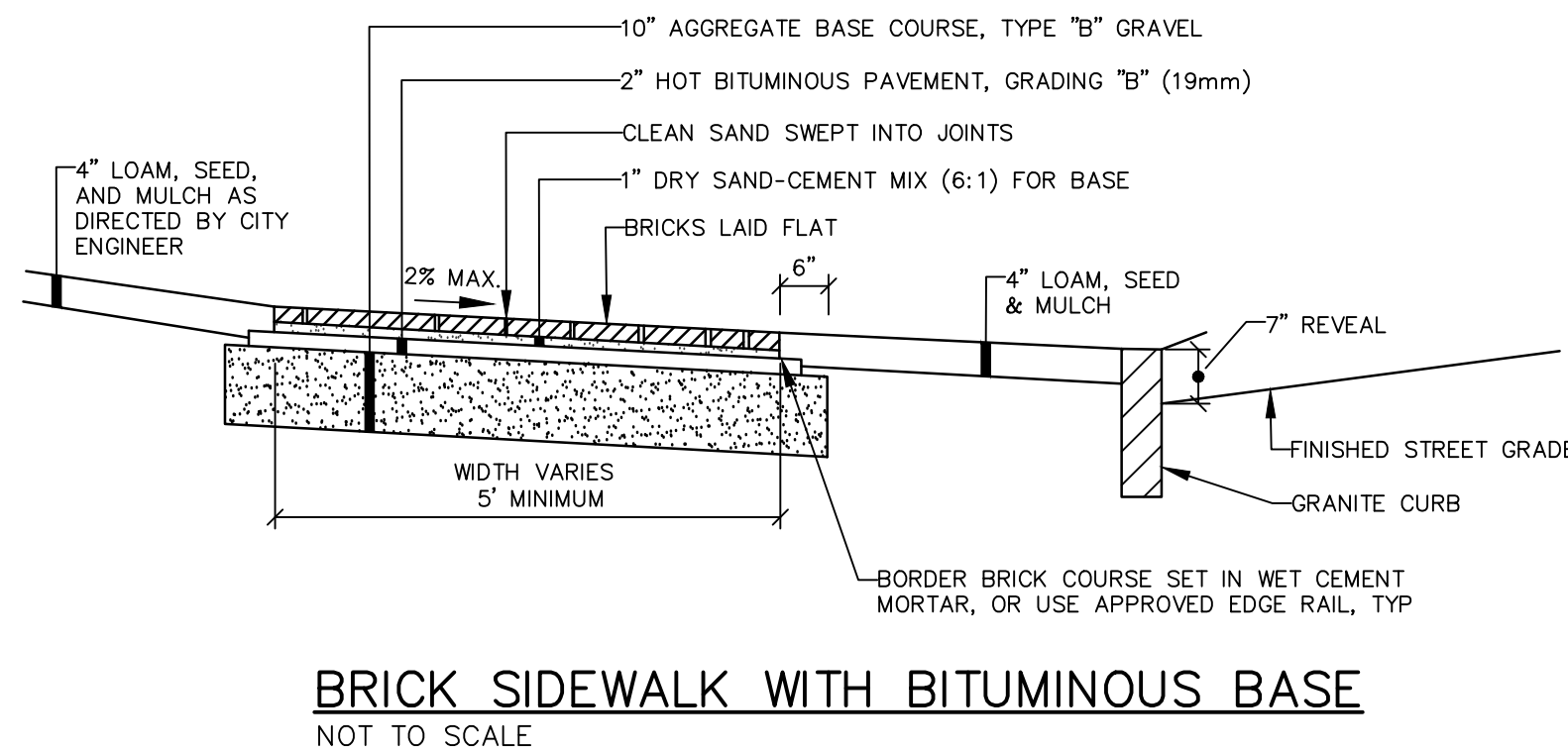
75 JONES ROAD RD.
SOUTH PORTLAND, ME 04106
TEL: 207-200-2100

LANDSCAPE PLAN - UPPER LEVEL
OF:
387 COMMERCIAL STREET
PORTLAND, MAINE
FOR:
DEERING PROPERTY DEVELOPMENT, LLC
2730 TRANSIT ROAD
WEST SENeca, NEW YORK 14224

PROJECT NO. 16324
SCALE 1"=10'

SHEET 8 OF 11

16324-UL-01.dwg, LABEL-UL-3



	DESIGNED	CHECKED
	DMD	RLM
B	RLM 09-28-20 SUBMIT TO CITY	
A	RLM 06-26-20 SUBMIT TO CLIENT	
REV:	BY:	DATE:
		STATUS:

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

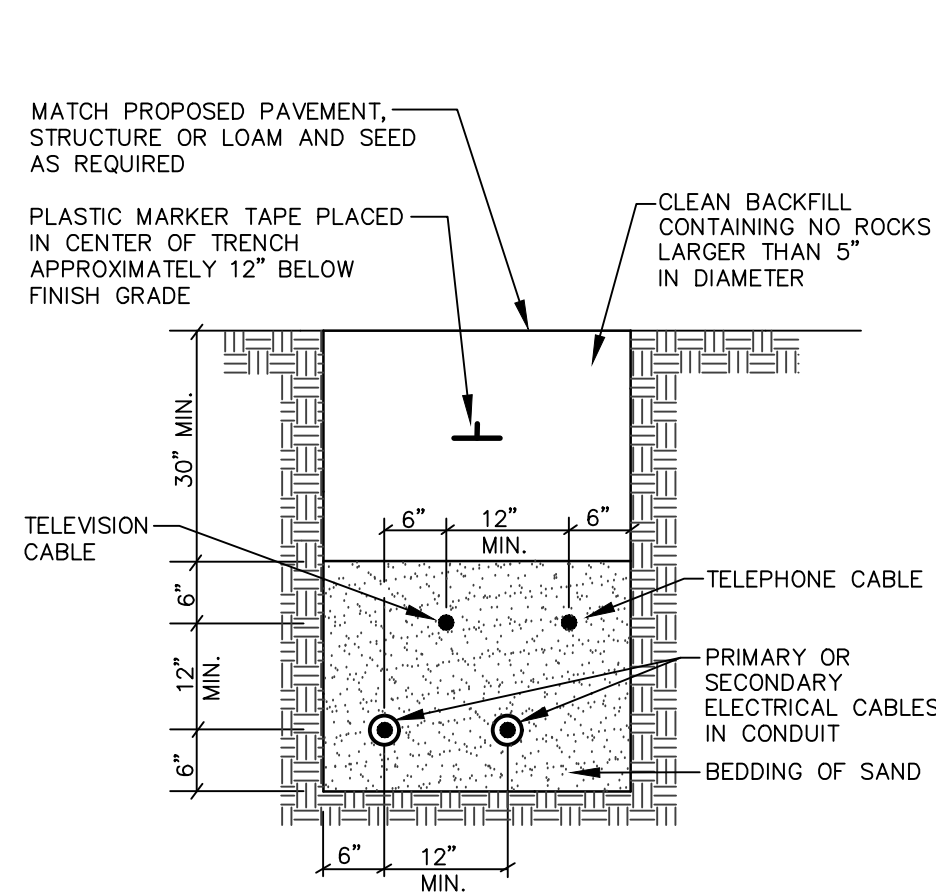
DETAILS

OF:
387 COMMERCIAL STREET
 300 COMMERCIAL STREET
 PORTLAND, MAINE

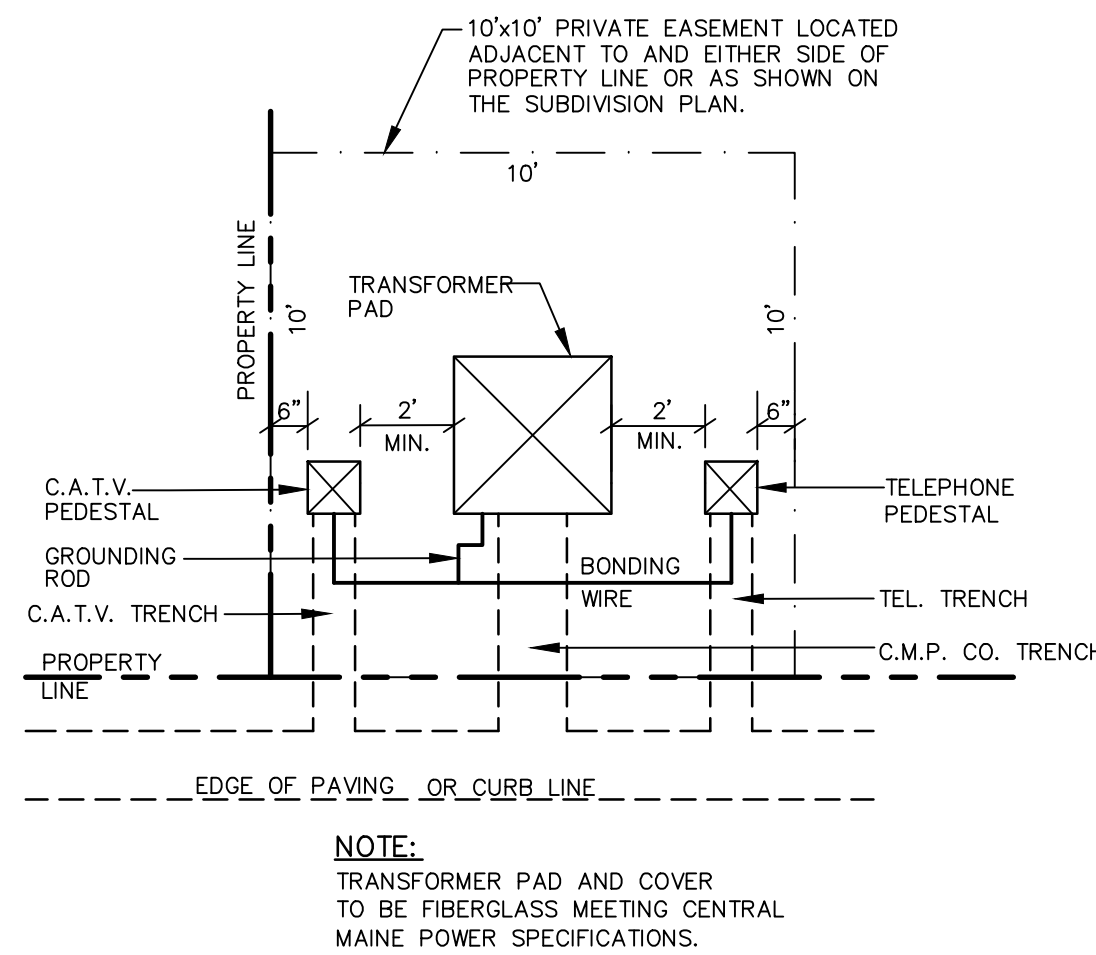
FOR:
DEERING PROPERTY DEVELOPMENT, LLC
 96730 STARSTAD ROAD
 WATSONVILLE, CA 95076

PROJECT NO.	SCALE
16324	N.T.S.

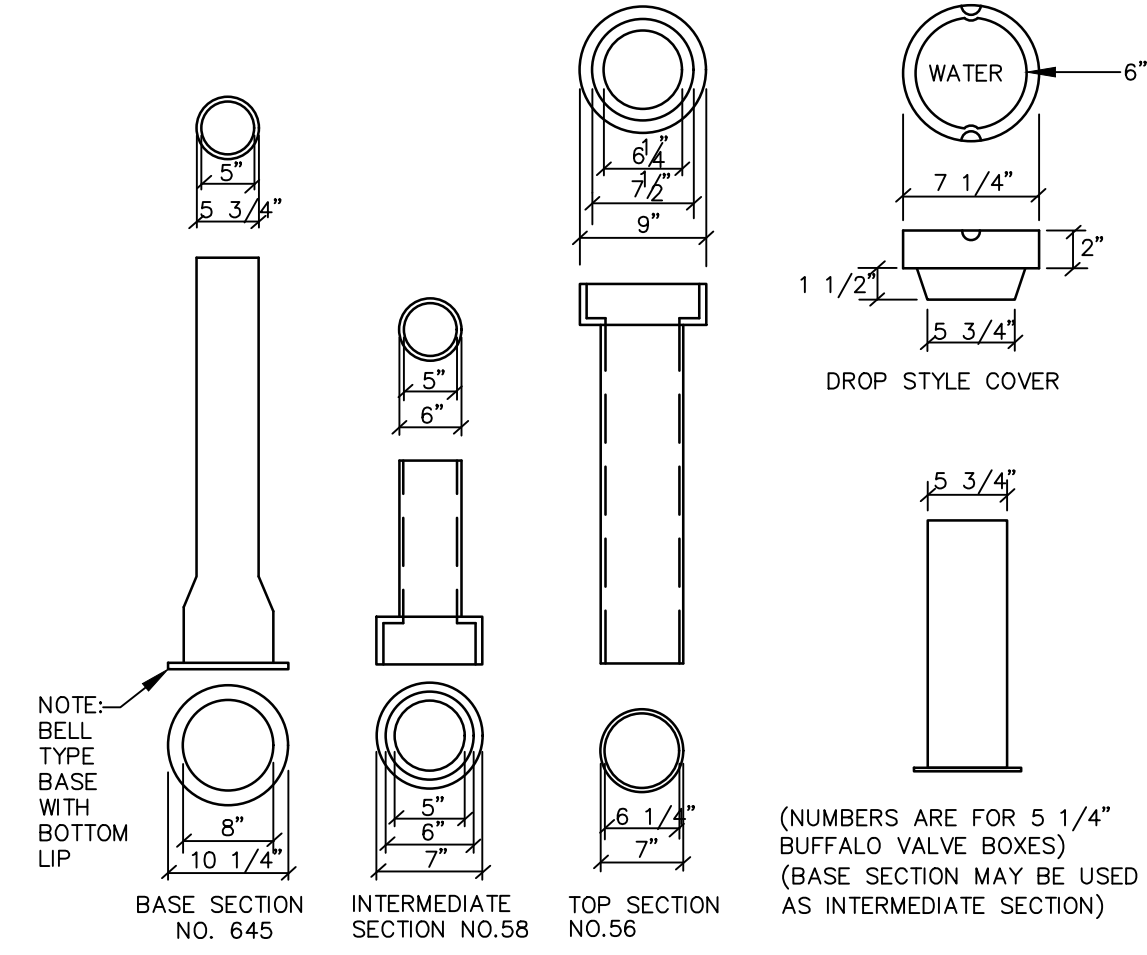
SHEET 9 OF 11



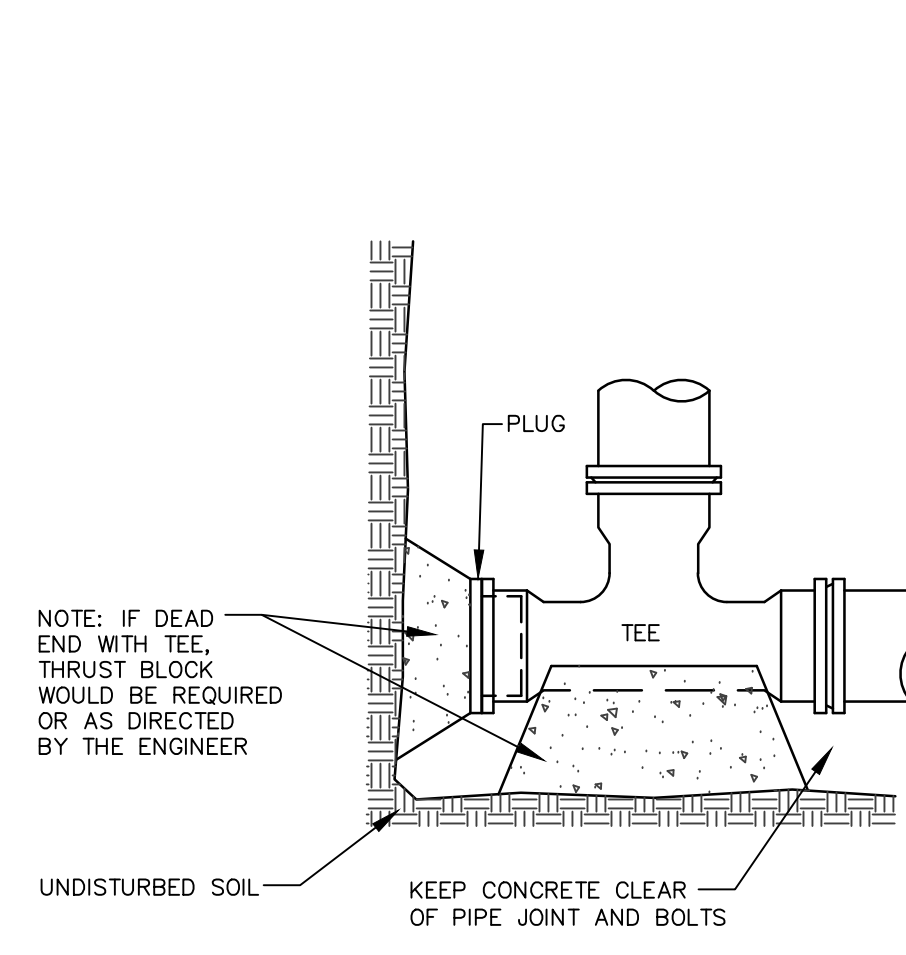
**TYPICAL UNDERGROUND
CABLE INSTALLATION**
NOT TO SCALE



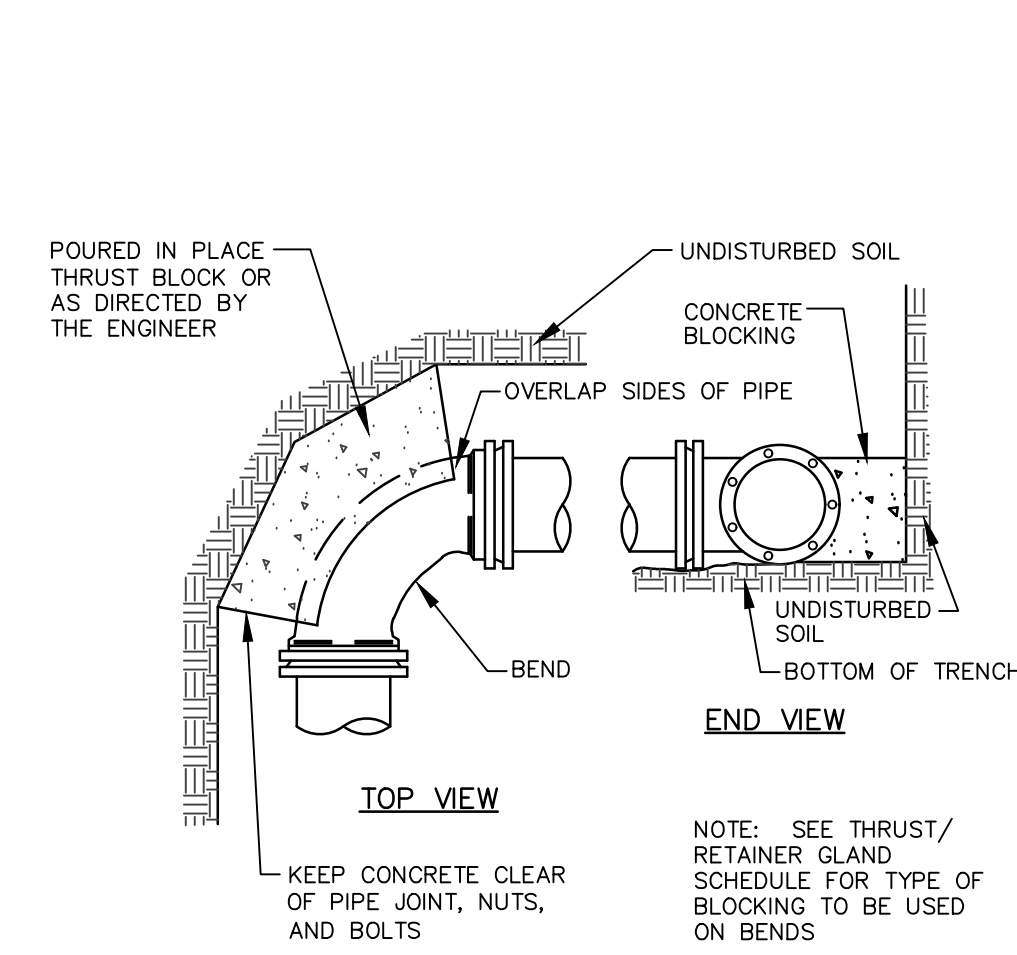
TRANSFORMER DETAIL
NOT TO SCALE



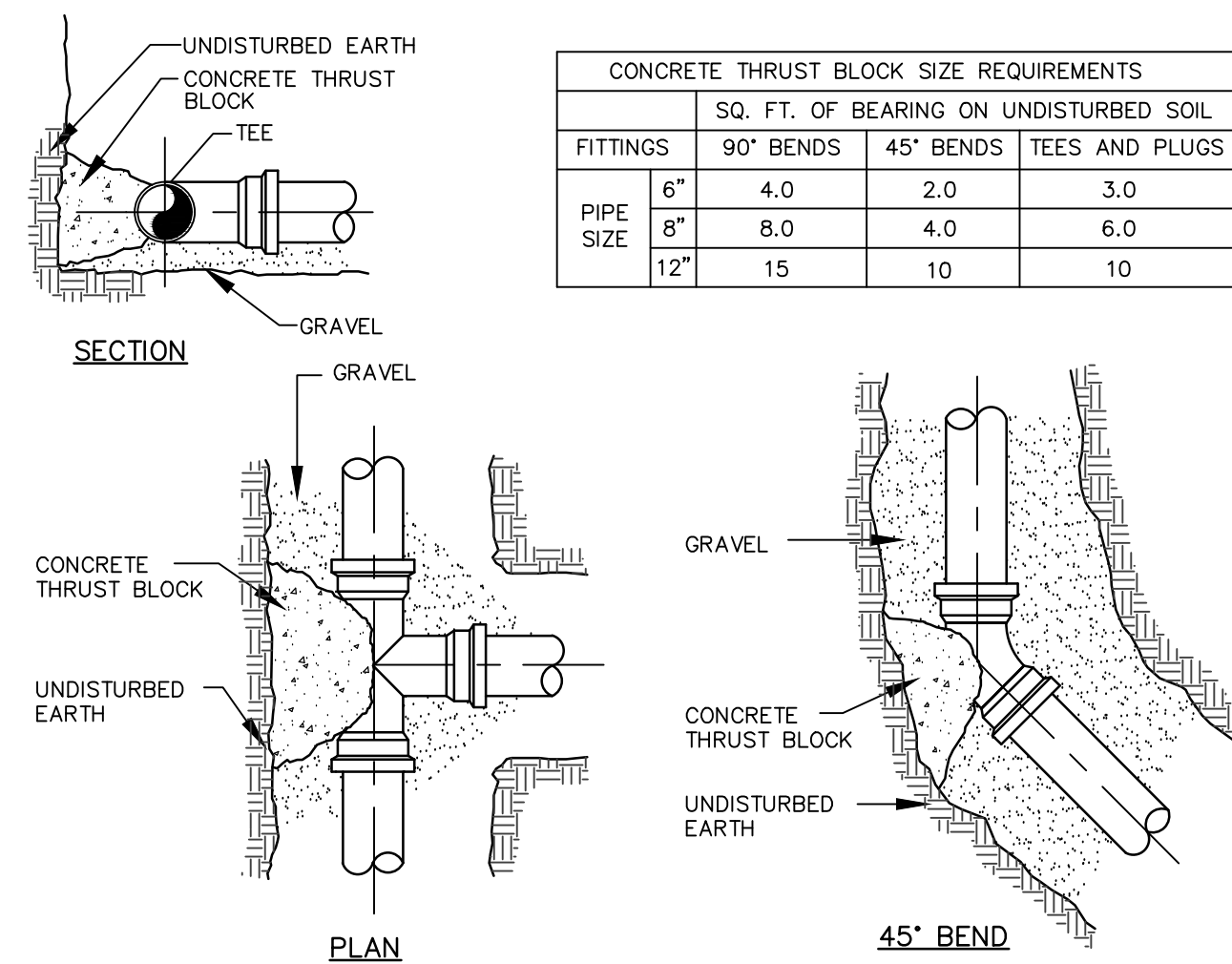
VALVE BOX & COVER
NOT TO SCALE



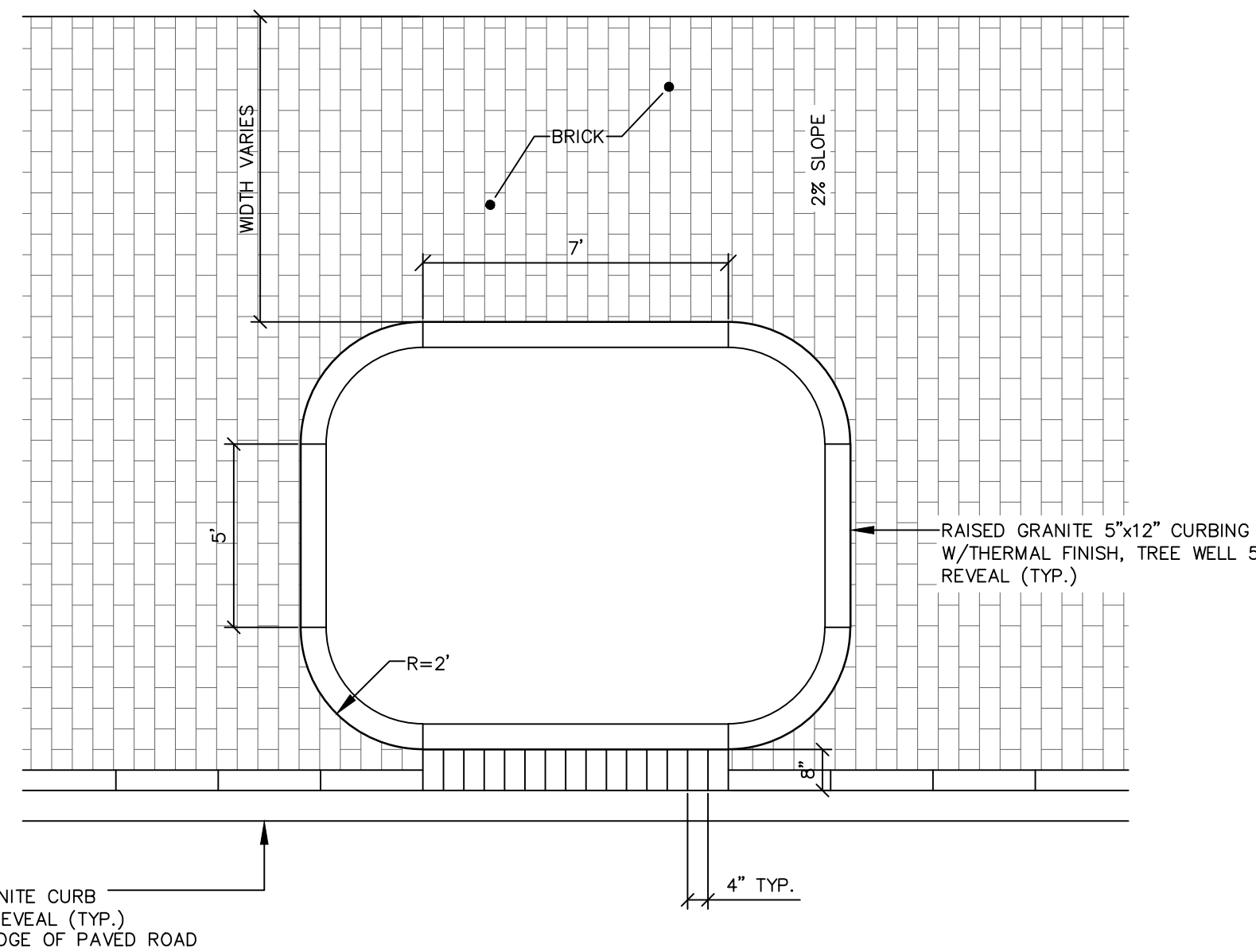
STANDARD TEE BLOCKING
NOT TO SCALE



STANDARD BEND BLOCKING
NOT TO SCALE

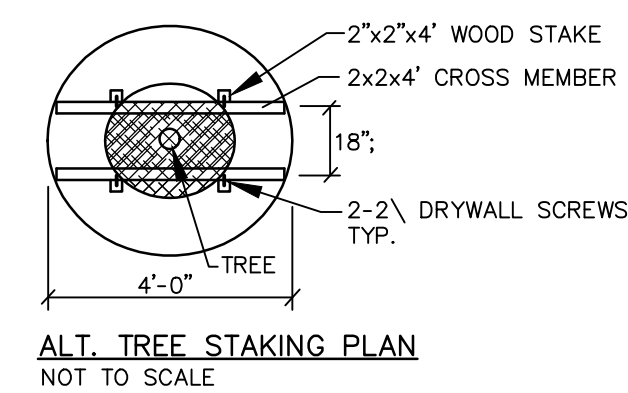


TEE AND BEND DETAIL
NOT TO SCALE

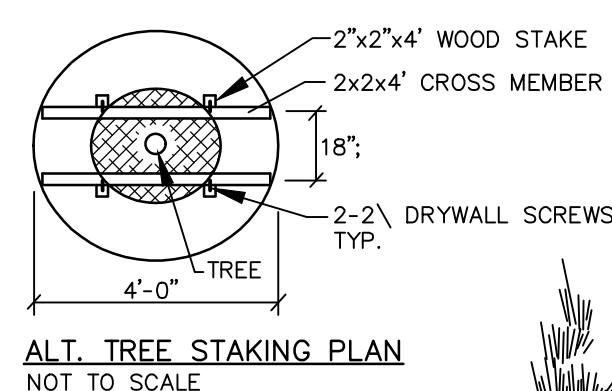


- NOTES:**
1. ALL TREE WELLS SHALL COMPLY WITH CITY TECHNICAL STANDARDS AND MUST BE APPROVED BY THE CITY ARBORIST: JEFF TARLING (207) 808-5400.
 2. SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.
 3. **NEW CONSTRUCTION:**
4"x8" PINE HALL PATHWAY PAVER BRICK, MFG. BY PINE HALL BRICK CO., MADISON, NORTH CAROLINA. LACHANCE ITEM #193523, PINE HALL PATHWAY PAVER BRICK.

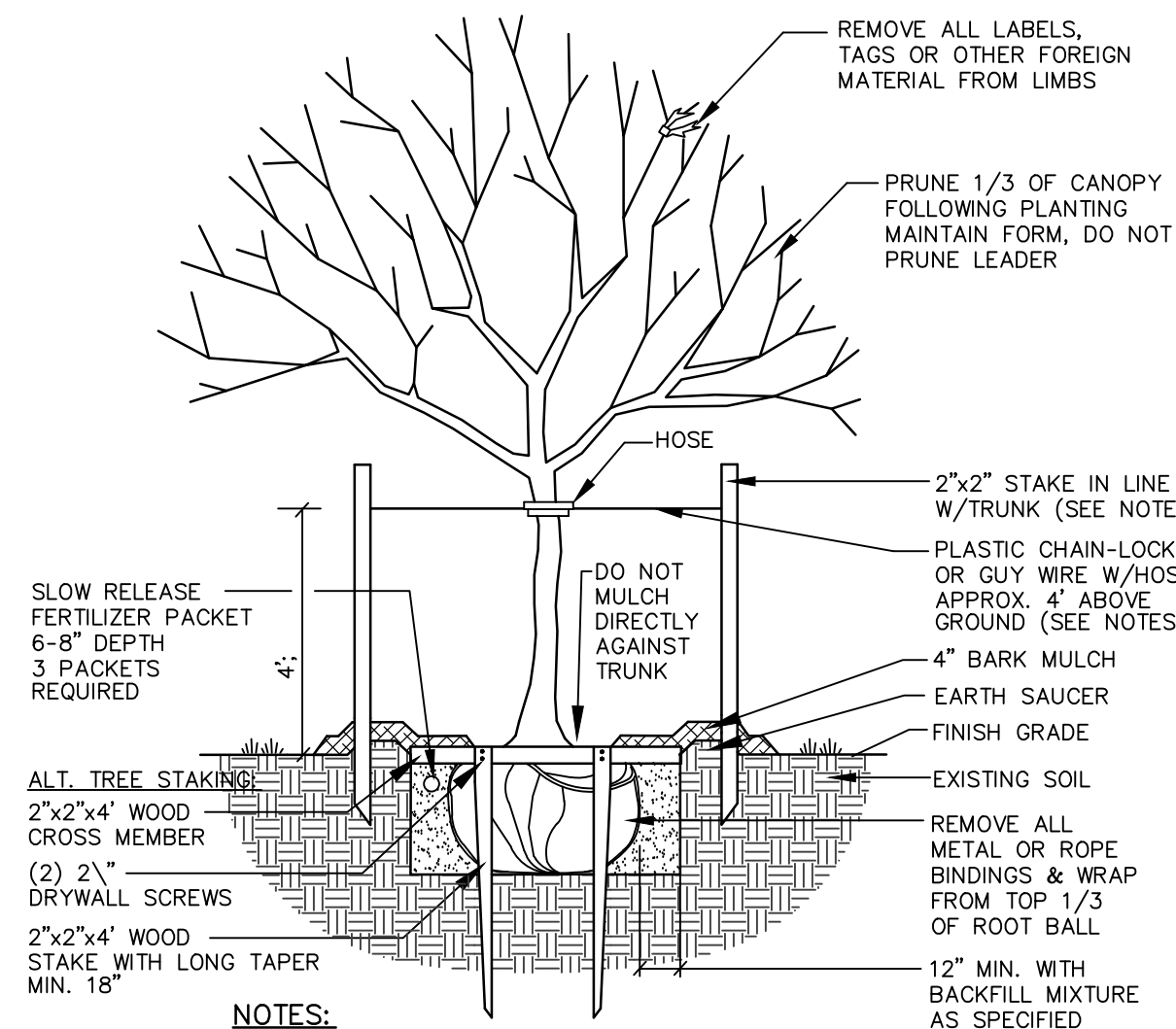
TREEWELL IN BRICK SIDEWALK
NOT TO SCALE



ALT. TREE STAKING PLAN
NOT TO SCALE



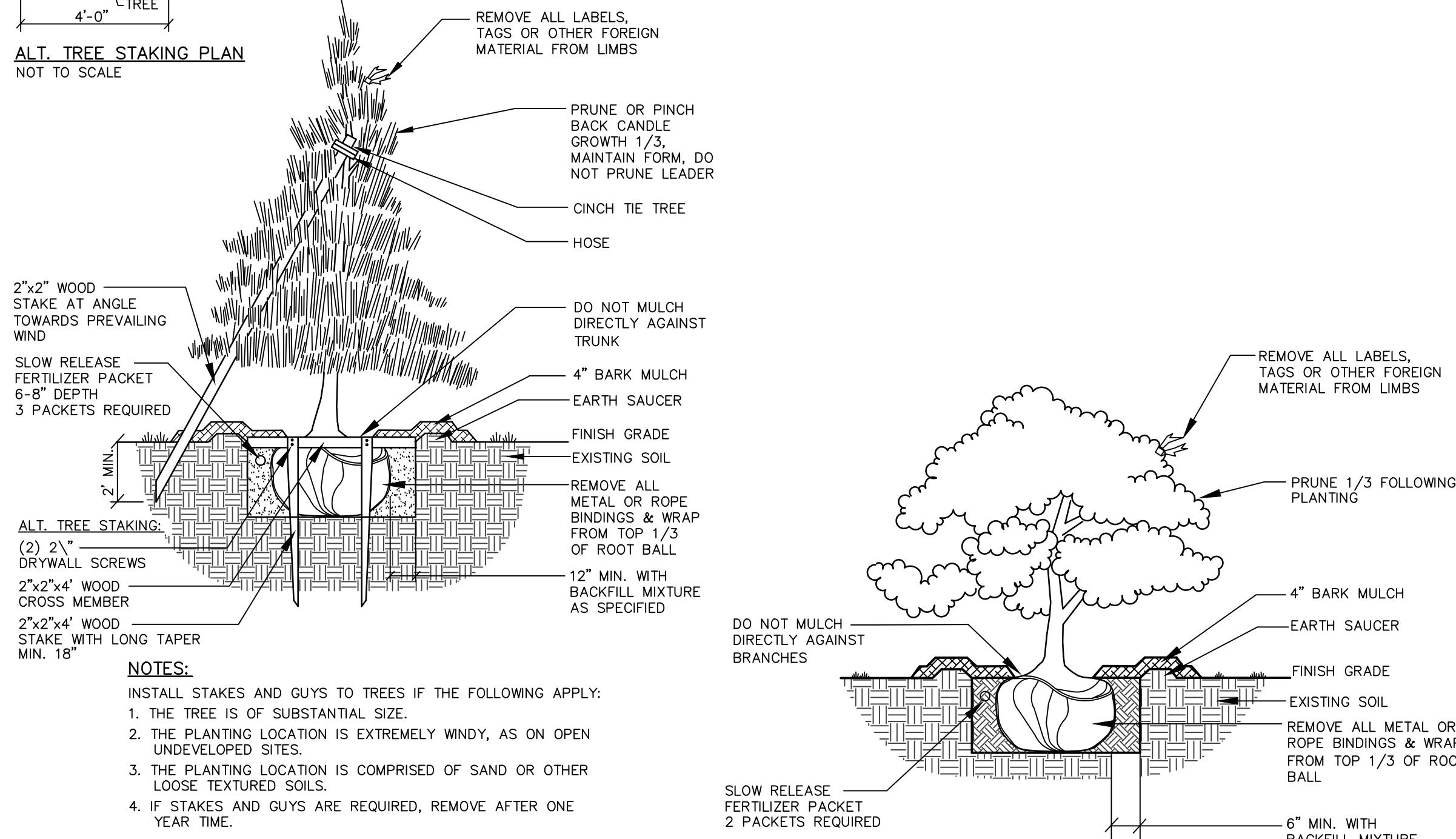
ALT. TREE STAKING PLAN
NOT TO SCALE



NOTES:

1. INSTALL STAKES AND GUYS TO TREES IF THE FOLLOWING APPLY:
 - 1. THE TREE IS OF SUBSTANTIAL SIZE.
 - 2. THE PLANTING LOCATION IS EXTREMELY WINDY, AS ON OPEN UNDEVELOPED SITES.
 - 3. THE PLANTING LOCATION IS COMPRISED OF SAND OR OTHER LOOSE, TEXTURED SOILS.
 - 4. IF STAKES AND GUYS ARE REQUIRED, REMOVE AFTER ONE YEAR TIME.

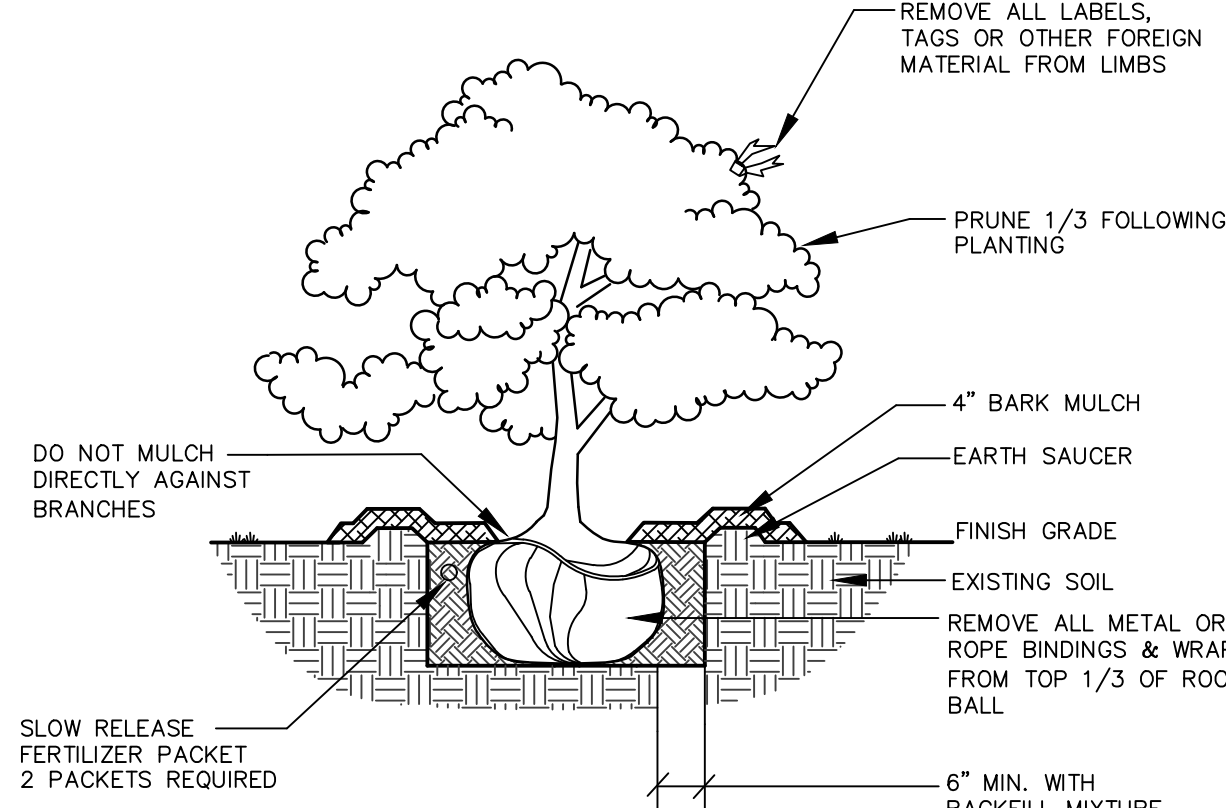
DECIDUOUS TREES 2" TO 4" CALIPER
NOT TO SCALE



NOTES:

1. INSTALL STAKES AND GUYS TO TREES IF THE FOLLOWING APPLY:
 - 1. THE TREE IS OF SUBSTANTIAL SIZE.
 - 2. THE PLANTING LOCATION IS EXTREMELY WINDY, AS ON OPEN UNDEVELOPED SITES.
 - 3. THE PLANTING LOCATION IS COMPRISED OF SAND OR OTHER LOOSE, TEXTURED SOILS.
 - 4. IF STAKES AND GUYS ARE REQUIRED, REMOVE AFTER ONE YEAR TIME.

DECIDUOUS TREES UNDER 2" CALIPER OR UNDER 8' IN HEIGHT
EVERGREEN TREES 7'-0" IN HEIGHT & UNDER
NOT TO SCALE



DECIDUOUS & EVERGREEN SHRUB
NOT TO SCALE

DESIGNED
DMD

CHECKED
RLM

B RLM 09-28-20 SUBMIT TO CITY

A RLM 06-26-20 SUBMIT TO CLIENT

REV. BY: DATE: STATUS:

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WWW.SEBAGOTECHNIQS.COM

75 Jordan Road
South Portland, ME 04106
Tel. 207-200-2100

DETAILS
OF:
387 COMMERCIAL STREET
PORTLAND, MAINE

FOR:
DEERING PROPERTY DEVELOPMENT, LLC
2730 TRANSIT ROAD
WEST SENECA, NEW YORK 14224

PROJECT NO.
16324

SCALE
N.T.S.

SHEET 11 OF 11

163240-01.dwg, 14ED-3

EROSION CONTROL MEASURES

PRE-CONSTRUCTION PHASE

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS (SILT FENCE) WILL BE STAKED/INSTALLED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. THE PLACEMENT OF SEDIMENT BARRIERS SHALL BE COMPLETED IN ACCORDANCE WITH THE GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THIS EROSION CONTROL PLAN AND DETAILS IN THIS PLAN SET. THIS NETWORK IS TO BE INSTALLED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF ANY CONSTRUCTION AND SHALL BE MAINTAINED BY THE CONTRACTOR TO PREVENT EROSION. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED.

PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED AT THE INTERSECTION OF THE PROPOSED ENTRANCES AND EXISTING ROADWAY TO AVOID TRACKING OF MUD, DUST AND DEBRIS FROM THE SITE.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PREPARE A DETAILED SCHEDULE AND MARKED UP PLAN INDICATING AREAS AND COMPONENTS OF THE WORK AND KEY DATES SHOWING DATE OF DISTURBANCE AND COMPLETION OF THE WORK. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE MUNICIPAL STAFF, THREE COPIES OF THE SCHEDULE AND MARKED UP PLAN SHALL BE PROVIDED TO THE MUNICIPALITY THREE DAYS PRIOR TO THE SCHEDULED PRE-CONSTRUCTION MEETING. SPECIAL ATTENTION SHALL BE GIVEN TO THE 14 DAY LIMIT OF DISTURBANCE IN THE SCHEDULE ADDRESSING TEMPORARY AND PERMANENT VEGETATION MEASURES.

CONSTRUCTION AND POST-CONSTRUCTION PHASE

AREAS UNDERGOING ACTUAL CONSTRUCTION SHALL ONLY EXPOSE THAT AMOUNT OF MINERAL SOIL NECESSARY FOR PROGRESSIVE AND EFFICIENT CONSTRUCTION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD, SUCH AS ACTIVE EXCAVATION AND ACTIVE GRADING. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS ACTIVELY OCCURRING OR CAN BE MULCHED IN THE SAME DAY. OPEN AREAS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL AS SHOWN IN THE DESIGN PLANS AND AS DESCRIBED WITHIN THIS EROSION CONTROL PLAN WITHIN SEVEN (7) DAYS OF DISTURBANCE. AREAS LOCATED WITHIN 100 FEET OF STREAMS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL WITHIN SEVEN (7) DAYS. REFER TO WINTER EROSION CONTROL NOTES FOR THE TREATMENT OF OPEN AREAS AFTER OCTOBER 1ST OF THE CONSTRUCTION YEAR.

THE CONTRACTOR MUST INSTALL ANY ADDD MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

EROSION CONTROL APPLICATIONS & MEASURES

THE PLACEMENT OF EROSION CONTROL MEASURES SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND DETAILS IN THE PLAN SET.

1. TEMPORARY MULCHING:

ALL DISTURBED AREAS SHALL BE MULCHED WITH MATERIALS SPECIFIED BELOW PRIOR TO ANY STORM EVENT. ALL DISTURBED AREAS NOT FINAL GRADED WITHIN 14 DAYS SHALL BE MULCHED. DISTURBED AREAS ADJACENT TO NATURAL RESOURCES THAT ARE NOT GRADED WITHIN SEVEN (7) DAYS SHALL BE MULCHED. ALSO, AREAS WHICH HAVE TEMPORARILY OR PERMANENTLY SEEDED, SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING. EROSION CONTROL BLANKETS ARE RECOMMENDED TO BE USED AT THE BASE OF GRASSED WATERWAYS AND ON SLOPES GREATER THAN 33%. MULCH ANCHORING SHOULD BE USED ON SLOPES GREATER THAN 5% AFTER SEPTEMBER 15TH OF THE CONSTRUCTION YEAR (SEE WINTER EROSION CONTROL NOTES).

TYPES OF MULCH:

HAY OR STRAW: SHALL BE APPLIED AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE).

EROSION CONTROL MIX: SHALL BE PLACED EVENLY AND MUST PROVIDE 100% SOIL COVERAGE. EROSION CONTROL MIX SHALL BE APPLIED SUCH THAT THE THICKNESS ON SLOPES 3:1 OR LESS IS 2 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THE THICKNESS ON SLOPES BETWEEN 3:1 AND 2:1 SHALL BE 4 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THIS SHALL NOT BE USED ON SLOPES GREATER THAN 2:1.

EROSION CONTROL BLANKET: SHALL BE INSTALLED SUCH THAT CONTINUOUS CONTACT BETWEEN THE MAT AND THE SOIL IS OBTAINED. INSTALL BLANKETS AND STAPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

2. SOIL STOCKPILES:

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES. SEDIMENT BARRIERS SHALL BE INSTALLED DOWNGRADEMENT OF STOCKPILES, AND STORMWATER SHALL BE PREVENTED FROM RUNNING ONTO THE STOCKPILE.

3. NATURAL RESOURCES PROTECTION:

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES SHALL BE MULCHED USING TEMPORARY MULCHING (AS DESCRIBED IN PART 1 OF THIS SECTION) WITHIN 7 DAYS OF EXPOSURE OR PRIOR TO ANY STORM EVENT. SEDIMENT BARRIERS (AS DESCRIBED IN PART 4 OF THIS SECTION) SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE.

4. SEDIMENT BARRIERS:

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS SHALL BE STAKED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. SEDIMENT BARRIERS MAY BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION.

SILT FENCE: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE EFFECTIVE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES. IT IS RECOMMENDED THAT SILT FENCE BE REMOVED BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL SO AS TO AVOID ADDITIONAL SOIL DISTURBANCE.

HAY BALES: SHALL NOT BE INSTALLED ADJACENT TO WETLAND. INSTALL PER THE DETAIL ON THE PLANS. BALES SHALL BE WIRE-BOUND OR STRING-TIED AND THE BINDINGS MUST REMAIN PARALLEL WITH THE GROUND SURFACE DURING INSTALLATION TO PREVENT DETERIORATION OF THE BINDINGS. BALES SHALL BE INSTALLED WITHIN A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.

EROSION CONTROL MIX: SHALL NOT BE USED ADJACENT TO WETLANDS. INSTALL PER THE DETAIL ON THE PLANS. THE MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIALS AND CONTAIN WELL-GRADED SAND AND MAY CONTAIN ROCKS LESS THAN 4 INCHES IN DIAMETER. THE MIX COMPOSITION SHALL MEET THE STANDARDS DESCRIBED WITHIN THE MDEP BEST MANAGEMENT PRACTICES. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER. EROSION CONTROL MIX BERMS SHALL NOT BE USED AT THE BOTTOM OF STEEP SLOPES (>4%) OR SLOPES WITH FLOWING WATER.

CONTINUOUS CONTAINED BERM: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THIS SEDIMENT BARRIER IS EROSION CONTROL MIX PLACED WITH A SYNTHETIC TUBULAR NETTING AND PERFORMS AS A STURDY SEDIMENT BARRIER THAT WORKS WELL ON HARD GROUND SUCH AS FROZEN CONDITIONS, TRAVELED AREAS OR PAVEMENT. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.

5. TEMPORARY CHECK DAMS:

SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. CHECK DAMS ARE TO BE PLACED WITHIN DITCHES/ SWALES AS SPECIFIED ON THE DESIGN PLANS IMMEDIATELY AFTER FINAL GRADING. CHECK DAMS ARE 2 FEET HIGH. TEMPORARY CHECK DAMS MAY BE REMOVED ONLY AFTER THE ROADWAYS ARE PAVED AND THE EXPOSED SLOPES ARE ESTABLISHED WITH AT LEAST 90% VIGOROUS PERENNIAL GROWTH. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL OF THE CHECK DAM.

STONE CHECK DAMS: STONE DAMS SHOULD BE CONSTRUCTED OF 2 TO 3 INCH STONE AND PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAT THE OUTER EDGES.

HAY-BALE CHECK DAMS: BALES SHALL BE WIRE-BOUND OR STRING-TIED. BALES SHALL BE INSTALLED WITHIN A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER. HAY BALES SHALL BE PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAT THE OUTER EDGES.

MANUFACTURED CHECK DAMS: MANUFACTURED CHECK DAMS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF AUTHORIZED BY THE PROPER LOCAL, STATE OR FEDERAL REGULATING AGENCIES. THESE UNITS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

6. STORMDRAIN INLET PROTECTION:

INLET PROTECTION SHALL BE PLACED AROUND A STORMDRAIN DROP INLET OR CURB INLET PRIOR TO PERMANENT STABILIZATION OF THE IMMEDIATE AND UPSTREAM DISTURBED AREAS. THEY SHALL BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN-OUT AND DISPOSAL OF CAPTURED SEDIMENTS AND MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES. ANY RESULTANT PONDING OF WATER FROM THE PROTECTION METHOD MUST NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.

HAY-BALE DROP INLET PROTECTION: WE DO NOT RECOMMEND THE USE OF HAY BALES AS INLET PROTECTION.

CONCRETE BLOCK AND STONE INLET SEDIMENT FILTER (DROP OR CURB INLET): SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE HEIGHT OF THE CONCRETE BLOCK BARRIER CAN VARY BUT MUST BE BETWEEN 12 AND 24 INCHES TALL. A MINIMUM OF 1 INCH CRUSHED STONE SHALL BE USED.

MANUFACTURED SEDIMENT BARRIERS AND FILTER (DROP OR CURB INLET): MANUFACTURED FILTERS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

7. STABILIZED CONSTRUCTION ENTRANCE/EXIT:

PRIOR TO CLEARING AND/OR GRUBBING THE SITE A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED WHEREVER TRAFFIC WILL EXIT THE CONSTRUCTION SITE ONTO A PAVED ROADWAY IN ORDER TO MINIMIZE THE TRACKING OF SEDIMENT AND DEBRIS FROM THE CONSTRUCTION SITE ONTO PUBLIC ROADWAYS. THE ENTRANCES AND ADJACENT ROADWAY AREAS SHALL BE PERIODICALLY SWEEP TO FURTHER MINIMIZE THE TRACKING OF MUD, DUST OR DEBRIS FROM THE CONSTRUCTION AREA. THE TERM "SWEEP" IS UNDERSTOOD TO MEAN REMOVAL AND RECOVERY OF TRACKED SEDIMENT WITH A STREET SWEEPER. SWEEPERS SHALL BE OPERATED WITH A MECHANICAL BRUSH. STABILIZED CONSTRUCTION EXITS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND AS DETAILED ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.

8. DUST CONTROL:

DUST CONTROL DURING CONSTRUCTION SHALL BE ACHIEVED BY THE USE OF A WATERING TRUCK TO PERIODICALLY SPRINKLE THE EXPOSED ROADWAY AREAS AS NECESSARY TO REDUCE DUST DURING THE DRY MONTHS. APPLYING OTHER DUST CONTROL PRODUCTS SUCH AS CALCIUM CHLORIDE OR OTHER MANUFACTURED PRODUCTS ARE ALLOWED IF AUTHORIZED BY THE PROPER LOCAL, STATE AND/OR FEDERAL REGULATING AGENCIES. HOWEVER, IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO MITIGATE DUST AND SOIL LOSS FROM THE SITE. IF OFFSITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEEP IMMEDIATELY AND NOT LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS.

9. TEMPORARY VEGETATION:

TEMPORARY VEGETATION SHALL BE APPLIED TO DISTURBED AREAS THAT WILL NOT RECEIVE FINAL GRADING FOR PERIODS UP TO 12 MONTHS. THIS PROCEDURE SHOULD BE USED EXTENSIVELY IN AREAS ADJACENT TO NATURAL RESOURCES. SEEDED PREPARATION AND APPLICATION OF SEED SHALL BE CONDUCTED AS INDICATED IN THE PERMANENT VEGETATION SECTION OF THIS NARRATIVE. SPECIFIC SEEDS (FAST GROWING AND SHORT LIVING) SHALL BE SELECTED FROM THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUALS FOR CONTRACTORS AND ENGINEERS, 2016 OR LATEST REVISION. ALTERNATIVE EROSION CONTROL MEASURES SHOULD BE USED IF SEEDING CAN NOT BE DONE BEFORE SEPTEMBER 15TH OF THE CONSTRUCTION YEAR.

10. PERMANENT VEGETATION:

REVEGETATION MEASURES SHALL COMMENCE IMMEDIATELY UPON COMPLETION OF FINAL GRADING OF AREAS TO BE LOADED AND SEEDED. THE APPLICATION OF SEED SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR, PLEASE REFER TO THE WINTER EROSION CONTROL NOTES FOR MORE DETAIL. REVEGETATION MEASURES SHALL CONSIST OF THE FOLLOWING:

SEEDED PREPARATION:

A. FOUR (4) INCHES OF LOAM SHALL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. LOAM SHALL BE FREE OF SUBSOIL, CLAY LUMPS, STONES AND OTHER OBJECTS OVER 2 INCHES OR LARGER IN ANY DIMENSION, AND WITHOUT WEEDS, ROOTS OR OTHER SELECTABLE MATERIAL.

B. SOILS TESTS SHALL BE TAKEN AT THE TIME OF SOIL STRIPPING TO DETERMINE FERTILIZATION REQUIREMENTS. SOILS TESTS SHALL BE TAKEN PROMPTLY AS TO NOT INTERFERE WITH THE 14-DAY LIMIT ON SOIL EXPOSURE. BASED UPON TEST RESULTS, SOIL AMENDMENTS SHALL BE INCORPORATED INTO THE SOIL PRIOR TO FINAL SEEDING. IN LIEU OF SOIL TESTS, SOIL AMENDMENTS MAY BE APPLIED AS FOLLOWS:

ITEM	APPLICATION RATE
10-20-20 FERTILIZER (N-P205-K20 OR EQUAL)	18.4 LBS./1,000 S.F.
GROUND LIMESTONE (50% CALCIUM & MAGNESIUM OXIDE)	138 LBS./1,000 S.F.
C. WORK LINE AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICABLE TO A DEPTH OF 4 INCHES WITH PROPER EQUIPMENT. ROLL THE AREA TO FIRM THE SEEDED EXCEPT ON CLAY OR SILTY SOILS OR COARSE SAND.	

APPLICATION OF SEED:

A. SEEDING: SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. GENERALLY A SEED MIXTURE MAY BE APPLIED AS FOLLOWS: (MDEP SEED MIX 2 IS DISPLAYED)

SEED TYPE	APPLICATION RATE
CREeping RED FESCUE	0.46 LBS./1,000 S.F. (20 LBS./ACRE)
REDTOP	0.05 LBS./1,000 S.F. (2 LBS./ACRE)
FALL FESCUE	0.46 LBS./1,000 S.F. (20 LBS./ACRE)
TOTAL	0.97 LBS./1,000 S.F. (42 LBS./ACRE)

NOTE: A SPECIFIC SEED MIXTURE SHOULD BE CHOSEN TO MATCH THE SOILS CONDITION OF THE SITE. VARIOUS AGENCIES CAN RECOMMEND SEED MIXTURES. MDEP RECOMMENDED SEED MIXTURES ARE IN THE EROSION AND SEDIMENT CONTROL BMP MANUAL DATED 2016 OR LATEST REVISION.

B. HYDROSEEDING: SHALL BE CONDUCTED ON PREPARED AREAS WITH SLOPES LESS THAN 2:1. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. RECOMMENDED SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

C. MULCHING: SHALL COMMENCE IMMEDIATELY AFTER SEED IS APPLIED. REFER TO THE TEMPORARY MULCHING SECTION OF THIS NARRATIVE FOR DETAILS.

FOLLOWING SEEDED PREPARATION, SOO CAN BE APPLIED IN LIEU OF SEEDING IN AREAS WHERE IMMEDIATE VEGETATION IS MOST BENEFICIAL SUCH AS DITCHES, AROUND STORMWATER DROP INLETS AND AREAS OF AESTHETIC VALUE. SOO SHOULD BE LAID AT RIGHT ANGLES TO THE DIRECTION OF FLOW, STARTING AT THE LOWEST POINT AND TO EVEN OUT THE JOINTS ONCE LAID DOWN WHERE FLOW IS PREVALENT THE SOO MUST BE PROPERLY ANCHORED DOWN. IRRIGATE THE SOO IMMEDIATELY AFTER INSTALLATION. IN MOST CASES, SOO CAN BE ESTABLISHED BETWEEN APRIL 1ST AND NOVEMBER 15TH OF THE CONSTRUCTION YEAR, HOWEVER, REFER TO THE WINTER EROSION CONTROL NOTES FOR ANY ACTIVITIES AFTER OCTOBER 1ST.

STANDARDS FOR TIMELY STABILIZATION:

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES -- THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15. THE MDEP WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% (10H:1V) TO BE A SLOPE. IF THE CONTRACTOR FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS -- BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE APPLICANT WILL COVER THE SLOPE WITH A LAYER OF WOOD WASTE COMPOST AS DESCRIBED IN ITEM 3(C) OF THIS STANDARD.
- STABILIZE THE SLOPE WITH SOO -- THE CONTRACTOR WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOO BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOO ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOO TO GUARANTEE CONTACT BETWEEN THE SOO AND UNDERLYING SOIL, AND WATERING THE SOO TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
- STABILIZE THE SLOPE WITH MULCH -- BY NOVEMBER 15 THE CONTRACTOR WILL MULCH THE DISTURBED SLOPE BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.
- STABILIZE THE SOIL WITH STONE RIPRAP -- THE CONTRACTOR WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES -- BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SLOPES ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SLOPES BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION -- BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15, THEN THE APPLICANT WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM 3(C) OF THIS STANDARD.
- STABILIZE THE SOIL WITH SOO -- THE APPLICANT WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOO BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOO ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOO TO GUARANTEE CONTACT BETWEEN THE SOO AND UNDERLYING SOIL, AND WATERING THE SOO TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
- STABILIZE THE SOIL WITH MULCH -- BY NOVEMBER 15 THE APPLICANT WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

1. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF PROLONGED THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES. THE CONTRACTOR SHALL PERFORM REPAIRS NO LATER THAN THE END OF THE NEXT WORKDAY. TO ALLOW CONTINUED PROTECTION OF THE DISTURBED AREAS, THE CONTRACTOR SHALL PROVIDE THE NECESSARY REGULATING AGENCIES WITH WRITTEN DOCUMENTATION DESCRIBING DATES OF INSPECTIONS AND NECESSARY FOLLOW-UP WORK TO MAINTAIN EROSION CONTROL MEASURES MEETING THE REQUIREMENTS OF THIS PLAN WITHIN SEVEN (7) DAYS.

2. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDINGS, THE CONTRACTOR SHALL INSPECT THE WORK AREA SEMIMONTHLY UNTIL THE SEEDINGS HAVE BEEN ESTABLISHED. IF THE SEEDINGS ARE NOT ESTABLISHED BY THE END OF THE NEXT WORKDAY, THE SEEDING SHALL BE CARRIED OUT BY THE CONTRACTOR WITH FOLLOW-UP INSPECTIONS IN THE EVENT OF ANY FAILURES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED.

HOUSEKEEPING:

1. SPILL PREVENTION, CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.

2. GROUNDWATER PROTECTION: DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN THE VICINITY OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL, DRAINS, BERMS, BUMPS, AND OTHER FORMS OF SECONDARY CONTAMINANT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE-TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.

3. FUGITIVE SEDIMENT AND DUST ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WASTE ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SEE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF-SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEEP IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.

4. DEBRIS AND OTHER MATERIALS: MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

5. EXCAVATION DE-WATERING: EXCAVATION DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTY AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, MUST BE SPREAD THROUGH NATURAL WOODS BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.

6. AUTHORIZED NON-STORMWATER DISCHARGES: IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES, WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:

- DISCHARGES FROM FIREFIGHTING ACTIVITY;
- FIRE HYDRANT FLUSHINGS;
- VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
- DUST CONTROL RINSEOFF IN ACCORDANCE WITH PERMIT CONDITIONS;
- ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
- PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAS BEEN REMOVED) IF DETERGENTS ARE NOT USED;
- UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
- UNCONTAMINATED GROUNDWATER OR SPRING WATER;
- FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
- UNCONTAMINATED EXCAVATION DEWATERING;
- POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
- LANDSCAPE IRRIGATION.

7. UNAUTHORIZED NON-STORMWATER DISCHARGES, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON-STORMWATER, OTHER THAN THOSE DISCHARGES. SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEAN OUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- COAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

WINTER EROSION CONTROL MEASURES

THE WINTER CONSTRUCTION PERIOD IS FROM OCTOBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% PRIOR TO NOVEMBER 15, THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDER TAKEN DURING THE PROCEEDING CONSTRUCTION YEAR. AREAS THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. ALL AREAS SHALL BE CONSIDERED TO BE DENIED UNTIL THE SUBGRADE GRAVEL IS INSTALLED IN ROADWAY AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOADED, SEEDED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 LBS./1,000 S.F. (1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. THE CONTRACTOR MUST INSTALL ANY ADDD MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

1. SOIL STOCKPILES

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR AT 150 LBS./1,000 S.F. (3 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

2. NATURAL RESOURCES PROTECTION

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL MATS. DURING WINTER CONSTRUCTION, A DOUBLE LINE OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) WILL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA.

PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

3. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF WOOD WASTE FILTER BERMS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.

4. MULCHING

ALL AREA SHALL BE CONSIDERED TO BE DENIED UNTIL AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOADED, SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW WILL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FROZEN EROSION, THE AREA WILL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES ARE EITHER EITHER MULCHED WITH STRAW OR MULCH AT A RATE OF 150 LB. PER 1,000 SQUARE FEET (3TONS/ACRE) AND ADEQUATELY ANCHORED THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH.

BETWEEN THE DATES OF SEPTEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, TRACK OR WOOD CELLULOSE FIBER. WHEN GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH THEN COVER IS SUFFICIENT. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL BARE SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORK DAY.

5. MULCHING ON SLOPES AND DITCHES

SLOPES SHALL NOT BE LEFT EXPOSED FOR ANY EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY MULCHED AND ANCHORED WITH PEG AND NETTING OR WITH EROSION CONTROL BLANKETS. MULCHING SHALL BE APPLIED AT A RATE OF 230 LBS./1,000 S.F. ON ALL SLOPES GREATER THAN 8% MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 5%. EROSION CONTROL BLANKETS SHALL BE USED IN LIEU OF MULCH IN ALL DRAINAGE WAYS WITH SLOPES 8% OR UNSTABILIZED SPOTS. ESTABLISHED VEGETATION COVER MEANS A MINIMUM OF 30% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

6. SEEDING

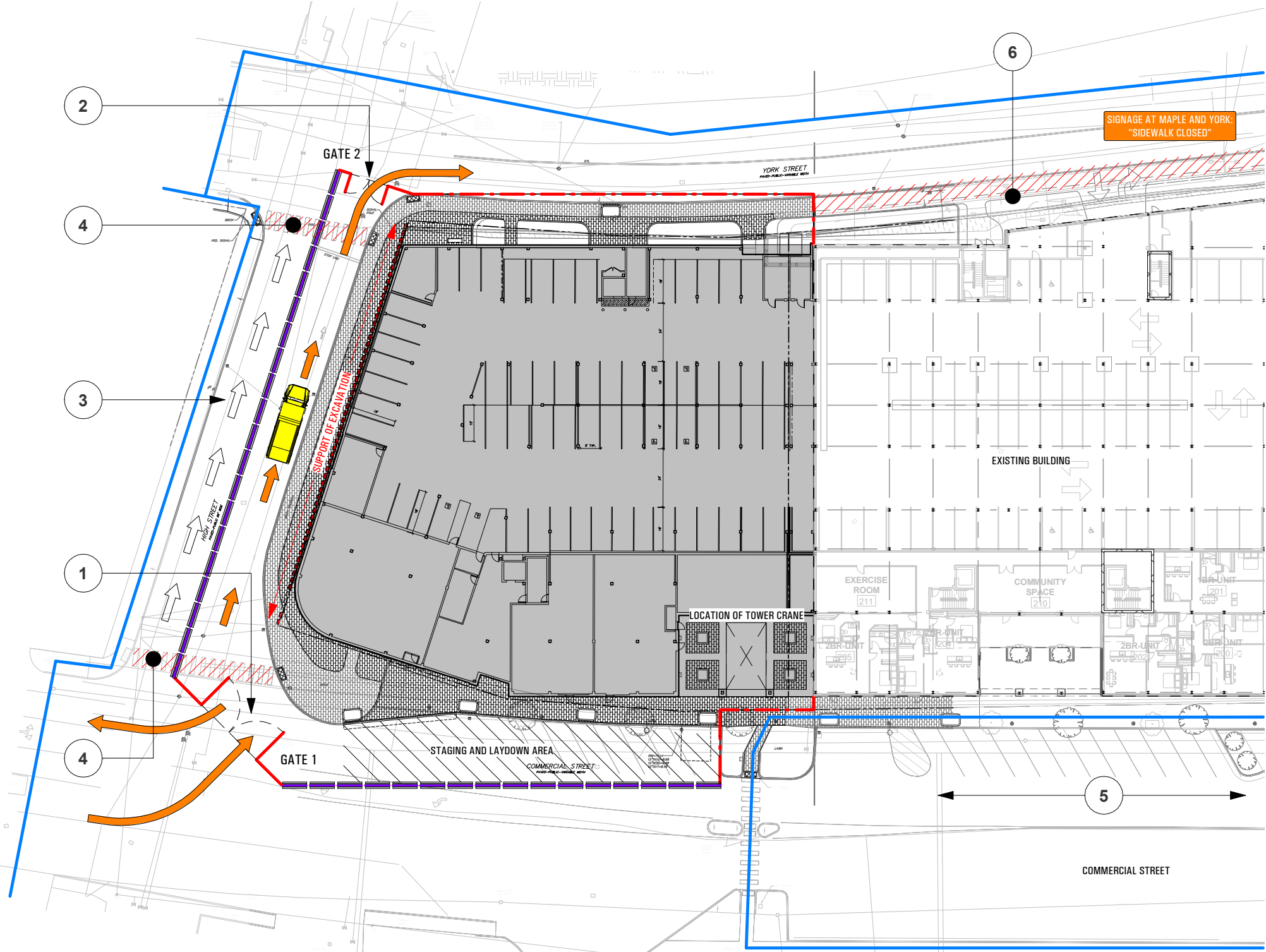
BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOOSED, FINELY GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE RESEED PRIOR TO APPLICATION. AFTER EACH DAY OF FROZEN EROSION, THE AREA WILL BE PROPERLY STABILIZED. DORMANT SEEDING MAY BE SELECTED TO BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND FABRIC NETTING ANCHORED WITH STAPLES. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5LBS./1000 S.F. ALL AREAS SEEDED DURING THE WINTER WILL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS SUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING. SEED TYPE SHALL BE WINTER RYE.

7. INSPECTION AND MONITORING

MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. AT A MINIMUM, AFTER EACH RAINF

387 Commercial Street

9.24.2020



TMP LEGEND

- 1

BI-DIRECTIONAL CONSTRUCTION TRAFFIC AT GATE 1
- 2

EXITING CONSTRUCTION TRAFFIC ONLY AT GATE 2
- 3

ONE-WAY TRAFFIC ON HIGH STREET DURING CONSTRUCTION
- 4

CROSSWALK USAGE SUSPENDED FOR CONSTRUCTION DURATION
- 5

PARKING ALONG COMMERCIAL TO REMAIN ACCESSIBLE
- 6

SIDEWALK CLOSED FOR CONSTRUCTION ACTIVITY

GRAPHIC KEY

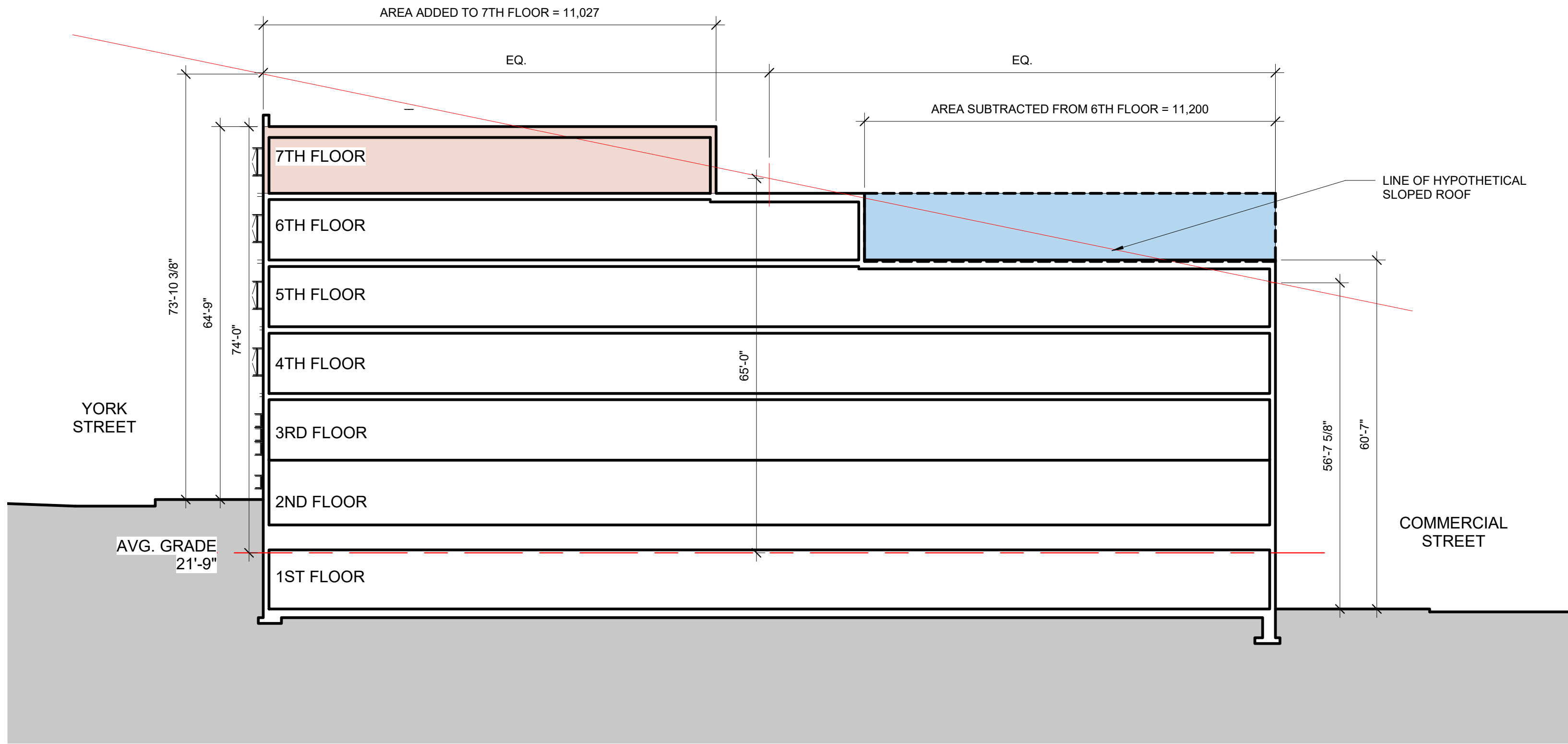
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CONSTRUCTION ACCESS ONLY
- 

JERSEY BARRIER / FENCING
- 

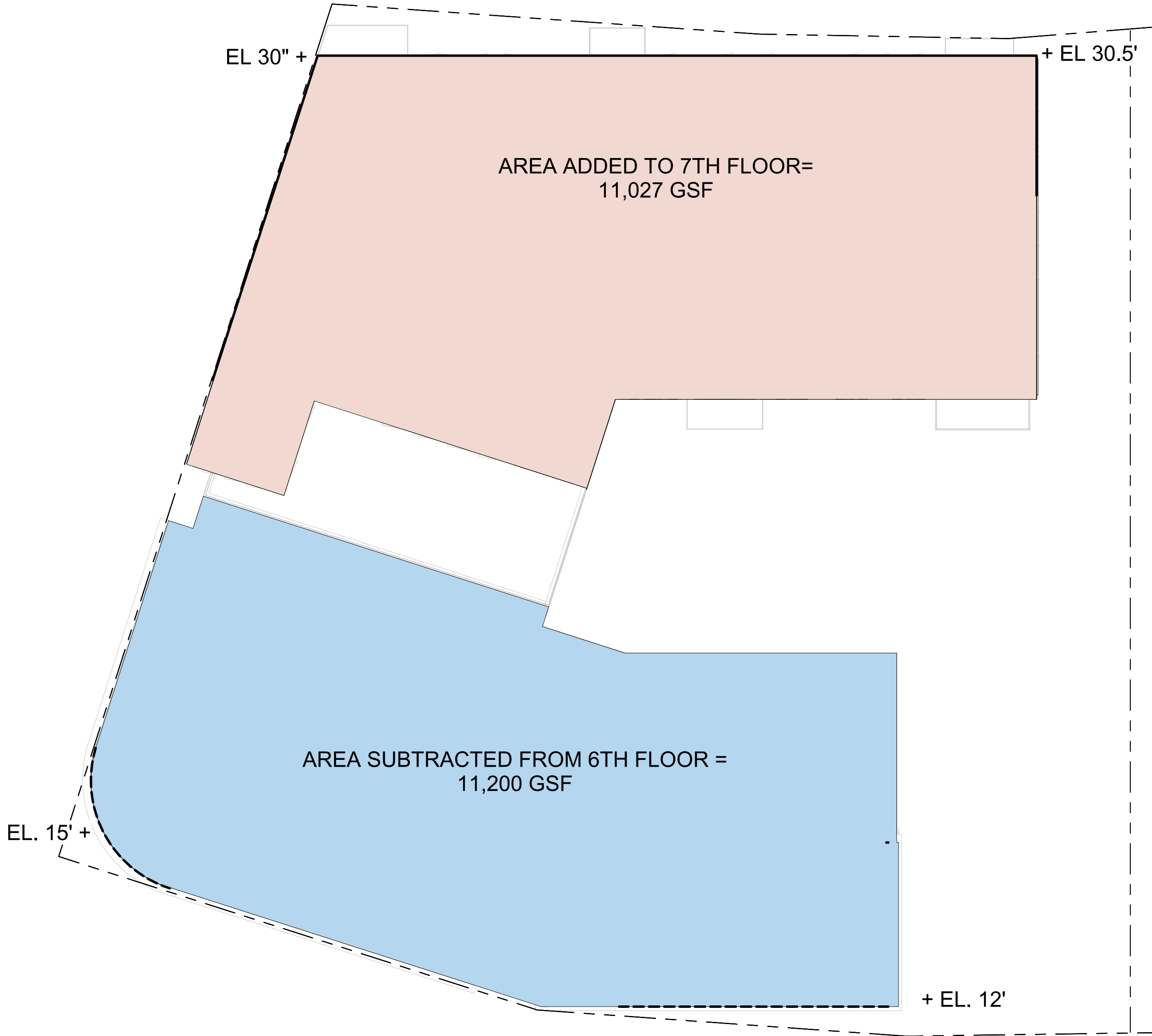
CHAINLINK FENCING / GATE
- 

PEDESTRIAN ACCESS



2 | STEPPED BUILDING HEIGHT DIAGRAM
1/16" = 1'-0"

GENERAL NOTES:
1. AVERAGE GRADE BY DEFINITION: GRADE TAKEN AT THE FOUR (4) BUILDING CORNERS DIVIDED BY FOUR (4):
 $30' + 30.5' + 12' + 15' = 87.5' / 4 = 29.5'$
2. BUILDING HEIGHT: 65 FEET - THE VERTICAL MEASUREMENT FROM THE AVERAGE GRADE TO THE CENTER POINT OF THE LINE OF HYPOTHETICAL SLOPED ROOF BEAM - VOLUME ABOVE LINE SHOULD BE LESS THAN VOLUME BELOW THE LINE.



1 | ROOF - VOLUME STUDY
1/16" = 1'-0"

Declarant and Owner of Record:
Deering Property Development LLC

Consultant:

Architect:
ARCHETYPE ARCHITECTS
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

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PORTLAND, MAINE

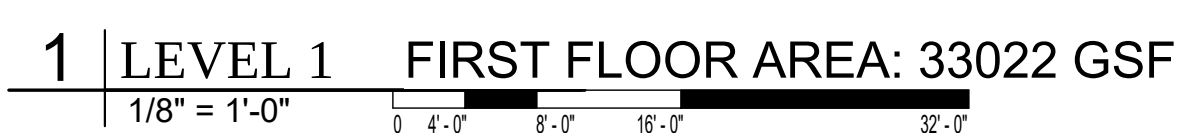
Revisions:

Date: SEP 28, 2020
Scale: 1/16" = 1'-0"

HEIGHT & VOLUME STUDY

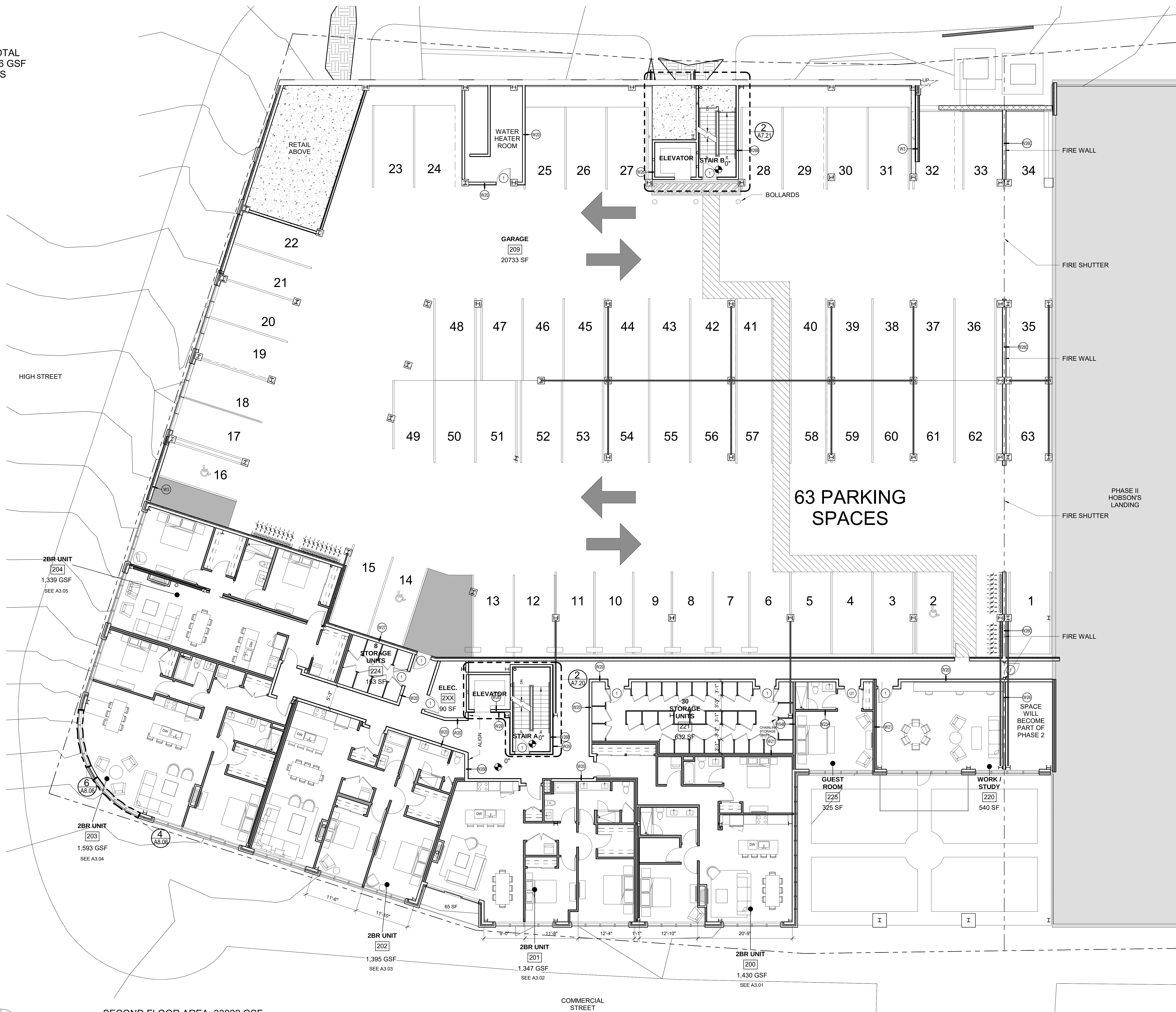
A0.02

AREA: 33,362 GSF



A1.01

2ND FLOOR
33,362 GSF TOTAL
5 UNITS - 7,086 GSF
5 2-BR UNITS



1 | LEVEL 2 SECOND FLOOR AREA:
1/8" = 1'-0" 0 4'-0" 8'-0" 16'-0" 32'-0"

1 | LEVEL 2 SECOND FLOOR AREA: 33022 GSF

COMMERCIAL
STREET

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Development LLC

Consultant:

Architect:
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Architect:

Project: 387
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STREET

Project:

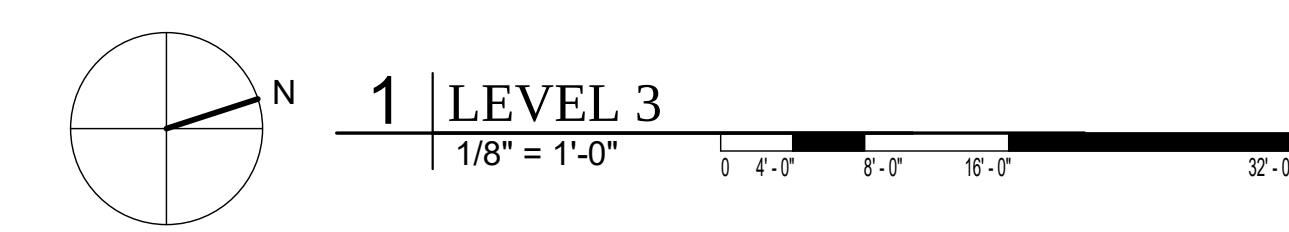
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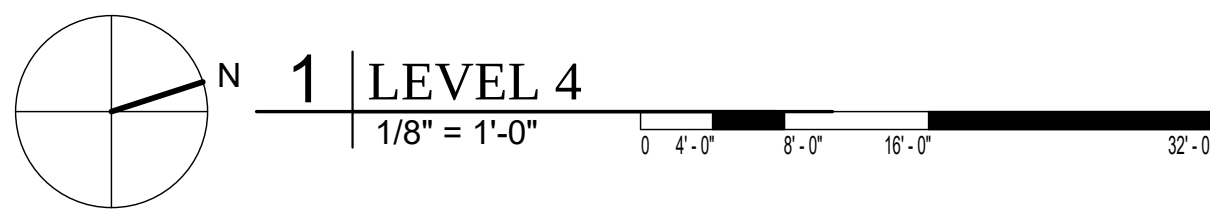
Date: _____

SECOND FLOOR PLAN

A1.02



Date: SEP 28, 2020		Scale: 1/8" = 1'-0"	Revisions:	Project: 387 COMMERCIAL STREET PORTLAND, MAINE	Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	Consultant:	Declarant and Owner of Record: Deering Property Development LLC		
THIRD FLOOR PLAN									
A1.03									

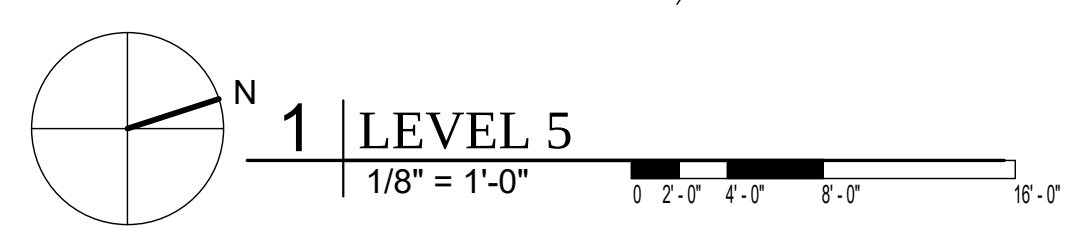


1 LEVEL 4

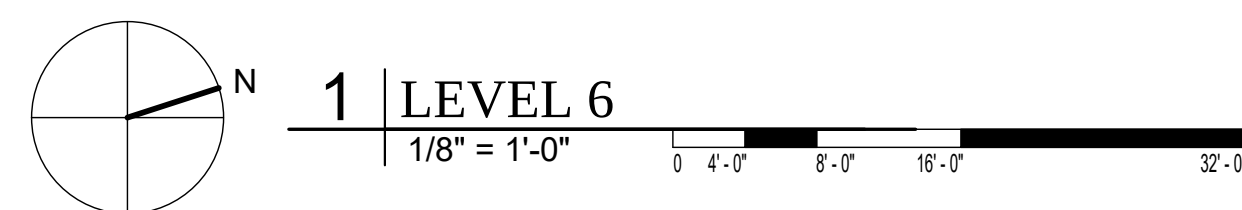
1/8" = 1'-0"

COMMERCIAL STREET

Date: SEP 28, 2020		Scale: 1/8" = 1'-0"		FOURTH FLOOR PLAN	
Revisions:		Project: 387 COMMERCIAL STREET PORTLAND, MAINE		Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	
				Consultant:	
				Declarant and Owner of Record: Deering Property Development LLC	
A1.04					



A1.05		Date: SEP 28, 2020		Scale: 1/8" = 1'-0"	Revisions:		Project: 387 COMMERCIAL STREET PORTLAND, MAINE	Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	Consultant:	Declarant and Owner of Record: Deering Property Development LLC		
		FIFTH FLOOR PLAN										



1 | LEVEL 6

1/8" = 1'-0"

COMMERCIAL STREET

YORK STREET

HIGH STREET

PHASE II
HOBSON'S
LANDING

Date:
SEP 28, 2020

Revisions:

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

Project:
387
COMMERCIAL
STREET

Consultant:

Architect:
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ARCHITECTS**
48 Union Wharf Portland, Maine 04101
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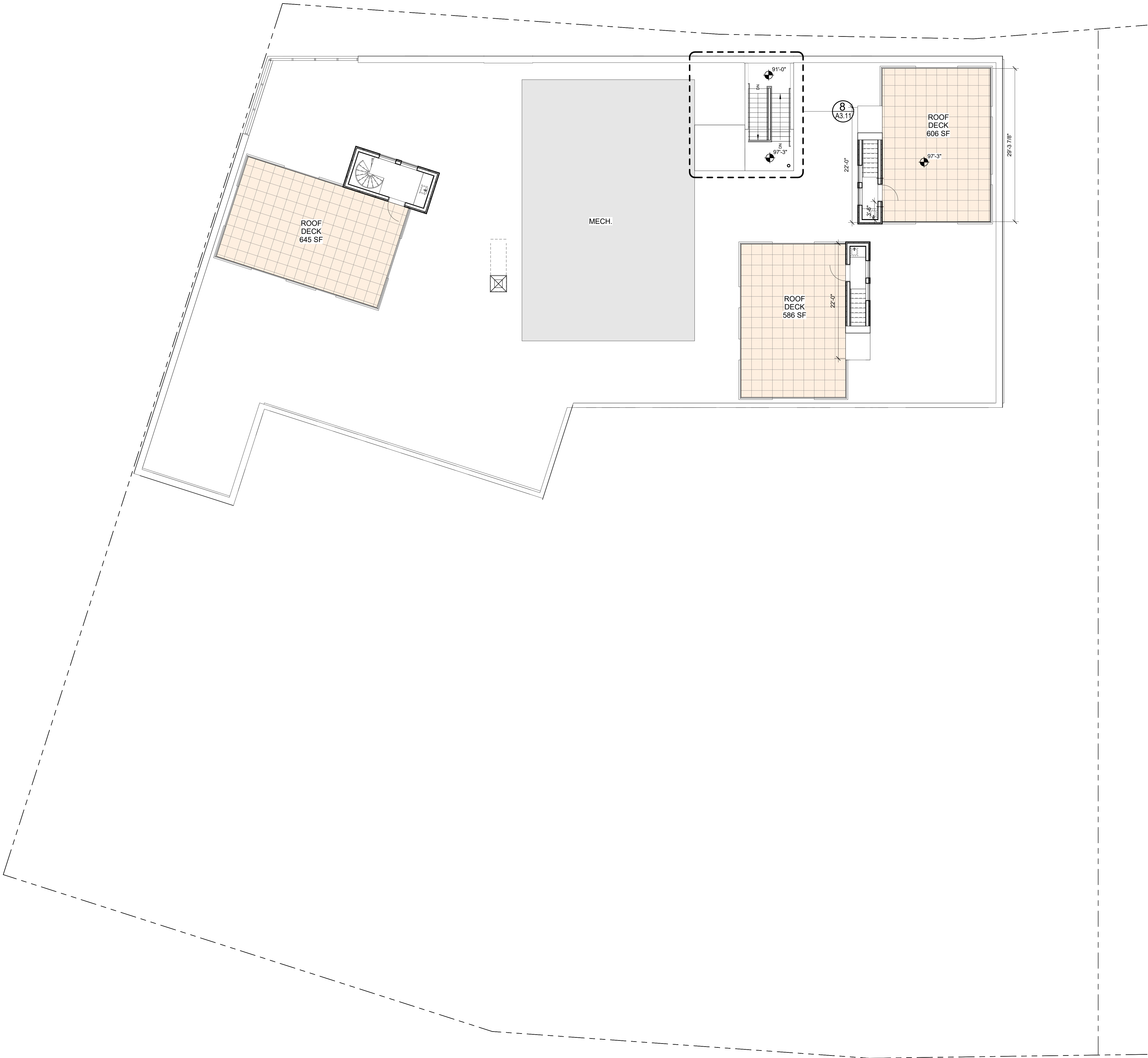
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SIXTH FLOOR PLAN

A1.06



Date: SEP 28, 2020		Scale: 1/8" = 1'-0"		Revisions:		Project: 387 COMMERCIAL STREET PORTLAND, MAINE		Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056		Consultant:		Declarant and Owner of Record: Deering Property Development LLC	
SEVENTH FLOOR PLAN						A1.07							



1 | ROOF
 1/8" = 1'-0"
 0 2'-0" 4'-0" 6'-0" 8'-0"

A1.08

Date: SEP 28, 2020
 Scale: 1/8" = 1'-0"
 ROOF PLAN

Revisions:

Project: 387
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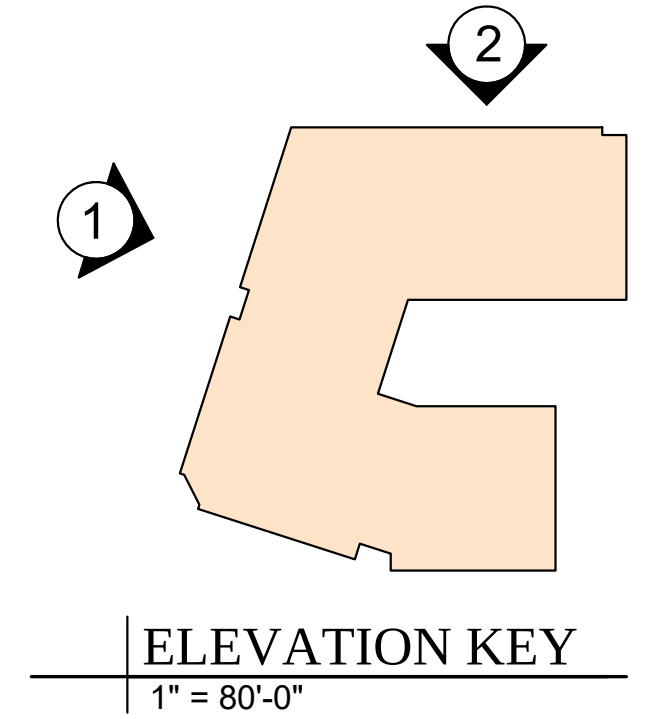
Architect: **ARCHETYPE
 ARCHITECTS**
 48 Union Wharf Portland, Maine 04101
 (207) 772-6022 Fax (207) 772-4056

Consultant

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1 HIGH ST. ELEVATION
1/8" = 1'-0"



2 YORK ST. ELEVATION
1/8" = 1'-0"

A2.01		Date: SEP 28, 2020		Scale: As indicated		ELEVATIONS							
								Revisions:					
										Project:		387 COMMERCIAL STREET PORTLAND, MAINE	
										Architect:		ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	
										Consultant:			
										Declarant and Owner of Record:		Deering Property Development LLC	



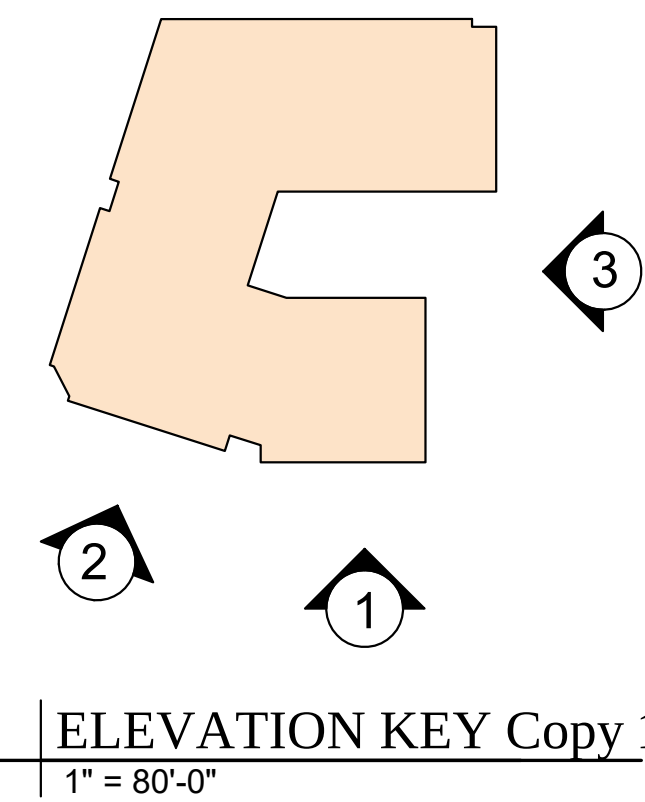
2 | COMMERCIAL ST. ELEVATION 2
1/8" = 1'-0"



1 | COMMERCIAL ST. ELEVATION 1
1/8" = 1'-0"



3 | EAST ELEVATION
3/32" = 1'-0"



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Architect:
**ARCHETYPE
ARCHITECTS**
48 Union Wharf Portland, Maine 04101
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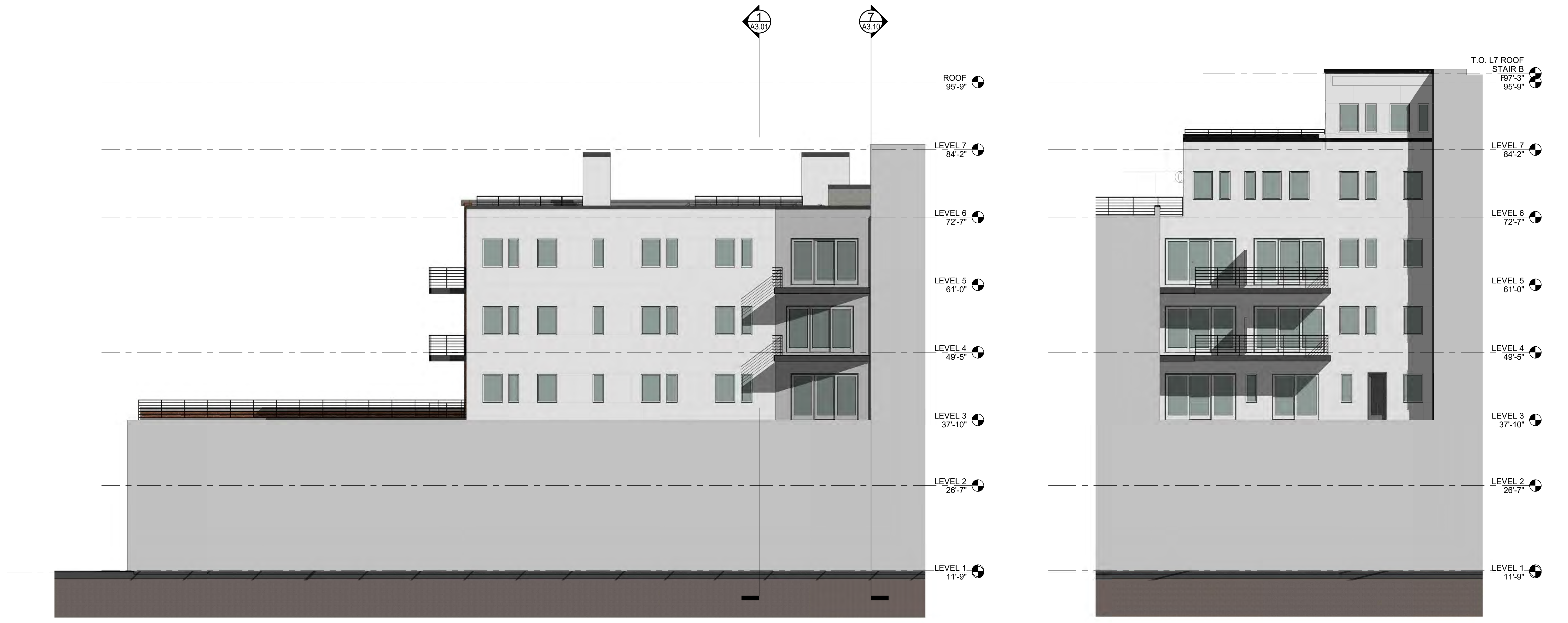
Revisions:

Scale:
As indicated

Date:
SEP 28, 2020

ELEVATIONS

A2.02



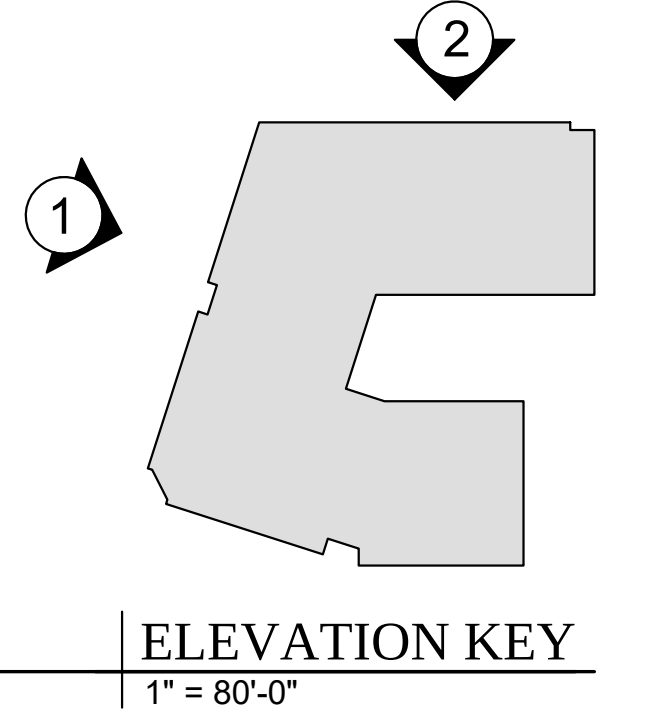
2 | COURTYARD SOUTH
1/8" = 1'-0"
0 2'-0" 4'-0" 8'-0" 16'-0"

1 | COURTYARD WEST
1/8" = 1'-0"
0 2'-0" 4'-0" 8'-0" 16'-0"



3 | COURTYARD NORTH
1/8" = 1'-0"
0 2'-0" 4'-0" 8'-0" 16'-0"

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Architect:		ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	
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Revisions:			
Date:	SEP 28, 2020	Scale:	1/8" = 1'-0"
		ELEVATIONS	
		A2.03	



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Consultant:

Architect:

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(207) 772-6022 Fax (207) 772-4056

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Revisions:

Scale:

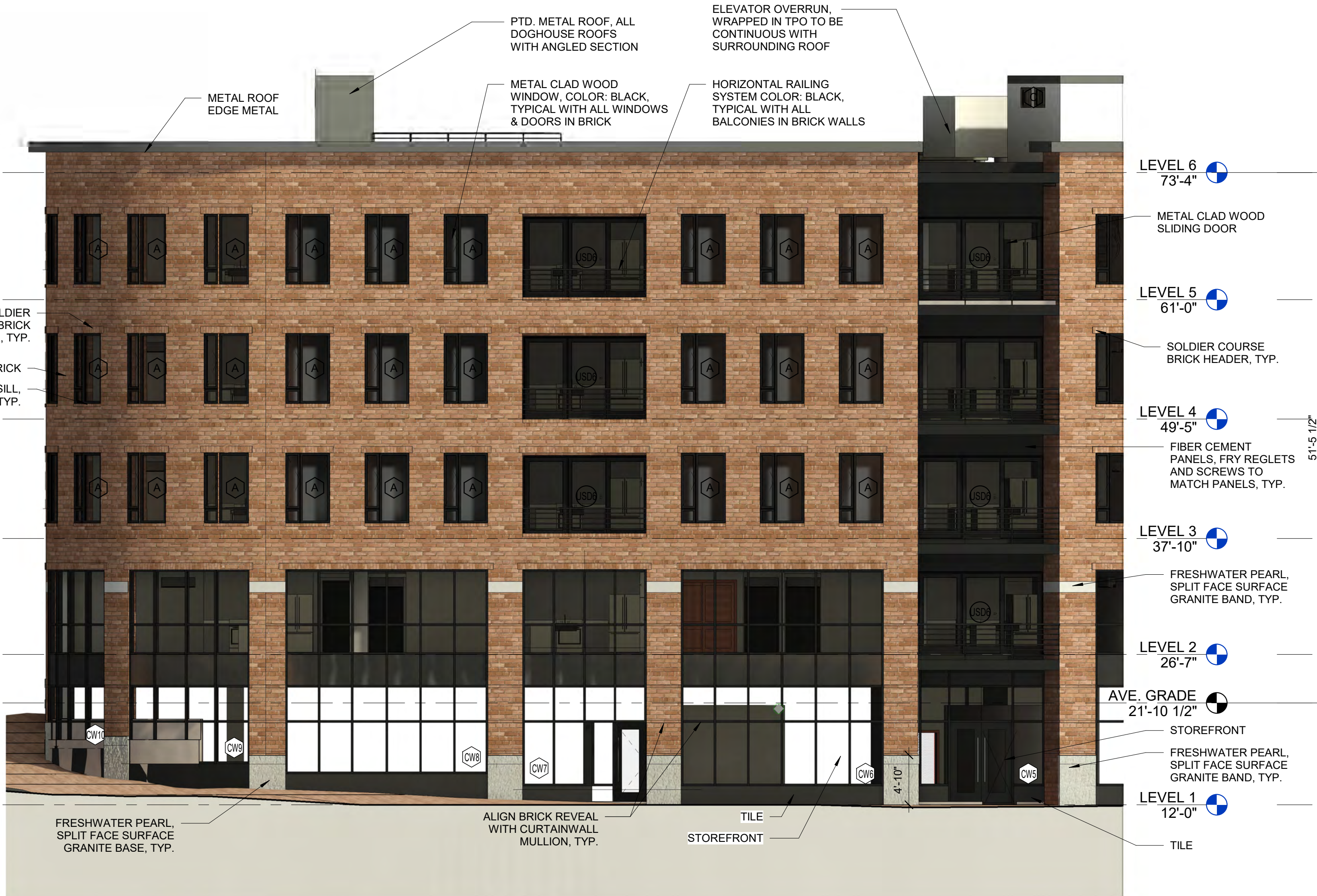
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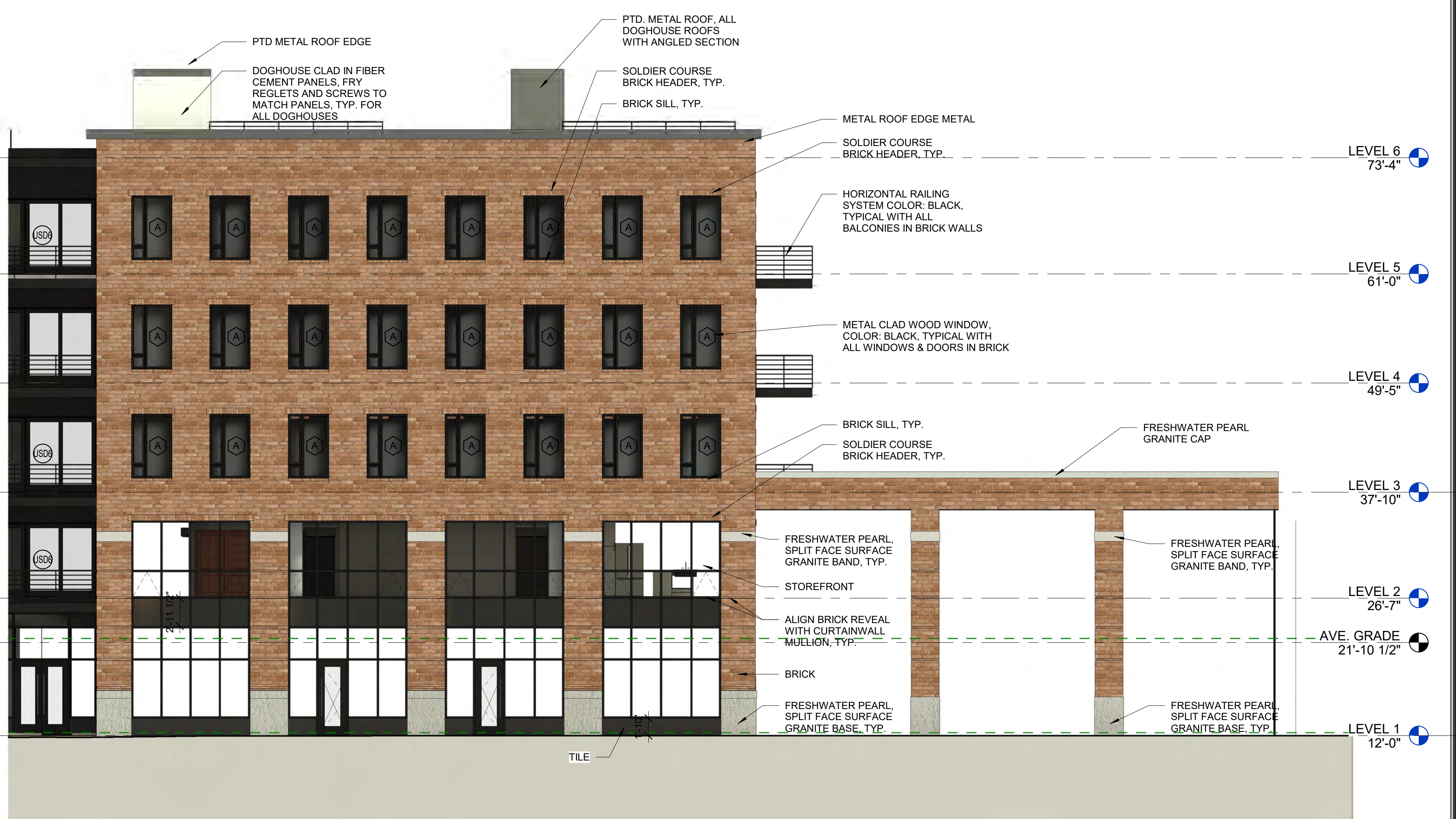
APRIL 26, 2021

ELEVATIONS - YORK ST & HIGH ST

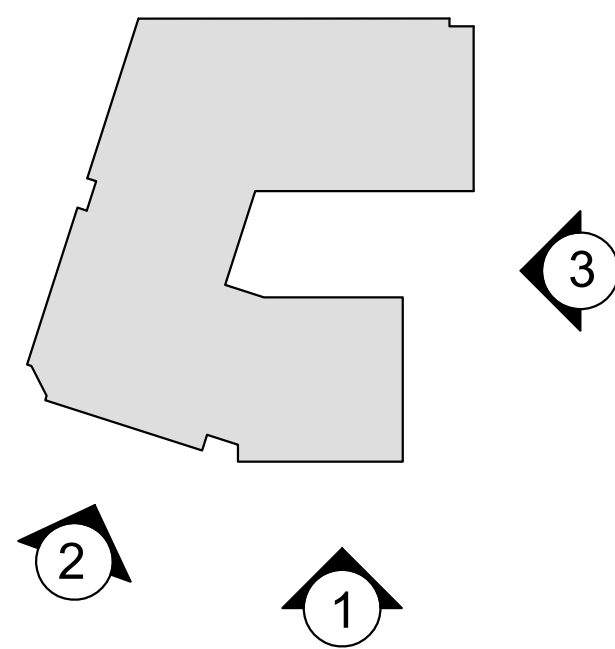
A4.01



2 | COMMERCIAL ST. ELEVATION 2
1/8" = 1'-0"



1 | COMMERCIAL ST. ELEVATION 1
1/8" = 1'-0"



ELEVATION KEY
1" = 80'-0"



3 | EAST ELEVATION
1/8" = 1'-0"

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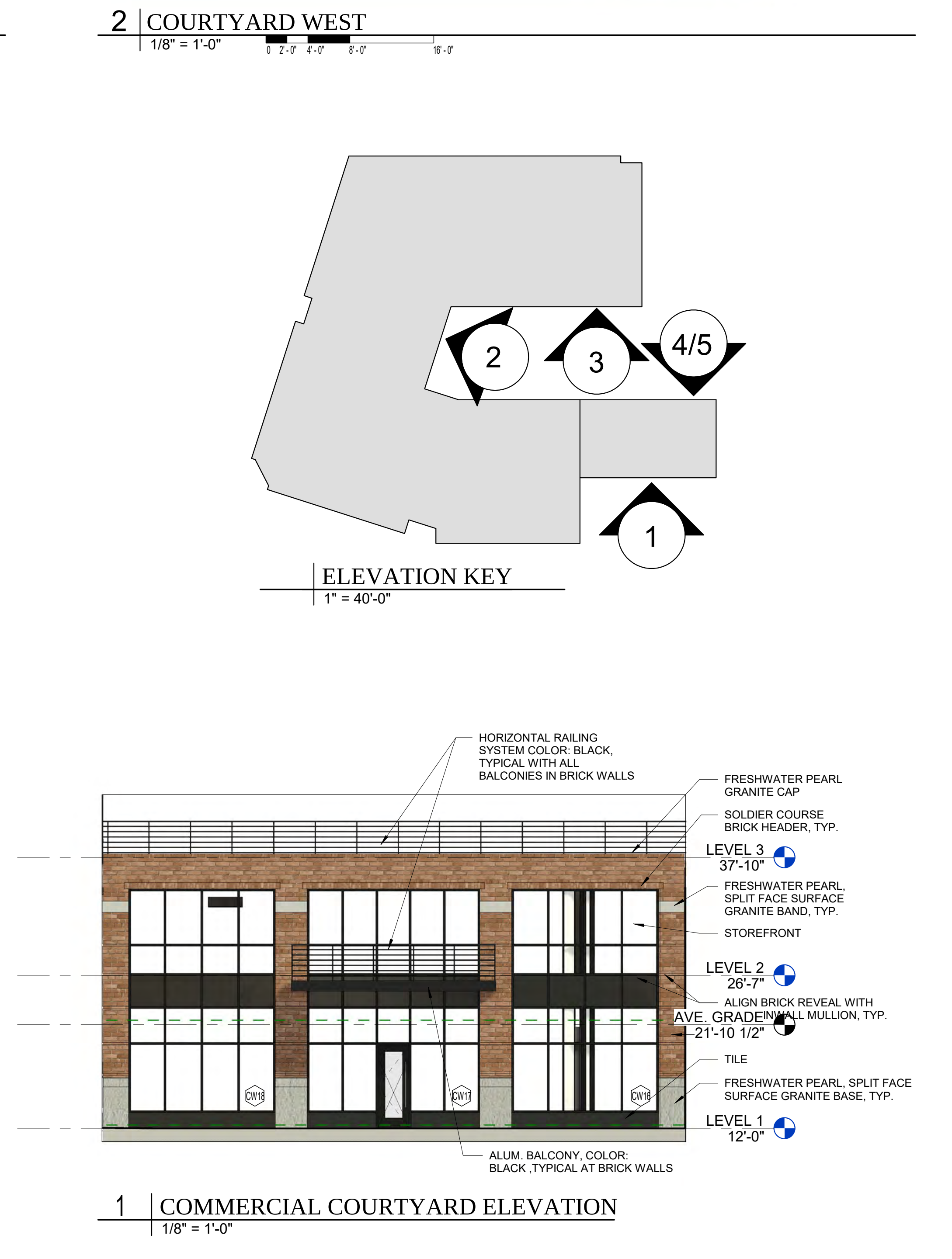
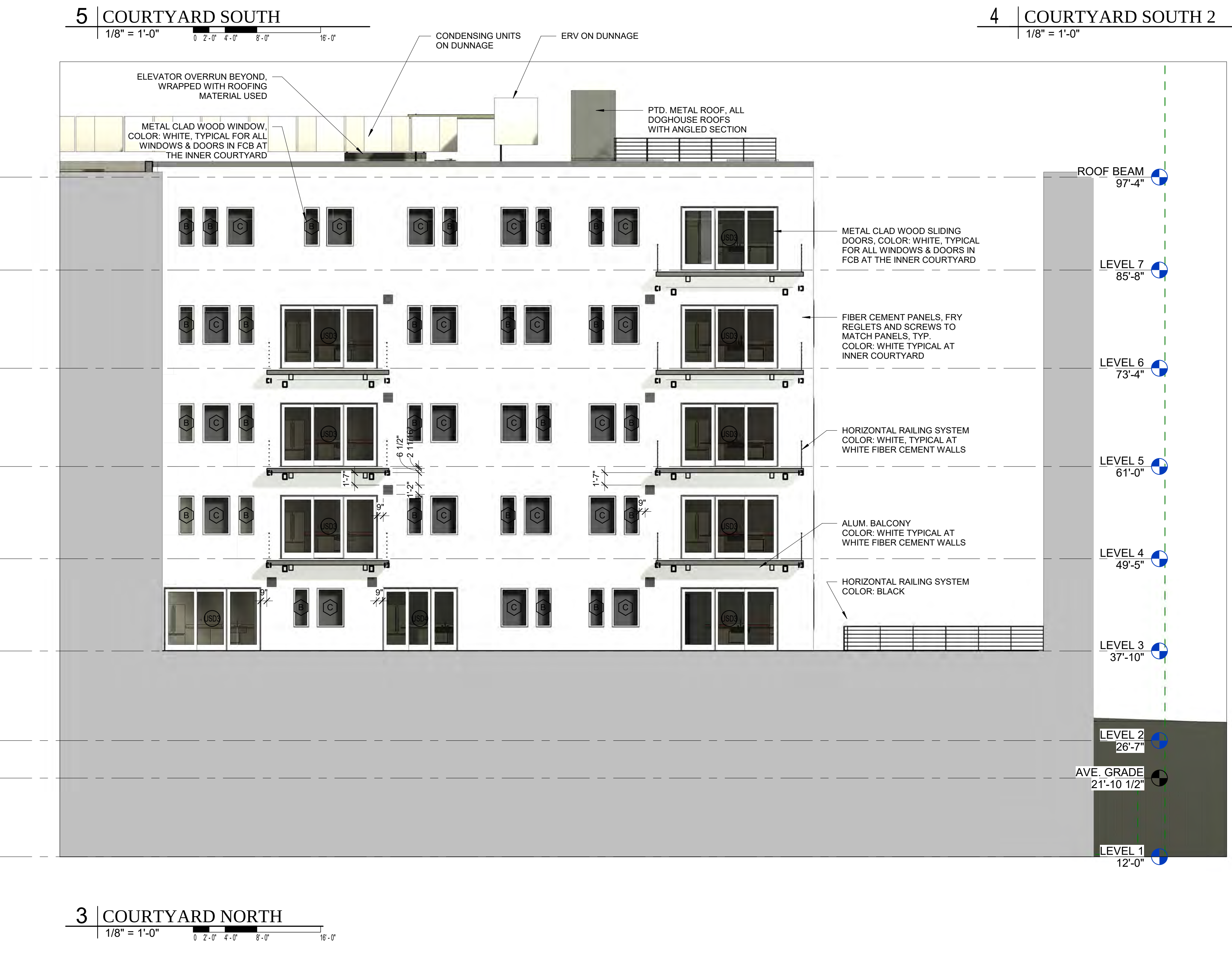
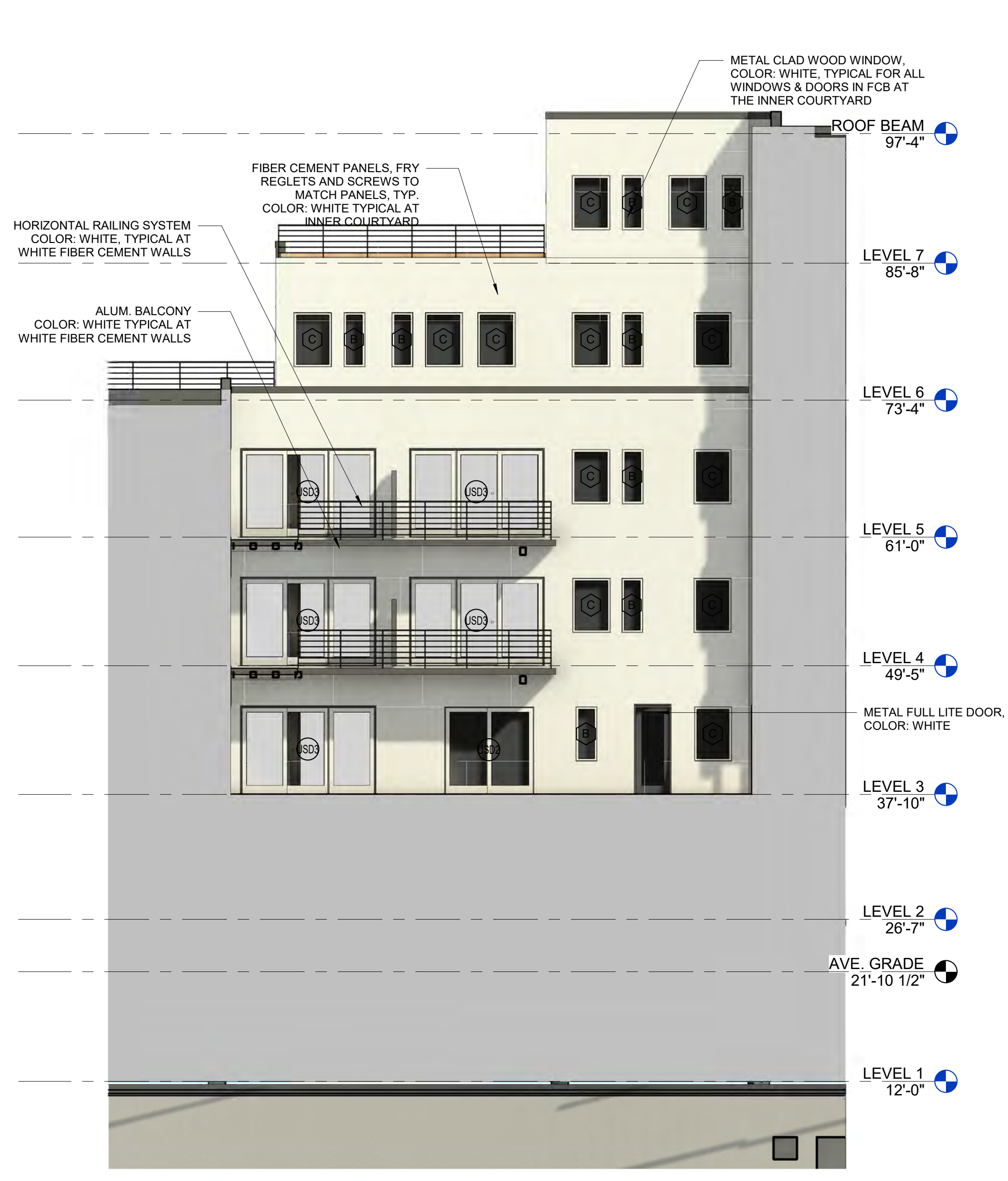
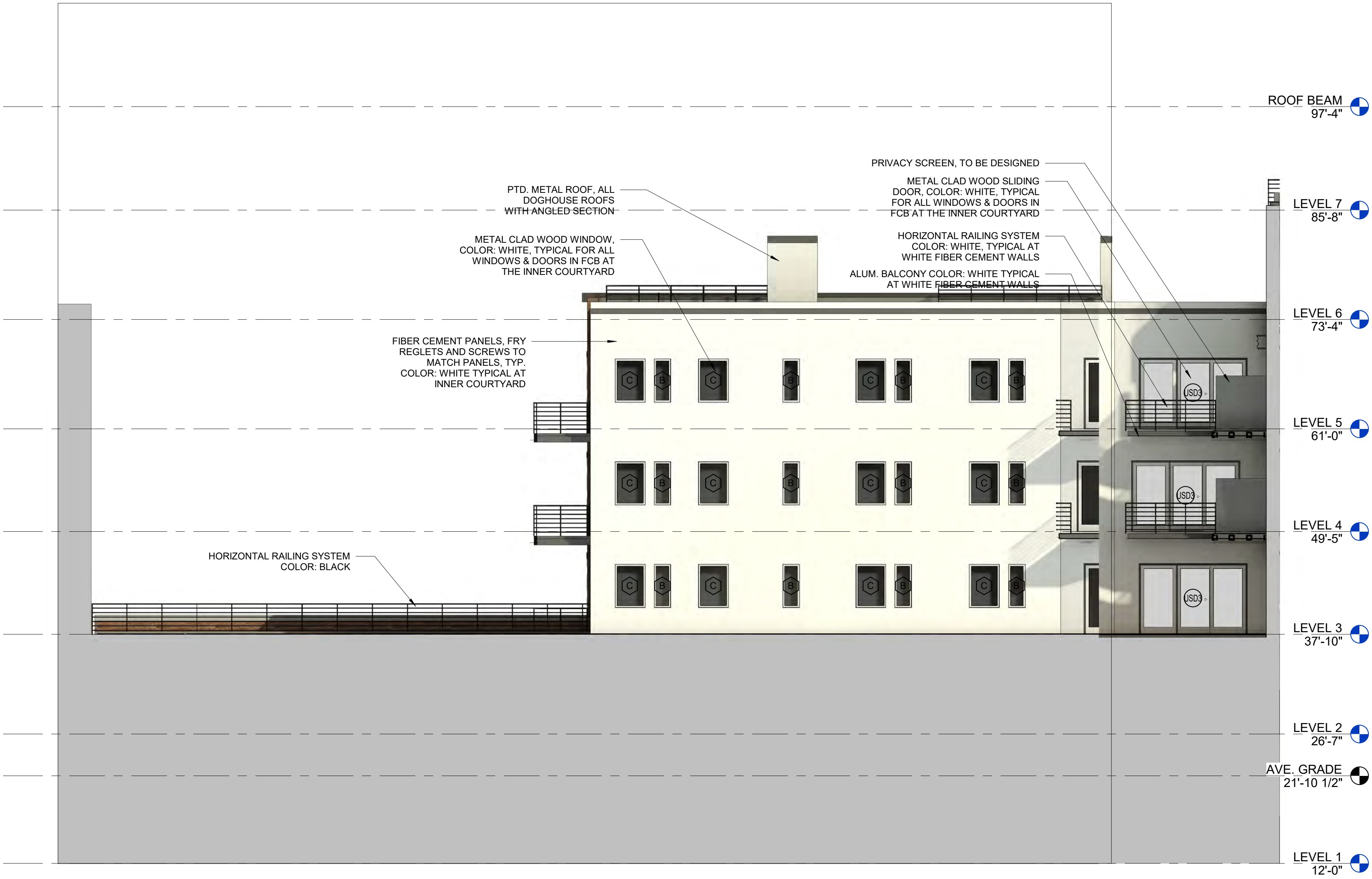
Revisions:

Scale: As indicated

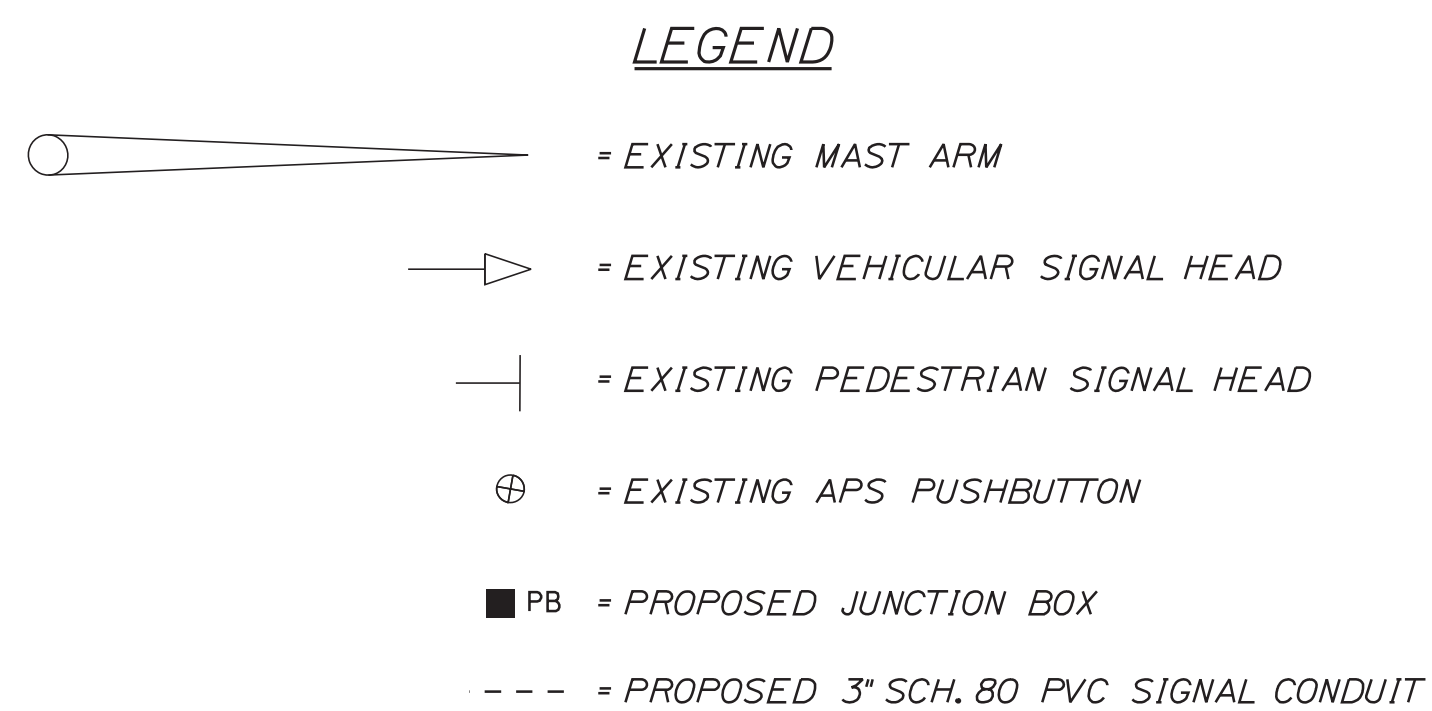
Date: APRIL 26, 2021

ELEVATIONS - COMMERCIAL ST & EAST

A4.02

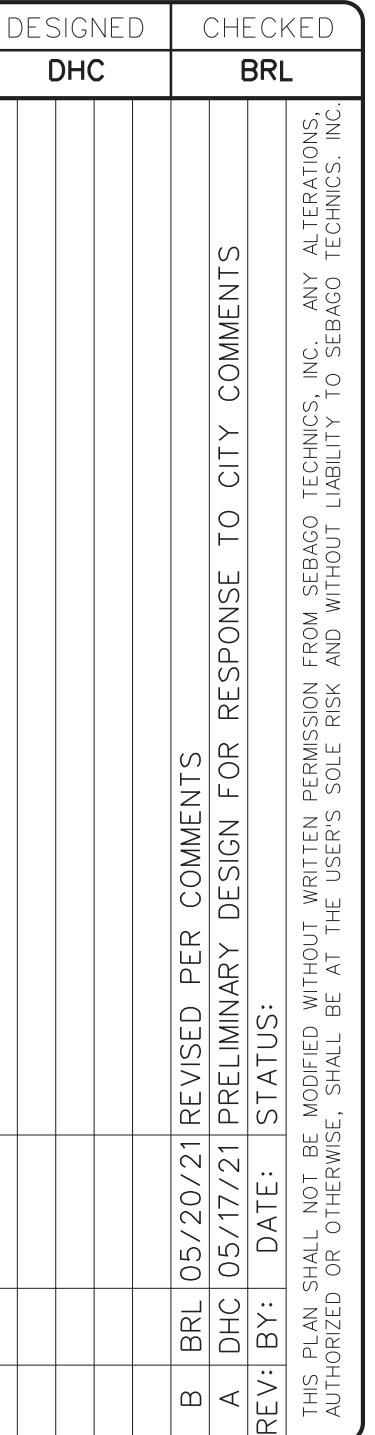


Deering Property Development LLC	
Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	
Project: 387 COMMERCIAL STREET PORTLAND, MAINE	
Date: APRIL 26, 2021	Scale: As indicated
ELEVATIONS - COURTYARDS	
A4.03	



A scale bar labeled "Scale of Feet" is shown. It has markings at 10, 0, 10, and 20. The segment from 0 to 10 is divided into five equal parts, each representing 2 feet.

1. *MAST ARM TO BE RELOCATED IF DETERMINED BY SITE CONTRACTOR THAT AREA WILL NEED TO BE DISTURBED IN ORDER TO INSTALL BUILDING FOUNDATION/SUPPORTS.*
2. *NEW FOUNDATION DESIGN FOR MAST ARM TO BE PROVIDED WITH FINAL PLAN FOR CONSTRUCTION.*
3. *EXISTING SIGNAL TIMINGS/PHASING TO BE MAINTAINED.*
4. *EXISTING LANE CONFIGURATION TO REMAIN.*
5. *EXISTING SIGNAL HEADS FOR ALL OTHER APPROACHES TO REMAIN.*
6. *AREAS OF EXISTING BRICK SIDEWALK WHICH ARE DISTURBED SHALL BE REPAIRED PER FIGURE 1-10 OF THE CITY OF PORTLAND TECHNICAL MANUAL.*



SEBAGO
TECHNICS

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

OFF: JARRIFIC SIGNAL MODIFICATION PLAN
 HIGH STREET AT YORK STREET
 PORTLAND, MAINE
 FOR: DEERING PROPERTY DEVELOPMENT, LLC
 2730 TRANSIT ROAD
 WEST SENECRA, NEW YORK 14224

PROJECT NO.	SCALE
16324-02	1" = 10'

SHEET \$PS\$\$PE\$

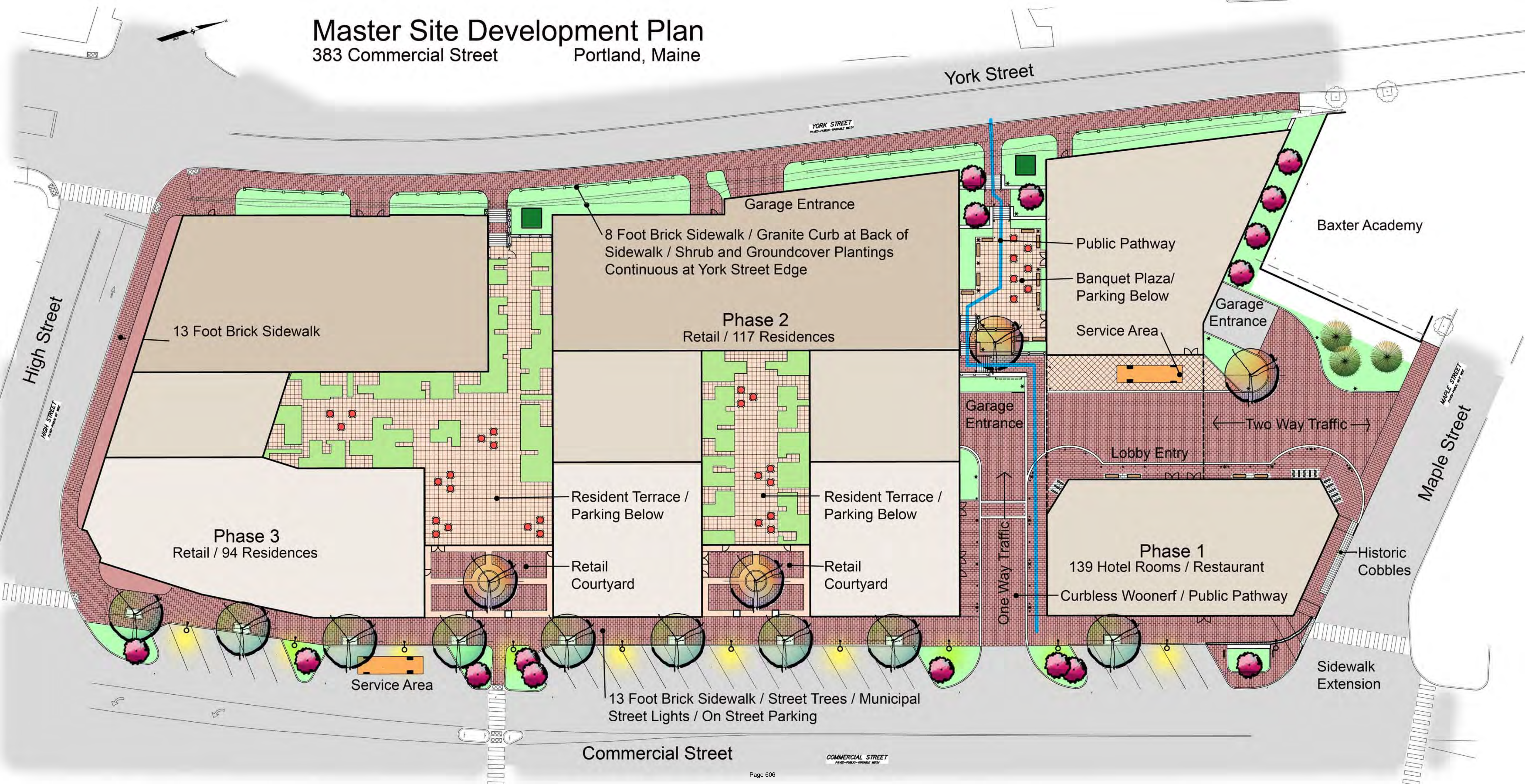




Master Site Development Plan

383 Commercial Street

Portland, Maine



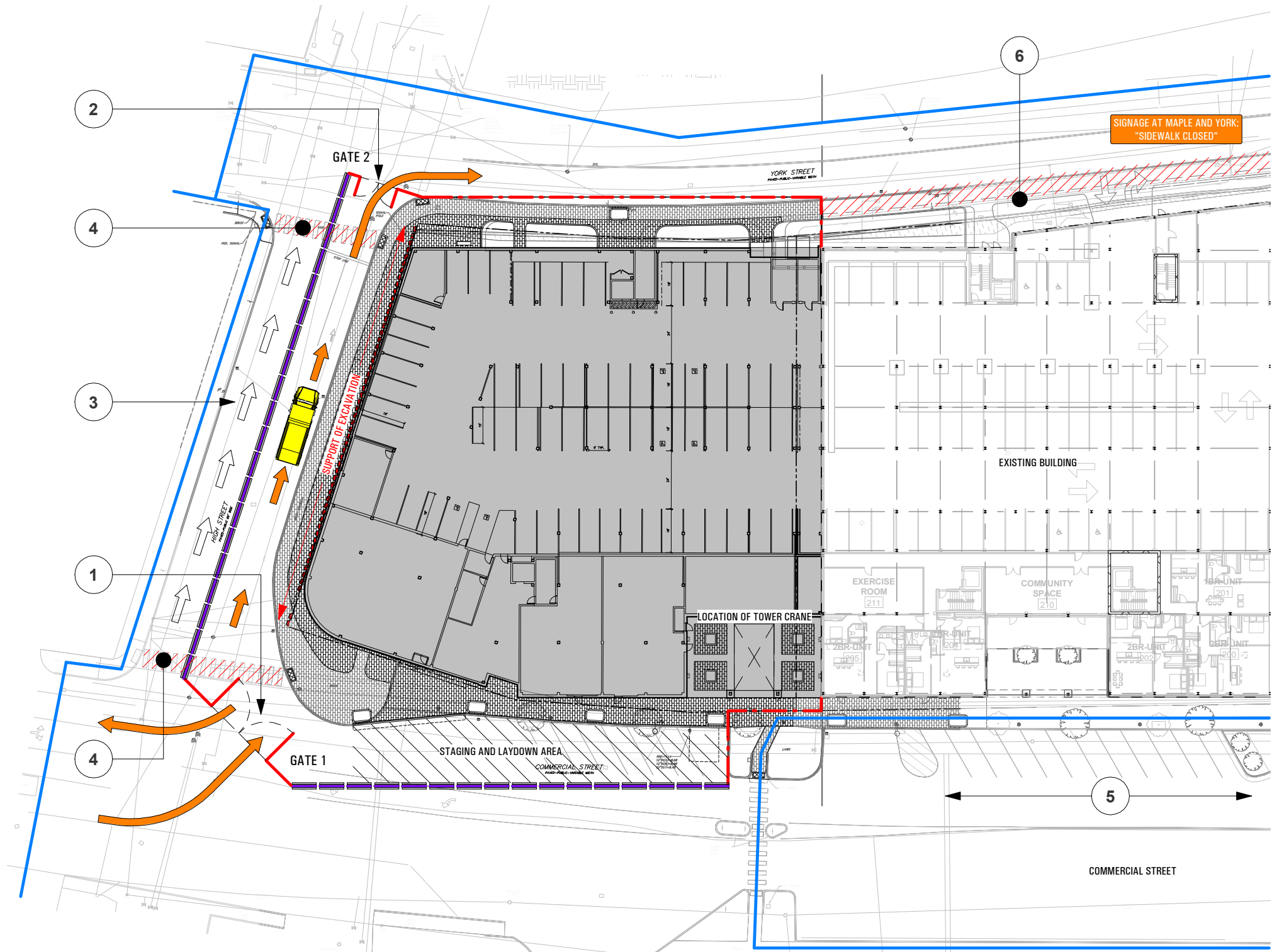






387 Commercial Street

9.24.2020



TMP LEGEND

- 1

BI-DIRECTIONAL CONSTRUCTION TRAFFIC AT GATE 1
- 2

EXITING CONSTRUCTION TRAFFIC ONLY AT GATE 2
- 3

ONE-WAY TRAFFIC ON HIGH STREET DURING CONSTRUCTION
- 4

CROSSWALK USAGE SUSPENDED FOR CONSTRUCTION DURATION
- 5

PARKING ALONG COMMERCIAL TO REMAIN ACCESSIBLE
- 6

SIDEWALK CLOSED FOR CONSTRUCTION ACTIVITY

GRAPHIC KEY

- 

CONSTRUCTION ACCESS ONLY
- 

JERSEY BARRIER / FENCING
- 

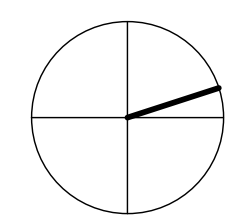
CHAINLINK FENCING / GATE
- 

PEDESTRIAN ACCESS



1 | LEVEL 1 FIRST FLOOR AREA: 33022 GSF
1/8" = 1'-0"

Date: SEP 28, 2020		Scale: 1/8" = 1'-0"		Revisions:	
Project: 387 COMMERCIAL STREET PORTLAND, MAINE		Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056		Consultant:	
Declarant and Owner of Record: Deering Property Development LLC					
FIRST FLOOR PLAN					
A1.01					



1 | LEVEL 2
1/8" = 1'-0"

SECOND FLOOR AREA: 33022 GSF



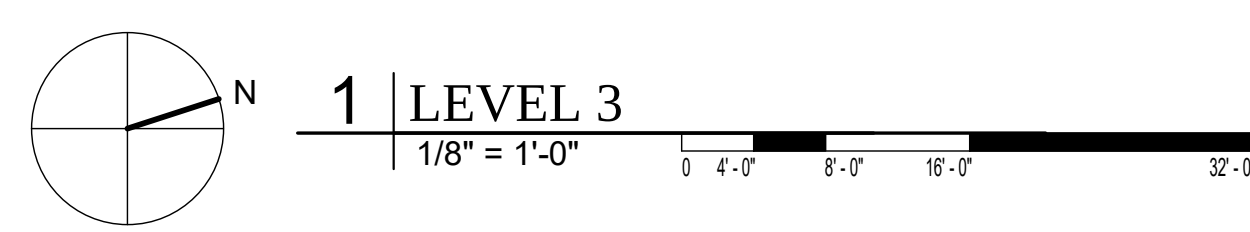
Deering Property
Development LLC

ARCHETYPE
ARCHITECTS
48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

387
COMMERCIAL
STREET
PORTLAND, MAINE

SEP 28, 2020
1/8" = 1'-0"
SECOND FLOOR PLAN

A1.02



COMMERCIAL STREET

YORK STREET

PHASE II
HOBSON'S
LANDING

Date: SEP 28, 2020		Scale: 1/8" = 1'-0"	Revisions:	Project: 387 COMMERCIAL STREET PORTLAND, MAINE	Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 (207) 772-6022 Fax (207) 772-4056	Consultant:	Declarant and Owner of Record: Deering Property Development LLC
THIRD FLOOR PLAN							
A1.03							



A Guide to Holding Neighborhood Meetings Portland, Maine

Planning and Urban Development Department

In order to improve communication between applicants and neighbors, the City of Portland requires applicants who are proposing certain types of development projects to hold a neighborhood meeting.

Projects Requiring a Neighborhood Meeting

- Proposed map amendments or contract zones that would result in projects subject to major site plan review;
- Subdivisions of five or more lots;
- Master development plans; and
- Major site plan proposals as defined in Article 14 of the land use code.

Timing of Meeting

- The meeting shall be conducted within 30 days of an application being deemed complete and no less than seven calendar days before a public hearing.

Location of Meeting

- The meeting should be held in the evening, during the week, at a convenient location within the Portland neighborhood surrounding the proposed site. Community meeting spaces at libraries, schools, or other places of assembly are recommended. Neighborhood schools are usually available for evening meetings.
- Meetings should not be held on the same day as scheduled Planning Board or City Council meetings. The City Council generally meets on the 1st and 3rd Monday of each month and the Planning Board generally meets on the 2nd and 4th Tuesday of each month; however, additional meetings may be scheduled. An updated schedule may be found on the City's website at portlandmaine.gov

Notice of Meeting

A notice must be sent to neighbors alerting them of the neighborhood meeting time and location. The notice must contain a brief description of the proposal and the date, time, and place of the neighborhood meeting. A template for a neighborhood meeting notice is included in this packet.

Notice List

The notice shall be mailed to the following:

- Property owners within 500 feet of the proposed development (1,000 feet for subdivisions in and industrial zone or industrial zone changes)
- Interested citizens and neighborhood groups.

The Planning Department will make the above lists available for downloading (in excel format) under the attachments folder within the project in the Customer Self Service Portal (CSS). If you have any questions obtaining these lists, please contact the Planning Department at 874-8719 or 874-8721 or e-

mail at planning@portlandmaine.gov.

When to Send Notice

- The notice must be sent no less than 10 days (to include weekends) prior to the neighborhood meeting.
- Notices may be sent by regular mail and do not need to be sent by certified mail.
- **For confirmation purposes, please email a copy of the notice to planning@portlandmaine.gov**

Hosting the Meeting & Keeping a Record

- A sign-in sheet must be circulated for those in attendance. The sign-in sheet should serve as a record of the public in attendance, as well as a record of all presenters and/or representatives of the applicant in attendance.
- The applicant shall provide an explanation of the proposal and provide an opportunity for public comment.
- The applicant must keep a record of public comment received during the meeting, including comments, questions, data, or other feedback collected. The record must also include a list of plans, documents, and drawings that were shared by the applicant, as well as start and end times of the meeting.
- The sign-in sheet and record of feedback shall be submitted to the Planning Department. A public hearing will not be scheduled until the sign-in sheet and record of feedback are submitted to the Planning Department.

A certification form is included with this packet to be completed and signed by the applicant.

Attachments

1. Neighborhood Meeting Notice Template
2. Neighborhood Meeting Certification
3. Attendance Sign in Sheet Example

EXAMPLE: Neighborhood Meeting Invitation Format

Applicant/Consultant Letterhead

(Date)

Dear Neighbor:

Please join us for a neighborhood meeting to discuss our plans for a (proposed project description) located at (proposed project address).

Meeting Location:

Meeting Date:

Meeting Time:

(The Land Use Code requires that neighboring property owners and residents on an “interested parties list” be invited to participate in this neighborhood meeting. A sign-in sheet will be circulated and a record of the meeting will be taken. Both the sign-in sheet and record will be submitted to the Planning Board.)

If you have any questions, please call (telephone number of applicant or consultant).

Signed,

(Applicant’s Signature)

(Date)

Note:

Under the City of Portland land use code, an applicant for a major site plan, master development plan, subdivision of over five lots, or zoning map amendment is required to hold a neighborhood meeting within 30 days of an application being deemed complete and no less than seven calendar days before a public hearing. Should you wish to offer additional comments on this proposed development, you may forward them by e-mail to planning@portlandmaine.gov or by mail to the Planning and Urban Development Department, Planning Division, 4th Floor, 389 Congress Street Portland, ME 04101.

EXAMPLE: Neighborhood Meeting Certification

I, (applicant/consultant) hereby certify that a neighborhood meeting was held on (date) at (location) at (time) for the proposed project located at (proposed project address).

I also certify that on (date at least ten (10) days prior to the neighborhood meeting), notices 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 (1,000 feet for subdivisions within an industrial zone or industrial zone changes).
2. Residents on the “interested parties” list.

Signed,

(Applicant's Signature)

(Date)

Attachments

1. Copy of the notice sent
2. Sign-in sheet
3. Record of feedback

EXAMPLE: Neighborhood Meeting Sign-In Sheet

(Date of Meeting)

(Location of Meeting)

(Proposed Project Name and Address)

Members of the Public in Attendance:

Name	Email

Developer and Consultant Team in Attendance:

Name	Email