

CITY OF PORTLAND, MAINE

PLANNING BOARD



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

AGENDA PORTLAND PLANNING BOARD MEETING

The Portland Planning Board will hold a meeting on April 9, 2019, 6:00 p.m., Council Chambers, 2nd Floor, City Hall, 389 Congress Street. **Public comments will be taken for each item on the agenda during the estimated allotted time and written comments should be submitted to planningboard@portlandmaine.gov.**

PUBLIC HEARING - 6:00 PM

1. ROLL CALL AND DECLARATION OF QUORUM

2. COMMUNICATION AND REPORTS

3. REPORT OF ATTENDANCE AT THE MEETING HELD ON MARCH 26, 2019

Workshop and Public Hearing: Mazer, Stanley, Dunfey and Eaton present; Dundon, Silk and Smith absent.

4. REPORTS OF DECISIONS AT THE MEETING HELD ON MARCH 26, 2019

- i. Technical Manual Update of Street Lighting and Site Lighting Standards, Planning Division, City of Portland, Applicant. Stanley moved and Dunfey seconded the motion that the proposed revisions to the ***City of Portland Technical Manual, Section 10 Municipal Street Lighting Standards*** are consistent with Section 14-498 Technical and Design Standards and other applicable provisions of the land use code and approves adoption of the proposed technical standards (vote: 4-0; Dundon, Silk and Smith absent); Stanley moved and Eaton seconded the motion that the proposed revisions to the ***City of Portland Technical Manual, Section 12 Site Lighting Standards*** are consistent with Section 14-498 Technical and Design Standards and other applicable provisions of the land use code and approves adoption of the proposed technical standards (vote: 4-0; Dundon, Silk and Smith absent)

5. NEW BUSINESS

- i. Hotel Inclusionary Zoning Conditional Use; 121 Middle Street; 123, LLC., Applicant. (estimated time 6:00 - 6:30 p.m.) The Planning Board will hold a public hearing on the Hotel Inclusionary Zoning (IZ) Conditional Use Application under Chapter 14 Land Use Code, Division 30 Affordable Housing, Section 14-484 for the proposed 11 guest-room hotel at 121 Middle Street. The Board will consider the proposed financial contribution to the Housing Trust Fund to meet the Hotel IZ requirements.

- ii. Level III Site Plan and Subdivision; 1006 Congress Street; 1006 Congress, LLC., Applicant. (estimated time 6:30 – 7:15 p.m.) The Planning Board will hold a public hearing on a proposal to convert the two-story 19,799 sf building into nine (9) residential units and to include a 1,385 sf café and market. Access to the site is from Westfield and Congress Streets and parking for eighteen (18) vehicles is proposed on-site. The site is located in the B-2 zone and is subject to review under Portland's site plan and subdivision standards.
- iii. Level II Site Plan and Conditional Use; 121 Cassidy Point Drive; 534 Danforth, LLC, Applicant. (estimated time 7:15 – 8:00 p.m.) The Planning Board will hold a public hearing on a proposal for demolition of an existing two-story wood-framed structure and construction of a four-story, 17,736 sf building, along with associated site improvements including site landscaping, reconfiguration of driveways and sidewalks and striping of twelve (12) off-street parking spaces. Tenants would include a variety of crafters and tradespeople as well as Sail Maine. The site is located in the WPDZ zone and is subject to review under Portland's site plan and conditional use standards.
- iv. Level III Site Plan, Subdivision and Conditional Use; 10 Hammond Street; Hammond House LLC, Applicant. (estimated time 8:00 p.m.) The Planning Board will hold a public hearing on a proposal for a 3-story building with sixteen (16) residential units and parking for fifteen (15) vehicles. The building is proposed with a footprint of 8,276 sf and a total floor area of 32,242 sf. The application is subject to review under Portland's subdivision, site plan and inclusionary zoning ordinances.



CITY OF PORTLAND

Planning & Urban Development Department Housing and
Community Development Division

To: Sean Dundon, Chair and the Portland Planning Board

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

Date: April 1, 2019

Subject: 121 Middle Street – Inclusionary Zoning for Hotel Projects Conditional Use

The development located at 121 Middle Street proposes the creation of 11 guest rooms for rent. The proposed conversion of the third-floor space from business use (offices) to hotel use is under 10,000 sf, thus the change of use does not trigger a site plan review. Only the Hotel Project Inclusionary Zoning Conditional Use is before the Board for a public hearing and decision.

All hotel project consisting of ten (10) or more guest rooms for rent are conditional uses subject to Planning Board review on the condition that they comply with the requirements set forth in Division 30, Sections 14-487 and 14-488.1 of the Zoning Ordinance.

Division 30, Section 14-488.1, Inclusionary Zoning for Hotel Projects, requires the creation of at least one unit of low-income housing for rent in the City of Portland for every 28 rooms in the hotel project. The low-income units must meet the standards outlined in Section 14-487 and in the implementing regulations governing low income units. The number of hotel rooms used to calculate the required units shall be rounded up to the nearest increment of 28 rooms.

Based on the requirements outlined in Section 14-488. 1, the development is required to provide a minimum of one low-income housing unit or pay a fee-in-lieu of \$3,806 per hotel guest room. The Applicant has elected to provide the fee-in-lieu of \$41,866. The Applicant's payment of the fee-in-lieu will satisfy the minimum requirements set forth in Section 14-487 and 14-488.1

Staff recommends the Board Approve this hotel project inclusionary zoning conditional use on the condition that the Applicant remit a payment of \$41,866 to the City before a Certificate of Occupancy may be issued.

Sincerely,

Victoria Volent
Housing Program Manager



PLANNING BOARD REPORT PORTLAND, MAINE

Nine Residential Units and Cafe
1006 Congress Street
Level III Site Plan and Subdivision
PL-000444-2018
1006 Congress Street, LLC, Applicant

Submitted to: Portland Planning Board
Public Hearing Date: April 9, 2019

Prepared by: Shukria Wiar, Planner
Date: April 5, 2019

I. INTRODUCTION

1006 Congress Street, LLC is requesting a review of a Level III Site Plan and Subdivision application at 1006 Congress Street (corner of Congress and Westfield Streets). The applicant is proposing to renovate the interior of the existing building to include nine (9) two-bedroom residential apartments on the first and second floors of existing building, and a 1,385 SF café and market at the rear of the building. The proposed reconfiguration of the units will occur within the existing structure. The parcel is located in the B-2 Community Business Zone. Multi-family residential and restaurant are allowed uses in the B-2 zone.

The property was part of the recent zoning district changes of properties at 1000,

1002/1004, 1006, and 1020 Congress Street. The zone change was adapted by the City Council based on the



Fig. 1 - Proposed Development

recommendation of the Portland Planning Board. The amendment changed the zone from Industrial Low Impact (IL) to B-2 Community Business zone. The zone change allows for a wide range of commercial uses not allowed in the IL zone, such as retail restaurants, grocery stores, and other services.



Fig. 2 - Existing Building

The applicant had a workshop with the Planning Board on March 12th, 2019. At this meeting, members of the Board

wanted more information and clarification on the design of the shared street concept, pedestrian access, and stormwater management. The Board also agreed with the Urban Designer's comments regarding design standards.

A legal ad for the Board public hearing was posted on the city's web page and appeared in the *Portland Press Herald* on April 1st and 2nd, 2019. Notices were also sent to eighty-nine (89) property owners within 500 feet of the site and to the interested citizen list.

Applicant: Jennifer Packard and David Packard, 1006 Congress Street, LLC

Consultants: Stephen Bushy, PE, Stantec; Katherine Detmer, Archetype Architects; Ellen Brewer, Owen Haskell Inc.

II. REQUIRED REVIEWS

<i>Waiver Requests</i>	<i>Applicable Standards</i>
Location of Driveway – To allow a driveway separation of 10 feet between the proposed driveway and the abutting existing one on Congress Street	Technical Manual, Section 1.7.1 Location of driveway: A driveway shall be located on the lot in a manner to provide a minimum distance of twenty (20) ft spacing between it and adjacent driveways.
<i>Review</i>	<i>Applicable Standards</i>
Site Plan	Section 14-526
Subdivision	Section 14-497
Design Review	B2 Commercial Business Zones Standards

III. PROJECT DATA

Existing Zoning	Commercial Business B-2
Existing Use	Institutional
Proposed Use	Mixed Use- Residential and Retail
Proposed Development Program	Nine two-bedroom residential units; Café and Market
Parcel Size	19,793 SF

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	7,139 SF	7,139 SF	0 SF
Building Floor Area	19,799 SF	19,799 SF	0 SF
Impervious Surface Area	15,449 SF	18,234 SF	2,785 SF
Parking Spaces (on site)	17	18	1
Bicycle Parking Spaces	0	4	4
Estimated Cost of Project			

IV. APPLICANT'S SITE BACKGROUND

The property is located to the west of Congress Street in Portland's Libbytown neighborhood. The area is comprised of residential properties and smaller commercial properties. The existing building is a Captain's House and barn built in the late 1800s, complete with a turreted roof and a large addition that was added in the 1970's that was used as a church. The site has two driveways, one off of each street. There is an entrance to the building from Congress Street and multiple doors from the rear of the buildings. The parcel has ninety-nine feet of frontage along Congress Street and 123 feet along Westfield Street. There is no sidewalk on Westfield Street.



Fig. 3 – 1924 Photo of the Building

V. PROPOSED DEVELOPMENT

The applicant is proposing to renovate the interior of the existing building to include nine (9) two-bedroom residential apartments on the first and second floors of existing building, as well as a 1,385 SF café access from the rear of the building. The proposed reconfiguration of the units will occur within the existing structure. There will be one primary driveway into the site from Westfield Street to eighteen parking spaces. There will be a second "exit-only" access onto Congress Street. The internal walkways on the site will connect the parking areas to the building entrances and to the adjacent public walkways. A new sidewalk and curbing will be constructed on Westfield Street.

The sidewalk on Congress Street is shown on the plans as being reconstructed in concrete.

VI. PLAN REVISIONS SINCE WORKSHOP

The Planning Board members at the March workshop supported the proposed the renovation of the building, but sought additional analysis on the following items. Staff has worked with the applicant to address these concerns:

- Shared Street Concept for Westfield Street: The applicant has had on-going discussions with the City of Portland about creating a 'shared use' connection on Westfield Street as part of the Fore River Parkway Trail access. City staff, the applicant, and their consultants meet on March 19, 2019 to discuss this concept, as well as the sidewalk on the Westfield Street. We also discussed ADA access to the building and the rear access to the proposed market and café. As noted at the workshop, there is potential for additional development off Westfield Street, which would result in higher pedestrian and vehicular counts. At the meeting with the applicant, the staff considered multiple concepts, but did not find an optimal option that met standards for access and public safety. Staff continued to recommend a sidewalk along the property frontage on Westfield Street as the best means of achieving pedestrian access. Mike Trembley, Senior Engineer with Department of Public Services, states that a sidewalk on Westfield Street does not preclude an option for a shared street with year-round accommodations at some future point. At the workshop, Mike Trembley stated:

In the event that the street becomes a shared street in the future, the sidewalk will allow safe pedestrian access to the street via a sidewalk before merging onto the roadway, as the area around the intersection (and auto body shop across Westfield Street) will likely be the most dangerous portion of Westfield Street for pedestrians."

The site plans have been revised to show a five-foot sidewalk on Westfield Street in a way to reduce impact to the existing building and foundation. Details are still required, but in general, the staff supports this design. The proposed location of the sidewalk eliminates the need for any retaining walls behind the sidewalk, which might have been needed to overcome the change in street grade to the exterior grade along the building. Westfield Street is in the asphalt sidewalk district. The Applicant may consider an asphalt sidewalk on Westfield Street; however, DPW would also consider an exception to the technical manual if the Applicant prefers to construct a concrete sidewalk.

- Design of the Building: Since the workshop, staff has met with the applicant's architect to address outstanding design concerns and the architectural drawings has been revised based on these concerns. The following has been revised:
 - ***Building Entrances*** - A sidewalk or was added from Congress Street to this use.
 - ***Windows*** - Staff are comfortable with the proposed configuration to stand apart from the existing windows, highlight the corner, but also provide functional windows for the residential unit.
 - ***Façade Character*** - The applicant provided sufficient evidence that the structure of the existing building precludes placing the active program uses at the street. The active use is indicated at the corner with signage and an awning and now a direct sidewalk connection.
 - ***Building Design*** - Building design – materials, articulation, entrance design – increase the legibility where feasible regarding its uses.
 - ***Building Material*** - The balcony at the back of the building was revised to coordinate in detail and provide a balanced composition related to the retail canopy and overall façade.
 - ***Landscaping and Buffers*** - Landscape as proposed on Westfield Street was revised to include a sidewalk and landscape buffer.

VII. PUBLIC COMMENT

A neighborhood meeting was held on January 7th, 2019 with five abutters in attendance. At the time this report was

prepared, the Planning Division has received no public comment.

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

a. The owner of the property is 1006 Congress Street, LLC. The applicant has provided a copy of a quitclaim deed, recorded at the Cumberland County Registry of Deeds (Book 34188 Page 103), which demonstrates their right, title and interest in the property.

The applicant is proposing to utilize Cumberford Place to access the parking spaces. Cumberford Place is a private thirty (30) feet right-of-way held in common which means that multiple abutting parcel have rights to use it. There are no records in Department of Public Works' Archives that it was ever dedicated as a public street, nor acceptance as a public street. The applicant has submitted an agreement with the one of the abutting properties, Fitzgerald Tiles, regarding the proposed improvements in the right-of-way. A final, signed copy will have to be submitted prior to the issuance of a building permit.

b. The applicant has submitted a letter from Camden National Bank, dated December 5, 2018, as demonstration of their financial and technical capacity to complete the proposed development.

IX. ZONING ASSESSMENT

The proposed nine residential units are a permitted use in the B-2 zone which allows multi-family dwellings, as well as the permitted use of a restaurant for the café. Under the B-2 zone, with the caveat that it is reuse of an existing structure, all of the dimensional requirements are being met.

The applicant is proposing eighteen (18) parking spaces on the site of which three are compact spaces. The nine residential units require nine off-street parking since it on the peninsula. As for the café and market (1,000 SF), one parking space for each one hundred fifty (150) square feet of floor area not being used for bulk storage or food prep, which is a total of seven spaces required for the use. Since only sixteen (16) parking spaces are required per zoning, there are two extra spaces on site. Though the access to the site is through the thirty (30) foot right-on-way, all of the parking is on the development site.

X. DEVELOPMENT REVIEW

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

The applicant submitted a subdivision plat; staff review is pending and final comments will be available for the public hearing. The Applicant shall submit a Boundary Survey that has been Stamped by a Maine Licensed Professional Surveyor per Section 13 of the City of Portland Technical Manual; subdivision recording plat will need to be stamped by the Surveyor. As a condition of approval, the final subdivision plat shall meet all plat requirements as noted in 14-496; and noted in 14-527(f) and (g). The final site plan shall include:

- o State plane coordinates to the four property corners to be set; and
- o The stamp of a professional engineer and surveyor; and
- o All existing and proposed easements and licenses.

B. SUBDIVISION (Section 14-497)

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

1. Will Not Result in Undue Water and Air Pollution (Section 14-497 (a) 1), and Will Not Result in Undue Soil Erosion (Section 14-497 (a) 4)
Lauren Swett, P.E. with Woodard and Curran Engineering, has reviewed the erosion and sediment control plan finds them acceptable.
2. Sufficient Water Available (Section 14-497 (a) 2 and 3)

The project will be served by water service located in Westfield Street. Confirmation of ability to serve water from PWD has been submit to the Planning Authority.

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

The surrounding street system consists of Congress Street and Westfield Street. The site will be accessed by existing curb cuts on Cumberland Place and Congress Street; the circulation for the site will consist of a two-way (off Westfield Street) and a one-way (off Congress Street) entrances. The driveway on Congress Street is close to an abutter's existing driveway and a waiver of this driveway separation is requested. Tom Errico, P.E., Ty Lin reviewed the driveways and states the following:

- The width of Westfield Street does not meet City standards. I do not find the existing width to be problematic, as long as on-street parking is prohibited/restricted. This needs to be coordinated with DPW.
- The site plan layout for parking and aisle widths meet dimensional standards. I would prefer that all traffic movements occur via Westfield Street, but City standards permit two driveways and thus the one-way exit drive meets City standards.

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

The project will be served by a sewer line located in Congress Street. Overall, site improvements are expected to aid with the collection and conveyance of stormwater runoff, whereby runoff will continue to be directed to the existing municipal systems in Westfield Street and Congress Street. According to the applicant, here are no plans for a commercial kitchen and there only an internal grease trap, since the proposed café will have very limited kitchen equipment, expected food preparation, and dish cleaning proposed. Confirmation of ability to serve sewer from DPW has been submitted to the Planning Authority.

5. Scenic Beauty, Natural, Historic, Habitat and other Resources (Section 14-497 (a) 8)

The site is not within an historic district. It is in an urban neighborhood surrounded by a variety of residential building types, as well as commercial uses. The existing building does not impact the natural beauty of the area or adversely affect any significant wildlife habitat, rare or irreplaceable natural areas, or any public access to the shoreline. The staff finds the proposal is in conformance with this standard.

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

The staff has identified the following goals and policies which are relevant to the proposed housing development and finds the proposal in conformance with the Comprehensive Plan:

The central vision of Portland's Plan 2030 is represented by the venn diagram demonstrating the integral interrelation of the community's core belief that Portland is equitable, sustainable, connected, dynamic, authentic and secure. The vision conveys the message of the City's need to balance many competing needs to assure the advance of the vision as a unified concept. In this instance, that the City's goals for job growth and transforming Portland through orderly growth and development be balanced with needs for connectivity of the street grid, sustainability of infrastructure and the ability to maintain that infrastructure, and security in the sense of public safety.



Portland Housing Goal: Ensure that an adequate supply of housing is available to meet the needs, preferences, and financial capabilities of all Portland households, now and in the future.

Policies

- Ensure the construction of a diverse mix of housing types that offers a continuum of options across all income levels, which are both renter and owner-occupied, including but not limited to the following:

- ii. Housing units for decreasing household size, such as young professionals, empty nesters, single-parent households, and senior citizens.
- Encourage higher density housing for both rental and home ownership opportunities, particularly located near services, such as schools, businesses, institutions, employers, and public transportation.
- Increase Portland's rental housing stock to maintain a reasonable balance between supply and demand yielding consumer choice, affordable rents, and reasonable return to landlords.
- Identify vacant land and redevelopment opportunities throughout the City to facilitate the construction of new housing.

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

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

1. *Transportation Standards*

- a. Impact on Surrounding Street Systems and Access and Circulation – see Subdivision, Paragraph VIII (B) (3), above.

- b. Parking

The applicant is proposing eighteen (18) parking spaces on the site of which three are compact spaces; nine for the residential units, seven for the café, and two as extra spaces. For off street parking, Division 20 requires one parking space per unit for residential uses on the peninsula. Though the access to the site is through the thirty (30) foot right-on-way, all of the parking is all on the development site.

- c. Sidewalks

There are internal walkways on the site, which will connect from the parking areas to the building entrances. The existing sidewalk along Congress Street, which is brick, is in poor condition. Staff has requested that it be reconstructed in concrete, since it is in the concrete sidewalk district of the City's sidewalk policy. The reconstruction of the sidewalk is shown on the plan, but the applicant has asked about retaining it as well. There is no sidewalk or curbing along the Westfield Street frontage and the applicant is now proposing both along the parcel's frontage. Mr. Tremblay provides detail recommendations in his memo in regard to ADA compliant sidewalks and ramps, refer to Attachment 3, these will be standard of conditions.

2. *Environmental Quality Standards*

- a. Preservation of Significant Natural Features/Landscaping and Landscape Preservation

There is not significant natural features or landscaping that needs to be preserved on the site. With the reconstruction of the sidewalk on Congress Street, the applicant is proposing six street trees on along the frontage of their property, as well as three on Westfield Street. There is also some low shrub landscaping proposed along the frontage on Westfield Street. Jeff Tarling, City Arborist, has reviewed this and finds it acceptable.

- b. Water Quality, Storm Water Management and Erosion Control

Under Section 5 of the City of Portland Technical Manual, a Level III development project is required to submit a stormwater management plan pursuant to the regulations of MaineDEP Chapter 500 Stormwater Management Rules, including conformance with the Basic, General, and Flooding Standards.

The applicant is meeting the basic and general standards of Chapter 500. In regard to the flooding standards, the project will result in a very small increase in overall impervious area. The proposed site improvements include directing the stormwater flow away from the Fitzgerald Tile property and the Cumberland Place ROW, and redirecting the collection and transport of stormwater runoff to the existing municipal systems in Westfield Street and Congress Street. This approach will be a significant reduction of runoff sheeting for Fitzgerald Tile and Cumberland Place ROW properties. The stormwater flows have not

decreased on site; it is being redirected to the municipal systems. Staff Lauren Swett, P.E. with Woodard and Curran Engineering, has reviewed the stormwater on the site and the drainage plan, and has the following conditions of approval:

- As currently proposed and modeled, the project is increasing flow to Congress Street. The Applicant should account for some form of storage or flow mitigation on their site such that flow to Congress Street is not increased from the pre-development condition.
- As currently designed, the site's stormwater system connects to the combined sewer in Westfield Street. Brad Roland identified that there is a separated stormdrain in Congress Street along their project frontage. The proposed site stormdrain should tie into that separated line. This may be able to be achieved by reversing the pipes slopes on site, and tying in at the eastern driveway. With proposed pipe sizes, they will need to provide a manhole in Congress Street for their connection.

3. *Public Infrastructure and Community Safety Standards*

a. Consistency with Master Plans

See Subdivision, Paragraph VIII (B)6 above.

b. Public Safety and Fire Prevention

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.

The applicant has provided a catalogue cuts indicating full cutoff fixture in accordance with the city's Technical Manual. The applicant has submitted an accompanying photometric plan and the proposed lighting fixtures are proposed internally to the project; no street lighting is proposed on Congress or Westfield Streets. As such there will not be spillage onto neighboring properties, which conforms to the Technical Manual standards.

c. Availability and Adequate Capacity of Public Utilities

The project will be served by the Portland Water District, City Department of Public Works (DPW), and underground\ power /cable/communications. The Applicant has submitted capacity letters from Portland Water District and Department of Public Works.

4. *Site Design Standards*

a. Snow and Ice Loading

Snow storage plans have been provided on site. In their revised submittal, the applicant has indicated that when required, the snow will be moved to the parking area on the nearby Bunker Brewing Company site which is currently owned by the applicant.

b. View Corridors

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

c. Historic Resources

The site is not in any historic district; therefore, the project does not have to be reviewed by Historic Preservation.

d. Exterior Lighting

The applicant has provided a catalogue cuts indicating the wall mounted type is a full cutoff fixture in accordance with the city's Technical Manual; more information is needed to determine if the pole mounted is full cutoff. The applicant has submitted an accompanying photometric plan and the proposed lighting fixtures are proposed internally to the project; no street lighting is proposed on

Congress or Westfield Streets. As such there will not be spillage onto neighboring properties, which conforms to the Technical Manual standards.

e. Noise and Vibration

All heating, ventilation and air conditioning equipment (HVAC), air handling units (AHU), emergency generators, and similar equipment will have to be shown on the plans and meet state and federal emissions requirements. These mechanical equipment should be located to the interior of the site, away from abutting residential properties and be screened from view from any public street and from adjacent sites by structure walls, evergreen landscaping, fencing, masonry wall or a combination thereof.

f. Signage and Wayfinding

No signage or wayfinding is proposed at this time.

g. Zoning Related Design Standards

The adaptive reuse project at 1006 Congress Street was reviewed according to the *City of Portland Design Manual* standards by Caitlin Cameron, Urban Designer, Shukria Wiar, Planner, and Jean Fraser, Planner against the *B2 Commercial Business Zones Standards* (Design Manual). All design standards are being met. Ms. Cameron comments are included at Attachment 5.

XI. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board approve the proposed development.

XII. PLANNING BOARD MOTIONS

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 for application 444-2018 relevant to Portland's technical and design standards and other regulations; and the testimony presented at the Planning Board hearing:

1. The Planning Board [**finds/does not find**], based upon the consulting transportation engineer's review, that extraordinary conditions exist or undue hardship may result from strict compliance with the *Technical Manual* standard (*Section 1.7.1*) to provide a minimum distance of twenty (20) ft spacing between it and adjacent. The Planning Board [**waives /does not waive**] the *Technical Manual* standard (*Section 1.7.1*) to allow a driveway separation of 10 feet between the proposed exit-only driveway and the existing curb cut on Congress Street;

B. SUBDIVISION PLAT

On the basis of the application, plans, reports, and other information submitted by the applicant, findings and recommendations contained in Planning Board Report for application #444-2018 relevant to the Subdivision Ordinance, and other regulations, as well as the Planning Board deliberations and the testimony presented at the Planning Board hearings, the Planning Board finds the plan [**is /is not**] in conformance with the subdivision standards of the land use code, subject to the following conditions to be met as noted:

TO BE MET PRIOR TO ISSUANCE OF A BUILDING PERMIT:

1. The applicant shall submit signed, final agreement with the one of the abutting properties, Fitzgerald Tiles, regarding the proposed improvements in Cumberland Place right-of-way; and
2. That the following shall be finalized to the satisfaction of the Corporation Counsel and shown on the final subdivision plat:
 - a. All waivers and conditions of approval;
 - b. The stamp of a professional engineer and surveyor; and
 - c. All existing and proposed easements and licenses.

C. SITE PLAN

On the basis of the application, plans, reports, and other information submitted by the applicant, findings and recommendations contained in Planning Board Report for application #444-2018 relevant to the Site Plan Ordinance, and other regulations, as well as the Planning Board deliberations and the testimony presented at the Planning Board hearings, the Planning Board finds the plan **[is /is not]** in conformance with the site plan standards and all other applicable provisions of the land use code, subject to the following conditions to be met as noted:

TO BE MET PRIOR TO APPLYING FOR A BUILDING PERMIT:

1. The applicant shall provide a revised plan that address the Department of Public Works' Senior Engineer comments, dated 04.04.2019 and the Transportation Manager comments dated 04.05.2019.
2. The applicant shall provide a revised drainage plan that address the Civil Engineer comments dated 04.05.2019 regarding stormwater.

TO BE MET PRIOR TO THE ISSUANCE OF A BUILDING PERMIT:

3. The developer/contractor/subcontractor must comply with conditions of the construction stormwater management plan and sediment and erosion control plan based on City standards and state guidelines. The owner/operator of the approved stormwater management system, and all assigns. shall comply with the conditions of Chapter 32 Stormwater including Article III, Post Construction Stormwater Management, which specifies the annual inspections and reporting requirements. A maintenance agreement for the stormwater drainage system, as attached, or in substantially the same form, shall be submitted for review by Corporation Counsel. Once approved, the document shall be signed and recorded at the Cumberland County Registry of Deeds prior to the issuance of a building permit. Please submit final copies to both the Department of Planning and Urban Development and the Department of Public Works.

XIII. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. Traffic Engineer review (memo from Thomas Errico, 03.07.2016)
2. Department of Public Works Engineer review (memo from Mike Tremblay, 04.04.2019)
3. Civil Engineer review (memo from Lauren Swett, 04.05.2019)
4. Fire Prevention Department review (memo from Robert Thompson, 03.07.2019)
5. Design review (memo from Caitlin Cameron, 03.28.2019)

APPLICANT'S SUBMITTALS

- A. Cover Letter, dated 12.18.2018
 - A1. Cover Letter, dated 02.26.2019
 - A2. Cover Letter, dated 03.26.2019
 - A3. Cover Letter, dated 04.04.2019
- B. Level III Site Plan and Subdivision application
- C. Letter of Authorization
 - C1. 2.22.19 Executed Letter of Authorization
- D. Stormwater Management
 - D1. Supplemental Stormwater
- E. Evidence of Right, Title, and Interest
 - E1. ROW Easement 07.06.1896
- F. Draft Copy of ROW Agreement w/ Abutter
- G. Zoning Analysis
- H. Summary of Easements
- I. Written Request for Waivers
- J. Evidence of Financial Capacity
- K. Technical Capacity
- L. Environmental and Stormwater
- M. Environmental and Landscape Features

- N. Public, Infrastructure & Safety
- O. Transportation
- P. Utility Response
- Q. Certification Neighborhood Meeting
- R. Site Design
- S. Construction
- T. Site Lighting Catalogue
 - T1. Catalogue Cut

PLANS

- Plan 1. Cover Sheet
- Plan 2. General Notes
- Plan 3. Existing and Removals
- Plan 4. Topographic Survey
- Plan 5. Site Recording Plat
- Plan 6. Site Plan and Utility Plan
- Plan 7. Grading and Drainage
- Plan 8. Landscape Plan
- Plan 9. Site Details
- Plan 10. Site Details - 1
- Plan 11. Site Details - 2
- Plan 12. Site Lighting
- Plan 13. Building Elevations
- Plan 14. Perspective from Congress Street



Shukria Wiar <shukriaw@portlandmaine.gov>

1006 Congress Street Comments

Mike Tremblay <mtremblay@portlandmaine.gov>

Thu, Apr 4, 2019 at 2:38 PM

To: Shukria Wiar <shukriaw@portlandmaine.gov>

Cc: Thomas Errico <thomas.errico@tylin.com>, Bruce Hyman <bhyman@portlandmaine.gov>, Barbara Barhydt <bab@portlandmaine.gov>

Shukria,

Comments below.

- Without spot grades on the plan, it is difficult to verify that the proposed sidewalk and ramp up to the back of the property is ADA-compliant. Similarly, it is difficult to verify the curb ramps shown on the public ROW at Westfield Street and at the site driveways are ADA-compliant. DPW requests that spot grades for ramps and sidewalks be provided on the grading and drainage plan.

- The curb ramp on the southern portion of the site is shown sloping diagonally toward Congress Street. If at all possible, the ramp should align with the path of travel.

- The tactile warning panel shown on the north side of Westfield Street should be aligned perpendicularly to the path of travel. The tactile warning panel may be pulled back from the crosswalk to achieve this, provided that it is not placed more than 5 feet away.

- It is not clear if the proposed tipdowns are the appropriate size. No curb piece, including tipdowns, should be less than 4 feet long (7 feet preferred) as smaller curb pieces have a higher tendency to fail. The Applicant should label tipdown lengths on the site plan and adjust any tipdowns that are less than 4 feet long.

- Westfield Street is in the asphalt sidewalk district ([page 225/Appendix A of the technical manual](#)). The Applicant may consider an asphalt sidewalk on Westfield Street; however, DPW would also consider an exception to the technical manual if the Applicant prefers to construct a concrete sidewalk.

- The updated site plan still shows the sidewalk along Congress Street as proposed. DPW recommends that the Applicant be required to reconstruct this sidewalk, as it is in poor condition and the sidewalk will be the primary ADA access route for pedestrians accessing the site from the east.

Thank you,
Mike

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



[Quoted text hidden]

PL 444-2018: 1006 Congress Street - Internal Comments on 3/27/19 Submittals

Bruce Hyman <bhyman@portlandmaine.gov>

Fri, Apr 5, 2019 at 10:53 AM

To: Shukria Wiar <shukriaw@portlandmaine.gov>

Cc: Michael Tremblay <mtremblay@portlandmaine.gov>, Tom Errico <thomas.errico@tylin.com>, Barbara Barhydt <bab@portlandmaine.gov>, Jeremiah Bartlett <jbartlett@portlandmaine.gov>

Below are my previous comments from 3/29 and whether these issues have been resolved or remain outstanding:

On Fri, Mar 29, 2019 at 3:00 PM Bruce Hyman <bhyman@portlandmaine.gov> wrote:

Detail Sheet C6.0

- The details for plan view driveway and driveway cross-section do not adequately illustrate the ADA-compliant pedestrian access route connecting the sidewalk on each side nor the area for the max. allowable cross-slope of 2%.

This comment remains outstanding as of 4/5/19.

- The concrete sidewalk detail does not indicate that the max. allowable cross-slope is 2% (and preferably designed for 1.5% with construction tolerance of +/- 0.5% cross-slope).

This comment remains outstanding as of 4/5/19.

Site & Utility Plan Sheet C3.0

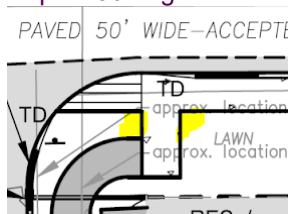
- The site plan shows a concrete sidewalk along Westfield Street. The sidewalk material policy calls for a bituminous sidewalk. I suggest we consider allowing concrete to better tie the site details along the street frontages together.

This issue has been resolved if DPW supports a concrete sidewalk.

- More design detail is to be shown for the curb ramps for the crosswalk across Westfield Street. The curb ramp itself and the size and orientation of the detectable warning panel for the westerly ramp are to be revised to provide a better one-direction curb ramp configuration. The easterly ramp/detectable warning panel may need reconfiguration as a one-direction ramp as well.

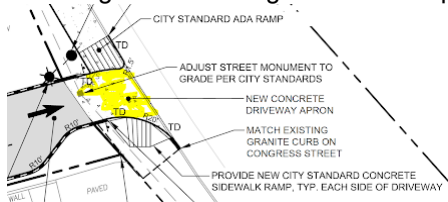
This comment remains outstanding as of 4/5/19.

The transition points shown from concrete sidewalk to bituminous sidewalk to the plaza should be "smoothed" to not require 90 degree turns



This comment remains outstanding as of 4/5/19.

- An ADA-compliant pedestrian access route (**minimum 5'**) across the easterly driveway at Congress Street is not evident given the configuration of ramps and driveway shown (see Detail Sheet C6.0 comments)



This comment remains outstanding as of 4/5/19.

•

- Will curb stops be required to prevent encroachment of vehicles in the parking at the rear of the building onto the sidewalk?

This comment remains outstanding as of 4/5/19.

- The applicant shall provide and install a NO PARKING THIS SIDE OF STREET sign(s) along its Westfield Street frontage.

This comment remains outstanding as of 4/5/19.

[Quoted text hidden]



Shukria Wiar <shukriaw@portlandmaine.gov>

1006 Congress Street Comments

Lauren Swett <lswett@woodardcurran.com>
To: Shukria Wiar <shukriaw@portlandmaine.gov>
Cc: Bradley Roland <brad@portlandmaine.gov>

Fri, Apr 5, 2019 at 11:25 AM

Hi Shukria,

I have reviewed the additional information with Brad Roland from DPW. We have two stormwater comments to include as conditions of approval:

- As currently proposed and modeled, the project is increasing flow to Congress Street. The Applicant should account for some form of storage or flow mitigation on their site such that flow to Congress Street is not increased from the pre-development condition.
- As currently designed, the site's stormwater system connects to the combined sewer in Westfield Street. Brad Roland identified that there is a separated stormdrain in Congress Street along their project frontage. The proposed site stormdrain should tie into that separated line. This may be able to be achieved by reversing the pipes slopes on site, and tying in at the eastern driveway. With proposed pipe sizes, they will need to provide a manhole in Congress Street for their connection.

If you have any questions, let me know.

Thanks,

Lauren

[Quoted text hidden]

[Quoted text hidden]

[Quoted text hidden]

[Quoted text hidden]

[Redacted signature box]

The content of this email is the confidential property of Stantec and should not be copied, modified, retransmitted, or used for any purpose except with Stantec's written authorization. If you are not the intended recipient, please delete all copies and notify us immediately.

From: Shukria Wiar <shukriaw@portlandmaine.gov>
Sent: Wednesday, April 3, 2019 12:11 PM
To: Bushey, Stephen <Stephen.Bushey@stantec.com>
Cc: Lauren Swett <lswett@woodardcurran.com>
Subject: Re: 1006 Congress Street Comments

Hello Steve,

I want to follow up on my voicemail and conversation with you. In addition to Lauren comments, I know that Keith Gray had reached out to you on Monday regarding the sidewalk on Westfield Street and was expecting a revised plan from you that shows the width of Westfield Street to stay the same while providing a sidewalk and curbing; sidewalk material for this street is asphalt. Staff also recommends that the Congress Street sidewalk be reconstructed in concrete since it is in a poor condition.

We have advertised this project for a public hearing on April 9th for a public hearing and the report needs to be completed on Friday morning so I will need the revised plans by noon tomorrow.

Thank you.

Shukria

On Wed, Apr 3, 2019 at 11:45 AM Bushey, Stephen <Stephen.Bushey@stantec.com> wrote:

Thanks Lauren,

All good comments at first glance and I'll work the responses and info thru over the next two days.

thank

Stephen Bushey

Senior Associate, Senior Project Manager

Direct: 207 887-3478
Mobile: 207 756-9359
Fax: 207 879-0896
Stephen.Bushey@stantec.com

Stantec
[482 Payne Road Scarborough](#) Court
Scarborough ME 04074-8929

[Redacted signature]

[Quoted text hidden]

[Quoted text hidden]

[Quoted text hidden]

4/5/2019

City of Portland Mail - 1006 Congress Street Comments

[Quoted text hidden]



PLAN CORRECTIONS REPORT PL-000444-2018 FOR CITY OF PORTLAND

PLAN ADDRESS:	1006 Congress St Portland, ME 04102	PARCEL:	076 A022001
APPLICATION DATE:	12/19/2018	SQUARE FEET:	0.00
EXPIRATION DATE:		VALUATION:	\$0.00
		DESCRIPTION:	1006 Congress Street Redevelopment

CONTACTS	Name	Company	Address
Agent/Representative	Stephen Bushey	Stantec	778 Main Street, Suite 8 So. Portland, ME 04106

Comments & Corrections Required

Fire

Robert Thompson

Comment(s)/ Recommendation(s):

Fire Department Access shall have an unobstructed vertical clearance of not less than 13 ft 6 in.

.Fire department access roads shall have an unobstructed width of not less than 20 ft. Based on the original site plan, his access width is provided on the northern, western, and southern sides of the building.

Fire Department Access shall have an unobstructed vertical clearance of not less than 13 ft 6 in.



Planning and Urban Development Department Planning Division

Subject: B-2 Design Review – 1006 Congress Street

Written by: Caitlin Cameron, Urban Designer

Date of Review: Thursday, March 28 2019

The adaptive reuse project at 1006 Congress Street was reviewed according to the *City of Portland Design Manual* standards by Caitlin Cameron, Urban Designer, Shukria Wiar, Planner, and Jean Fraser, Planner against the *B2 Commercial Business Zones Standards* (Design Manual).

Design Review Comments:

(d) B-2 Commercial Business Zones

Standard (1) a. Urban Street Wall – Not applicable – existing building.

Standard (1) b. Mixed Uses – Not applicable, however, building is multi-story with mixed-use as prescribed by the standard.

Standard (1) c. Building Entrances – There are multiple entrances to this building. An entrance faces Congress Street and has a curved canopy referential to the arched windows existing. Since the café cannot be placed to face the street, staff requested the active use be indicated at the street. This is accomplished with an awning that turns the corner and signage. **A sidewalk or was added from Congress Street to this use.**

Standard (1) d. Windows – The existing windows are being re-used on the street facades – **.7 VT required.** The existing windows do not meet the standard that they be installed at a height to allow views into the building by passersby. New windows introduced at the prominent corner are encouraged; **staff are comfortable with the proposed configuration to stand apart from the existing windows, highlight the corner, but also provide functional windows for the residential unit.**

Standard (1) e. Façade Character – Active use should have direct relationship to sidewalk and street. The building location includes two street frontages but does not place the active use at the street – **the applicant provided sufficient evidence that the structure of the existing building precludes placing the active program uses at the street.** The active use is indicated at the corner with signage and an awning **and now a direct sidewalk connection.** Commercial and residential entrances are differentiated with different types of awning.

Standard (1) f. Building Design – As an adaptive reuse of an institutional building, the existing building type and form differs from the residential buildings in the same streetscape and it is a challenge to revise this building in a way that relates to the surroundings or the new use. The proposed exterior changes to the building are minimal. Building design – materials, articulation, entrance design – **increase the legibility where feasible regarding its uses.**

Standard (1) g. Building Materials – Clapboard, brick, and storefront are considered compatible given the surrounding context of industrial, commercial, and residential buildings. Because this building is being converted to predominantly a residential use, new materials, such as at the corner, should reflect the residential use and be compatible with the surrounding built context. Staff find the proposed metal siding to be acceptable if the orientation is kept to horizontal to

relate to the clapboard found in nearby residential buildings and if the material and details are kept a consistent color throughout the project (siding, canopies, balcony railing, etc.). The finish should be matte, rather than reflective, in character. **The balcony at the back of the building was revised to coordinate in detail and provide a balanced composition related to the retail canopy and overall façade.**

Standard (1) h. Building Scale – Not applicable – reuse of an existing building.

Standard (1) i. Landscaping and Buffers – **Surface parking areas should be screened from neighboring residential uses** with either fence or landscape – this is not met in all locations. The large setbacks require planted landscaped areas. Currently, the street facades contain residential uses – the landscape proposal should indicate this use. **Landscape as proposed on Westfield Street was revised to include a sidewalk and landscape buffer.**



Stantec Consulting Services Inc.

482 Payne Road Scarborough Court, Scarborough ME 04074-8929

December 18, 2018

Ms. Barbara Barhydt

Development Review Coordinator
City of Portland – Planning Authority
389 Congress Street
Portland, ME 04101

**Subject: Application for Level III Site Plan Application
1006 Congress Street
Tax Map 076/Block A/22**

Dear Shukria:

On behalf of **1006 Congress Street LLC** (Applicant), our office is pleased to provide the materials for a Level III Site Plan Application. This package is intended to meet the City's Level III Site Plan Submission requirements as outlined in the Level III Site Plan Checklist and Section 14-526 of the Code of Ordinances. The subject property was included in the recent zoning district changes of properties at 1000, 1002/1004, 1006, and 1020 Congress Street. These zone changes were approved by the City Council based on the recommendation of the Portland Planning Board. This approval changed the zone for the property from Industrial Low Impact II to Community Business B-2 zone. The zone change allows for a wide range of commercial uses not allowed in the IL zone, such as retail restaurants, grocery stores and shops and services.

PROJECT DESCRIPTION

Existing Conditions

The subject parcel is a 0.45 acre lot at 1006 Congress Street. The site is identified as Lot 22 on Tax Map 76, Block A and is in the B-2 Community Business Zone. There is an existing 19,799 SF two-story, unoccupied building on the site. Utilities serving the site include water, sewer, and power services from Congress Street and Westfield Street. The site has two accesses: one from Congress Street and one from Westfield Street. There is approximately 5,201 SF of existing gravel driveway and parking areas and 1,306 SF of paved driveway on the site.

Proposed Project

1006 Congress Street LLC proposes to renovate the interior of the existing building to include nine (9) residential units and a 1,385 SF café. Please see the enclosed floor plans and building elevations for more information. Multi-family residential and restaurant are allowed uses in the B-2 zone.



Ms. Barbara Barhydt
December 18, 2018
Page 2

Utilities

The site is currently served with overhead power from Westfield Street. Water and sewer services are from Westfield Street. We will work with the appropriate utility agencies to determine if service upgrades are required for the project.

Access Conditions

The development will also include new paved driveway accesses from Westfield and Congress Streets as well as 18 paved off-street parking spaces and ancillary site improvements including walkways, drainage, and landscaping. Please see the attached site plans for additional information.

CLOSURE

As outlined in the Level III Site Plan submission requirements and checklist, we will upload the following materials:

- General Application Documents
 - Level III Application Checklist
 - Right, Title and Interest
 - Zoning Assessment
 - Existing and/or Proposed Easements (Survey Plan)
 - Waiver Request and Waiver Table
 - Financial Capacity
 - Technical Capability
- Transportation
 - Transportation Narrative
- Environmental and Landscape Features
 - Narrative to Address Standards
- Environmental and Stormwater
 - Narrative to Address Standards
- Public Infrastructure and Safety
 - Narrative to Address Standards
- Site Design
 - Narrative to Address Standards
- Construction Management Plan
- Site Plans



Ms. Barbara Barhydt
December 18, 2018
Page 3

On behalf of the 1006 Congress Street LLC, we look forward to your continued assistance on the project and we look forward to the next available workshop meeting with the Planning Board. Once we complete the Planning Board workshop, the applicant will be conducting a Neighborhood Meeting. We anticipate this meeting will be conducted prior to the Public Hearing.

If you have any questions regarding the materials being submitted, please contact this office.

Sincerely,

STANTEC CONSULTING SERVICES INC.

Darrin B. Stairs, PE
Project Manager
Tel: 207-887-3406
Darrin.stairs@stantec.com

Attachments

c: Jenn Packard
Katherine Detmer, Archetype

V:\2108\active\210801661\civil\admin\permitting\local\level_III_site plan\lfr_barhydt_level3_20181218_final.docx



Stantec Consulting Services Inc.

482 Payne Road Scarborough Court, Scarborough ME 04074-8929

February 26, 2019

Ms. Shukria Wiar, Planner

City of Portland
389 Congress Street
Portland, ME 04101

**Subject: Level III Site Plan Application
1006 Congress Street – Tax Map 076/Block A/22
Letter of Response #1 to Staff Review Comments**

Dear Ms. Wiar:

On behalf of **1006 Congress Street LLC** (Applicant), Stantec has received and reviewed Staff Comments dated January 30, 2019, February 6, 2019, and February 11, 2019 regarding the submitted Level III Site Plan Application for the proposed 1006 Congress Street above referenced project. For ease of reference, we have repeated each comment below in italics followed by our response.

CITY OF PORTLAND STAFF REVIEW COMMENTS DATED JANUARY 30, 2019

Fire – Robert Thompson

- *Fire Department access roads shall have an unobstructed width of not less than 20 ft. Based on the original site plan, this access width is provided on the northern, western, and southern sides of the building.*

Response

Fire Department access is available to the north, west and south sides of the building. The access are two public streets (Congress and Westfield Streets) and on 24-foot-wide drive aisle.

- *Fire Department Access shall have an unobstructed vertical clearance of not less than 13 ft. 6 in.*

Response

There will be unobstructed vertical clearance on all driveway accesses of not less than 13 ft. 6 in.



Ms. Shukria Wiar
February 26, 2019
Page 2

- *The street address shall be marked on the structure and shall be as approved by the City E-911 Addressing Officer.*

Response

Our office is currently working with the City E-911 officer on the confirming the street address. Once this is determined, the street address will be clearly marked.

Planning – Shukria Wiar

1. *Snow and Ice Loading – please show this on the site plan.*

Response

As required, the snow will be moved to the parking area on the nearby Bunker Brewing Company site which is currently owned by the applicant.

2. *Exterior Lighting – Provide cut sheets and photometric plan for all proposed exterior lights.*

Response

Cut sheets for the exterior lighting and a photometric plan are enclosed with this submission.

3. *Noise and Vibration – Show location of HVAC and mechanical equipment on the site plan and on the architectural plans.*

Response

The HVAC equipment are currently being coordinated with the mechanical engineer and will be provided under separate cover.

4. *Zoning Related Design Standards – The B-2 zone had design standards that need to be addressed. Please submit a cover letter stating how this project is meeting these standards.*

Response

The B-2 Design Related Standards were addressed in the Site Design Narrative provided with the original submission (see page 3 of the Site Design Narrative) and as shown below.



Ms. Shukria Wiar
February 26, 2019
Page 3

Zone Related Design Standards (14-526 (d) 9)

- 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

1. Zoning Related Design Standards:

a. Development in certain zones

- (i.) Not applicable - The project is not located in any of the referenced zones.
- (ii.) Not applicable - The project is not located in any of the RP zones.
- (iii.) Not applicable – The existing building has no public portions of the building located on the public streets.
- (iv.) Not Applicable – not in the USM overlay zone
- (v.) thru (viii) Not applicable – not in any of the referenced zones

5. Submit the Availability and Adequate Capacity of Public Utilities.

Response

Our office is continuing to coordinate with the utility companies for this project. The ability to serve the project correspondence from CMP, Until and the City of Portland Wastewater are included with this submission. We are the letter from PWD and will forward upon receipt.

6. ADA Accessible Entrances – Show evidence how the ADA standards are being met.

Response

The ADA entrance and routes are included on the Site Plan included with this submission.

7. The whole of the sidewalk should be replaced on Congress Street; DPW's review is pending.

Response

We understand the City DPW will accept replacement of the existing brick sidewalk with a concrete sidewalk. The site plan has been updated accordingly.



Ms. Shukria Wiar
February 26, 2019
Page 4

8. *Submit a Construction Management Plan for review.*

Response

The Construction Management Plan was uploaded to ePlan on 12/20/2018.

9. *Sidewalk Waiver is requested for Westfield Street – Address waiver criteria for sidewalk and curbing for review by the Traffic Engineer.*

Response

The owner is currently in discussion with the City regarding the best design for the existing street which does not meet city standards and the difficulty with the addition of a sidewalk as the existing grade against the building protects the foundation.

10. *Submit more details on the woonerf on Westfield Street and show it on the plans.*

Response

The woonerf design has been abandoned until the City reaches a resolution on the placement of the homeless shelter in the neighborhood.

11. *Subdivision plat will need to reference the proposed uses, number of residential units, parking, and all the easements.*

Response

This information has been added to the Site Plan which is included in this submission.

Traffic – Tom Errico

1. *The applicant shall conduct a sidewalk waiver analysis for provision of a sidewalk on Westfield Street. I know there has been some thought about providing a woonerf/shared street concept. I am concerned about the amount of existing and potential future traffic on Westfield Street for a shared street condition and review of concept details is required.*

Response

The applicant is requesting a waiver for a sidewalk on Westfield Street at this time.

2. *The width of Westfield Street does not meet City standards. I do not find the existing width to be problematic, as long as on-street parking is prohibited/restricted. This needs to be coordinated with DPW.*



Ms. Shukria Wiar
February 26, 2019
Page 5

Response

The street is already signed “no parking” at several locations as evidenced by the photo below:



3. *The site plan layout for parking and aisle widths meet dimensional standards. I would prefer that all traffic movements occur via Westfield Street, but City standards permit two driveways and thus the one-way exit drive meets City standards. The applicant should provide information on the changes proposed for the loading dock on Congress Street directly east of the proposed exit driveway.*

Response

There are no proposed changes to the loading dock area; however, we will ensure that this area will be protected during construction.

4. *Given project details, I do not expect a significant impact to traffic mobility and safety. A traffic study is not required.*

Response

No response required.

5. *A crosswalk should be painted on Westfield Street at Congress Street and meet ADA standards.*



Ms. Shukria Wiar
February 26, 2019
Page 6

Response

Crosswalk has been added to the plans.

6. *General pedestrian origin/destination patterns should be summarized and how facilities will accommodate logical routings.*

Response

Please see attached narrative prepared by Archetype.

7. *The applicant has provided a construction management plan and I find it to be generally acceptable. The applicant shall provide details of any sidewalk closures or Congress Street traffic impacts for review and approval.*

Response

The Congress Street sidewalk will be closed during the time it will be reconstructed. Signage will be provided for alternate sidewalk routes during construction.

Transportation/Planning – Bruce Hyman

Sidewalk Waiver Requests:

- *The sidewalk waiver request makes reference to a woonerf on Westfield Street but provides no plans, details or documentation to support this request/desired outcome – it does not address the applicable sidewalk waiver criteria. It is – in its current designed form – a curbed street with no sidewalk as per the current plans. The waiver makes reference to a connection to a Portland Trail but does not include any wayfinding to that effect.*

Response

The Woonerf design has been abandoned until the City reaches a resolution on the placement of the Homeless Shelter in the neighborhood. A waiver request is being requested.

Site Plan:

- *The site plan does not show replacement of the sidewalk along the Congress Street frontage which appears to be in fair at best condition. I would like to see consideration of widening the sidewalk to the property line/ROW. No detectable warning panels are shown at the intersection with Westfield Street.*



Ms. Shukria Wiar
February 26, 2019
Page 7

Response

The site plan has been updated to show the removal/replacement of the brick sidewalk and expansion of the sidewalk to a 10' width.

- *The site plan shows uses that could conceivably activate the Congress Street frontage to the rear of the building rather than along the Congress Street frontage. I believe this is a missed opportunity to do so. The uses of the building are solely oriented to the parking lot/driveway to the rear. The quality of pedestrian access to these uses is poor as currently conceived.*

Response

Please see the Architectural plans and narrative.

- *The driveway radii to Congress Street are to be modified to reflect an upgraded sidewalk along Congress St and the right-out only condition proposed.*

Response

The site plan has been updated to address this comment.

Landscape Plan:

- *The Landscape Plan does not address the existing asphalted-in tree wells that are in the existing sidewalk along Congress Street.*

Response

The site plan has been updated to include two (2) new street trees along Congress Street to replace the long since missing trees.

CITY OF PORTLAND STAFF REVIEW COMMENTS DATED FEBRUARY 6, 2019

City Arborist – Jeff Tarling

- *Due to the sidewalk width and challenges of growing trees in the sidewalk in this area we would not look for street trees to be planted in the street right of way sidewalk area.*



Ms. Shukria Wiar
February 26, 2019
Page 8

Response

The site plan was updated per comments. As the sidewalks will be widened we welcome a confirmation from the City Arborist as to the need to install or not install two new trees in the sidewalk.

- *The only tree & landscape change would be to change the River Birch cultivar, shown as BN on the landscape plan, from 'Little King' to 'Heritage' River Birch. The project has space enough to grow the larger type.*

Response

This change will be added to the Site Plan.

CITY OF PORTLAND STAFF REVIEW COMMENTS DATED FEBRUARY 11, 2019

Urban Designer – Caitlin Cameron

Design Review Comments:

- *There is a discrepancy between the plans regarding the interior layout.*

Response

Please see attached Architectural Plans and narrative.

- *Provide all elevations.*

Response

Please see attached Architectural Plans and narrative.

- *Label elevations with materials.*

Response

Please see attached Architectural Plans and narrative.

- *What is the metal siding proposed?*

Response

Please see attached Architectural Plans and narrative.



Ms. Shukria Wiar
February 26, 2019
Page 9

(d) B-2 Commercial Business Zones:

Standard (1) c. Building Entrances – There are multiple entrances to this building. An entrance faces Congress Street but is not residential in character. The café entrance should be placed at the street, on the corner, or made more visible from the public way.

Response

Please see attached Architectural Plans and narrative.

Standard (1) d. Windows – The existing windows are being re-used on the street facades – .7 VT required. The existing windows do not meet the standard that they be installed at a height to allow views into the building by passersby – staff suggest that the more active use (café) should be located at a street façade and used to introduce windows that meet this standard. This could be at the corner or on the Westfield façade.

Response

Please see attached Architectural Plans and narrative.

Standard (1) e. Façade Character – The orientation of the active use (café) is away from the street towards the surface parking lot – this does not meet the standard. Active use should have direct relationship to sidewalk and street. The building location includes two street frontages but does not place the active use at the street or use exterior design to indicate the active use. Consider relocating the active use, orienting the door to the street, introducing additional windows, using– especially in prevalent places such as the corner. Commercial and residential entrances should be differentiated.

Response

Please see attached Architectural Plans and narrative.

Standard (1) f. Building Design – As an adaptive reuse of an institutional building, the existing building type and form differs from the residential buildings in the same streetscape. However, the proposed exterior changes to the building are minimal and do not include any architectural elements to relate the residential or café uses. Building design – materials, articulation, entrance design – should provide a legibility regarding its uses and related to the streetscape. The removal of the porches on this building result in an unfortunate loss of an existing residential feature of the building – consider similar scaling and residential elements for the street-facing facades. The windows and entrances are other opportunities to meet this standard.

Response

Please see attached Architectural Plans and narrative.

Standard (1) g. Building Materials – Clapboard, brick, and storefront are considered compatible given the surrounding context of industrial, commercial, and residential buildings. Because this



Ms. Shukria Wiar
February 26, 2019
Page 10

building is being converted to predominantly a residential use, new materials, such as at the corner, should reflect the residential use and be compatible with the surrounding built context. More information is needed regarding the proposed new materials but staff do not consider metal to be an appropriate siding material for a residential building across from clapboard residential buildings.

Response

Please see attached Architectural Plans and narrative.

Standard (1) i. Landscaping and Buffers – Surface parking areas should be screened from neighboring residential uses with either fence or landscape – this is not met in all locations. The large setbacks require planted landscaped areas. Currently, the street facades contain residential uses – the landscape proposal should indicate this use. Landscape as proposed on Westfield Street is not appropriate - sidewalk, possibly with a planter edge for retaining wall, to provide connection to the café use.

Response

Please see attached Site Plan.

If you have any questions with regards to the information submitted, please contact our office.

Regards,

STANTEC CONSULTING SERVICES INC.

Stephen R. Bushey, P.E.
Associate
Phone: (207) 887-3478
Fax: (207) 883-3376
stephen.bushey@stantec.com

Attachment

c: Jenn Packard
Katherine Detmer, Archetype

1006 Congress Street

Planning Board Re-Submission Cover Letter

2-22-2019

In response to the city's review of our initial documents for the 1006 Congress Street we are submitting revised and additional information.

- The floor plans have been resubmitted with updated information.
- The elevations have been updated and all that have work being done are now included. The east elevation of the original house is not being changed so a photograph has been included.
- The elevations have been updated with proposed materials.
- The proposed metal siding is ATAS design wall in a bronze finish. This material has a horizontal reveal scale that references the clapboard residential fabric across the street but is a finish that will tie into the bronze detailing of openings that ties the original portions of the building to the addition. It also compliments the brick exterior which, apart from the scale of the building and time period of the addition set it apart from its neighboring residences and must be considered in the design.

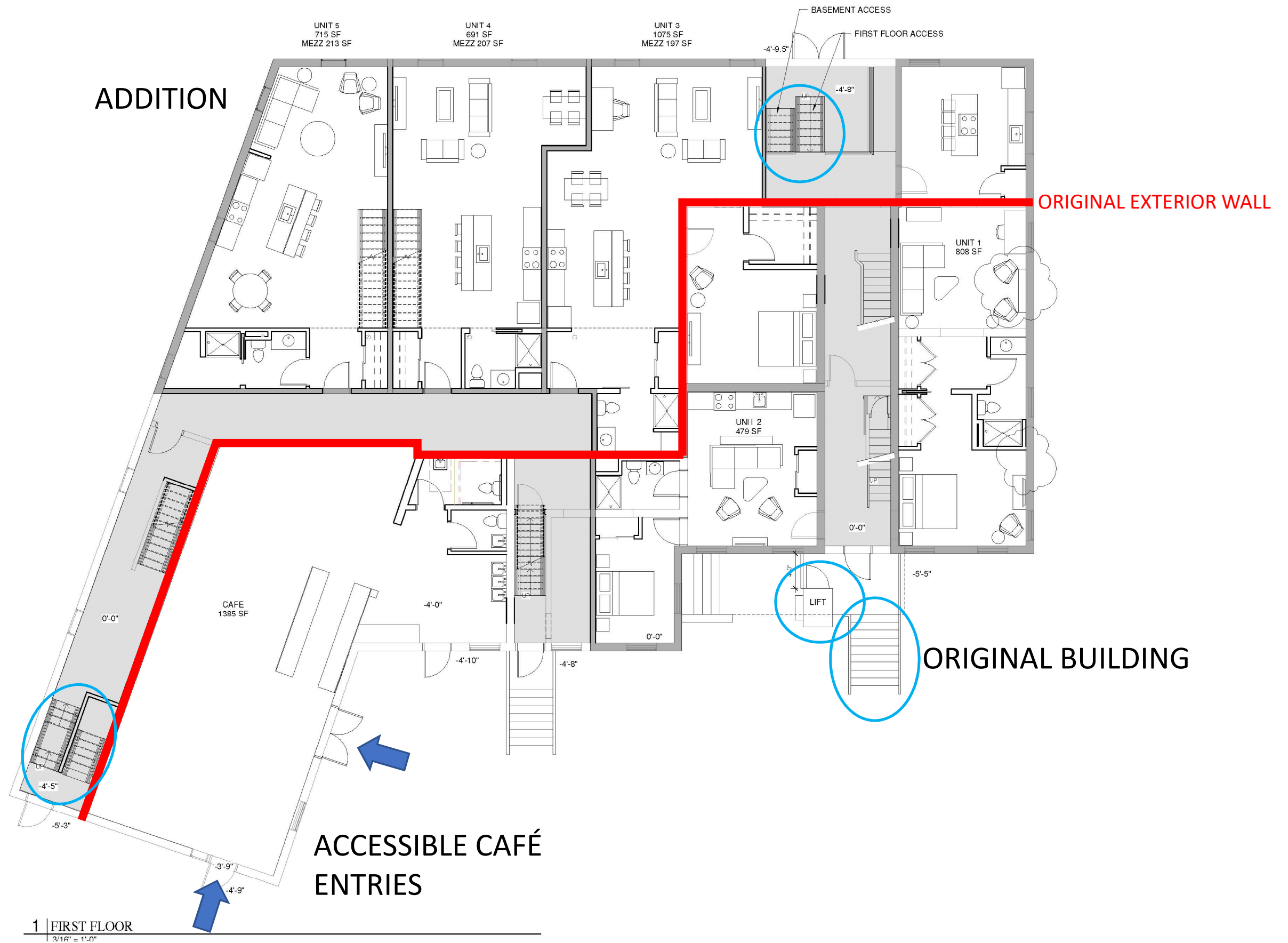
The entrances have been revised. Originally the building was being repurposed as business uses but has more recently been re-designed as apartments and a café. With the new uses the previous entries have been differentiated to designate them as residential or public – the café.

It has been questioned why the café is located at the inner portion of the building rather than right along Commercial Street as guided by the design standards. There are several factors that led to this placement. Some of the included documents help to diagram the explanation.

The attachment – Rated Separation Diagram shows that there is a natural division in the building between the existing house and attached barn and the addition that was added. What was an exterior wall of the barn and its connection to the house which is an 18" thick masonry wall. This provides a natural rated and acoustical separation between the business and residential uses. Then if you look at the spaces on either side of that division the ability to access them is important in locating the café. At most of the entrances it is required to go up or down stairs in order to access the existing floor plates and to make it more complicated there are 13 existing floor plates in the building. The Congress Street entrance takes you into a vestibule that is separated from all floors it accesses by stairs. If you look at the attachment -Floor Level and Grade Elevation diagram you can see that the floor levels along Westfield Street and it is being shown that existing grade along the building lies in between them. This grade is also banked up against the building and meets the building several feet above the grade of the street. The property line for the building runs very near to the building face. The owner is in conversations with the city regarding the street which is too narrow for city standards and the lack of an existing sidewalk. All of these factors combined make it infeasible to be able to create an accessible entrance along the street facades. In contrast, the south and east elevations of the original barn building have door access that is only 10"-12" higher than the existing grade making it possible for sitework to

create accessible entries. On top of the structural and grading rationale, the shape and orientation of the building create a natural location at the core for an outdoor courtyard that can be a feature of the café and that would afford its users a peaceful and naturally lit space. In order to help with the visibility of the business, signage and awning proposals are being made that show on the elevations and a sign is being proposed at the entrance to Westfield Street that would indicate multiple businesses it accesses including the café.

In terms of windows on the building. On permit that was approved previously by the city the windows and roof on the original house were replaced in the existing openings. Other than these we are proposing doors as noted on the elevations as well as six new windows on the corner of Westfield and Congress. As this is an existing building that is being repurposed and the budget it aimed to keep the units as market rate, we are not proposing any other alterations to the openings.





FIRST FLOOR

BASEMENT



Stantec Consulting Services Inc.

482 Payne Road Scarborough Court, Scarborough ME 04074-8929

March 26, 2019

Ms. Shukria Wiar, Planner

City of Portland
389 Congress Street
Portland, ME 04101

**Subject: Level III Site Plan Application
1006 Congress Street – Tax Map 076/Block A/22
Letter of Response #2 to Staff Review Comments**

Dear Ms. Wiar:

On behalf of **1006 Congress Street LLC** (Applicant), Stantec has received and reviewed Staff Comments regarding the submitted Level III Site Plan Application for the proposed 1006 Congress Street project. Many of these were outlined in the Planning Board Workshop Staff report and attachments. For ease of reference, we have repeated each comment below in italics followed by our response.

Right, Title & Interest

- *There is one other parcel that may have rights in Cumberford Place, the applicant will have to confirm this. Staff has requested a legal opinion from the applicant regarding the right, title, and interest.*

Response

Our office provided deed information on January 3, 2019 showing the easement information. A Right of Way Agreement between Fitzgerald Mary E Etal and 1006 Congress Street is currently being drawn up between the parties and will be submitted to the City once complete.

Site and Subdivision Plan Requirements

- *The Applicant shall submit a Boundary Survey that has been Stamped by a Maine Licensed Professional Surveyor per Section 13 of the City of Portland Technical Manual; subdivision recording plat will need to be stamped by the Surveyor.*

Response

A Stamped Boundary Survey and Subdivision Plat is included with this submission.



Ms. Shukria Wiar
March 26, 2019
Page 2

- *Standard Maine DEP erosion and sedimentation control notes should be provided to address items such as temporary stabilization methods and winter construction. The proposed silt fence should be adjusted near the site entrances to provide protection downgradient of the proposed grading.*

Response

The Standard Erosion & Sedimentation notes have been included on the General Notes and Legend Sheet which will address temporary stabilization and winter construction. The positioning of silt fence and related construction Erosion BMP's has been updated on the plan and we believe is satisfactory. The contractor will be responsible to maintain, adjust and add as necessary, any applicable Erosion control BMP's to the site for the duration of construction. They will also be required to assure that mud/dirt is not tracked on to the adjacent streets and that fugitive dust emissions are minimized.

- *Availability and Adequate Capacity of Public Utilities – The project will be served by the Portland Water District, City Department of Public Works (DPW), and underground/power/cable/communications. The Applicant has not submitted capacity letters from Portland Water District and Department of Public Services and need to be forwarded to the Planning Authority as part of the final application.*

Response

PWD: Our office has received an email from PWD confirming the location of water mains on both Congress and Westfield Street (uploaded to eplan 2/26/19). Our office is currently coordinating with the PWD regarding the confirmation of their ability to serve and will forward upon receipt. The existing water service into the building is identified as a ¾" water service off the 8" water line in Westfield Street. It is expected that the line will require replacement with a 2" domestic water service and interior meter upgrade to meet the supply needs of the apartments and café.

DPW: An ability to serve the project has been received and was uploaded to Citizens Self Service and is included with this submission.

- *The project will be served by a sewer line located in Congress Street. Ms. Swett has reviewed the plans and the applicant will need to show "show the location of the existing sewer service connection to the public sewer system within Congress Street on the Site Layout & Utility Plan (Sheet C-3.0)". Grease traps are required for commercial kitchens.*



Ms. Shukria Wiar
March 26, 2019
Page 3

Response

The existing sewer service connection has been clearly identified on the Site Layout and Utility Plan. City records identify a 6" sewer lead from the northwesterly building corner and this ties into the 24" sewer main in Congress Street. We have added a note indicating that an internal grease tank will be installed within the Café plumbing. This is likely to be a small interior tank (<20 gal capacity) since the Café will not involve substantial kitchen services that might otherwise contribute excessive grease, etc. If a more substantial commercial kitchen for full service dining is proposed, then a standard City grease trap will be installed and tied back into the existing sewer service line exiting the building. At this time, the applicant is requesting approval simply to install a low volume, interior grease tank for the Café.

- *Please provide locations of stormwater drainage pipe in Congress Street and Westfield Street and update locations of catch basins and invert elevations accordingly. The 4' diameter drainage manhole proposed in Westfield Street appears to conflict with the existing 8" water line.*

Response

The existing drainage within Westfield Street consists of a 15" pipe down the center of the street. The two existing catch basins on the east (site) side of the street tie into the 15" SD to the best of our understanding. The existing main in Congress Street consists of a 24" pipe that also runs generally down the middle of the street. We have updated the drainage pipe to simplify the onsite system and to make a single connection to the system in Westfield Street only. We would prefer not to open Congress Street to make any drainage connection. We now propose to connect a new 12" storm drain pipe, located within our Westfield entrance, out to the existing manhole in the street. The existing runoff from the site generally makes its way to either Westfield or Congress Street via sheet flow thus we believe that the new onsite system of collection and routing to Westfield Street is not a substantial change to the overall drainage regime, particularly given the relatively small increase of overall impervious area on the site. The installation of a more defined onsite collection system, consisting of three catch basins and a 12" pipe conveyance network is considered an improvement over the existing undefined overland flow conditions. Further, we propose the installation of Fabco™ catch basin filter inserts for water quality treatment of a majority of the site's proposed pavement area, landscape and hardscape and portions of the existing roof area. These measures will help trap sediments and also provide water quality treatment benefits in compliance with the City's standards.

- *Please provide pavement butt joint and repair details for installation of stormwater drainage infrastructure in Congress Street and Westfield Street.*



Ms. Shukria Wiar
March 26, 2019
Page 4

Response

The detail sheets have been updated to include a pavement sawcut restoration detail as requested.

- *Site grading should ensure that stormwater flow does not exit the site onto adjacent properties. It is understood that this is a challenge with urban sites. Please provide additional spot grades along the northwest property line and at the southeast corner of the building to verify grading around the site.*

Response

The Grading, Drainage and Erosion Control Plan has been updated to show the layout of a drainage collection system and the grading on the lot that will basically direct nearly all of the property's site runoff to three new catch basins and ultimately a discharge to the city drainage system in Westfield Street. The perimeter of the new parking and paved access drive will be curbed, thus, the amount of area contributing any runoff to the abutting properties will be substantially reduced. Spot grades and more detail to the proposed site grading and drainage are provided on the accompanying plans.

- *The site plans do not show exterior solid waste disposal. The applicant shall provide more information on proposed solid waste will be managed on site.*

Response

The applicant proposes to handle solid waste collection and recycling by providing an interior area for residential scale totes that residents can place waste or recyclable materials, for weekly (or as necessary) removal by a waste contractor.

- *There are internal walkways on the site, which will connect from the parking areas to the building entrances. The existing sidewalk along Congress Street, which is brick, is not in good condition. Staff has requested that it be reconstructed in concrete, since it is in the concrete sidewalk district of the City's sidewalk policy. Applicant has shown a five-foot sidewalk on the revised site plan but staff recommends that sidewalk be constructed to the property line.*

Response

The accompanying plans depict the reconstruction of the existing sidewalk along the Congress Street frontage, including changing the sidewalk surface from brick to new concrete. The plans now show a 10' wide concrete sidewalk. Because of the existing depth from back of curb to the right of way line (11' to 17.5'), we believe a maximum 10' wide sidewalk is more appropriate for the location. We understand that Section 14-526 (a) 2.c.ii reads as follows:



Ms. Shukria Wiar
March 26, 2019
Page 5

City of Portland
Code of Ordinances
Sec. 14-526

Land Use
Chapter 14
Rev. 11-7-2016

(ii) Where sidewalks already exist but are in substandard condition, they shall be repaired or replaced in conformance with Chapter 25 of the City Code and Section 1 of the Technical Manual.

In accordance with Chapter 25 – Section 98, we interpret the reconstruction of the Congress Street sidewalk as the responsibility of the City. The applicant will be complying with the City code by providing new granite curb and sidewalk along Westfield Street, thus the additional City request to replace the existing Congress Street sidewalk tilts the site improvements costs for this modest project proposal to a level that significantly impacts overall project economics. Combined with the fact that affordable housing is also made part of the project, it becomes ever more difficult to balance the project expenditures with the development's income production. We believe that the additional burden of replacing the Congress Street sidewalk is an extraordinary measure and can be considered an unfair request on the applicant if they are asked to pay for its cost.

- *There is no sidewalk along the Westfield Street frontage and the applicant is not proposing one. A waiver has been requested for the construction of a sidewalk along the Westfield Street frontage. According to the applicant, the building is right on the property line and the building's foundation footing is preventing the construction of the sidewalk. The applicant has had on-going discussions with Portland Trails about creating a 'shared use' connection on Westfield Street as part of the Fore River Parkway Trail access, but the City don't have best practices or standards for a 'shared use' street (refer to Jamie Parker of Portland Trails memo, Attachment 7). City staff, Portland Trails, and the applicant and their consultants meet on March 5, 2019 to discuss this concept, as well as the sidewalk on the Westfield. There is a potential for additional development off Westfield Street, such as plans for a shelter and/or police station, thus, the public street could have a higher pedestrian and vehicle counts with any potential development of the land off County Way and Westfield Street.*

Response

The current plans depict the placement of a 5' wide standard sidewalk along the east side of Westfield Street. To accomplish this layout, the applicant is requesting that the travel way on Westfield be reduced to a width of 22.0'. The sidewalk can be placed on the east side of the road in a manner the reduces potential impact to the existing



Ms. Shukria Wiar
March 26, 2019
Page 6

building and foundation systems and also precludes the need for any retaining walls behind the sidewalk, that might otherwise be necessary to overcome the difference in street grade to the exterior grade along the building face.

- *As such, DPW recommends that a sidewalk be constructed along the Project frontage if at all feasible. In the event that the street becomes a shared street in the future, the sidewalk will allow safe pedestrian access to the street via a sidewalk before merging onto the roadway, as the area around the intersection (and auto body shop across Westfield Street) will likely be the most dangerous portion of Westfield Street for pedestrians.*

Response

The proposed sidewalk has been added to the plans. A sidewalk connection along the proposed Westfield driveway entrance is also proposed for ADA compliant (<5%) access from the Westfield sidewalk to the café and residential unit entrances.

- *Jeff Tarling, City Arborist, reviewed the landscaping plan and states "Due to the sidewalk width and challenges of growing trees in the sidewalk in this area we would not look for street trees to be planted in the street right of way sidewalk area".*

Response

The plans reflect the elimination of the street trees along Congress Street.

- *Basic Standards – Standard Maine DEP erosion and sedimentation control notes should be provided to address items such as temporary stabilization methods and winter construction.*
- *The proposed silt fence should be adjusted near the site entrances to provide protection downgradient of the proposed grading.*
- *General & Flooding Standards - The Applicant should provide additional information to address stormwater management for stormwater quantity and quality. It appears that treatment will be required for new impervious surface per the City's standards. Quantification of the new impervious surface should include any new roadway area constructed as part of the project.*

Response

Basic erosion control notes have been added to the plans and updates to the placement of silt fence and related measures have been made on the plans. To address the water quality treatment needs of the project we have identified that the proposed catch basins will contain filter inserts to provide water quality treatment benefits. A



Ms. Shukria Wiar
March 26, 2019
Page 7

Stormwater Management Memo and Draft Stormwater Agreement is included with this submission to address these comments.

- *The applicant has provided a catalogue cuts indicating the wall mounted type is a full cutoff fixture in accordance with the City's Technical Manual; more information is needed to determine if the pole mounted is full cutoff.*

Response

According to the lighting designer, Swaney Lighting, the proposed pole top mounted fixture meets the City standards if the option for a Dark Top is provided. This will be the case for the project proposal.

- *A council member inquired about bike racks.*

Response

Two bike racks are proposed near the plaza between the rear of the building and the parking lot.

Additional Comments from March 22, 2019 email

1. *The City's site plan ordinance requires that a public sidewalk be installed along Westfield Street. The Department of Public Works requires the sidewalk shall be built according to the City of Portland's Technical Manual, including: asphalt material, at least 5'-0" wide, granite curb with 7" reveal (negotiable), 2% maximum cross-slope, and an ADA-accessible crossing across the site driveway. As we discussed at the meeting, we are willing to consider sidewalk concepts before preparing an engineered drawing of the sidewalk, if that is helpful. Mike Tremblay, Senior Engineer, also noted that the Department of Public Works is willing to consider a waiver of the street width in order to provide a safe sidewalk that is clear of the building footing and provides compliant ADA access. He also noted in his review comments and at the meeting, that the sidewalk does not preclude an option for a shared street with year-round accommodations at some future point (Att. 2 to the March 12th PB workshop memo). Staff feels that every attempt shall be made to have the sidewalk on Westfield Street.*

Response

Please see response above.

2. *If the applicant concludes that a sidewalk is not feasible, then a waiver of the sidewalk requirement must be sought. This requires documentation to be submitted for review and approval that address the criteria for a sidewalk waiver located in Section 14-506 of*



Ms. Shukria Wiar
March 26, 2019
Page 8

the Land Use Code. In the event that a sidewalk waiver on Westfield Street is sought and granted, suitable ADA access to the project site shall be provided elsewhere.

Response

Please see response above.

3. *At the March 19th site visit, Jennifer Packard stated that they are looking at a walkway from Congress Street to the rear of the property, along the driveway. The proposed walkway should be shown on the revised site plan.*

Response

Due to the width of the driveway exiting onto Congress Street and the parking requirements, a walkway is not proposed.

4. *At the March 12th Planning Board workshop, there seemed to be some confusion as to whether stormwater management was required for this project. The site plan requirement for stormwater management is found in Chapter 5 of the Technical Manual and states that the increase of impervious surface area over 1,000 sf triggers both quantity and quality treatment. Please refer to Lauren Swett's, P.E., previously forwarded review comments (Att. 3 to the March 12th Planning Board workshop memo).*

Response

Please see response above.

5. *The shared accessway, is shown with a raised curb to be installed along the paved edge. Does this allow access for the other adjoining property owners to use the accessway? Does the curb line on the curve need to be flush or mountable for access to the abutters?*

Response

Installation of mountable curb has been included on the plans for access to adjoining property.

Zoning Related Design Standards

- *Standard (1) c. Building Entrances – There are multiple entrances to this building. An entrance faces Congress Street and has a curved canopy referential to the arched windows existing. Since the café cannot be placed to face the street, staff requested the active use be indicated at the street. This is accomplished with an awning that turns*



the corner and signage. A sidewalk or other accessible path should also be included from Congress Street to this use.

- *Standard (1) d. Windows – The existing windows are being re-used on the street facades – .7 VT required. The existing windows do not meet the standard that they be installed at a height to allow views into the building by passersby. New windows introduced at the prominent corner are encouraged, however, staff commented that the proposed size and configuration are awkward and do not relate to the residential use. Consider revising the top two rows of windows to be fewer in number and bigger in size or else, consider size and proportions and details more similar to the existing residential windows on the building, perhaps incorporated the arched header in some way.*
- *Standard (1) e. Façade Character – The orientation of the active use (café) is away from the street towards the surface parking lot. Active use should have direct relationship to sidewalk and street. The building location includes two street frontages but does not place the active use at the street or use exterior design to indicate the active use. The active use is indicated at the corner with signage and an awning. Commercial and residential entrances are differentiated with different types of awning.*
- *Standard (1) f. Building Design – As an adaptive reuse of an institutional building, the existing building type and form differs from the residential buildings in the same streetscape. However, the proposed exterior changes to the building are minimal and do not include any architectural elements to relate the residential or café uses. Building design –materials, articulation, entrance design – should provide a legibility regarding its uses and related to the streetscape. The removal of the porches on this building result in an unfortunate loss of an existing residential feature of the building – consider similar scaling and residential elements for the street-facing facades. The windows and entrances are other opportunities to meet this standard.*
- *Standard (1) g. Building Materials – Clapboard, brick, and storefront are considered compatible given the surrounding context of industrial, commercial, and residential buildings. Because this building is being converted to predominantly a residential use, new materials, such as at the corner, should reflect the residential use and be compatible with the surrounding built context. Staff find the proposed metal siding to be acceptable if the orientation is kept to horizontal to relate to the clapboard found in nearby residential buildings and if the material and details are kept a consistent color throughout the project (siding, canopies, balcony railing, etc.). The finish should be matte, rather than reflective, in character. The balcony at the back of the building should be revised to be lighter, less solid and tall.*



Ms. Shukria Wiar
March 26, 2019
Page 10

- *Standard (1) i. Landscaping and Buffers – Surface parking areas should be screened from neighboring residential uses with either fence or landscape – this is not met in all locations. The large setbacks require planted landscaped areas. Currently, the street facades contain residential uses – the landscape proposal should indicate this use. Landscape as proposed on Westfield Street is not appropriate - sidewalk, possibly with a planter edge for retaining wall, to provide connection to the café use.*

Response

Archetype has been coordinating with Caitlyn Cameron regarding the above referenced comments. We have included revised architectural information which addresses these comments.

We appreciate the staff comments pertaining to the project and we trust that the responses and plan changes made will adequately address your comments and concerns. Further, we trust this information will allow the scheduling of the project for a public hearing before the Planning Board, at which an approval action may be achieved.

If you have any further informational need please contact this office.

Regards,

STANTEC CONSULTING SERVICES INC.

Stephen R. Bushey, P.E.
Associate
Phone: (207) 887-3478
Fax: (207) 883-3376
stephen.bushey@stantec.com

Attachment

c: Jenn Packard
Katherine Detmer, Archetype

V:\2108\active\210801661\civil\admin\permitting\local\level_III_site plan\lor\lor_2_wiar_20190326_final.docx



Stantec Consulting Services Inc.

482 Payne Road Scarborough Court, Scarborough ME 04074-8929

April 4, 2019

Ms. Shukria Wiar, Planner

City of Portland
389 Congress Street
Portland, ME 04101

**Subject: Level III Site Plan Application
1006 Congress Street – Tax Map 076/Block A/22
Letter of Response #3 to Staff Review Comments**

Dear Ms. Wiar:

On behalf of **1006 Congress Street LLC** (Applicant), Stantec has received and reviewed yesterday's Staff Comments from Lauren Swett and Keith Gray regarding the submitted Level III Site Plan Application for the proposed 1006 Congress Street project. Specifically, Lauren has requested additional computational support related to the Stormwater management compliance. The project results in a very small increase in overall impervious area. Overall, site improvements are expected to aid with the collection and conveyance of stormwater runoff, whereby runoff will continue to be directed to the existing municipal systems in Westfield Street and Congress Street. We believe there will be significant improvement to the site conditions including a significant reduction of runoff sheeting either towards the Fitzgerald Tile property or runoff sheeting towards the southeast end of the Cumberland Place ROW, both conditions of which have been considered problems by the abutting owners. The accompanying update to the Stormwater memo contains various calculations in support of our design compliance with the City's stormwater management standards. We note that this analysis is somewhat rudimentary due to the very small size of the watershed area under review and the methodology being employed. The HydroCAD software, and most computational methods for that matter, are not well suited to watershed areas under an acre in size. So, our fundamental finding that less runoff will be shed towards the abutters and it will be conveyed out to the street, where it can be properly handled, meets the ultimate objectives of the standards, in our opinion. We appreciate Ms. Swett's indication that an exception can be made on the use of the Fabco Catch Basin Filter product line. Given the nature of the site, we believe this product will provide a nice improvement to treat collected stormwater runoff.

A second comment relating to the proposed grease trap installation has been addressed by the addition of a note to the site plan. Basically, there are no plans for a commercial kitchen so we stand by the request for an internal grease trap, given the nature of the proposed café and the very limited kitchen equipment and expected food preparation and dish cleaning proposed.

Design with community in mind



Ms. Shukria Wiar
April 4, 2019
Page 2

Finally, Keith Gray has indicated that DPW will require a 24' wide road section be maintained along Westfield Street. Thus, we have updated the site plan to shift the proposed sidewalk to provide the 24' wide travel way on the street.

We appreciate the staff comments pertaining to the project and we trust that the responses and plan changes made will adequately address your comments and concerns. Further, we trust this information will allow positive findings to be provided to the Planning Board at the April 9th public hearing, at which an approval action may be achieved.

If you have any further informational need please contact this office.

Regards,

STANTEC CONSULTING SERVICES INC.

Stephen R. Bushey, P.E.
Associate
Phone: (207) 887-3478
Fax: (207) 883-3376
stephen.bushey@stantec.com

Attachment

c: Jenn Packard
Katherine Detmer, Archetype

V:\2108\active\210801661\civil\admin\permitting\local\level_III_site plan\lor\lor_3_wiar_20190404_final.docx

Portland, Maine



Yes. Life's good here.

Planning & Urban Development Department

LEVEL II and LEVEL III APPLICATION SUBMISSION CHECKLIST

Please submit each document as a separate PDF file.

Please confirm by electronically checking the boxes to the left

General Application Documents

Checklist	Items to be Provided
Yes ☒ NA ☐ Plan ☐	PROJECT DESCRIPTION Cover Letter with detailed project description
Yes ☒ NA ☐ Plan ☐	COMPLETED CHECKLIST – LEVEL III APPLICATION
Yes ☒ NA ☐ Plan ☐	RIGHT, TITLE AND INTEREST Deeds, leases, or purchase and sales agreements
Yes ☐ NA ☒ Plan ☐	EVIDENCE OF STATE OR FEDERAL APPROVALS , if applicable Permits or letters of non-jurisdiction, if applicable
Yes ☒ NA ☐ Plan ☐	ZONING ASSESSMENT Table listing required and proposed uses and dimensional standards Zoning Assessment Table
Yes ☒ NA ☐ Plan ☒	EXISTING &/OR PROPOSED EASEMENTS OR COVENANTS , if applicable Evidence of existing easements and any proposed easements
Yes ☒ NA ☐ Plan ☐	WAIVER REQUESTS Written request for waiver describing request and reason. Waiver Table
Yes ☒ NA ☐ Plan ☐	FINANCIAL CAPABILITY Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
Yes ☒ NA ☐ Plan ☐	TECHNICAL CAPABILITY Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

LEVEL II AND LEVEL III SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.

Please submit each document as a separate PDF file.

TRANSPORTATION

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

ENVIRONMENTAL AND LANDSCAPE FEATURES			
Check list			Assess/Provide/Document:
Yes	NA	Plan	Preservation of Significant Natural Features (14-526 (b) 1), if applicable • Trees, plants, habitats listed on State or Federal list of endangered or threatened • High and moderate value waterfowl and wading habitat • Aquifers on Casco Bay Islands • Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) • Proposed preservation areas and protection measures • Documentation from environmental consultants, determinations from applicable state agencies
Yes	NA	Plan	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	Plan	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	Plan	Parking Lot Landscaping (14-526 (b) 2 b ii), if applicable • Landscaped islands within parking areas (Technical Manual, Section 4)
Yes	NA	Plan	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			
Check list			Assess/Provide/Document:
Yes	NA	Plan	Water Quality, Stormwater Management and Erosion Control (14-526 (b) 3 a) • Stormwater report in compliance with Section 5 of Technical Manual and DEP Chapter 500 stormwater for basic, general and flooding standards, as applicable • Erosion control plan and measures • Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater, as applicable • Subsurface sanitary sewage disposal and groundwater protection

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

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

Level II and Level III Site Plan Checklist Please upload the following drawings with the listed details into e-Plan as separate pdfs.	
☒ RECENT BOUNDARY SURVEY (stamped by Maine Licensed Surveyor)	
Must be in compliance with Technical Manual, Section 13	
SITE PLAN(s) (stamped by Maine Licensed Engineer) including:	
☒ Existing Conditions • Approximate location of structures on abutting property • Topography • Locate water courses • Delineate wetlands • Zone lines ☒ Proposed Site Plan • Ground floor area, and grade elevations for all buildings ☒ Access, Circulation, and Parking • Streets and intersections adjacent to site , any proposed geometric modifications • Location, dimensions and materials of all existing and proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines • Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas • Location and dimensions of proposed loading areas • Existing and proposed transit infrastructure with dimensions/ engineering specifications • Location of vehicle and bicycle parking with dimensions and engineering specifications ☒ Site Considerations • Identify snow storage areas • Location of fire hydrants • Location of solid waste management facilities	
☒ UTILITY PLAN including:	
• Existing utilities on site and within public streets • Location, sizing, and directional flows of all existing and proposed utilities • Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site • Electric utility infrastructure	

☒ GRADING and DRAINAGE PLAN including:
• Existing grades and drainage • Proposed grades • Proposed stormwater management meeting Technical Manual (Section 5) standards • Location and proposed alteration of a water course • Preservation or alteration of wetlands
☒ EROSION CONTROL
• Must be in compliance with Technical Manual, Section 5
☒ LANDSCAPE PLAN including:
• Existing vegetation to be preserved and preservation measures • Proposed landscaping and buffers • Planting schedule
☒ RECORDING PLAT , if applicable
• IF SUBDIVISION: Must be in compliance with requirements of Section 14-496 (b)
☒ ARCHITECTURAL PLANS & RENDERINGS including:
• Exterior building elevations, color renderings, illustrations of all sides • Location and dimensions of all existing & proposed HVAC & mechanical equipment, all proposed screening • Provide context drawings, if applicable (Design Manual, page 1) • Floor plans

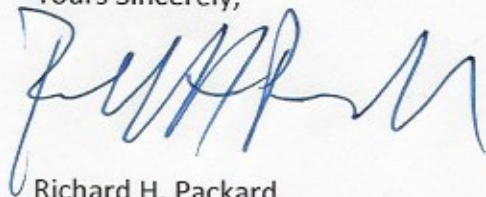
February 22, 2019

Ms. Jean Fraser
Planning Department
City of Portland
389 Congress Street
Portland, ME 04101

Dear Jean,

This letter is provided to show that Jennifer Packard or David Packard, in their capacity as managers of 1006 Congress St, LLC, are legally authorized to submit applications to the City of Portland on behalf of 1006 Congress St, LLC for changes to the status of a building located at 50 Monument Square. They are also authorized to otherwise represent 1006 Congress St, LLC in any hearings before the City. I am a Managing Member of 1006 Congress St, LLC.

Yours Sincerely,



Richard H. Packard
Managing Member
The Lancaster Group, LLC

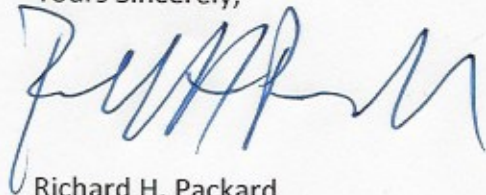
February 22, 2019

Ms. Jean Fraser
Planning Department
City of Portland
389 Congress Street
Portland, ME 04101

Dear Jean,

This letter is provided to show that Jennifer Packard or David Packard, in their capacity as managers of 1006 Congress St, LLC, are legally authorized to submit applications to the City of Portland on behalf of 1006 Congress St, LLC for changes to the status of a building located at 50 Monument Square. They are also authorized to otherwise represent 1006 Congress St, LLC in any hearings before the City. I am a Managing Member of 1006 Congress St, LLC.

Yours Sincerely,



Richard H. Packard
Managing Member
The Lancaster Group, LLC



Memo

To: City of Portland

From: Adam Shane, EIT/Stephen Bushey, PE
Stantec

File: 210801661

Date: March 26, 2019

Reference: 1006 Congress Street Stormwater Management Summary

The subject 0.45 acre property contains an approximately 6,940 sf brick building. There is a gravel driveway entering the site from Westfield Street and a gravel driveway from Congress Street. The remainder of the site is a mix of lawn and gravel surface. There is a shared right of way along the southwesterly property boundary that is currently used as an entrance to the site. The site pitches away from the building on all sides with the primary drainage pattern being sheet flow out to Westfield and Congress Streets. It appears that stormwater runoff is handled through the closed drainage system within both Congress Street and Westfield Street with a small portion of the site draining through the shared right of way towards Ogdensburg Street (Paper Street). Surface water within the Ogdensburg Street right of way generally drains overland from north to south and ultimately drains to the Fore River. Elevations on site range from 31 to 27 (NGVD29) with the high ground being in the northerly corner of the site surrounding the building. Low ground is at each of the driveway entrances. The site is within the Fore River watershed, and is approximately 1,500 feet away from the Fore River. The nearby drainage systems include a 15" drain line in Westfield Street and a 24" drain line in Congress Street according to City records. There are two catch basins in Westfield Street that capture runoff from the street and some of the abutting property.

The proposed project includes renovation of the existing building into nine residential apartments as well as a small café space. There will be site work to provide adequate access, parking, and drainage for the site. This will include new paving and the installation of a close drainage system to collect and convey stormwater runoff to Westfield Street. Table 1 below compares impervious area for both existing and proposed conditions. It should be noted that the shared right of way adjacent to the site has been included in the table below.

Table 1. Impervious Area Summary	
Existing Impervious Area (sf)	15,449
Proposed Impervious Area (sf)	18,234
Net Increase (sf)	2,785

As depicted above, there is a net increase of approximately 2,785 sf of impervious area. The site's stormwater runoff conditions consist of no formal system to provide treatment or runoff control. Therefore, the stormwater strategy for the proposed project is to capture and provide treatment to as much developed area as possible, before discharging into the adjacent closed drainage system in Westfield Street. The proposed grading of the site will create catchments for three catch basins and these will be connected with drainage piping that will ultimately connect to the 15" pipe system in Westfield Street. Three catch basins are proposed; one in each driveway to capture the most stormwater runoff from the site as possible, and one interior to the site in the shared right of way. The main entrance area to the building as well as portions of the roof will also drain to these areas. Treatment will be provided through the use of Fabco StormBasin catch basin inserts. These inserts provide filtration of stormwater runoff that is captured through the catch basin while providing an emergency overflow for large storm events. The StormBasin is designed to capture and retain stormwater pollutants, namely: sediment, trash, vegetation, nutrients, coliform bacteria, oil/grease and dissolved metals (e.g., lead, copper, cadmium and chromium).

Reference: 1006 Congress Street Stormwater Management Summary



Based on the analysis above, it is our opinion that there will be no adverse effects to downstream properties or conveyances caused from the proposed development.

Accompanying this memo is an Operations and Maintenance Manual for the site's drainage systems as well as a Draft Stormwater Management Maintenance Agreement.

Attachments

- Operations & Maintenance Manual
- Draft Stormwater Management Maintenance Agreement

**INSPECTION AND MAINTENANCE MANUAL
FOR STORMWATER MANAGEMENT AND
RELATED STORMWATER FACILITIES**

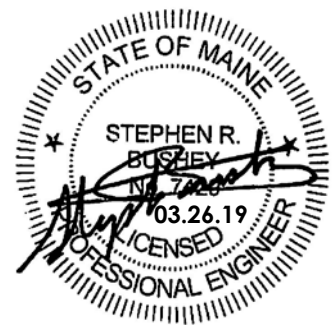
**1006 Congress Street
Portland, Maine**

PREPARED FOR:

**1006 Congress Street LLC
Portland, Maine**

PREPARED BY

**STANTEC CONSULTING SERVICES INC.
482 PAYNE ROAD – SCARBOROUGH COURT
SCARBOROUGH, MAINE 04074
(207) 883-3355**



MARCH 2019

TABLE OF CONTENTS

SECTION	DESCRIPTION	PAGE
I.	INTRODUCTION	1
	A. Guidelines Overview.....	1
	B. Responsible Party	2
II.	PROJECT OVERVIEW	2
III.	STANDARD INSPECTION/MAINTENANCE DESCRIPTIONS.....	3
	A. Stormwater Inlets	3
	B. Tributary Drainage System	4
	C. Drip Edge Filters.....	5
	D. Litter	5
	E. Summary Checklist	5
IV.	PROGRAM ADMINISTRATION.....	6
	A. General.....	6
	B. Record Keeping	6
	C. Contract Services	7

APPENDICES

Appendix A – Sample Inspection Logs

Appendix B – Permits for Project

Appendix C – Summary Checklist for Inspection and Maintenance

I. INTRODUCTION

Relatively complex stormwater management facilities are commonly installed in development projects including, commercial facilities, and many other developments. The complexity and goals of these systems vary with the nature of the receiving water, as well as the type of development. Runoff from developed areas of the project, including rooftops, paved, or lawn areas typically contain materials that can impact the receiving waters. Source control combined with pretreatment measures or vegetated buffer strips and other best management practices are among the options that can significantly reduce the non-point pollution discharge from the developed area. These measures are particularly important to projects in the watersheds of sensitive water bodies, or projects with potential impacts to groundwater. With the increased cost of land and development, there is an increased tendency to construct portions of the stormwater management systems underground.

The effectiveness of water quality management provisions and other components of the stormwater management system are dependent on their design, upkeep, and maintenance to assure they meet their intended function over an extended period of years. It is critical that the stormwater management facilities are regularly inspected, and that maintenance is performed on an as-needed basis. It must also be recognized that the effectiveness of these facilities, and their maintenance requirements, are related to the stormwater drainage facilities that collect and transport the flow to the treatment measures. Thus, maintenance should be directed to the total system.

The purpose of this document is to define, in detail, the inspection and maintenance requirements deemed necessary to assure that the stormwater management facilities function as intended when they were designed. Subsequent sections identify individual maintenance items; give a brief commentary of the function and need for the item, a description of the work required, and a suggested frequency of accomplishment. While the suggested programs and schedules must be adapted to specific projects, the material presented should provide guidance for a successful long-term program for operation and maintenance. Certain facilities are not intended to be placed in service until the tributary catchment area has the permanent cover in place and any contributing turf areas have achieved a 90% catch of vegetation (i.e. established).

A. GUIDELINES OVERVIEW

A summary of the individual components of stormwater management facilities for this project has been prepared. The format used in the summary is as follows:

Preface: A general description of what function/benefit the element is intended to provide. This is a short summary and not intended to provide the design basis, which can be found in other sources.

Inspection: This section provides the inspection requirements for the individual component.

Maintenance: The section provides general information on the routine maintenance requirements of this element.

Frequency: This section outlines the best judgment of the designer on the system to the frequency of maintenance.

Comments: This section provides any particular comment on the site-specific features of this element. This is a summary only. The Owner/Operator should review the design drawings and documents carefully to understand the particular elements of the project. The end of this section should allow the Owner/Operator to make notes on the specific program. This may include the selected maintenance procedure, cross-references to applicable design drawings, etc.

A list of the individual inspection/maintenance elements is provided in the table of contents. The guidelines are proposed for initial use with adjustments made as appropriate based upon specific project experience.

This report includes the Operation and Maintenance requirements for any potential BMP identified for this project.

B. RESPONSIBLE PARTY

The responsible party for operation and maintenance of the stormwater and other site infrastructure is 1006 Congress Street LLC, Attn: Jennifer Packard.

II. PROJECT OVERVIEW

Key permits issued (or applied for) on the project include:

- City of Portland Level III Site Plan Review

A copy of the Level III Site Plan Permit should be appended to this manual as Appendix B. The Owner/Operator of the stormwater management system should review the permit for a general description and background of the project, as well as any specific permit conditions or requirements of the project.

The applicant has retained Stantec for civil engineering for the project. Stantec Consulting Services Inc. has prepared the design for the stormwater management facilities and may be contacted at:

Stantec Consulting Services Inc.
482 Payne Road – Scarborough Court
Scarborough, ME 04074
(207) 883-3355

It is recommended the preparer of the plan be contacted with any questions on the design intent or similar issues.

The applicable plans and design documents, which apply to the project, are:

1. Civil Site Plans Prepared by Stantec Consulting Services Inc.
2. The Erosion Control/Sedimentation Control Plan for the project

A copy of these documents should be retained with this manual.

The proposed design includes inlets, stormwater conveyance lines, and roof drip edge filter.

III. STANDARD INSPECTION/MAINTENANCE DESCRIPTIONS

The following narratives describe the inspection/maintenance provisions for the Stormwater Management system. These O&M procedures will complement scheduled sweeping of the parking lot which are anticipated to occur on an as needed basis. Proper O&M is necessary to make sure the system will provide its intended purpose of conveying runoff, removing a substantial amount of the suspended solids, and other contaminants in the stormwater runoff.

A. STORMWATER INLETS

Preface: The success of any stormwater facility relies on the ability to intercept stormwater runoff at the design locations. Stormwater inlets may include catch basins, open culverts, culverts with bar screens, roof scuppers, trench drains, and field inlets.

Inspection: The inspection of inlet points will need to be coordinated with other maintenance items, these include:

- Landscape services
- Building maintenance areas
- Grounds maintenance

The key elements of the inspection are to assure the inlet entry point is clear of debris and will allow the intended water entry.

Maintenance: The key maintenance is the removal of any blockage which restricts the entry of stormwater to the inlet. The removed material should be taken out of the area of the inlet and placed where it will not reenter the runoff collection system. Snow should be removed from inlets within paved areas. Grass clippings and leaves should be bagged and removed.

Frequency: All inlets should be inspected on a quarterly basis, and after/during significant storm events.

Maintenance/Inspection Responsibility:

Maintenance Personnel: The maintenance personnel will perform the normal maintenance/inspections of the inlets and tributary drainage system.

Comments: Maintenance of inlets is critical on this project including semi-annual cleaning of all catch basin sumps.

B. TRIBUTARY DRAINAGE SYSTEM

Preface: The stormwater conveyance system will be principally overland flow discharging to piped drain systems. Most of the sediment is carried by the drainage system is intended to be trapped near the inlets. Maintenance of this system can play a major role in the long-term maintenance costs and the effectiveness of the drainage system.

Inspection: The tributary drainage system should be periodically inspected to assure that it is operating as intended, and that its carrying capacity has not been diminished by accumulations of debris and sediment or other hydraulic impediments. On piped systems, the inlets must be inspected to ensure the rims are set at the proper elevation to optimize flow entry and are not clogged with debris. The inlet catch basins are normally equipped with sumps and hooded outlets which will remove gross floatables and large sediment particles from the flow stream. The catch basins will also be fitted with treatment filters that will require regular maintenance and possible replacement in accordance with the manufacturer's recommendations.

The level of sediment in the sumps should be checked to assure their effectiveness. Pipelines connecting the inlets should be checked to determine if siltation is occurring. This will be most critical on drain lines laid at minimal slopes. This can usually be accomplished by a light and mirror procedure.

In some projects most of the stormwater is carried in open swales, channels, or ditches. These conveyance channels may be rip rapped or vegetated, depending on the gradient and expected flow velocities. These facilities must be inspected to insure debris or sedimentation does not reduce their carrying capacity. Excess vegetative growth must also be noted. The surface protection for the channels, either stone or vegetation, must be inspected to insure its integrity. Any areas subject to erosion should be noted.

Maintenance: Maintenance of the storm drainage system must assure that it continues to serve its design function on a long-term basis, and that its operation does not transport excessive sedimentation to any receiving waters. Elevations on the rim of catch basins should be adjusted as needed to assure optimal water entry. Depending on the frost susceptibility of the soil, the rims may become elevated over time causing flow to circumvent the inlet. Catch basin cleaning would normally be accomplished with vacuum trucks contracted as a maintenance service. The removed material must be disposed of at an approved site for such materials.

If sediment in the pipeline is observed, it should be removed. This may be accomplished by hydraulic flushing, or by mechanical means. If hydraulic flushing is used the downstream conditions should be analyzed.

Frequency: The piped drainage system should be inspected on an annual basis. Adjustment of inlet rim elevations should be on an as needed basis. Cleaning catch basin sumps and pipelines will depend on the rate of accumulation.

Maintenance/Inspection Responsibility:

Special Services: The Owner will contract with an independent agent for cleaning of catch basins, sumps, and pipelines. Remedial source control measures may be performed by the Owner or an outside service depending upon the nature of the particular situation.

C. DRIP EDGE FILTERS

Preface: Roof drip edge filters perform two critical functions. They control erosion by accepting roof runoff on a stable, highly pervious surface, and then store and infiltrate the runoff to underlying soils, or an underdrain system.

Inspection/Monitoring: The surface of the drip edge should be inspected periodically for debris accumulation and function.

Maintenance: Periodic maintenance of the drip edge will include removal of debris and fine sediment that may accumulate in the surface stone. Occasional raking or smoothing of the surface may be required.

Frequency: Inspections of the drip edge stone should be undertaken at a minimum on a bi-annual basis.

Maintenance/Inspection Responsibility:

1006 Congress Street LLC or contracted agent

Special Services: The Owner will contract with an independent stormwater system maintenance Contractor to undertake maintenance inspections of these BMPs.

D. LITTER

Litter and solid waste should be removed as a matter of course by the Owner.

E. SUMMARY CHECKLIST

The above described inspection and maintenance items have been summarized on a checklist attached hereto as Appendix C.

IV. PROGRAM ADMINISTRATION

A. GENERAL

A reliable administrative structure must be established to assure implementation of the maintenance programs described in the foregoing section. Key factors that must be considered in establishing a responsive administrative structure include:

1. Administrative body must be responsible for long-term operation and maintenance of the facilities.
2. Administrative body must have the financial resources to accomplish the inspection and maintenance program over the life of the facility.
3. The administrative body must have a responsible administrator to manage the inspection and maintenance programs.
4. The administrative body must have the staff to accomplish the inspection and maintenance programs or must have authority to contract for the required services.
5. The administrative body must have a management information system sufficient to file, retain, and retrieve all inspection and maintenance records associated with the inspection and maintenance programs.
6. A qualified post construction inspector shall be retained if not completed by the Owner. His duties shall include preparing schedules for the Owner's maintenance, summarizing the results of this maintenance, and preparing an annual report on the operation, maintenance, and repair of the stormwater system which must be copied to the City. (The Owner shall be responsible for retaining a separate entity to perform maintenance which cannot be performed by the management of building and property grounds.) This person shall also participate in troubleshooting of the stormwater management system if a problem develops.

If any of the above criteria cannot be met by the entity assigned inspection and maintenance responsibilities, it is likely that the system will fail to meet its water quality objectives at some point during its life. While each of the above criteria may be met by a variety of formats, it is critical to clearly establish the assigned administrative body in a responsible and sustainable manner.

B. RECORD KEEPING

Records of all inspections and maintenance work accomplished must be kept and maintained to document facility operations. These records should be filed and retained for a minimum 5-year time span. The filing system should be capable of ready retrieval of data for periodic reviews by appropriate regulatory bodies. Where possible, copies of such records

should also be filed with the designated primary regulatory agency for their review for compliance with permit conditions. Typical inspection and maintenance record forms are attached hereto as Appendix B.

C. CONTRACT SERVICES

In some instances, or at specific times, the Owner or Maintenance Personnel may not have the staff to conduct the required inspection and/or maintenance programs as outlined in this document. In such cases, the work should be accomplished on a contractual basis with a firm or organization that has the staff and equipment to accomplish the required work.

The service contract for inspection and maintenance should be formal, well written legal document which clearly defines the services to be provided, the contractual conditions that will apply, and detailed payment schedules. Liability insurance should be required in all contracts.

APPENDIX A

Sample Inspection Logs

**1006 Congress Street
PORTLAND MAINE**

ANNUAL INSPECTION & MAINTENANCE LOG

FACILITY:		YEAR:	
LOCATION:		CONTRACTOR:	
FUNCTION:		INSPECTOR:	
DATE OF INSPECTION:			
ITEM IDENTIFICATION	DESCRIPTION OF CONDITIONS	MAINTENANCE ACCOMPLISHED	DATE OF MAINTENANCE
GENERAL COMMENTS:			

SAMPLE

**1006 Congress Street
PORTLAND MAINE**

STORMWATER MANAGEMENT BMP
MONTHLY INSPECTION & MAINTENANCE LOG

FACILITY:			YEAR:			
LOCATION:			CONTRACTOR:			
FUNCTION:						
MONTH	DAY	INSPECTOR	WATER DEPTH	OVERFLOW WEIR		WEIR CONDITION
				CLEAR	DEBRIS	
JANUARY						
FEBRUARY						
MARCH						
APRIL						
MAY						
JUNE						
JULY						
AUGUST						
SEPTEMBER						
OCTOBER						
NOVEMBER						
DECEMBER						
LIST SPECIAL MAINTENANCE UNDERTAKEN:						

**1006 Congress Street
PORTLAND MAINE**

STORMWATER MANAGEMENT BMP
SEMI-ANNUAL INSPECTION & MAINTENANCE LOG

SEMI-ANNUAL INSPECT 1.2	FACILITY:
DATE:	LOCATION:
INSPECTOR:	FUNCTION:
BMP CONDITION:	
OUTLET CONDITION	

DEBRIS PRESENT	EST. DEPTH SED.	REMOVED? Y/N	EST. VOL. CY	WHERE DISPOSED OF	STRUCTURAL CONDITION

SYSTEMS:
DESCRIBE CONDITIONS FOUND & MAINTENANCE ACCOMPLISHED:

APPENDIX B

Permits for Project

(To be Added at a Subsequent Time)

APPENDIX C

Summary Checklist Inspection and Maintenance

**Stormwater Management System
Maintenance Program
Summary Checklist**

Item	Commentary	Frequency				
		Monthly	Quarterly	Semi-Annual	Annual	Long Term
Stormwater Inlets	Stormwater inlets allow flow entry from a surface swale or catch basin to a piped system. Entry may or may not be equipped with a bar rack. Inspect entry for debris accumulation. Remove debris to allow unimpeded entry. Lawn clippings and leaves should be removed from yard areas.		X		X Clearing	
Tributary Drainage System	Inspect to assure that the carrying capacity has not been diminished by debris, sediment, or other hydraulic impediments.				X	
Drip Edge Filters	Observe surface stone, rake, and remove debris as necessary. Observed for ponding or poor water conveyance possibly indicating clogging.			X		
Litter	Litter should be removed daily.					
Pavement Sweeping	Pavements should be swept on an as needed basis.				X	

**STORMWATER DRAINAGE SYSTEM
MAINTENANCE AGREEMENT AND
RELEASE FROM LIABILITY – 1006 Congress Street**

IN CONSIDERATION OF the Site plan approval granted by the Planning Authority of the City of Portland to plans entitled “*Level III Site plan Application for Mixed Use Redevelopment of 1006 Congress Street*” and specifically Sheet C-3.0 The Site Layout and Utility plan and Sheet C-4.0 Grading, Drainage and Erosion Control Plan approved on _____ and prepared for 1006 Congress Street LLC by Stantec Consulting Services, Inc. dated last revised _____ (the “Plan”) (see Exhibit A), respectively, and pursuant to a condition thereof, 1006 Congress Street LLC having a mailing address of 380 Riverside Street, Portland, Maine 04104 C/O PK Realty Management Investments, the owner of the subject premises, does hereby agree, for itself, its successors and assigns (the “Owner”), as follows:

Maintenance Agreement

That it, 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 stormwater drainage system, as shown on said plan, including but not limited to the, site improvements, piping, catch basins and filter inserts, etc. in strict compliance with the Maintenance of Facilities as described in the *Inspection and Maintenance Manual for Stormwater Management and Related Stormwater Facilities* dated March 26, 2019 (see Exhibit B) and Chapter 32 of the Portland City Code. Owner of the subject premises further agrees to keep a Stormwater Maintenance Log that will be made available for inspection by the City of Portland upon reasonable notice and request.

This Agreement is for the benefit of the said City of Portland and all persons in lawful possession of the property; further, that the said City of Portland 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 as described in this Agreement, and a stated time to perform, that the said City of Portland, by its authorized agents or representatives, may, but is not obligated to, enter upon the property in question to maintain, repair, or replace said stormwater drainage system, including but not limited to the, drainage structures and filters, piping, valves etc. 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 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 Authority 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 agrees to 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 Services 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 liened 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 this Agreement shall be complete on the date the notice is mailed to the owner of record as shown on the tax roles on file in the City Assessor's Office. If the property has more than one owner on said 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 lienning it or create a cause of action against the City.

Dated at Portland, Maine this _____ day of _____, 20____.

By: _____

Its: _____

STATE OF MAINE
CUMBERLAND, ss.

Date: _____

Personally appeared the above-named _____, and acknowledged the foregoing instrument to be his/his free act and deed in his/her said capacity, and the free act and deed of said _____.

Before me,

Notary Public/Attorney at Law

Print name: _____

To:	Lauren Swett, PE	From:	Adam Shane, EI - Stantec
	City of Portland Peer Reviewer	Reviewed By:	Steve Bushey, PE - Stantec
File:	1006 Congress St - 210801661	Date:	April 4, 2019

Reference: 1006 Congress Street Stormwater Analysis

This memo is intended to summarize the stormwater analysis performed for the proposed development at 1006 Congress Street in Portland, Maine. It should be noted that the software used for the analysis (HydroCAD version 10 build 24) utilizes methodology that becomes less accurate for small watershed analysis.¹ The study area for the subject property is approximately 0.613 acres in size and the results should be reviewed understanding the margin of error built into the methodology applied. Results of the analysis as follows.

The study area for this analysis has been established to include the limits of the property at 1006 Congress Street as well as the shared Right-of-way described as Cumberland Place, which totals approximately 0.613 acres in size. The analysis compares predevelopment conditions to post-development, specifically for peak runoff discharge rates. For this analysis, two points of interest have been established as points where peak discharge rates can be compared. These are described as follows:

- POI#1 – Downstream end of Cumberland Place (east of site) where runoff discharges via overland flow
- POI#2 – Combination of overland and pipe flow that discharges into the Congress Street 24" diameter drainage system.

Within the study area, subcatchments were delineated for each condition, and routing was defined to describe how runoff was conveyed to each POI. Curve Numbers and Times of Concentration were defined for each subcatchment in order to estimate peak discharge rates at each POI. Once the models were set up, the analysis was run, resulting in the following data:

Table 1. – Comparison of Peak Discharge Rates for Each Point of Interest			
	POI #1 (cfs)	POI #2 (cfs)	Combined Peak Discharge Rates (cfs)
2-Year Storm Event (Pre)	0.16	0.47	0.63
2-Year Storm Event (Post)	0.00	1.16	1.16
2-Year Storm Event Comparison	-0.16	+0.69	+0.53
10-Year Storm Event (Pre)	0.46	0.92	1.38
10-Year Storm Event (Post)	0.00	1.99	1.99

¹ This is true for most methodologies which are not generally suitable for watershed analysis under 1 acre. We used HydroCAD simply to arrive at some basic values in order to support the basic findings.

Reference: 1006 Congress Street Stormwater Analysis

10-Year Storm Event Comparison	-0.46	+1.07	+0.61
25-Year Storm Event (Pre)	0.75	1.31	2.06
25-Year Storm Event (Post)	0.01	2.66	2.67
25-Year Storm Event Comparison	-0.74	+1.35	+0.61

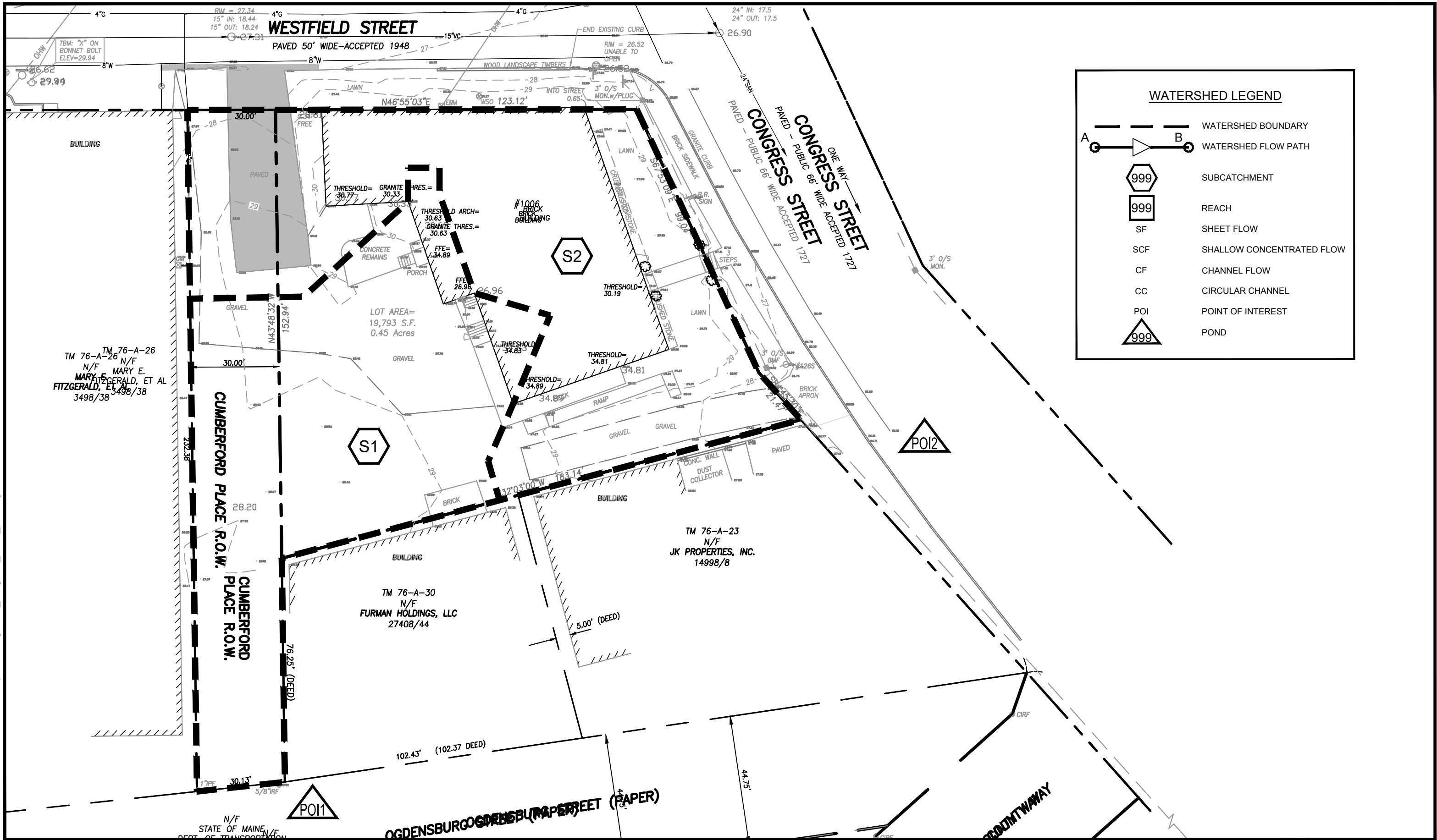
As part of the site grading and drainage design an existing drainage issue has been alleviated. Under current conditions, runoff directed to POI#1 (Cumberford Place) poses flooding issues with the neighboring building. To help with this issue, part of this subcatchment has been redirected to POI#2 (Congress Street system). Based on this as well as the results summarized in the table above, we feel that the slight increases in peak discharge rates observed in the Congress Street system are negligible as they are necessary to help alleviate a current drainage issue within the study area.

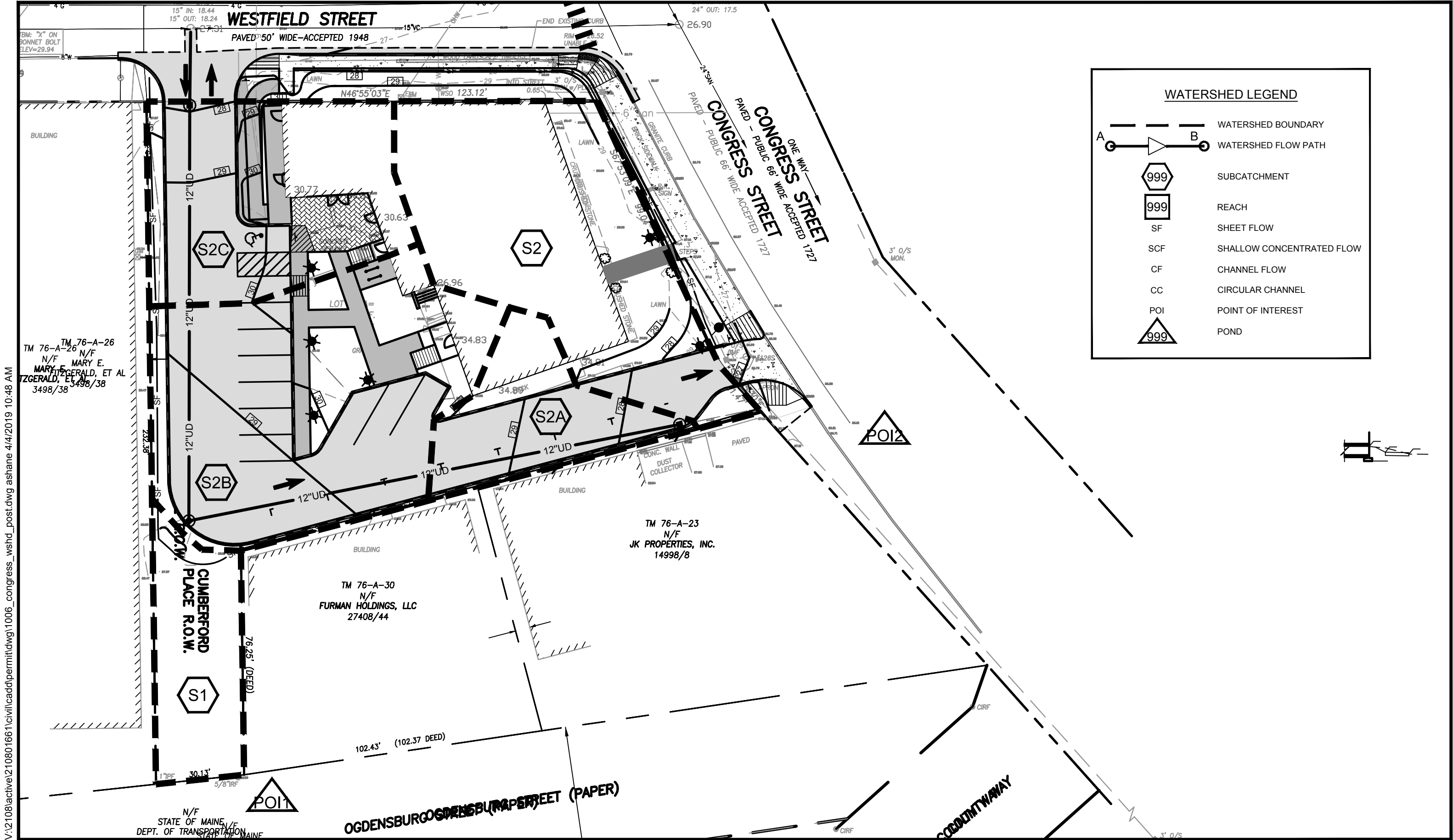
In summary of the analysis above, our office feels that the project has met all applicable stormwater management standards within the City of Portland Code of Ordinances. This is particularly true as the project will result in improved conditions to adjacent property owners.

Stantec Consulting Services Inc.

Attachment: Attachment A – Predevelopment Watershed Map
Attachment B – Post Development Watershed Map
Attachment C – Predevelopment HydroCAD Report
Attachment D – Post Development HydroCAD Report

c. C.C.





V:\2108\active\210801661\civil\cadd\permit\dwg\1006_congress_wshd_post.dwg ashane 4/4/2019 10:48 AM



Stantec
482 Payne Road Scarborough Court
Scarborough, Maine 04074-8929
Tel. 207.883.3355
www.stantec.com

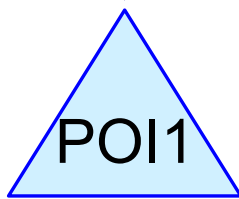
Copyright Reserved
The Contractor shall verify and be responsible for all dimensions.
DO NOT scale the drawing - any errors or omissions shall be
reported to Stantec without delay.
The Copyrights to all designs and drawings are the property of
Stantec. Reproduction or use for any purpose other than that
authorized by Stantec is forbidden.

Client/Project
PK REALTY MANAGEMENT INVESTMENTS
1006 CONGRESS STREET MIXED-USE REDEVELOPMENT
PORTLAND, MAINE
File Name: 1006_congress_wshd_post
AMS DWN. SRB CHKD. AMS DSGN. 19.04.04 DATE

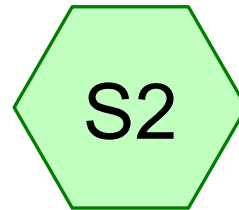
Title
POST DEVELOPMENT WATERSHED MAP
Figure No.
WS-2



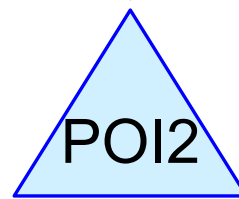
Area to Cumberford
Place



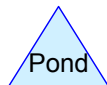
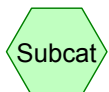
POI1



Area to Congress Street



POI2



Routing Diagram for 01661_predev

Prepared by Stantec Consulting Services, Inc., Printed 4/4/2019
HydroCAD® 10.00-24 s/n 00734 © 2018 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.314	49	50-75% Grass cover, Fair, HSG A (S1, S2)
0.300	98	Paved parking, HSG A (S1, S2)
0.614	73	TOTAL AREA

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.614	HSG A	S1, S2
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
0.614		TOTAL AREA

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.314	0.000	0.000	0.000	0.000	0.314	50-75% Grass cover, Fair	S1, S2
0.300	0.000	0.000	0.000	0.000	0.300	Paved parking	S1, S2
0.614	0.000	0.000	0.000	0.000	0.614	TOTAL AREA	

Summary for Subcatchment S1: Area to Cumberford Place

Runoff = 0.16 cfs @ 12.11 hrs, Volume= 0.014 af, Depth> 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Yr Rainfall=3.10"

Area (sf)	CN	Description
4,401	98	Paved parking, HSG A
8,157	49	50-75% Grass cover, Fair, HSG A
12,558	66	Weighted Average
8,157		64.95% Pervious Area
4,401		35.05% Impervious Area

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

Summary for Subcatchment S2: Area to Congress Street

Runoff = 0.47 cfs @ 12.10 hrs, Volume= 0.034 af, Depth> 1.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Yr Rainfall=3.10"

Area (sf)	CN	Description
8,653	98	Paved parking, HSG A
5,536	49	50-75% Grass cover, Fair, HSG A
14,189	79	Weighted Average
5,536		39.02% Pervious Area
8,653		60.98% Impervious Area

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

Summary for Pond POI1: POI1

Inflow Area = 0.288 ac, 35.05% Impervious, Inflow Depth > 0.59" for 2-Yr event
Inflow = 0.16 cfs @ 12.11 hrs, Volume= 0.014 af
Primary = 0.16 cfs @ 12.11 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Pond POI2: POI2

Inflow Area = 0.326 ac, 60.98% Impervious, Inflow Depth > 1.26" for 2-Yr event
Inflow = 0.47 cfs @ 12.10 hrs, Volume= 0.034 af
Primary = 0.47 cfs @ 12.10 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Subcatchment S1: Area to Cumberford Place

Runoff = 0.46 cfs @ 12.10 hrs, Volume= 0.035 af, Depth> 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Yr Rainfall=4.60"

Area (sf)	CN	Description
4,401	98	Paved parking, HSG A
8,157	49	50-75% Grass cover, Fair, HSG A
12,558	66	Weighted Average
8,157		64.95% Pervious Area
4,401		35.05% Impervious Area

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

Summary for Subcatchment S2: Area to Congress Street

Runoff = 0.92 cfs @ 12.09 hrs, Volume= 0.067 af, Depth> 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Yr Rainfall=4.60"

Area (sf)	CN	Description
8,653	98	Paved parking, HSG A
5,536	49	50-75% Grass cover, Fair, HSG A
14,189	79	Weighted Average
5,536		39.02% Pervious Area
8,653		60.98% Impervious Area

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

Summary for Pond POI1: POI1

Inflow Area = 0.288 ac, 35.05% Impervious, Inflow Depth > 1.46" for 10-Yr event
Inflow = 0.46 cfs @ 12.10 hrs, Volume= 0.035 af
Primary = 0.46 cfs @ 12.10 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Pond POI2: POI2

Inflow Area = 0.326 ac, 60.98% Impervious, Inflow Depth > 2.46" for 10-Yr event
Inflow = 0.92 cfs @ 12.09 hrs, Volume= 0.067 af
Primary = 0.92 cfs @ 12.09 hrs, Volume= 0.067 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Subcatchment S1: Area to Cumberford Place

Runoff = 0.75 cfs @ 12.10 hrs, Volume= 0.055 af, Depth> 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Yr Rainfall=5.80"

Area (sf)	CN	Description
4,401	98	Paved parking, HSG A
8,157	49	50-75% Grass cover, Fair, HSG A
12,558	66	Weighted Average
8,157		64.95% Pervious Area
4,401		35.05% Impervious Area

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

Summary for Subcatchment S2: Area to Congress Street

Runoff = 1.31 cfs @ 12.09 hrs, Volume= 0.095 af, Depth> 3.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Yr Rainfall=5.80"

Area (sf)	CN	Description
8,653	98	Paved parking, HSG A
5,536	49	50-75% Grass cover, Fair, HSG A
14,189	79	Weighted Average
5,536		39.02% Pervious Area
8,653		60.98% Impervious Area

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

Summary for Pond POI1: POI1

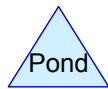
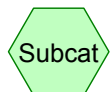
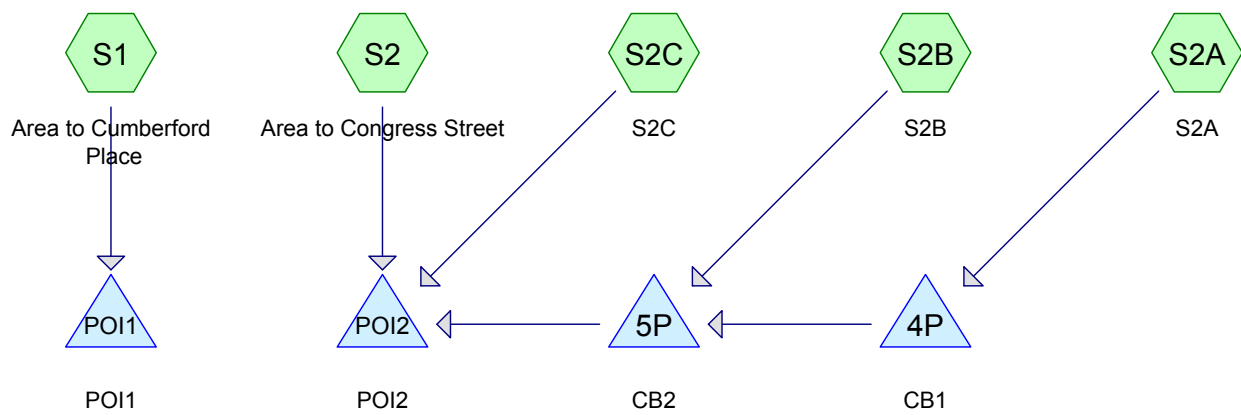
Inflow Area = 0.288 ac, 35.05% Impervious, Inflow Depth > 2.29" for 25-Yr event
Inflow = 0.75 cfs @ 12.10 hrs, Volume= 0.055 af
Primary = 0.75 cfs @ 12.10 hrs, Volume= 0.055 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Pond POI2: POI2

Inflow Area = 0.326 ac, 60.98% Impervious, Inflow Depth > 3.50" for 25-Yr event
Inflow = 1.31 cfs @ 12.09 hrs, Volume= 0.095 af
Primary = 1.31 cfs @ 12.09 hrs, Volume= 0.095 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs



Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.162	39	>75% Grass cover, Good, HSG A (S1, S2, S2A, S2B, S2C)
0.451	98	Paved parking, HSG A (S2, S2A, S2B, S2C)
0.613	82	TOTAL AREA

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.613	HSG A	S1, S2, S2A, S2B, S2C
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
0.613		TOTAL AREA

01661_postdev

Prepared by Stantec Consulting Services, Inc.

Printed 4/4/2019

HydroCAD® 10.00-24 s/n 00734 © 2018 HydroCAD Software Solutions LLC

Page 4

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.162	0.000	0.000	0.000	0.000	0.162	>75% Grass cover, Good	S1, S2, S2A, S2B, S2C
0.451	0.000	0.000	0.000	0.000	0.451	Paved parking	S2, S2A, S2B, S2C
0.613	0.000	0.000	0.000	0.000	0.613	TOTAL AREA	

Summary for Subcatchment S1: Area to Cumberford Place

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Yr Rainfall=3.10"

Area (sf)	CN	Description
2,481	39	>75% Grass cover, Good, HSG A
2,481		100.00% Pervious Area

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

Summary for Subcatchment S2: Area to Congress Street

Runoff = 0.27 cfs @ 12.10 hrs, Volume= 0.020 af, Depth> 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Yr Rainfall=3.10"

Area (sf)	CN	Description
5,248	98	Paved parking, HSG A
2,141	39	>75% Grass cover, Good, HSG A
7,389	81	Weighted Average
2,141		28.98% Pervious Area
5,248		71.02% Impervious Area

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

Summary for Subcatchment S2A: S2A

Runoff = 0.14 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Yr Rainfall=3.10"

Area (sf)	CN	Description
2,264	98	Paved parking, HSG A
381	39	>75% Grass cover, Good, HSG A
2,645	90	Weighted Average
381		14.40% Pervious Area
2,264		85.60% Impervious Area

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

Summary for Subcatchment S2B: S2B

Runoff = 0.42 cfs @ 12.09 hrs, Volume= 0.030 af, Depth> 1.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Yr Rainfall=3.10"

Area (sf)	CN	Description
1,605	39	>75% Grass cover, Good, HSG A
7,114	98	Paved parking, HSG A
8,719	87	Weighted Average
1,605		18.41% Pervious Area
7,114		81.59% Impervious Area

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

Summary for Subcatchment S2C: S2C

Runoff = 0.33 cfs @ 12.09 hrs, Volume= 0.025 af, Depth> 2.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Yr Rainfall=3.10"

Area (sf)	CN	Description
452	39	>75% Grass cover, Good, HSG A
5,030	98	Paved parking, HSG A
5,482	93	Weighted Average
452		8.25% Pervious Area
5,030		91.75% Impervious Area

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

Summary for Pond 4P: CB1

Inflow Area = 0.061 ac, 85.60% Impervious, Inflow Depth > 2.07" for 2-Yr event
 Inflow = 0.14 cfs @ 12.09 hrs, Volume= 0.010 af
 Outflow = 0.14 cfs @ 12.09 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.2 min
 Primary = 0.14 cfs @ 12.09 hrs, Volume= 0.010 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

01661_postdev

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

Prepared by Stantec Consulting Services, Inc.

Printed 4/4/2019

HydroCAD® 10.00-24 s/n 00734 © 2018 HydroCAD Software Solutions LLC

Page 7

Peak Elev= 24.31' @ 12.09 hrs Surf.Area= 13 sf Storage= 42 cf

Plug-Flow detention time= 63.8 min calculated for 0.010 af (91% of inflow)

Center-of-Mass det. time= 21.0 min (828.7 - 807.6)

Volume	Invert	Avail.Storage	Storage Description
#1	21.09'	83 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
21.09	13	0	0
27.50	13	83	83

Device	Routing	Invert	Outlet Devices
#1	Primary	24.09'	12.0" Round Culvert L= 166.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 24.09' / 23.36' S= 0.0044 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.14 cfs @ 12.09 hrs HW=24.31' (Free Discharge)↑**1=Culvert** (Barrel Controls 0.14 cfs @ 1.63 fps)**Summary for Pond 5P: CB2**

Inflow Area = 0.261 ac, 82.52% Impervious, Inflow Depth > 1.84" for 2-Yr event
 Inflow = 0.56 cfs @ 12.09 hrs, Volume= 0.040 af
 Outflow = 0.56 cfs @ 12.09 hrs, Volume= 0.039 af, Atten= 0%, Lag= 0.1 min
 Primary = 0.56 cfs @ 12.09 hrs, Volume= 0.039 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 23.69' @ 12.09 hrs Surf.Area= 13 sf Storage= 45 cf

Plug-Flow detention time= 19.2 min calculated for 0.039 af (98% of inflow)

Center-of-Mass det. time= 6.2 min (828.0 - 821.8)

Volume	Invert	Avail.Storage	Storage Description
#1	20.26'	106 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
20.26	13	0	0
28.40	13	106	106

Device	Routing	Invert	Outlet Devices
#1	Primary	23.26'	12.0" Round Culvert L= 136.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 23.26' / 22.00' S= 0.0093 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.55 cfs @ 12.09 hrs HW=23.68' (Free Discharge)↑**1=Culvert** (Inlet Controls 0.55 cfs @ 1.75 fps)

Summary for Pond POI1: POI1

Inflow Area = 0.057 ac, 0.00% Impervious, Inflow Depth = 0.00" for 2-Yr event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Pond POI2: POI2

Inflow Area = 0.556 ac, 81.11% Impervious, Inflow Depth > 1.80" for 2-Yr event
Inflow = 1.16 cfs @ 12.09 hrs, Volume= 0.083 af
Primary = 1.16 cfs @ 12.09 hrs, Volume= 0.083 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Subcatchment S1: Area to Cumberford Place

Runoff = 0.00 cfs @ 14.58 hrs, Volume= 0.001 af, Depth> 0.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Yr Rainfall=4.60"

Area (sf)	CN	Description
2,481	39	>75% Grass cover, Good, HSG A
2,481		100.00% Pervious Area

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

Summary for Subcatchment S2: Area to Congress Street

Runoff = 0.51 cfs @ 12.09 hrs, Volume= 0.037 af, Depth> 2.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Yr Rainfall=4.60"

Area (sf)	CN	Description
5,248	98	Paved parking, HSG A
2,141	39	>75% Grass cover, Good, HSG A
7,389	81	Weighted Average
2,141		28.98% Pervious Area
5,248		71.02% Impervious Area

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

Summary for Subcatchment S2A: S2A

Runoff = 0.24 cfs @ 12.09 hrs, Volume= 0.018 af, Depth> 3.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Yr Rainfall=4.60"

Area (sf)	CN	Description
2,264	98	Paved parking, HSG A
381	39	>75% Grass cover, Good, HSG A
2,645	90	Weighted Average
381		14.40% Pervious Area
2,264		85.60% Impervious Area

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

Summary for Subcatchment S2B: S2B

Runoff = 0.72 cfs @ 12.09 hrs, Volume= 0.053 af, Depth> 3.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Yr Rainfall=4.60"

Area (sf)	CN	Description
1,605	39	>75% Grass cover, Good, HSG A
7,114	98	Paved parking, HSG A
8,719	87	Weighted Average
1,605		18.41% Pervious Area
7,114		81.59% Impervious Area

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

Summary for Subcatchment S2C: S2C

Runoff = 0.52 cfs @ 12.09 hrs, Volume= 0.040 af, Depth> 3.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Yr Rainfall=4.60"

Area (sf)	CN	Description
452	39	>75% Grass cover, Good, HSG A
5,030	98	Paved parking, HSG A
5,482	93	Weighted Average
452		8.25% Pervious Area
5,030		91.75% Impervious Area

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

Summary for Pond 4P: CB1

Inflow Area = 0.061 ac, 85.60% Impervious, Inflow Depth > 3.49" for 10-Yr event
 Inflow = 0.24 cfs @ 12.09 hrs, Volume= 0.018 af
 Outflow = 0.24 cfs @ 12.09 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.2 min
 Primary = 0.24 cfs @ 12.09 hrs, Volume= 0.017 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

01661_postdev

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

Prepared by Stantec Consulting Services, Inc.

Printed 4/4/2019

HydroCAD® 10.00-24 s/n 00734 © 2018 HydroCAD Software Solutions LLC

Page 11

Peak Elev= 24.38' @ 12.09 hrs Surf.Area= 13 sf Storage= 43 cf

Plug-Flow detention time= 44.6 min calculated for 0.017 af (95% of inflow)

Center-of-Mass det. time= 16.5 min (809.6 - 793.1)

Volume	Invert	Avail.Storage	Storage Description
#1	21.09'	83 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
21.09	13	0	0
27.50	13	83	83

Device	Routing	Invert	Outlet Devices
#1	Primary	24.09'	12.0" Round Culvert L= 166.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 24.09' / 23.36' S= 0.0044 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.23 cfs @ 12.09 hrs HW=24.37' (Free Discharge)↑**1=Culvert** (Barrel Controls 0.23 cfs @ 1.88 fps)**Summary for Pond 5P: CB2**

Inflow Area = 0.261 ac, 82.52% Impervious, Inflow Depth > 3.22" for 10-Yr event
 Inflow = 0.96 cfs @ 12.09 hrs, Volume= 0.070 af
 Outflow = 0.96 cfs @ 12.09 hrs, Volume= 0.069 af, Atten= 0%, Lag= 0.1 min
 Primary = 0.96 cfs @ 12.09 hrs, Volume= 0.069 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 23.84' @ 12.09 hrs Surf.Area= 13 sf Storage= 47 cf

Plug-Flow detention time= 12.3 min calculated for 0.069 af (98% of inflow)

Center-of-Mass det. time= 4.6 min (809.8 - 805.2)

Volume	Invert	Avail.Storage	Storage Description
#1	20.26'	106 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
20.26	13	0	0
28.40	13	106	106

Device	Routing	Invert	Outlet Devices
#1	Primary	23.26'	12.0" Round Culvert L= 136.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 23.26' / 22.00' S= 0.0093 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.94 cfs @ 12.09 hrs HW=23.83' (Free Discharge)↑**1=Culvert** (Inlet Controls 0.94 cfs @ 2.03 fps)

Summary for Pond POI1: POI1

Inflow Area = 0.057 ac, 0.00% Impervious, Inflow Depth > 0.13" for 10-Yr event
Inflow = 0.00 cfs @ 14.58 hrs, Volume= 0.001 af
Primary = 0.00 cfs @ 14.58 hrs, Volume= 0.001 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Pond POI2: POI2

Inflow Area = 0.556 ac, 81.11% Impervious, Inflow Depth > 3.15" for 10-Yr event
Inflow = 1.99 cfs @ 12.09 hrs, Volume= 0.146 af
Primary = 1.99 cfs @ 12.09 hrs, Volume= 0.146 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Subcatchment S1: Area to Cumberford Place

Runoff = 0.01 cfs @ 12.37 hrs, Volume= 0.002 af, Depth> 0.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Yr Rainfall=5.80"

Area (sf)	CN	Description
2,481	39	>75% Grass cover, Good, HSG A
2,481		100.00% Pervious Area

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

Summary for Subcatchment S2: Area to Congress Street

Runoff = 0.72 cfs @ 12.09 hrs, Volume= 0.052 af, Depth> 3.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Yr Rainfall=5.80"

Area (sf)	CN	Description
5,248	98	Paved parking, HSG A
2,141	39	>75% Grass cover, Good, HSG A
7,389	81	Weighted Average
2,141		28.98% Pervious Area
5,248		71.02% Impervious Area

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

Summary for Subcatchment S2A: S2A

Runoff = 0.31 cfs @ 12.09 hrs, Volume= 0.024 af, Depth> 4.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Yr Rainfall=5.80"

Area (sf)	CN	Description
2,264	98	Paved parking, HSG A
381	39	>75% Grass cover, Good, HSG A
2,645	90	Weighted Average
381		14.40% Pervious Area
2,264		85.60% Impervious Area

01661_postdev

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

Prepared by Stantec Consulting Services, Inc.

Printed 4/4/2019

HydroCAD® 10.00-24 s/n 00734 © 2018 HydroCAD Software Solutions LLC

Page 14

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

Summary for Subcatchment S2B: S2B

Runoff = 0.97 cfs @ 12.09 hrs, Volume= 0.072 af, Depth> 4.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Yr Rainfall=5.80"

Area (sf)	CN	Description
1,605	39	>75% Grass cover, Good, HSG A
7,114	98	Paved parking, HSG A
8,719	87	Weighted Average
1,605		18.41% Pervious Area
7,114		81.59% Impervious Area

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

Summary for Subcatchment S2C: S2C

Runoff = 0.67 cfs @ 12.09 hrs, Volume= 0.052 af, Depth> 4.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Yr Rainfall=5.80"

Area (sf)	CN	Description
452	39	>75% Grass cover, Good, HSG A
5,030	98	Paved parking, HSG A
5,482	93	Weighted Average
452		8.25% Pervious Area
5,030		91.75% Impervious Area

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

Summary for Pond 4P: CB1

Inflow Area = 0.061 ac, 85.60% Impervious, Inflow Depth > 4.65" for 25-Yr event
 Inflow = 0.31 cfs @ 12.09 hrs, Volume= 0.024 af
 Outflow = 0.31 cfs @ 12.09 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.1 min
 Primary = 0.31 cfs @ 12.09 hrs, Volume= 0.023 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

01661_postdev

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

Prepared by Stantec Consulting Services, Inc.

Printed 4/4/2019

HydroCAD® 10.00-24 s/n 00734 © 2018 HydroCAD Software Solutions LLC

Page 15

Peak Elev= 24.42' @ 12.09 hrs Surf.Area= 13 sf Storage= 43 cf

Plug-Flow detention time=36.3 min calculated for 0.023 af (96% of inflow)

Center-of-Mass det. time= 14.3 min (799.7 - 785.3)

Volume	Invert	Avail.Storage	Storage Description
#1	21.09'	83 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
21.09	13	0	0
27.50	13	83	83

Device	Routing	Invert	Outlet Devices
#1	Primary	24.09'	12.0" Round Culvert L= 166.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 24.09' / 23.36' S= 0.0044 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.30 cfs @ 12.09 hrs HW=24.42' (Free Discharge)↑**1=Culvert** (Barrel Controls 0.30 cfs @ 2.02 fps)**Summary for Pond 5P: CB2**

Inflow Area = 0.261 ac, 82.52% Impervious, Inflow Depth > 4.36" for 25-Yr event
 Inflow = 1.28 cfs @ 12.09 hrs, Volume= 0.095 af
 Outflow = 1.28 cfs @ 12.09 hrs, Volume= 0.094 af, Atten= 0%, Lag= 0.1 min
 Primary = 1.28 cfs @ 12.09 hrs, Volume= 0.094 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 23.95' @ 12.09 hrs Surf.Area= 13 sf Storage= 48 cf

Plug-Flow detention time=9.7 min calculated for 0.094 af (99% of inflow)

Center-of-Mass det. time= 3.9 min (800.3 - 796.4)

Volume	Invert	Avail.Storage	Storage Description
#1	20.26'	106 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
20.26	13	0	0
28.40	13	106	106

Device	Routing	Invert	Outlet Devices
#1	Primary	23.26'	12.0" Round Culvert L= 136.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 23.26' / 22.00' S= 0.0093 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.25 cfs @ 12.09 hrs HW=23.94' (Free Discharge)↑**1=Culvert** (Inlet Controls 1.25 cfs @ 2.21 fps)

Summary for Pond POI1: POI1

Inflow Area = 0.057 ac, 0.00% Impervious, Inflow Depth > 0.39" for 25-Yr event
Inflow = 0.01 cfs @ 12.37 hrs, Volume= 0.002 af
Primary = 0.01 cfs @ 12.37 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Pond POI2: POI2

Inflow Area = 0.556 ac, 81.11% Impervious, Inflow Depth > 4.28" for 25-Yr event
Inflow = 2.66 cfs @ 12.09 hrs, Volume= 0.198 af
Primary = 2.66 cfs @ 12.09 hrs, Volume= 0.198 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

RIGHT, TITLE & INTEREST

A Quitclaim Deed from Delta Realty LLC to 1006 Congress Street, LLC was executed on July 26, 2017 for the subject property. The Deed attached to this document was recorded in the Cumberland County Registry of Deeds as Book 34188/Page 103.

7/26/17 1:04 PM
COPY
Book 34/88 / Page 103

QUITCLAIM DEED
(with Covenant)

KNOW ALL PERSONS BY THESE PRESENTS, that, **DELTA REALTY LLC**, a Maine limited liability company with a principal place of business and mailing address of 380 Warren Avenue, Portland, Maine 04103, for consideration paid, grants to **1006 CONGRESS STREET, LLC**, a Maine limited liability company, with a principal place of business and mailing address of 1550 Sunset Ridge Drive, Laguna Beach, California 92651, with **QUITCLAIM COVENANT**, the land and improvements in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

A certain lot or parcel of land, with the buildings thereon, situated in Portland, County of Cumberland and State of Maine, on the southerly side of Congress Street, being part of the homestead lot formerly owned and occupied by Frederick W. Clark, late of said Portland, deceased, bounded and described as follows:

Commencing at a point on the westerly side of said, homestead on a right-of-way called Westfield Street, formerly Cumberland Place, one hundred eighty-four and five tenths (184.5) feet northerly from the rear line of said lot; thence by the westerly side of said lot bounding on the said right-of-way one hundred thirty-one and five tenths (131.5) feet to Congress Street; thence southeasterly by said Congress Street one hundred fourteen and two tenths (114.2) feet to an angle; thence continuing southeasterly by said Congress Street two and eight tenths (2.8) feet to a stake; thence South forty-five degrees twenty-four minutes (45° 24') West by land now or formerly of Mary E. McKenney one hundred eighty-seven and sixty-five one hundredths (187.65) feet to a stake at a point distant one hundred eighty-four and five tenths (184.5) feet northerly in a perpendicular line from said rear line of said homestead lot; thence on a line parallel with the rear line of said Homestead lot North thirty degrees twenty-five minutes (30° 25') West one hundred and fifty-two and five tenths (152.5) feet, to the point of beginning.

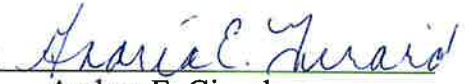
Also, a right-of-way in common with others over so much of the thirty (30) foot strip of land as adjoins the premises hereby conveyed on the rear, said way extending to Westfield Street, together with a right-of-way in common with others in Westfield Street.

Being the same premises conveyed to Delta Realty LLC by Quitclaim Deed from the Deliverance Center, dated November 9, 2015 and recorded in the Cumberland County Registry of Deeds in Book 32723, Page 215.

IN WITNESS WHEREOF, Delta Realty LLC has caused this instrument to be signed and sealed in its company name by Andrea E. Girard, its Manager, thereunto duly authorized this 26th day of July, 2017.

Delta Realty LLC


Witness

By: 
Andrea E. Girard
Title: Manager

STATE OF MAINE
COUNTY OF CUMBERLAND, ss.

July 26, 2017

Then personally appeared before me the above named Andrea E. Girard, Manager of Delta Realty LLC, and acknowledged the foregoing instrument to be her free act and deed in her said capacity, and the free act and deed of Delta Realty LLC.


Notary Public/Attorney at Law
Andre Duchette, Bar No. 9872

Archester C.C. being the same premises conveyed to said
Clark by several deeds, to wit: by said Daniel Fowler to said
Clark, dated Dec. 23, 1851, recorded in said Registry Book 235,
Page 450, and by Betsy Gould to said Clark by deed dated
Nov. 22, 1851, recorded in said Registry Book 235, Page 256,
and by deed of James Cradford to said Clark, recorded in said
Registry Book 235, Page 257, and by other deeds of said Cradi-
ford and others.

To Have and to Hold the same, together with all the
privileges and appurtenances thereunto belonging to the said
Mary E. McKimney and Frederick A. Clark, their Heirs and
Assigns forever.

In Witness Whereof, I the said Grantor, have herunto
set my hand and seal this fourteenth day of May in the
year of our Lord one thousand eight hundred and ninety
six.

Signed, Sealed & Delivered
in presence of
L. M. Webb.

Mary J. Clark. Seal.

State of Maine.
Cumberland } ss. Portland July 24. 1896.

Personally appeared the above named Mary
J. Clark and acknowledged the above instrument to be her
free act and deed. Before me.

Samuel M. Webb. Justice of the Peace

Received July 6, 1896, at 8 P.M. 57 M. A. M. recorded according to
the original.

Attest:

J. Fred Munch Register.

Know all Men by these Presents,
That I, Frederick A. Clark of Portland in the County of Cum-
berland and State of Maine, in consideration of One Dollar &
other valuable considerations, paid by Mary E. McKimney of said
Portland, the receipt whereof I do hereby acknowledge, do hereby
 remise, release, bargain, sell and convey, and forever quit-
claim unto the said Mary E. McKimney her Heirs and As-
signs forever, One half part in common and undivided,
meaning all my right, title and interest in and to a certain
lot or parcel of land with the buildings thereon situated in

Clark
To
McKimney
Quit Claim

274
said Portland), being a part of the homestead lot formerly owned and occupied by Frederick W. Clark, late of said Portland, deceased, bounded and described as follows: viz: commencing at a point on the Westerly side of said homestead lot on a right of way called Cumberland Place one hundred eighty four and five tenths (184.5) feet Northerly from the rear line of said lot; thence by the Westerly side of said lot bounding on said right of way about one hundred thirty one and five tenths (131.5) feet to Congress Street; thence Easterly by Congress Street about two hundred and twenty three (223) feet to the Northeastly corner of said homestead lot at a right of way called Ogdenburg Street; thence Southerly by the Easterly line of said homestead lot on said right of way to a point one hundred eighty four and five tenths (184.5) feet Northerly from the rear line of said homestead lot; thence Westerly on a line parallel with the rear line of said homestead lot about two hundred and thirty (230) feet to the point of beginning; also a right in common to a passage way thirty (30) feet wide adjoining the above described lot on the South, running from the Westerly side of said lot at the right of way called Cumberland Place to the Easterly side of said lot at the right of way called Ogdenburg Street; also rights of way in common as reserved by said Frederick W. Clark on the Easterly and Westerly sides of said homestead lot; running from Congress Street to the rear line of said homestead lot; also all my right to any claim against the City of Portland for damages to said lot on account of the change of grade of Congress Street.

The said Grantor and Grantee are the sole heirs at law of said Frederick W. Clark their late father deceased, intestate and this conveyance is made for the purpose of division and separate ownership.

To Have and to hold the same, together with all the privileges and appurtenances thereunto belonging to the said Mary E. McKimney her heirs and assigns forever.

And I do covenant with the said Grantee, her heirs and assigns, that I will warrant and forever defend the premises to her the said Grantee, her heirs and assigns forever, against the lawful claims and demands of all persons claiming by, through or under me.

In Witness Whereof, I the said Grantor, being unmarried have herunto set my hand and seal this fourteenth day of May in the year of our Lord one thousand eight hundred

and ninety-six.

Signed, Sealed & Delivered
in presence of
L. M. Webb.

Frederic A. Clark Seal

State of Maine }
Cumberland } ss. July 3^d. 1896. Personally appeared
the above named Frederick A. Clark and acknowledged the
above instrument to be his free act and deed.

Before me,

Emidley M. Webb, Justice of the Peace.

Received July 6, 1896, at 8 o'clock 58 M. P. M. recorded according to the
original.

Attest;

J. F. March Register

Know all Men by these Presents,
That I, Mary E. McKenney of Portland in the County of Cumber-
land and State of Maine, in consideration of one dollar and
other valuable considerations paid by Frederick A. Clark of
said Portland, the receipt whereof I do hereby acknowledge, do
hereby remise, release, bargain, sell and convey, and forever
quit-claim unto the said Frederick A. Clark, his heirs and
Assigns forever, One half part in common and undivided, mean-
ing all my right, title, and interest in and to the following
described Real Estate, to wit: A certain lot or parcel of land
with the buildings thereon, situated in said Portland on Port-
land Street, bounded and described as follows, viz: Beginning
at the Easterly corner of land formerly belonging to George Liddy
and conveyed to Frederick A. Clark, thence Easterly on said
Portland Street 50 feet to a stake, and from these two bounds ex-
tending Northwesterly, preserving a width of 50 feet to land of
St. John Smith. Being the same premises conveyed to said F. A. Clark
by Daniel Woodman, Jr. by his deed dated March 11, A.D. 1845,
and recorded in the Registry of Deeds for said County, Book
191, Page 264, meaning to convey all my interest in the Portland
St. lot.

McKenney
To
Clark

Quit Claim

Also a lot of wood land situated in Westbrook in said
County bounded and described as follows, viz: Beginning at
the most Westerly corner of a lot of wood land, now or former-
ly owned by LeCharles Roberts, thence running South $42\frac{3}{4}^{\circ}$ East

Portland, Maine



Yes. Life's good here.

Planning & Urban Development Department

ZONING ANALYSIS Relevant Zone(s) B-2 - Community Business**All Projects:**

	Required	Proposed
Lot Size	None	0.45 ac.
Area Per Dwelling Unit	435 SF	1,979 SF/Unit
Minimum Street Frontage	20'	243.63'
Front Yard Minimum	None	No change
Front Yard Maximum	10'	No change
Rear Yard	10'	No change
Yard Right	N/A	N/A
Yard Left	N/A	N/A
Side Street Setback	None	No change
Step Back	5' front, 15' rear	No change
Maximum Lot Coverage	100%	35%
Minimum Lot Coverage	N/A	N/A
Maximum Height	45'	No change
Open Space	N/A	N/A
Maximum Impervious Area*	80%	74%
Pavement Setback	N/A	N/A
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces**	17	18
Loading Bays	None	None
Other 1		
Other 2		
Other 3		

* no maximum for residential use, 80% for non-residential use

**1 space per unit (10 units = 10 spaces) for residential and 1 space/125 SF for restaurant, exclusive of storage and food prep area.

Planned Residential Unit Developments (PRUD) Requirements

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

Affordable Housing Density Bonuses (if applicable)

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

AFTER RECORDING RETURN TO:

Nicholas J. Morrill, Esq.
Jensen Baird Gardner & Henry
P.O. Box 4510
Portland, Maine 04112-4510

QUITCLAIM DEED

(with Covenant)

KNOW ALL PERSONS BY THESE PRESENTS, that, the **DELIVERANCE CENTER**, a Maine non-profit corporation organized under the provisions of Title 13, Chapter 93 of the Maine Revised Statutes as an independent local church, with a mailing address of 1006 Congress Street, Portland, Maine 04102, for consideration paid, grants to **DELTA REALTY LLC**, a Maine limited liability company with a principal place of business and mailing address of 380 Warren Avenue, Portland, Maine 04103, with **QUITCLAIM COVENANT**, the land and improvements in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

A certain lot or parcel of land, with the buildings thereon, situated in Portland, County of Cumberland and State of Maine, on the southerly side of Congress Street, being part of the homestead lot formerly owned and occupied by Frederick W. Clark, late of said Portland, deceased, bounded and described as follows:

Commencing at a point on the westerly side of said, homestead on a right-of-way called Westfield Street, formerly Cumberland Place, one hundred eighty-four and five tenths (184.5) feet northerly from the rear line of said lot; thence by the westerly side of said lot bounding on the said right-of-way one hundred thirty-one and five tenths (131.5) feet to Congress Street; thence southeasterly by said Congress Street one hundred fourteen and two tenths (114.2) feet to an angle; thence continuing southeasterly by said Congress Street two and eight tenths (2.8) feet to a stake; thence South forty-five degrees twenty-four minutes (45° 24') West by land now or formerly of Mary E. McKenney one hundred eighty-seven and sixty-five one hundredths (187.65) feet to a stake at a point distant one hundred eighty-four and five tenths (184.5) feet northerly in a perpendicular line from said rear line of said homestead lot; thence on a line parallel with the rear line of said Homestead lot North thirty degrees twenty-five minutes (30° 25') West one hundred and fifty-two and five tenths (152.5) feet, to the point of beginning.

Also, a right-of-way in common with others over so much of the thirty (30) foot strip of land as adjoins the premises hereby conveyed on the rear, said way extending to Westfield Street, together with a right-of-way in common with others in Westfield Street.

Being the same premises conveyed to the Deliverance Center by virtue of a deed from Royal Realty Co., dated December 24, 1968 and recorded in the Cumberland County Registry of Deeds in Book 3070, Page 541.

MAINE REAL ESTATE TAX PAID

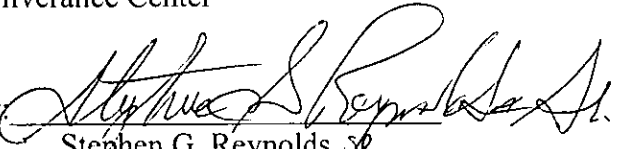
Reference is hereby made to a restriction to "not raze or demolish the building during the lifetime of Christian G. Kragelund" more particularly set forth in the aforementioned deed dated December 24, 1968 and recorded in said Registry of Deeds in Book 3070, Page 541. Christian G. Kragelund died January 9, 1977, thereby terminating such restriction.

IN WITNESS WHEREOF, the Deliverance Center has caused this instrument to be signed and sealed in its company name by Stephen G. Reynolds, Sr., its Pastor, thereunto duly authorized this 9th day of November, 2015.



Witness

Deliverance Center

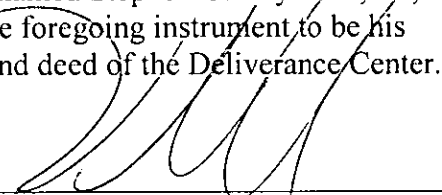
By: 

Stephen G. Reynolds, Sr.,
Title: Pastor

STATE OF MAINE
COUNTY OF CUMBERLAND, ss.

November 9, 2015

Then personally appeared before me the above named Stephen G. Reynolds, Sr., Pastor of the Deliverance Center, and acknowledged the foregoing instrument to be his free act and deed in his said capacity, and the free act and deed of the Deliverance Center.



Nicholas J. Morrill, Attorney at Law
Maine Bar No. 9760

Received
Recorded Register of Deeds
Nov 09, 2015 02:02:33P
Cumberland County
Nancy A. Lane

WAIVER REQUESTS

The Accompanying Waiver Table provides a description of the applicable waiver requests and supporting evidence for these requests.

Standard to be Waived: Cite Ordinance or Technical Manual Standard	Cite Standard Language: Cite specific language of applicable Ordinance or Technical Manual Standard	Waiver Being Sought: Describe waiver being sought. Ex. – We are requesting a two-way parking lot drive aisle width of 20’	Justification for Waiver: Address specific waiver criteria, if applicable, and document reasons for the waiver request.
15-526 Site Plan Standards (a) Transportation Standards 2. Access and Circulation c. Sidewalks	<i>(i) All proposed developments shall provide sidewalks along all frontages in accordance with Sections 14-498 and 14-499 of the City Code, installed to City specifications as described in Section 1 of the Technical Manual. An applicant may request a waiver from curb and sidewalk installation requirements if they meet applicable waiver criteria listed in Section 14-506 (b) of the City Code.</i>	We are requesting that sidewalk not be required along the property frontage on Westfield Street.	Westfield Street is identified on the Portland Trails map as a connector to the Fore River Parkway Trail. The 1006 Congress Street, LLC has been in discussion with Portland Trails regarding the creation of a “shared use” street, or “woonerf” on Westfield Street. A woonerf is a plaza like street that combines pedestrians, bikes, and vehicles in a shared space.

FINANCIAL CAPACITY

The Applicant has adequate financial resources to undertake this project as identified in the letter from Camden National Bank which accompanies this section.



BROOKE WOODBURY
VICE PRESIDENT
Direct Dial: 207.699.3394
bwoodbury@camdennational.com

December 5, 2018

City of Portland
Planning & Urban Development Department
389 Congress Street
Portland, ME 04101
(207) 874-8300

RE: 1006 Congress Street LLC

To Whom It May Concern:

I am writing to you on behalf of Camden National Bank regarding our customer, 1006 Congress Street LLC, and its site plan permit application and planned renovation to 1006 Congress Street.

Camden National Bank has an extensive commercial lending relationship with the principals of 1006 Congress Street LLC. We have provided financing for several of their projects in Portland and the surrounding communities. They have always managed their financial obligations to the Bank in a fully satisfactory manner and we continue to seek opportunities to expand our commercial lending relationship with them. We believe the owner has the construction management skills, property management skills, and financial capacity to successfully implement its plans for the project.

Please do not hesitate to contact me if you have any further questions or would like to discuss in greater detail.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Stasium", with a long horizontal flourish extending to the right.

Mark Stasium
Senior Vice President



TECHNICAL CAPABILITY

The applicant has retained a highly-qualified team of professionals to undertake planning, permitting and design tasks on this project. Services will be provided by the following companies and their respective team leaders:

<i>Civil Engineer</i>	Darrin Stairs, P.E. Stantec 482 Payne Road Scarborough, ME 04074 (207) 887-3406– Work (207) 883-3355 – Fax Darrin.stairs@stantec.com
<i>Architect</i>	Katherine Detmer Archetype, PA 48 Wharf Street Portland, ME 04101 (207) 772-6022 – Work (207) 772-4056 – Fax detmer@archetypepa.com
<i>Surveyor</i>	Ellen Brewer Owen Haskell, Inc. 390 US Route 1, Unit 10 Falmouth, ME 04105 (207) 774-0424 – Work (207) 774-0511 – Fax ebrewer@owenhaskell.com
<i>Structural</i>	Matthew Miller, PE M2 Structural Engineering PC 23 Thornbury Way Windham, ME 04062 (201) 892-0983 matt@m2se.com

The team of consultants retained has expertise and experience in the design of similar commercial projects. Resumes of key personnel for development team can be provided upon request.

ENVIRONMENTAL AND STORMWATER

The following statements are provided in accordance with the submission checklist and Section 14-526 of the ordinance.

(b) Environmental Quality Standards

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*

3. *Water Quality, Stormwater Management and Erosion Control:*

a. Stormwater:

- (i) Any stormwater draining onto or across the lot in its pre-improvement state will not be impeded or re-directed so as to create ponding on, or flooding of, adjacent lots.
- (ii) Not applicable – no drainage is directed on to adjacent lots.
- (iii) Not applicable – no drainage is directed onto City owned lots.
- (iv) The site will increase impervious area slightly; by 2,785 square feet. We are not aware of any conveyance issues in the City's closed drainage system that would be impacted by the very slight increase in rate and volume of stormwater.

b. Basic, general and flooding standards:

This project will meet the basic standards, and will provide water quality measures with treatment catch basins.

c. Not applicable – not located within an Urban Impaired watershed.

d. Not applicable.

e. Construction at the site will be required to follow Local, State and Federal regulations and will be undertaken under the supervision of a suitably qualified environmental professional. Post-construction activities at the site do not pose a risk of groundwater contamination.

f. The project will be connected to the public sanitary sewer system which is adequately sized for the anticipated project flows.

ENVIRONMENTAL AND LANDSCAPE FEATURES

The following statements are provided in accordance with the Section 14-526 of the ordinance.

(b) Environmental Quality Standards

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*

1. Preservation of Significant Natural Features:

- The site contains no significant natural features therefore this standard is not applicable.

Landscaping and Landscape Preservation (14-526 (b) 2 a)

- *Limit disturbance or removal of trees*
- *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*

2. Landscaping and Landscape Prevention:

a. Landscape Preservation.

- (i) Not applicable - there are no existing trees on this site.
- (ii) Not applicable - there are no existing trees on this site.
- (iii) Not applicable - there are no existing trees on this site.
- (iv) Not applicable - this project is not in the Shoreland Zone.

Landscaping and Landscape Preservation (14-526 (b) 2 b i)

- a. Screening and buffering of service areas and between non-residential and residential uses*
- b. Planting plans with plant schedule and sizes*

2. Landscaping and Landscape Prevention:

b. Site Landscaping:

(i) Landscaped Buffers:

- (a) Not applicable – there are no loading or service areas, dumpsters, storage areas, or utility structures proposed.

- (b) A landscape plan has been included in the submittal that identifies the required understory plantings.
- (c) Not applicable – not in an Industrial or Commercial Zone
- (d) Not applicable – there are no identified detrimental impacts from surrounding development that require screening

Landscaping and Landscape Preservation (14-526 (b) 2 b ii)

Parking Lot Landscaping, if applicable

- *Landscaped islands within parking areas (Technical Manual, Section 4)*
2. *Landscaping and Landscape Preservation:*
- a. *Site Landscaping.*
 - (ii) *Parking Lot Landscaping:*
 - a) thru d) Parking lot and area landscaping are shown on the landscape plan.

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*
2. *Landscaping and Landscape Preservation:*
- b. *Site Landscaping.*
 - (iii) *Street Trees:*
 - (a) There are no heritage or feature trees located on the property. A landscape plan has been provided.

PUBLIC INFRASTRUCTURE AND SAFETY

The following statements are provided in accordance with the submission and Section 14-526 of the ordinance.

(c) Public Infrastructure and Community Safety Standards.

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*

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 plans.
- b. There are no easement or rights required to connect to off-premises infrastructure. All infrastructure is available in adjacent public right of way. Proposed connections are indicated on the attached plans.

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

- *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*

2. *Public Safety and Fire Prevention:*

- a. The site has been designed to promote a safe and welcoming residential and commercial environment.
- b. The site provides access from Congress Street and Westfield Street for emergency vehicles.
- c. Fire hydrants are located adjacent to the property along the existing streets.

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*

- a. The Applicant is securing letters from the applicable utilities stating their ability to serve the site.
- b. Not applicable. No new electrical service is anticipated. If an upgrade is required, it is assumed it will be aerial as the existing service is.
- c. All utility infrastructure will meet the provisions of the Technical Manual.
- d. The project will continue to utilize the existing service connection to the public sewer system within Congress Street.
- e. Any new sewer and stormwater infrastructure will meet City standards.
- f. An exterior solid waste collection and storage area is not proposed for this development.

Ability to serve letters will be forwarded to the planning office upon receipt.



Stantec Consulting Services Inc.
482 Payne Road, Scarborough Court, Scarborough, ME 04074

December 17, 2018

Division Chief Mike Thompson

City of Portland Fire Department
380 Congress Street
Portland, Maine 04101

**Subject: 1006 Congress Street
Fire Safety Checklist**

Dear Chief Thompson:

In accordance with instructions in the City's Level III Site Plan and Subdivision Review packet, please find enclosed the drawings necessary for your review of the proposed building renovation to include 9 residential units and a 1,385 SF café at 1006 Congress Street. We have listed each item in your checklist below, followed by our response.

1. *Name, address, telephone number of applicant.*

1006 Congress Street, LLC
Attn: Jennifer Packard
33 McAlister Farm Road
Portland, ME 04103

2. *Name, address, telephone number of architect/contractor.*

Archetype
48 Union Wharf
Portland, ME 04101
207.772.6022
Attn: Katherine Detmer

3. *Proposed uses of any structures (NFPA and IBC classification).*

Building	IBC Code	NFPA Code	Sprinkler
Mixed Use	R-2, B, S-1	Storage – low hazard apartment Business – restaurant <50 occupants	Pending – will be available with permit

*Systems designed to meet NFPA

4. *Square footage of all structures (total and per story).*

Building	Footprint Area (SF)
First Floor	7,139
Second Floor	7,139
Total	14,278



Chief Thompson
December 17, 2018
Page 2

5. *Elevation of all structures.*

Architectural building elevations accompany this letter and they show the various locations of door openings, etc. around the building perimeter.

6. *Proposed fire protection of all structures.*

The existing building has service but no feeds. The future permit will include a full sprinkler system.

7. *Hydrant locations.*

There is a fire hydrant on directly across Congress Street opposite the project site less than 100 feet from the building, and a second one located on Westfield Street, approximately 100 feet from the building.

8. *Water main(s) size and location.*

The site will continue to be served by an existing 6" sprinkler service that is teed from the existing 8" water main in Westfield Street. The building will have an automatic sprinkler system.

9. *Access to all structures (min. 2 sides).*

The accompanying site plan depicts the site's access conditions that include access to two or more sides of the buildings.

10. *A code summary shall be included referencing NFPA 1 and all fire department technical standards.*

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 *Fire Department Access:*

The building can be directly accessed from Congress and Westfield.

Per NFPA 1 – Chapter 18.2.3.2.2.1, all first story floors are located not more than 450 ft. 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).*

Supporting Evidence: Not applicable.



Chief Thompson
December 17, 2018
Page 3

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.

Supporting Evidence: As depicted on the Site Plan, the proposed building layout provides for a minimum access to two side of the structure.

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.*

Supporting Evidence: The attached site plan shows that there is safe and efficient access along the public streets 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.

Supporting Evidence: The building is located on the corner of Congress and Westfield Streets and exterior doors are within 50 feet of the streets.

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

Supporting Evidence: A minimum of 9 feet vertical clearance will be provided below any overhead signage or utilities entering the site.

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

Supporting Evidence: Not Applicable (no elevator required).

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

Supporting Evidence: Currently, the project location is 1006 Congress Street. The applicant will work with the City's Public Services Division to confirm that this will remain the street address to meet City standards.



Chief Thompson
December 17, 2018
Page 4

If you need any further information regarding this review, please contact our office.

Regards,

STANTEC CONSULTING SERVICES INC.

Darrin Stairs, P.E.
Project Manager
Tel: 207-887-3406
darrin.stairs@stantec.com

Attachment

c: Planning Authority

V:\2108\active\210801661\civil\admin\permitting\local\level_III_site plan\lfr_thompson_fire_20181203.docx



Stantec Consulting Services Inc.
482 Payne Road Scarborough Court, Scarborough ME 04074-8929

December 17, 2018

Mr. Brad Roland, PE
City of Portland Public Works
55 Portland Street
Portland, Maine 04104-3553

**Subject: Proposed Building Reuse
1006 Congress Street
Request for Ability to Serve Letter**

Dear Brad:

Our office is working as a consultant in the site planning and permitting associated with the proposed reuse of a 17,197 SF building at 1006 Congress Street in Portland, ME. The site is identified as Lot 22 on Tax Map 76, Block A and is currently located in the B-2 Community Business Zone. We would like to verify the City's wastewater division has ability to provide wastewater capacity for the project and to determine any impact fees. The applicant is proposing to construct nine two-bedroom units of apartment rental housing and a 1,400 SF café on a 0.45-acre parcel. We expect that the existing sanitary sewer service connection will remain in place to serve this renovated building space.

The projected water use for the residential use, using Table 4A of Section 4.E.2 of the Maine Subsurface Wastewater Disposal Rules is as follows:

Multi-Family Dwellings			
Unit Type	# Units	GPD	Design Flow (GPD)
2 Bedroom	9	180	1,620
Total			1,620

For the 1,385 SF café use, Table 4A of the Maine Subsurface Wastewater Disposal Rules estimate the following for "Eating place, paper service": 7 gpd per seat plus 12 gpd/employee. Assuming six employees per day, and 30 seats, the following flow is estimated for the restaurant use:

Restaurant (Café) use			
Unit Type	# units	GPD	Design Flow (GPD)
Seats	30	7	210
Employees	6	12	72
Total			282



Mr. Brad Roland
December 17, 2018
Page 2

Based on this amount of flow, we trust that the existing sanitary sewer system has adequate capacity to serve this project.

If you have any questions regarding this request, please do not hesitate to our office.

Sincerely,

STANTEC CONSULTING SERVICES INC.

Darrin Stairs, PE
Project Manager
Phone: (207) 887-3406
Darrin.stairs@stantec.com

Attachment: Wastewater Application

v:\2108\active\210801661\civil\admin\working_documents\utilities\wastewater\abs_ww_roland_20181203.docx

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

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



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

Date: 12/03/2018

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

Site Address: 1006 Congress Street

Chart Block Lot Number: _____

Proposed Use: Residential/Restaurant

Previous Use: Vacant - Church Previously

Existing Sanitary Flows: _____ GPD

Existing Process Flows: - 0 - GPD

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

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

X
X

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

2. Please, Submit Contact Information.

City Planner's Name: Barbara Barhydt Phone: _____

Owner/Developer Name: 1006 Congress Street LLC

Owner/Developer Address: 33 McAlister Farm Road - Jen Packard

Phone: _____ Fax: _____ E-mail: _____

Engineering Consultant Name: Darrin Stairs, PE - Stantec

Engineering Consultant Address: 482 Payne Road - Scarborough, ME 04074

Phone: 207.887.3406 Fax: 207.883.3376 E-mail: darrin.stairs@stantec.com

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

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: _____ GPD

Peaking Factor/ Peak Times: State of Maine Subsurface Wastewater Disposal Rules

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

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

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values:

- Not Applicable -

Size of External Grease Interceptor:

Retention Time:

Peaking Factor/ Peak Times:

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

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated:

- Not Applicable - GPD

Do you currently hold Federal or State discharge permits?

Yes ☐ No ☐

Is the process wastewater termed categorical under CFR 40?

Yes ☐ No ☐

OSHA Standard Industrial Code (SIC):

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

Peaking Factor/Peak Process Times:

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

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

TRANSPORTATION

The following statements are provided in accordance with the Section 14-526 of the ordinance.

TRANSPORTATION

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)*

1. Impact on Surrounding Street Systems:

The surrounding street system consists of Congress Street and Westfield Street. The proposed use is considered consistent with the zoning and objectives identified in various City reports; therefore, we believe it results in no significant impact to the surrounding street system. There will be one primary driveway into the site from Westfield Street. There will be a second “exit-only” access will be onto Congress Street. Sight distance on Westfield Street will be to the stop controlled intersection on Congress to the right (approximately 125 feet) and to end of Westfield Street to the left (approximately 200 feet). Sight distance exiting onto Congress Street will be over 400 feet to the left and approximately 300 feet to the right.

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*

2. Access and Circulation:

a. Site Access and Circulation.

- (i) Vehicular access to the site is primarily provided from Westfield Street, with a second “exit-only” access provided onto Congress Street.
- (ii) We believe the primary point of access will not conflict with any turning movements on Westfield or Congress Streets or the existing traffic flows on nearby streets.
- (iii) There are no drive through features proposed.

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*

2. Access and Circulation:

b. Loading and Servicing:

- (i) Adequate provisions are made at the site for periodic loading from panel trucks to service the proposed uses. Westfield Street and the access driveway will provide adequate areas for servicing and loading vehicles. Larger delivery vehicle access is not required for the new building.

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)*
2. *Access and Circulation:*
 - c. *Sidewalks:*
 - (i) The project has a brick sidewalk along Congress Street which will remain. A waiver has been requested for the addition of sidewalk along the Westfield Street frontage, as there are on-going discussions with Portland Trails about creating a "shared use" connection on Westfield Street as part of the Fore River Parkway Trail access.
 - (ii) The sidewalk along Congress Street is in standard condition
 - (iii) Internal walkways on the site will connect from the parking areas to the building entrances and to the adjacent public walkways

Public Transit (14-526 (a) 3), if applicable

- *Existing available transit services*
 - *Proposed site plan design details, such as easement, pad base, and shelter*
3. *Public Transit Access.*
 - a. The development is proposed along an existing public transit route (Route 1). There is an existing METRO stop located at the corner of Congress Street and Frederic Street which is approximately 350 feet from the site. This development is for less than 20 units dwelling units and therefore does not meet the threshold requiring the construction of a transit facility.

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*
4. *Parking.*
 - a. *Location and Required Number of Vehicle Parking Spaces.*
 - i. Off-street parking has been provided in compliance with applicable zoning requirements:
Residential – One space per unit: 9 units = 9 spaces
Restaurant – One space per 150 SF dining area = 1,000 SF/150 SF = 7 spaces
Total off-street parking spaces required = 16 spaces
Total off-street parking spaces provided = 18 spaces

- ii. Parking aisles and dimensions will meet the applicable standards.
 - iii. All new surface parking shall be paved.
- c. *Motorcycles and Scooter Parking.*
- i. Off-street parking will be provided on site. The Applicant is proposing to provide 18 parking spaces on the site, which is two spaces in excess of the amount required under City code for the proposed uses. The site plan has been developed to allow safe passage and parking for motorcycles and scooters.

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)*

4. *Parking.*

b. *Location and Required Number of Bicycle Parking Spaces.*

- i. *Bicycle Parking has been provided in accordance with the ordinance.*

Residential – Two spaces per every 5 dwelling units = 4 spaces

Total bicycle parking spaces provided = 4 spaces

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

- *Management plan for snow removal and locate snow storage areas on plans*

4. *Parking.*

d. *Snow Storage.*

- i. Some snow storage will be provided on the site (this will suffice for small storm events and temporary storage only).
- ii. Snow removal and off-site disposal may be required for this site. The applicant will contract with a local snow removal company to perform these services.

Traffic Demand Management (TDM) (14-526 (a) 5), if applicable

- *Develop TDM with Trip Reduction Targets and Strategies*

5. *Transportation Demand Management (TDM).*

- a. A Transportation Demand Management (TDM) Plan is not required for this project.

From: Brian Johnson
To: [Keef, Sandi](#)
Subject: RE: 1006 Congress Street - Request for Ability to Serve (SR: 406274)
Date: Tuesday, February 26, 2019 3:16:16 PM

Hi Sandi,

We can confirm that there are 8" water mains in both Congress Street and Westfield Street, that have the capacity to serve new development at 1006 Congress Street - Portland. For us to issue an ability to serve determination letter for this project we will need to review the fixture count and utility plans.

Have a great day,

Brian Johnson

MEANS Group

Main Extensions and New Services

Portland Water District

225 Douglass Street

Portland, ME 04104-3553

P:(207)774-5961 Ext. 3199

F:(207)761-8307

MEANS@pwd.org

Brian Johnson
Asset Management Technician
Portland Water District
Phone: 207-774-5961 x3947
E-mail: brianjohnson@pwd.org
<http://www.pwd.org>

From: Keef, Sandi <Sandi.Keef@stantec.com>
Sent: Tuesday, February 26, 2019 1:10 PM
To: AMaP MEANS <means@pwd.org>
Subject: RE: 1006 Congress Street - Request for Ability to Serve

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.

Thank you we will complete the fixture count as the design moves forward and continue working with the engineer. At this time however we need to submit a letter or email statement confirming that service is available to the project site and can be provided. This is to satisfy the condition from the City of Portland's site plan application.

Sandi Keef
Technical Assistant

Direct: 207 887-3499
Fax: 207 879-0896
Sandi.Keef@stantec.com

Stantec
482 Payne Road Scarborough Court
Scarborough ME 04074-8929



The content of this email is the confidential property of Stantec and should not be copied, modified, retransmitted, or used for any purpose except with Stantec's written authorization. If you are not the intended recipient, please delete all copies and notify us immediately.

From: Kathryn Rodriguez <krodriguez@pwd.org> **On Behalf Of** AMaP MEANS

Sent: Friday, February 08, 2019 2:15 PM

To: Keef, Sandi <Sandi.Keef@stantec.com>

Subject: RE: 1006 Congress Street - Request for Ability to Serve

Good Afternoon Sandi,

I am attaching a fixture count worksheet. We will need to have this filled out for the he engineers to find the peak flow information, in order to verify that the service will be adequate to serve your project. You need only complete the cells highlighted in blue.

Our engineer will complete the remainder of the calculations and once the review has been completed, he will reach out to you with any further steps that will be required.

As always, please feel free to contact us in the meantime with any further questions.

Thank you and have a great afternoon.

Kathryn Rodriguez

MEANS Group

Main Extensions and New Services

Portland Water District

225 Douglass Street

Portland, ME 04104-3553

P:(207)774-5961 Ext. 3199

F:(207)761-8307

MEANS@pwd.org

Kathryn Rodriguez
Asset Management Technician
Portland Water District
Phone: 207-774-5961 Ext. 3097
E-mail: krodriguez@pwd.org
<http://www.pwd.org>

From: Keef, Sandi [<mailto:Sandi.Keef@stantec.com>]

Sent: Friday, February 08, 2019 11:46 AM

To: AMaP MEANS <means@pwd.org>

Cc: Daniell, Celina <Celina.Daniell@stantec.com>; Bushey, Stephen <Stephen.Bushey@stantec.com>

Subject: 1006 Congress Street - Request for Ability to Serve

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.

Attached is a request for Ability to Serve for our project at 1006 Congress Street in Portland, Maine. If this request was already sent to you could you please forward along your response again?

Sandi Keef

Technical Assistant

Direct: 207 887-3499

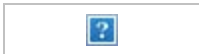
Fax: 207 879-0896

Sandi.Keef@stantec.com

Stantec

482 Payne Road Scarborough Court

Scarborough ME 04074-8929



The content of this email is the confidential property of Stantec and should not be copied, modified, retransmitted, or used for any purpose except with Stantec's written authorization. If you are not the intended recipient, please delete all copies and notify us immediately.



1006 Congress St.

Portland



PORTLAND WATER DISTRICT
225 Douglass Street
Portland, ME 04104

Scale 0 12.5 25 50 75 100 Feet 1 inch = 50 feet

Legend

- | | | |
|----------------|--------------------|-----------------------|
| ● Connection | ① Combined Service | ● Private Hydrants |
| ● Air Valve | ● Attribute Change | ① Domestic Service |
| ● Blow Off | ● Hydrant Control | ① Fire Service |
| ● By Pass | ▲ Reducer | — Shallow Water Main |
| ● Distribution | ▲ Hydrant | — Deep Water Main |
| ● Transmission | ● Meter Pits | — Proposed Water Main |
| | | → Gravity |
| | | → Force |
| | | ● Manhole |
| | | ● CSO |



Disclaimer: This map is suitable for preliminary study and analysis and is based on PWD record information. PWD is not liable for any damages whatsoever resulting from inaccurate data or from errors made in the location and marking of its infrastructure.

Drawn By: KAR

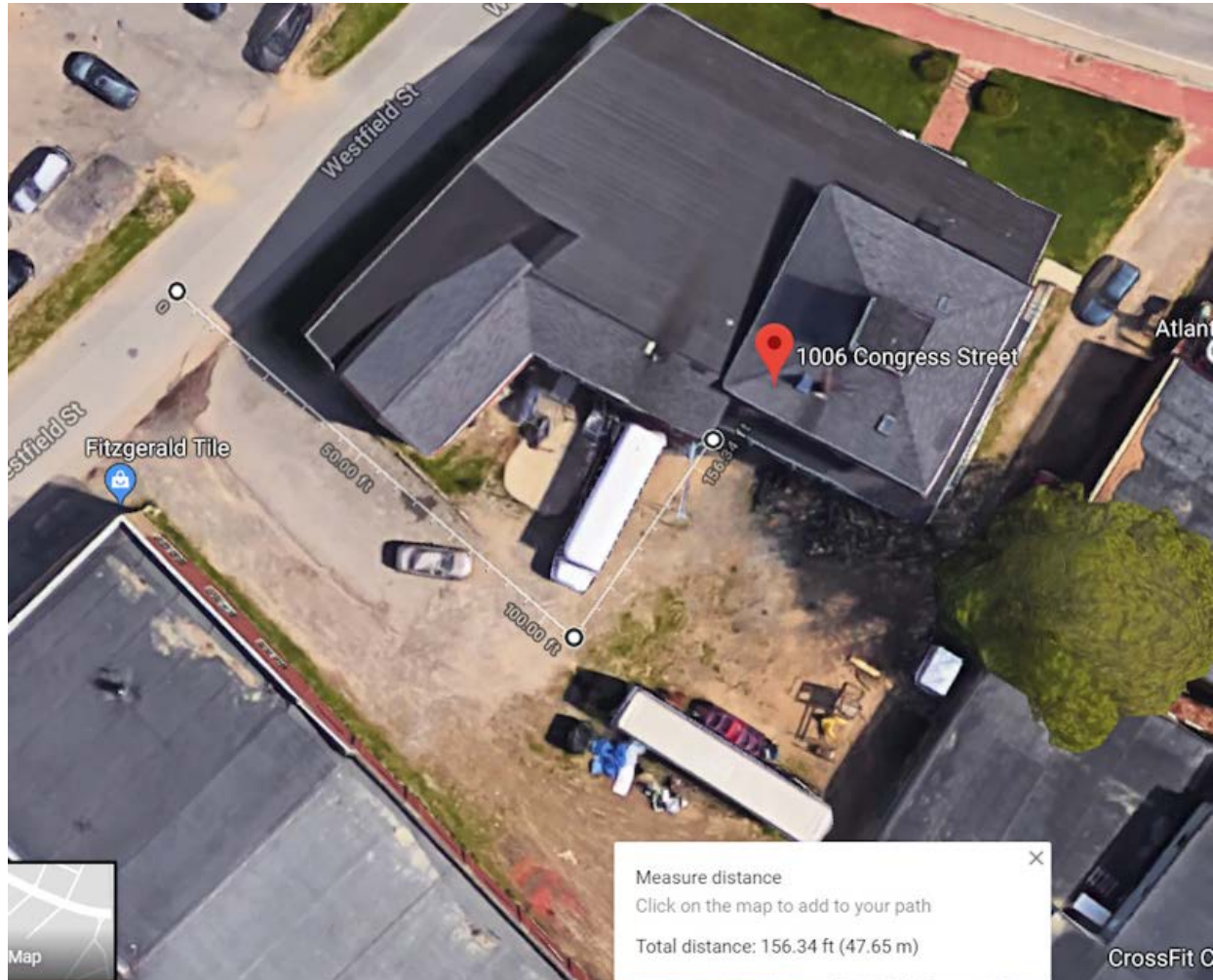
Infrastructure Map

Scale: As Noted

Date: 9/18/2018

From: Carpenter, Scott
To: [Keef, Sandi](#)
Cc: [Daniell, Celina](#); [Bushey, Stephen](#)
Subject: RE: 1006 Congress Street - Request for Ability to Serve
Date: Monday, February 11, 2019 11:22:29 AM

Sandi, we ran a new service to this building last year. Please see below sketch with white depicting the route for the service and gas metering location. The maximum load that this service can support **as of today is 1,700 CFH**. The number is 437 CFH more than the 663 CFH existing load and 600 CFH potential future load that the customer had requested. The gas pressure as of 2019 is low pressure therefore there is **approximately 7" water column** available. Please note that our system capability and delivery pressure will change as customers are added to the system. When you have the gas load information, please send it to me so that we can review with our engineering department.



If you have any questions or if you need something more than this email, please contact me by email or by phone at 207-541-2543.

Thank you.
Scott Carpenter
Senior Business Development Representative

376 Riverside Industrial Parkway
Portland, ME 04103
Phone: (207) 541-2543
Fax: (207) 541-2593

From: Keef, Sandi [mailto:Sandi.Keef@stantec.com]
Sent: Friday, February 8, 2019 8:20 AM
To: Carpenter, Scott
Cc: Daniell, Celina; Bushey, Stephen
Subject: 1006 Congress Street - Request for Ability to Serve

Mimecast Attachment Protection has deemed this file to be safe, but always exercise caution when opening files.

Hi Scott,

Attached is a request for Ability to Serve for our project at 1006 Congress Street in Portland, Maine. If this request was already sent to you could you please forward along your response again?

Thank you,

Sandi Keef

Technical Assistant

Direct: 207 887-3499

Fax: 207 879-0896

Sandi.Keef@stantec.com

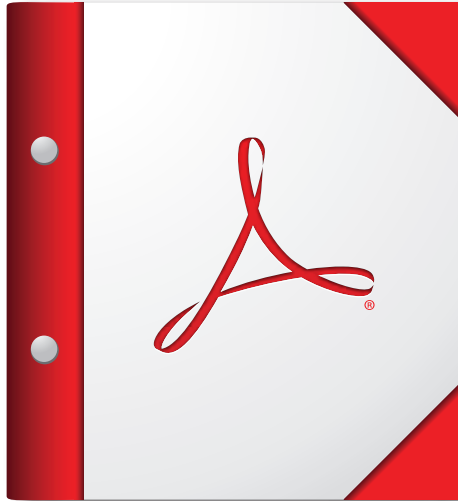
Stantec

482 Payne Road Scarborough Court

Scarborough ME 04074-8929



The content of this email is the confidential property of Stantec and should not be copied, modified, retransmitted, or used for any purpose except with Stantec's written authorization. If you are not the intended recipient, please delete all copies and notify us immediately.



**For the best experience, open this PDF portfolio in
Acrobat X or Adobe Reader X, or later.**

Get Adobe Reader Now!



Stantec Consulting Services Inc.

482 Payne Road Scarborough Court, Scarborough ME 04074-8929

I, Darrin Stairs, P.E. of Stantec, hereby certify that a Neighborhood Meeting was held on Thursday, January 17, 2019 at 4:30 P.M. at the Bunker Brewing Company, 17 Westfield Street, Portland, Maine for the proposed project located at 1006 Congress Street, Portland, Maine.

I also certify that on Monday, January 7, 2019 (which is at least ten (10) days prior to the Neighborhood Meeting) invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development or within 1,000 feet of a proposed industrial subdivision or industrial zone change.
2. Residents on the "interested parties" list.

Signed,



Darrin Stairs, P.E.

January 18, 2018

Date

Attached to this certification are:

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



Stantec Consulting Services Inc.

482 Payne Road Scarborough Court, Scarborough ME 04074-8929

January 7, 2019

Dear Neighbor:

Please join us for a Neighborhood Meeting to discuss proposed renovations of the existing Captain's House Building and property at 1006 Congress Street (Tax map 076, lot A022) in Portland, Maine. The project includes interior renovations to include residential units and a Café along with exterior parking and ancillary site improvements including walkways, drainage, and landscaping.

Meeting Location: Bunker Brewing Company
17 Westfield Street
Portland, Maine

Meeting Date: Thursday, January 17, 2019

Meeting Time: 4:30 PM

The City Code requires that property owners within 500 feet (except notices must be sent to property owners within 1,000 feet for industrial zoning map amendments and industrial subdivisions) of the proposed development and residents on an "interested parties list", be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board. The meeting will last no more than 30-45 minutes.

If you have any questions, please feel free to contact Darrin Stairs, P.E. at 207-883-3355.

Sincerely,

STANTEC CONSULTING SERVICES, INC.

A handwritten signature in black ink, appearing to read "D. Stairs", written over a horizontal line.

Darrin Stairs, P.E.
Project Manager

V:\2108\active\210801661\civil\admin\permitting\local\level_III_site plan\neighborhood meeting\note_neighborhood-meeting.docx

Note: Under Section 14-32(C) and 14-525 of the City Code of Ordinances, an applicant for a Level III development, subdivision of over five lots/units, or zone change is required to hold a neighborhood meeting within three weeks of submitting a preliminary application or two weeks of submitting a final site plan application, if a preliminary plan was not submitted. The neighborhood meeting must be held at least seven days prior to the Planning Board public hearing on the proposal. Should you wish to offer additional comments on this proposed development, you may contact the Planning Division at 874-8721 or send written correspondence to the Planning and Urban Development Department, Planning Division 4th Floor, 389 Congress Street, Portland, ME 04101 or by email to: bab@portlandmaine.gov

1006 CONGRESS ST NEIGHBORHOOD MEETING.

01/17/19 4:30 pm

@BUNKER BREWING COMPANY - 17 WESTFIELD ST.

NAME

ADDRESS

Darrin Stairs - Stantec

462 Payne Rd, Scarborough, ME

David Packard - PK

17 Chestnut St Portland

Jen Packard - PK

102 Eastern Promenade

Iona Hagl -

102 Eastern Promenade

Kara Wooldrik

Portland Trails

Chris Dixon

1019 Congress St.

RICH GILL - PK

33 McAlister Farm Rd

Brett Gabor

40 Frederic St.

Victoria Gabor

40 Frederic St.



Stantec Consulting Services Inc.

482 Payne Road Scarborough Court, Scarborough ME 04074-8929

MEETING MINUTES

Project: 1006 Congress Street, Portland, Maine

Job #: 210801661

Date: January 17, 2019 – 4:30 PM

Location: Bunker Brewing Company – 17 Westfield Drive, Portland

Subject: Neighborhood Meeting

Attendees: See Attached Sign-in Sheet

In accordance with the City of Portland Planning Board Requirements, a Neighborhood Meeting was scheduled to discuss the proposed renovation of an existing 19,799 SF building for residential use and a small café.

The meeting was held on Thursday, January 17, 2018 at 4:30 PM and Darrin Stairs, PE, representative from Stantec and Katherine Detmer, Archetype were present on site from 4:00 PM–5:30 PM. Five (5) members of the public attended the meeting.

SITE DESIGN

The following statements are provided in accordance with the submission and Section 14-526 of the ordinance.

(d) Site Design Standards.

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*

1. *Massing, Ventilation and Wind Impact:*

- a. The project proposes renovation of an existing building. The project will not result in any significant changes to the wind environment proximate to the site.
- b. The project proposes renovation of an existing building. It will not result in any significant impacts to abutting properties and is consistent with the abutting uses.
- c. HVAC venting, if necessary, will be directed through building roof top mounted units and will not impact any adjacent public spaces.

Shadows (14-526 (d) 2), if applicable

- *Shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)*
- #### 2. *Shadows:*
- a. The project proposes renovation of an existing building, and therefore there are not changes to existing solar access to abutting properties.

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.*

3. *Snow and Ice Loading:*

The project proposes renovation of an existing building. There are no issues with snow and ice loading on adjacent properties.

View Corridors (14-526 (d) 4), if applicable

- *Protection of designated view corridors (Portland Design Manual, Appendix 1)*

4. *View Corridors:*

- a. The project proposes renovation of an existing building. No changes to view corridors are proposed.

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*

5. *Historic Resources:*

- a. The development is not located in a historic district, historic landscape district or City designated landmark.
- b. The development is not located adjacent to or within 100 feet of a designated landmark, historic district, or historic landscape district.
- c. There are no known archaeological resources on the site

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)*

6. *Exterior Lighting:*

a. *Site Lighting*

- (i) All exterior lighting at the site will be full cutoff with no light emitted above the horizontal plane, and in accordance with Section 12 of the Technical Manual.

b. *Architectural and Specialty Lighting*

- (i) Not applicable to the project.

c. *Street Lighting*

- (i) There are existing street lights along Congress Street.

Noise and Vibration (14-526 (d) 7)

- *Evidence of noise levels for equipment, such as equipment specifications, to demonstrate consistency with zoning requirements*

7. Noise and Vibration:

Project noise levels will be designed to meet the permitted standards within the zone. Equipment cut sheets can be provided upon request.

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*

8. Signage and Wayfinding:

- a. All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.
 - (i) The project is not located in a historic district or subject to Article IX.
 - (ii) Commercial signage is still being designed and subject to a condition of approval.
 - (iii) All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.

Zone Related Design Standards (14-526 (d) 9)

- 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

9. Zoning Related Design Standards:

- a. Development in certain zones
 - (i.) Not applicable - The project is not located in any of the referenced zones.
 - (ii.) Not applicable - The project is not located in any of the RP zones.
 - (iii.) Not applicable – The existing building has no public portions of the building located on the public streets.
 - (iv.) Not Applicable – not in the USM overlay zone
 - (v.) thru (viii) Not applicable – not in any of the referenced zones

CONSTRUCTION MANAGEMENT PLAN

A Construction Management Plan has been prepared by 1006 Congress, LLC and is included with this submission.



Construction Management Plan

1006 Congress, LLC



CONSTRUCTION MANAGEMENT PLAN

1006 Congress Street, Portland
1006 Congress, LLC

THE PROJECT

The 1006 Congress Street project consists of a mixed-use renovation and/or modification of existing commercial, to accommodate build to suit tenant needs, and develop market rate residential units.

This Construction Management Plan depicts the overall planning, coordination, and control of the construction site, from beginning to completion. The plan's intent is to support a safe construction site and protect the public safety, accessibility (including preserving accessible pedestrian, bicycle, and vehicular modes of transport throughout the city), and welfare during construction. In addition, the construction management plan shall minimize construction impacts in their duration and magnitude to the surrounding area and develop an effective communication process for resolving concerns and conflicts.

1. SCHEDULE

Construction will occur immediately upon permit approval, and is anticipated to be completed in completion December 1, 2019.

2. ACCESS

a. Main Entrance/Public ROW

All construction access is proposed to be routed through the Main Entry/Exit at Westfield Street via Congress. (See Exhibit A, Access, Delivery/Staging and Parking Areas).

Disruption to public walkways will be strictly avoided. The contractor shall provide a traffic management plan to the department for approval prior to any sidewalk and/or street closing and commencing work in the right-of-way. Every effort will be made to schedule any work within the Public Right-of-way shall be performed during off-peak or evening hours.

b. Site and Truck Routes

Construction traffic will circulate from the Park Avenue and Congress Street. Access and egress will be from the Main Entry/Exit at Westfield via Congress Street, utilizing the Delivery and/or Staging Areas. (See Exhibit B, Site Routes and Exhibit C, Truck Routes)

The Side Entry/Exit will be utilized only when necessary, to avoid detrimental impact to Atlantic Hardwoods. (See Figure 1)



Figure 1 Side Entry/Exit

c. Delivery/Staging Area

Material deliveries will be directed to the main Delivery/Staging Area off Westfield Street. Supplementary Staging Areas are provided on the adjacent property via a written agreement with 17 Westfield, LLC. (See Exhibit A, Access, Delivery/Staging and Parking Areas).

- On-site - On days when the construction activities require multiple truck deliveries, every attempt will be made to stagger the delivery schedules, avoiding impacts to traffic or tenant access.
- Off-Site - If adequate on-site area for holding of trucks is not available overflow parking will be provided at the adjacent 17 Westfield site, through a written agreement. Adequate on-site area for the holding of the trucks until they can be unloaded is assured.



3. PARKING DURING CONSTRUCTION

All worker or delivery vehicles will be brought within the designated site boundaries, making every attempt to avoid queueing on public streets. (See Exhibit A, Access, Delivery/Staging and Parking Areas.)

4. ACCESSIBILITY

Project design, construction and approved uses will comply with the following:

- IEBC 2015
- Maine Human Rights Act, Sub Chapter 4.
- Department of Justice ADA Title III regulations.
- Federal Fair Housing Act does not apply.
- First floor units shall be ANSI 117.1 Type B units with ADA compliant access.

5. UTILITIES

Should there be a need to modify existing utility infrastructure (Including connections to Water and Stormwater), the appropriate permitting will occur, and traffic control measures will be coordinated as directed by the City of Portland.

6. STORAGE

Construction materials will be stored as follows:

- Offsite – Storage container located at 17 Westfield, Portland, Maine per written agreement.
- Rear Loading Dock/Staging Area
- Basement Floor
- Construction Floor

7. ADMINISTRATION

Management during the construction period will be overseen by the following individuals/entities:

- Owner
 - 1006 Congress, LLC
Jennifer Packard, Principle
207-388-8123 | jp@pkrealtymgmt.com
- Administrative
 - PK Realty Management
Rich Gill, Property Manager
207-747-8985 | rg@pkrealtymgmt.com
- Construction
 - NE Services
Nick Elias, General Contractor
207-749-0069 | nick@ne-services.biz

8. COMMUNICATION

Temporary construction signage and Tenant notifications will provide a 24-hour customer service line. This automated system will notify all responsible parties immediately via telephone, text and email.

- Customer Service - (866) 996-7573

9. CONSTRUCTION HOURS

Construction will occur during the hours specified in the approved building permit. All 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*.

10. FIRE SAFETY PROGRAM

The 1006 Congress Street building complies with all Fire Safety code requirements.

- Fire Security
 - Cunningham Security
Michael Major
207-329-6111 mmajor@cunninghamsecurity.com
- Designated Safety Monitor
 - PK Realty Management
David Packard
207-939-3130 dp@pkrealtymgmt.com

- Site Inspections
 - Site Inspections will occur daily to ensure site is maintained in accordance with safety requirements, and permit specifications.
 - The General Contractor will be notified of any issues requiring resolution.
- Fire Safety inspections on site will include, but not be limited to:
 - Maintaining accessibility to the site from the perimeter, including streets and hydrants for apparatus placement
 - Maintaining ingress and egress doors, stairs, and corridors in a usable condition
 - Ensuring ignition sources and processes such as smoking, heating units and hot work, including flammable gases, are properly permitted, stored and used appropriately
 - Good management of accumulation and location of combustible construction and waste materials
 - Ensuring utility shutoffs and controls for electric, gas and fuel oil are readily accessible
 - Ensuring permanently fixed or temporary alarms, standpipe and sprinkler systems and portable extinguishers are in place for immediate use

11. TRAFFIC CONTROL PLANS

Construction activity is not proposed to impact the existing public street system nor public right of ways.

12. SITE MANAGEMENT AND CONTROLS

- Trash removal services have been contracted through Casella Waste with regularly scheduled pickups, and construction debris will be managed off hours by NE Services. Additional services will be contracted as needed.
- Debris and dust will be controlled within the interior of the building and are not expected to impact local streets.
- The construction shall comply with Portland's requirements under Section 17-18 of the City Code (Attachment 1) and Section 25-129 on Noise.
- Snow removal onsite (1006 Congress and 17 Westfield) is managed by Seabreeze Property Services. Snow remove on Westfield Street is managed by the City of Portland.
- Protective fencing will be installed around trees within the construction site and storage areas.

EXHIBIT A – ACCESS, DELIVERY/STAGING AND PARKING AREAS



EXHIBIT B – SITE ROUTES

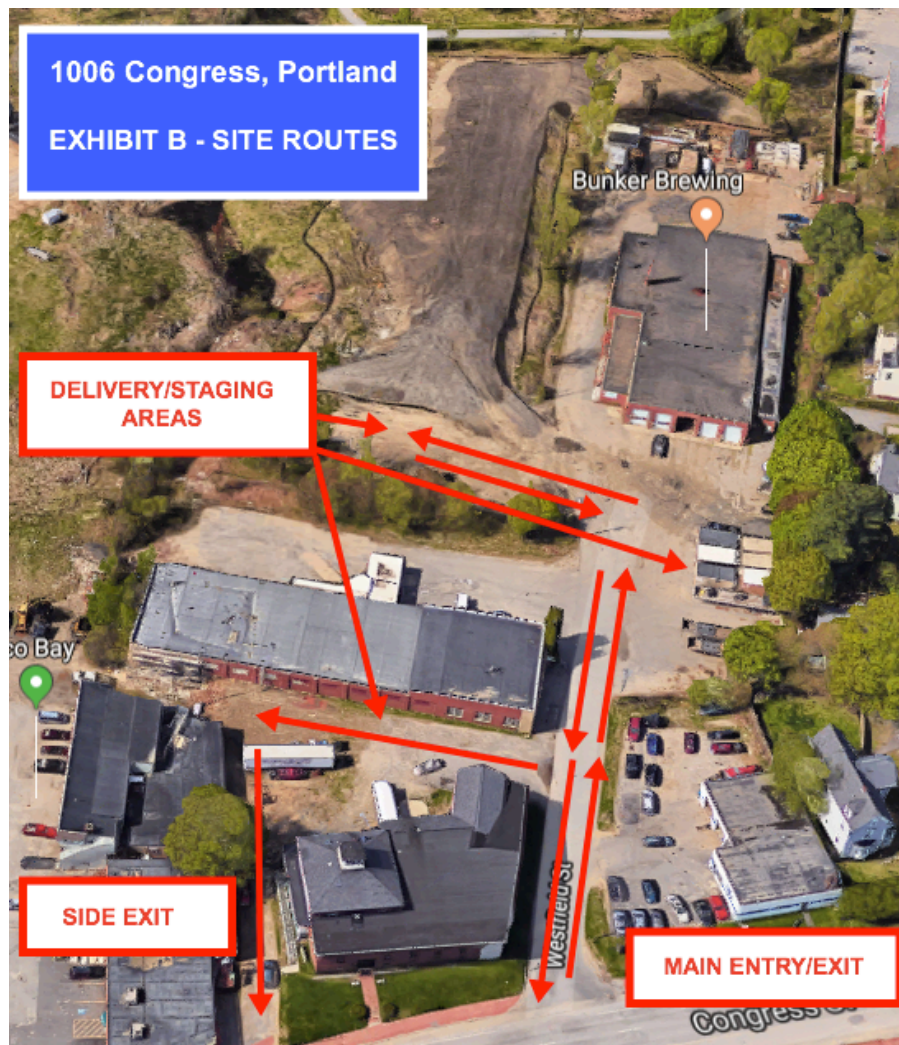
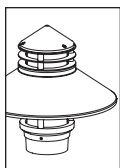


EXHIBIT C – TRUCK ROUTES




BKSSL
 SOLID STATE LIGHTING

THE POWER OF



BEACON POLE MOUNT (BPM)

PROJECT:				
TYPE:				
CATALOG NUMBER:	BPM	LED	BW	MT
SOURCE:	LED - Power of 'X' Technology			
NOTES:				

CATALOG NUMBER LOGIC

Example **BPM** - **SD12** - **LED** - **x83** - **BW** - **WHW** - **A** - **DT** - **PT** - **D23** - **MT**

Material

Blank - Aluminum (Must specify Aluminum Rings.) **C** - Copper (Must specify Brass or Stainless Steel Rings.)

Series

BPM - Beacon Pole Mount

Style

SD12 - 12-inch Shade **SD15** - 15-inch Shade **SD24** - 24-inch Shade

Source

LED - Power of 'X' Technology with Chip on Board Construction

LED Type

x83 - 23WLED/2700K **x84** - 23WLED/3000K **x85** - 23WLED/4000K

Optic

BW - Batwing

Finish

NAT - Natural*

BP - Brown Patina*

GP - Green Patina*

NIC - Nickel Plate*

BZW - Bronze Wrinkle

See Powder Coat Finish Chart to the right for additional choices.

*Not available with Aluminum.

For Aluminum fixtures, specify Standard or Premium Powder Coat.

Powder Coat Standard Finish

Powder Coat Color	Satin	Wrinkle
Bronze	BZP	BZW
Black	BLP	BLW
White (Gloss)	WHP	WHW
Aluminum	SAP	—
Verde	—	VER

Powder Coat Premium Finish

ABP Antique Brass Powder	CMG Cascade Mountain Granite	RMG Rocky Mountain Granite
AMG Aleutian Mountain Granite	CRI Cracked Ice	SDS Sonoran Desert Sandstone
AQW Antique White	CRM Cream	SMG Sierra Mountain Granite
BCM Black Chrome	HUG Hunter Green	TXF Textured Forest
BGE Beige	MDS Mojave Desert Sandstone	WCP Weathered Copper
BPP Brown Patina Powder	NBP Natural Brass Powder	WIR Weathered Iron
CAP Clear Anodized Powder	OCF Old Copper	Also available in RAL Finishes See submittal SUB-1439-00

Rings

A - Aluminum
(Finish to match Fixture.)

B - Brass
(Finish to match Fixture.)

S - Stainless Steel
(Stainless Steel Rings are provided in Natural (NAT) regardless of Finish.)

Accessories

DT - Dark Top (Eliminates glow in window above shade. Material and Finish to match Fixture.)

HS - House Side Shield (Material and Finish to match Fixture.)

MSH - Mesh Screen (Material and Finish to match Fixture.)

Option

CLR - Clear Coat Protection (For use with Natural (NAT) finish only. For use with Copper Fixture only.)

Driver Mounting

PT - Pole Top Mounting (For straight pole applications. For use with 3-1/2" OD Pole Tenon. Not available with x49-x51. Compatible with TEKA Illumination SR5.)

HB - Hinge Base Driver Mounting (For hinge base pole applications. Compatible with TEKA Illumination TR5.)

HH - Hand Hole Driver Mounting (For straight pole applications with 3"x5" Hand Hole. Compatible with TEKA Illumination SR5.)

Driver

D23 - 23W Dimming Driver (Standard Dimming 1-100%.)

Input Voltage

MT - 120-277 VAC Input

DRIVER DATA

Type	AC Input Range	Frequency Hz	Power Factor At Full Load (Efficiency)	THD	InRush Current	Operating Current	Operation Ambient Temperature	Dimmer Type	Dimmer Range
D23	120-277Vac	50/60 Hz	>.90	≤20%	30mA ² s@277V	700mA	(-30° C to 50° C)	0-10V	1-100%

LM79 DATA

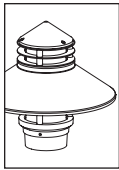
TEKA LED #	LUMENS (Delivered)	CCT	INPUT WATTS (Typ.)	CRI (Typ.)
x83	1725	2700	23	80
x84	1889	3000	23	80
x85	1913	4000	23	80

L70 DATA

Minimum Rated Life (hrs.) - 70% of initial lumens (L70)
50,000
50,000
50,000

TEKA ILLUMINATION	40429 Brickyard Drive • Madera, CA 93636 • USA 559.438.5800 • FAX 559.438.5900 www.tekailumination.com • info@tekailumination.com	SUBMITTAL DATE 05-15-2018	DRAWING NUMBER SUB-2569-00
--------------------------	---	------------------------------	-------------------------------

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF TEKA ILLUMINATION AND ITS RECEIPT OR POSSESSION DOES NOT CONVEY ANY RIGHTS TO REPRODUCE, DISCLOSE ITS CONTENTS, OR TO MANUFACTURE, USE OR SELL ANYTHING IT MAY DESCRIBE. REPRODUCTION, DISCLOSURE OR USE WITHOUT SPECIFIC WRITTEN AUTHORIZATION OF TEKA ILLUMINATION IS STRICTLY FORBIDDEN.



BKSSL
SOLID STATE LIGHTING

THE POWER OF



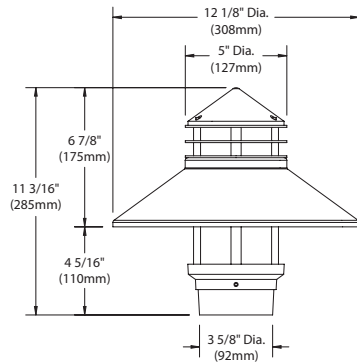
BEACON POLE MOUNT (BPM)

PROJECT:

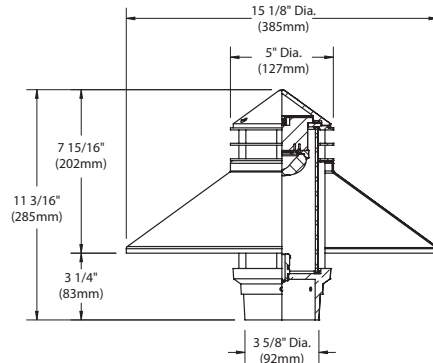
TYPE:

SIDE VIEW

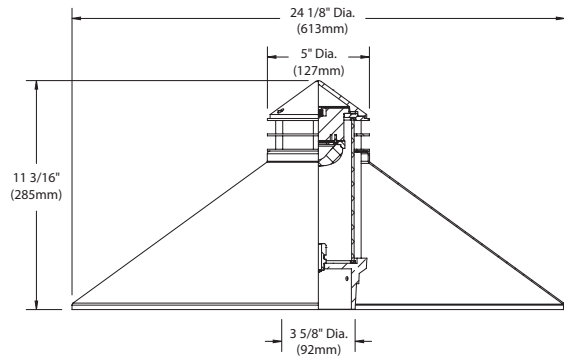
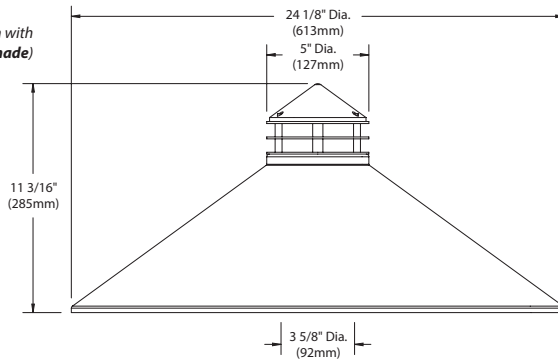
(Shown with
12" Shade)



(Shown with
15" Shade)



(Shown with
24" Shade)



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 onsite. 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.tekaillumination.com/greensource for program requirements.

Materials

Copper: Constructed from copper and brass. These enduring metals are inherently corrosion resistant.

Aluminum: Constructed from Copper-free Aluminum (Type 6061-T6).

Base

Cast from solid bronze or copper free aluminum. Slip fits 3 1/2" OD TEKA post top.

Mesh Screen

Diffuses light in window. Not available with half shield. Finish to match fixture. Not available with Dark Top (DT).

Dark Top

Eliminates glow in window above shade.

House Side Shield

Eliminates light from half of the fixture. Hand spun aluminum- 3003 or copper- C101.

Shade

Hand spun from 16GA aluminum 3003-H14 or copper C101. Specify 12", 15" or 24" diameter.

Optic

Acrylic Batwing Optic.

Lens

3.5" O.D. frosted acrylic lens.

Color Management

Chip on board technology delivers natural white light. Exact color point conformity exceeds ANSI C78.377 standard. Module exceeds 80 CRI (RA>80, R9.16). Color point uniformity 2 SDCM color control for 2700K-4000K CCT.

Driver (23W)

[1] 700mA (D23), Class A, constant current driver. 120-277VAC (nominal) primary input voltage. 50/60Hz. >0.90 Power Factor, 30mA²S in-rush current, ≤20%THD (nominal at 120VAC full load). Output over-voltage, over-current, and short circuit protection with auto recovery. EMC: FCC47CFR Part 15 Class B compliant. Dimming driver for use with standard 0-10V dimmers and switch controls. 1-100% range (Refer to driver electrical data). D34 - 1-100% dimming range.

BKSSL®

Integrated solid state system with 'X' technology is scalable for field upgrade. Modular design with electrical quick disconnects permit field maintenance. Minimum 50,000 hour rated life at 70% of initial lumens (L70). BKSSL technology provides long life, significant energy reduction and exceptional thermal management.

Ring Stack

Solid aluminum with aluminum spacers; brass or stainless steel accent rings with solid brass spacers.

Wiring

Tefzel™ coated stranded wire, 18GA, 600V, 150°C rated and certified to UL16 and certified to UL 1659 standard.

Hardware

Tamper-resistant, stainless steel hardware.

Driver Installation Options

(Please specify)

Pole Top: Driver suspended from fixture. Fits 3 1/2" OD maximum.

Hinge Base: Located at base of pole. Stand alone driver tray. For use with PTR5.

Hand Hole: Located at base of pole. Stand alone driver tray attaches to standard hand hole pole brackets per NEC. Hand hole must be 3"x 5".

Finish

Copper and Brass: Natural (NAT): Copper and brass components are sand blasted to expose the porous metal surface. Over time, and with exposure to the elements, the metals will naturally 'weather' resulting in a unique patina.

Also available with hand-crafted metal finishes including brown patina (BP), green patina (GP), polish (POL), and nickel plate (NIC).

Aluminum, Copper and brass components are also available in powder coat finishes.

Optional ceramic clear coat protection (copper and brass components only) seals and protects underlying metals and protects against discoloration, fading, and wear. Highly impervious to chemicals, solvents, and graffiti. For use with natural (NAT) and polish (POL) finishes.

Aluminum: 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.

Warranty

5 year limited warranty.

Listings

UL tested to IESNA LM-79. UL Listed. Certified to CAN/CSA/ANSI Standards. RoHS compliant. Suitable for indoor or outdoor use. Suitable for use in wet locations. Additionally suitable for installation within 4' of the ground. IP66 Rated. Made in USA.



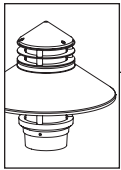
Tefzel™ is trademark of The Chemours Company FC, LLC.

TEKA ILLUMINATION

40429 Brickyard Drive • Madera, CA 93636 • USA
559.438.5800 • FAX 559.438.5900
www.tekaillumination.com • info@tekaillumination.com

SUBMITTAL DATE
05-15-2018

DRAWING NUMBER
SUB-2569-00



BKSSL
SOLID STATE LIGHTING

THE POWER OF



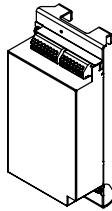
BEACON POLE MOUNT (BPM)

PROJECT:

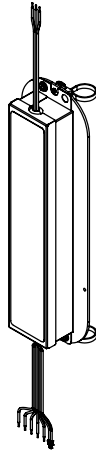
TYPE:

DRIVER MOUNTING OPTIONS

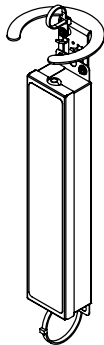
(Hand Hole Driver Mounting **HH-D23**)



(Hinge Base Driver Mounting **HB-D23**)



(Pole Top Mounting **PT-D23**)

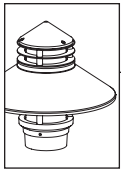


TEKA ILLUMINATION

40429 Brickyard Drive • Madera, CA 93636 • USA
559.438.5800 • FAX 559.438.5900
www.tekaillumination.com • info@tekaillumination.com

SUBMITTAL DATE
05-15-2018

DRAWING NUMBER
SUB-2569-00



BKSSL
SOLID STATE LIGHTING

THE POWER OF

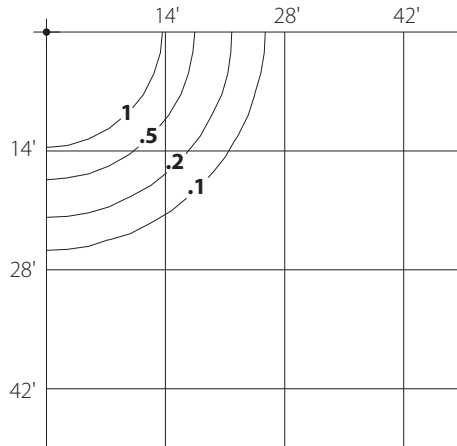


BEACON POLE MOUNT (BPM)

HORIZONTAL FOOTCANDLES

BPM - LED - X85 (23W) - 4000K

Mounting Height = 12.00 Ft, Style = SD12

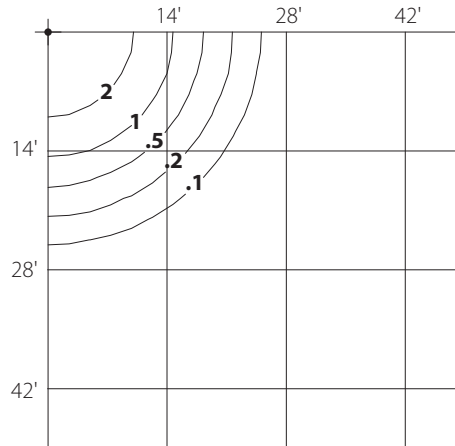


HORIZONTAL FOOTCANDLES

Light Loss Factor = 1.00
Luminaire Lumens = 1757
Maximum Calculated Value = 2.03 Fc
2.7K Multiplier = .9
3K Multiplier = .99
BUG Rating = B1 U2 G1

BPM - LED - X85 (23W) - 4000K

Mounting Height = 12.00 Ft, Style = SD15

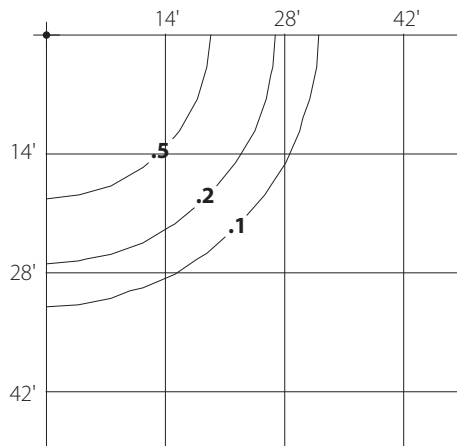


HORIZONTAL FOOTCANDLES

Light Loss Factor = 1.00
Luminaire Lumens = 1913
Maximum Calculated Value = 2.34 Fc
2.7K Multiplier = .9
3K Multiplier = .99
BUG Rating = B1 U2 G1

BPM - LED - X85 (23W) - 4000K

Mounting Height = 18.00 Ft, Style = SD12

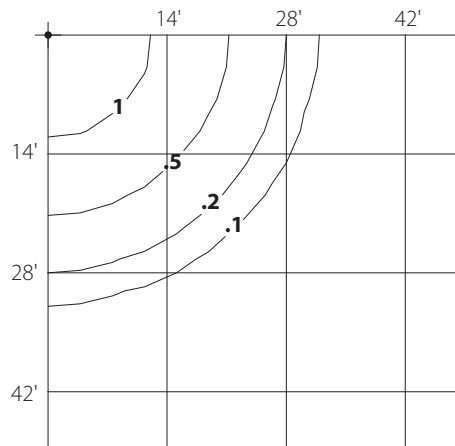


HORIZONTAL FOOTCANDLES

Light Loss Factor = 1.00
Luminaire Lumens = 1757
Maximum Calculated Value = 0.90 Fc
2.7K Multiplier = .9
3K Multiplier = .99
BUG Rating = B1 U2 G1

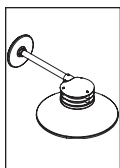
BPM - LED - X85 (23W) - 4000K

Mounting Height = 18.00 Ft, Style = SD15



HORIZONTAL FOOTCANDLES

Light Loss Factor = 1.00
Luminaire Lumens = 1913
Maximum Calculated Value = 1.04 Fc
2.7K Multiplier = .9
3K Multiplier = .99
BUG Rating = B1 U2 G1



BEACON WALL MOUNT (BWM)

PROJECT:	
TYPE:	
CATALOG NUMBER:	BWM LED
SOURCE:	LED - Power of 'L' Technology - Line Voltage - 120V only
NOTES:	

CATALOG NUMBER LOGIC

Example: **BWM** - **SD10** - **LED** - **L10** - **BZW** - **A** - - - **CRW**

Material

Blank - Aluminum
C - Copper

Series
BWM - Beacon Wall Mount

Style
SD10 - 10 Inch disk
SD12 - 12 Inch Shade
SD15 - 15 Inch Shade

Source
LED - 'L' Technology (Line Voltage - 120V only)

LED Type
L10 - 10WLED/2700K
L11 - 10WLED/3000K
L12 - 10WLED/4000K
L13 - 10WLED/2200K-3500K Warm Dim
L15 - 20WLED/2700K
L16 - 20WLED/3000K
L17 - 20WLED/4000K
L18 - 20WLED/2200K-3500K Warm Dim

Finish

NAT - Natural*
 BP - Brown Patina*
 GP - Green Patina*
 NIC - Nickel Plate*

BZW - Bronze Wrinkle
 See Powder Coat Finish Chart to the right for additional choices.
 *Not available with Aluminum. For Aluminum fixtures, specify Standard or Premium Powder Coat.

Powder Coat Standard Finish

Powder Coat Color	Satin	Wrinkle
Bronze	BZP	BZW
Black	BLP	BLW
White (Gloss)	WHP	WHW
Aluminum	SAP	—
Verde	—	VER

Powder Coat Premium Finish

ABP Antique Brass Powder	CMG Cascade Mountain Granite	RMG Rocky Mountain Granite
AMG Aleutian Mountain Granite	CRI Cracked Ice	SDS Sonoran Desert Sandstone
AQW Antique White	CRM Cream	SMG Sierra Mountain Granite
BCM Black Chrome	HUG Hunter Green	TXF Textured Forest
BGE Beige	MDS Mojave Desert Sandstone	WCP Weathered Copper
BPP Brown Patina Powder	NBP Natural Brass Powder	WIR Weathered Iron
CAP Clear Anodized Powder	OCF Old Copper	Also available in RAL Finishes See submittal SUB-1439-00

Rings

A - Aluminum
 (Finish to match Fixture.)

B - Brass
 (Finish to match Fixture.)

S - Stainless Steel
 (Stainless Steel Rings are provided in Natural (NAT) regardless of Finish.)

Accessories (Select one.)

DT - Dark Top (Eliminates glow in upper window. Material and Finish to match fixture.)

MSH - Mesh Screen (Material and Finish to match Fixture.)

Option

CLR - Clear Coat Protection For use with Natural (NAT) finish only. For use with Copper Fixture only.

Canopy

CRW - 5" Round Canopy
CQW - 5" Square Canopy
CTW - 3"x5" Rectangular Canopy

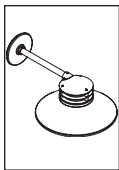
LM79 DATA

TEKA LED #	LUMENS (Delivered)	CCT	INPUT WATTS (Typ.)	CR (Typ.)	BUG Rating	Minimum Rated Life (hrs.) 70% of initial lumens (L70)
L10	433	2700	10	90	B0-U3-G1	50,000
L11	459	3000	10	90	B0-U3-G1	50,000
L12	504	4000	10	90	B0-U3-G1	50,000
L13	494	2200-3500 warm dim	10	90	B0-U3-G1	50,000
L15	824	2700	20	90	B0-U3-G1	50,000
L16	871	3000	20	90	B0-U3-G1	50,000
L17	959	4000	20	90	B0-U3-G1	50,000
L18	940	2200-3500 warm dim	20	90	B0-U3-G1	50,000

L70 DATA

TEKA ILLUMINATION	40429 Brickyard Drive • Madera, CA 93636 • USA 559.438.5800 • FAX 559.438.5900 www.tekaillumination.com • info@tekaillumination.com	SUBMITTAL DATE 05-15-2018	DRAWING NUMBER SUB-2574-00
--------------------------	---	------------------------------	-------------------------------

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF TEKA ILLUMINATION AND ITS RECEIPT OR POSSESSION DOES NOT CONVEY ANY RIGHTS TO REPRODUCE, DISCLOSE ITS CONTENTS, OR TO MANUFACTURE, USE OR SELL ANYTHING IT MAY DESCRIBE. REPRODUCTION, DISCLOSURE OR USE WITHOUT SPECIFIC WRITTEN AUTHORIZATION OF TEKA ILLUMINATION IS STRICTLY FORBIDDEN.

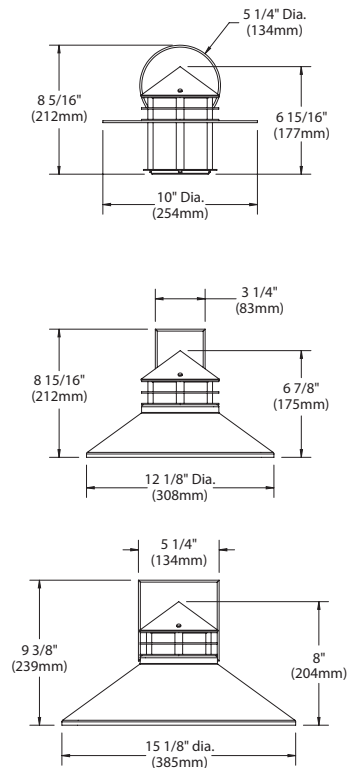


BEACON WALL MOUNT (BWM)

PROJECT:

TYPE:

FRONT VIEW

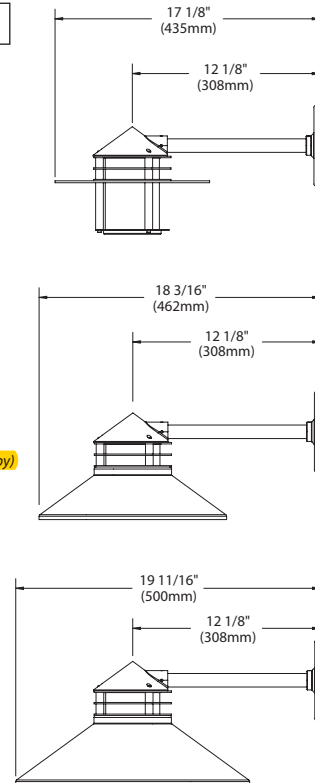


(SD10 Style shown with 5" Round Canopy)

(SD12 Style shown with 3"x5" Rectangular Canopy)

(SD15 Style shown with 5" Square Canopy)

SIDE VIEW



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 onsite. 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.tekaillumination.com/greensource for program requirements.

Materials

Copper and Brass: Constructed from copper and brass. These enduring metals are inherently corrosion resistant.

Aluminum: Constructed from Copper-Free aluminum (Type 6061-T6).

Shade

Hand spun from 16GA 3003-H14 aluminum or 16GA C101 copper. Specify 12" or 15" diameter.

Disk

10" diameter disk made from 1/8" 6061-T6 Aluminum or 1/8" Copper.

Body

360 Aluminum Cast or C836 Red Brass cast. High temperature, silicone gasket provides water tight seal to shade assembly.

Lens

3-1/2" dia. frosted acrylic lens with frosted acrylic downlight lens provides sealed optical compartment.

BKSSL®

Integrated solid state system with 'L' technology is scalable for field upgrade. Modular design with electrical quick disconnects permit field maintenance available in 27000k, 3000k or 4000k specify 10W or 20W. Warm Dim LED 2200K-3500K specify 10W or 20W. Line voltage input 120V only. Compatible with electronic low voltage dimmers only.

Wiring

Tefzel™ coated wire, 18AWG, 600V, 210° C rated and certified to UL 1659 standard.

Rings

Solid aluminum accent rings with solid aluminum spacers; brass or stainless steel accent rings with solid brass spacers.

Canopy

Canopy Cover conceals mounting plate and hardware. Material is hand spun from high purity, solid copper plate with tamper resistant machined 360 aluminum or brass lock collar. Available in 5-1/4" diameter round canopy cover, 18GA Aluminum or 18GA Copper. Square Canopy cover 5-1/4" x 5-1/4" or rectangular canopy cover 3- 1/4" x 5-1/4" made from 16GA Aluminum or 16GA Copper.

Mesh Screen

Diffuses light in window. Finish to match fixture.

Dark Top

Eliminates glow in window above shade.

Installation

For Round and Square Canopy Cover: 5" diameter, machined aluminum mounting plate with black finish. For use with 4" octagonal junction box (by others). For Rectangular Canopy Cover: 3"x5" machined aluminum mounting plate with black finish for use with single gang recessed switch box (by others).

Finish

Copper and Brass: **Natural (NAT):** Copper and brass components are sand blasted to expose the porous metal surface. Over time, and with exposure to the elements, the metals will naturally 'weather' resulting in a unique patina.

Also available with hand-crafted metal finishes including brown patina (BP), green patina (GP), polish (POL), and nickel plate (NIC).

Copper and brass components are also available in powder coat finishes.

Optional ceramic clear coat protection (copper and brass components only) seals and protects underlying metals and protects against discoloration, fading, and wear. Highly impervious to chemicals, solvents, and graffiti. For use with natural (NAT) finish.

Aluminum: 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.

Warranty

5 year limited warranty.

Listings

UL tested to IESNA LM-79. UL Listed. Certified to CAN/CSA/ANSI Standards. RoHs compliant. Suitable for indoor or outdoor use. Suitable for use in wet locations. Additionally suitable for installation within 4' of the ground. IP65 Rated. Made in USA.



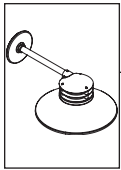
* Energy Star is a registered trademark of the United States Environmental Protection Agency.
Tefzel™ is trademark of The Chemours Company FC, LLC.

TEKA ILLUMINATION

40429 Brickyard Drive • Madera, CA 93636 • USA
559.438.5800 • FAX 559.438.5900
www.tekaillumination.com • info@tekaillumination.com

SUBMITTAL DATE
05-15-2018

DRAWING NUMBER
SUB-2574-00

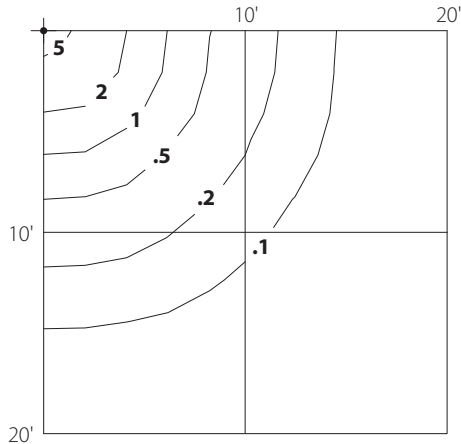


BEACON WALL MOUNT (BWM)

HORIZONTAL FOOTCANDLES

BWM - LED - L17 (20W) - 4000K

Mounting Height = 6.00 Ft, Style = SD10



HORIZONTAL FOOTCANDLES

Light Loss Factor = 1.00

Luminaire Lumens = 957

Maximum Calculated Value = 10.02 Fc

2.7K Multiplier = .86

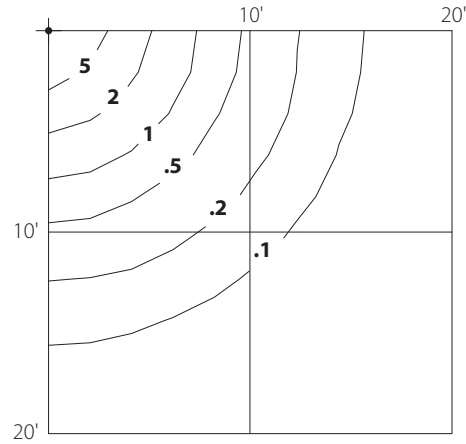
3K Multiplier = .91

BUG Rating = B0 U3 G1

10W Multiplier = .53

BWM - LED - L17 (20W) - 4000K

Mounting Height = 6.00 Ft, Style = SD12



HORIZONTAL FOOTCANDLES

Light Loss Factor = 1.00

Luminaire Lumens = 954

Maximum Calculated Value = 12.14 Fc

2.7K Multiplier = .86

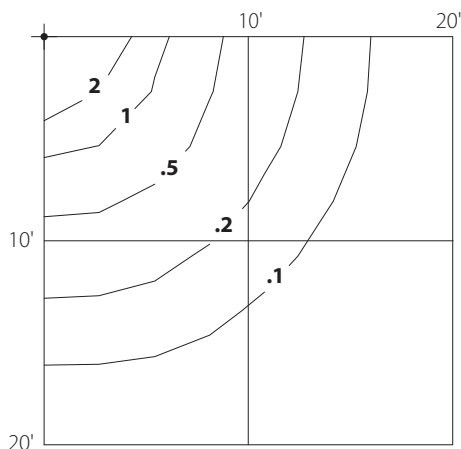
3K Multiplier = .91

BUG Rating = B1 U3 G1

10W Multiplier = .53

BWM - LED - L17 (20W) - 4000K

Mounting Height = 8.00 Ft, Style = SD10



HORIZONTAL FOOTCANDLES

Light Loss Factor = 1.00

Luminaire Lumens = 957

Maximum Calculated Value = 5.64 Fc

2.7K Multiplier = .86

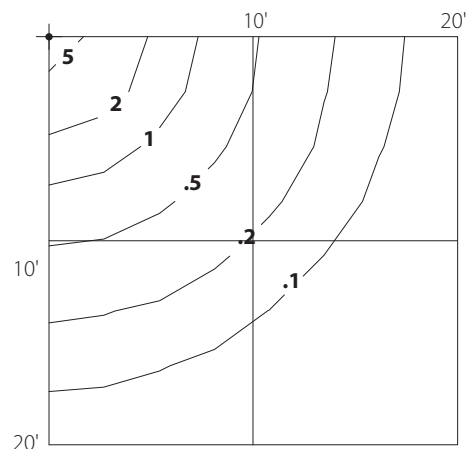
3K Multiplier = .91

BUG Rating = B0 U3 G1

10W Multiplier = .53

BWM - LED - L17 (20W) - 4000K

Mounting Height = 8.00 Ft, Style = SD12



HORIZONTAL FOOTCANDLES

Light Loss Factor = 1.00

Luminaire Lumens = 954

Maximum Calculated Value = 6.83 Fc

2.7K Multiplier = .86

3K Multiplier = .91

BUG Rating = B1 U3 G1

10W Multiplier = .53

SLING SERIES SG

Cat.# SG1-20-3K7-FT-UNV-DB-PCU-VS

Job

Type

W2



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

Intended Use:

Slender wallpack/floodlight available in two sizes for a variety of applications including building perimeter/security lighting, entrances, stairways, loading docks or facades for schools, apartments or commercial buildings.

Construction:

Rugged die-cast aluminum housing with corrosion resistant powder coat finish both protects and provides architectural appearance. Heat dissipating fins provide superior thermal performance extending the life of the electronic components.

Electrical:

- 120-277V, 50/60Hz electronic drivers
- 347V and 480V available in larger SG2 housing
- 10KA surge protection included

LED(s) Optics, CCT:

- 3000K, 4000K and 5000K CCT nominal with 70 CRI
- Smaller SG1 housing has 2 LEDs, larger SG2 housing has 3 LEDs, see page 2 for electrical and photometric data

Lenses:

- Impact resistant tempered glass offers zero uplight
- Comfort lens available as an option or accessory to reduce glare (7-10% lumen reduction) and provide better uniformity

Installation:

- Side hinge allows for easy installation and wiring.
- Side movement avoids damage to the lens and helps prevent injury common in drop down hinge designs.
- Mounts to 4" junction box and includes a gasket to help seal electrical connections.
- Four 1/2" threaded conduit hubs for surface conduit provided

Options/Controls

- Button photocontrol for dusk to dawn energy savings. Stock versions include 120V-277V PC with a cover which provides a choice to engage photocontrol or not. PC is installed in top hub.
- Occupancy sensor available for on/off and dimming control in larger SG2 housing.
- SiteSync™ wireless lighting control delivers flexible control strategies for reducing power consumption and minimizing maintenance costs while delivering the right light levels with a simple and affordable wireless solution. See ordering information or visit www.hubbelllighting.com/sitesync for more details.
- Battery backup options available in larger SG2 housing rated for either 0° C or -30° C. Performance exceeds NEC requirement providing 1 fc minimum over 10'x10' at 11' mounting height
- Diffused comfort lens provides glare control and improved uniformity. Available as an option or accessory

Listings

- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Listed to UL1598 for use in wet location, listed for -40C to 40C applications
- **IDA approved with zero uplight for 3000K and warmer CCTs**
- IP65

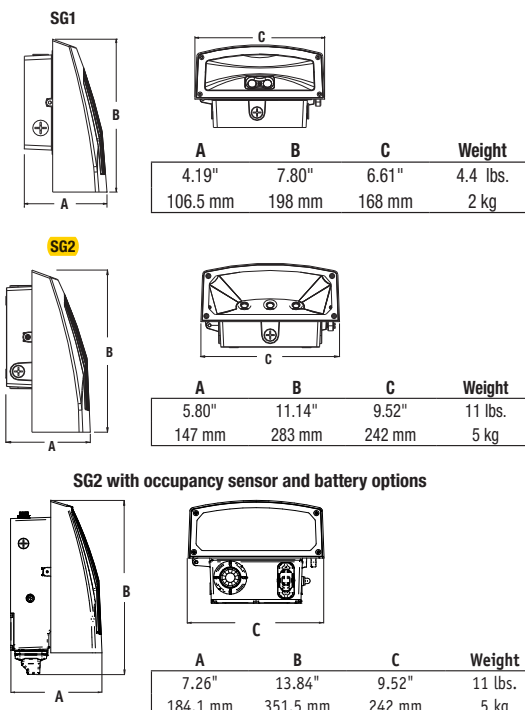
Warranty:

Five year limited warranty (for more information visit: <http://www.hubbelllighting.com/resources/warranty/>)

PRODUCT IMAGE(S)



DIMENSIONS



CERTIFICATIONS/LISTINGS



tradeSELECT®

C US

*3000K and warmer CCTs only

SHIPPING INFORMATION

Catalog Number	G.W.(kg)/CTN	Carton Dimensions			Carton Qty. per Master Pack	Pallet Qty.
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)		
SG1	4.35lbs (2 kg)	9.5 (24)	8.25 (21)	5.25 (13.32)	6	98
SG2	11lbs (5 kg)	14 (35.5)	11.5 (29.2)	8 (20.3)	2	64

ORDERING INFORMATION — ORDERING EXAMPLE: SG1-20-4K7-FT-UNV-DB

SG1-2	-	3K7	-	FT	-	UNV	-	DB	-	PCU	-	VS
FAMILY	CCT/CRI	DISTRIBUTION	VOLTAGE	COLOR/FINISH	CONTROL OPTIONS	OPTIONS						
SG1-20 Size 1, 20w	3K7 3000K, 70 CRI	FT Fwd Throw	UNV 120V-277V	DB Textured Dark Bronze	PCU Button Photocontrol 120-277V	CS Comfort lens						
SG1-30 Size 1, 30w	4K7 4000K, 70 CRI		120' 120V	BL Textured Black	SCP ^{1,2,3} Sensor Control, Programmable	E ^{1,2} Battery 0°C						
SG2-50 Size 2, 50w	5K7 5000K, 70 CRI		277' 277V	WH Textured White	SWP ^{1,2} SiteSync, Precommission	EH ^{1,2} Battery w/ heater -20°C						
SG2-80 Size 2, 80w			UHV ¹ 347V-480V	GYS Smooth Gray	SWPM ^{1,2} SiteSync, Precommission, Motion							
				PS Smooth Plat.	Specify MTG HT for SCO/SCP & SWPM							
				Silver	8F Up to 8'							
				CC Custom Color	20F Up to 20'							

¹ Available in SG2 only, UHV available in SG2-50 only

² Sensor controls & battery backup can not be used with flood accessory or kit or for inverted/up mounting.

120-277V only for SCO/SCP, 120 or 277 only for SWP, SWPM, E & EH

³ Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming or on/off with automatic daylight calibration and different time delay settings, 120-277V only, PCU option not applicable



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.

© 2018 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA **SG-SPEC NOVEMBER 13, 2018 3:39 PM**

ORDERING INFORMATION - Stock Versions

Catalog Number	CCT/CRI	Wattage	Mounting Height	Voltage	Color	Lumens	LPW	Weight lbs. (kg)
SG1-20-PCU	5000K/70	21w	8-12ft	120-277V	Dark Bronze	2263	108	4.3 (2)
SG1-20-4K-PCU	4000K/70					2310	110	
SG1-30-PCU	5000K/70	29w	10-15ft			3270	113	
SG1-30-4K-PCU	4000K/70					3060	105	
Catalog Number	CCT/CRI	Wattage	Mounting Height	Voltage	Color	Lumens	LPW	Weight lbs. (kg)
SG2-50-PCU	5000K/70	51w	12-18ft	120-277V	Dark Bronze	5548	110	11 (5)
SG2-50-4K-PCU	4000K/70					5526	109	
SG2-80-PCU	5000K/70	80w	15-25ft			8061	101	
SG2-80-4K-PCU	4000K/70					8079	101	

PERFORMANCE DATA

Catalog number	# of LEDs	Drive Current	System Watts	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 80 CRI)				
				Lumens	LPW ¹	B	U	G	Lumens	LPW ¹	B	U	G	Lumens	LPW ¹	B	U	G
SG1-20	2	250mA	21	2449	115	1	0	0	2310	110	1	0	0	2054	95	1	0	0
SG1-30		350mA	29	3332	117	2	0	0	3060	106	1	0	0	2913	100	1	0	0
SG2-50-UHV	3	350mA	44	4633	106	2	0	0	4609	105	2	0	0	3895	90	2	0	0
SG2-50	3	415mA	51	5548	109	2	0	0	5526	107	2	0	0	4700	92	2	0	0
SG2-80		650mA	80	7851	98	2	0	1	8079	103	2	0	1	6721	86	2	0	1

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.

ELECTRICAL DATA

Configurable Versions

Catalog number	# of Drivers	Input Voltage	Current (Amps)	System Power
SG1-20	1	120	0.18	21.0
		277	0.08	21.0
SG1-30	1	120	0.24	28.9
		277	0.10	28.9
SG2-50-UHV	1	347	0.13	43.5
		480	0.18	43.5
SG2-50	1	120	0.42	50.6
		277	0.18	50.6
SG2-80	1	120	0.68	79.8
		277	0.29	79.8

PROJECTED LUMEN MAINTENANCE

Ambient Temp.	OPERATING HOURS					
	0	25,000	50,000	TM-21-11 ¹ L96 60,000	100,000	L70 (hours)
25°C / 77°F	1.00	0.98	0.97	0.96	0.95	>791,000
40°C / 104°F	0.99	0.98	0.96	0.96	0.94	>635,000

1. Projected per IESNA TM-21-11 * (Nichia 219B, 700mA, 85°C Ts, 10,000hrs) Data references the extrapolated performance projections for the LNC-12LU-5K base model in a 40°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

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	0.96

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

Wireless and Occupancy Controls



SiteSync™ Lighting Control delivers flexible control strategies for reducing power consumption and minimizing maintenance costs while delivering the right light levels with a simple and affordable wireless solution.



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.

© 2018 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA **SG-SPEC NOVEMBER 13, 2018 3:39 PM**

OPTIONS AND ACCESSORIES

Catalog Number	Description	Weight lbs. (kg)
SG1-CS	Acrylic comfort lens for SG1	1 (.45)
SG2-CS	Acrylic comfort lens for SG2	1 (.45)
SG1-YOKE	SG1 Series Yoke/Floodlight mount kit, includes visor	2.0 (1.0)
SG1-KNUCKLE	SG1 Series Knuckle/Floodlight mount kit, includes visor	2.0 (1.0)
SG2-YOKE	SG2 Series Yoke/Floodlight mount kit, includes visor	2.0 (1.0)
SG2-KNUCKLE	SG2 Series Knuckle/Floodlight mount kit, includes visor	2.0 (1.0)
SCP-REMOTE*	Remote control for SCP option. Order at least one per project to program and control fixtures	1 (.45)
SG2-PMA-3-XX	3" Pole Mount adapter for SG2, both square and round, XX= finish	7 (3.5)
SG2-PMA-4-XX	4" Pole Mount adapter for SG2, both square and round, XX= finish	7 (3.5)
SG2-PMA-5-XX	5" Pole Mount adapter for SG2, both square and round, XX= finish	7 (3.5)
SG2-PMA-6-XX	6" Pole Mount adapter for SG2, both square and round, XX= finish	7 (3.5)
SG1-SPC	Vandal Resistant Lens (shield polycarbonate), SG1	3 (1.5)
SG2-SPC	Vandal Resistant Lens (shield polycarbonate), SG2	3 (1.5)
SG1-WCP	Universal Wall Cover Plate, Dark Bronze, SG1	10 (5)
SG2-WCP-H	Horizontal Mount Wall Cover Plate, Dark Bronze, SG2	10 (5)
SG2-WCP-V	Vertical Mount Wall Cover Plate, Dark Bronze, SG2	10 (5)
SG2XL-WCP-H	Horizontal Mount Wall Cover Plate, DB, SG2 with battery or sensor	10 (5)
SG2XL-WCP-V	Vertical Mount Wall Cover Plate, DB, SG2 with battery or sensor	10 (5)

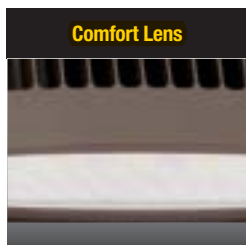
*Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, 120V or 277V only

Accessories and Services (Ordered Separately)

Catalog Number	Description
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.

*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.



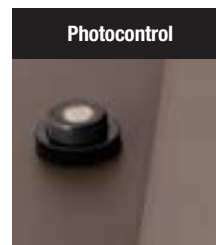
Comfort Lens



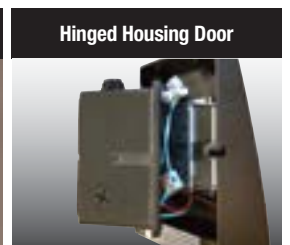
Visor



Mounting Options



Photocontrol



Hinged Housing Door

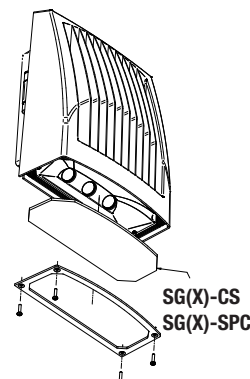
Acrylic comfort lens provides glare control, improved visual comfort and better uniformity

Visor accessory included with mounting accessory kits

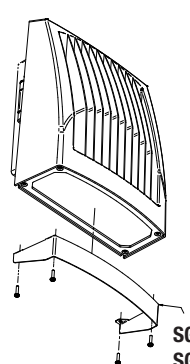
Flood mounting accessories - 1/2" threaded knuckle or yoke (includes grommet and 3' SO cord)

Photocontrol option available for energy-saving dusk-to-dawn operation

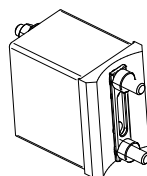
Side hinged for easy installation and wiring access, single screw secures housing closure



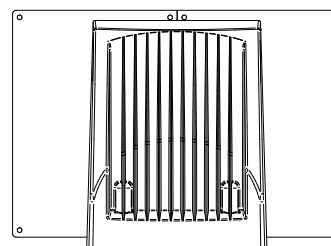
**SG(X)-CS
SG(X)-SPC**



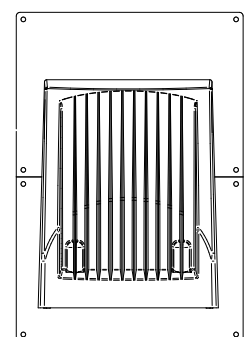
**SG(X)-Yoke
SG(X)-KNUCKLE**



SG(X)-PMA(X)-XX



SG(X)-WCP-H



SG(X)-WCP-V



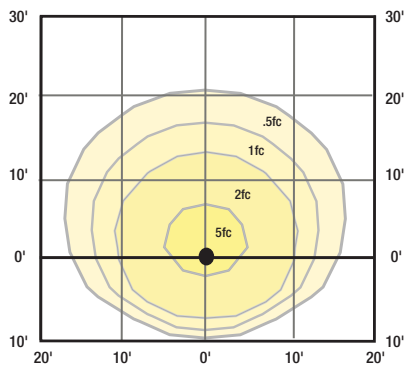
HUBBELL
Outdoor Lighting

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.

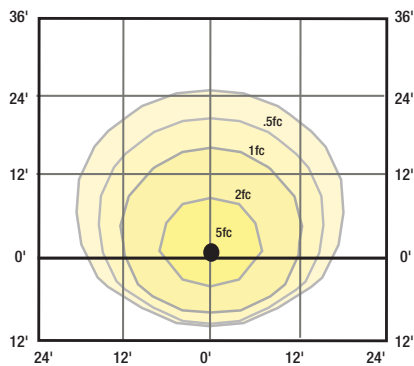
© 2018 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA **SG-SPEC NOVEMBER 13, 2018 3:39 PM**

PHOTOMETRICS



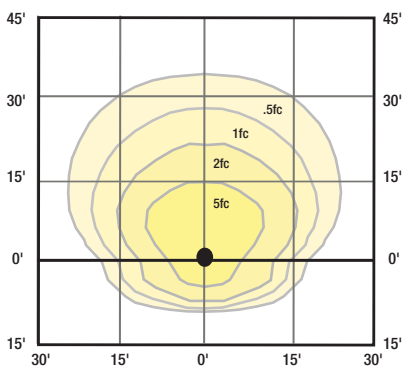
SG1-20

Mounting Height 10ft



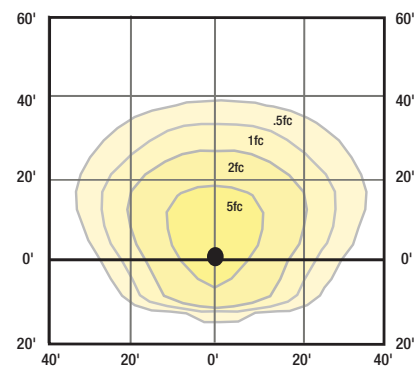
SG1-30

Mounting Height 12ft



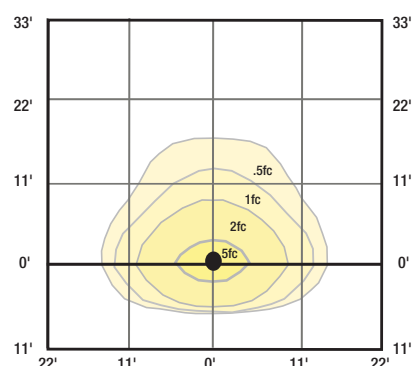
SG2-50

Mounting Height 15ft



SG2-80

Mounting Height 20ft



SG2 in E or EH Emergency mode

Mounting Height 11ft

Emergency Mode (EH)



Battery back up feature with side indicator.

Exceeds Life Safety Code average illuminance of 1.0 fc. at 12ft mounting height. Assumes open space with no obstructions.

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

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

SLING SERIES SG

Cat.# SG2-50-3K7-FTUNVDBSCP20F-CS-VS

Job

Type

W1



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

Intended Use:

Slender wallpack/floodlight available in two sizes for a variety of applications including building perimeter/security lighting, entrances, stairways, loading docks or facades for schools, apartments or commercial buildings.

Construction:

Rugged die-cast aluminum housing with corrosion resistant powder coat finish both protects and provides architectural appearance. Heat dissipating fins provide superior thermal performance extending the life of the electronic components.

Electrical:

- 120-277V, 50/60Hz electronic drivers
- 347V and 480V available in larger SG2 housing
- 10KA surge protection included

LED(s) Optics, CCT:

- 3000K, 4000K and 5000K CCT nominal with 70 CRI
- Smaller SG1 housing has 2 LEDs, larger SG2 housing has 3 LEDs, see page 2 for electrical and photometric data

Lenses:

- Impact resistant tempered glass offers zero uplight
- Comfort lens available as an option or accessory to reduce glare (7-10% lumen reduction) and provide better uniformity

Installation:

- Side hinge allows for easy installation and wiring.
- Side movement avoids damage to the lens and helps prevent injury common in drop down hinge designs.
- Mounts to 4" junction box and includes a gasket to help seal electrical connections.
- Four 1/2" threaded conduit hubs for surface conduit provided

Options/Controls

- Button photocontrol for dusk to dawn energy savings. Stock versions include 120V-277V PC with a cover which provides a choice to engage photocontrol or not. PC is installed in top hub.
- Occupancy sensor available for on/off and dimming control in larger SG2 housing.
- SiteSync™ wireless lighting control delivers flexible control strategies for reducing power consumption and minimizing maintenance costs while delivering the right light levels with a simple and affordable wireless solution. See ordering information or visit www.hubbelllighting.com/sitesync for more details.
- Battery backup options available in larger SG2 housing rated for either 0° C or -30° C. Performance exceeds NEC requirement providing 1 fc minimum over 10'x10' at 11' mounting height
- Diffused comfort lens provides glare control and improved uniformity. Available as an option or accessory

Listings

- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Listed to UL1598 for use in wet location, listed for -40C to 40C applications
- IDA approved with zero uplight for 3000K and warmer CCTs
- IP65

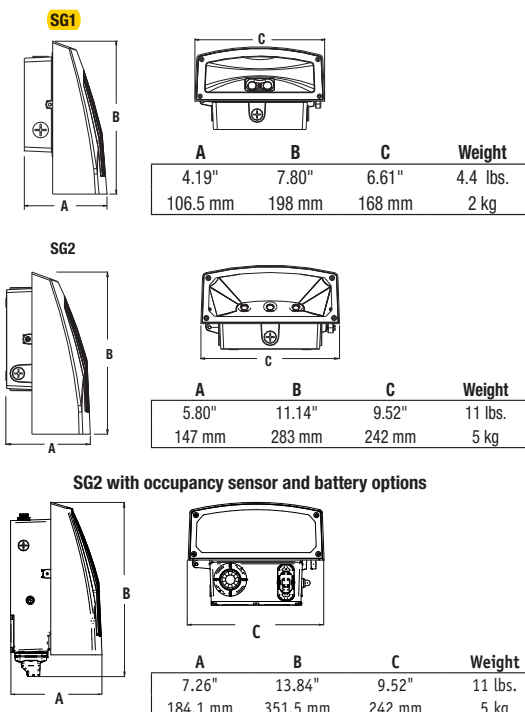
Warranty:

Five year limited warranty (for more information visit: <http://www.hubbelllighting.com/resources/warranty/>)

PRODUCT IMAGE(S)



DIMENSIONS



CERTIFICATIONS/LISTINGS



tradeSELECT®

ORDERING INFORMATION — ORDERING EXAMPLE: SG1-20-4K7-FT-UNV-DB

SG1-2	-	3K7	-	FT	-	UNV	-	DB	-	PCU	-	VS
FAMILY	CCT/CRI	DISTRIBUTION	VOLTAGE	COLOR/FINISH	CONTROL OPTIONS			OPTIONS				
SG1-20 Size 1, 20w	3K7 3000K, 70 CRI	FT Fwd Throw	UNV 120V-277V	DB Textured Dark Bronze	PCU Button Photocontrol 120-277V			CS Comfort lens				
SG1-30 Size 1, 30w	4K7 4000K, 70 CRI		120 ¹ 120V	BL Textured Black	SCP ^{1,2,3} Sensor Control, Programmable			E ^{1,2} Battery 0°C				
SG2-50 Size 2, 50w	5K7 5000K, 70 CRI		277 ¹ 277V	WH Textured White	SWP ^{1,2} SiteSync, Precommission			EH ^{1,2} Battery w/ heater -20°C				
SG2-80 Size 2, 80w			UHV ¹ 347V-480V	GYS Smooth Gray	SWPM ^{1,2} SitySync, Precommission, Motion							
				PS Smooth Plat. Silver	Specify MTG HT for SCO/SCP & SWPM							
				CC Custom Color	8F Up to 8'							
					20F Up to 20'							

¹ Available in SG2 only, UHV available in SG2-50 only

² Sensor controls & battery backup can not be used with flood accessory or kit or for inverted/up mounting.

³ 120-277V only for SCO/SCP, 120 or 277 only for SWP, SWPM, E & EH

⁴ Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming or on/off with automatic daylight calibration and different time delay settings, 120-277V only, PCU option not applicable



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.

© 2018 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA SG-SPEC NOVEMBER 13, 2018 3:39 PM

ORDERING INFORMATION - Stock Versions

Catalog Number	CCT/CRI	Wattage	Mounting Height	Voltage	Color	Lumens	LPW	Weight lbs. (kg)
SG1-20-PCU	5000K/70	21w	8-12ft	120-277V	Dark Bronze	2263	108	4.3 (2)
SG1-20-4K-PCU	4000K/70					2310	110	
SG1-30-PCU	5000K/70	29w	10-15ft			3270	113	
SG1-30-4K-PCU	4000K/70					3060	105	
Catalog Number	CCT/CRI	Wattage	Mounting Height	Voltage	Color	Lumens	LPW	Weight lbs. (kg)
SG2-50-PCU	5000K/70	51w	12-18ft	120-277V	Dark Bronze	5548	110	11 (5)
SG2-50-4K-PCU	4000K/70					5526	109	
SG2-80-PCU	5000K/70	80w	15-25ft			8061	101	
SG2-80-4K-PCU	4000K/70					8079	101	

PERFORMANCE DATA

Catalog number	# of LEDs	Drive Current	System Watts	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 80 CRI)				
				Lumens	LPW ¹	B	U	G	Lumens	LPW ¹	B	U	G	Lumens	LPW ¹	B	U	G
SG1-20	2	250mA	21	2449	115	1	0	0	2310	110	1	0	0	2054	95	1	0	0
SG1-30		350mA	29	3332	117	2	0	0	3060	106	1	0	0	2913	100	1	0	0
SG2-50-UHV	3	350mA	44	4633	106	2	0	0	4609	105	2	0	0	3895	90	2	0	0
SG2-50	3	415mA	51	5548	109	2	0	0	5526	107	2	0	0	4700	92	2	0	0
SG2-80		650mA	80	7851	98	2	0	1	8079	103	2	0	1	6721	86	2	0	1

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.

ELECTRICAL DATA

Configurable Versions

Catalog number	# of Drivers	Input Voltage	Current (Amps)	System Power
SG1-20	1	120	0.18	21.0
		277	0.08	21.0
SG1-30	1	120	0.24	28.9
		277	0.10	28.9
SG2-50-UHV	1	347	0.13	43.5
		480	0.18	43.5
SG2-50	1	120	0.42	50.6
		277	0.18	50.6
SG2-80	1	120	0.68	79.8
		277	0.29	79.8

PROJECTED LUMEN MAINTENANCE

Ambient Temp.	OPERATING HOURS					
	0	25,000	50,000	TM-21-11 ¹ L96 60,000	100,000	L70 (hours)
25°C / 77°F	1.00	0.98	0.97	0.96	0.95	>791,000
40°C / 104°F	0.99	0.98	0.96	0.96	0.94	>635,000

1. Projected per IESNA TM-21-11 * (Nichia 219B, 700mA, 85°C Ts, 10,000hrs) Data references the extrapolated performance projections for the LNC-12LU-5K base model in a 40°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

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	0.96

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

Wireless and Occupancy Controls



SiteSync™ Lighting Control delivers flexible control strategies for reducing power consumption and minimizing maintenance costs while delivering the right light levels with a simple and affordable wireless solution.



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.

© 2018 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA **SG-SPEC NOVEMBER 13, 2018 3:39 PM**

OPTIONS AND ACCESSORIES

Catalog Number	Description	Weight lbs. (kg)
SG1-CS	Acrylic comfort lens for SG1	1 (.45)
SG2-CS	Acrylic comfort lens for SG2	1 (.45)
SG1-YOKE	SG1 Series Yoke/Floodlight mount kit, includes visor	2.0 (1.0)
SG1-KNUCKLE	SG1 Series Knuckle/Floodlight mount kit, includes visor	2.0 (1.0)
SG2-YOKE	SG2 Series Yoke/Floodlight mount kit, includes visor	2.0 (1.0)
SG2-KNUCKLE	SG2 Series Knuckle/Floodlight mount kit, includes visor	2.0 (1.0)
SCP-REMOTE*	Remote control for SCP option. Order at least one per project to program and control fixtures	1 (.45)
SG2-PMA-3-XX	3" Pole Mount adapter for SG2, both square and round, XX= finish	7 (3.5)
SG2-PMA-4-XX	4" Pole Mount adapter for SG2, both square and round, XX= finish	7 (3.5)
SG2-PMA-5-XX	5" Pole Mount adapter for SG2, both square and round, XX= finish	7 (3.5)
SG2-PMA-6-XX	6" Pole Mount adapter for SG2, both square and round, XX= finish	7 (3.5)
SG1-SPC	Vandal Resistant Lens (shield polycarbonate), SG1	3 (1.5)
SG2-SPC	Vandal Resistant Lens (shield polycarbonate), SG2	3 (1.5)
SG1-WCP	Universal Wall Cover Plate, Dark Bronze, SG1	10 (5)
SG2-WCP-H	Horizontal Mount Wall Cover Plate, Dark Bronze, SG2	10 (5)
SG2-WCP-V	Vertical Mount Wall Cover Plate, Dark Bronze, SG2	10 (5)
SG2XL-WCP-H	Horizontal Mount Wall Cover Plate, DB, SG2 with battery or sensor	10 (5)
SG2XL-WCP-V	Vertical Mount Wall Cover Plate, DB, SG2 with battery or sensor	10 (5)

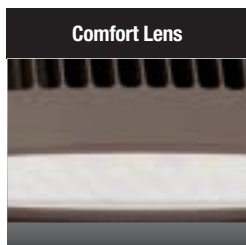
*Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, 120V or 277V only

Accessories and Services (Ordered Separately)

Catalog Number	Description
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.

*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.



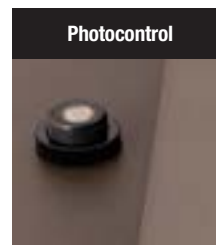
Comfort Lens



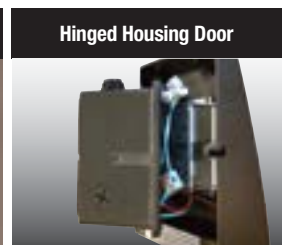
Visor



Mounting Options



Photocontrol



Hinged Housing Door

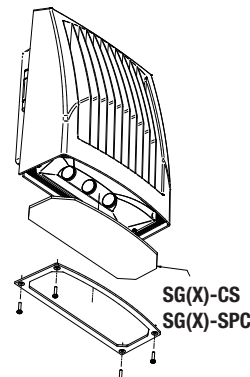
Acrylic comfort lens provides glare control, improved visual comfort and better uniformity

Visor accessory included with mounting accessory kits

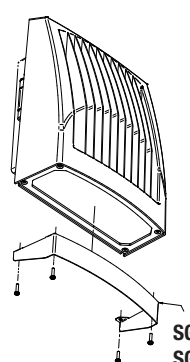
Flood mounting accessories - 1/2" threaded knuckle or yoke (includes grommet and 3' SO cord)

Photocontrol option available for energy-saving dusk-to-dawn operation

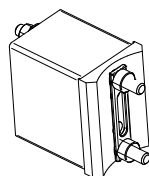
Side hinged for easy installation and wiring access, single screw secures housing closure



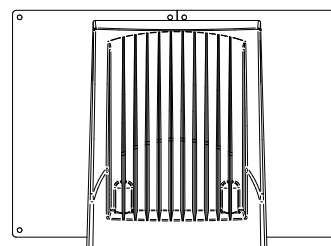
**SG(X)-CS
SG(X)-SPC**



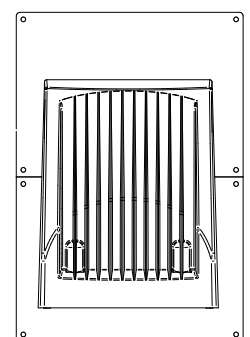
**SG(X)-Yoke
SG(X)-KNUCKLE**



SG(X)-PMA(X)-XX

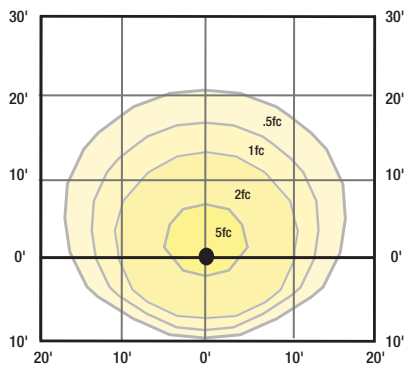


SG(X)-WCP-H



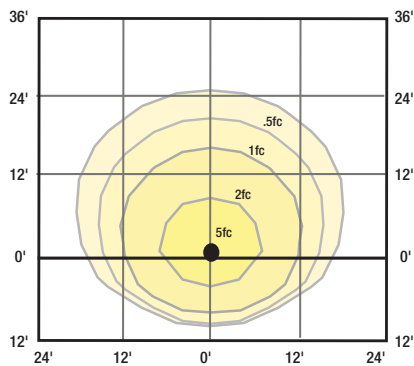
SG(X)-WCP-V

PHOTOMETRICS



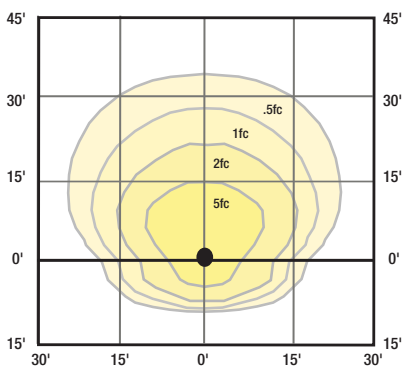
SG1-20

Mounting Height 10ft



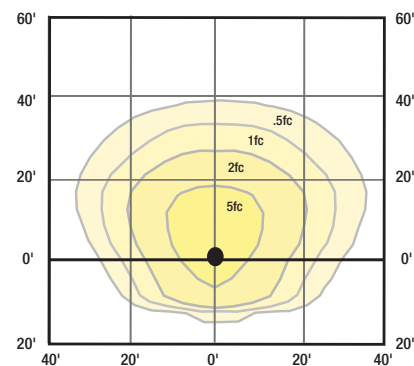
SG1-30

Mounting Height 12ft



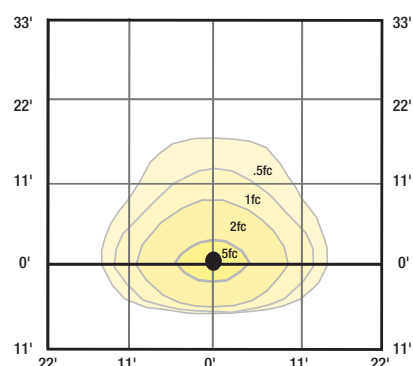
SG2-50

Mounting Height 15ft



SG2-80

Mounting Height 20ft



SG2 in E or EH Emergency mode

Mounting Height 11ft

Emergency Mode (EH)



Battery back up feature with side indicator.

Exceeds Life Safety Code average illuminance of 1.0 fc. at 12ft mounting height. Assumes open space with no obstructions.

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

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

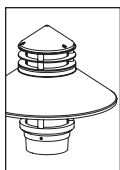


HUBBELL
Outdoor Lighting

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.

© 2018 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA **SG-SPEC NOVEMBER 13, 2018 3:39 PM**



BEKSSL
SOLID STATE LIGHTING

THE POWER OF



BEACON POLE MOUNT (BPM)

PROJECT:				
TYPE:				
CATALOG NUMBER:	BPM	LED	BW	MT
SOURCE:	LED - Power of 'X' Technology			
NOTES:				

CATALOG NUMBER LOGIC

Example **BPM** - **SD12** - **LED** - **x83** - **BW** - **WHW** - **A** - **DT** - **PT** - **D23** - **MT**

Material

Blank - Aluminum (Must specify Aluminum Rings.) **C** - Copper (Must specify Brass or Stainless Steel Rings.)

Series

BPM - Beacon Pole Mount

Style

SD12 - 12-inch Shade **SD15** - 15-inch Shade **SD24** - 24-inch Shade

Source

LED - Power of 'X' Technology with Chip on Board Construction

LED Type

x83 - 23WLED/2700K **x84** - 23WLED/3000K **x85** - 23WLED/4000K

Optic

BW - Batwing

Finish

NAT - Natural*
BP - Brown Patina*
GP - Green Patina*
NIC - Nickel Plate*
BZW - Bronze Wrinkle
See Powder Coat Finish Chart to the right for additional choices.
*Not available with Aluminum.
For Aluminum fixtures, specify Standard or Premium Powder Coat.

Powder Coat Standard Finish

Powder Coat Color	Satin	Wrinkle
Bronze	BZP	BZW
Black	BLP	BLW
White (Gloss)	WHP	WHW
Aluminum	SAP	—
Verde	—	VER

Powder Coat Premium Finish

ABP Antique Brass Powder	CMG Cascade Mountain Granite	RMG Rocky Mountain Granite
AMG Aleutian Mountain Granite	CRI Cracked Ice	SDS Sonoran Desert Sandstone
AQW Antique White	CRM Cream	SMG Sierra Mountain Granite
BCM Black Chrome	HUG Hunter Green	TXF Textured Forest
BGE Beige	MDS Mojave Desert Sandstone	WCP Weathered Copper
BPP Brown Patina Powder	NBP Natural Brass Powder	WIR Weathered Iron
CAP Clear Anodized Powder	OCF Old Copper	Also available in RAL Finishes See submittal SUB-1439-00

Rings

A - Aluminum (Finish to match Fixture.)
B - Brass (Finish to match Fixture.)
S - Stainless Steel (Stainless Steel Rings are provided in Natural (NAT) regardless of Finish.)

Accessories

DT - Dark Top (Eliminates glow in window above shade. Material and Finish to match Fixture.)
HS - House Side Shield (Material and Finish to match Fixture.)
MSH - Mesh Screen (Material and Finish to match Fixture.)

Option

CLR - Clear Coat Protection (For use with Natural (NAT) finish only. For use with Copper Fixture only.)

Driver Mounting

PT - Pole Top Mounting (For straight pole applications. For use with 3-1/2" OD Pole Tenon. Not available with x49-x51. Compatible with TEKA Illumination SR5.)
HB - Hinge Base Driver Mounting (For hinge base pole applications. Compatible with TEKA Illumination TR5.)
HH - Hand Hole Driver Mounting (For straight pole applications with 3"x5" Hand Hole. Compatible with TEKA Illumination SR5.)

Driver

D23 - 23W Dimming Driver (Standard Dimming 1-100%.)

Input Voltage

MT - 120-277 VAC Input

DRIVER DATA

Type	AC Input Range	Frequency Hz	Power Factor At Full Load (Efficiency)	THD	InRush Current	Operating Current	Operation Ambient Temperature	Dimmer Type	Dimmer Range
D23	120-277Vac	50/60 Hz	>.90	≤20%	30mA ² s@277V	700mA	(-30° C to 50° C)	0-10V	1-100%

LM79 DATA

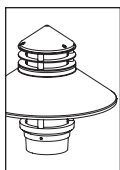
TEKA LED #	LUMENS (Delivered)	CCT	INPUT WATTS (Typ.)	CRI (Typ.)
x83	1725	2700	23	80
x84	1889	3000	23	80
x85	1913	4000	23	80

L70 DATA

Minimum Rated Life (hrs.) - 70% of initial lumens (L70)
50,000
50,000
50,000

TEKA ILLUMINATION	40429 Brickyard Drive • Madera, CA 93636 • USA 559.438.5800 • FAX 559.438.5900 www.tekailumination.com • info@tekailumination.com	SUBMITTAL DATE 05-15-2018	DRAWING NUMBER SUB-2569-00
--------------------------	---	------------------------------	-------------------------------

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF TEKA ILLUMINATION AND ITS RECEIPT OR POSSESSION DOES NOT CONVEY ANY RIGHTS TO REPRODUCE, DISCLOSE ITS CONTENTS, OR TO MANUFACTURE, USE OR SELL ANYTHING IT MAY DESCRIBE. REPRODUCTION, DISCLOSURE OR USE WITHOUT SPECIFIC WRITTEN AUTHORIZATION OF TEKA ILLUMINATION IS STRICTLY FORBIDDEN.



BKSSL
SOLID STATE LIGHTING

THE POWER OF



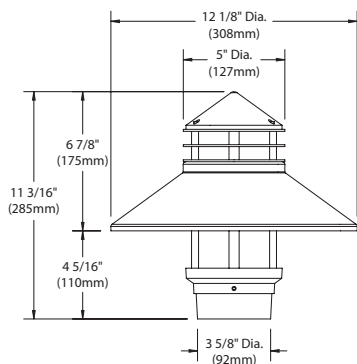
BEACON POLE MOUNT (BPM)

PROJECT:

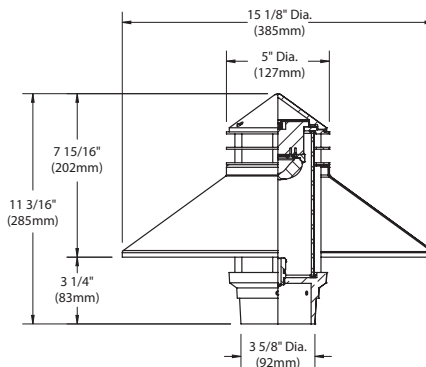
TYPE:

SIDE VIEW

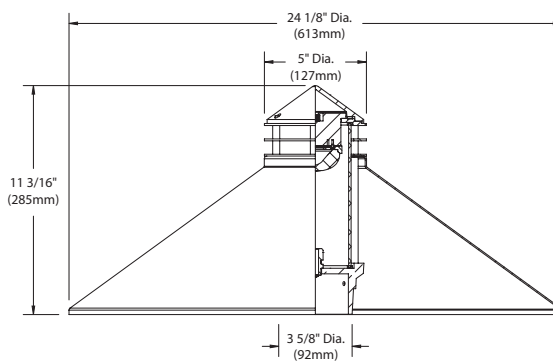
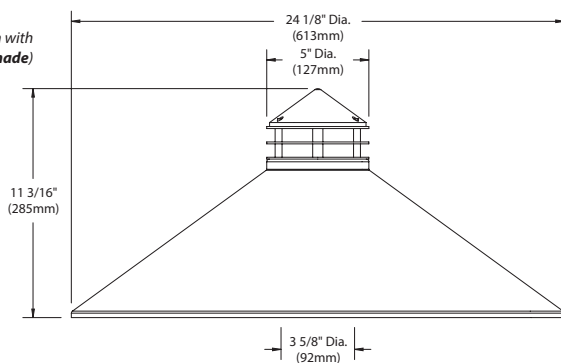
(Shown with
12" Shade)



(Shown with
15" Shade)



(Shown with
24" Shade)



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 onsite. 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.tekaillumination.com/greensource for program requirements.

Materials

Copper: Constructed from copper and brass. These enduring metals are inherently corrosion resistant.

Aluminum: Constructed from Copper-free Aluminum (Type 6061-T6).

Base

Cast from solid bronze or copper free aluminum. Slip fits 3 1/2" OD TEKA post top.

Mesh Screen

Diffuses light in window. Not available with half shield. Finish to match fixture. Not available with Dark Top (DT).

Dark Top

Eliminates glow in window above shade.

House Side Shield

Eliminates light from half of the fixture. Hand spun aluminum- 3003 or copper- C101.

Shade

Hand spun from 16GA aluminum 3003-H14 or copper C101. Specify 12", 15" or 24" diameter.

Optic

Acrylic Batwing Optic.

Lens

3.5" O.D. frosted acrylic lens.

Color Management

Chip on board technology delivers natural white light. Exact color point conformity exceeds ANSI C78.377 standard. Module exceeds 80 CRI (RA>80, R9.16). Color point uniformity 2 SDCM color control for 2700K-4000K CCT.

Driver (23W)

[1] 700mA (D23), Class A, constant current driver. 120-277VAC (nominal) primary input voltage. 50/60Hz. >0.90 Power Factor, 30mA²S in-rush current, ≤20%THD (nominal at 120VAC full load). Output over-voltage, over-current, and short circuit protection with auto recovery. EMC: FCC47CFR Part 15 Class B compliant. Dimming driver for use with standard 0-10V dimmers and switch controls. 1-100% range (Refer to driver electrical data). D34 - 1-100% dimming range.

BKSSL®

Integrated solid state system with 'X' technology is scalable for field upgrade. Modular design with electrical quick disconnects permit field maintenance. Minimum 50,000 hour rated life at 70% of initial lumens (L70). BKSSL technology provides long life, significant energy reduction and exceptional thermal management.

Ring Stack

Solid aluminum with aluminum spacers; brass or stainless steel accent rings with solid brass spacers.

Wiring

Tefzel™ coated stranded wire, 18GA, 600V, 150°C rated and certified to UL16 and certified to UL 1659 standard.

Hardware

Tamper-resistant, stainless steel hardware.

Driver Installation Options

(Please specify)

Pole Top: Driver suspended from fixture. Fits 3 1/2" OD maximum.

Hinge Base: Located at base of pole. Stand alone driver tray. For use with PTR5.

Hand Hole: Located at base of pole. Stand alone driver tray attaches to standard hand hole pole brackets per NEC. Hand hole must be 3"x 5".

Finish

Copper and Brass: Natural (NAT): Copper and brass components are sand blasted to expose the porous metal surface. Over time, and with exposure to the elements, the metals will naturally 'weather' resulting in a unique patina.

Also available with hand-crafted metal finishes including brown patina (BP), green patina (GP), polish (POL), and nickel plate (NIC).

Aluminum, Copper and brass components are also available in powder coat finishes.

Optional ceramic clear coat protection (copper and brass components only) seals and protects underlying metals and protects against discoloration, fading, and wear. Highly impervious to chemicals, solvents, and graffiti. For use with natural (NAT) and polish (POL) finishes.

Aluminum: 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.

Warranty

5 year limited warranty.

Listings

UL tested to IESNA LM-79. UL Listed. Certified to CAN/CSA/ANSI Standards. RoHS compliant. Suitable for indoor or outdoor use. Suitable for use in wet locations. Additionally suitable for installation within 4' of the ground. IP66 Rated. Made in USA.



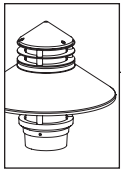
Tefzel™ is trademark of The Chemours Company FC, LLC.

TEKA ILLUMINATION

40429 Brickyard Drive • Madera, CA 93636 • USA
559.438.5800 • FAX 559.438.5900
www.tekaillumination.com • info@tekaillumination.com

SUBMITTAL DATE
05-15-2018

DRAWING NUMBER
SUB-2569-00



BKSSL
SOLID STATE LIGHTING

THE POWER OF



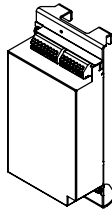
BEACON POLE MOUNT (BPM)

PROJECT:

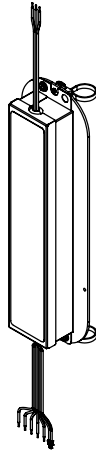
TYPE:

DRIVER MOUNTING OPTIONS

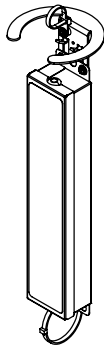
(Hand Hole Driver Mounting **HH-D23**)



(Hinge Base Driver Mounting **HB-D23**)



(Pole Top Mounting **PT-D23**)

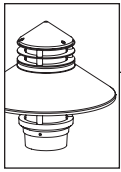


TEKA ILLUMINATION

40429 Brickyard Drive • Madera, CA 93636 • USA
559.438.5800 • FAX 559.438.5900
www.tekaillumination.com • info@tekaillumination.com

SUBMITTAL DATE
05-15-2018

DRAWING NUMBER
SUB-2569-00



BKSSL
SOLID STATE LIGHTING

THE POWER OF

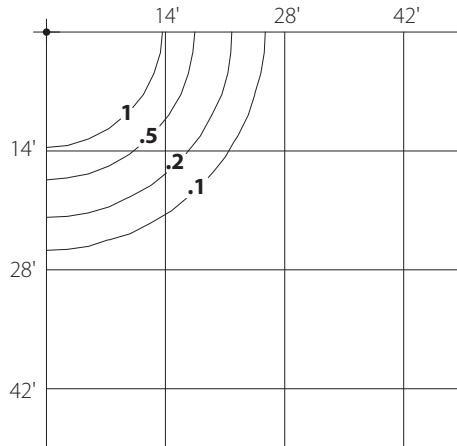


BEACON POLE MOUNT (BPM)

HORIZONTAL FOOTCANDLES

BPM - LED - X85 (23W) - 4000K

Mounting Height = 12.00 Ft, Style = SD12

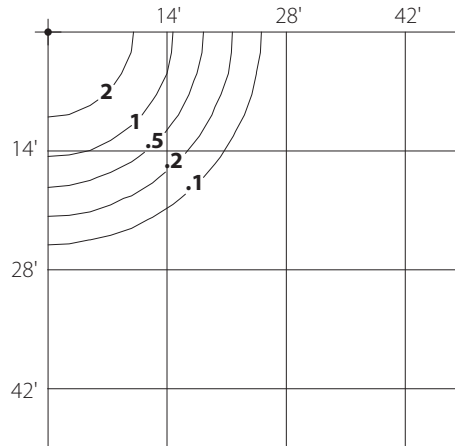


HORIZONTAL FOOTCANDLES

Light Loss Factor = 1.00
Luminaire Lumens = 1757
Maximum Calculated Value = 2.03 Fc
2.7K Multiplier = .9
3K Multiplier = .99
BUG Rating = B1 U2 G1

BPM - LED - X85 (23W) - 4000K

Mounting Height = 12.00 Ft, Style = SD15

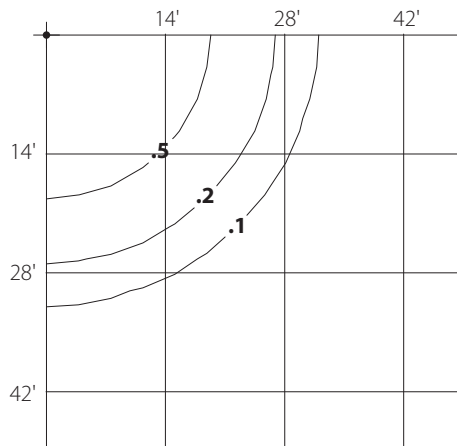


HORIZONTAL FOOTCANDLES

Light Loss Factor = 1.00
Luminaire Lumens = 1913
Maximum Calculated Value = 2.34 Fc
2.7K Multiplier = .9
3K Multiplier = .99
BUG Rating = B1 U2 G1

BPM - LED - X85 (23W) - 4000K

Mounting Height = 18.00 Ft, Style = SD12

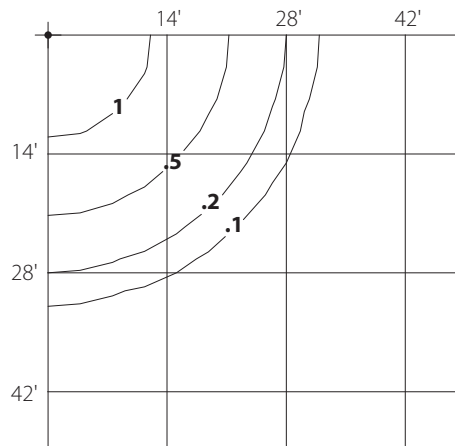


HORIZONTAL FOOTCANDLES

Light Loss Factor = 1.00
Luminaire Lumens = 1757
Maximum Calculated Value = 0.90 Fc
2.7K Multiplier = .9
3K Multiplier = .99
BUG Rating = B1 U2 G1

BPM - LED - X85 (23W) - 4000K

Mounting Height = 18.00 Ft, Style = SD15



HORIZONTAL FOOTCANDLES

Light Loss Factor = 1.00
Luminaire Lumens = 1913
Maximum Calculated Value = 1.04 Fc
2.7K Multiplier = .9
3K Multiplier = .99
BUG Rating = B1 U2 G1

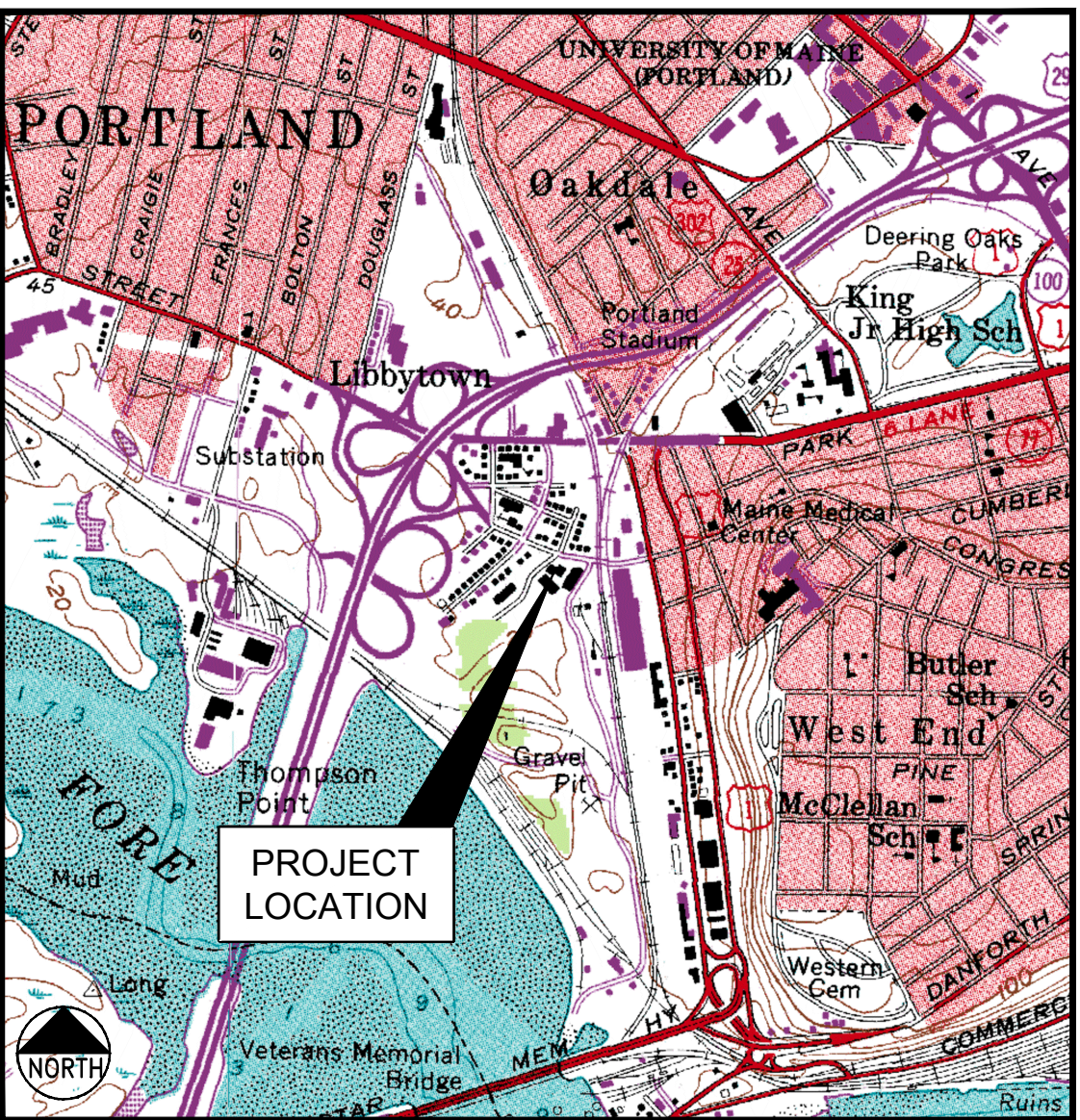
LEVEL III SITE PLAN APPLICATION
FOR MIXED-USE REDEVELOPMENT OF
1006 CONGRESS STREET

(NINE [9] TWO-BEDROOM RESIDENTIAL APARTMENTS AND 1,385 SF CAFE)

PORTLAND, MAINE

MARCH 2019

PERMIT SET



LOCATION MAP
N.T.S.



Stantec
482 Payne Road Scarborough Court
Scarborough, Maine 04074-8929
Tel. 207.883.3355
www.stantec.com

Copyright Reserved

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay.
The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

City Approval

TAX MAP - BLOCK - LOT (ADDRESS)

MAP 76 / BLOCK A / LOT 022
CCRD BOOK 34188, PAGE 103
1006 CONGRESS STREET
PORTLAND, MAINE

CURRENT APPLICANT/DEVELOPER

PK Realty Management Investments
380 Riverside Street, Portland, Maine
ATTN: JENNIFER PACKARD

CURRENT OWNER

1006 CONGRESS STREET LLC
1550 SUNSET RIDGE DRIVE
LAGUNA BEACH, CA 92651

INDEX

- C-1.0 COVER SHEET
- C-1.1 GENERAL NOTES & LEGEND
- C-2.0 BOUNDARY AND TOPOGRAPHIC SURVEY - BY OWEN HASKELL
- C-2.1 EXISTING CONDITIONS & REMOVALS PLAN
- C-3.0 SITE LAYOUT & UTILITY PLAN
- C-3.1 SITE RECORDING PLAT
- C-4.0 GRADING, DRAINAGE & EROSION CONTROL PLAN
- C-5.0 LANDSCAPE PLAN
- C-6.0 DETAILS
- C-6.1 DETAILS
- C-6.2 DETAILS

1 of 1 SITE LIGHTING LAYOUT (BY SWANEY LIGHTING ASSOCIATES, INC.)

UTILITIES

WATER:
PORTLAND WATER DISTRICT
225 DOUGLASS STREET
P.O. BOX 3553
PORTLAND, MAINE 04104
207.774.5961
CONTACT: ROBERT BARTELS

SEWER / STREETS:
CITY OF PORTLAND
DEPARTMENT OF PUBLIC WORKS -
ENGINEERING DIVISION
212 CANCO ROAD
PORTLAND, MAINE 04103
207.874.8846
CONTACT: BRAD ROLAND, P.E. -
SENIOR PROJECT ENGINEER

ELECTRIC:
CENTRAL MAINE POWER
162 CANCO ROAD
PORTLAND, MAINE 04103
207.842.2367
CONTACT: JAMIE COUGH / PAUL DUPERRE

TELEPHONE:
CONSOLIDATED COMMUNICATIONS
5 DAVIS HILL FARM ROAD
PORTLAND, MAINE 04103
207.797.1866
CONTACT: PATRICK MORRISON

NATURAL GAS:
NORTHERN UTILITIES / UNITIL
376 RIVERSIDE INDUSTRIAL PARKWAY
PORTLAND, MAINE 04103
207.541.2543
CONTACT: CRAIG CAMPBELL /
SCOTT CARPENTER
cell 207.650.6716

CABLE:
TIME WARNER CABLE / SPECTRUM
COMMUNICATIONS
115 JOHNSON ROAD
PORTLAND, MAINE 04102
207.253.2324
CONTACT: MARK PELLETIER

DIG SAFE:
CALL BEFORE YOU DIG
888.344.7233

PERMITS / APPROVALS

TYPE:

LOCAL

SITE PLAN/LEVEL III APPROVAL:

BUILDING PERMIT:

UTILITY / STREET OPENING PERMITS:

GOVERNING BODY:

CITY OF PORTLAND PLANNING AUTHORITY
CITY HALL, CONGRESS STREET
PORTLAND, MAINE 04103
207.874.8722

CITY OF PORTLAND CODE ENFORCEMENT OFFICE
CITY HALL, CONGRESS STREET
PORTLAND, MAINE 04103
207.874.8900

CITY OF PORTLAND DEPARTMENT OF PUBLIC WORKS -
ENGINEERING DIVISION
212 CANCO ROAD
PORTLAND, ME 04103
207.874.8846

STATUS/DATE ISSUED:

LEVEL III SITE PLAN SUBMISSION FILED 12.14.2018
RESUBMITTED 02.19.2019
PUBLIC HEARING SUBMISSION 03.22.2019

TO BE FILED BY BUILDING CONTRACTOR

TO BE FILED PRIOR TO CONSTRUCTION
BY BUILDING CONTRACTOR

CONSULTANT LIST

CIVIL ENGINEER:

Stantec
482 PAYNE ROAD SCARBOROUGH COURT
SCARBOROUGH, MAINE 04074
207.887.3406
ATTN: STEPHEN BUSHEY, P.E.
STEPHEN.BUSHEY@STANTEC.COM

ARCHITECT:

Archetype, PA
48 UNION WHARF
PORTLAND, MAINE 04101
207.772.6022
ATTN: KATHERINE DETMER
DETMER@ARCHETYPEPA.COM

SURVEYOR:

Owen Haskell, Inc.
390 US ROUTE 1, UNIT 10
FALMOUTH, MAINE 04105
207.774.0424
ATTN: ELLEN BREWER
EBREWER@OWENHASKELL.COM

STRUCTURAL ENGINEER:

M2 Structural Engineering PC
23 THORNBURY WAY
WINDHAM, MAINE 04062
207.892.0983
ATTN: MATTHEW MILLER, PE
MATT@M2SE.COM

File Name: 1006_congress_cov	CDD DWN.	SRB CHKD.	SRB DSGN.	18.11.27 DATE
------------------------------	-------------	--------------	--------------	------------------

Permit-Seal



Client/Project

PK Realty Management Investments
380 Riverside Street, Portland, Maine

1006 Congress Street
Mixed-Use Redevelopment
PORTLAND, MAINE

Title

COVER SHEET

Project No.

210801661

Scale

AS SHOWN

Sheet

C-1.0



Stantec
482 Payne Road Scarborough Court
Scarborough, Maine 04074-8929
Tel. 207.883.3355
www.stantec.com

Copyright Reserved

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay.
The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

City Approval

GENERAL NOTES:

- THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF ALL REGULATIONS ADMINISTERED BY THE LOCAL UTILITY COMPANIES AND THE CITY OF PORTLAND.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF THE ENTRANCES, EXITS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE POINTS.
- ALL REQUIRED AND NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL SERVICE CONNECTIONS.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE (1-888-DIGSAFE). IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS, AT NO EXTRA EXPENSE TO THE OWNER.
- MAINTENANCE OF EROSION CONTROL MEASURES IS OF PARAMOUNT IMPORTANCE TO THE OWNER AND THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ONSITE INSPECTIONS OF THE OWNER OR THEIR REPRESENTATIVES AT NO ADDITIONAL COST TO THE OWNER.
- ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
- ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO PROJECT CONTRACT SPECIFICATIONS, AND THE CITY OF PORTLAND TECHNICAL MANUAL STANDARDS, WHICHEVER IS MORE STRINGENT.
- TOPOGRAPHIC SURVEY INFORMATION WAS PROVIDED BY OWEN HASKELL, INC. CITY BENCHMARK 3 OIS MONUMENT AT ST. JOHN STREET AND "C" STREET, ELEVATION 37.56, NGVD 1929 DATUM.
- FEMA MAP COMMUNITY PANEL NUMBER 2300510013B. THE SITE IS LOCATED IN ZONE "X".
- THE PROPERTY SHOWN ON THIS PLAN MAY BE DEVELOPED AND USED ONLY AS DEPICTED IN THIS APPROVED PLAN. ALL ELEMENTS AND FEATURES OF THE PLAN AND ALL THE PROPERTY WHICH APPEARS IN THE RECORD OF THE PLANNING BOARD PROCEEDINGS ARE CONDITIONS OF THE APPROVAL. NO CHANGE FROM THE CONDITIONS OF APPROVALS IS PERMITTED UNLESS AN AMENDED PLAN IS FIRST SUBMITTED TO AND APPROVED BY THE PLANNING AUTHORITY.
- ALL SIGNAGE SHALL CONFORM TO THE STANDARDS FOR SIZE, HEIGHT, LOCATION AND REFLECTIVITY SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- ALL CURB SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS AS NOTED ON THE PLANS: GRANITE AND BITUMINOUS CONCRETE CURB SHALL MEET THE REQUIREMENTS OF MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS 609.03 AND 609.04 AND CITY OF PORTLAND TECHNICAL STANDARDS.
- ALL DIMENSIONING UNLESS OTHERWISE NOTED IS TO THE FACE OF CURB OR FACE OF BUILDING.
- THE FACILITY IS SERVICED BY PUBLIC WATER, SEWER, NATURAL GAS AND OVERHEAD POWER. THE PROJECT INCLUDES UPDATES TO THE POWER SERVICE INCLUDING THE INSTALLATION OF A NEW UNDERGROUND SYSTEM.

PERMITTING NOTES:

- THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF THE SITE PLAN REVIEW PERMIT FROM THE CITY OF PORTLAND WHICH WILL BE MADE A PART OF THE CONTRACT BID DOCUMENTS. THE CONSTRUCTION WILL BE GOVERNED BY THE ZONING ORDINANCES WHICH ARE AVAILABLE FOR VIEWING AT THE OFFICE OF THE ENGINEER OR THE MUNICIPAL OFFICE.

SITE PLAN REVIEW: (CONDITION OF APPROVAL)

- TBD - WILL BE ADDED TO FINAL PLANS ISSUED PRIOR TO CONSTRUCTION.

GRADING AND DRAINAGE NOTES:

- ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF n = 0.013 OR LESS. UNLESS A SPECIFIC PIPE MATERIAL IS CALLED FOR ON THE CONTRACT DRAWINGS. PVC PIPING SHALL NOT BE USED IN AREAS OF EXPOSED SUNLIGHT.
- SLOPE PROTECTION IS TO BE PROVIDED PER THE DESIGN PLANS AND MAY INCLUDE RIPRAP, SOD OR MULCH.
- THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING EARTHWORK OPERATIONS TO INSURE THAT DISTURBANCE TO ANY STEEP SLOPE AREAS ARE MINIMIZED TO THE EXTENT PRACTICABLE.
- THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY OTHERS. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (1-888-DIGSAFE) AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES.
- ALL PAVING AND SIDEWALK WORK WITHIN THE PUBLIC R.O.W. SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF PORTLAND RULES AND REGULATIONS FOR EXCAVATION ACTIVITIES IN THE PUBLIC R.O.W.
- NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.
- THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.
- CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES AND PHYSICAL FEATURES THAT ARE OUTSIDE THE SCOPE OF WORK. THE CONTRACTOR SHALL MAINTAIN SITE STABILITY DURING CONSTRUCTION TO AVOID EROSION AND SEDIMENT TRANSPORT. CONTRACTOR SHALL RESTORE ALL AREAS TO A FINAL STABILIZED CONDITION AS DIRECTED BY DESIGN DRAWINGS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.
- EXTERIOR GRADES AROUND PROPOSED STRUCTURE SHALL BE COORDINATED WITH FINAL BUILDING PLANS AND PROVIDE FOR ALL ACCESS OPENINGS.
- SUBGRADE FILL PLACED BENEATH ALL PERMANENT PAVEMENT, SIDEWALK OR CONCRETE SURFACES EXCLUDING ANY BUILDING AREAS, SHALL BE STRUCTURAL FILL OR GRAVEL BORROW. SUBGRADE FILL PLACED BENEATH ALL LANDSCAPE AREAS EXCEPT THOSE ADJACENT THE FOUNDATION SYSTEMS MAY BE A COMMON BORROW MATERIAL SUITABLE FOR EMBANKMENT CONSTRUCTION, FREE FROM FROZEN MATERIAL, PERSHABLE RUBBLE, PEAT, ORGANICS, ROCKS LARGER THAN 12" IN DIAMETER, VEGETATION AND OTHER MATERIAL UNSUITABLE FOR ROADWAY AND SUBGRADE CONSTRUCTION. EXCAVATED ON-SITE MATERIALS MAY BE USED FOR FILL PROVIDED THE MATERIAL IS FREE FROM UNSUITABLE MATERIAL DESCRIBED IN THIS NOTE AND UPON APPROVAL OF THE ENGINEER. STRUCTURAL FILL, GRANULAR BORROW AND COMMON BORROW SHALL COMPLY WITH THE MDOT SPECIFICATIONS.
- ALL FILLS SHALL BE PLACED IN LAYERS NOT MORE THAN 12" LOOSE DEPTH AND COMPACTED BY HEAVY COMPACTION EQUIPMENT. MINIMUM COMPACTION SHALL BE 95% OF MAXIMUM DENSITY ASTM 1557, MODIFIED AND FIELD DENSITY ASTM D2922 (NUCLEAR METHODS).
- 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.

UTILITY NOTES:

- ALL REQUIRED UTILITIES SERVING THE PROJECT SHALL BE COORDINATED BETWEEN THE SITE WORK CONTRACTOR AND MEP CONTRACTOR(S).
- THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF AND/OR RELOCATION OF OVERHEAD AND UNDERGROUND TELEPHONE WITH CONSOLIDATED COMMUNICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUITS, PULL WIRES, TRENCHING AND BACKFILLING NECESSARY TO COMPLETE THE WORK.
- THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRIC SERVICE WITH CENTRAL MAINE POWER. THE TELECOMMUNICATIONS SERVICE WITH CONSOLIDATED COMMUNICATIONS AND CABLE SERVICE WITH SPECTRUM CABLE. ALL WORK SHALL CONFORM TO THE PROJECT SPECIFICATIONS OR UTILITY COMPANY STANDARDS, WHICHEVER IS MORE STRINGENT.
- ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE AT NO ADDITIONAL EXPENSE TO THE OWNER.
- ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
- THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO COMPLETION OF THE PROJECT.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL, AT NO EXTRA EXPENSE TO THE OWNER.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY SERVICES AS REQUIRED TO PROVIDE CONTINUOUS SERVICE TO THE JOBSITE. TEMPORARY SERVICES SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND UTILITY COMPANY STANDARDS. COORDINATE ALL TEMPORARY SERVICES WITH UTILITY COMPANY, OWNER AND AFFECTED BUSINESSES.
- CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY ELECTRICAL SERVICES IN CONDUIT TO SITE LIGHTING, COMPLYING WITH APPLICABLE CODES. COORDINATE WITH OWNER, SITE ELECTRICAL, ARCHITECTURAL AND CMP PLANS.

EROSION CONTROL NOTES:

THE PROJECT SITE IS RELATIVELY SMALL AND WILL PRIMARILY FEATURE BELOW GROUND EXCAVATION THAT WILL RESULT IN AN INTERNALLY DRAINING RUNOFF PATTERN. NEARLY THE ENTIRE PROJECT SITE WILL BE STABILIZED BY ROOFTOP, PAVEMENT, OR BITUMINOUS / CONCRETE SIDEWALKS.

THE PRIMARY EMPHASIS OF THE EROSION AND SEDIMENTATION CONTROL PLAN TO BE IMPLEMENTED FOR THIS PROJECT IS AS FOLLOWS:

- PLANNING THE PROJECT TO PROVIDE THE ABILITY TO CAPTURE ANY ERODED MATERIALS FROM THE WORK AREA ON THE SITE.
- DEVELOPMENT OF A CAREFUL CONSTRUCTION SEQUENCE.
- RAPID STABILIZATION OF DENUDED AREAS TO MINIMIZE THE PERIOD OF SOIL EXPOSURE.
- PREVENTING SEDIMENT LADEN RUNOFF FROM ENTERING THE EXISTING STORM DRAIN NETWORK ON AND AROUND THE SITE.
- KEEPING SURROUNDING STREETS FREE OF MUD AND DUST BY REGULARLY SWEEPING.

EROSION/SEDIMENTATION CONTROL DEVICES

AS PART OF THE SITE DEVELOPMENT THE CONTRACTOR WILL IMPLEMENT THE FOLLOWING EROSION AND SEDIMENT CONTROL DEVICES. THESE DEVICES SHALL BE INSTALLED AS INDICATED ON THE PLANS OR AS DESCRIBED HEREIN. FOR FURTHER REFERENCE, SEE THE "MAINE EROSION AND SEDIMENT CONTROL BMPs" HANDBOOK PUBLISHED BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

- SILTATION FENCE SHALL BE INSTALLED DOWN SLOPE OF ANY DISTURBED AREAS TO TRAP RUNOFF-BORNE SEDIMENTS UNTIL THE SITE IS REVEGETATED. THE SILT FENCE SHALL BE INSTALLED PER THE DETAIL PROVIDED IN THE PLAN SET AND INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THE CONTRACTOR SHALL MAKE REPAIRS IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE LINE. PROPER PLACEMENT OF STAKES AND KEYING THE BOTTOM OF THE FABRIC INTO THE GROUND ARE CRITICAL TO THE FENCE'S EFFECTIVENESS. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM. THE SILTATION FENCE SHALL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL THE SITE IS PERMANENTLY STABILIZED.
- CATCH BASIN INLET PROTECTION: STONE SEDIMENT TRAPS OR A PREMANUFACTURED SILTSACK™ WILL BE INSTALLED AT CATCH BASIN INLETS TO PREVENT SILT FROM ENTERING THE STORM DRAIN SYSTEM. INSTALLATION DETAILS ARE PROVIDED IN THE PLAN SET. INLET PROTECTION SHALL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL TRIBUTARY AREAS ARE PERMANENTLY STABILIZED.
- A TEMPORARY STABILIZED CONSTRUCTION ENTRANCE WILL BE USED TO AVOID TRACKING OF MUD / SEDIMENT ONTO ADJACENT STREETS.

TEMPORARY EROSION & SEDIMENTATION CONTROL MEASURES

ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. THE FOLLOWING ARE PLANNED AS TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION:

- SILTATION FENCE AND CATCH BASIN INLET PROTECTION AS DESCRIBED ABOVE.
- WESTFIELD STREET SHALL BE SWEEPED AT LEAST ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED.
- IF OPERATIONS DURING DRY MONTHS RESULT IN FUGITIVE DUST EMISSION, ADJACENT ROADS SHALL BE SPRAYED WITH WATER ONCE A WEEK OR MORE FREQUENTLY, AS NEEDED.
- STABILIZE WITH MULCH OR OTHER NON-ERODIBLE COVER ANY SOILS THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS.
- LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS MUST NOT BE STORED IN A MANNER THAT WILL CREATE A POLLUTANT SOURCE IF EXPOSED TO STORMWATER RUNOFF.

TIMING AND SEQUENCE OF EROSION/SEDIMENTATION CONTROL MEASURES

THE FOLLOWING BASIC CONSTRUCTION SEQUENCE SHALL BE REQUIRED TO ENSURE THE EFFECTIVENESS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES IS OPTIMIZED. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE OWNER A SPECIFIC CONSTRUCTION SCHEDULE, WHICH SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER.

NOTE: FOR ALL GRADING ACTIVITIES, THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION NOT TO OVEREXPOSE THE SITE BY LIMITING THE DISTURBED AREA.

- INSTALL PERIMETER SILTATION FENCE & CATCH BASIN INLET PROTECTION. THE CONTRACTOR MUST INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE AND FUGITIVE DUST EMISSIONS DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS.
- CLEAR AND GRUB THE WORK AREA FOR THE PARKING & SITE IMPROVEMENTS. HAUL OFF THE LOAM, AND EXCAVATE FOR SITE IMPROVEMENTS.
- CONSTRUCT THE DRAINAGE SYSTEM.
- INSTALL SIDEWALKS AND PAVEMENT AS DETAILED ON THE SITE PLANS.
- REMOVE ALL TEMPORARY EROSION CONTROL DEVICES ONCE THE SITE IS STABILIZED.

PROVISIONS FOR MAINTENANCE OF THE EROSION/SEDIMENTATION CONTROL FEATURES

DURING CONSTRUCTION OF THE BUILDING AND ASSOCIATED SITE DEVELOPMENT THE CONTRACTOR SHALL BE REQUIRED TO PERFORM THE FOLLOWING:

- INSPECTION OF THE PROJECT WORK SITE ON A WEEKLY BASIS AND AFTER EACH SIGNIFICANT RAINFALL EVENT (0.5 INCH OR MORE WITHIN ANY CONSECUTIVE 24-HOUR PERIOD) DURING CONSTRUCTION UNTIL THE SITE HAS BEEN PERMANENTLY STABILIZED. INSPECTION OF THE PROJECT WORK SITE SHALL INCLUDE:
 - IDENTIFICATION OF PROPER EROSION CONTROL MEASURE INSTALLATION IN ACCORDANCE WITH THE EROSION CONTROL DETAILS OR AS SPECIFIED HEREIN.
 - DETERMINE WHETHER EACH EROSION CONTROL MEASURE IS OPERATING PROPERLY. IF NOT, IDENTIFY DAMAGE TO THE CONTROL DEVICE AND DETERMINE REMEDIAL MEASURES.
 - IDENTIFY AREAS THAT APPEAR VULNERABLE TO EROSION AND DETERMINE ADDITIONAL EROSION CONTROL MEASURES THAT SHOULD BE USED TO IMPROVE CONDITIONS.
 - DETERMINE THE NEED TO SWEEP ADJACENT STREETS OR APPLY WATER FOR DUST CONTROL.

ACCUMULATED SILT/SEDIMENT SHOULD BE REMOVED WHEN THE DEPTH OF SEDIMENT REACHES 50 PERCENT OF THE BARRIER HEIGHT. ACCUMULATED SILT/SEDIMENT SHOULD BE REMOVED FROM BEHIND SILT FENCING WHEN THE DEPTH OF THE SEDIMENT REACHES 6 INCHES.

- IF INSPECTION OF THE SITE INDICATES A CHANGE SHOULD BE MADE TO THE EROSION CONTROL PLAN, EITHER TO IMPROVE EFFECTIVENESS OR CORRECT A SITE-SPECIFIC DEFICIENCY, THE INSPECTOR SHALL IMMEDIATELY IMPLEMENT THE CORRECTIVE MEASURE AND NOTIFY THE OWNER OF THE CHANGE.
- THE CONTRACTOR SHALL KEEP A LOG (REPORT) SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTION TAKEN. 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, MATERIALS STORAGE AREAS, AND VEHICLES ACCESS POINTS TO THE PARCEL. MAJOR OBSERVATIONS MUST INCLUDE BMPs THAT NEED MAINTENANCE, BMPs THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, AND LOCATION(S) WHERE ADDITIONAL BMPs ARE NEEDED. FOR EACH BMP REQUIRING MAINTENANCE, BMP NEEDING REPLACEMENT, AND LOCATION NEEDING ADDITIONAL BMPs, NOTE IN THE LOG THE CORRECTIVE ACTION TAKEN AND WHEN IT WAS TAKEN.

THE LOG MUST BE MADE ACCESSIBLE TO THE OWNER AND REGULATORY STAFF, AND A COPY MUST BE PROVIDED UPON REQUEST.

- ONCE THE SITE HAS BEEN PERMANENTLY STABILIZED, THE TEMPORARY EROSION CONTROL MEASURES SHOULD BE REMOVED.

EROSION CONTROL DURING WINTER CONDITIONS

- "WINTER CONSTRUCTION" IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1ST THROUGH APRIL 15TH. IF AREAS WITHIN THE CONSTRUCTION ACTIVITY ARE NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES OUTLINED ABOVE BY NOVEMBER 15TH, THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES THAT ARE SPECIFIC TO WINTER CONDITIONS. NO MORE THAN ONE ACRE OF THE SITE MAY BE WITHOUT STABILIZATION AT ONE TIME.
- SILT FENCE: IN LIEU OF PROVIDING THE 4" X 4" TRENCH, FOR FROZEN GROUND, STONY SOIL, THE PRESENCE OF LARGE ROOTS, OR OTHER PROHIBITIVE CONDITIONS, THE BOTTOM 8" TO 12" OF THE FABRIC MAY BE LAID ON EXISTING GRADE AND BACK FILLED WITH STONE ANCHORING MATERIAL, AS SHOWN ON THE DRAWINGS.
- HAY MULCH SHALL BE APPLIED AT TWICE THE STANDARD TEMPORARY STABILIZATION RATE. AT THE END OF EACH CONSTRUCTION DAY, AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE MUST BE STABILIZED. MULCH MAY NOT BE SPREAD ON TOP OF SNOW.
- AFTER NOVEMBER 1ST OR THE FIRST KILLING FROST FOR THE REGION AND BEFORE SNOW FALL, ALL EXPOSED AND DISTURBED AREAS NOT TO UNDERGO FURTHER DISTURBANCE ARE TO HAVE DORMANT SEEDING. THE DORMANT SEEDING METHOD: PREPARE THE SEEDBED, LIME AND FERTILIZE, APPLY THE SELECTED PERMANENT SEED MIXTURE AT DOUBLE THE REGULAR SEEDING RATE, AND MULCH AND ANCHOR. DORMANT SEEDINGS NEED TO BE ANCHORED EXTREMELY WELL ON SLOPES, DITCH BASES AND AREAS OF CONCENTRATED FLOWS. DORMANT SEEDING REQUIRES INSPECTION AND RESEEDING AS NEEDED IN THE SPRING. ALL AREAS WHERE COVER IS INADEQUATE MUST BE IMMEDIATELY RESEEDED AND MULCHED AS SOON AS POSSIBLE.
- ALL VEGETATED DITCH LINES THAT HAVE NOT BEEN STABILIZED BY NOVEMBER 1ST, OR WILL BE WORKED DURING THE WINTER CONSTRUCTION PERIOD, MUST BE STABILIZED WITH AN APPROPRIATE STONE LINING BACKED BY AN APPROPRIATE GRAVEL BED OR GEOTEXTILE UNLESS SPECIFICALLY RELEASED FROM THIS STANDARD BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- MULCH NETTING MUST BE USED TO ANCHOR MULCH ON ALL SLOPES GREATER THAN 8% UNLESS EROSION CONTROL BLANKETS OR EROSION CONTROL MIX IS BEING USED ON THESE SLOPES.

CONSTRUCTION MANAGEMENT NOTES:

- ALL CONSTRUCTION SHALL COMPLY WITH 2009 NFPA 1 CHAPTER 16 SAFE GUARDS DURING BUILDING CONSTRUCTION, ALTERATION AND DEMOLITION OPERATIONS.
- ANY CUTTING AND WELDING WORK PERFORMED ONSITE SHALL REQUIRE A "HOT WORK" PERMIT FROM THE PORTLAND FIRE DEPARTMENT.
- THE GENERAL CONTRACTOR SHALL POST EMERGENCY CONTACT INFORMATION ON THE PROJECT SITE PROPERTY DURING CONSTRUCTION IN THE EVENT OF AN AFTER HOURS EMERGENCY. THIS CONTACT INFORMATION SHALL ALSO BE PROVIDED TO THE PORTLAND FIRE DEPARTMENT.
- IF THE SITE IS SECURED BY TEMPORARY OR PERMANENT FENCING WITH LOCKED GATES, THEN THE APPLICANT OR ASSIGNED REPRESENTATIVE SHALL PURCHASE A KNOX PADLOCK FROM THE PORTLAND FIRE DEPARTMENT TO ALLOW ACCESS BY THE PORTLAND FIRE DEPARTMENT.
- STREETS SHALL MAINTAIN A 20' WIDTH FOR FIRE DEPARTMENT ACCESS AT ALL TIMES.
- FIRE HYDRANTS SHALL NOT BE BLOCKED OR ENCLOSED BY FENCING. A 3' CLEARANCE SHALL BE MAINTAINED AT ALL TIMES AROUND FIRE HYDRANTS.

LEGEND:

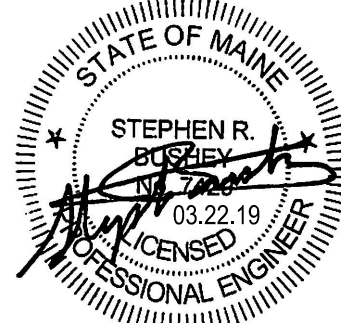
PROPOSED	EXISTING
EDGE OF PAVEMENT	BUILDING
VERTICAL GRANITE CURB	IRON PIN FOUND (IPF) OR CAPPED IRON ROD FOUND (CIR)
BITUMINOUS CURB	ELECTRIC MANHOLE
CONCRETE SIDEWALK / DRIVEWAY APRON	CATCH BASIN
BITUMINOUS DRIVEWAY / PARKING AREA	SEWER MANHOLE
BITUMINOUS SIDEWALK	DOWN SPOUT
SEWER MANHOLE	WATER VALVE
DRAIN MANHOLE	WATER SHUTOFF
CATCH BASIN	UTILITY POLE
STORM DRAIN	SIGN
GAS LINE	LIGHT POLE
SEWER LINE	ELECTRIC METER
WATER LINE	GAS METER
OVERHEAD ELEC - TEL - CABLE	EDGE OF PAVEMENT
UNDERGROUND ELEC - TEL - CABLE	CURB (GRANITE, UNLESS NOTED)
UTILITY POLE	EDGE OF GRAVEL
GRADING CONTOUR LINE	TREE
GRADING SPOT GRADE	EXISTING CONTOUR
DECIDUOUS TREE / LARGE SHRUB	SPOT GRADE
SMALL SHRUB / PERENNIAL	PROPERTY LINE
ORNAMENTAL GRASSES	RIGHT OF WAY
BIKE RACKS	STORM DRAIN
TRAFFIC FLOW DIRECTION	SEWER
PAVEMENT SAWCUT LINE	UNDERGROUND WATER
NEW PAVEMENT LIMITS	OVERHEAD UTILITY WIRES
	WOOD STOCKADE FENCE
	CHAIN LINK FENCE
	GUARD RAIL
	BRICK SIDEWALK
	CITY ZONING BOUNDARY & ZONE DESIGNATION

17.03.22	SRB	CD	By
17.02.26	WRW	CD	
18.12.14	DSB	CD	
Y:\AM\DD	Appr.		

3	PUBLIC HEARING SUBMISSION TO CITY	CD	
2	REVISED AND RESUBMITTED SHEET COMMENTS	CD	
1	LEVEL III SITE PLAN APPLICATION SUBMISSION TO CITY	CD	
	Revision		

File Name: 1006_congress_gen	CDD	SRB	SRB	18.11.27
	DWN.	CHKD.	DSGN.	DATE

Permit-Seal



Client/Project

PK Realty Management Investments
380 Riverside Street, Portland, Maine

1006 Congress Street
Mixed-Use Redevelopment
PORTLAND, MAINE

Title

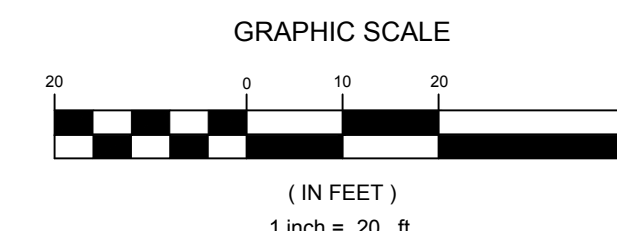
GENERAL NOTES & LEGEND

Project No. 210801661	Scale N.T.S.
Sheet	



The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay.
The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

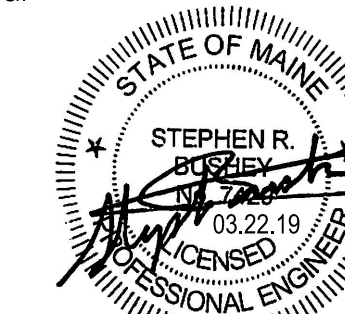
10. *Journal of the American Medical Association*, 2000; 284: 2689-2694.



3	PUBLIC HEARINGS SUBMISSION TO CITY	COD	SFB	19.03.22
2	REVISED AND RESUBMITTED PER STAFF COMMENTS	COD	WRM	19.02.26
1	LEVEL III SITE PLAN APPLICATION SUBMISSION TO CITY	COD	DPS	18.12.14
Revision		By	Appoi.	YY.MM.DD

File Name: 1006_congress_existing CDD SRB SRB 18.11.27

Permit-Seal



Client/Project

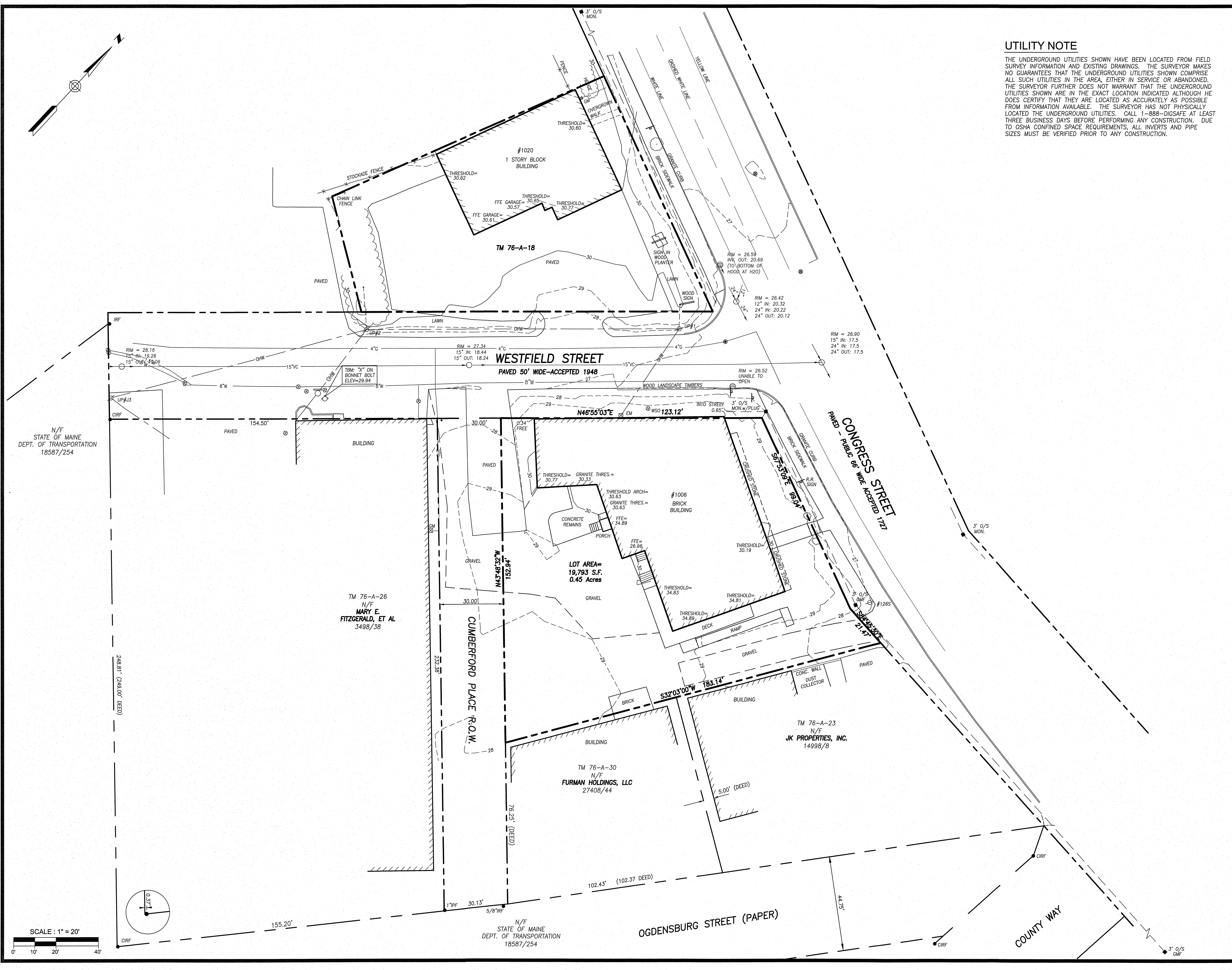
PK Realty Management Investments
380 Riverside Street, Portland, Maine

1006 Congress Street
Mixed-Use Redevelopment
PORTLAND, MAINE

Title
EXISTING CONDITIONS &
REMOVALS PLAN

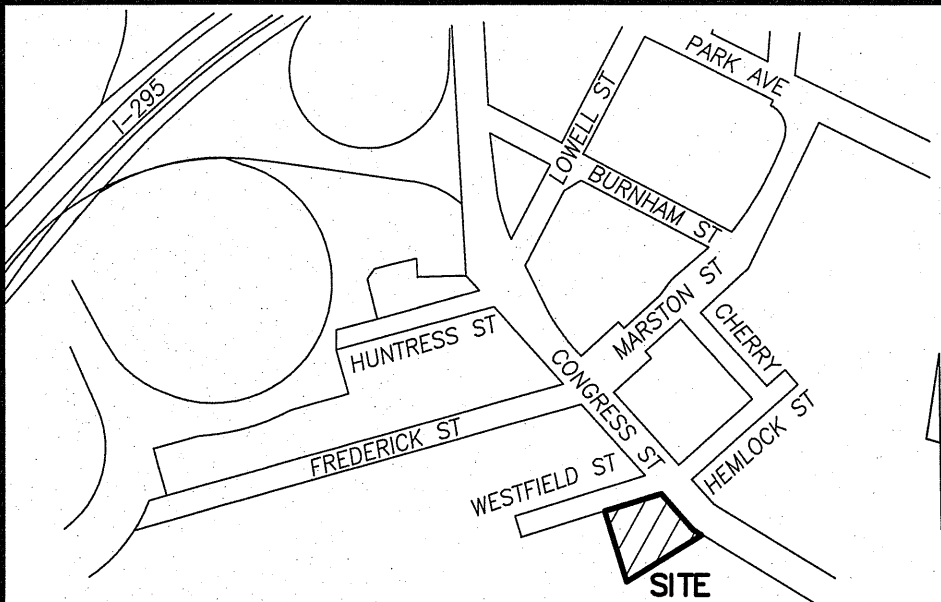
Project No.	Scale
210801661	1" = 20'

Sheet



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.



LOCATION MAP

N.T.S.

LEGEND

●	IRON PIPE OR ROD FOUND	=====	CURB	
■	MONUMENT FOUND	-----	OHW	OVERHEAD WIRES
⊙	UTILITY POLE	-----	W	WATER LINE
○	MANHOLE	-----	G	GAS LINE
⊗	ELECTRIC/GAS METER	-----	SS	SANITARY SEWER
⊕	SIGN	IPF/IRF	IRON PIPE OR ROD FOUND	
⊖	CATCH BASIN	CONC.	CONCRETE	
⊗	WATER VALVE OR SHUTOFF	GMF	GRANITE MONUMENT FOUND	
		N/F	NOW OR FORMERLY	
		000/000	DEED BOOK / PAGE	

PLAN REFERENCES

- "BOUNDARY SURVEY ON 12-24 WESTFIELD STREET, PORTLAND, MAINE MADE FOR FITZGERALD TITLE" DATED 12/28/2015 BY OWEN HASKELL, INC.
- "ALTA/ACSM LAND TITLE SURVEY, 17 WESTFIELD STREET, PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR WESTFIELD STREET REALTY LLC" JANUARY 8, 2014 BY OWEN HASKELL, INC.
- "PLAN OF PROPERTY IN PORTLAND MADE FOR GENERAL BAKING COMPANY" BY E.C. JORDAN DATED MARCH 1948 FILED WITH THE CITY ENGINEERS OFFICE PLAN 462/25.
- "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR ROBERT R. JANKES CONSTRUCTION CO. BY H.I. & E.C. JORDAN DATED 12-27-63 REVISED JAN. 11, 1964.

GENERAL NOTES

- OWNER OF RECORD: 1006 CONGRESS STREET LLC
1550 SUNSET RIDGE DRIVE
LAGUNA BEACH, CA 92651
TAX MAP 76 BLOCK A LOT 22
C.C.R.D. BOOK 34188 PAGE 103
- BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM MAINE WEST NAD83. CITY MONUMENTS AT "D" STREET AND "A" STREET PROVIDED BY THE CITY OF PORTLAND ENGINEERING DEPARTMENT.
- ELEVATIONS ARE BASED ON NGVD 1929. CITY BENCHMARK 3' O/S MONUMENT AT ST. JOHN STREET AND "C" STREET ELEVATION 37.56.
- BOUNDARY LINES SHOWN FOR TM 76-A-18 TAKEN FROM PLAN REFERENCE 4, NOT VERIFIED BY OWEN HASKELL, INC.

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.

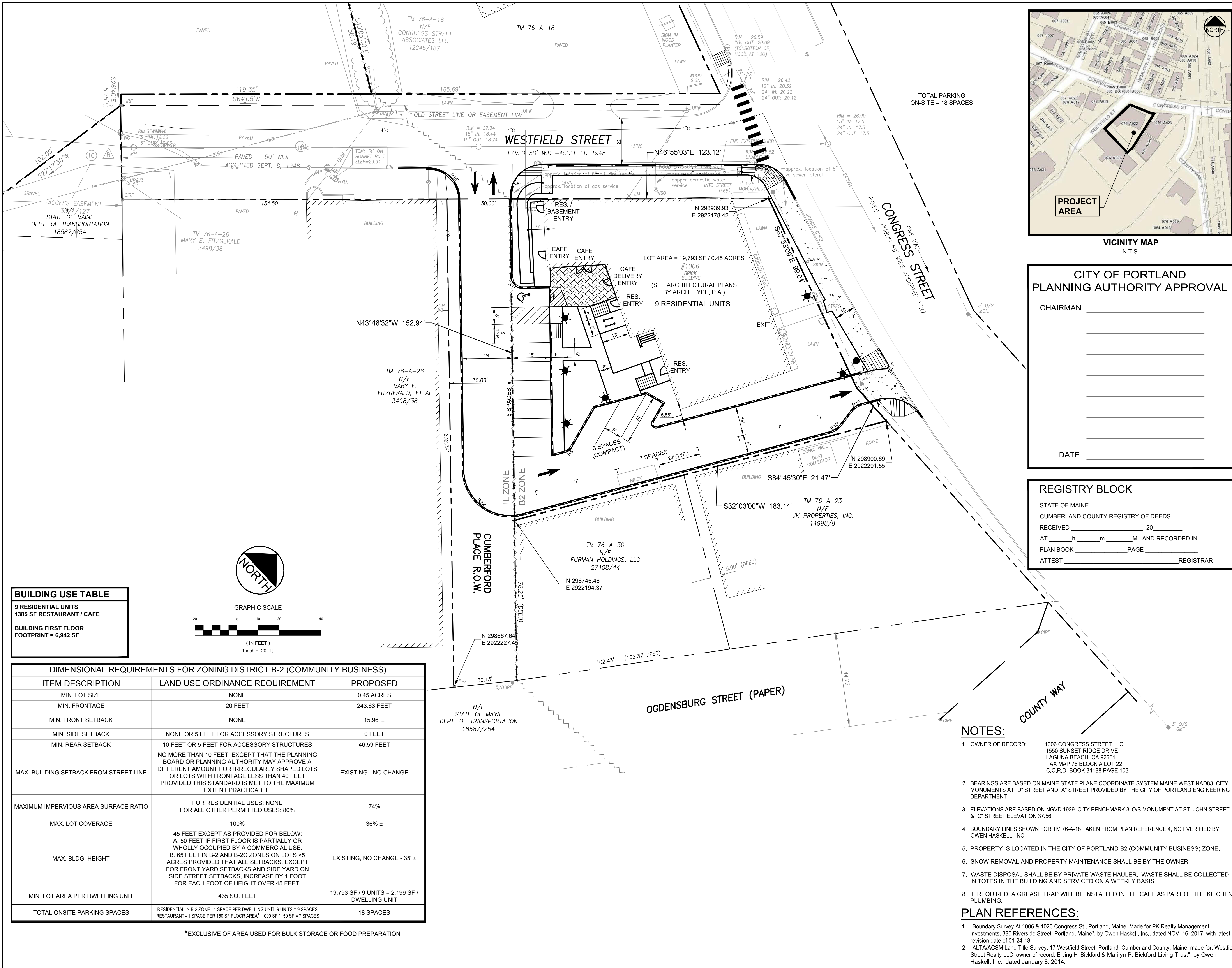
JOHN W. SWAN, PLS NO. 1038
DATE 3/21/19
STATE OF MAINE
JOHN W. SWAN
1038
PROFESSIONAL LAND SURVEYOR

REV. 1 | 01-24-18 | TAX MAP LOT 76-A-18 & TOPOGRAPHY ADDED

Boundary Survey
At
1006 & 1020 Congress St., Portland, Maine
Made for
PK Realty Management Investments
380 Riverside Street, Portland, Maine

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 U.S. ROUTE ONE, UNIT 10, FALMOUTH, MAINE 04105
DRAWN BY: RS / JLW DATE: NOV. 16, 2017 JOB NO. 2017-315 P
CHECKED BY: EBC / JWS SCALE: 1" = 20' DRWG. NO. 1

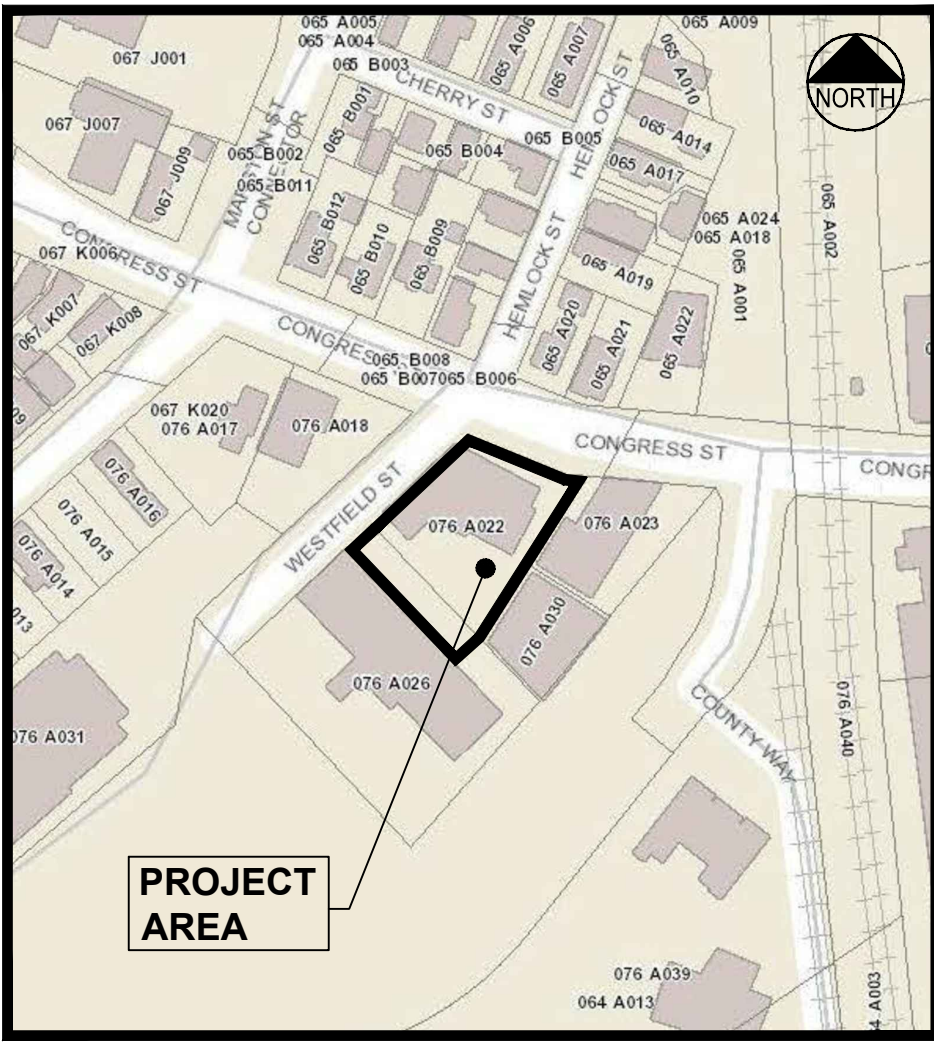
V:\2108\active\210801661\civil\cad\perm\dwg\1006_congress.dwg, 3/25/2019 12:48 PM



BUILDING USE TABLE	
9 RESIDENTIAL UNITS	1385 SF RESTAURANT / CAFE
BUILDING FIRST FLOOR FOOTPRINT = 6,942 SF	

DIMENSIONAL REQUIREMENTS FOR ZONING DISTRICT B-2 (COMMUNITY BUSINESS)		
ITEM DESCRIPTION	LAND USE ORDINANCE REQUIREMENT	PROPOSED
MIN. LOT SIZE	NONE	0.45 ACRES
MIN. FRONTAGE	20 FEET	243.63 FEET
MIN. FRONT SETBACK	NONE	15.96' ±
MIN. SIDE SETBACK	NONE OR 5 FEET FOR ACCESSORY STRUCTURES	0 FEET
MIN. REAR SETBACK	10 FEET OR 5 FEET FOR ACCESSORY STRUCTURES	46.59 FEET
MAX. BUILDING SETBACK FROM STREET LINE	NO MORE THAN 10 FEET, EXCEPT THAT THE PLANNING BOARD OR PLANNING AUTHORITY MAY APPROVE A DIFFERENT AMOUNT FOR IRREGULARLY SHAPED LOTS OR LOTS WITH FRONTAGE LESS THAN 40 FEET PROVIDED THIS STANDARD IS MET TO THE MAXIMUM EXTENT PRACTICABLE.	EXISTING - NO CHANGE
MAXIMUM IMPERVIOUS AREA SURFACE RATIO	FOR RESIDENTIAL USES: NONE FOR ALL OTHER PERMITTED USES: 80%	74%
MAX. LOT COVERAGE	100%	36% ±
MAX. BLDG. HEIGHT	45 FEET EXCEPT AS PROVIDED FOR BELOW: A. 50 FEET IF FIRST FLOOR IS PARTIALLY OR WHOLLY OCCUPIED BY A COMMERCIAL USE. B. 65 FEET IN B-2 AND B-2C ZONES ON LOTS >5 ACRES PROVIDED THAT ALL SETBACKS, EXCEPT FOR FRONT YARD SETBACKS AND SIDE YARD ON SIDE STREET SETBACKS, INCREASE BY 1 FOOT FOR EACH FOOT OF HEIGHT OVER 45 FEET.	EXISTING, NO CHANGE - 35' ±
MIN. LOT AREA PER DWELLING UNIT	435 SQ. FEET	19,793 SF / 9 UNITS = 2,199 SF / DWELLING UNIT
TOTAL ONSITE PARKING SPACES	RESIDENTIAL IN B-2 ZONE - 1 SPACE PER DWELLING UNIT; 9 UNITS = 9 SPACES RESTAURANT - 1 SPACE PER 150 SF FLOOR AREA*; 1000 SF / 150 SF = 7 SPACES	18 SPACES

*EXCLUSIVE OF AREA USED FOR BULK STORAGE OR FOOD PREPARATION



CITY OF PORTLAND
PLANNING AUTHORITY APPROVAL

CHAIRMAN _____

DATE _____

REGISTRY BLOCK

STATE OF MAINE
CUMBERLAND COUNTY REGISTRY OF DEEDS

RECEIVED _____, 20____

AT _____ h _____ m _____ M. AND RECORDED IN

PLAN BOOK _____ PAGE _____

ATTEST _____ REGISTRAR

- NOTES:
- OWNER OF RECORD: 1006 CONGRESS STREET LLC
1550 SUNSET RIDGE DRIVE
LAGUNA BEACH, CA 92651
TAX MAP 76 BLOCK A LOT 22
C.C.R.D. BOOK 34188 PAGE 103
 - BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM MAINE WEST NAD83. CITY MONUMENTS AT "D" STREET AND "A" STREET PROVIDED BY THE CITY OF PORTLAND ENGINEERING DEPARTMENT.
 - ELEVATIONS ARE BASED ON NGVD 1929. CITY BENCHMARK 3' O/S MONUMENT AT ST. JOHN STREET & "C" STREET ELEVATION 37.56.
 - BOUNDARY LINES SHOWN FOR TM 76-A-18 TAKEN FROM PLAN REFERENCE 4, NOT VERIFIED BY OWEN HASKELL, INC.
 - PROPERTY IS LOCATED IN THE CITY OF PORTLAND B2 (COMMUNITY BUSINESS) ZONE.
 - SNOW REMOVAL AND PROPERTY MAINTENANCE SHALL BE BY THE OWNER.
 - WASTE DISPOSAL SHALL BE BY PRIVATE WASTE HAULER. WASTE SHALL BE COLLECTED IN TOTES IN THE BUILDING AND SERVICED ON A WEEKLY BASIS.
 - IF REQUIRED, A GREASE TRAP WILL BE INSTALLED IN THE CAFE AS PART OF THE KITCHEN PLUMBING.

- PLAN REFERENCES:
- "Boundary Survey At 1006 & 1020 Congress St., Portland, Maine, Made for PK Realty Management Investments, 380 Riverside Street, Portland, Maine", by Owen Haskell, Inc., dated NOV. 16, 2017, with latest revision date of 01-24-18.
 - "ALTA/ACSM Land Title Survey, 17 Westfield Street, Portland, Cumberland County, Maine, made for, Westfield Street Realty LLC, owner of record, Erving H. Bickford & Marilyn P. Bickford Living Trust", by Owen Haskell, Inc., dated January 8, 2014.

Stantec

Stantec
482 Payne Road Scarborough Court
Scarborough, Maine 04074-8929
Tel. 207.883.3355
www.stantec.com

Copyright Reserved

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay.
The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

City Approval

Architect:

ARCHETYPE
architects

48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

Surveyor:

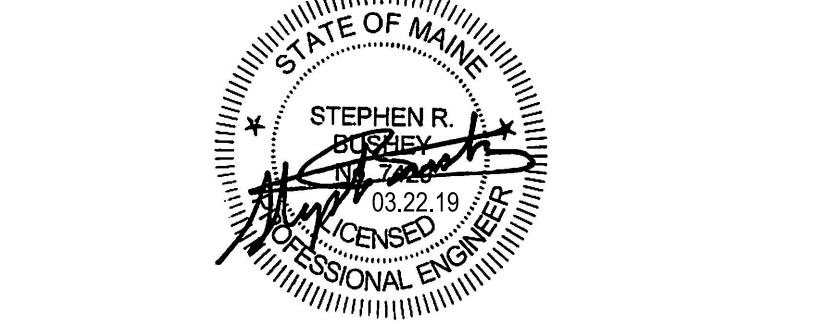
OWEN HASKELL, INC.
390 U.S. ROUTE ONE, FALMOUTH, ME 04105 (207) 774-0424
PROFESSIONAL LAND SURVEYORS

PLS.

17.03.22	SRB	DWN.	17.02.23	SRB	CHKD.	18.12.14	SRB	CHKD.	YJAM/DD
3	CDD	BY	2	CDD	BY	1	CDD	BY	
3	PUBLIC HEARING SUBMISSION TO CITY		2	REVISED AND RESUBMITTED PER STAFF COMMENTS		1	LEVEL III SITE PLAN APPLICATION SUBMISSION TO CITY		
Revision									

File Name: 1006_congress_site CDD DWN. SRB CHKD. SRB DSGN. 18.11.27

Permit-Seal



Client/Project

PK Realty Management Investments
380 Riverside Street, Portland, Maine

1006 Congress Street
Mixed-Use Redevelopment
PORTLAND, MAINE

Title

SITE RECORDING PLAT

Project No. 210801661 Scale 1" = 20'

Sheet

Copyright Reserved

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay.
The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

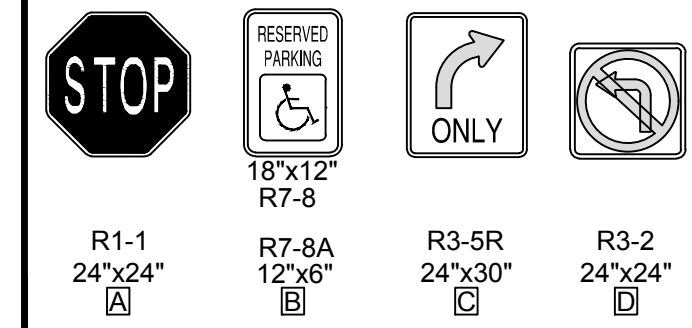
City Approval

BUILDING USE TABLE

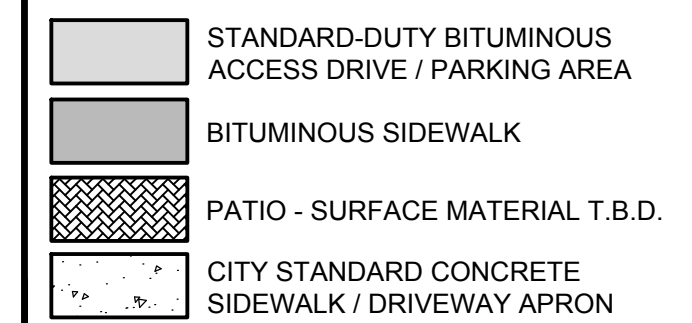
9 RESIDENTIAL UNITS
1385 SF RESTAURANT / CAFE

BUILDING FIRST FLOOR
FOOTPRINT = 6,942 SF

SIGN LEGEND



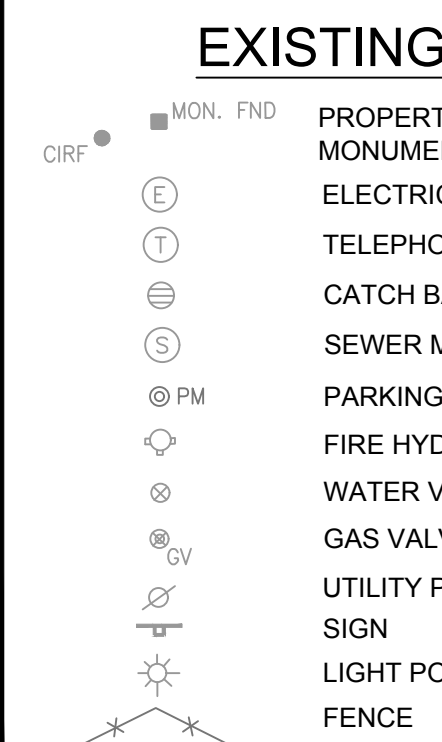
SURFACE LEGEND



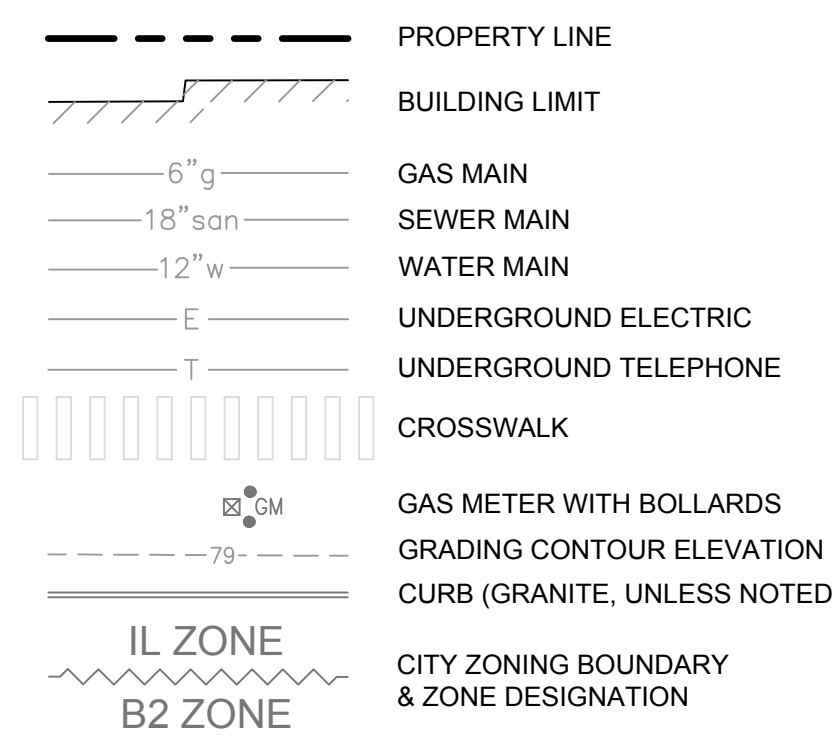
DIMENSIONAL REQUIREMENTS FOR ZONING DISTRICT B-2 (COMMUNITY BUSINESS)		
ITEM DESCRIPTION	LAND USE ORDINANCE REQUIREMENT	PROPOSED
MIN. LOT SIZE	NONE	0.45 ACRES
MIN. FRONTAGE	20 FEET	243.63 FEET
MIN. FRONT SETBACK	NONE	15.96' ±
MIN. SIDE SETBACK	NONE OR 5 FEET FOR ACCESSORY STRUCTURES	0 FEET
MIN. REAR SETBACK	10 FEET OR 5 FEET FOR ACCESSORY STRUCTURES	46.59 FEET
MAX. BUILDING SETBACK FROM STREET LINE	NO MORE THAN 10 FEET, EXCEPT THAT THE PLANNING BOARD OR PLANNING AUTHORITY MAY APPROVE A DIFFERENT AMOUNT FOR IRREGULARLY SHAPED LOTS OR LOTS WITH FRONTAGE LESS THAN 40 FEET PROVIDED THIS STANDARD IS MET TO THE MAXIMUM EXTENT PRACTICABLE.	EXISTING - NO CHANGE
MAXIMUM IMPERVIOUS AREA SURFACE RATIO	FOR RESIDENTIAL USES: NONE FOR ALL OTHER PERMITTED USES: 80%	74%
MAX. LOT COVERAGE	100%	36% ±
MAX. BLDG. HEIGHT	45 FEET EXCEPT AS PROVIDED FOR BELOW: A. 50 FEET IF FIRST FLOOR IS PARTIALLY OR WHOLLY OCCUPIED BY A COMMERCIAL USE. B. 65 FEET IN B-2 AND B-2C ZONES ON LOTS >5 ACRES PROVIDED THAT ALL SETBACKS, EXCEPT FOR FRONT YARD SETBACKS AND SIDE YARD ON SIDE STREET SETBACKS, INCREASE BY 1 FOOT FOR EACH FOOT OF HEIGHT OVER 45 FEET.	EXISTING, NO CHANGE - 35' ±
MIN. LOT AREA PER DWELLING UNIT	435 SQ. FEET	19,793 SF / 9 UNITS = 2,199 SF / DWELLING UNIT
TOTAL ONSITE PARKING SPACES	RESIDENTIAL IN B-2 ZONE - 1 SPACE PER DWELLING UNIT; 9 UNITS = 9 SPACES RESTAURANT - 1 SPACE PER 150 SF FLOOR AREA*; 1000 SF / 150 SF = 7 SPACES	18 SPACES

*EXCLUSIVE OF AREA USED FOR BULK STORAGE OR FOOD PREPARATION

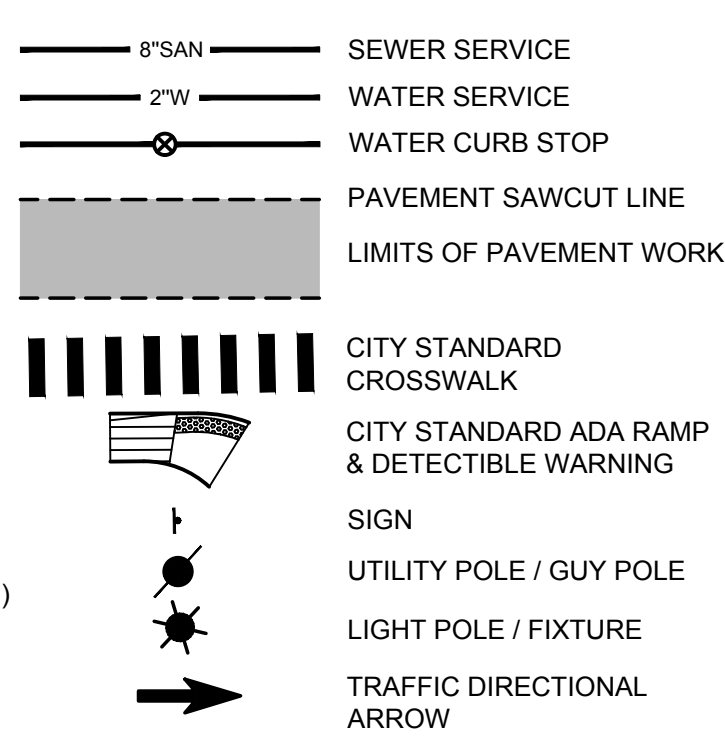
LEGEND



EXISTING



PROPOSED



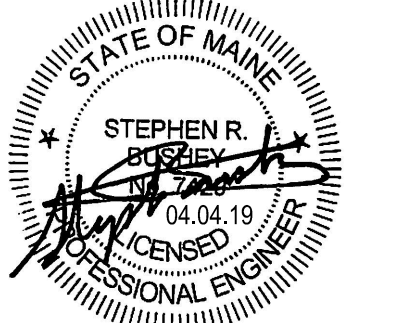
NOTES:

- OWNER OF RECORD: 1006 CONGRESS STREET LLC
1550 SUNSET RIDGE DRIVE
LAGUNA BEACH, CA 92651
TAX MAP 76 BLOCK A LOT 22
C.C.R.D. BOOK 34188 PAGE 103
- BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM MAINE WEST NAD83. CITY MONUMENTS AT "D" STREET AND "A" STREET PROVIDED BY THE CITY OF PORTLAND ENGINEERING DEPARTMENT.
- ELEVATIONS ARE BASED ON NGVD 1929. CITY BENCHMARK 3' O/S MONUMENT AT ST. JOHN STREET & "C" STREET ELEVATION 37.56.
- BOUNDARY LINES SHOWN FOR TM 76-A-18 TAKEN FROM PLAN REFERENCE 4, NOT VERIFIED BY OWEN HASKELL, INC.
- PROPERTY IS LOCATED IN THE CITY OF PORTLAND B2 (COMMUNITY BUSINESS) ZONE.
- SNOW REMOVAL AND PROPERTY MAINTENANCE SHALL BE BY THE OWNER.
- WASTE DISPOSAL SHALL BE BY PRIVATE WASTE HAULER. WASTE SHALL BE COLLECTED IN TOTES IN THE BUILDING AND SERVICED ON A WEEKLY BASIS.
- IF REQUIRED, A GREASE TRAP WILL BE INSTALLED IN THE CAFE AS PART OF THE KITCHEN PLUMBING.

PLAN REFERENCES:

- "Boundary Survey At 1006 & 1020 Congress St., Portland, Maine, Made for PK Realty Management Investments, 380 Riverside Street, Portland, Maine", by Owen Haskell, Inc., dated NOV. 16, 2017, with latest revision date of 01-24-18.
- "ALTA/ACSM Land Title Survey, 17 Westfield Street, Portland, Cumberland County, Maine, made for, Westfield Street Realty LLC, owner of record, Erving H. Bickford & Marilyn P. Bickford Living Trust", by Owen Haskell, Inc., dated January 8, 2014.

File Name: 1006_congress_site CDD CDD CDD 18.11.27
DWN. CHKO. DSGN. DATE
Permit-Seal



Client/Project

PK Realty Management Investments
380 Riverside Street, Portland, Maine

1006 Congress Street
Mixed-Use Redevelopment
PORTLAND, MAINE

Title

SITE LAYOUT & UTILITY PLAN

Project No.

210801661

Scale

1" = 20'

Sheet



Copyright Reserved

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay.

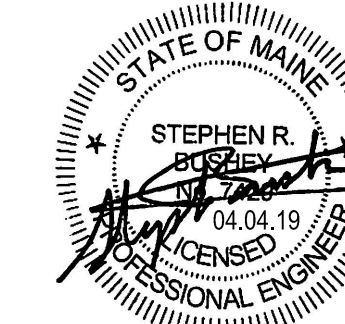
The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

City Approval _____

Revision		By	Appd.	YYMMDD
4	REMOVED AND RESUBMITTED PER CITY STAFF COMMENTS	CCD	SFB	19/04/04
3	PUBLIC HEARING SUBMISSION TO CITY	CCD	SFB	19/03/22
2	REMOVED AND RESUBMITTED PER STAFF COMMENTS	CCD	WRM	19/02/26
1	LEVEL III IN PLAN APPLICATION SUBMISSION TO CITY	CCD	DRB	18/12/14

File Name: 1006_congress_site	CDD	SRB	SRB	18.11.27
	DWN	CHKD	DSGN	DATE

	SWR:	CHRD:	ESCR:	SWR:
Permit-Seal				



Client/Project

PK Realty Management Investments
380 Riverside Street, Portland, Maine

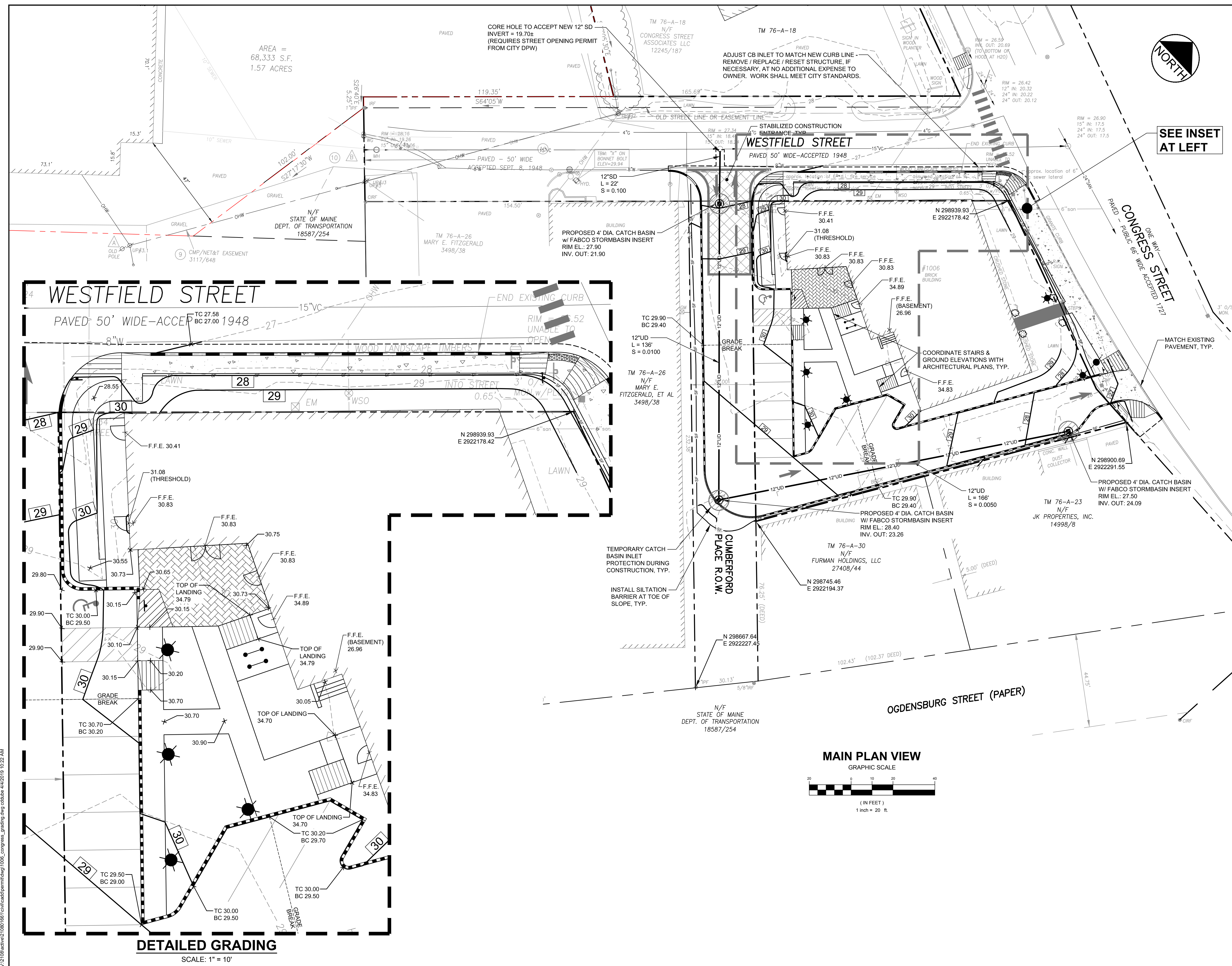
1006 Congress Street
Mixed-Use Redevelopment

PORTLAND, MAINE

Title
GRADING, DRAINAGE &
EROSION CONTROL PLAN

Project No.	Scale
210801661	AS NOTED

Sheet



4/21/2018 active 210801661civil/cadd/permit/dwn1006 congress grading dwn cdd/bc 4/4/2019 10:22 AM

C-4.0

Copyright Reserved

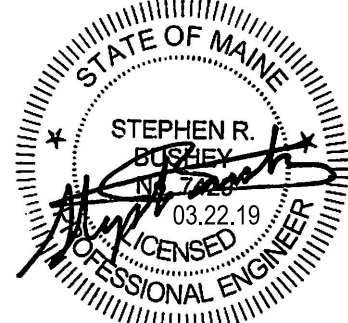
The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay.
The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

City Approval

17.03.22	SRB	CDD	By	YJAM/DD
17.02.26	WNL	CDD		
18.12.14	DSB	CDD		
	Appr.			

File Name: 1006_congress_landscape	CDD	SRB	SRB	18.11.27
DWN.	CHKD.	DSGN.	DATE	

Permit-Seal



Client/Project

PK Realty Management Investments
380 Riverside Street, Portland, Maine

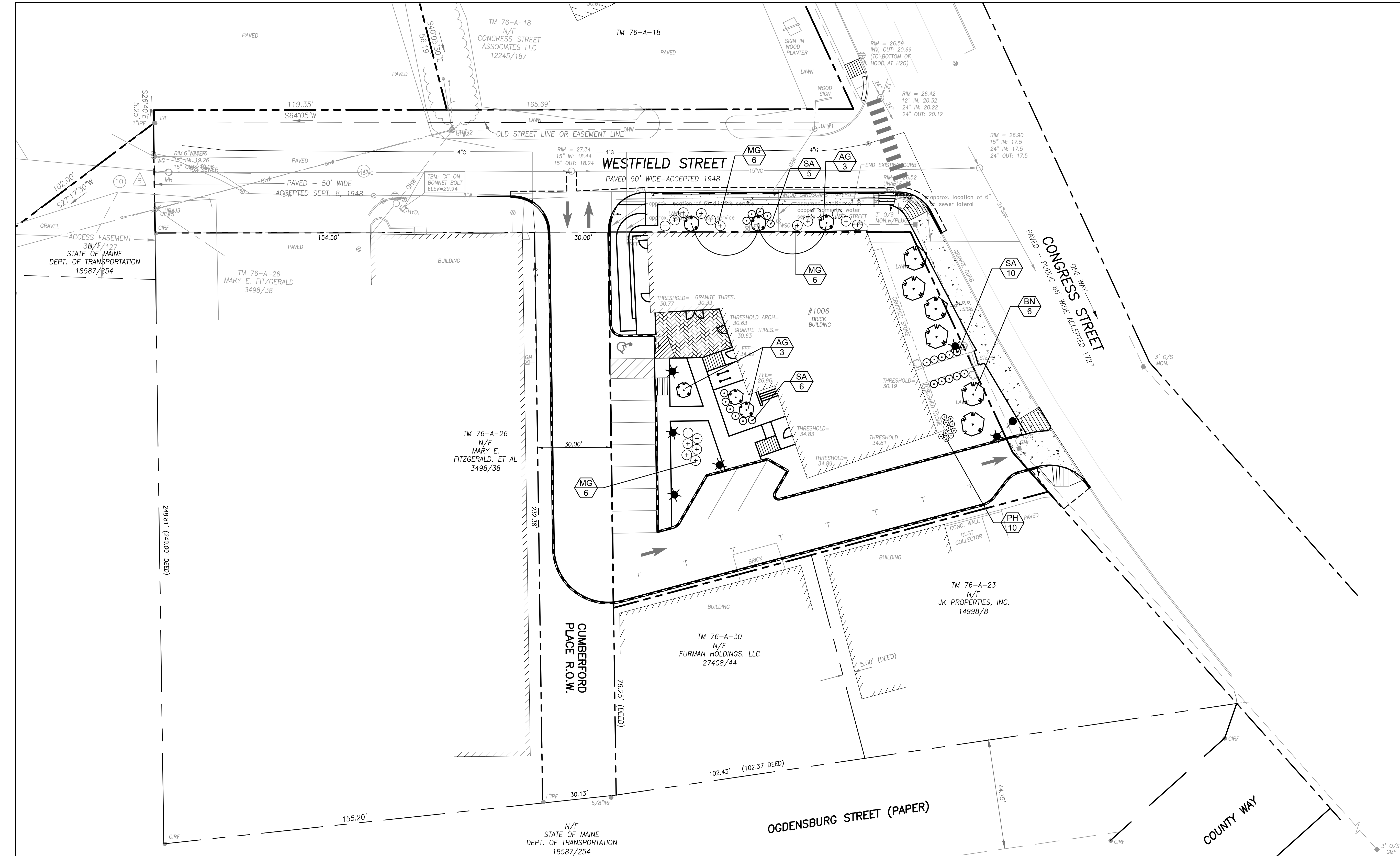
1006 Congress Street
Mixed-Use Redevelopment
PORTLAND, MAINE

Title
LANDSCAPE PLAN

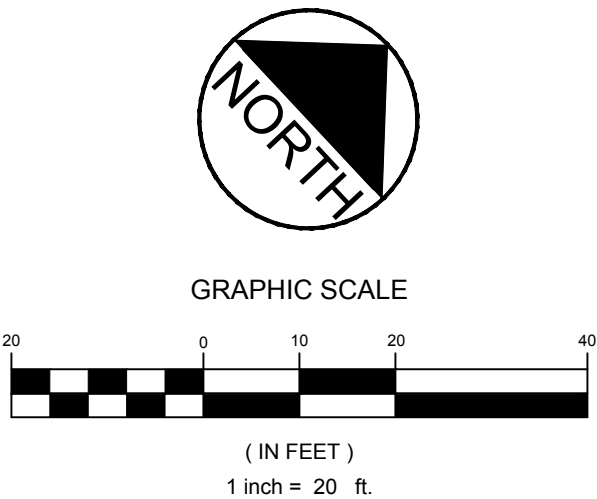
Project No. 210801661
Scale 1" = 20'

Sheet

C-5.0



PLANT LIST						
QUANTITY	SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	SPACING	REMARK
6	BN	River Birch	Betula nigra 'Heritage'	1½" Cal.	AS SHOWN	B & B
6	AG	Autumn Brilliance Serviceberry	Amelanchier x grandiflora 'Autumn Brilliance'	5 Gal.	AS SHOWN	
21	SA	Autumn Joy Stonecrop	Sedum Spectabile 'Autumn Joy'	2 Gal.	3' o.c.	
18	MG	Maiden Grass	Miscanthus sinensis 'Gracillimus'	2 Gal.	4' o.c.	
10	PH	Dwarf Fountain Grass	Pennisetum alopecuroides 'Hameln'	2 Gal.	3' o.c.	

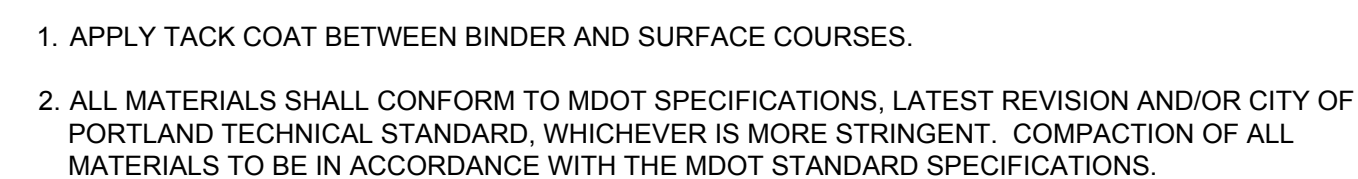




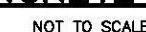
The Contractor shall verify and be responsible for all dimensions, DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay.

The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

© 2006 The Authors
Journal compilation © 2006 Blackwell Publishing Ltd

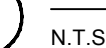


(A) BI
N.T.S.

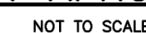


(D) $\frac{CI}{N.T.S}$

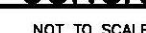
AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"

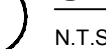


(B) DF
N.T.S.

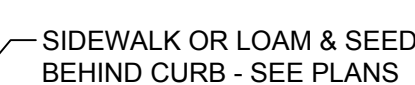


(E) $\frac{C}{N.T.S.}$

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



© $\frac{1Y}{N.T.S.}$

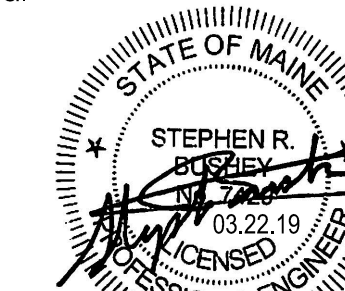


AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



File Name: 1006 congress det CDD SRB SRB 18.11.27

Permit-Seal



Client/Project

PK Realty Management Investments
380 Riverside Street, Portland, Maine

1006 Congress Street
Mixed-Use Redevelopment
PORTLAND, MAINE

Title
DETAILS

Project No.
210801661

Scale	N.T.S.
-------	--------

Sheet

(A) STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.

(D) 4'-0" PRECAST CATCH BASIN
N.T.S.

U-CHANNEL METAL SIGN POST
N.T.S.

(B) SILT SACK® DETAIL & SPECIFICATIONS
N.T.S.

(E) TYPICAL PIPE TRENCH INSTALLATION AND NOTES

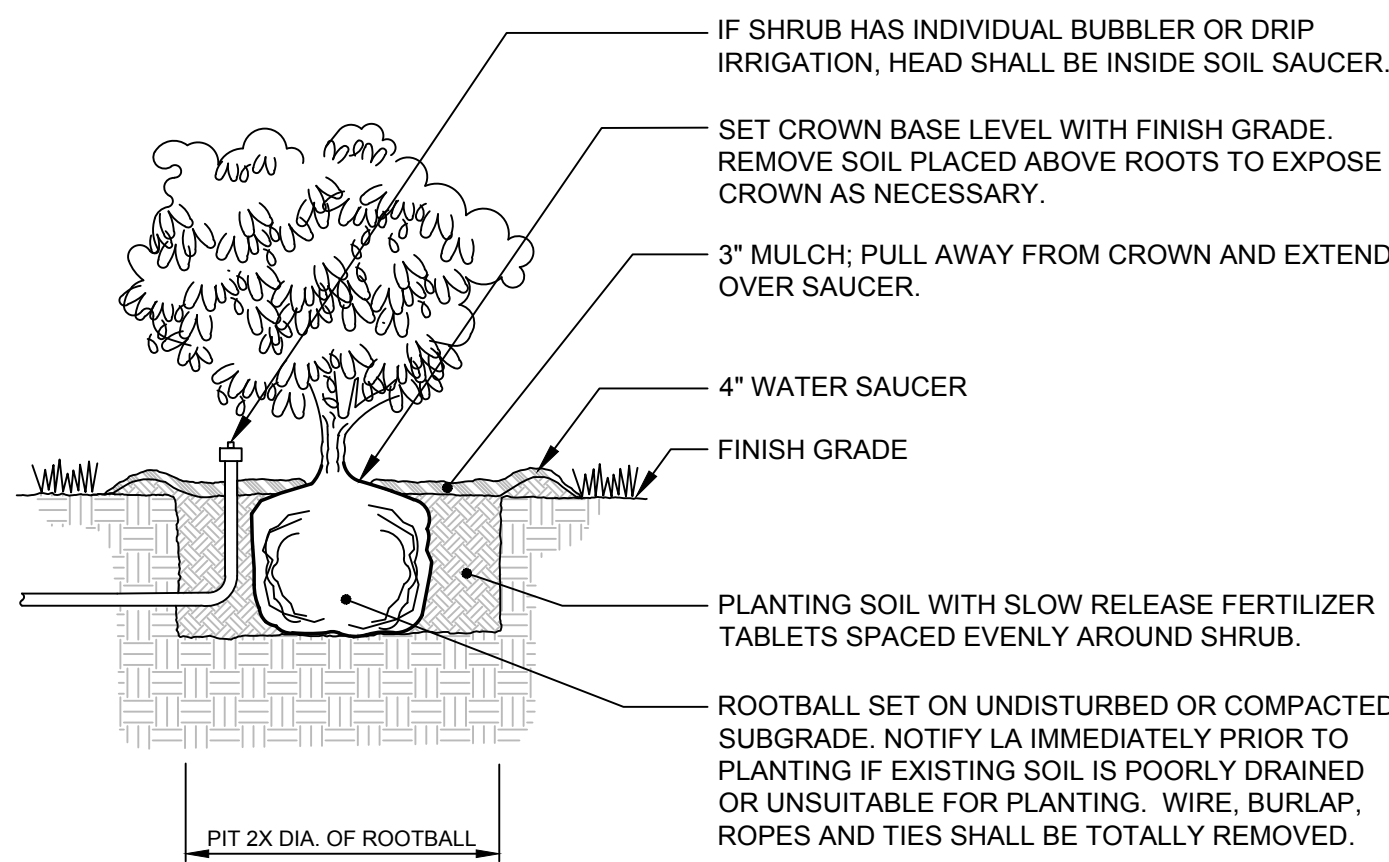
(H) PAVEMENT SAWCUT DETAIL
N.T.S.

© SILTATION FENCE DETAIL
NTS

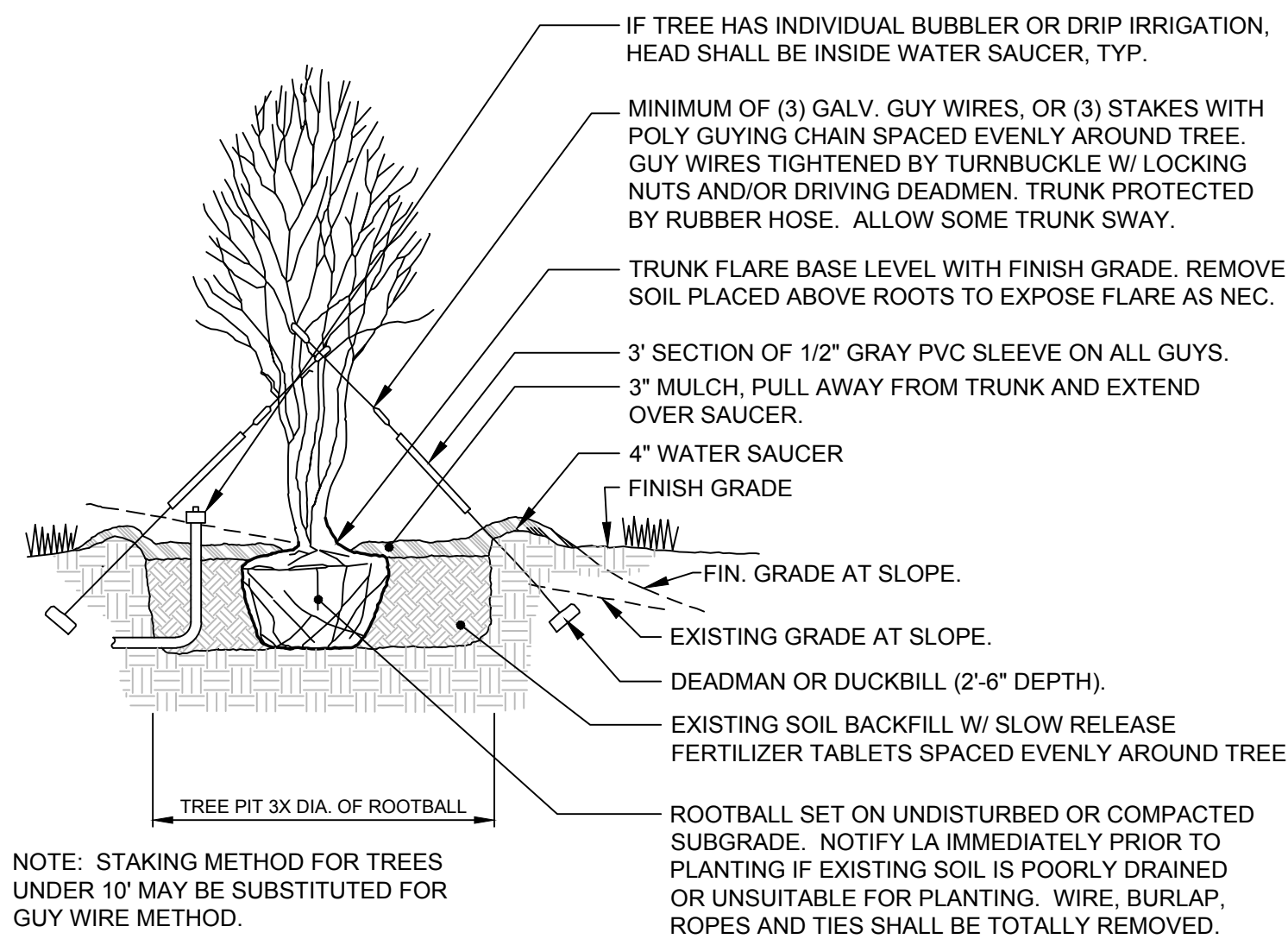
(F) UTILITY TRENCH - PRIMARY ELEC., TEL. & COMM.
NTS

① BITUMINOUS SIDEWALK WITH CURB DETAIL
N.T.S.

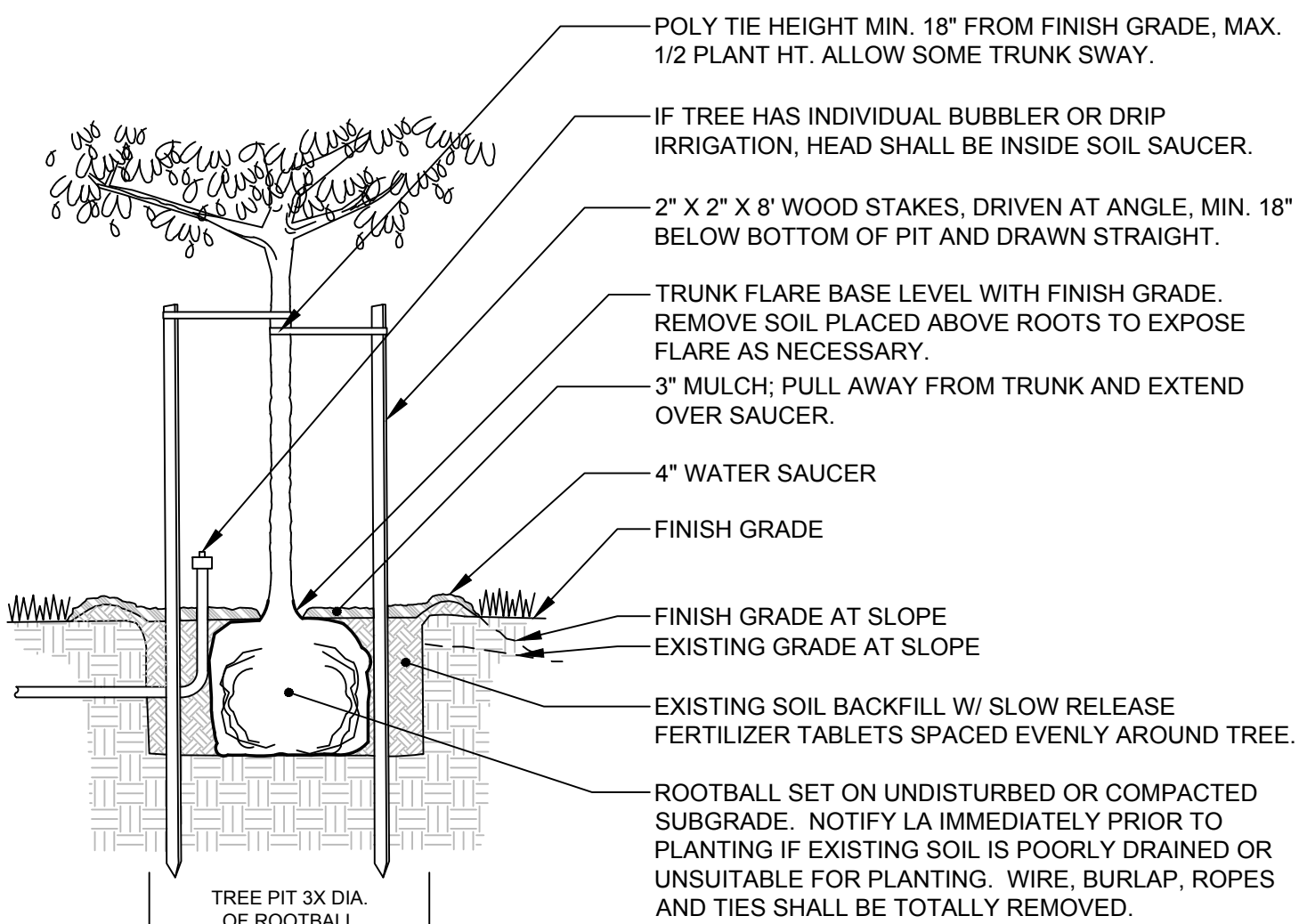
V:\2108\active\210801661\civil\road\permit\dwg\1006_congress_det.dwg cddbae 3/22/2019 2:09 PM



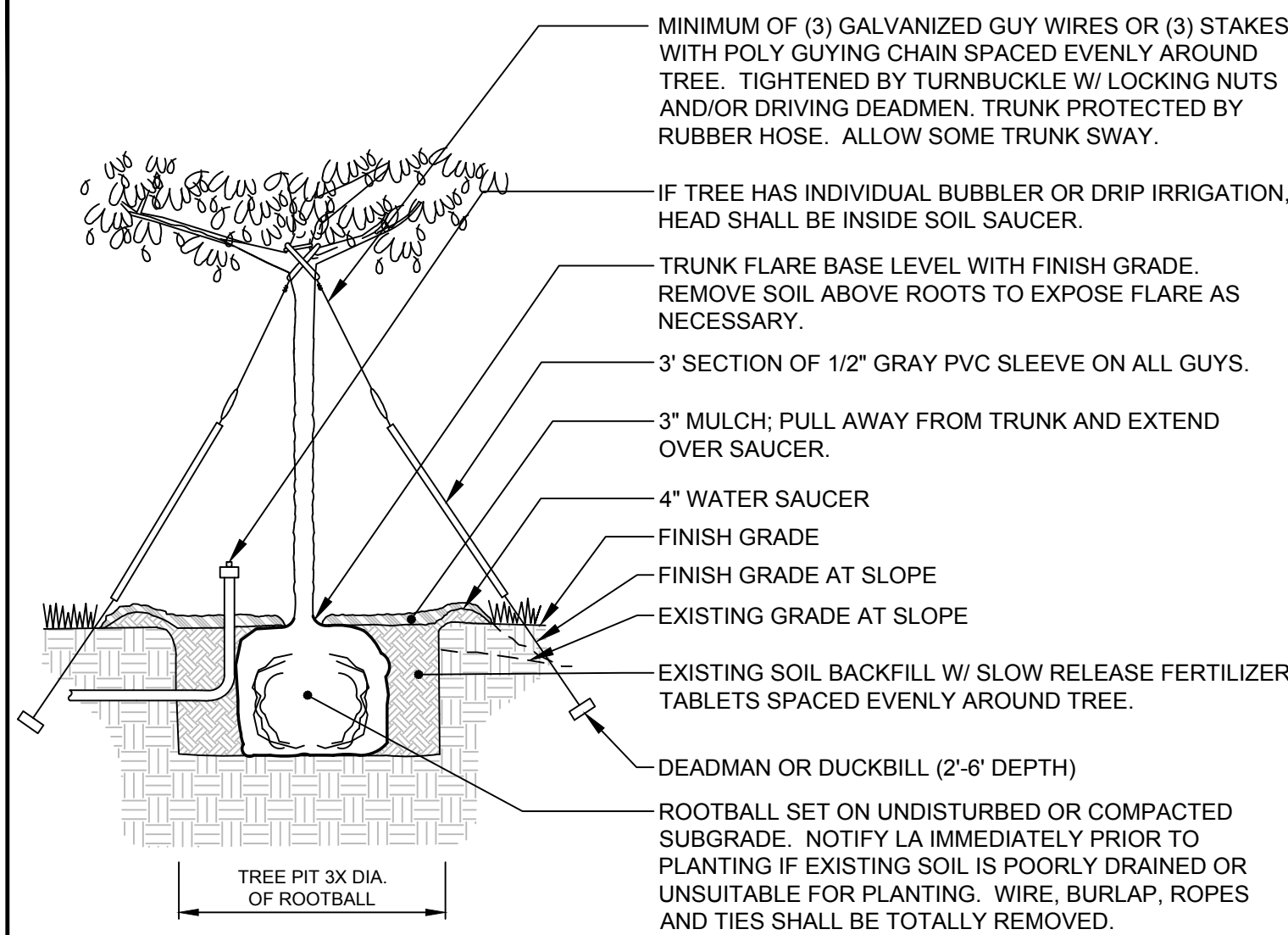
A SHRUB INSTALLATION DETAIL
N.T.S.



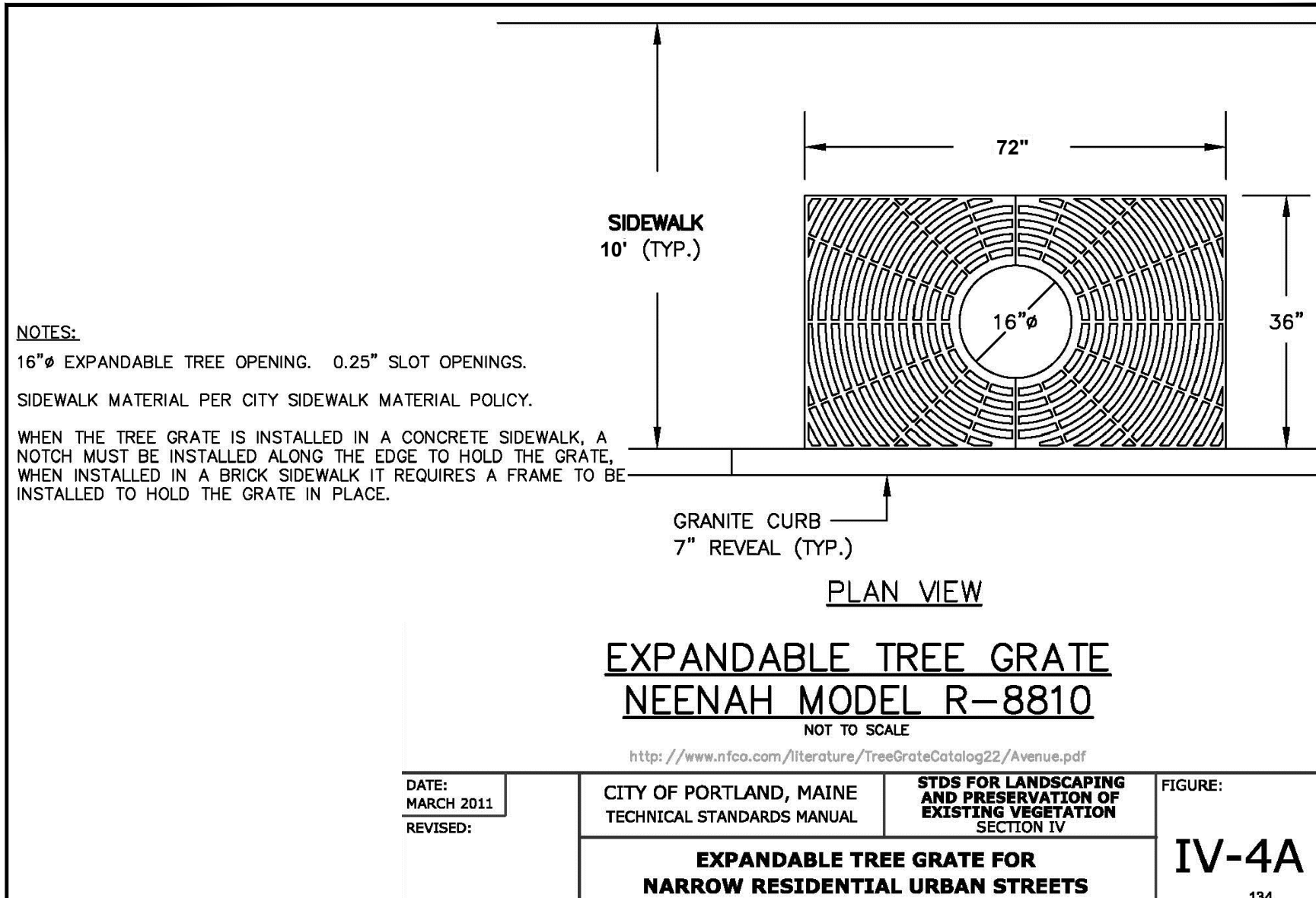
B MULTI-TRUNKED TREE INSTALLATION DETAIL
N.T.S.



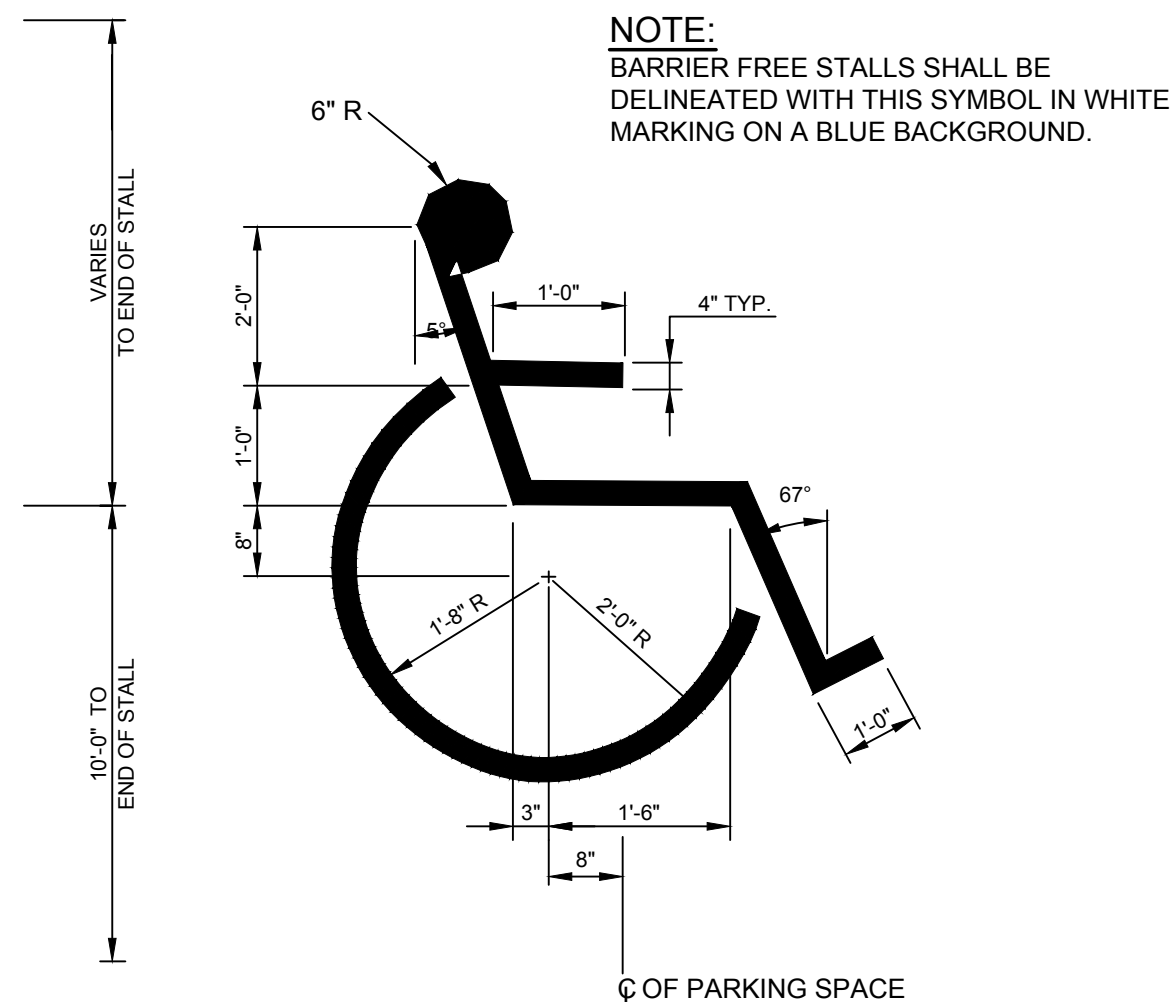
C TREE INSTALLATION DETAIL: <10' HT.
N.T.S.



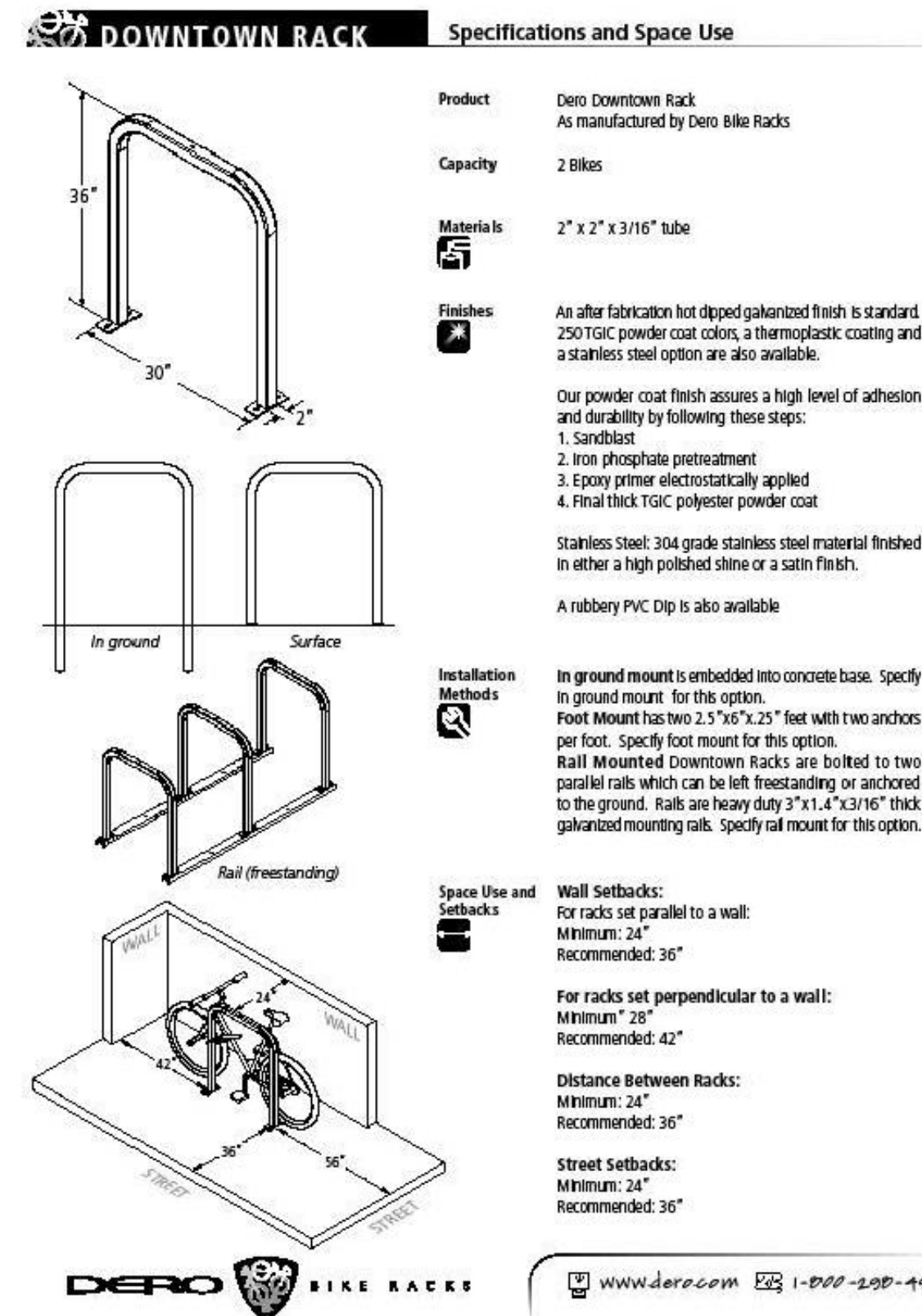
D TREE INSTALLATION DETAIL: >10' HT.
N.T.S.



E CITY STANDARD TREE GRATE DETAIL
N.T.S.



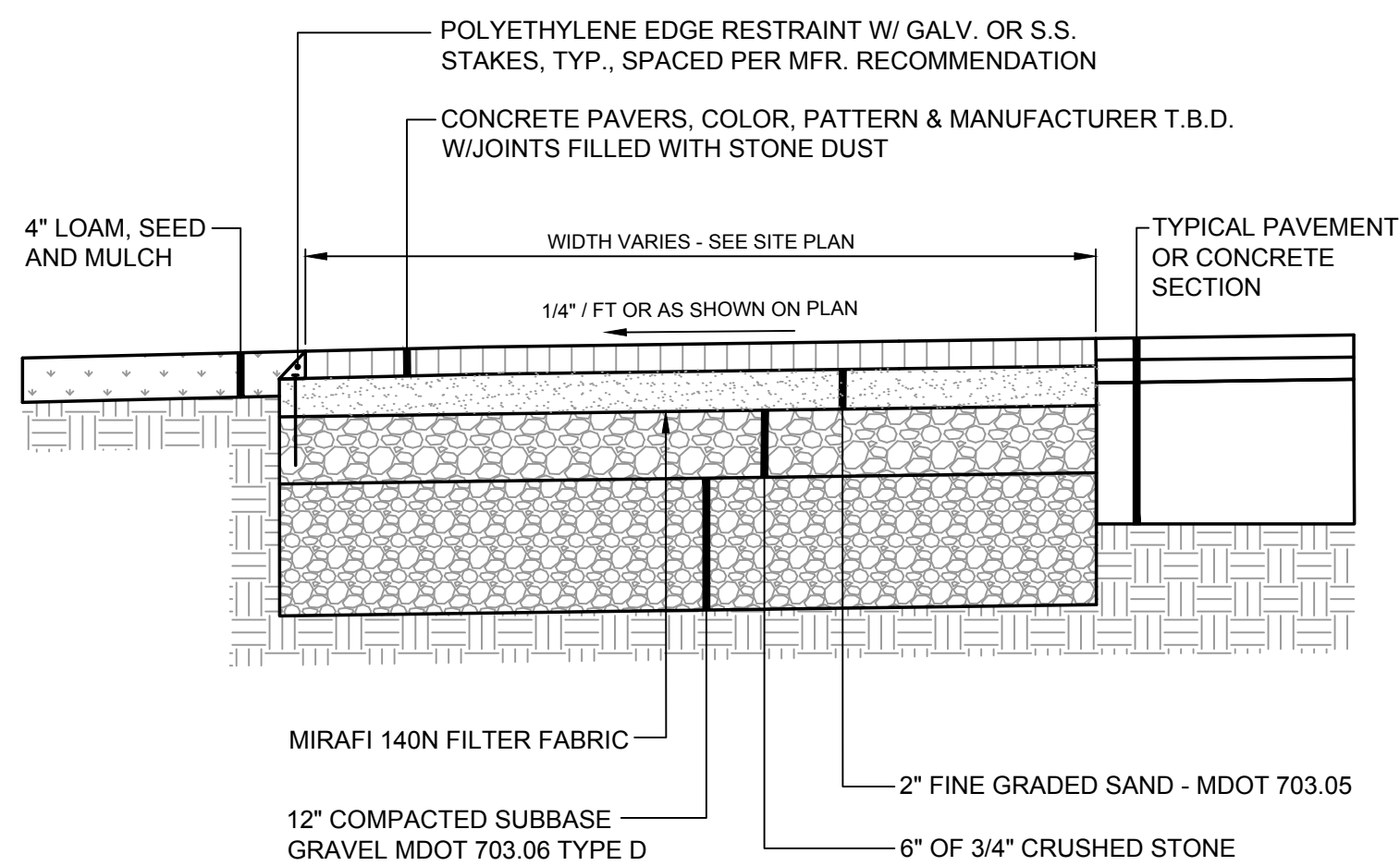
F INTERNATIONAL BARRIER FREE SYMBOL
N.T.S.



DATE: AUGUST 2009 REVISED:	CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL	TRANSPORTATION SYSTEMS AND STREET DESIGN SECTION I	FIGURE: I-34a 69
----------------------------------	---	--	-------------------------------

MFR: DERO BIKE RACKS
IN-GROUND MOUNT.
POWDER COAT FINISH
COLOR: BLACK
www.dero.com
1-800-298-4915

G BICYCLE RACK SPECIFICATION - DOWNTOWN RACK
N.T.S.



H TYPICAL CONCRETE PAVER DETAIL
N.T.S.

Stantec
482 Payne Road Scarborough Court
Scarborough, Maine 04074-8929
Tel. 207.883.3355
www.stantec.com

Copyright Reserved

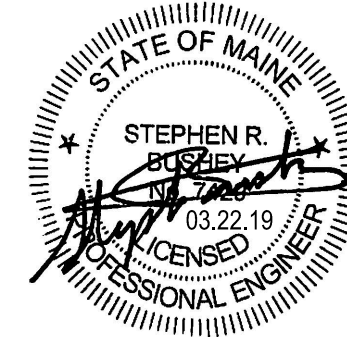
The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay.
The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

City Approval

17.03.22	SRB	CDD	By	YJAW/DD
17.02.26	WWW	CDD		
18.12.14	DSB	CDD		
	Appr.			

File Name: 1006_congress_det	CDD	SRB	SRB	18.11.27
	DWN.	CHKD.	DSGN.	DATE

Permit-Seal



Client/Project

PK Realty Management Investments
380 Riverside Street, Portland, Maine

1006 Congress Street
Mixed-Use Redevelopment
PORTLAND, MAINE

Title

DETAILS

Project No.
210801661

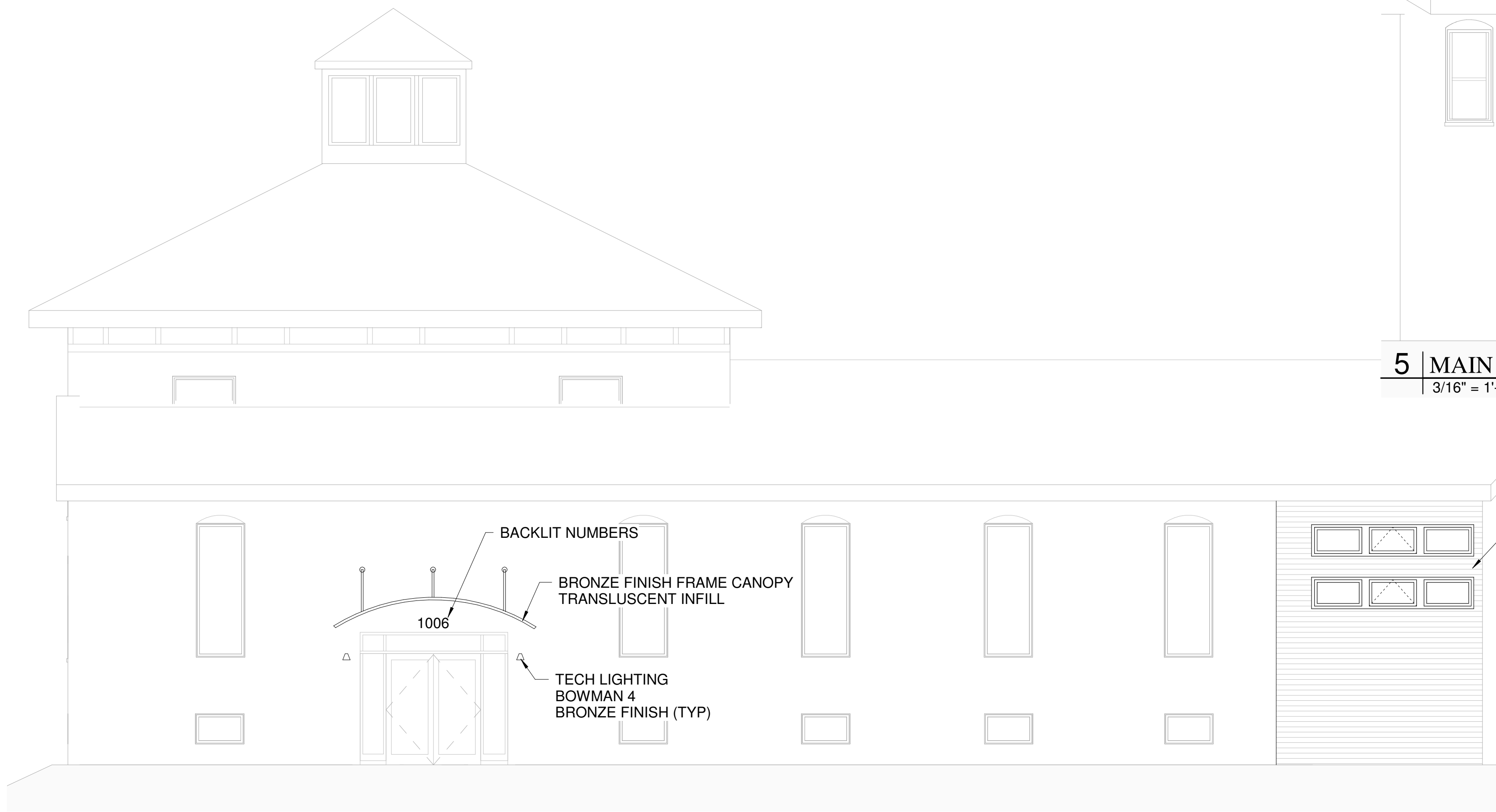
Scale
N.T.S.

Sheet

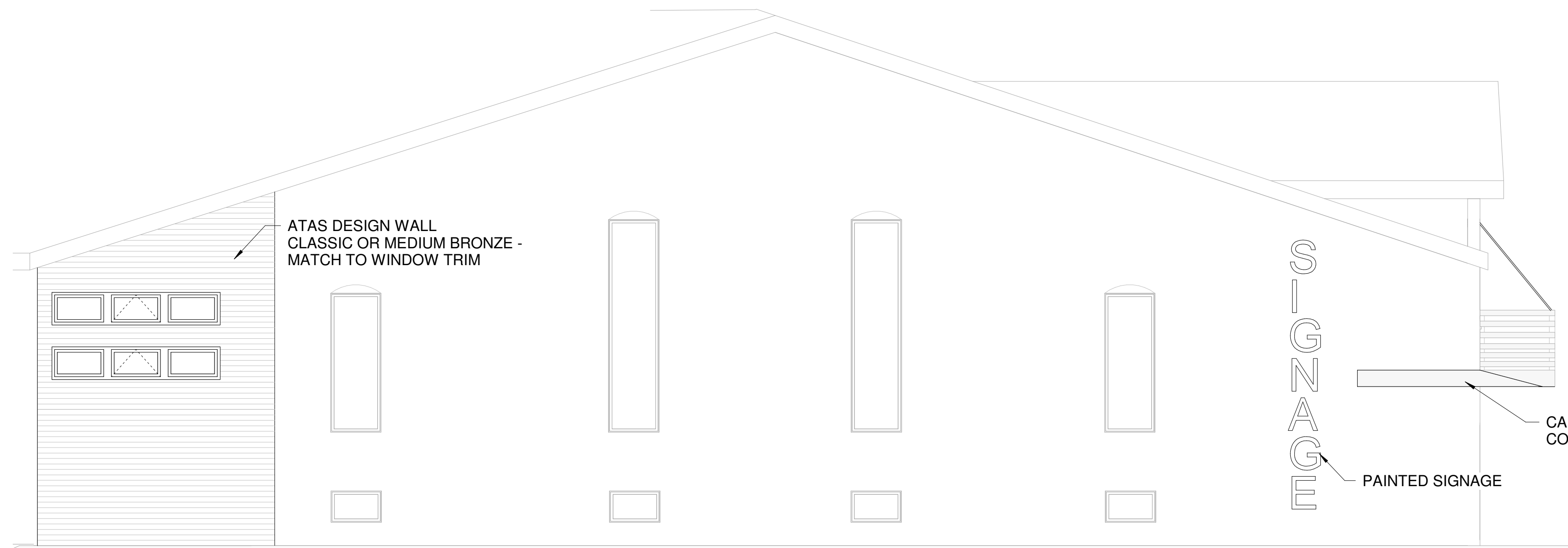


- | Calculation Summary | | | | | |
|---------------------|------|-----|-----|---------|---------|
| Label | Avg | Max | Min | Avg/Min | Max/Min |
| site | 0.40 | 4.6 | 0.0 | N.A. | N.A. |

Luminaire Schedule (note fixture catalogue numbers are not complete)					
Type	Qty	Lum. Lumens	LLF	Lum. Watts	Description
WT	12	954	0.900	20.2131	BWM-LED-L17-SD12
PT	6	1913	0.900	22.2959	BPM-SD15-LED-x45-A



3 | CONGRESS STREET ELEVATION
3/16" = 1'-0"



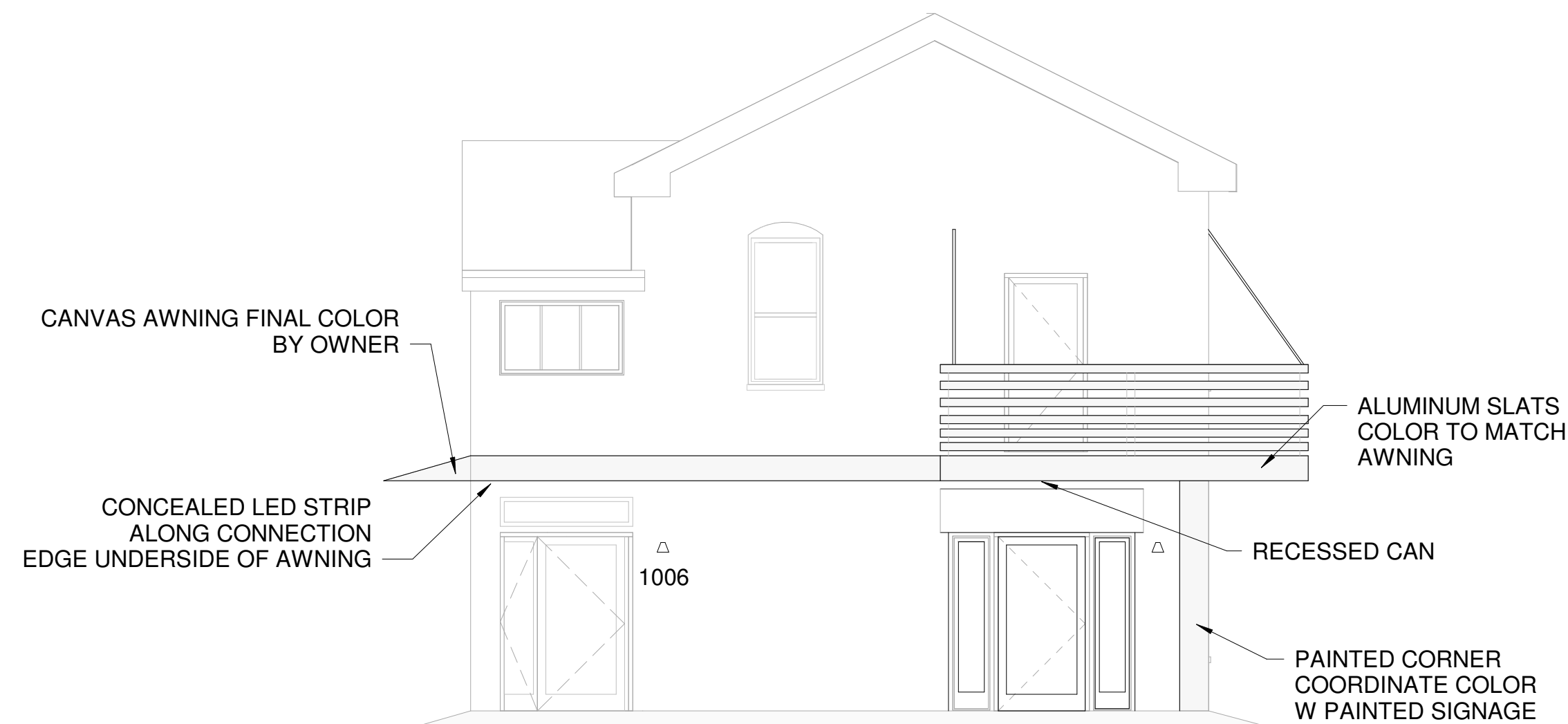
4 | WESTFIELD ELEVATION
3/16" = 1'-0"



5 | MAIN HOUSE SOUTH
3/16" = 1'-0"



1 | CARRIAGE HOUSE EAST
3/16" = 1'-0"



2 | CARRIAGE HOUSE SOUTH
3/16" = 1'-0"

Prepared For:
1006 Congress
LLC

Address
City, State

Consultant:

Architect:
ARCHETYPE
architects
48 Union Wharf Portland, Maine 04101
(207) 772-6022 ARCHETYPE@ARCHETYPEDA.COM

Project:
1006 CONGRESS
STREET

Revisions:

Scale:
3/16" = 1'-0"

Date:
3-26-2019

BUILDING
ELEVATIONS

A2.01



S
I
G
N
A
G
E

FITZGERALD
ale

PLANNING BOARD REPORT PORTLAND, MAINE



121 Cassidy Point Drive
Level II Site Plan, Conditional Use
PL-000439-2018
Project Management, INC, Applicant

Submitted to: Portland Planning Board
Public Hearing Date: April 9, 2019

Prepared by: Matthew Grooms
Date: April 5, 2019

I. INTRODUCTION

Project Management, INC has submitted a Level II Site Plan and Conditional Use application for a new low-impact industrial building at 121 Cassidy Point Drive for use by small-scale light industrial operations geared towards craft persons, marine businesses and small trades. In July of 2018, an Administrative Authorization and Conditional Use application were approved by the Planning Board for reuse of the existing buildings on-site (previously occupied by Coach Works) for use by these tenants, with the understanding that a second phase would be forthcoming, that would involve demolition of the existing wood-structure building and construction of a new building.



Figure 1: Site of proposed development

This property is located within the Waterfront Port Development Zone (WPDZ) and is subject to the zone specific and general conditional use standards as a result of the proposed uses, which are identified as conditional uses within the WPDZ. Zone specific standards are intended to ensure adequate waterfront access to water-dependent and marine-related users while the general standards facilitate site compatibility between conditional uses and uses permitted by right. Conditional use applications, when submitted in conjunction with a site plan or administrative authorization, are required to go before the Planning Board for review and approval.

A Planning Board workshop was held on March 26, 2019, where discussion centered largely on site's non-conforming features, including the number of driveways, driveway width, and placement of sidewalk.

A total of thirty-seven (37) notices were sent to property owners within 500 feet of the site and interested party list. A legal ad ran on the March 29th and 30th, 2019 editions of the Portland Press Herald. As of the writing of this report, no public comments have been received by the Planning Office.

Applicant: Cyrus Hagge, Project Management, INC

Consultants: Will Savage, P.E., Acorn Engineering, Faith Thomas, Acorn Engineering, Tracie Reed, Dextrous Creative, LLC, Samuel Glidden, Owen Haskell, INC.

II. REQUIRED REVIEWS

Waiver Requests	Applicable Standards
Driveway Design (Width)– 60’ feet x 2 <u>Staff Comment:</u> Staff support some deviation from the City’s Technical standards based upon maneuvering requirements of vehicles with trailers, however staff do not recommend approval of the current configuration. Driveway widths should be reduced to the extent possible using mountable or sloped granite curb, justifying widths with turning templates.	Technical Manual Section 1.7.2.4 – Requires that industrial two-way driveways be no greater than 30’ feet in width.
Driveway Spacing: Less than 100 feet <u>Staff Comment:</u> Given the existing local conditions, driveway separation of 100’ feet or more is not possible between this site and the Asia West Warehouse site, and for this reason, staff are supportive of this waiver request.	Technical Manual Section 1.7.2.7 – Requires that minimum separation for driveways on streets with 25 mph speed limit be 100 feet.
Number of Driveways – 4 <u>Staff Comment:</u> Staff are supportive of the number of driveways based upon the contiguous site area that cannot reasonably be combined and accessed via fewer driveways as a result of unique site geometry.	Technical Manual Section 1.7.2.8 – Requires that sites contain no more than two (2) curb cuts.
Sidewalk Waiver and Curbing – Southerly Frontage <u>Staff Comment:</u> Staff are supportive of a sidewalk along only the northerly frontage given that sidewalks are not found elsewhere along the southerly portion of Cassidy Point Drive, and that existing sidewalks already connect the site with W. Commercial Street along the northerly portion of Cassidy Point Drive. This sidewalk is being improved as part of this project. Staff support the sidewalk waiver based upon waiver criteria 1 and 2 under 14-507(b) and the curbing waiver based upon waiver criteria 1, 2 and 3.	Site Plan Standard Section 14-526(a)(2)(c) – Requires that sidewalks be constructed along portions of a property’s frontage.
Review	Applicable Standards
Site Plan	Section 14-526

Conditional Use	Section 14-474, Section 14-320
-----------------	--------------------------------

III. PROJECT DATA

Existing Zoning	Waterfront Port Development Zone (WPDZ)
Existing Use	Previously occupied by Coach Works Automotive
Proposed Use	Warehouse/Light Industrial
Parcel Size	.575 Acres

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	6,918 SF	10,249 SF	3,331 SF
Building Floor Area	8,798 SF	17,736 SF	8,938 SF
Impervious Surface Area	20,885 SF	20,203 SF	-682 SF
Parking Spaces	13	12	-1
Bicycle Parking Spaces	0	4	4
Estimated Cost of Project	Not listed		

IV. PROPOSED PROJECT DESCRIPTION

The former CoachWorks site consists of two separate structures, including a 5,237 square foot metal building constructed in 1924 that features 6 large overhead doors and a smaller 1,666 square foot two-story wooden structure constructed in 1910. Aside from building area, the site is largely impervious, consisting of paved areas, gravel and broken-up concrete with very limited vegetation. Between lower portions of the site (along the southerly portion of Cassidy Point Drive) and the upper portions of the site (along the northerly portion of Cassidy Point Drive) there is a significant grade differential of approximately ten (10) feet, or one story.

Under this proposal, the applicant would demolish the existing wood-framed structure, and construct a new 17,500 square foot, four-story light-industrial building with overhead doors (intended to facilitate moving of sculptures, equipment and sheet goods) accessible from both frontages along Cassidy Point Drive (both first and second floor). The existing wood-framed building extends across the applicant's property line into the city right-of-way, and because of this, the footprint of the new building has been pulled closer to the northerly Cassidy Point frontage so as to meet zoning requirements.



Figure 2: Site at present with wood frame building at right and metal building at left

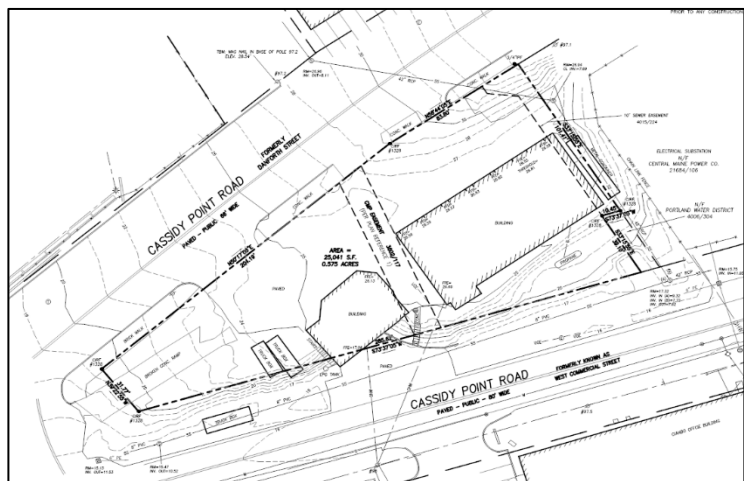


Figure 3: Existing Conditions Survey

Other site improvements include new gas, water and overhead electrical service connections, roof mounted solar panel installations, closure of a single curb-cut along the northerly Cassidy Point Drive frontage for a total of four (4) curb cuts, construction and repair of sidewalks along the northerly Cassidy Point Drive frontage, the repaving of surface parking areas and planting of minimal landscaping at the western edge of the site and along the southerly Cassidy Point Drive frontage.

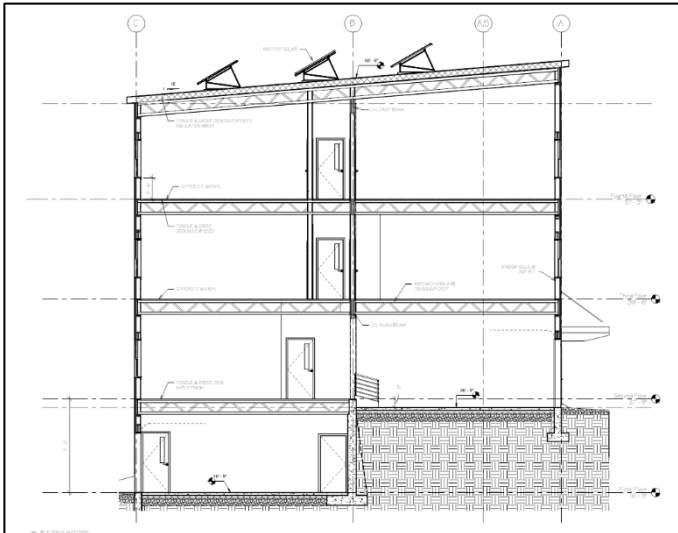


Figure 4: Section View of Proposed Building

According to the applicant, the goal of this project is to provide small 1,000 to 2,500 square foot spaces for users engaged in small trade, craft and marine businesses. The primary tenant will be SailMaine, who is seeking to relocate to this site, and they are requesting conditional use approval for marine repair services, yacht brokerage, boat storage and the storage and repair of fishing equipment. Other potential users encompass welding and metal working/fabrication, carpentry/cabinet shops and craft production and print making.

V. COMPLIANCE OF DRIVEWAYS AND SIDEWALKS WITH CITY STANDARDS

The Planning Board, with recommendation from staff, approved the administrative authorization and conditional use application for Phase I of this proposed

development (change of use within the existing buildings) at 121 Cassidy Point in July of 2018, with the understanding that the site in its current condition does not meet City Technical standards for driveway width, number of curb cuts and sidewalks. Approval of that application was based upon the limited scope of work, which did not trigger a Level II or Level III site plan application, that would have required more substantial changes to the site layout to better conform with City standards.

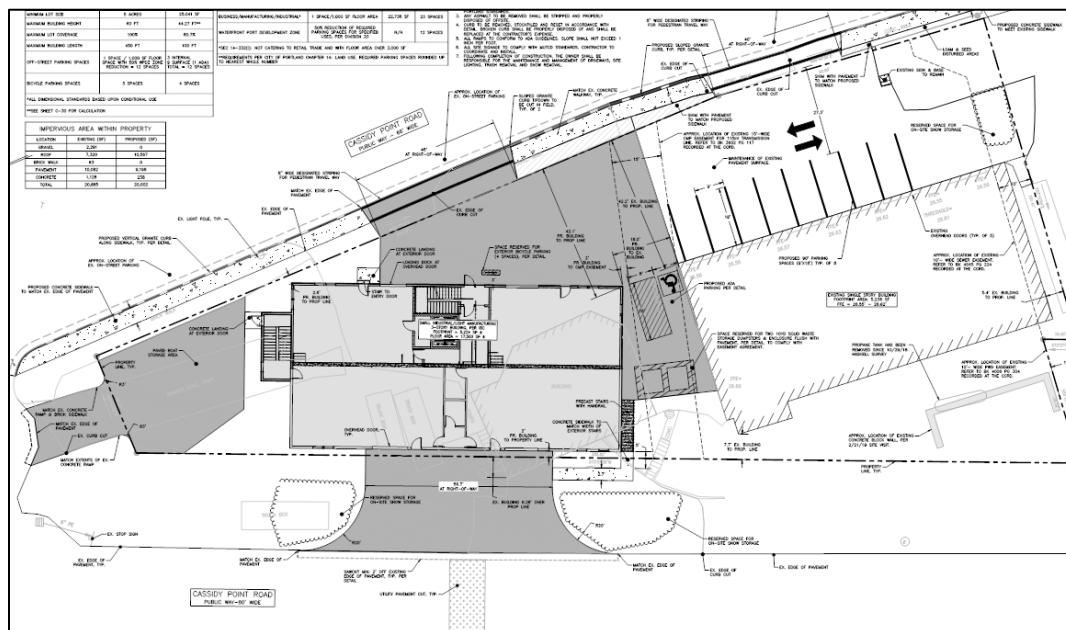


Figure 5: Proposed Site Plan

The proposed building triggers a Level II Site Plan application, as it is a new industrial building of less than 20,000 square feet. The initial application, featured five curb cuts with driveway width of up to one-hundred (100) feet and removal of existing sidewalks. In preliminary comments, staff stated that they were not supportive of this design, and strongly encouraged the applicant to revise their site design so as to meet City standards. Based upon those preliminary comments, the applicant partially reconfigured their site by closing one curb cut, narrowing others and proposing a new concrete sidewalk along the northerly Cassidy Point Drive frontage. This is the version of the plan being considered by the Planning Board at the March 26th workshop. While this version reduces the level of non-conformity, staff are continuing to encourage the applicant to explore alternative more compliant design concepts.

A. On-Site Meeting with Applicant (March 19th)

On March 19th, city staff, including Barbara Barhydt, Development Review Services Manager, Tom Errico, Traffic Engineer with T.Y. Lin, Bruce Hyman, Transportation Program Manager, Michael Tremblay, Senior Engineer with DPW and Matthew Grooms, Planner, met with the project engineer and architect on-site to discuss opportunities for improving site compliance, better understand the site's unique geometry and also the needs of existing and proposed tenants.

The project engineer explained that the site is to be utilized by a variety of delivery trucks, including trucks with trailered sailing vessels that require ample space to maneuver. The parking area as shown does not provide the requisite maneuvering space and so multiple driveways are therefore required (turning templates have been provided as part of this application). Also, due to setback requirements and the size of the proposed building, it is impossible to provide internal connection between the general parking area and boat storage area, located at the western edge of the property, and so a separate driveway is required for access to that portion of the site. In looking at the lower portion of the site, it was explained that the width of the driveway was directly related to the location of the loading bays, which according to the engineer and architect, could not be brought closer together due to the fact that they serve separate tenant spaces.

At this meeting, staff recommended that driveways be narrowed to the extent possible. One suggestion was to narrow the curb cuts to meet city standards and use mountable curbs on either side of those curb cuts to allow for maneuvering by vehicles that require additional driveway width. This suggestion was carried further to use mountable curbing across the entire existing curb cut at the western edge of the site (which provides access to the boat staging area) given its infrequent usage. The driveway off of the southerly Cassidy Point Drive frontage could be further narrowed if loading bays along that façade were brought closer together.

Other suggestions included further protection of landscaped areas, bolstering of erosion control measures on significant slopes, and submission of a waiver request for sidewalk and curbing along the southerly Cassidy Point Drive frontage.

B. Planning Board Workshop – March 26, 2019

The Planning Board held a workshop on March 26, 2019 to discuss this proposal, at which time staff stated that they were not supportive of the waiver requests for number of driveways and driveway width, stating that mountable curb could be utilized to reduce the level of non-conformity. The applicant articulated a need for the number of driveways based upon the unique site geometry and the turning radii of trucks with attached boat trailer and additionally, the inability of boat trailers to traverse even mountable curb. Members of the Board suggested that sloped granite curb could be utilized instead, but that they were generally supportive of the waiver requests based upon the maneuvering needs of vehicles to be using the site.

VI. ZONING ANALYSIS

The proposed project is a four-story light industrial building with surface parking for nine (9) vehicles and internal parking for three (3) vehicles for a total proposed parking count of twelve (12) spaces. Proposed uses are as follows, which include both permitted and conditional uses within the Waterfront Port Development Zone (WPDZ):

Marine	Industrial
• Marine Repair and machine shops • Marine retail and wholesale sales • Boat storage facilities • Fabrication, storage and repair of fishing equipment	• Low impact industrial uses • Light manufacturing • Manufacture of products • Welding and metal fabrication • Storage of materials incidental to proposed uses

Dimensional standards for the WPDZ are limited and are intended to provide flexibility to property owners, particularly for storage of equipment and vehicle maneuvering, while maintaining visual access to the water. The project meets all applicable dimensional standards, which are as follows:

	Required	Proposed
Lot Size	< 5 acres, limited to 1 building greater than the maximum applicable height allowed under the permitted use dimensional standards.	25,041 square feet, with building shorter than maximum allowable height.
Maximum Lot Coverage	100%	80.7%
Maximum Height	60' feet	44.27' feet
Off-Street Parking Spaces	12 (note 50% reduction under Div. 20 for properties in WPDZ)	12 spaces (9 surface, 3 interior)

A. ZONE SPECIFIC CONDITIONAL USE STANDARDS – SEC. 14-320(a)

The project site is located in the Waterfront Port Development Zone (WPDZ) and does not feature direct water access. Uses identified as conditional uses within this zone are subject to five additional standards that are intended to ensure water access to water-dependent and marine-related users. Those standards are as follows:

In addition to the provisions of section 14-474 (c)(2) such uses will:

1. Not impede or preclude existing or potential water-dependent development on other lots;
 - a. Applicant Response: The parcel located at 121 Cassidy Point Drive is not a waterfront lot and is separated from the nearest waterfront lot by Cassidy Point Drive, a major intermodal transportation route. Due to site location, the proposed uses will not impede or preclude existing or potential water-dependent development on other lots.
 - b. Staff Comment: The development site, 121 Cassidy Point Drive is unique in the context of the WPDZ as it has no direct water access and existing rights-of-way provide ample access for other users. All non-marine uses being proposed are to be housed entirely within the existing structures and will in no way impede water-dependent development on other lots. Marine-related activities associated with SailMaine will occur outside of the two structures.

2. Allow for adequate access to the water;
 - a. Applicant Response: The parcel located at 121 Cassidy Point Drive is not a waterfront lot and is separated from the nearest waterfront lot by Cassidy Point Drive, a major intermodal transportation route. Due to the site location, the proposed conditional uses will allow for adequate access to the water.
 - b. Staff Comment: See previous staff comment.
3. Be compatible with water dependent and marine uses;
 - a. Applicant Response: The parcel located at 121 Cassidy Point Drive is not a waterfront lot and is separated from the nearest waterfront lot by Cassidy Point Drive, a major intermodal transportation route. Due to the site location, the proposed conditional uses are compatible with water-dependent and marine uses.
 - b. Staff Comment: The primary tenant for this facility is a marine-related enterprise that will benefit from its location within the WPDZ. Other uses being proposed do not preclude marine-related and water-dependent development and are uses typical of an industrial port zone.
4. Operationally support one or more water dependent use(s), or be located in a building or structure that is physically adaptable or relocatable to make way for future development of water-dependent uses; and
 - a. Applicant Response: The parcel located at 121 Cassidy Point Drive is not a waterfront lot and is separated from the nearest waterfront lot by Cassidy Point Drive, a major intermodal transportation route.
 - b. Staff Comment: As stated in the previous staff comment, SailMaine is a marine-related use that will benefit from its location and benefit other marine-related and water-dependent users. Proposed activities include marine repair, yacht brokerage, boat storage and the storage and repair of fishing equipment.
5. Meet any additional performance and dimensional standards
 - a. **Outdoor Storage**
Applicant Response: All storage of materials shall be indoors or in sealed storage containers with no offsite runoff
 - b. **Noise**
Applicant Response: All onsite conditional uses shall be indoor and will not exceed the maximum 55 decibel maximum level.
 - c. **Vibration**
Applicant Response: All on site vibration shall be imperceptible without instruments at lot boundaries.
 - d. **State and Federal Environmental Regulations**
Applicant Response: The proposed changes of use will comply with all federal and state environmental statutes and regulations.

e. **Discharge into Harbor areas**

Applicant Response: The proposed conditional uses will not discharge into the harbor water areas.

f. **Storage of Vehicles**

Applicant Response: The proposed conditional uses will not store any unregistered automotive vehicles on the premises for more than sixty (60) days.

g. **Landfill of Docking & Berthing Areas**

Applicant Response: N/A, due to the parcel's lack of waterfront access.

h. **Off-Street Parking**

Applicant Response: Off-Street parking is provided in accordance with Division 20 (off-street parking), as shown in the Transportation Analysis.

i. **Off-Street Loading**

Applicant Response: Any loading is accommodated by the loading dock located along the north-facing portion of Cassidy Point Drive.

j. **Shoreland and Flood Plain Regulations**

Applicant Response: This property does not have waterfront access and is not located in the flood plain.

k. **Lighting**

Applicant Response: Exterior lighting will be shielded such that direct light sources shall not unreasonably interfere with vessels transiting the harbor nor have an unreasonable adverse impact on adjacent residential zones.

l. **Signage**

Applicant Response: Existing signs to remain untouched.

m. **Storage of Pollutants**

Applicant Response: There will not be storage of pollutants or oily wastes on site.

n. **Compatibility with Marine Uses**

Applicant Response: The proposed conditional uses are compatible with nearby marine uses.

o. **Design and Visual Character**

Applicant Response: See Architectural Design Narrative and Compiled Civil Plan Set.

The staff finds the proposal to be compliant with all applicable zone-specific conditional use standards.

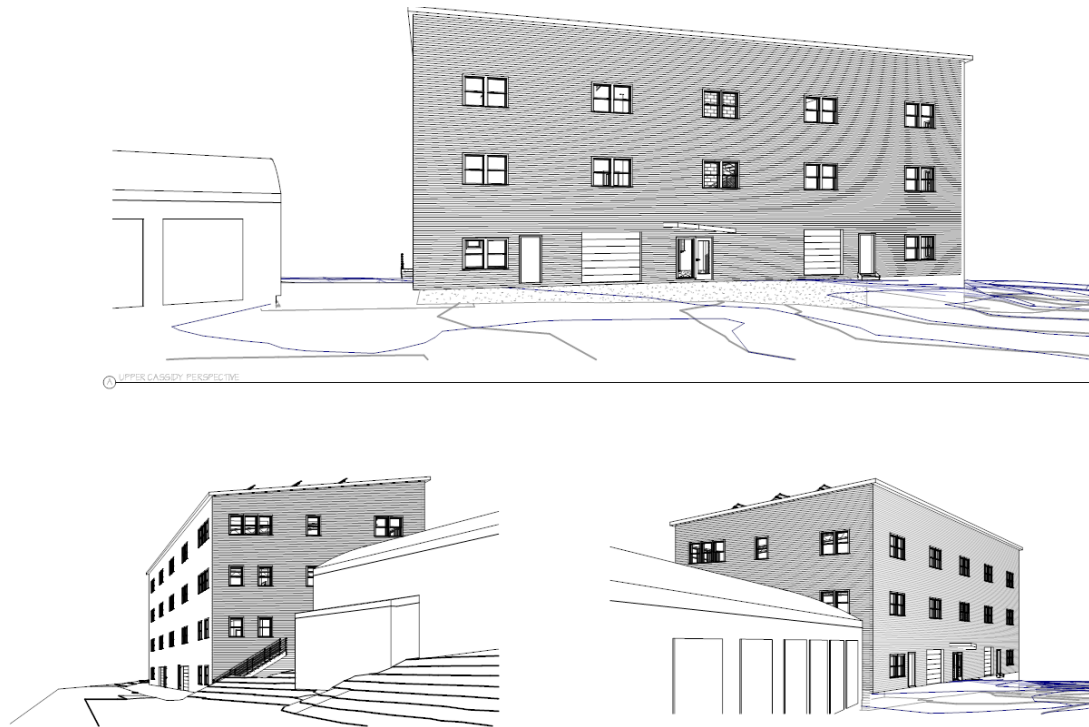


Figure 6: Perspectives images of proposed building

B. GENERAL CONDITIONAL USE STANDARDS – SEC. 14-474

All conditional uses are subject to the general conditional use standards as listed under Section 14-474, which are intended to ensure compatibility and integration of a conditional use with other surrounding uses permitted by right. This is achieved through three separate standards related to traffic/parking impacts, unsanitary or harmful conditions and site design. The specific standards are as follows:

1. The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone;
 - a. Applicant Response: The site is located at 121 Cassidy Point Drive, which is a major intermodal transportation center with direct access to Route 1 and I-295. The proposed use will reduce the amount of traffic in this area, transitioning from an auto and truck repair business (Coachworks) with an estimated 250 weekday trips to approximately 60. The house of operation, pavement and number of parking spaces will not interfere with the neighboring marine and trucking uses.

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

- b. Staff Comment (Tom Errico, Traffic Engineer with T.Y. Lin): I have reviewed the project as it relates to the Conditional Use Standards and Conditions. Specifically, “The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number

of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone.” As it relates to this specific standard, I find that the projects comply and will not substantially increase traffic and parking conditions.

2. The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter; and
 - a. Applicant Response: All of the proposed uses are internal to the buildings, except for the outdoor storage of boats. There are no proposed changes to the site that would create noise, glare, dust, odors or lighting. All trash will be disposed of using dumpsters.
 - b. Staff Comment: The staff agrees that the proposed uses will not have an adverse impact as it relates to noise, glare, dust, sewage disposal, emissions to the air, odor, lighting or litter.
3. The design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect/impact on surrounding properties than those associated with surrounding uses or other allowable uses in the zone.
 - a. Applicant Approach: Generally, design of site is consistent with nearby existing and permitted uses, with several notable site improvements, including repair and extension of the existing sidewalk, planting of additional vegetation and clear delineation of parking and maneuvering areas.
 - b. Staff Comment: We continue to work with the applicant to develop an acceptable site configuration that more closely approximates city standards for the number of curb cuts, driveway width and placement of sidewalks. The site geometry is unique which makes full compliance with city standards difficult.

Staff would stress that if possible:

- Driveways should be narrowed to the extent practicable. Mountable curbing may be used to facilitate this outcome.

The staff finds the proposal to be generally compliant with the city’s general standards for conditional uses.

VII. DEVELOPMENT REVIEW

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

1. Transportation Standards
 - a. Impact on Surrounding Street Systems and Access and Circulation- The proposed development will have minimal traffic impacts. Staff continue to maintain that the applicant should revise driveway designs to be narrower to the extent possible given their relatively infrequent usage by larger vehicles with trailers.

Mike Tremblay, P.E. and Senior Engineer with DPW, has reviewed the plans and offers the following comments (Attachment 2):

- DPW understands that larger vehicles, and vehicles with boat trailers will be using these driveways. Driveway design is not simply about aesthetics; it dictates how fast vehicles can turn into and out of sites. Designing driveways to accommodate an occasional large vehicle can encourage smaller vehicles to make turning maneuvers at high speed, endangering other road users, including pedestrians. The project site will likely generate increased pedestrian traffic in the area. And while the applicant is correctly measuring driveway width at the property line, one of these driveways flares out about 100 feet at the edge of the roadway. As such, DPW agrees that some variation from the City's Technical Standards will likely need to be made to accommodate the site's driveway widths; however, the Applicant's proposed plans do not provide any compromise that will help the project site meet the spirit of the technical standards, such as the previously mentioned mountable curbs. DPW maintains that measures to reduce driveway widths, including mountable or sloped curbing, should be required.

b. Sidewalks

The applicant is proposing to close one existing curb cut, and narrow other existing curb cuts along the northerly Cassidy Point Drive frontage, to reduce crossing distances for pedestrians. The existing sidewalk is in disrepair, and will be replaced with a new concrete sidewalk with granite curbing, as the property is located within a concrete district. Staff are asking that a waiver request be submitted for curbing along the southerly Cassidy Point Drive property frontage. A sidewalk waiver has been submitted for the property's southerly frontage, that is supported by staff given the existence of a sidewalk along the northerly frontage that is better connected with Commercial Street. A separate waiver for curbing along lower Cassidy Point Drive has also been submitted, which is also supported by staff.

Mike Tremblay, Senior Engineer with DPW has reviewed the applicant's submittal and offers the following comments (Attachment 2):

- Sloped granite curbs, as shown between the two driveways along the northern portion of Cassidy Point Drive, are not typically acceptable. The Applicant should provide turning templates showing that this sloped curbing is necessary, and to what extent. If this curbing is not proposed to provide vehicle turning movements, justification shall be provided, or plans shall be altered to show vertical granite curbing.
- Crosswalk markings across site driveways shall be 8 feet wide, marked with 2-foot longitudinal white lines placed 4 feet on center.
- The request for a curb waiver is acceptable as long as the applicant provides the requested detail regarding site drainage.

c. Public Transit Access

The public transit requirements do not apply to this project.

d. Parking

Twelve (12) parking spaces are being proposed, including nine (9) exterior spaces and three (3) internal spaces. The proposed parking meets city zoning requirements for off-street parking.

e. Bicycle Parking

The proposal includes exterior bicycle parking with space for four (4) bicycles which meets the site plan standard requiring a minimum of two bicycle parking spaces for every ten (10) vehicle parking spaces.

2. Environmental Quality Standards

a. Preservation of Significant Natural Features

There are no known significant natural features on the site.

b. Landscaping and Landscape Preservation

A landscaping plan was submitted as part of the application. The plan shows multiple street trees (Armstrong Red Maple, Eastern Red Cedar and Regal Prince Oak) along with a variety of shrubs and perennial ground cover along the southerly Cassidy Point Drive frontage and at the western edge of the property. These planting types are revised to reflect feedback from the City Arborist, Jeff Tarling, who had requested that larger tree species, more viable in this location be selected.

c. Water Quality, Storm Water Management and Erosion Control

Once developed, on-site impervious surface will be reduced by approximately 800 square feet, and is therefore not required to meet Maine DEP Chapter 500 flooding and or stormwater quality control standards. The applicant has provided erosion and sedimentation control details and a written plan in accordance with the Basic Standard. While no treatment systems are provided, the applicant has stated that proposed vegetation will provide additional treatment beyond what currently is provided. Similarly, stormwater will be managed via a new catch basin, storm drains and building foundation drains.

Lauren Swett has reviewed the applicants plans and project details, and offers the following comments (Attachment 1):

- Additional clarification is required on grading to the south of the building. Previous grading plans identified a catch basin, where it is now called out as a manhole (although the symbol hasn't changed). They need to ensure that the stormwater flow from their proposed steep slope will not cause any issues in that area, and show where drainage is now to be directed.

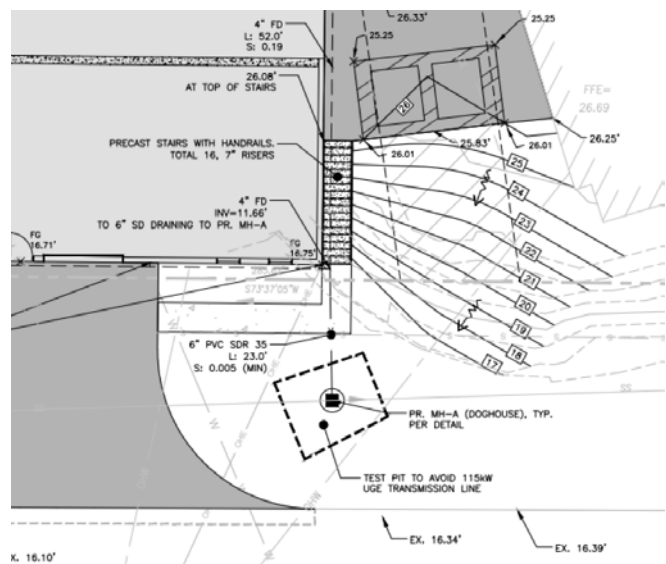


Figure 5: Plan references manhole though prior plans show as catch basin.

3. Public Infrastructure and Community Safety Standards

a. Public Safety and Fire Prevention

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

- The Fire Dept. has no access or water supply concerns with this proposed project.
- The number of boats on site, and the purpose of the boats, repair or storage, should be provided.

b. Availability and Adequate Capacity of Public Utilities

The project will be served by Central Maine Power, the Portland Water District, City Department of Public Works. Evidence of utility capacity has been provided for all but wastewater capacity, which is currently being reviewed.

4. Site Design Standards

a. Snow and Ice Loading

Based upon the roof design, it is not anticipated that snow or ice loading will be a concern to pedestrians within the public right-of-way or on the applicant's property.

b. View Corridors

This site is not within a Protected View Corridor as per the “View Corridor Protection Plan” approved by the Portland City Council in 2001. Further, the site is located outside of the zone for which view corridors are required per the WPDZ ordinance.

c. Historic Resources

The site is not located within a historic district or within 100 feet of a historic district, landmark or landscape and as a result, this project is not required to be reviewed by Historic Preservation.

d. Exterior Lighting

The applicant has submitted a lighting and photometric plan. The plan shows seven (7) exterior, building-mounted wall packs near the entrance, pedestrian walkway and loading areas, including three fixtures proposed on the existing building. All exterior site lighting including lighting of building entrances will be full cutoff with no light emitted above the horizontal plane and light trespass falls within the allowable limits as stipulated under Section 12 of the Technical Manual.

e. Noise and Vibration

No HVAC systems are currently being proposed, and industrial activities are all housed within the proposed building and are not anticipated to result in impacts related to noise or vibration.

f. Signage and Wayfinding

The applicant has indicated that all street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.

VIII. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommend that the Planning Board approve the proposed three-story light industrial building and associated site improvements and parking.

IX. PROPOSED MOTIONS FOR THE 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 April 9, 2019 for application # PL-000439-2018 (121 Cassidy Point Drive) relevant to the Site Plan Standards of the Land Use Code and Portland's Technical and Design Standards, and other regulations, and the testimony presented at the Planning Board hearing:

1. Driveway Aisle Width

The Planning Board [**finds / does not find**] based upon the [**Traffic Engineer's Review/Planning Board Finding**], that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual standard (Section 1.7) which requires that, for industrial development, two-way driveway width be a maximum of thirty (30) feet in width, that substantial justice and the public interest are secured with the proposed variation in this standard, and that variation is consistent with the intent of the ordinance. The Planning Board [**waives/ does not waive**] the Technical Manual standard Section 1.7 to allow a driveway width of up to sixty (60) feet, as shown on the site plan dated April 1, 2019.

2. Driveway Spacing

The Planning Board [**finds / does not find**] based upon the DPW Engineer's Review, that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual standard (Section 1.7.2.7) which requires that a minimum driveway separation of 100 feet on streets within 25 mph zone, that substantial justice and the public interest are secured with the proposed variation in this standard, and that variation is consistent with the intent of the ordinance. The Planning Board [**waives/ does not waive**] the Technical Manual standard Section 1.7.2.7 to allow driveway separation of less than

100 feet based upon existing non-conforming driveway locations on adjacent sites.

3. Number of Driveways

The Planning Board [**finds / does not find**] based upon the DPW Engineer's Review, that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual standard (Section 1.7.2.7) which permits no more than two (2) driveways for industrial sites with ten (10) or more parking spaces, that substantial justice and the public interest are secured with the proposed variation in this standard, and that variation is consistent with the intent of the ordinance. The Planning Board [**waives/ does not waive**] the Technical Manual standard Section 1.7.2.7 to allow a total of four (4) driveways as all driveways serve separate contiguous areas that cannot be reasonably combined.

4. Sidewalks

The Planning Board [**finds / does not find**] based upon the DPW Engineer's Review and waiver criteria 1 and 2 under Sec. 14-506(b), that extraordinary conditions exist or undue hardship may result from strict compliance with the Site Plan standard Sec. 14-526(a)(2)(c)(i), which requires that a sidewalk be constructed along all property street frontages, that substantial justice and the public interest are secured with the proposed variation in this standard, and that variation is consistent with the intent of the ordinance. The Planning Board [**waives/ does not waive**] the Site Plan standard Sec. 14-526(a)(2)(c)(i) to approve the design as shown on the site plan dated April 1, 2019 with sidewalk only along the upper portion of Cassidy Point Drive.

5. Curbing

The Planning Board [**finds / does not find**] based upon the DPW Engineer's Review and waiver criteria 1, 2 and 3 under Sec. 14-506(b), that extraordinary conditions exist or undue hardship may result from strict compliance with the Site Plan standard Sec. 14-498(b)(8)(b), which requires that curbs be constructed on each side of a street, that substantial justice and the public interest are secured with the proposed variation in this standard, and that variation is consistent with the intent of the ordinance. The Planning Board [**waives/ does not waive**] the curbing standard Sec. 14-498(b)(8)(b) to approve the design as shown on the site plan dated April 1, 2019 with an absence of curbing along lower Cassidy Point Drive.

B. 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 April 9, 2019 for application # PL-000439-2018 (121 Cassidy Point Drive) relevant to the conditional use standards listed under Sec. 14-320 and Sec. 14-474, and the testimony presented at the Planning Board hearing, the Planning Board [**finds/does not find**] that the plan is in conformance with the conditional use standards of the land use code.

C. 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 April 9, 2019 for application # PL-000439-2018 (121 Cassidy Point Drive) relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board [**finds/does not find**] that the plan is in conformance with the site plan standards of the land use code, subject to the following conditions of approval that shall be met prior to applying for a building permit:

1. The applicant shall submit an updated turning template demonstrating the exact needs of vehicles towing trailered vessels for review by the City's traffic engineer. Based upon their findings, the site plan shall be revised as necessary to reduce driveway widths and the amount of sloped granite curb being proposed.
2. Per the Fire Department's review, information shall be provided on the number of vessels and placement of those vessels on site.
3. Additional clarification is required on grading to the south of the building. Previous grading plans identified a catch basin, where it is now called out as a manhole. Information shall be provided on where stormwater flow is being directed, and that the condition shown will not result in flooding or further erosion.
4. Once complete, the applicant shall maintain painted pedestrian crosswalk markings across driveway entrances. A note to this effect shall be added to the site plan.

X. ATTACHMENTS

STAFF REVIEW

1. Final Civil Engineering and Stormwater Comments
2. Final DPW Comments

APPLICANT'S SUBMITTAL

- A. Cover Letter
- B. Level II Final Site Plan Application & Checklist
- C. Right, Title and Interest
- D. Zoning Assessment
- E. Written Easements
- F. Requests for Waivers
- G. Financial Capacity
- H. Technical Capacity
- I. Conformity with Land Use Ordinance
- J. Stormwater Management Report
- K. Erosion and Sedimentation Control Report
- L. Fire Department Letter
- M. Wastewater Capacity
- N. Lighting
- O. Architectural Design Narrative
- P. Utilities
- Q. Construction Management Report
- R. Transportation Analysis
- S. Solid Waste Disposal
- T. Solar Power Letter
- U. Acorn Response Letter
- V. Acorn Response Letter II

PLANS

- | | |
|---------|---|
| Plan 1 | Cover Sheet |
| Plan 2 | General Notes |
| Plan 3 | Existing Conditions Plan |
| Plan 4 | Construction Management Plan |
| Plan 5 | Site Plan |
| Plan 6 | Landscape Plan |
| Plan 7 | Utility Plan |
| Plan 8 | Grading Plan |
| Plan 9 | Site Details |
| Plan 10 | Utility Details |
| Plan 11 | Erosion & Sedimentation Control Details |
| Plan 12 | First Floor Plan |
| Plan 13 | Second Floor Plan |
| Plan 14 | Third Floor Plan |
| Plan 15 | Fourth Floor Plan |

Plan 16	South Elevation
Plan 17	West Elevation
Plan 18	North Elevation
Plan 19	East Elevation
Plan 20	Section & Details
Plan 21	Perspectives
Plan 22	Photometric Plan

121 Cassidy Point

Lauren Swett <lswett@woodardcurran.com>

Wed, Apr 3, 2019 at 9:36 AM

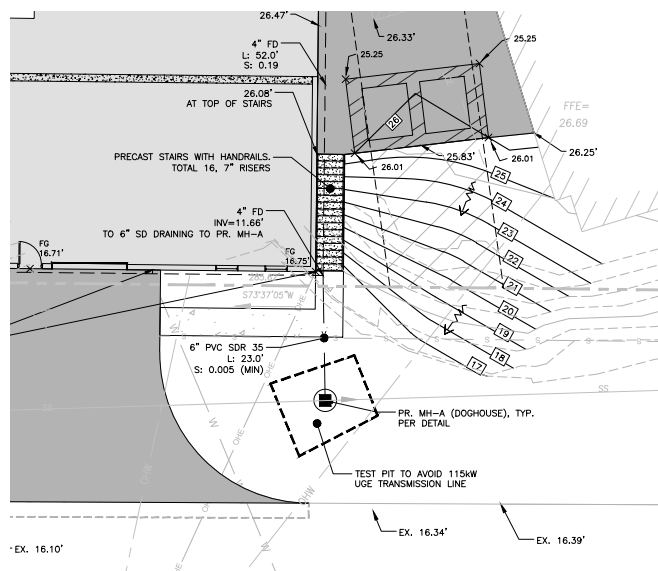
To: Matthew Grooms <mgrooms@portlandmaine.gov>

Cc: Bradley Roland <brad@portlandmaine.gov>, Mike Tremblay <mtremblay@portlandmaine.gov>

Hi Matt,

I have reviewed the latest plans for [121 Cassidy Point](#) and their March 12, 2019 response to comments. They have addressed my prior comments adequately (except as presented below). They have verified that they do not need to meet the Redevelopment Standard for stormwater. A few remaining things:

- I don't yet see a sewer capacity verification. I'm not sure if Brad has sent you that directly, but that may still be pending.
- Additional clarification is required on grading to the south of the building. Previous grading plans identified a catch basin, where it is now called out as a manhole (although the symbol hasn't changed). They need to ensure that the stormwater flow from their proposed steep slope will not cause any issues in that area, and show where drainage is now to be directed.



Any other questions, let me know.

Thanks,

Lauren

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

*Licensed in Maine and Wisconsin

Commitment & Integrity Drive Results

www.woodardcurran.com

M.ASCE

Chair, Leader Training Committee

American Society of Civil Engineers

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



Matthew Grooms <mgrooms@portlandmaine.gov>

121 Cassidy Pt. Drive

Matthew Grooms <mgrooms@portlandmaine.gov>
To: Matthew Grooms <mgrooms@portlandmaine.gov>

Fri, Apr 5, 2019 at 3:59 PM

On Fri, Apr 5, 2019 at 12:03 PM Mike Tremblay <mtremblay@portlandmaine.gov> wrote:

Matt,

General comments (more comments are embedded in the waiver-related comments below):

- Sloped granite curbs, as shown between the two driveways along the northern portion of Cassidy Point Drive, are not typically acceptable. The Applicant should provide turning templates showing that this sloped curbing is necessary, and to what extent. If this curbing is not proposed to provide vehicle turning movements, justification shall be provided, or plans shall be altered to show vertical granite curbing.
- Crosswalk markings across site driveways shall be 8 feet wide, marked with 2-foot longitudinal white lines placed 4 feet on center.
- The Applicant has not shown details on their site drainage on the southern portion of the site. A manhole is shown to the east of the driveway, but no catch basin is shown. The Applicant should clarify their site drainage.

Here are my comments on the waiver requests:

Driveway Design

a) DPW understands that larger vehicles, and vehicles with boat trailers, will be using these driveways. Driveway design is not simply about aesthetics; it dictates how fast vehicles can turn into and out of sites. Designing driveways to accommodate an occasional large vehicle can encourage smaller vehicles to make turning maneuvers at high speed, endangering other road users, including pedestrians. The project site will likely generate increased pedestrian traffic in the area. And, while the applicant is correctly measuring driveway width at the property line, one of these driveways flares out about 100 feet at the edge of roadway. As such, DPW agrees that some variation from the City's technical standards will need to be made to accommodate the site's driveway widths; however, the Applicant's proposed plans do not provide any compromise that will help the project site meet the spirit of the technical standards, such as the previously suggested mountable curbs. DPW maintains that measures to reduce driveway widths, including mountable or sloped curbing, should be required.

b) The waiver request for driveway spacing is acceptable as these driveways exist currently. However, as discussed above, additional measures should be taken to reduce driveway width, which will in turn increase the distance between driveways.

c) The waiver request for the number of driveways is acceptable, as all driveways shown serve separate contiguous areas that cannot be reasonably combined.

Sidewalks

DPW is supportive of the sidewalk waiver based upon the waiver criteria cited in the applicant's waiver request and the improvement of sidewalk along the upper portion of Cassidy Point Drive.

Curbs

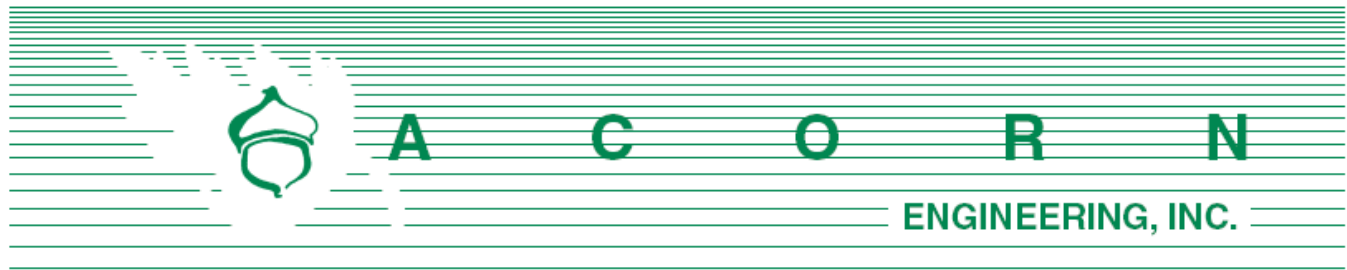
The request for a curb waiver is acceptable as long as the applicant provides the requested detail regarding site drainage.

Let me know if you have any questions.

Thanks,
Mike

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





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

January 2, 2019

Subject: Level II Final Site Plan Application
Redevelopment of 121 Cassidy Point Drive

To Whom It May Concern:

On behalf of Project Management, Inc. (Owner's Representative) and 534 Danforth LLC (Owner), we are pleased to submit the accompanying submission material package related to the proposed redevelopment at 121 Cassidy Point Drive, located within the City's Waterfront Port Development Zone (WPDZ). The project proposes to demolish the existing, 2-story wood-framed building and construct a new, 4-story building primarily for "maker spaces" in which crafters and tradespeople would rent low impact bench spaces, as allowed within Sec. 14-319 Table, Group "Industrial" with a "C Use Category." The site will continue to facilitate "Marine Uses", with tenants such as SailMaine, as allowed within Sec. 14-319 Table, "Marine" Group with a "P/C¹ Use Category." The parcel is unique to the zone because it doesn't feature direct water access and as a result, will have no adverse impacts on Marine Use, per Sec. 14-318.5, as outlined in the following paragraph.

Under the Sec. 14-319 Table, the project complies with the "Industrial Use" Group with a "C Use Category." The project will facilitate the following occupant services: low impact industrial use including but not limited to, light manufacturing, manufacture of products, welding and metal fabrication, storage of materials incidental to proposed uses, carpentry, woodworking, cabinet shops, art and craft production and print making. The parcel doesn't feature direct water access and as a result, also meets Sec. 14-320 Conditional Use Standards. The proposed use will not impede or preclude existing or potential water-dependent development on other lots, and it will continue to allow for adequate access to the water, be compatible with water dependent and marine uses, operationally support one or more water dependent uses, and meets the performance and dimensional standards in Sec. 14-320.2.

Under Sec. 14-319, the project also complies with the "Marine Use" Group with a designed "P/C¹ Use Category." The proposed building height is less than the 60-foot maximum applicable height allowable under the permitted use dimensional standards, which results in a permittable use rather than conditional. The Marine Use designation comes from current and anticipated future uses by SailMaine that include marine repair and machine shops, marine retail and wholesale sales, boat storage facilities, and fabrication, storage and repair of fishing equipment.

The project has been designed with sustainable and low impact practices. This includes the use of roof-mounted solar panels in the building's construction. Stormwater treatment or storage is not required; however, the project anticipates the installation of a catch basin, foundation drains and

landscape plantings which will treat and slow the rate of stormwater runoff into the City's storm drain line.

We are pleased to submit this application as the proposed development will boost the opportunity for economic development within Portland by providing space for artisans and other tradespeople to create products. This submission package is intended to meet the City's Submission Requirements as outlined in the Level II Site Plan Application procedures.

The owner of 121 Cassidy Point Drive, 534 Danforth LLC, has compiled a team of leading professionals from the development, green building and construction industries to complete the design. If you have any questions regarding these materials or the completeness of the application materials, please contact us within the next five (5) days.

Sincerely,



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

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

Documents:

- Section A: Cover Letter
- Section B: Level II Final Site Plan Application & Checklist
- Section C: Right, Title, Interest
- Section D: Zoning Assessment
- Section E: Summary of Written Easements
- Section F: Request for 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: Transportation Analysis
- Section S: Solid Waste Disposal

Drawings:

- Civil Site Plan Set
- Architectural Plan Set



Section B

**Level II Site Plan
Application & Checklist**



LEVEL II and LEVEL III APPLICATION SUBMISSION CHECKLIST

Please submit each document as a separate PDF file.

Please confirm by electronically checking the boxes to the left

General Application Documents

Checklist	Items to be Provided
Yes ☒ NA ☐ Plan ☐	PROJECT DESCRIPTION Cover Letter with detailed project description
Yes ☐ NA ☒ Plan ☐	COMPLETED CHECKLIST – LEVEL III APPLICATION
Yes ☒ NA ☐ Plan ☐	RIGHT, TITLE AND INTEREST Deeds, leases, or purchase and sales agreements
Yes ☐ NA ☒ Plan ☐	EVIDENCE OF STATE OR FEDERAL APPROVALS , if applicable Permits or letters of non-jurisdiction, if applicable
Yes ☒ NA ☐ Plan ☐	ZONING ASSESSMENT Table listing required and proposed uses and dimensional standards Zoning Assessment Table
Yes ☒ NA ☐ Plan ☐	EXISTING &/OR PROPOSED EASEMENTS OR COVENANTS , if applicable Evidence of existing easements and any proposed easements
Yes ☐ NA ☒ Plan ☐	WAIVER REQUESTS Written request for waiver describing request and reason. Waiver Table
Yes ☒ NA ☐ Plan ☐	FINANCIAL CAPABILITY Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
Yes ☒ NA ☐ Plan ☐	TECHNICAL CAPABILITY Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

LEVEL II AND LEVEL III SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.

Please submit each document as a separate PDF file.

TRANSPORTATION

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

ENVIRONMENTAL AND LANDSCAPE FEATURES			
Check list			Assess/Provide/Document:
Yes	NA	Plan	Preservation of Significant Natural Features (14-526 (b) 1), if applicable - Trees, plants, habitats listed on State or Federal list of endangered or threatened - High and moderate value waterfowl and wading habitat - Aquifers on Casco Bay Islands - Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) - Proposed preservation areas and protection measures - Documentation from environmental consultants, determinations from applicable state agencies
Yes	NA	Plan	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	Plan	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	Plan	Parking Lot Landscaping (14-526 (b) 2 b ii), if applicable Landscaped islands within parking areas (Technical Manual, Section 4)
Yes	NA	Plan	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			
Check list			Assess/Provide/Document:
Yes	NA	Plan	Water Quality, Stormwater Management and Erosion Control (14-526 (b) 3 a) - Stormwater report in compliance with Section 5 of Technical Manual and DEP Chapter 500 stormwater for basic, general and flooding standards, as applicable - Erosion control plan and measures - Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater, as applicable - Subsurface sanitary sewage disposal and groundwater protection

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

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

Level II and Level III Site Plan Checklist Please upload the following drawings with the listed details into e-Plan as separate pdfs.	
☒	RECENT BOUNDARY SURVEY (stamped by Maine Licensed Surveyor)
Must be in compliance with Technical Manual, Section 13	
☒	SITE PLAN(s) (stamped by Maine Licensed Engineer) including:
☒	Existing Conditions • Approximate location of structures on abutting property • Topography • Locate water courses • Delineate wetlands • Zone lines
☒	Proposed Site Plan • Ground floor area, and grade elevations for all buildings
☒	Access, Circulation, and Parking • Streets and intersections adjacent to site , any proposed geometric modifications • Location, dimensions and materials of all existing and proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines • Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas • Location and dimensions of proposed loading areas • Existing and proposed transit infrastructure with dimensions/ engineering specifications • Location of vehicle and bicycle parking with dimensions and engineering specifications
☒	Site Considerations • Identify snow storage areas • Location of fire hydrants • Location of solid waste management facilities
☒	UTILITY PLAN including:
	• Existing utilities on site and within public streets • Location, sizing, and directional flows of all existing and proposed utilities • Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site • Electric utility infrastructure

☒	GRADING and DRAINAGE PLAN including:
	• Existing grades and drainage • Proposed grades • Proposed stormwater management meeting Technical Manual (Section 5) standards • Location and proposed alteration of a water course • Preservation or alteration of wetlands
☒	EROSION CONTROL
	• Must be in compliance with Technical Manual, Section 5
☒	LANDSCAPE PLAN including:
	• Existing vegetation to be preserved and preservation measures • Proposed landscaping and buffers • Planting schedule
☐	RECORDING PLAT , if applicable
	• IF SUBDIVISION: Must be in compliance with requirements of Section 14-496 (b)
☒	ARCHITECTURAL PLANS & RENDERINGS including:
	• Exterior building elevations, color renderings, illustrations of all sides • Location and dimensions of all existing & proposed HVAC & mechanical equipment, all proposed screening • Provide context drawings, if applicable (Design Manual, page 1) • Floor plans

Section C

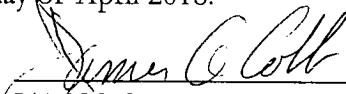
Right, Title, Interest

CORRECTIVE WARRANTY DEED

James O. Cobb of 19 Estate Drive Scarborough, Maine 04074 ("Grantor") for consideration paid grants to **P & D Real Corp.**, a Maine corporation with a mailing address of c/o Peter Speeches, 34 Whistler Landing, Scarborough, Maine 04074 ("Grantee"), with WARRANTY COVENANTS the land in Portland, Cumberland County, Maine described in Exhibit A attached hereto (the "Premises").

This deed is given to correct the legal description of the Premises set forth in a Warranty Deed from Grantor to Grantee dated January 27, 2000 which is recorded in the Cumberland County Registry of Deeds in **Book 15299, Page 96**.

Witness my hand and seal this 10th day of April 2018.



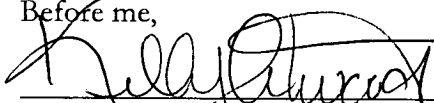
JAMES O. COBB

STATE OF MAINE
CUMBERLAND ss.

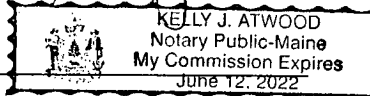
Dated: April 10, 2018

Then personally appeared the above-named James O. Cobb and acknowledged the foregoing instrument be his free act and deed.

Before me,



Notary Public, State of Maine



Printed Name of Notary: _____

My Commission Expires: _____

SEAL

EXHIBIT A

Those certain lots or parcels of land situated between the southerly side of Cassidy Point Road, formerly a portion of Danforth Street, and the northerly side of West Commercial Street in the City of Portland, County of Cumberland and State of Maine, being bounded and described as follows:

A certain lot or parcel of land with the buildings thereon, situated at the junction of Danforth and West Commercial Street, in the City of Portland and being the same premises conveyed to Wilfred E. Ricker by James A. Romito by Warranty Deed dated March 23, 1923, and recorded in the Registry for Cumberland County, Book 1131, Page 87, and containing approximately 22,377 square feet.

Excepting, however, from the above described parcel, so much thereof as was conveyed by said Wilfred E. Ricker to the State of Maine by deed dated April 26, 1938 and recorded in said Registry of Deeds in Book 1548, Page 90.

Also a certain other lot or parcel of land adjoining the above-described parcel on its northeasterly side and being the second parcel described in a Warranty Deed from Peter J. Hollywood to Wilfred E. Ricker dated February 28, 1931, and recorded in said Registry of Deeds in Book 1368, Page 230

Being the same premises conveyed to James O. Cobb by deed from George R. McAllister and Leo B. Groder dated August 27, 1973 and recorded in said Registry of Deeds in Book 3450, Page 52.

Excepting, however, from the above described premises so much thereof as was conveyed by James O. Cobb to Cianbro Corporation by deed dated July 1, 1974, and recorded in said Registry of Deeds in Book 3567, Page 293. Also excepting so much thereof as was conveyed by James O. Cobb to the Portland Water District by deed dated April 29, 1977, and recorded in said Registry of Deeds in Book 4006, Page 304.

The above described premises are subject to an easement given by James O. Cobb to Central Maine Power Company, dated September 23, 1974, and recorded in said Registry of Deeds in Book 3602, Page 117.

Also another certain lot or parcel of land together with the buildings thereon, if any, situated in Portland in said County and State bounded and described as follows:

Beginning on the southerly side of Danforth Street in said Portland at a stake marking the most northeasterly corner of a lot conveyed by George R. McAllister to said James O. Cobb August 27, 1973, recorded in the Cumberland County Registry of Deeds in Book 3450, Page 52; thence in an easterly direction along said Danforth Street a distance of 23.5 feet to another stake; thence in a general southeasterly direction along a course parallel to the most easterly boundary of said lot conveyed by said McAllister et al a distance of 102 feet, more or less, to a stake; thence in a westerly direction in a line parallel to West Commercial street 24.55 feet, more or less to said land conveyed by McAllister et al; thence in a northwesterly direction along said line of land conveyed by McAllister et al to said Cobb to the point of beginning.

The herein conveyance is subject to the following:

A sewer easement held by the Portland Water District as described in a Notice of Condemnation dated May 13, 1977 and recorded at said Registry of Deeds in Book 4015, Page 224.

An easement to Central Maine Power Company dated September 23, 1974, and recorded at said Registry of Deeds in Book 3602, Page 117.

A Department of Environmental Protection Commissioner's Certification of Completion of Response Actions under a Partial Voluntary Response Action Plan dated March 1, 1995 and recorded at said Registry of Deeds in Book 11839, Page 110.

An Indenture Agreement entered into between Portland Water District and James O. Cobb dated February 4, 1999 recorded at Book 14540, Page 279.

This Deed is given to correct a scrivener's error wherein a portion of the description was inadvertently omitted from the third parcel contained in a deed from James O. Cobb to P & D Real Corp. dated January 27, 2000 and recorded in the Cumberland County Registry of Deeds in Book 15299, Page 96, and to convey any and all interest I have in the above described premises.

Received
Recorded Register of Deeds
Apr 12, 2018 01:05:56P
Cumberland County
Nancy A. Lane



ZONING ANALYSIS Relevant Zone(s) WPDZ

All Projects:

	Required	Proposed
Lot Size	5 AC	25,041 SF
Area Per Dwelling Unit	N/A	N/A
Minimum Street Frontage	N/A	N/A
Front Yard Minimum	N/A	N/A
Front Yard Maximum	N/A	N/A
Rear Yard	N/A	N/A
Yard Right	N/A	N/A
Yard Left	N/A	N/A
Side Street Setback	N/A	N/A
Step Back	N/A	N/A
Maximum Lot Coverage	100%	80.7%
Minimum Lot Coverage	N/A	N/A
Maximum Height	60 FT	44.27 FT
Open Space	N/A	N/A
Maximum Impervious Area	N/A	N/A
Pavement Setback	N/A	N/A
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces	12	12
Loading Bays	1	1
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

Summary of Written
Easements

E. Summary of Written Easements

- Existing Easements – The Existing Conditions Plan developed by Owen Haskell, Inc. identified two existing easements:
 - A Central Maine Power easement within the existing property that contains a 115kV underground transmission line. The description of this easement is further detailed on Page 92 of Attachment D: Right, Title and Interest.
 - A Portland Water District sewer easement and Notice of Condemnation that abuts property owned by Central Maine Power, Book 21684, Page 106. The description of this easement and Notice of Condemnation are further detailed on Page 92 of Attachment D: Right, Title and Interest.
- Proposed Easements – There are no proposed easements at this time.



F. Request for Waivers

The following is a list of known project-related waivers:

1. Driveway Design

- a. A waiver is requested for Industrial two-way driveway design width standards, per Technical Manual Section 1.7.2.4. There are five existing driveway curb cuts, three of which exceed the standard 30-foot Industrial two-way width. The proposed conditions reduce the number of curb cuts to four, with three to exceed the standard 30-foot Industrial two-way width. Given the site geometry, in order to maintain access and circulation routes that avoid conflicts with existing turning movements and traffic flows and provide safe and reasonable access and internal circulation for the entire site for all users, the driveways must be greater than 30-feet wide at the property line. Anticipated vehicles include, but are not limited to, hydraulic boat trailers, flatbed trucks, light commercial vans/trucks and passenger vehicles, see Circulation Exhibits 5 and 6 for example truck turning templates. In relation to abutting parcels, the proposed driveway widths are equal to or less than those in proximity of the site, as shown on Exhibit 7: Site Plan Overview.
- b. A waiver is requested for driveway spacing, per Technical Manual Section 1.7.2.7. Proposed driveways on site meet the minimum separation for a 25mph or less zone, but do not meet the 100-foot minimum separation in relation to the curb cuts at the Cianbro Office Building and former Advantage Gases & Tools.
- c. A waiver is required for the number of driveways, per Technical Manual Section 1.7.2.8. There is a proposed reduction from five existing driveways to four proposed driveways for ingress and egress onto the site. The number of proposed driveways is designed to provide safe and reasonable access and internal circulation for the site as well as facilitate proposed sidewalks. See Circulation Exhibits 5 and 6 for circulation routes of anticipated traffic, and Site Plan, Sheet C-10.

2. Sidewalk Construction and Materials

- a. A waiver is requested for the absence of sidewalks along the southerly edge of the parcel due to the lack of sidewalks along the entire southerly portion of Cassidy Point Drive to join.
- b. A waiver is requested for the absence of curbing along the southerly edge of the parcel to facilitate site access and circulation as well as the lack of existing curbing to join along the entire southerly portion of Cassidy Point Drive.



F. Request for Waivers

The following is a list of known project-related waivers:

1. Driveway Design

- a. A waiver is requested for Industrial two-way driveway design width standards, per Technical Manual Section 1.7.2.4. There are five existing driveway curb cuts, three of which exceed the standard 30-foot Industrial two-way width. The proposed conditions reduce the number of curb cuts to four, with three to exceed the standard 30-foot Industrial two-way width. Given the site geometry, in order to maintain access and circulation routes that avoid conflicts with existing turning movements and traffic flows and provide safe and reasonable access and internal circulation for the entire site for all users, the driveways must be greater than 30-feet wide at the property line. Anticipated vehicles include, but are not limited to, hydraulic boat trailers, flatbed trucks, light commercial vans/trucks and passenger vehicles, see Circulation Exhibits 5 and 6 for example truck turning templates. In relation to abutting parcels, the proposed driveway widths are equal to or less than those in proximity of the site, as shown on Exhibit 7: Site Plan Overview.
- b. A waiver is requested for driveway spacing, per Technical Manual Section 1.7.2.7. Proposed driveways on site meet the minimum separation for a 25mph or less zone, but do not meet the 100-foot minimum separation in relation to the curb cuts at the Cianbro Office Building and former Advantage Gases & Tools.
- c. A waiver is required for the number of driveways, per Technical Manual Section 1.7.2.8. There is a proposed reduction from five existing driveways to four proposed driveways for ingress and egress onto the site. The number of proposed driveways is designed to provide safe and reasonable access and internal circulation for the site as well as facilitate proposed sidewalks. See Circulation Exhibits 5 and 6 for circulation routes of anticipated traffic, and Site Plan, Sheet C-10.

2. Sidewalks

- a. A waiver is requested for the absence of sidewalks along the southerly portion of the parcel.
 - i. The sidewalk waiver is justified by the existing conditions, per Sec. 14-506(b), as follows:
 1. *There is no sidewalk in existence or expected within 1000 feet and the construction of sidewalks does not contribute to the development of a pedestrian oriented infrastructure.*
 - a. There is no existing sidewalk along the southerly portion of



Cassidy Point Drive, which is roughly 1000 feet from the sidewalk along West Commercial Street.

2. *A safe alternative-walking route is reasonably and safely available, for example, by way of a sidewalk on the other side of the street that is lightly traveled.*

a. A safe alternative-walking route is available along the northerly portion of the parcel, which adjoins the existing sidewalk along West Commercial Street.

3. Curbing

a. A waiver is requested for the absence of curbing along the southerly edge of the parcel.

i. The curbing waiver is justified by the existing conditions, per Sec. 14-506(b), as follows:

1. *The cost to construct the curbing, including any applicable street opening fees, is in excess of 5% of the overall project cost.*

a. Approximately 115 linear feet of vertical granite curbing would need to be installed to connect curbing from the southerly to northerly portion of the site. It is assumed that the installation of 115 linear feet would exceed 5% of the overall site project cost.

2. *Strict adherence to the curb requirement would result in the loss of significant site features related to the landscaping or topography that are deemed to be of a greater public value.*

a. Placement of curbing along the southerly edge of the parcel would affect the existing public on-street parking utilized by Cianbro, Merrill's Terminal Building and other abutters.

3. *Runoff from the development site or within the street does not require curbing for stormwater management.*



Section G

Financial Capacity



December 3, 2018

RE: 534 Danforth LLC - Cyrus Y. Hagge
121 Cassidy Point, Portland, ME

To Whom It May Concern:

Cyrus Hagge has been a Gorham Savings Bank customer since 2011. All business and personal obligations have been handled in a satisfactory manner.

Based on the information provided to the Bank to date, Mr. Hagge appears to have the financial capacity for this real estate transaction; however, all loan approvals are subject to underwriting and conditions which are property specific.

We look forward to assisting Mr. Hagge with financing for this construction project.

If you have any further questions, I can be reached at 207-222-1495.

Sincerely,

Julie L. Viola
Business Banking Lending Manager
Vice President

Section H

Technical Capacity

H. Technical Capacity

Acorn Engineering, Inc. has successfully permitted and engineered over 15 level II/III projects in Portland in the past 5 years, many of which have been constructed. Some examples include:

- Eldredge Lumber Expansion
- 127 York Street – Harborview Townhomes
- Munjoy Heights
- 89 Anderson St. – East Bayside Lofts
- 667 Congress St – The Hiawatha
- 121 Washington Ave Redevelopment
- 31 Fore Street Condominiums

Additionally, the rest of the team is outlined below.

- Project Management, Inc. (Owner – 534 Danforth LLC., Cyrus Hagge) – Cyrus Hagge is a Portland based developer and philanthropist. He has been a vital part of the community while serving on a variety of boards, such as Casco Bay Lines, Portland Planning Board, Waterfront Development and Master Planning Committee and others.
- Dextrous Creative (Architect – Tracie Reed) – Tracie Reed is a Maine Licensed, LEED AP and NCARB certified architect based in Portland. Her work encompasses a wide variety of commercial, residential and construction builds. In addition, she performs field work for High Performance Building Model Assessments in accordance with ASHRAE Level 2 Energy Audits guidelines, with the aim of reducing energy and water consumption. Tracie has received awards from the American Institute of Architects and has appeared in publications for the Journal of Green Building and Young Architect Forum Connection.



Section I

Conformity with Land Use
Ordinance

I. Conformity with Land Use Ordinance

The following outline is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use, Article V Section 14-526 as well as the City of Portland Technical Manual, Chapter 14 Standards for Local Site Location of Development Review.

OVERVIEW

The proposed 4-story building has been designed to conform to City standards as well as improve upon existing non-conformities. This project conforms with Portland's Land Use Ordinance Section 14-526 as demonstrated in the following narrative.

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

- a. The site is located at 121 Cassidy Point Drive which is a major intermodal transportation center with direct access to Route 1 and I-295. The proposed use will reduce the amount of traffic in this area, transitioning from an auto and truck repair business with an estimated 250 weekday trips to approximately 60.
 - (i) Reviewed by Tom Errico, Traffic Engineer with T.Y. Lin and presented to Planning Board on 7/10/18

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:

- (i) The development will provide safe access and internal circulation for both pedestrians and vehicles as seen on the Site Plan, see Sheet C-20.
- (ii) Points of access and egress have been located to avoid conflicts with existing turning movements and traffic flows.
- (iii) The site does not feature drive up services as mentioned in this requirement.

b. Loading and Servicing:

- (i) The site will have minimal loading for the establishment. Any loading will be accommodated by the loading dock located along the north-facing portion of Cassidy Point Drive. Dumpster placement has been located to facilitate the



approach, loading and departure of a trash truck.

c. Sidewalks:

- (i) This project seeks a sidewalk modification from the Planning Board. The existing concrete and brick walkways are in a degenerative state and have served as vehicular parking spaces, based upon Google Earth imagery dating back to 1997. Acorn believes that sidewalks should be waived for the following reasons, pursuant to Sec. 14-506:
 - a. There is no reasonable expectation for pedestrian usage coming from, going to and traversing the site.
 - b. A safe alternative-walking route is reasonable and safely available. Street lights are located on the opposite side of Cassidy Point Drive from project site, which provide a safer route for the few pedestrians that walk along Cassidy Point Drive.

3. Public Transit Access:

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

4. Parking:

a. Location and Required Number of Vehicle Parking Spaces:

- (i) The proposed project requires 12 off-street parking spaces. This is derived from Sec 14-332 (l), for business/manufacturing/industrial building not catering to retail trade and with floor area over 3,000 square feet with one parking space for every 1,000 square feet of floor area. The 50% allowable reduction for the Waterfront Port Development Zone (WPDZ) from Sec. 14-332.1 (j) has also been applied. The proposed building with approximately 17,500 square feet of floor area, existing metal building with approximately 5,236 square feet of floor area and a 50% parking reduction results in a total of 12 required spaces. The proposed plan suggests three interior and nine exterior parking spaces for a total of twelve spaces, one of which is an ADA van-accessible space located on the northerly side of the proposed building.
- (ii) A parking study is not required.
- (iii) The proposed parking count of 12 spaces meets the required 12 spaces after applying the 50% allowable reduction for the WPDZ.
- (iv) There are no proposed parking stalls or aisles.



- (v) There is no proposed parking lot.
- b. Location and Required Number of Bicycle Parking Spaces:
 - (i) The site plan includes one proposed bicycle rack (to accommodate four bicycles) meeting and exceeding the required three spaces per City standards.
- c. Motorcycles and Scooter Parking:
 - (i) There are no areas designated for motorcycles or scooters.
- d. Snow Storage:

Locations for snow storage are indicated on Site Plan, see Sheet C-20.

5. Transportation Demand Management (TDM):

- a. A TDM plan is not required for this project.
- b. A TDM plan is not required for this project.
- c. A TDM plan is not required for this project.

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

- a. Not applicable.
- b. Not applicable.
- c. A waiver is not requested.

2. Landscaping and Landscaping Preservation:

- a. Landscape Preservation.
 - (i) No existing trees or plants at project site.
 - (ii) There are no trees >10" dbh within any required setbacks.
 - (iii) It is not anticipated that the project will necessitate any tree protection.
 - (iv) A waiver is not requested.
 - (v) Not applicable.
- b. Site Landscaping:
 - (i) Landscaped Buffers:



- a. Solid waste is anticipated to be stored in the designated dumpster enclosure located between the two buildings on site.
- b. Not applicable.
- c. Not applicable.
- d. Not applicable.

(ii) Parking Lot Landscaping:

- a. Not applicable
- b. Not applicable
- c. Not applicable.
- d. Not applicable.
- e. Not applicable.

(iii) Street Trees:

- a. Per Section 4.6.3 – Landscape and Landscape Preservation Standards of the Technical Manual for Commercial, Industrial and Institutional Development, a total of fifteen street trees are required. The Amelanchier spp. (Serviceberry) & Carpinus Caroliniana (American Hornbeam) were chosen from the City of Portland Recommended Tree List as native street trees to be planted on the parcel property or within the public right-of-way. The Juniperus Virginiana (Eastern Red Cedar) was also chosen as a native tree to plant within the parcel property to meet the required tree count. The proposed tree placement is provided on private property within 10 feet of the property line along the street frontage, due to the abundance of utility lines, easements and overhead lines within the public right-of-way. See Sheet L-1, Landscape Plan, located within the Civil Plan Set.
- b. Not applicable.

3. Water Quality, Stormwater Management and Erosion Control:

a. Stormwater:

- (i) The site drainage will not be directed to flow or pond onto adjacent lots. A new catch basin and improved site grading is proposed on the southerly side of Cassidy Point, to capture stormwater runoff previously uncaptured.
- (ii) Any stormwater that flows onto adjacent lots will not exceed the pre-development



flows.

- (iii) The runoff from the site into the City property is anticipated to remain the same as 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 K and L, the Stormwater Management and Erosion & Sedimentation Control Plans, respectively, for more information.
- c. The project is not located in a watershed of an urban impaired stream as listed by the MEDEP.
- d. Not applicable.
- e. The development is not anticipated to pose a contamination risk to groundwater during or after construction. The project will be serviced by a public wastewater system.
- f. The development will provide for adequate and sanitary disposal of sewage in accordance with Section 2 of the Technical Manual.

(c) Public Infrastructure and Community Safety Standards

1. Consistency with City Master Plans:
 - a. The project has been designed to be consistent with the City's Zoning Ordinance and off-site infrastructure.
 - b. Not applicable.
2. Public Safety and Fire Prevention:
 - a. The site has been designed to promote safe and inviting public access.
 - b. Adequate emergency access has been provided to allow an ambulance and fire truck to access 3 sides of the building.
 - c. The nearest fire hydrant is located approximately 79.8' from the proposed southwesterly building corner.
3. Availability and Adequate Capacity of Public Utilities:
 - a. Public utilities in the vicinity of the site have capacity to serve the project. Ability to Serve letters have been sent to the respective companies. Responses received thus far have been included in the submission.



- b. The electrical service will be restrung using overhead lines.
- c. The new sewer and stormwater infrastructure will meet the provisions of the Technical Manual.
- d. The project will be served by connecting to the public sewer system within Cassidy Point Drive.
- e. The sanitary sewer collection system meets all applicable sections of the Technical Manual. The stormwater management system is designed to meet the basic standards of Chapter 500. Treatment is not required; however, some stormwater will be treated through the addition of landscaping features that do not currently exist.
- f. The facility is expected to store solid waste on site within the enclosed dumpsters located between the two buildings and will be handled by a private company.

(d) Site Design Standards

- 1. Massing, Ventilation and Wind Impact:
 - a. Not applicable.
 - b. Not applicable.
 - c. Not applicable.
- 2. Shadows:
 - a. The shadows created by the building will not influence public open spaces.
- 3. Snow and Ice Loading:
 - a. The structures will not distribute snow and ice onto adjacent properties.
- 4. View Corridors:
 - a. The project site is located outside the Downtown Vision View Corridor Protection Plan.
- 5. Historic Resources:
 - a. The development is not located in a historic district, historic landscape district or City designated landmark.
 - b. The development is not located adjacent to designated landmarks, historic district, or historic landscape district.
 - c. There are no known archaeological resources on the site.



6. Exterior Lighting:

a. Site Lighting.

(i) Exterior lighting will be designed to meet the requirements of Section 12 of the Technical Manual. A photometric plan designed by Swaney Lighting Associates, Inc is included within the Civil Plan Set.

(ii) Not applicable.

b. Architectural and Specialty Lighting.

(i) No architectural or specialty lighting is proposed.

(ii) No up-lighting is proposed.

c. Street Lighting.

(i) No new street lights are proposed.

7. Noise and Vibration:

a. No HVAC system is currently proposed.

8. Signage and Wayfinding:

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

(i) The project is not located in a historic district or subject to Article IX.

(ii) Existing sign to remain untouched.

(iii) Not applicable.

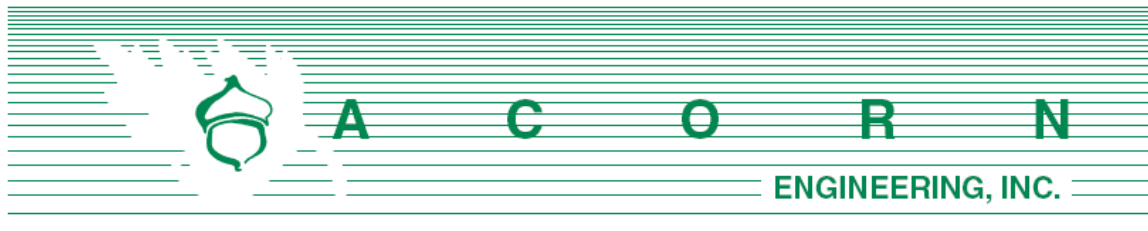
9. Zoning Related Design Standards:

a. The project has been designed to meet the standards set forth in the WPDZ zone. Please refer to Sheet C-10, Site Plan, located within the Civil Plan Set for more information on Space & Bulk Standards.



Section J

Stormwater Management Report



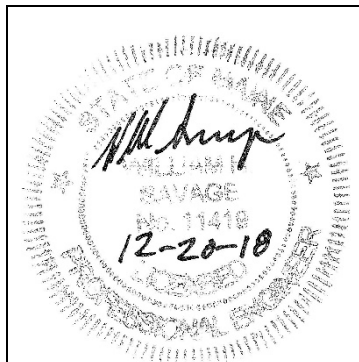
J. STORMWATER MANAGEMENT **REPORT**

Prepared For:

**Project Management, Inc.
225 Commercial Street, Suite 502
Portland, Maine 04101**

Prepared By:

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



January 2019

INTRODUCTION

Acorn Engineering, Inc. has been retained by Project Management, Inc. to provide civil engineering services for the proposed redevelopment of 121 Cassidy Point Drive. The project proposes to demolish the existing, 2-story wood-framed building and construct a new, 4-story building designed as “maker space” in which crafters and tradespeople can rent within a low impact industrial conditional use, as specified in Sec. 14-319 of the City of Portland Chapter 14 – Land Use.

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.

The proposed project is expected to decrease the impervious area by approximately 682 square feet. The increased landscaping will help retain and filter stormwater on site, reducing the demand on the City’s storm system.

EXISTING CONDITIONS

The proposed project is located at 121 Cassidy Point Drive. A boundary plan has been prepared by Owen Haskell, Inc. of Falmouth, Maine dated October 29, 2018.

The site and its abutters reside within the Waterfront Port Development Zone. The majority (approximately 83.4%) of the site is impervious in the form of gravel, 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.

PROPOSED DEVELOPMENT

The proposed project is a four-story building with a small industrial/light manufacturing designation. Pedestrian access to the site will be provided via concrete walkways on the northern side of Cassidy Point Drive. The development will be served by Portland Water District, Department of Public Works (sewer and storm), Unitil (natural gas), CMP (electric), Charter (cable), and Consolidated (telephone). Sewer, storm and natural gas utilities will be routed underground. Telephone, cable and electric will be routed on overhead lines.

Due to the creation of less than 1,000 square feet of impervious area, stormwater management features for quality control that meet Maine DEP’s Chapter 500 General Standards are not required and have not been designed. However, the proposed vegetation will provide quality and quantity control where none existed previously.



Furthermore, the total impervious area proposed is expected to decrease the impervious area by approximately 682 square feet, which is well under the 5,000 square-foot increase threshold. Please refer to the attached exhibits that display the existing and proposed impervious covers.

In addition to the vegetation, stormwater will be managed by implementing a series of foundation drains, catch basins, and storm drains. Please refer to Sheet C-30 for more information.

SOILS

Onsite soil information has been gathered from the following resources:

- United States Department of Agriculture (USDA) Web Soil Survey (WSS)
- Explorations and Geotechnical Engineering Services Report prepared by S.W. Cole Engineering, Inc.

As a Level II, Site Plan Application, the proposed project isn't required to submit soil surveys, per "Section 7 Soil Survey" of the City of Portland Technical Manual. However, a geotechnical investigation was performed at the site on 10/3/18 by S.W. Cole Engineering, Inc.

The area within and surrounding the project includes soil types listed in Table 1 below. The susceptibility of soils to erosion is indicated on a relative "Kf" scale of values over a range of 0.02 to 0.69. Higher "Kf" values indicate more erodible soils. The Kf value listed was derived from the Revised Universal Soil Loss Equation Version 2 (RUSLE2), identified in the USDA's WSS (Attachment 3). The Soil Types were derived from the Explorations and Geotechnical Engineering Services Report (Attachment 4).

Table 1		
Soils Type	Depth (feet)	Kf Value
Fill	1 - 5	0.2
Marine Sands	20 – 30	-

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 given the steep slopes on site.

Conclusion

The proposed redevelopment was designed to meet the requirements set forth in "Section 5 -Portland Stormwater Management Standards" in the City of Portland 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, vegetation, etc. The project will not cause flooding or erosion problems within the subject site, abutters' sites, nor within the right-of-way.



Attachments

Exhibit 1: Existing Impervious Cover

Exhibit 2: Proposed Impervious Cover

Exhibit 3: United States Department of Agriculture Web Soil Survey

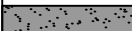
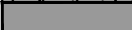
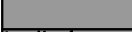
Exhibit 4: Explorations and Geotechnical Engineering Services Report

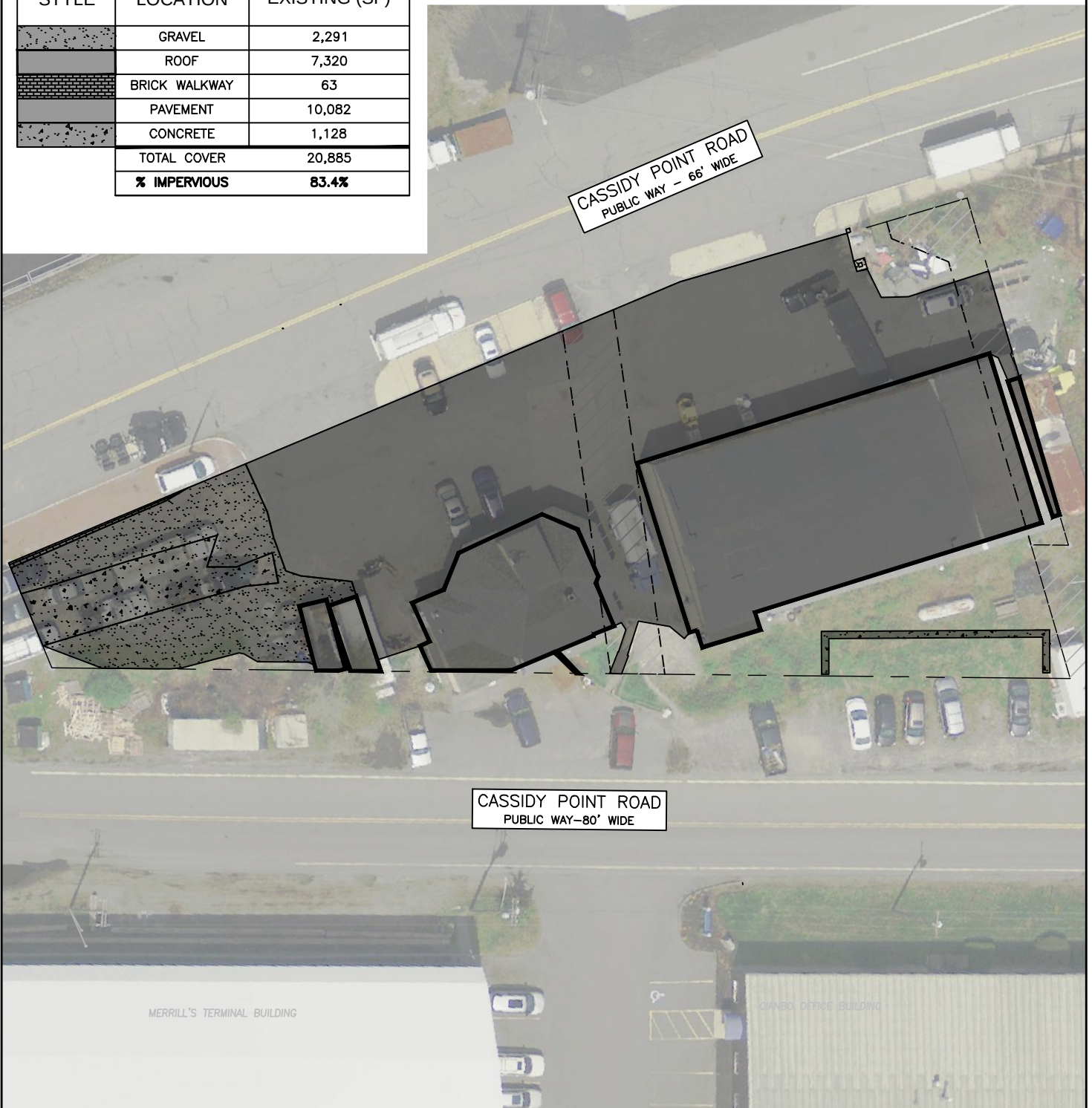


Exhibit 1

Existing Impervious Cover

IMPERVIOUS COVER WITHIN PROPERTY

STYLE	LOCATION	EXISTING (SF)
	GRAVEL	2,291
	ROOF	7,320
	BRICK WALKWAY	63
	PAVEMENT	10,082
	CONCRETE	1,128
TOTAL COVER		20,885
% IMPERVIOUS		83.4%



SCALE: 1" = 40'

PERMIT LEVEL
NOT FOR
CONSTRUCTION

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.

FILE: 1113_CIVIL
DATE: 12/5/18
JN: 1113
SCALE: AS NOTED
DESIGN BY: FRT
DRAWN BY: FRT
CHECKED BY: WHS



DRAWING NAME:
EXISTING IMPERVIOUS COVER
PROJECT NAME:
121 CASSIDY POINT DRIVE
CLIENT:
PROJECT MANAGEMENT, INC.

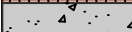
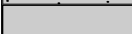
ISSUED FOR	BY
LEVEL II SITE PLAN	DATE WHS
LEVEL II SITE PLAN	12/13/18
	WHS
	1/2/19

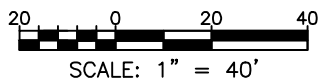
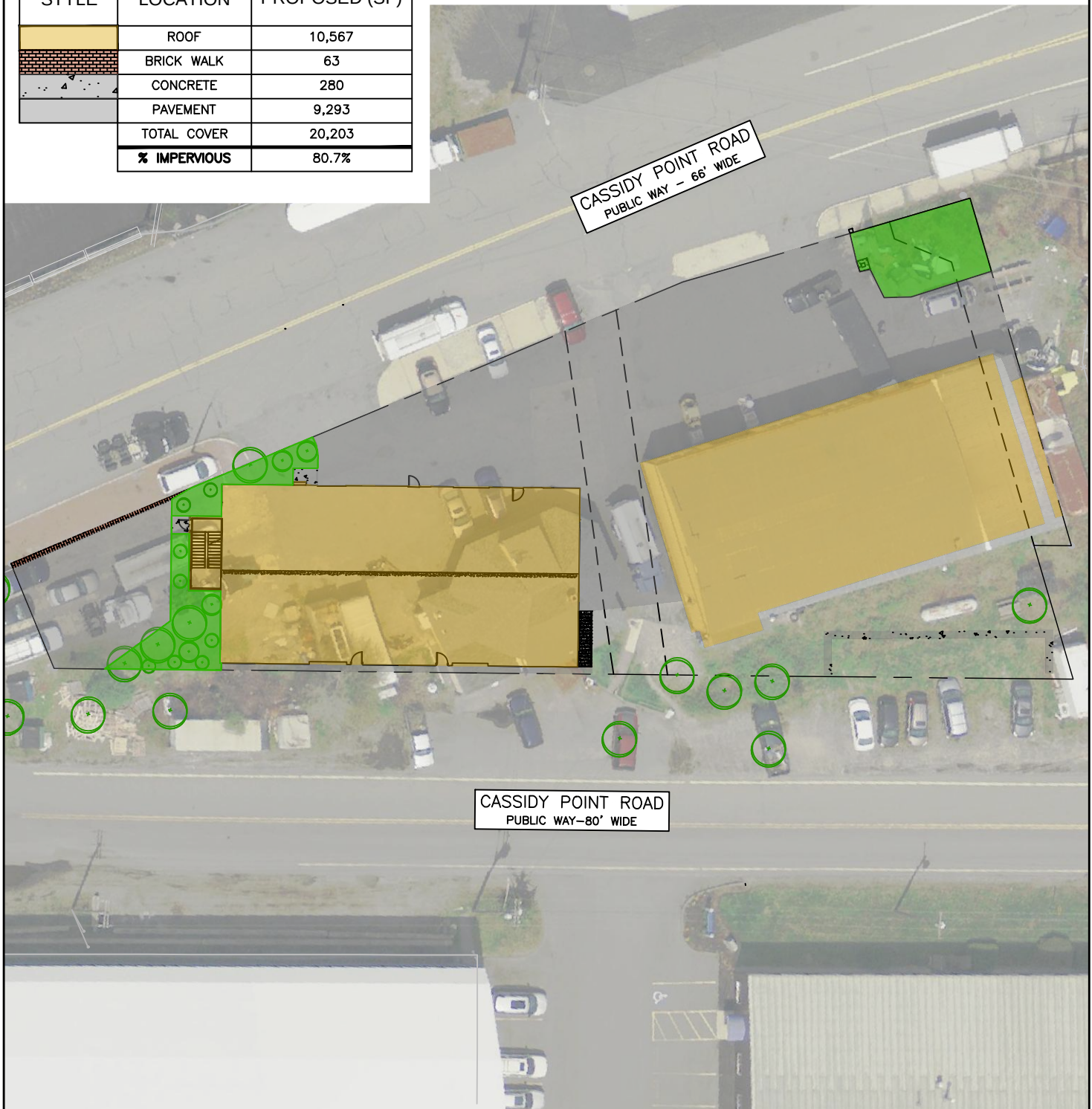
DRAWING NO.
EX-1

Exhibit 2

Proposed Impervious Cover

IMPERVIOUS COVER WITHIN PROPERTY

STYLE	LOCATION	PROPOSED (SF)
	ROOF	10,567
	BRICK WALK	63
	CONCRETE	280
	PAVEMENT	9,293
	TOTAL COVER	20,203
	% IMPERVIOUS	80.7%



PERMIT LEVEL
NOT FOR
CONSTRUCTION

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.

FILE: 1113_CIVIL
DATE: 12/5/18
JN: 1113
SCALE: AS NOTED
DESIGN BY: FRT
DRAWN BY: FRT
CHECKED BY: WHS



DRAWING NAME:
PROPOSED IMPERVIOUS COVER
PROJECT NAME:
121 CASSIDY POINT DRIVE
CLIENT:
PROJECT MANAGEMENT, INC.

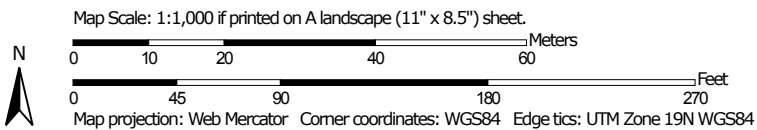
ISSUED FOR	BY
LEVEL II SITE PLAN	WHS
LEVEL II SITE PLAN	WHS
	1/2/19

DRAWING NO.
EX-2

Exhibit 3

**United States Department
of Agriculture Web Soil
Survey**

Soil Map—Cumberland County and Part of Oxford County, Maine



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

12/3/2018
Page 1 of 3

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 15, Sep 6, 2018

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

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

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Cu	Cut and fill land	2.3	100.0%
Totals for Area of Interest		2.3	100.0%

Cumberland County and Part of Oxford County, Maine

Cu—Cut and fill land

Map Unit Composition

Cut and fill land: 90 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cut And Fill Land

Typical profile

H1 - 0 to 65 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 35 percent

Natural drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat):

Moderately low to very high (0.06 to 20.00 in/hr)

Depth to water table: About 24 to 42 inches

Available water storage in profile: Moderate (about 6.6 inches)

Data Source Information

Soil Survey Area: Cumberland County and Part of Oxford County, Maine

Survey Area Data: Version 15, Sep 6, 2018

RUSLE2 Related Attributes

This report summarizes those soil attributes used by the Revised Universal Soil Loss Equation Version 2 (RUSLE2) for the map units in the selected area. The report includes the map unit symbol, the component name, and the percent of the component in the map unit. Soil property data for each map unit component include the hydrologic soil group, erosion factors Kf for the surface horizon, erosion factor T, and the representative percentage of sand, silt, and clay in the mineral surface horizon. Missing surface data may indicate the presence of an organic surface layer. .

Report—RUSLE2 Related Attributes

Soil properties and interpretations for erosion runoff calculations. The surface mineral horizon properties are displayed. Organic surface horizons are not displayed.

RUSLE2 Related Attributes—Cumberland County and Part of Oxford County, Maine								
Map symbol and soil name	Pct. of map unit	Slope length (ft)	Hydrologic group	Kf	T factor	Representative value		
						% Sand	% Silt	% Clay
Cu—Cut and fill land								
Cut and fill land	90	—	—	.20	—	68.2	23.8	8.0

Data Source Information

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

Exhibit 4

**Explorations and
Geotechnical Engineering
Services Report**

REPORT

18-0851 S

October 3, 2018

Explorations and Geotechnical Engineering Services

Proposed Pre-Engineered Metal Building
121 Cassidy Point Road
Portland, Maine

Prepared For:
Project Management, Inc.
Attention: Cyrus Y. Hagge
225 Commercial Street, Suite 502
Portland, Maine 04101

Prepared By:
S. W. Cole Engineering, Inc.
286 Portland Road
Gray, Maine 04039
T: 207-657-2866



- *Geotechnical Engineering*
- *Construction Materials Testing and Special Inspections*
- *GeoEnvironmental Services*
- *Test Boring Explorations*

www.swcole.com

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Scope and Purpose	1
1.2 Site and Proposed Construction	1
2.0 EXPLORATION AND TESTING	2
2.1 Explorations	2
2.2 Testing	2
3.0 SUBSURFACE CONDITIONS	3
3.1 Soil and Bedrock	3
3.2 Groundwater	3
4.0 EVALUATION AND RECOMMENDATIONS	4
4.1 General Findings	4
4.2 Site and Subgrade Preparation	5
4.3 Excavation and Dewatering	5
4.4 Foundations	6
4.5 Foundation Drainage	6
4.6 Slab-On-Grade and Basement Slab	7
4.7 Entrance Slabs and Sidewalks	7
4.8 Fill, Backfill and Compaction	8
4.9 Weather Considerations	9
4.10 Design Review and Construction Testing	9
5.0 CLOSURE	10

Appendix A	Limitations
Appendix B	Figures
Appendix C	Exploration Logs & Key
Appendix D	Laboratory Test Results

18-0851 S

October 3, 2018

Project Management, Inc.
Attention: Cyrus Y. Hagge
225 Commercial Street, Suite 502
Portland, Maine 04101

Subject: Explorations and Geotechnical Engineering Services
Proposed Pre-Engineered Metal Building
121 Cassidy Point Road
Portland, Maine

Dear Cyrus:

In accordance with our Proposal, dated July 2, 2018, we have performed subsurface explorations for the subject project. This report summarizes our findings and geotechnical recommendations and its contents are subject to the limitations set forth in Appendix A.

1.0 INTRODUCTION

1.1 Scope and Purpose

The purpose of our services was to obtain subsurface information at the site in order to develop geotechnical recommendations relative to foundations and earthwork associated with the proposed construction. Our scope of services included one day of test boring explorations, soils laboratory testing, a geotechnical analysis of the subsurface findings and preparation of this report.

1.2 Site and Proposed Construction

The site is located at 121 Cassidy Point Road in Portland, Maine and is currently occupied by a wood-framed commercial building and paved and unpaved parking and vehicle storage areas. The existing building has a walk-out basement on the south side. The majority of the site to the north is relatively flat, but slopes down steeply about 9 feet in elevation towards the road to the south. An underground electric utility

easement bounds the eastern side of the proposed redevelopment area. We understand past site uses included a gas filling station with underground tanks and an on-site septic and leachfield system.

We understand development plans call for razing the existing commercial building and constructing a new pre-engineered metal building. We understand the building will occupy a plan area of 8,000 square feet and will have a walk-out basement level cut into the existing slope on the southern half. We anticipate an upper finish floor elevation of approximately 25 feet (project datum) and finish basement elevation of approximately 17 feet, requiring tapered cuts approaching 9 feet. Proposed structural loads are not available at this time. We understand the building will be utilized for artist studios and light commercial space.

Proposed and existing site features are shown on the “Exploration Location Plan” attached in Appendix B.

2.0 EXPLORATION AND TESTING

2.1 Explorations

Five test borings (B-101 through B-105) were made at the site on August 21, 2018 by S. W. Cole Explorations, LLC. The exploration locations were selected and established in the field by S. W. Cole Engineering, Inc. (S.W.COLE) using measurements from existing site features. The approximate exploration locations are shown on the “Exploration Location Plan” attached in Appendix B. Logs of the explorations and a key to the notes and symbols used on the logs are attached in Appendix C. The elevations shown on the logs were estimated based on topographic information shown on the “Exploration Location Plan”.

2.2 Testing

The test borings were drilled using hollow-stem auger boring methods. The soils were sampled at 2 to 5 foot intervals using a split spoon sampler and Standard Penetration Testing (SPT) methods. Pocket Penetrometer Tests (PPT) were performed where stiffer cohesive soils were encountered. SPT blow counts and PPT results are shown on the logs.

Soil samples obtained from the explorations were returned to our laboratory for further classification and testing. Moisture content test results are noted on the logs. Grain size analysis results are attached in Appendix D.

3.0 SUBSURFACE CONDITIONS

3.1 Soil and Bedrock

The borings encountered a subsurface profile generally consisting of fill overlying marine sands, overlying glaciomarine silts and clays and relic bay mud. The principal soils encountered at the explorations are summarized below. Not all the strata were encountered at each exploration; refer to the attached logs for more detailed subsurface information.

Fill: The borings encountered about 1.5 to 5 feet of fill consisting of loose to medium dense, brown, gray and black sand with varying portions of silt and gravel.

Marine Sands: Underlying the fill, the borings encountered a marine deposit of loose to medium dense, brown and gray-brown sand with varying portions of silt and gravel to depths of 20 to 30 feet.

Glaciomarine Silts and Clays: Underlying the marine sands, the borings encountered stiff to medium, gray, silty clay and clayey silt at depths varying from approximately 20 to 30 feet below the ground surface (approximate elevations 5 to -5 feet). Borings B-102 through B-105 were terminated in this deposit at depths of 22 to 32 feet.

Relic Bay Mud: Boring B-101 encountered relic bay mud consisting of stiff to medium, gray and black, clay and silt and clayey silt with sand layers at a depth of approximately 25 feet. The boring was terminated in the relic bay mud at a depth of 27 feet.

3.2 Groundwater

Saturated soils were encountered at depths varying from 4 to 15 feet (approximate elevation 10 to 12 feet) at the borings, being shallower on the lower (south) side of the site. Groundwater is likely tidally influenced and likely becomes perched on the relatively impervious silts and clays encountered at the test borings. Long term groundwater information is not available. It should be anticipated that groundwater levels will fluctuate,

particularly in response to periods of snowmelt and precipitation, as well as changes in site use.

4.0 EVALUATION AND RECOMMENDATIONS

4.1 General Findings

Based on the subsurface findings, the proposed construction appears feasible from a geotechnical standpoint. The principle geotechnical considerations include:

- Spread footing foundations, an upper level slab-on-grade, and a basement floor slab bearing on properly prepared subgrades, as recommended herein, appear suitable for the proposed building.
- The existing fills, organics, pavement, utilities, foundations, and structures are unsuitable for support of the proposed building foundations and floor slabs and should be removed and replaced beneath the entire building footprint. Backfilled prior tank graves and septic systems should also be removed and replaced beneath the entire building footprint.
- Groundwater will be encountered during construction, particularly for excavation of the basement level foundations. We recommend the basement level footings bear on a layer of Crushed Stone wrapped in geotextile fabric to improve bearing conditions, as well as to provide a working mat for foundation construction and construction dewatering. The contractor should be prepared to sump and pump to dewater excavations.
- The contractor should be prepared to shore excavations and underpin as needed to support and preclude undermining the adjacent road, structures, underground electric duct bank and other utilities.
- Earthwork and grading activities should occur during drier, non-freezing weather of Spring, Summer and Fall. Excavation of bearing surfaces should be completed with a smooth-edged bucket to lessen subgrade disturbance.

4.2 Site and Subgrade Preparation

We recommend that site preparation begin with the construction of an erosion control system to protect adjacent drainage ways and areas outside the construction limits. Surficial pavement, organics, roots and topsoil should be completely removed from areas of proposed construction. As much vegetation and pavement as possible should remain outside the construction areas to lessen the potential for erosion and site disturbance.

As discussed, the site has prior and current development. We understand past site uses included a gas filling station with underground tanks and a septic and leachfield system. Fills were encountered at the borings extending to depths varying from about 1.5 to 5 feet. Existing fills, tank backfill, septic system backfill, organics, pavement, utilities, foundations, structures and tanks must be completely removed from beneath the proposed building. The extent of removal should extend 1 foot laterally outward from outside edge of perimeter footings for every 1-foot of excavation depth (1H:1V bearing splay) below perimeter footing bearing elevation.

We recommend that final cut to foundation and slab subgrades be made using a smooth-edged bucket. Footings should be underlain by at least 12 inches of Crushed Stone wrapped in non-woven geotextile filter fabric, such as Mirafi 180N or equivalent. The upper (northern) slab-on-grade should be underlain with at least 12 inches of compacted Structural Fill. The lower (southern) basement floor slab should be underlain with at least 8 inches of compacted Crushed Stone

Overexcavations above ground water should be backfilled with compacted Structural Fill. Overexcavations below ground water should be backfilled with Compacted Crushed Stone wrapped in geotextile filter fabric, such as Mirafi 180N, or Underdrain Sand.

4.3 Excavation and Dewatering

Excavation work will generally encounter existing fills and marine sands. Care must be exercised during construction to limit disturbance of the bearing soils. Earthwork and grading activities should ideally occur during drier, non-freezing weather of Spring, Summer and Fall. Rubber tired construction equipment should not operate directly on saturated subgrade soils. Final cuts to subgrade should be performed with a smooth-edged bucket to help reduce strength loss from soil disturbance.

Groundwater will be encountered during construction, particularly for excavation of the basement level and southern perimeter foundations. Sumping and pumping dewatering techniques should be adequate to control groundwater in excavations. The fabric wrapped Crushed Stone layer recommended below footings will provide a media from which to sump and pump for construction dewatering. Controlling the water levels to at least one foot below planned excavation depths will help stabilize subgrades during construction.

Excavations must be properly shored or sloped in accordance with OSHA Regulations to prevent sloughing and caving of the sidewalls during construction. Care must be taken to preclude undermining adjacent roads, structures, underground electric duct bank and other utilities. The design and planning of excavations, excavation support systems, and dewatering is the responsibility of the contractor.

4.4 Foundations

We recommend the proposed buildings be supported on spread footings founded on at least 12-inches of Crushed Stone fully wrapped in non-woven geotextile fabric, such as Mirafi 180N, bearing on properly prepared subgrades as recommended herein. For foundations bearing on properly prepared subgrades, we recommend the following geotechnical parameters for design consideration:

Geotechnical Parameters for Spread Footings and Foundation Walls	
Design Frost Depth (100 year AFI)	4.5 feet
Net Allowable Soil Bearing Pressure	2.0 ksf
Base Friction Factor	0.35
Total Unit Weight of Backfill	125 pcf
At-Rest Lateral Earth Pressure Coefficient	0.5
Internal Friction Angle of Backfill	30°
Seismic Soil Site Class	E (IBC 2015)
Estimated Total Settlement	1-inch
Differential Settlement	½-inch

4.5 Foundation Drainage

We recommend an underdrain system be installed on the outside edge of the geotextile fabric wrapped Crushed Stone layer recommended below the southern perimeter wall footing of the basement level, where footings are expected to be deepest. The underdrain pipe should consist of 4-inch diameter, perforated SDR-35 foundation drain pipe bedded in

Crushed Stone and wrapped in non-woven geotextile fabric. The underdrain pipe must have a positive gravity outlet protected from freezing, clogging and backflow. Surface grades should be sloped away from the building for positive surface water drainage. General underdrain details are illustrated on the “Foundation Detail Sketch” attached in Appendix B.

4.6 Slab-On-Grade and Basement Slab

On-grade floor slabs in heated areas may be designed using a subgrade reaction modulus of 100 pci (pounds per cubic inch). The upper (northern) on-grade floor slab should be underlain by at least 12-inches of compacted Structural Fill placed over properly prepared subgrades. The lower (southern) basement floor slab should be underlain with at least 8-inches of Crushed Stone. The structural engineer or concrete consultant must design steel reinforcing and joint spacing appropriate to slab thickness and function.

We recommend a sub-slab vapor retarder particularly in areas of the building where the concrete slab will be covered with an impermeable surface treatment or floor covering that may be sensitive to moisture vapors. The vapor retarder must have a permeance that is less than the floor cover or surface treatment that is applied to the slab. The vapor retarder must have sufficient durability to withstand direct contact with the sub-slab base material and construction activity. The vapor retarder material should be placed according to the manufacturer’s recommended method, including the taping and lapping of all joints and wall connections. The architect and/or flooring consultant should select the vapor retarder products compatible with flooring and adhesive materials.

The floor slab should be appropriately cured using moisture retention methods after casting. Typical floor slab curing methods should be used for at least 7 days. The architect or flooring consultant should assign curing methods consistent with current applicable American Concrete Institute (ACI) procedures with consideration of curing method compatibility to proposed surface treatments, flooring and adhesive materials.

4.7 Entrance Slabs and Sidewalks

Entrance slabs and sidewalks adjacent to the building must be designed to reduce the effects of differential frost action between adjacent pavement, doorways, and entrances. We recommend that non-frost susceptible Structural Fill be provided to a depth of at least 4.5 feet below the top of entrance slabs. This thickness of Structural Fill should

extend the full width of the entrance slab and outward at least 4.5 feet, thereafter transitioning up to the bottom of the adjacent sidewalk or pavement gravels at a 3H:1V or flatter slope. General details of this frost transition zone are shown on the “Foundation Detail Sketch” attached in Appendix B.

4.8 Fill, Backfill and Compaction

We recommend the following fill and backfill materials; recycled products must also be tested in accordance with applicable environmental regulations and approved by a qualified environmental consultant:

Structural Fill: Fill to raise grades beneath the building, backfill for overexcavations above groundwater, backfill for foundations, slab-on-grade base material and material below exterior entrance slabs should be clean, non-frost susceptible sand and gravel meeting the gradation requirements for Structural Fill as given below:

Structural Fill	
Sieve Size	Percent Finer by Weight
4 inch	100
3 inch	90 to 100
¾ inch	25 to 90
No. 40	0 to 30
No. 200	0 to 6

Crushed Stone: Crushed Stone, used beneath footings, as backfill for overexcavations below groundwater, and base material beneath the basement floor slab and for underdrain aggregate should be washed ¾-inch crushed stone meeting the requirements of 2014 MaineDOT Standard Specification 703.22 Underdrain Backfill Material Type C.

Underdrain Sand: As an alternative to geotextile wrapped Crushed Stone, backfill for overexcavations beneath the groundwater table may consist clean, free-draining sand meeting the requirements of 2014 MaineDOT Standard Specification 703.22 Underdrain Backfill Material Type B.

Reuse of Site Soils: The on-site soils are unsuitable for reuse in building areas, but may be suitable for reuse as Common Borrow in paved and landscape areas, provided they are at a compactable moisture content at the time of reuse.

Placement and Compaction: Fill should be placed in horizontal lifts and compacted such that the desired density is achieved throughout the lift thickness with 3 to 5 passes of the compaction equipment. Loose lift thicknesses for grading, fill and backfill activities should not exceed 12 inches. We recommend that fill and backfill in building and paved areas be compacted to at least 95 percent of its maximum dry density as determined by ASTM D-1557. Crushed Stone should be compacted with 3 to 5 passes of a vibratory plate compactor having a static weight of at least 500 pounds.

4.9 Weather Considerations

Construction activity should be limited during wet and freezing weather and the site soils may require drying or thawing before construction activities may continue. The contractor should anticipate the need for water to temper fills in order to facilitate compaction during dry weather. If construction takes place during cold weather, subgrades, foundations and floor slabs must be protected during freezing conditions. Concrete and fill must not be placed on frozen soil; and once placed, the concrete and soil beneath the structure must be protected from freezing.

4.10 Design Review and Construction Testing

S.W.COLE should be retained to review the construction documents prior to bidding to determine that our earthwork and foundation recommendations have been properly interpreted and implemented.

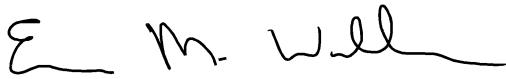
A soils and concrete testing program should be implemented during construction to observe compliance with the design concepts, plans, and specifications. S.W.COLE is available to observe earthwork activities, the preparation of foundation bearing surfaces and pavement subgrades, as well as to provide testing and IBC Special Inspection services for soils, concrete, steel, spray-applied fireproofing, structural masonry and asphalt construction materials.

5.0 CLOSURE

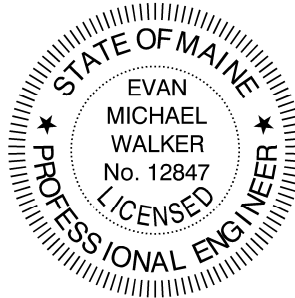
It has been a pleasure to be of assistance to you with this phase of your project. We look forward to working with you during the construction phase of the project.

Sincerely,

S. W. Cole Engineering, Inc.



Evan M. Walker, P.E.
Geotechnical Engineer



EMW:tjb

APPENDIX A

Limitations

This report has been prepared for the exclusive use of Project Management, Inc. for specific application to the proposed Pre-Engineered Metal Building at 121 Cassidy Point Road in Portland, Maine. S. W. Cole Engineering, Inc. (S.W.COLE) has endeavored to conduct our services in accordance with generally accepted soil and foundation engineering practices. No warranty, expressed or implied, is made.

The soil profiles described in the report are intended to convey general trends in subsurface conditions. The boundaries between strata are approximate and are based upon interpretation of exploration data and samples.

The analyses performed during this investigation and recommendations presented in this report are based in part upon the data obtained from subsurface explorations made at the site. Variations in subsurface conditions may occur between explorations and may not become evident until construction. If variations in subsurface conditions become evident after submission of this report, it will be necessary to evaluate their nature and to review the recommendations of this report.

Observations have been made during exploration work to assess site groundwater levels. Fluctuations in water levels will occur due to variations in rainfall, temperature, and other factors.

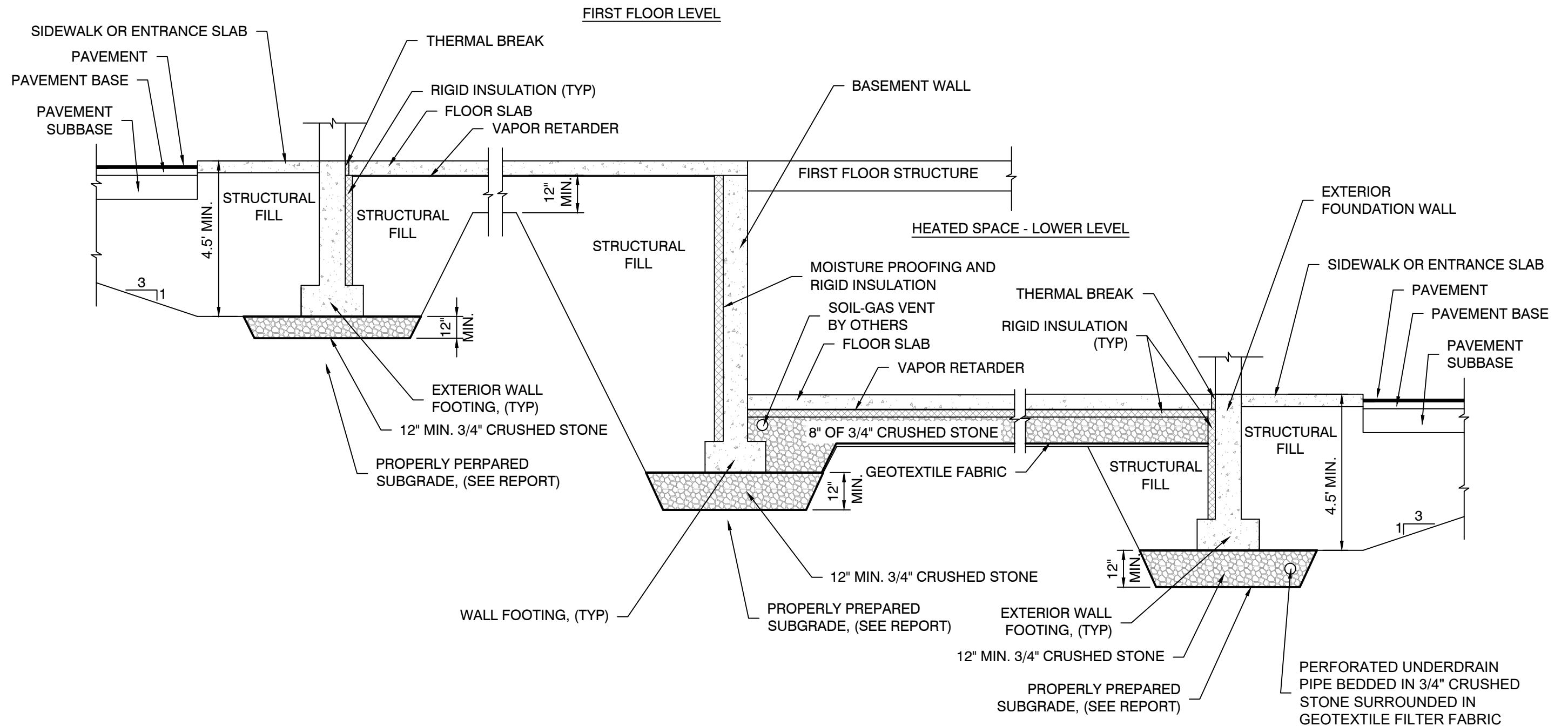
S.W.COLE's scope of services has not included the investigation, detection, or prevention of any Biological Pollutants at the project site or in any existing or proposed structure at the site. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and the byproducts of any such biological organisms.

Recommendations contained in this report are based substantially upon information provided by others regarding the proposed project. In the event that any changes are made in the design, nature, or location of the proposed project, S.W.COLE should review such changes as they relate to analyses associated with this report. Recommendations contained in this report shall not be considered valid unless the changes are reviewed by S.W.COLE.

APPENDIX B

Figures

R:\2018\18-0851\CAD\Drawings\18-0851 FDS.dwg, 10/1/2018 11:35:14 AM, 1:1, CEM, S. W. Cole Engineering, Inc.



NOTE:

1. UNDERDRAIN INSTALLATION AND MATERIAL GRADATION RECOMMENDATIONS ARE CONTAINED WITHIN THIS REPORT.
2. DETAIL IS PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY, NOT FOR CONSTRUCTION.



S.W. COLE
ENGINEERING, INC.

PROJECT MANAGEMENT, INC.

FOUNDATION DETAIL SKETCH
PROPOSED PRE-ENGINEERED METAL BUILDING
121 CASSIDY POINT ROAD
PORTLAND, MAINE

Job No.:	18-0851	Scale:	Not to Scale
Date :	10/01/2018	Sheet:	2

APPENDIX C

Exploration Logs and Key



BORING LOG

CLIENT: Project Management, Inc.
PROJECT: Proposed Pre-Engineered Metal Building
LOCATION: 121 Cassidy Point Drive, Portland, Maine

BORING NO.: **B-101**
SHEET: 1 of 1
PROJECT NO. 18-0851
DATE START: 8/21/2018
DATE FINISH: 8/21/2018

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 22' +/- TOTAL DEPTH (FT): 27.0 LOGGED BY: Evan Walker
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 CASING ID/OD: N/A /N/A CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.75 HAMMER DROP (inch): 30
WATER LEVEL DEPTHS (ft): 10 ft Soils Damp Below 5', Saturated Below 10' +/-

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level
At time of Drilling
At Completion of Drilling
After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
20 5 15 10 10 15 5 20 0 25 -5			1D	X	0-2	24/5	6-6-6-6		Medium dense, dark brown and black, silty gravelly SAND, trace rootlets (Fill)	3.5	▽
			2D	X	2-4	24/4	6-5-5-5		Loose to medium dense, brown, fine to medium SAND, trace silt		
			3D	X	5-7	24/20	3-4-4-6		Cobble/Gravel Layer at 8' +/-		
			4D	X	10-12	24/18	4-4-5-7		Loose to medium dense, gray-brown with orange staining, silty fine to medium SAND		
			5D	X	15-17	24/20	4-4-3-4		Loose, brown with orange staining, silty fine to medium SAND, with occasional clayey silt layers		
			6D	X	20-22	24/22	WOH-1-2-2		Stiff to medium, gray silty CLAY, some fine sand, with frequent sand seams and layers		
			7D	X	25-27	24/24	WOH-3		Stiff to medium gray with black layering, CLAY and SILT to clayey SILT, with frequent sand layers (Relic Bay Mud)		
Bottom of Exploration at 27.0 feet											

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-101**



BORING LOG

CLIENT: Project Management, Inc.
PROJECT: Proposed Pre-Engineered Metal Building
LOCATION: 121 Cassidy Point Drive, Portland, Maine

BORING NO.: **B-102**
SHEET: 1 of 1
PROJECT NO. 18-0851
DATE START: 8/21/2018
DATE FINISH: 8/21/2018

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 25.5' +/- TOTAL DEPTH (FT): 22.0 LOGGED BY: Evan Walker
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 CASING ID/OD: N/A /N/A CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.75 HAMMER DROP (inch): 30
WATER LEVEL DEPTHS (ft): 13 ft Soils Damp to Moist Below 6', Saturated Below 13' +/-

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS:
Water Level
At time of Drilling
At Completion of Drilling
After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
25			1D		0.5-2.5	24/10	8-4-3-3		0.2 Asphalt Pavement Loose, brown, gravelly SAND, some silt (Fill)		
			2D		2.5-4.5	24/8	3-4-6-6		2.5 Loose to medium dense, brown and orange-brown, silty fine to medium SAND (Possible Fill)		
20	5		3D		5-7	24/18	11-21- 17-14		4.0 Dense, brown, SAND and GRAVEL, some silt		
15	10		4D		10-12	24/18	5-7-8-8		10.0 Medium dense to loose, brown, fine to medium SAND, some silt Some gravel 11.5' to 12'		
10	15		5D		15-17	24/18	3-7-8-6				
5	20		6D		20-22	24/18	3-4-2-2	q _p =1 to 1.5 ksf	21.0 Stiff, gray, silty CLAY		

Bottom of Exploration at 22.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-102**



BORING LOG

CLIENT: Project Management, Inc.
PROJECT: Proposed Pre-Engineered Metal Building
LOCATION: 121 Cassidy Point Drive, Portland, Maine

BORING NO.: **B-103**
SHEET: 1 of 1
PROJECT NO.: 18-0851
DATE START: 8/21/2018
DATE FINISH: 8/21/2018

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 22' +/- TOTAL DEPTH (FT): 27.0 LOGGED BY: Evan Walker
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 CASING ID/OD: N/A /N/A CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.75 HAMMER DROP (inch): 30
WATER LEVEL DEPTHS (ft): 10 ft Soils Moist Below 5', Saturated Below 10' +/-

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
At time of Drilling
At Completion of Drilling
After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks		
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD					Field / Lab Test Data	
20 5 15 10 10 15 5 20 0 25 5	0-2 2-4 5-7 10-12 15-17 20-22 25-27		1D	X	0-2	24/16	2-2-3-7	q _p =0.5 to 1 ksf	1.5	Vegetation / Loose dark brown and black silty SAND (Fill)	▽		
			2D	X	2-4	24/18	8-10-10-10		5.0	Medium dense, light brown with orange staining, silty fine to medium SAND			
			3D	X	5-7	24/14	4-7-10-10		10.0	Medium dense, rust-brown, fine to medium SAND, some silt, trace gravel			
			4D	X	10-12	24/15	5-7-10-10		15.0	Medium dense, brown, fine to medium SAND, trace silt			
			5D	X	15-17	24/20	4-4-3-2		20.0	Loose, gray-brown, silty fine to medium SAND, with frequent clayey silt seams and layers			
			6D	X	20-22	24/24	WOH-1		Loose, layered, gray clayey SILT, silty CLAY, and silty SAND				
			7D	X	25-27	24/20	WOH-1-2						

Bottom of Exploration at 27.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-103**



BORING LOG

CLIENT: Project Management, Inc.
PROJECT: Proposed Pre-Engineered Metal Building
LOCATION: 121 Cassidy Point Drive, Portland, Maine

BORING NO.: **B-104**
SHEET: 1 of 1
PROJECT NO. 18-0851
DATE START: 8/21/2018
DATE FINISH: 8/21/2018

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 16.5' +/- TOTAL DEPTH (FT): 27.0 LOGGED BY: Evan Walker
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 CASING ID/OD: N/A /N/A CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.75 HAMMER DROP (inch): 30
WATER LEVEL DEPTHS (ft): 4.5 ft Soils Moist to Wet Below 2.5', Saturated Below 4.5' +/-

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
At time of Drilling
At Completion of Drilling
After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
15			1D		0.5-2.5	24/4	4-3-3-2		0.2 Asphalt Pavement		
									Loose, gray-brown, silty gravelly SAND (Fill)		
	5		2D		2.5-4.5	24/4	4-5-5-5		2.0 Loose to medium dense, dark gray and black, silty SAND, some gravel (Fill)		
10			3D		5-7	24/14	2-3-3-5		5.0 Loose, gray-brown, fine to medium SAND, some silt		
	10		4D		10-12	24/18	2-3-3-4		10.0 Loose, gray-brown SAND, trace silt, trace gravel		
5											
	15		5D		15-17	24/18	6-6-5-6		15.0 Medium dense, brown, SAND, trace silt, trace gravel, with occasional clayey silt seams		
0									Gravelly Layer at 18		
	20		6D		20-22	24/20	3-2-2-3		20.0 Loose, brown, fine to medium SAND, trace silt		
-5											
	25		7D		25-27	24/22	4-5-5-5		24.0 Stiff, gray, silty CLAY, with occasional sand seams		
-10											

Bottom of Exploration at 27.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-104**



BORING LOG

CLIENT: Project Management, Inc.
PROJECT: Proposed Pre-Engineered Metal Building
LOCATION: 121 Cassidy Point Drive, Portland, Maine

BORING NO.: **B-105**
SHEET: 1 of 1
PROJECT NO. 18-0851
DATE START: 8/21/2018
DATE FINISH: 8/21/2018

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 25' +/- TOTAL DEPTH (FT): 32.0 LOGGED BY: Evan Walker
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Jeff Lee DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted CME 850 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 CASING ID/OD: N/A /N/A CORE BARREL:
HAMMER EFFICIENCY FACTOR: 0.75 HAMMER DROP (inch): 30
WATER LEVEL DEPTHS (ft): 15 ft Soils Damp Below 5', Saturated Below 15' +/-

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling
▼ At Completion of Drilling
▽ After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
20 											

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-105**

KEY TO THE NOTES & SYMBOLS

Test Boring and Test Pit Explorations

All stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

w	-	water content, percent (dry weight basis)
q _u	-	unconfined compressive strength, kips/sq. ft. - laboratory test
S _v	-	field vane shear strength, kips/sq. ft.
L _v	-	lab vane shear strength, kips/sq. ft.
q _p	-	unconfined compressive strength, kips/sq. ft. – pocket penetrometer test
O	-	organic content, percent (dry weight basis)
W _L	-	liquid limit - Atterberg test
W _P	-	plastic limit - Atterberg test
WOH	-	advance by weight of hammer
WOM	-	advance by weight of man
WOR	-	advance by weight of rods
HYD	-	advance by force of hydraulic piston on drill
RQD	-	Rock Quality Designator - an index of the quality of a rock mass.
γ _T	-	total soil weight
γ _B	-	buoyant soil weight

Description of Proportions:

Trace:	0 to 5%
Some:	5 to 12%
"Y"	12 to 35%
And	35+%

Description of Stratified Soils

Parting:	0 to 1/16" thickness
Seam:	1/16" to 1/2" thickness
Layer:	1/2" to 12" thickness
Varved:	Alternating seams or layers
Occasional:	one or less per foot of thickness
Frequent:	more than one per foot of thickness

REFUSAL: Test Boring Explorations - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

REFUSAL: Test Pit Explorations - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.

APPENDIX D

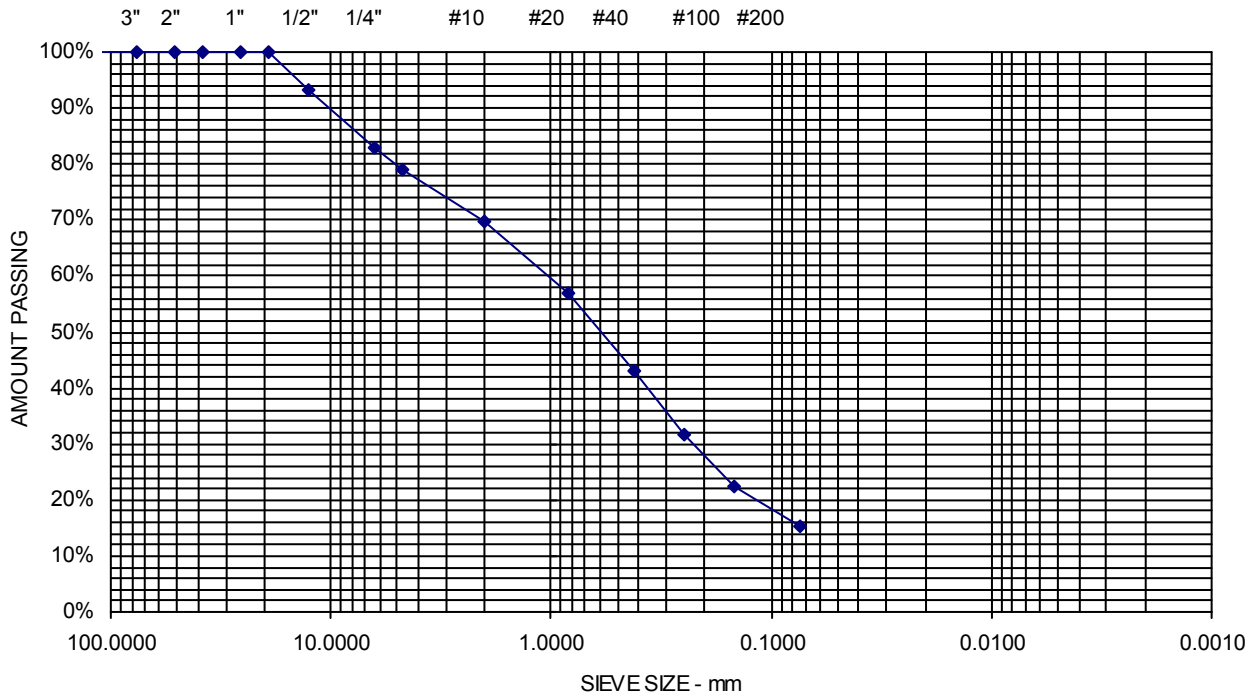
Laboratory Test Results

Project Name PORTLAND ME - PROPOSED PRE-ENGINEERED METAL BUILDING -
GEOTECHNICAL ENGINEERING SERVICES
Client PROJECT MANAGEMENT, INC.

Project Number 18-0851
Lab ID 24433G
Date Received 9/28/2018
Date Completed 10/2/2018
Tested By PAUL SHAFFER

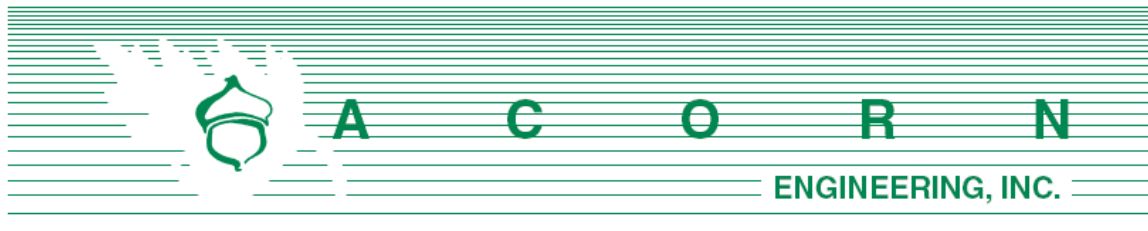
Material Source **B102 1D .5-2.5'**

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	93	
6.3 mm	1/4"	83	
4.75 mm	No. 4	79	20.9% Gravel
2.00 mm	No. 10	70	
850 μm	No. 20	57	
425 μm	No. 40	43	63.9% Sand
250 μm	No. 60	32	
150 μm	No. 100	23	
75 μm	No. 200	15.1	15.1% Fines



Section K

Erosion & Sedimentation
Control Report



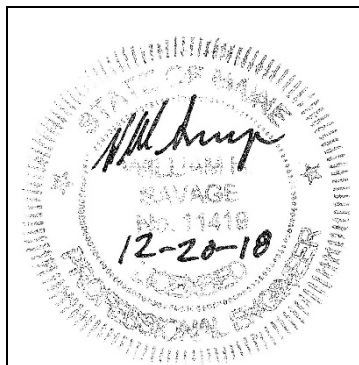
K. EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**Project Management, Inc.
225 Commercial Street, Suite 502
Portland, Maine 04101**

Prepared By:

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



January 2019

INTRODUCTION

Acorn Engineering, Inc. has been retained by Project Management, Inc. to provide civil engineering services for the proposed redevelopment of 121 Cassidy Point Drive. The project proposes to demolish the existing, 2-story wood-framed building and construct a new, 4-story building designed as “maker space” in which crafters and tradespeople can rent within a low impact industrial conditional use, as specified in Sec. 14-319 of the City of Portland Chapter 14 – Land Use.

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

1.0 EXISTING CONDITIONS

The proposed project is located at 121 Cassidy Point Drive. A boundary plan has been prepared by Owen Haskell, Inc. of Falmouth, Maine dated October 29, 2018.

The site and its abutters reside within the Waterfront Port Development Zone. The majority (approximately 83.4%) of the site is impervious in the form of gravel, pavement or roof cover.

1.1 Existing Soils

Onsite soil information has been gathered from the following resources:

- United States Department of Agriculture (USDA) Web Soil Survey (WSS)
- Explorations and Geotechnical Engineering Services Report prepared by S.W. Cole Engineering, Inc.

As a Level II, Site Plan Application, the proposed project isn’t required to submit soil surveys, per “Section 7 Soil Survey” of the City of Portland Technical Manual. However, a geotechnical investigation was performed at the site on 10/3/18 by S.W. Cole Engineering, Inc.

The area within and surrounding the project includes soil types listed in Table 1 below. The susceptibility of soils to erosion is indicated on a relative “Kf” scale of values over a range of 0.02 to 0.69. Higher “Kf” values indicate more erodible soils. The Kf value listed was derived from the Revised Universal Soil Loss Equation Version 2 (RUSLE2), identified in the USDA’s WSS (Attachment 3). The Soil Types were derived from the Explorations and Geotechnical Engineering Services Report (Attachment 4).

Table 1		
Soils Type	Depth (feet)	Kf Value
Fill	1 - 5	0.2
Marine Sands	20 – 30	-



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 given the steep slopes on site.

1.2 Existing Erosion Problems

There are no signs of erosion.

1.3 Critical Areas

Critical areas that would require special attention during construction include, but are not limited to, the existing structures, the drainage system within Cassidy Point Drive and slope stabilization located within the vicinity during earthwork and foundation construction.

1.4 Protected Natural Resource

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

1.5 Previous Construction Activity (5 years)

Acorn Engineering, Inc. is aware that the propane tank previously located on the southern side of the single-story metal building has been removed within the project limits within the past 5 years.

1.6 Timber Harvesting

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

2.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

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

2.1 Temporary Erosion Control Measures

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



- 2.1.1 Crushed stone stabilized construction entrances shall be placed at all access points to the project site where there are disturbed areas. The following specifications shall be followed at a minimum:
- Stone size shall be 2-3 inches or reclaimed or recycled concrete equivalent.
 - The thickness of the entrance stone layer shall be no less than 6 inches.
 - The entrance shall not be less than 20 feet wide, however not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.
 - Geotextile fabric (woven or non-woven) shall be placed over the entire entrance area.
 - The entrance/exit shall be maintained to the extent that it will prevent sediment tracking onto public road ways.
- 2.1.2 Siltation fence or erosion control berm shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The silt fence or erosion control berm shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. If there are signs of undercutting at the center or the edges or impounding of large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam.
- 2.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting 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 Cassidy Point Drive shall be swept to control mud and dust from the construction site as necessary. Add additional stone to the stabilized construction entrance to minimize tracking material offsite and onto surrounding roadways.
- 2.1.6 During demolition, clearing and grubbing operations, stone check dams shall be installed at any areas of concentrated flow. The maximum height of the check dam shall not exceed 2 feet. The center of the check dam shall be 6 inches below the outer edges of the dam. The contractor shall mulch the side slopes and install stone check dams for all newly excavated ditch lines within 24 hours of their creation.



- 2.1.7 Silt fence stake spacing shall not exceed 6 feet unless the fence is supported with 14-gauge wire in which case the maximum spacing shall not exceed 10 feet. The silt fence shall be “toed” into the ground.
- 2.1.8 Storm drain inlet protection shall be provided to storm drains using any of the following: hay bale drop inlet structures, silt fence drop inlet sediment filter, gravel and wire mesh drop inlet sediment filter, or curb inlet sediment filter. Barriers shall be inspected after every rainfall event and repaired as necessary. Sediments shall be removed when accumulation has reached $\frac{1}{2}$ the design height.
- 2.1.9 Dust control shall be accomplished using either water, calcium chloride, stone, or an approved MDEP product. Dust control measures 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 foundation drains until the trench is backfilled.

2.2 Permanent Erosion Control Measures

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

- 2.2.1 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4” of loam, limed, and mulched. Erosion control blankets or mats shall be placed over the mulch in areas noted in paragraph 4.1 of this report.
- 2.2.2 All stormwater devices shall be installed, and tributary areas stabilized prior receiving stormwater.
- 2.2.3 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.



3.0 EROSION AND SEDIMENTATION CONTROL PLAN

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

4.0 DETAILS AND SPECIFICATIONS

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

5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

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

The contractor shall limit the disturbance areas to locations 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. After November 1st and if the exposed area has not been loamed, final grading with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

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

5.5 Over winter stabilization of disturbed soils

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

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.
- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.
- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. on the area so no soil is visible through the mulch. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving 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 steeper than 15%. If a slope to be vegetated is not stabilized by September 1st, then one of the following actions shall be taken to stabilize the slope for late fall and winter:

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

6.0 INSPECTION AND MAINTENANCE

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

6.1 Sediment Barriers

Hay bale barriers, silt fences and filter berms shall be inspected and repaired for the following if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary,



the fabric shall be replaced promptly. Sediment deposits should be removed when deposits reach approximately one-half the height of the barrier. Filter berms should be reshaped as needed. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared and seeded.

6.2 Stabilized Stone Construction Entrances

The entrance shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way. When the control pad becomes ineffective, the stone shall be removed along with the collected soil material and redistributed on site in a stable manner. The entrance should then be reconstructed. The contractor shall sweep or wash pavement at entrances, 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 that 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 installation of utilities.
6. Continue earthwork and grading to subgrade as necessary for construction.
7. Complete installation of drainage infrastructure, as well as other utility work.
8. Complete remaining earthwork operations.
9. Install sub-base and base gravels in paved areas.
10. Install paving, curbing and brickwork.
11. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
12. 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.
13. Touch up areas without a vigorous catch of grass with loam and seed.
14. Complete site signage and striping.
15. 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 a schedule of the completion of the work to the owner. If the contractor is to commence the construction of more than one item above, they shall limit the amount of exposed areas to those 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 to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

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

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

Seeding

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

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

Mulching

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

Conclusion

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



PERMANENT SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded 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. Summer seeding is allowed if completed prior to September 1st. If permanent seeding cannot be accomplished during the recommended periods, then the contractor shall perform temporary seeding per the temporary seeding plan.

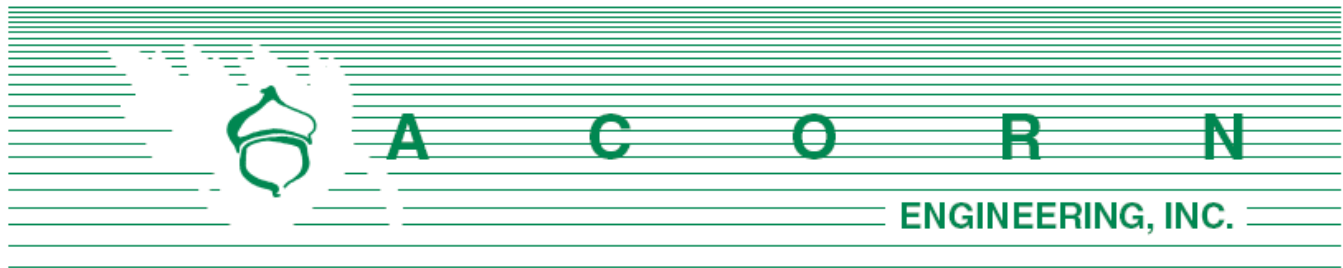
Conclusion

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

January 2, 2019

Subject: 121 Cassidy Point Drive – Fire Department Checklist
Section L of Application

On behalf of Project Management, Inc. the design team is pleased to respond to the Portland Fire Department Site Review Checklist.

1. Name, address, telephone number of Applicant

Project Management, Inc.
chagge@mac.com
(207) 274-1547

2. Name address, telephone number of Architect

Dextrous Creative
Tracie Reed
traciereed@dextrouscreative.com
(207) 409-0459

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

NFPA: Business & Industrial / IBC: Factory-2, Business

4. Square footage of all structures

The existing 2-story wooden structure is to be demolished to facilitate the redevelopment.

The proposed 4-story structure to be constructed has the following floor areas:

Proposed Building		
1 st Floor	2,500	sf
2 nd Floor	5,000	sf
3 rd Floor	5,000	sf
4 th Floor	5,000	sf
Total	17,500	sf

5. Elevation of all structures

Based upon the average grade plane defined by the IBC, the proposed building height is 44.27 feet. This height is below the allowable 60 feet within the WPDZ west of the Casco Bay Bridge. For additional information, please refer to the building elevations provided by the Architect.

6. Proposed fire protection of all structures

The building will have a sprinkler system with additional protection per code. Fire flows and requirements for system storage or booster pumping are subject to the fire professional design which will be performed prior to requesting a building permit.

7. Hydrant locations

An existing hydrant is located across the street, approximately 79.8 feet from the southwestern corner of the proposed building. Once received, hydrant flow data from the Portland Water District may be made available to the Fire Department upon request.

8. Water main size and location

The redevelopment will be serviced by the existing water main within Cassidy Point Drive. A 4" fire service line will extend from the existing water main to the building fire suppression system. The building is expected to have internal sprinkler risers and a Fire Department pump connection on the south-facing street side of the building.

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

Access to the structure is provided directly on both north and south sides of Cassidy Point Drive.

It should also be noted that in the event of an emergency, the west side of the building would likely be accessible from Cassidy Point Drive as well, for a total of three accessible sides.

10. The Architect has provided code summaries (attached).

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

The project site faces Cassidy Point Drive, a public street, on both north and south sides of the building. The following pavement street width is currently available:

- Cassidy Point Drive (north facing): 66 feet
- Cassidy Point Drive (south facing): 80 feet



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

City of Portland Technical Manual – Section 3 Public Safety

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

Response: Not applicable

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

Response: As outlined in #9, the parcel's geometry allows for two sides of access, three in case of emergency. The building will also include a sprinkler system.

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 Cassidy Point Drive.

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, which meets the required 9 foot clearance height minimum.

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

Response: See Section O: Architectural Design Narrative

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



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

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

Sincerely,



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



Section M

Wastewater Capacity Letter

M. Wastewater Capacity Letter

The proposed project will include the development of four stories with parking available on the 1st floor level, and maker space on portions of the 2nd, and the entirety of the 3rd & 4th floors. Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules, the project anticipates the following daily flows:

Estimate of Design Flows			
Classification of Water Demand	Number of Units &/or Users	Gallons per Day per unit	Total Gallons per Day
<i>Proposed</i>			
Warehouse	24 Users	12 per User	288
<i>Existing</i>			
Warehouse	1 Unit	100	100
Total Proposed			288
Total Existing			100
Net Change			+188 GPD
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition			

As shown in the table above, there is an estimated increase in daily flow of 188 gallons. A 6" sewer service that connects to the main beneath the right-of-way on the south-facing side of Cassidy Point Drive is being proposed.



Section N

Lighting

N. Lighting

Please find attached cut sheets and photometric plan within Civil Plan Set.



LNC2 SERIES

Cat.#

Job

Type



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

Intended Use:

The compact LED LNC2 is designed for perimeter illumination for safety, security and identity. This compact fixture has no uplight and is neighbor friendly with typical mounting heights up to 15ft. Units are supplied with an acrylic diffuser accessory that can be used for lower LED brightness near building entrances or other pedestrian areas. Units have protective polyester finish for long lasting appearance.

Construction:

Decorative die-cast aluminum housing protects components and provides an architectural appearance. Casting thermally conducts LED heat to optimize performance and long life. Powder paint finish provides durability in outdoor environments.

Electrical:

- 120V-277V universal voltage 50/60Hz 0-10V dimming drivers
- Minimum operating temperature is -40°C/-40°F
- Driver RoHS and IP66
- Drivers have greater than .90 power factor and less than 20% Total Harmonic Distortion

LED(s) CCT:

- 4000K CCT nominal – 70 CRI, 5000K CCT nominal – 67 CRI
- 12 LEDs, 29 input watts, deliver 2868 lumens with 99 LPW efficiency at 5000K CCT
- 18 LEDs, 42 input watts, deliver 4106 lumens at 98 LPW efficiency at 5000K CCT

Optical:

Type III distribution with zero uplight; Individual PMMA acrylic lenses for wide lateral throw, maximum control and efficiency; Acrylic diffuser included where reduced LED brightness is desired

Lumen Maintenance:

L96 at 60,000hrs (Projected per IESNA TM-21-11), see table on page 2 for all values

Installation:

Quick-mount adapter provides easy installation to wall or to recessed junction boxes (4" square junction box). Gasket seal and secured by two Allen-head hidden fasteners for tamper resistance. Designed for direct j-box mount or conduit feed in single SKU. Conduit feed not available with BBU.

Listings:

- DLC Qualified (Consult DLC website for more details: <http://www.designlights.org/QPL>)
- Listed to UL 1598 for use in wet locations, 40° C ambient environments

Warranty:

Five year limited warranty (for more information visit: <https://www.hubbell.com/hubbelllighting/en/warranty>)

PRODUCT IMAGE(S)



LNC2-12LU

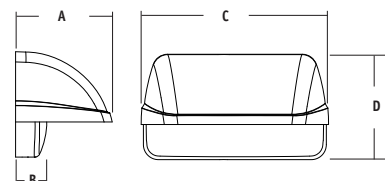


LNC2-18LU



With diffuser

DIMENSIONS



A	B	C	D	Weight
6.25"	1.6"	10.25"	5.6"	7.0 lbs.
158.7 mm	40.2 mm	260.4 mm	142.2 mm	3.2 kg

SHIPPING INFORMATION

Catalog Number	G.W(kg)/CTN	Carton Dimensions			Carton Qty. per Master Pack
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)	
LNC2-12LU	14.3 (6.5)	14.5 (37)	11.4 (29)	8.4 (21.5)	2
LNC2-18LU	14.8 (6.7)	14.9 (38)	11.4 (29)	8.4 (21.5)	2

CERTIFICATIONS/LISTINGS



ORDERING INFORMATION – STOCK

Catalog Number	System Watts	Delivered Lumens	Distribution	Voltage	CCT	# Drivers/Current	Weight lbs. (kg)	Finish	Options
LNC2-12LU-4K-3-1	29w	2,662	3	120-277V	4000K	1@700mA	7.0 (13.3)	Dark Bronze	*
LNC2-12LU-5K-3-1	29w	2,868	3	120-277V	5000K	1@700mA	7.0 (13.3)	Dark Bronze	*
LNC2-12LU-5K-3-1-PC-U	29w	2,868	3	120-277V	5000K	1@700mA	7.0 (13.3)	Dark Bronze	Photocell
LNC2-18LU-4K-3-1	42w	3,806	3	120-277V	4000K	2@700mA	7.0 (13.3)	Dark Bronze	*
LNC2-18LU-5K-3-1	42w	4,106	3	120-277V	5000K	2@700mA	7.0 (13.3)	Dark Bronze	*
LNC2-18LU-5K-3-1-PC-U	42w	4,106	3	120-277V	5000K	2@700mA	7.0 (13.3)	Dark Bronze	Photocell

REPLACEMENT PART/ACCESSORIES

CATALOG NUMBER	DESCRIPTION
93044013	Frosted comfort shield, improves uniformity with only 5% lumen reduction (see page 2)
93055143XX	LNC2 back plate and gasket with 0.875" opening for 1/2" conduit, XX = Specify finish (see page 2)
LNC2-SCBB-XX	LNC2 back plate with gasket and fittings to accommodate BB-GEO-XX, XX = Specify finish (see page 2)
BB-GEO-XX	LNC2 back box, XX = Specify finish (see page 2)



HUBBELL
Outdoor Lighting

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

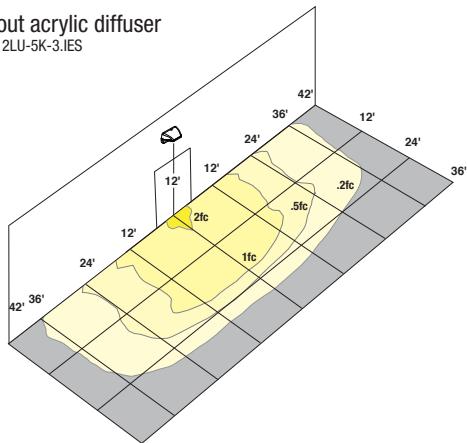
Due to our continued efforts to improve our products, product specifications are subject to change without notice.

© 2018 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA

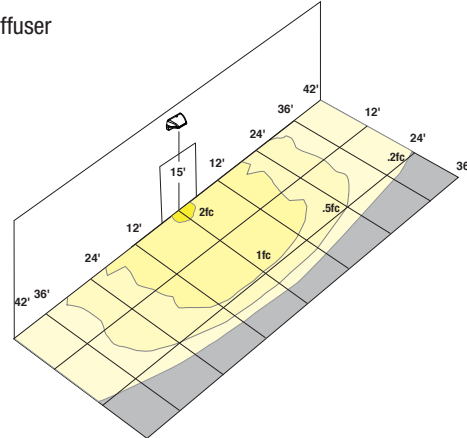
OCTOBER 22, 2018 8:42 AM

PHOTOMETRICS

Without acrylic diffuser
LNC2-12LU-5K-3.IES



Without acrylic diffuser
LNC2-18LU-5K-3.IES



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

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

PROJECTED LUMEN MAINTENANCE

Ambient Temp.	OPERATING HOURS					L70 (hours)
	0	25,000	50,000	TM-21-11' L96 60,000	100,000	
25°C / 77°F	1.00	0.98	0.97	0.96	0.95	>791,000
40°C / 104°F	0.99	0.98	0.96	0.96	0.94	>635,000

1. Projected per IESNA TM-21-11 * (Nichia 219B, 700mA, 85°C Ts, 10,000hrs)

Data references the extrapolated performance projections for the LNC-12LU-5K base model in a 40°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

ELECTRICAL DATA

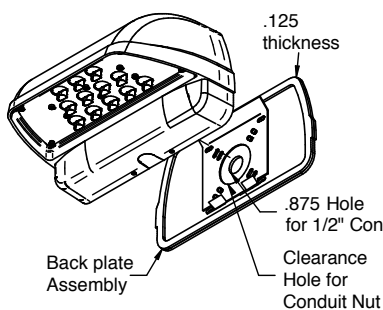
# OF LEDS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	CURRENT (Amps)	SYSTEM POWER (w)
12	STD. (700mA)	120	0.24	28.9
		277	0.10	27.7
18	STD. (700mA)	120	0.35	41.0
		277	0.15	41.5

BACK PLATE - 93055143XX

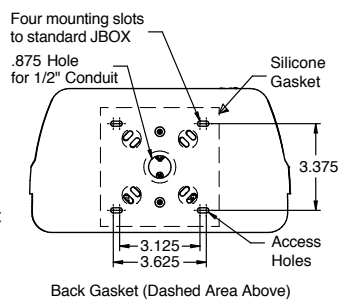


Mounting Plate interior

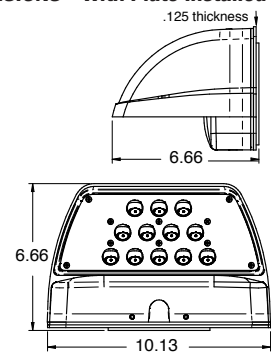
Mounting Plate Exterior



MOUNTING PLATE DETAILS



DIMENSIONS - With Plate Installed



LNC2-SCBB-XX SURFACE CONDUIT BACK PLATE



LNC2 FIXTURE



LNC2-SCBB-XX



BB-GEO-XX



LNC2-SCBB-XX and BB-GEO-XX SHOWN ATTACHED TO FIXTURE

To Wall



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.

© 2018 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA

OCTOBER 22, 2018 8:42 AM

Section 0

Architectural Design
Narrative

December 23, 2018

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



Re: Cassidy Point Studios - Narrative

The proposed building to be located on a land-locked parcel along Cassidy Point Road in the City's Waterfront Port Development Zone. The proposed building will house four-stories of light-industrial and artist studio spaces, with two levels including overhead doors to facilitate moving of sculptures, equipment and sheet goods.

Cassidy Point Drive forms a loop along Western Commercial Street with a traffic light and left-hand turning lane at the Eastern End. Rail line and a power transfer station separate the parcel from West Commercial Street.

Along lower Cassidy Point Drive are Cianbro's Marine Facility. The lot features a two-story, pre-fabricated metal building over 150'-0" in length with a low-slope gable roof. Busy cranes and heavy construction equipment move goods around a fenced asphalt yard, while trucks enter and exit from Merrill's Marine Terminal yard along adjacent Cassidy Point Drive.

Rounding Cassidy Point loop a towering pile of coal 3-4 stories high sits awaiting loading and transport, and the former Advantage Gas Tool and Equipment building. This two-story building has baby blue vinyl siding, a prominent loading dock, small punched openings at regular intervals and a low-sloped gable roof.

Sharing the lot as the proposed building, is a single-story, pre-fabricated metal building with barrel roof, oversized overhead doors, and a footprint nearly identical to the building proposed.

The proposed building design seeks to respectfully integrate within the massing and material context of the industrial zone with sharp contrast in our resource consumption. Passengers flying into Portland will see a roof-mounted solar array on the metal mono-pitch roof in contrast to the pile of coal across the street.

The building siding, as proposed, includes exposed-fastener, horizontally-applied corrugated galvalume. Metal siding is prevalent among adjacent buildings and also provides texture to the design. Siding will be capped with galvalume corner boards, and window trim.

Double-hung windows, spaced in regular intervals along the façade, will have dark frames in contrast with the siding, further reinforcing the simplicity of the design, and maintaining fenestration patterns of adjacent buildings.

Dextrous Creative
dextrouscreative.com
traciereed@dextrouscreative.com
46 Cushman Street #4, Portland, ME 04102

The building's main entrance along upper Cassidy Point features a projecting asymmetrical canopy with colorful trim, in contrast to the raw galvalume siding. The entrance door will also feature a complimentary vibrant color to the canopy and serve as a welcoming place to enter the building's upper workspaces.



The design of Cassidy Point Studios reflects the industrial use of the building and adjacent land uses while using material, massing and rhythm as elements to integrate it into the existing contextual fabric of Cassidy Point. We look forward to discussing the project with you soon.

Sincerely,

A handwritten signature in black ink that reads "Tracie J. Reed". The signature is fluid and cursive, with the first and last names being more prominent than the middle initial.

Tracie J. Reed, Maine Licensed Architect, LEED AP, NCARB
Principal

Dextrous Creative
dextrouscreative.com
traciereed@dextrouscreative.com
46 Cushman Street #4, Portland, ME 04102

CODE REVIEW
121 Cassidy Point

BUILDING DESCRIPTION

New construction of four-story, sprinklered & monitored building, approx. 17,500 SF in size, to house light-industrial artist studios such as woodworkers and metal fabricators on first two floors (classified as F-2 per IBC). These two floors will feature overhead doors to facilitate work with large sheet goods and moving of finished pieces. Both of these levels have exit and overhead doors at grade. The top two floors will house smaller artist studios for artists like painters, print makers, fiber, textile and ceramic artists. The lot also houses an existing single story pre-fabricated metal building, of approx. 5,000 SF to remain.

ZONING

- CBL: 072 B001001
- Address: 121 Cassidy Point
- Lot size: 0.5847

- Zone: Waterfront Port Development Zone (WPDZ)
- Minimum yard setback: N/A
- Min. lot size: N/A, 5 acres for conditional uses
- Max. coverage: 100%
- Max. height: 60'-0"
- Max. length: 450'-0"
- Parking: 50% of required spaces by Division 20

IBC 2015

- Construction Type: 5B
- Use: Factory-2 (lower two floors), Business (third and fourth floor)
- Size: approx.. 50'-0" x 100'-0" footprint
 - First floor: 2,500 (25'-0" x 100'-0") F-2
 - Second floor: 5,000 (50'-0" x 100'-0") F-2
 - Third floor: 5,000 (50'-0" x 100'-0") Business
 - Fourth floor: 5,000 (50'-0" x 100'-0") Business
- Allowable height above grade plane: 60'-0" VB for both F&B (504.3)
- Allowable stories: 3 above grade plane F&B (504.4)
- Allowable area: 27,000 SF (506.2)
- Required separation of occupancies: B & F2 1-hour (508.4)
- Fire resistance: 5B – none for walls, floors, roof (601)
- Fire separation distance: >10'-0" for types B&F-2 = none required (602)
- Max. opening based on fire separation distance: 45% for 10'-0" to 15'-0" and 75'-0" for 15'-0" to 20'-0" by story (705.8)
- Opening in fire resistance barrier: limited to 25% of interior wall width (707.6)
- Shaft enclosures: 1-hour rating when connecting less than 4-stories, and 2-hours for shafts connecting four stories or more (713.4)
- Fire stopping: Required for penetrations in rated walls tested in accordance with ASTM E814 or UL 1479. Rating at penetration to equal or exceed rating of assembly being penetrated. (714.3.1.2 and 714.4.1.2)
- Interior finishes (803.11)
 - Business: exit stairs B; corridor C; rooms C
 - Factory: C (all)
- Floor area allowances (1004.1.2)
 - Accessory or mechanical rooms: 300 SF gross
 - Business areas: 100 SF gross
 - Industrial areas: 100 SF gross
- Stairway width: occupant load x 0.3 inches (1005.3.1)
- Other egress components: occupant load x 0.2 inches (1005.3.2)
- Area of refuge: not required in sprinklered buildings (1009.3.5)
- Stairway width: Serving capacity under 50 persons = 36" (1011.2.1)
- Riser height & tread depth: Max. 7" riser and 11" min. run (1011.5.2)
- Roof access: unoccupied roof permitted via hatch no less than 16 SF (1011.12.2)
- Roof access stair: alternating tread device permitted for uninhabited roof (1011.14)
- Ramp width: no narrower than stair width. Min. of 36" clear BTW handrails (1012.5.1)
- Ramp landing: no shorter than 60" (1012.6.3) with changes in direction min. 60"x60" (1012.6.4)
- Handrail type: Type I, circular BTW 1.25"-2" in diameter (1014.3.1)
- Handrail extensions: 12" beyond top and length of 1-tread @ bottom (1014.6)

CODE REVIEW
121 Cassidy Point

- Handrail clearance: 1.5" clear from wall (1014.7)
- Guard: guard required at mezzanine over 30" (1015.2)
- Guard height: 42" min. above surface (1015.3)
- Guard opening limitations: shall not allow passage of 4" sphere (1015.4)
- Enclosure of stairs: 1-stair shall be provided that does not require travel through an elevator lobby (1016.2.1)
- Corridor rating: none required with sprinkler system (1020.1)
- Min. corridor width: 36" for load under 50 persons (1020.2)
- Elevator door opening: elevator doors shall not open onto exit stairways (1023.4)
- Exit discharge: Exits shall discharge on the exterior of building (1028.1)
- Multi-story buildings & mezzanines: Shall have an accessible route when aggregate area is over 3,000 SF (1104.4)
- Accessible entrances: at least 1-accessible entrance shall be provided to each tenant space, at least 60% of public entrances shall be accessible (1105.1 and 1105.1.6)
- Accessible parking: 1 accessible spot per 25 spaces (1106.1)
- Accessible bathrooms: each toilet/bathing facility shall be accessible. At clustered single-use bathrooms 50% must be accessible. (1109.2)

NFPA 101-2009

- Chapters 38 (new business occupancies) and Chapter 40 (industrial occupancies)
- Fire alarm system: required (40.3.4.1)

UPC 2015 (422.1)

- 150 total building occupants = 75 men and 75 women
- Toilets and sinks: (2):51-75 men and women = (4) total
- Utility sink: 1
- Drinking fountain: 1:1-250

IECC 2015

- Climate Zone I 6A

Insulation values req. per IECC 2015 table C402.1.3

- Roof (Insulation entirely above roof deck): R-30ci
- Metal building – walls, above grade: R-13 + R-13ci
- Wood framed: R-13+ R-7.4ci or R-20 + R.38ci
- Walls below grade: R-7.5 ci
- Floors: R-30
- Unheated slab on grade: R-10 for 24" below
- Heated slab: R-15 for 36" below
- Opaque Doors (non-swinging): R-4.75

Window Factors per table C402.4

- Fixed fenestration: 0.36
- Operable fenestration: 0.43
- Entrance doors: 0.77
- Solar heat gain coefficient (SHGC) by orientation:

Protection Factor	SEW	N
PF < 0.2	0.40	0.53
0.2 ≤ PF < 0.5	0.48	0.58
PF ≥ 0.5	0.64	0.64

Max air leakage per table C402.5.2 in (CFM/FT²)

- Garage doors: 0.40
- Swinging doors: 0.20
- Commercial glazed swinging entrance doors: 1.0

ADA 2010

- Elevator Exception: Only applicable for buildings under 3,000 sf (36.401(d)(2))

CODE REVIEW
121 Cassidy Point

- Clear floor space: 30"x48" (305.3)
- Unobstructed forward reach: 48" (308.2)
- Obstructed forward reach: 44" (308.2.2)
- Unobstructed side reach: 15-44" (308.3.1)
- Clear door width: 32" (404.2.3)
- Pull clearance at door: 18"x60" (404.2.4.1)
- Push clearance at door: 12"x48" (404.2.4.1)
- Door hardware install height: 34"-48" AFF (404.2.7)
- Interior door push force: 5# max, exterior door exception (404.2.9)
- Ramp slope: No greater than 1:12 (405.2)
- Cross slope: No greater than 1:45 (405.3)
- Ramp landings with turn: 60"x60" (405.7)
- Mirror location: No more than 40" AFF in front of sinks (603.3)
- Water closet: 16"-18" from wall (604.2)
- Clearance around water closet: 56" from rear and 60" wide (604.3.1)
- Side toilet grab bar: 12" clear from rear wall 42" long (604.5.1)
- Rear toilet grab bar: 6" clear from rear wall and 36" long (604.5.2)
- Toilet paper: 7"-9" in front of toilet and 15"-48" AFF (604.7)
- Sink clearance: front approach (606.2)
- Sink height: rim of sink at least 34" AFF (606.3)
- Exposed pipes: insulated to protect from contact (606.5)
- Fire alarms: visible & audible (702.1)

Section P

Utilities

P. Utilities

The proposed project includes installing multiple utility services to the proposed building, which can be seen on the Utility Plan, see Sheet C-20.

Water:

It is proposed to tap a 4" services off the water main within Cassidy Point Drive on the south-facing side of the property. The 4" line will serve as the sprinkler line with a 2" child connection for domestic services.

Sewer:

No service card was found for this property. It is proposed to tap a 6" service off the sewer main within the Cassidy Point Drive right-of-way on the south-facing side of the property.

Stormwater:

There is currently no drainage infrastructure on site. It is proposed to implement several measures to handle runoff which includes vegetation, foundation drains and a catch basin. These measures are designed to intercept and filter roof and pavement runoff that would otherwise drain offsite.

UGE/T/C:

All new services will be re-run overhead from Pole #98 to the proposed building.

Gas:

There is currently one natural gas line on the property that services the existing metal building which is to remain. It is proposed to install an additional gas service to the new building that taps into the gas main within Cassidy Point Drive.

Ability to serve letters have been sent out to the respective utility companies on September 25, 2018 in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use, Section 14-527(g)(7). Responses from the utility companies can be found attached to this section.





November 19, 2018

Faith Thomas
Acorn Engineering

Re: 121 Cassidy Point Dr. new proposed building

Dear Faith,

Thank you for your interest in using natural gas for the above referenced project.

Unitil has a 6 inch steel, high pressure natural gas main on Cassidy Point Dr. and can service the proposed building. Unitil will have to install a farm tap – pressure reducing device on customer's property; location of such device to be determined by Unitil engineering department once we have the BTU requirement for the building broken down by meter. My understanding is the customer is looking for 5 meters in total. 4 meters for tenants and 1 house meter.

As the project progresses, please send me the breakdown of natural gas equipment so that the information can be added to our records. If you have any further questions or require additional information, please contact me directly at (207) 541-2543 or at carpenters@unitil.com.

Sincerely,

Scott Carpenter

Scott Carpenter
Senior Business Development Representative
Unitil Corporation
(o) 207-541-2543 (f) 207-541-2593

ME GAS CUSTOMER ENERGY SOLUTIONS
1075 Forest Avenue
Portland, ME 04103-3586

T 207-541-2508 www.unitil.com



Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

December 4, 2018

Faith Thomas, E.I.
Acorn Engineering, Inc.
PO Box 3372
Portland, ME 04104

Re: 121 Cassidy Point Drive, PO
Ability to Serve with PWD Water

Dear Ms. Thomas:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on December 3, 2018. Based on the information provided per December 3, 2018, we can confirm that the District will be able to serve the proposed project as further described in this letter. **Please note that this letter constitutes approval of the water system as currently designed. Any changes affecting the approved water system will require further review and approval by PWD.**

Conditions of Service

The following conditions of service apply:

- A new 4-inch fire service (parent) and 2-inch domestic service (child) may be installed from the water main in Cassidy Point Drive. The service(s) should enter through the properties frontage on Cassidy Point Drive at least 10-feet from any side property lines.
- An approved backflow prevention device must be installed on the domestic service line directly after the meter 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 ¾-inch domestic water service; 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 Portland Water District does not have record of any other existing infrastructure in public roads and recommends a survey and test pitting be performed by the development team prior to construction. Any conflicts that arise during construction are at the risk of the developer and may result in job shutdown until new plans are submitted by the developer and reviewed and approved by PWD.

Prior to construction, the owner or contractor will need to make an appointment to complete a service application form and pay all necessary fees. The appointment shall be requested through MEANS@pwd.org or by calling 207-774-5961 ext. 3199. Please allow (3) business days to process the service application paperwork. PWD will guide the applicant through the new development process during the appointment.



Existing Site Service

According to District records, the project site does currently have existing water service. A 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 8-inch diameter concrete lined cast iron water main in Cassidy Point Drive and a public fire hydrant located approximately 75 feet from the site. Recent flow data is not available in this area. The most recent static pressure reading was 106 psi on July 6, 2018.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the City of Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project. Based on the high water pressure in this area, we recommend that you consider the installation of pressure reducing devices that comply with state plumbing codes.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

Should you disagree with this determination, you may request a review by the District's Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District

A handwritten signature in black ink, appearing to read "Robert A. Bartels", written in a cursive style.

Robert A. Bartels, P.E.
Senior Project Engineer



November 27, 2018

Acorn Engineering, Inc.
C/O Ms. Faith Thomas, E.I.
PO Box 3372
Portland, Maine 04104

RE: 121 Cassidy Point Drive, Portland, Maine

Dear Ms. Thomas,

This letter is to advise you Central Maine Power has sufficient three phase electrical capacity in the area to serve the subject project.

Once the project is accepted by the City of Portland, the owner will need to call our Customer Service Center at 1-800-565-3181 to sign up for a New Account and a SAP Work Request Order so we may provide an actual cost.

If you have any questions please feel free to call me at 629-1487.

Sincerely,

Paul DuPerre
Energy Service Specialist

162 Canco Road, Portland, ME 04103
Telephone 800.750.4000, Fax 207.791.1026
cmpco.com



An equal opportunity employer



From: Pelletier, Mark <Mark.Pelletier@charter.com>
Sent: Monday, November 19, 2018 4:00 PM
To: Faith Thomas <ftthomas@acorn-engineering.com>
Subject: RE: Cassidy Point Ability to Serve

Faith.

Spectrum has existing coax and fiber services on existing pole lines. Coax goes all the way to the point and fiber stops at pole CMP97 and goes into Cianbro Office bldg, We are in the Utility easements on pole lines. We can provide services to the bldg. Coax, fiber and or both depending what the request is from tenant.

If services are to be underground, then one 4 inch conduit will be needed with a ¼" pull rope. This is from the riser pole to the customer point of demark in or outside of bldg for coax and or fiber. Conduit sweeps will be at point of demark and above final floor grade and at riser pole above final grade and against the riser pole.

Hope this email will be sufficient as the letter to serve..

Happy Thanksgiving

Mark

Section Q

Construction Management
Plan

Q. Construction Management Plan

Project Address:

121 Cassidy Point Drive

Project Description:

Acorn Engineering, Inc. has been retained by Project Management, Inc. to provide civil engineering services for the proposed redevelopment of 121 Cassidy Point Drive. The project proposes to demolish the existing, 2-story wood-framed building and construct a new, 4-story building designed as “maker space” in which crafters and tradespeople can rent within a low impact industrial conditional use, as specified in Sec. 14-319 of the City of Portland Chapter 14 – Land Use.

Project Team Summary:

Owner:	534 Danforth LLC
Owner’s Representative:	Project Management, Inc.
General Contractor (GC):	TBD
Civil Engineer:	Acorn Engineering, Inc.
Structural Engineer:	Structural Integrity Consulting Engineers, Inc.
Architect:	Dextrous Creative

The Owner, GC and all subcontractors will work with the City of Portland and adjacent landowners to minimize any project impacts.

The GC will remain responsible for enforcement of all compliance with 1) all contract plans and specifications in their scope of work and 2) all site working conditions and safety requirements, day and night, for both persons and property, in each case for the duration of their work. These include OSHA, NIOSH, U.S. EPA, local ordinance and any other applicable governmental regulations. Both the Owner/GC and any subcontractors will remain responsible for safeguarding the general public.

The GC shall review all permits and conditions associated with the project. Refer to the Civil/Site Plan Set, Sheet C-03 Construction Management Plan for visual representation of measures to be taken during construction.

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

A. Construction Management Principles

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

B. Development Review of Construction Management Plan



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

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

Guarantees and fees will be paid at the time of the respective application. All necessary permits will be obtained prior to work and compliance with Sections 14-530 and 14-532 is required.

1. Street Opening and Street Occupancy Permits:

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

2. Blasting:

Although not anticipated, if blasting occurs, it shall conform with all measures of Article VIII. 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 Cassidy Point Drive 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:

Cyrus Hagge
Project Management Inc.
(207) 274-1547

GC and Subcontractor information will be posted along the Cassidy Point Drive frontage once contracted.

E. Construction Schedule

The GC shall submit a construction timeline at or prior to the preconstruction meeting. Construction may occur during the daytime hours as defined in Section 17-18. 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>	Fall 2019
<u>Project End Date:</u>	Summer 2020

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City.

F. Security

1. The Construction Management Plan, Sheet C-03, depicts all proposed fencing and other barriers, with the intent of separating pedestrian and vehicle circulation from the construction site. Construction entrances per detail shall be installed.
2. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16. *Safeguarding Construction, Alteration, and Demolition Operations*.
3. Fire Safety Program: Prior to construction, an overall construction and demolition fire safety program shall be developed. Essential items to be emphasized include the following:
 - 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 Washington Avenue.

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 Cassidy Point Drive. 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 Cassidy Point Drive during utility connections and/or detour a mode of traffic when absolutely necessary for safety. All requests shall be subject to City approval. MOT plans shall employ the appropriate techniques and devices as called for in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:

- Construction speed signing may be used as needed to slow traffic.
- Traffic Control signs shall not be placed where they would create any obstructions to bicycles or pedestrians.
- Flaggers will be utilized when necessary.

All existing modes of travel in the work zone area shall be accommodated if impacted by the activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning and laying out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works. The MOT should also address on-street parking impacts, including



deliveries and parking for adjoining businesses and property owners, analysis of roadway capacity or diversion capacity if street closure or change to roadway capacity is required, and coordination with other on-going or future construction or utility projects in the vicinity.

- Traffic control for bicycle and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready for safe operation. Traffic control will not be removed to allow auto travel at the expense of bicycle and pedestrians.
- Barrier systems utilized to separate the construction activity from the public street and /or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.
- ADA compliance in all capacities shall be maintained.

Use of public parking spaces or the blockage of any portion of sidewalk for the purpose of construction activity shall require an occupancy permit and appropriate fee as assessed by the Department of Public Works.

H. Site Management and Controls

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

I. Erosion & Sedimentation Control

1. The Contractor shall install all erosion and sedimentation controls as depicted on the approved Construction Management Plan, C-03, and the approved erosion and sedimentation control report, prior to the pre-construction meeting for inspection by the



City. The Contractor shall regularly inspect the control measures, no less than weekly and after storm events (0.5" or more in 24 hours). Additionally, temporary or permanent stormwater management systems shall be inspected and maintained to ensure working order. The Contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection (MDEP) or the U.S. Environmental Protection Agency (EPA) upon request.

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

J. Construction Staging Area

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

K. Parking During Construction

1. Adequate parking for construction workers shall be provided along Cassidy Point Drive 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 & Cr. Stone – 125 CY. Earthwork subcontractor(s) pit to project site.

L. Special Measures as Necessary

The neighboring buildings at 60, 92, 128 & 133 Cassidy Point Drive will be subject to a pre and post construction survey to monitor any effects from construction. The surveys shall consist of photographs of the foundation as viewed from outside and inside if granted permission.



Section R

Transportation Analysis

R. Transportation Analysis

The site is located at 121 Cassidy Point Drive which is a major intermodal transportation center with direct access to Route 1 and I-295. The proposed use will reduce the amount of traffic in this area, transitioning from an auto and truck repair business (Coachworks) with an estimated range of 214-386 trips per weekday to approximately 59-98. The hours of operation, pavement and number of parking spaces will not interfere with the neighboring marine and trucking uses.

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

COACHWORKS ESTIMATED AVERAGE DAILY CUSTOMER TRIPS (DATA PROVIDED BY PREVIOUS TENANT)

Customer repairs, 20-30 per day	100-120 Trips per day
Parts and supply delivery, 10-16 per day	20-32 Trips per day
Vender delivery, 5-10 per day	10-20 Trips per day
Repair and Body Shop estimates, 4-6 per day	8-16 Trips per day
7-9 Employees per day	28-36 Trips per day
Test drives, 10 per day	20 Trips per day
Misc. visitors, 10-15 per day	20-30 Trips per day
<u>Auto sales, 4-5 per day</u>	<u>8-12 Trips per day</u>
Total Trips per Day	214-386 Trips per day
8-10 Cars parked daily	
<u>1-3 Trucks parked daily</u>	
Total Parking 30 spaces	

PROPOSED CONDITIONAL USES AVERAGE DAILY TRIPS (ESTIMATES BASED UPON BUILDING USE)

Studios 1-9, 3-4 Employees per day	27-36 Trips per day
Studios 10-17, 1-2 Employees per day	7-14 Trips per day
Ex. Metal Building, 3-5 Employees per day	3-5 Trips per day
Studios 1-17 & Ex. Metal Building, 2-4 Deliveries per day	2-4 Trips per day
Studio 1-17, 1-2 Visitors per day	17-34 Trips per day
<u>Ex. Metal Building, 3-5 Visitors per day</u>	<u>3-5 Trips per day</u>
Total Trips per Day	59-98 Trips per day



The parking requirement was calculated by applying the “Business/Manufacturing/Industrial Use” requirement of 1 parking space per 1,000 square feet of floor area from Chapter 14, Sec. 14-332 (l) with the allowable 50% Waterfront Zone parking reduction from Sec. 14-332.1 (j).

Building Description	Area (sf)
Proposed Building	17,500
1-Story Existing Metal Building	5,236
Total Floor Area	22,736

Per City of Portland Chapter 14, “Floor Area” is defined as, “A floor space enclosed by exterior or standard fire walls, exclusive of vent shafts and courts. The total floor area of 22,736 square feet for the existing 1-story metal building and proposed 4-story building yields 23 required parking spaces; 12 spaces are required after applying the 50% allowable reduction. The proposed parking count of 12 spaces, 9 surface spaces and 3 internal, meet the requirement using the 50% allowable reduction.

The unique property line geometry, existing grades combined with the oversized delivery trucks that are ancillary to the approved zone uses create a challenging site circulation with a limited number of curb cuts. With that said, the proposed driveways and curb cuts have been reduced from five existing curb cuts to four. They have also been reconfigured to significantly reduce the driveway width, provide additional space for sidewalks, landscaping and parking space screening. The driveway widths are now equal to or less than those in proximity of the site. Mountable 4” vertical granite curbs are proposed on northern Cassidy Point at the concrete sidewalk located between curb cuts to allow access for infrequent oversized deliveries unable to maneuver without crossing curbing. This design is intended to allow the addition of a concrete sidewalk and limit curb cut widths while still allowing oversized vehicular access and circulation to the overhead doors, loading docks and on-site parking. See Circulation Exhibits 5 & 6 for circulation routes of anticipated traffic and Exhibit 7: Site Plan Overview for an aerial view of the proposed project in relation to abutters.

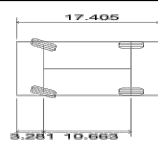
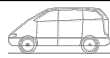


Exhibit 5

Circulation – Commercial
Van

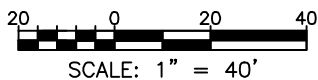
Vehicle Tracking Vehicle Details

Ref:



Vehicle Name:
Type:
Category
Classification

Mercedes Sprinter Chassis 211CDI Short Crew Cab
Small van
(Unspecified)
(Unspecified)



PERMIT LEVEL
NOT FOR
CONSTRUCTION

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.

FILE: 1113_CIVIL
DATE: 12/5/18
JN: 1113
SCALE: AS NOTED
DESIGN BY: FRT
DRAWN BY: FRT
CHECKED BY: WHS



DRAWING NAME:
CIRCULATION - COMMERCIAL VAN

PROJECT NAME:
121 CASSIDY POINT DRIVE

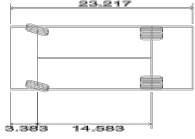
CLIENT:
PROJECT MANAGEMENT, INC.

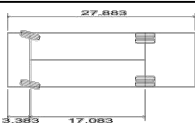
ISSUED FOR	BY
COMMENT RESPONSE	DATE
	WHS
	3/12/19

DRAWING NO.
EX-5

Exhibit 6

**Circulation – Refuse &
Delivery Trucks**

Vehicle Tracking Vehicle Details		Ref:			
Vehicle Name:	Hino 238 J				
Type:	Rigid vehicle				
Category:	(Unspecified)				
Classification:	(Unspecified)				

Vehicle Tracking Vehicle Details		Ref:		
Vehicle Name:	Hino 338 M + Wayne Royal GT14 Refuse Truck			
Type:	Refuse vehicle			
Category:	Autodesk			
Classification:	Autodesk			





SCALE: 1" = 40'

PERMIT LEVEL

NOT FOR

CONSTRUCTION

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.	FILE: 1113_CIVIL DATE: 12/5/18 JN: 1113 SCALE: AS NOTED DESIGN BY: FRT DRAWN BY: FRT CHECKED BY: WHS	 ACORN ENGINEERING, INC. ACORN ENGINEERING, INC. P.O. BOX 3372 PORTLAND, MAINE 04104 (207) 775-2655	DRAWING NAME: CIRCULATION – REFUSE & DELIVERY TRUCKS	ISSUED FOR COMMENT RESPONSE	BY DATE WHS 3/12/19
	DRAWING NO. EX-6		PROJECT NAME: 121 CASSIDY POINT DRIVE CLIENT: PROJECT MANAGEMENT, INC.		

Exhibit 7

Site Overview

Section S

Solid Waste Disposal

S. Solid Waste Disposal

External dumpsters for solid waste disposal will be located within a dumpster enclosure, situated between the proposed building and existing 1-story metal building to remain. See location on Site Plan, Sheet C-10 and enclosure detail on Sheet C-40. Solid waste pickup to be coordinated with private waste disposal company during non-business hours to allow access to ADA parking spaces during such hours.



Section T

Solar Power Letter

March 11, 2019

Matthew Grooms, AICP
Planner
City of Portland Maine
389 Congress Street
Portland, Maine 04101



Re: Cassidy Point Studios – Solar Power Generation

The proposed building on Cassidy Point Drive in the City's Waterfront Port Development Zone will feature a roof-mounted solar array on the metal mono-pitch roof in contrast to the pile of coal across the street.

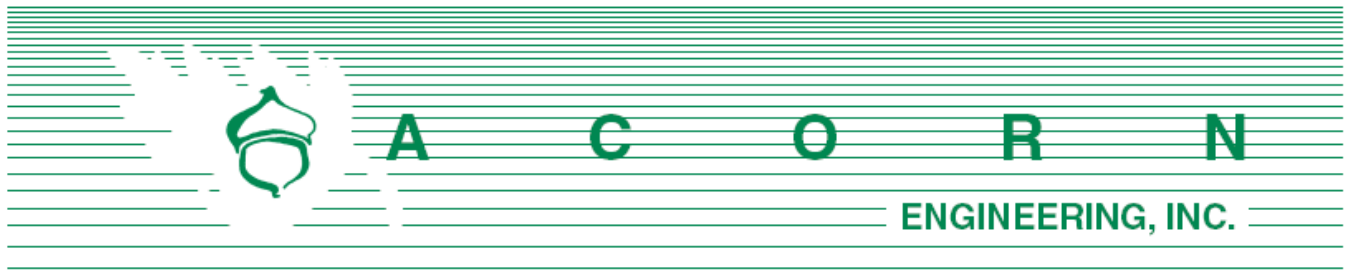
The roof-mounted solar array is intended to offset electrical loads generated by the building's mechanical system. Division II 'Solar Energy Generation' of Article X of the City of Portland's Zoning Ordinance, Alternative Energy outlines systems in compliance with zoning criteria. A roof-mounted system is permitted in waterfront zones per the table on 14-925.

Issues of maintenance, attachment details, roof access for workers, etc. shall comply with all applicable codes and the City of Portland's Technical Design Manual, as appropriate. This information will be supplied as components of our building permit application for review at a later date.

Sincerely,

Tracie J. Reed, Maine Licensed Architect, LEED AP, NCARB
Principal

Dextrous Creative
dextrouscreative.com
traciereed@dextrouscreative.com
46 Cushman Street #4, Portland, ME 04102



Matthew Grooms – City Planner
Planning Division, City of Portland
389 Congress Street
Portland, ME 04101

April 2nd, 2019

Subject: Planning Board – Final Hearing Submission
Redevelopment of 121 Cassidy Point Drive – Portland, Maine

On behalf of our Client we are pleased to provide a final submission in advance of the hearing. The unique property line geometry, proximity of the right-of-way to the buildings, existing grades combined with trucks with boat trailers, oversized delivery trucks that are ancillary to the approved uses provide for challenging site circulation.

Permitting to date has included one round of plan changes which included significant reductions to the width of the curb cuts, overall reduction in curb cuts from five to four, addition of sidewalks, landscaping and parking lot screening. On March 19th we held a site walk with members of the planning/city staff and traffic peer to review the proposed project onsite. On March 26th a Planning Board Workshop was held and based upon Board feedback the overall site design has remained the same with the following improvements:

🌿 Site Plan

- Added 8 in. wide striping to delineate the pedestrian way along both northerly curb cut openings.
- Reduced the northerly curb cut width across from proposed loading dock by 15 ft. The width went from 60 ft wide to 45 ft wide.
- Extended the northerly curb cut across from existing metal building by 10 ft. The width went from 30 ft wide to 40 ft wide.
- Modified the 4 in vertical granite curbing between northerly curb cuts to a sloped curb.

🌿 Landscape Plan

- Shifted 2 Armstrong Red Maples out of public ROW and into the existing properties slope to protect the trees from damage.
- Removed 4 trees (2 Armstrong Red Maples & 2 Regal Prince Oaks) out of the public ROW from the project plans that would have been subject to damage.

We are pleased to submit the proposed development which will provide opportunity for economic development within Portland by providing space for artisans, marine uses and tradespeople.

Sincerely,

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

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

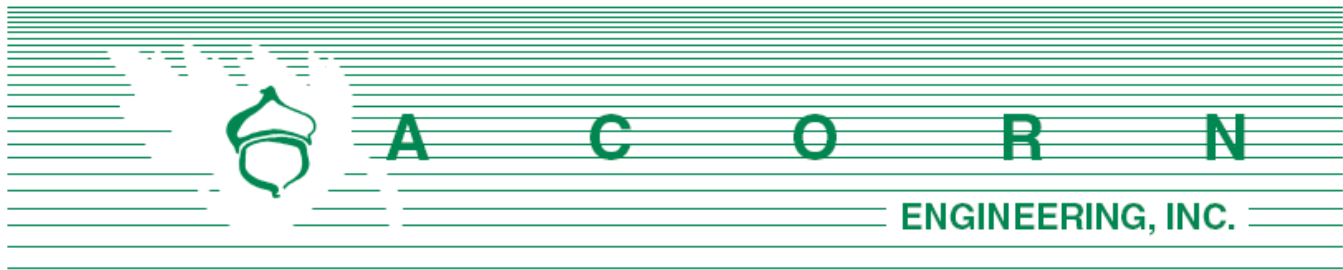
Documents:

- Section F: Request for Waivers *updated*

Drawings:

- Civil Site Plan Set Dated 4-1-19





Matthew Grooms – City Planner
Planning Division, City of Portland
389 Congress Street
Portland, ME 04101

March 12, 2019

Subject: Comment Response Letter
Redevelopment of 121 Cassidy Point Drive – Portland, Maine

On behalf of Project Management, Inc we are pleased to respond to the comments that we've received thus far.

Matthew Grooms, Planning

Comment – *Prior to the issuance of any building permits, a copy of all utility capacity letters shall be provided to the Planning Authority*

Response – Utility capacity letters from Unitil, Portland Water District, Central Maine Power and Charter Communications (Spectrum) have been obtained and are attached in Section P. within this Comment Response submission.

Comment – *City staff are recommending the closure of curb cuts and reconfiguration of driveways, which would provide additional space for sidewalks and required parking lot landscaping and screening of parking spaces. Please submit a revised landscape plan based upon reconfiguration.*

Response – The unique property line geometry, existing grades combined with the oversized delivery trucks that are ancillary to the approved zone uses provide for a challenging site circulation should the number of curb cuts be limited. With that said the proposed driveways and curb cuts have been reduced from five existing curb cuts to four. They have also been reconfigured to significantly reduce the driveway width, provide additional space for sidewalks, landscaping and parking space screening. The driveway widths are now equal to or less than those in proximity of the site. See Site Plan, Sheet C-10, Landscape Plan, L-1, Exhibit 7: Site Plan Overview and the request for waivers for additional information.

Comment – *The site plan identifies a dumpster with enclosure, however no details are provided. Please submit enclosure detail with future submittal.*

Response – Dumpster enclosure detail has been added to plan set. See Site Details, Sheet C-40.

Comment – *Building elevations and section views show roof mounted solar energy systems. The applicant shall provide evidence that the proposed systems comply with Sec. 14-430(e) Roof Mounted Solar Energy Systems. Please provide relevant details for panels and roof-mounted racking systems.*

Response – See attached Section T. from architect addressing solar energy systems compliance within this Comment Response submission.

Comment – *The general notes page references a retaining wall and the grading plan shows what would appear to be a retaining wall at the southeast corner of the site (behind the existing building). Would the applicant please clarify if a retaining wall is being constructed and relevant details to determine if more information is needed?*

Comment – Sheet C-02 Civil Site Note #10 of the Civil Plan Set that references a retaining wall does not apply and has been removed. Acorn's understanding is that there is no proposed retaining wall within the scope of the redevelopment. There is an existing concrete block wall residing at the southeast corner of the site that is to remain undisturbed.

Jeff Tarling, Forestry & Horticulture

Comment – *The project proposed 8 trees along the road frontage, we would like to see larger scale trees and increasing plant sizes. The recommendation would be to have 4 'Armstrong' Red Maple or similar sized, upright trees along the lower Cassidy Point Road and 4 'Regal Prince' upright Oak trees along the upper section.*

Response – Replaced original landscape plan Amelanchier and Hornbeam trees with the 'Armstrong' Red Maple trees along lower Cassidy Point Road and 'Regal Prince' upright Oak trees along the western side of Cassidy Point Road. See Landscape Plan, L-1 for locations of proposed trees.

Comment – *It would be good to see an upgrade of plant size and cultivar on the Juniper, the first is the Redcedar, which is an upright growing plant. This should be planted at a 5-6' height size vs. 5-gallon size proposed and the 'Mother Lode' Juniper type be changed to 'Blueberry Delight' cultivar of the native common juniper. The size of the Juniper shrubs should be 3-gallon vs the proposed 1-gallon."*

Response – Replaced original landscape plan 1-gallon size 'Mother Lode' Juniper with 3-gallon size 'Blueberry Delight'. Updated size of Juniper Redcedar from 5-gallon to 5-6' height size.

Bruce Hyman, Planning & Transportation

Comment – *The location and type of bicycle racks is to be revised to be 1) closer to building entrances and 2) a different style of bicycle rack that provides two points of contact with the bicycle frame and bike rack.*

Response – The proposed Dero Hi-Roller bicycle rack was relocated between the building entrance and ADA access aisle on upper Cassidy Point Drive. The bicycle rack to provide two points of contact with the bicycle rack and frame, as shown on Sheet C-40 of the Civil Plan Set.

Comment – *A sidewalk is to be provided along the northerly edge of the property that connect to the sidewalk over the RR bridge – a sidewalk waiver is required for the southerly edge of the parcel – the existing brick sidewalk is to be replaced with concrete (its width can be narrowed, currently ≈ 10') which would allow landscaped buffer between the edge of sidewalk and boat storage area (if*



allowed/continued)

Response – A reinforced concrete sidewalk with vertical granite curbing has been added to the Site Plan, Sheet C-10 of the Civil Plan Set. The proposed concrete sidewalk along the northeastern corner of the parcel ends at the property boundary with a width matching that of the existing sidewalk that spans the railroad bridge.

Comment – *A parking analysis should be provided for both adjacent parcels – it is unclear how the parking demand, if any, is being met for the other adjacent building.*

Response – See parking analysis table addition on Site Plan, Sheet C-10 of the Civil Plan Set. The parking analysis is attached within Section R of this Comment Response submission. The analysis accounts for the existing single-story building to remain with a floor area of 5,236 SF ± and the proposed building with a floor area of 17,500 SF ±, each with a designation of “Business/Manufacturing/Industrial Use” from Chapter 14, Sec 14-332(l). The allowable 50% Waterfront Zone parking reduction from Sec 14-332.1 (j) was also applied in the analysis. The existing building to remain and proposed building both reside on the City of Portland Assessor’s Chart 72, Block B, Lot 1. There are a total of 12 proposed spaces, 9 surface and 3 internal within the proposed building garage bays.

Comment – *The site plan does not appear to show the full extent of the parcel *the SW point/corner.”*

Response – Site plan has been modified to display additional information along the SW point/corner. Please also refer to the aerial Exhibit 7: Site Plan Overview for additional contextual information.

Tom Errico, Traffic

Comment – *The proposed project does not meet City standards for several driveway design elements including: number of driveways, width of driveways, spacing of driveways and corner clearance requirements. The applicant has not provided sufficient information in support of waivers from the City’s Technical Standards. I do not support the current driveway configuration/design and the Applicant should incorporate changes that minimizes the non-conformities as much as practical. Configuration should be based upon the types of vehicles needing access to overhead doors and loading docks and on-site truck parking. Truck turning templates shall be used to help justify the configuration. The number and configuration of driveways is to be considered in the context of the adjacent parcel also having the same ownership.”*

Response – The proposed number of driveways and curb cuts is to decrease from five existing to four. The proposed curb cut widths have been significantly reduced from the first submission however the driveway widths and spacing are justified by the range of turning templates for marine and industrial use vehicles requiring access and circulation to overhead doors, loading dock and on-site parking. Mountable 4” vertical granite curb is proposed on northern Cassidy Point between the two curb cuts to allow access for infrequent oversized deliveries unable to maneuver into the site. This design is intended to allow the addition of a concrete sidewalk and limit curb cut widths while still allowing oversized vehicular access and circulation to the overhead doors, loading docks and on-site parking.

The unique property line geometry, existing grades combined with the oversized delivery trucks that



are ancillary to the approved zone uses and provide support for the number and configuration of the proposed curb cuts. In relation to abutting parcels, the proposed driveway widths are equal to or less than those in proximity of the site, as shown on Exhibit 7: Site Plan Overview.

The nearest driveway from the unsignalized intersection of Fore River Parkway and Cassidy Point Drive is a distance of roughly 325-feet ($\pm$), which meets and exceeds the minimum of 75-feet for an unsignalized intersection according to MaineDOT, Chapter 299 2.1.C. The nearest driveway from the signalized intersection of Fore River Parkway and Cassidy Point Drive is a distance of roughly 829-feet ($\pm$), which meets and exceeds the minimum of 125-feet for a signalized intersection according to MaineDOT, Chapter 299 2.1.C.

Woodard & Curran, Civil Engineering

Comment – *The applicant should clarify the proposed impact areas. Limits of new pavement and landscaping are proposed, but they do not line up with existing curb lines that appear to remain in place.*

Response – See Site Plan, Sheet C-10 for revised presentation of limits of existing pavement, landscaping and curb lines. Pavement extents were modified to reduce curb cut widths and addition of sidewalks along the northern portion of Cassidy Point Drive.

Comment – *Trees are proposed in areas that overlap with proposed snow storage. Some of the areas where trees are proposed currently have paved surfaces and the site and landscaping plans do not propose any changes in surface. Please clarify the landscaping intent in these areas.*

Response – See Site Plan, Sheet C-10 and Landscape Plan, L-1 for revised landscaping and tree locations in relation to proposed snow storage areas. Landscaping features displayed with estimated tree canopy for graphical representation only.

Comment – *We understand from the notes provided on the plans, that additional information is needed to be able to show locations of existing storm drainage and confirm the inverts and locations of proposed SD connections from the building and proposed catch basin. The Applicant should make considerations for potential conflicts with other utilities in the area, for example, the approximate invert provided for connection of roof drains to the stormdrain on the southern side of the property to be close in elevation of the sewer in that area.*

Response – See Grading Plan, Sheet C-30 and Utility Plan, Sheet C-20 for approximate inverts of both stormdrain and sanitary sewer line based upon surveyed existing conditions. Estimated vertical separation of stormdrain and sanitary sewer line specified on Grading Plan, with stormdrain installation above sanitary line.

Comment – *The applicant has provided erosion and sedimentation control details and a written plan in accordance with the Basic Standards. Erosion control features have been called out on the Construction Management Plan, Sheet C-03. Please add catch basin protection to this plan.*

Response – Catch basin protection detail can be found on the Erosion and Sedimentation Control Details, Sheet C-42.



Comment – *The Applicant should evaluate the redevelopment standard for the site. Areas of pavement that are regraded are considered in the redevelopment calculation. The area to the north of the building is being regraded to direct stormwater in a different direction. It appears that the area will not meet the 5,000 square foot threshold, but the Applicant should confirm.*

Response – Site Plan has been adjusted to reflect extents of new pavement. Existing pavement to maintain existing hydraulic grade line is specified on the Site Plan, Sheet C-10. The total proposed non-roof impervious redeveloped area within the property line is approximately 1,850 sf ±. The redeveloped area remains less than the specified 5,000 square foot threshold specified within Section 5, II D of the City of Portland Technical Manual. Non-roof impervious areas to be redeveloped are new pavement and concrete walkway extents located at the proposed boat storage, exterior exits and driveways located at both northerly and southerly sides of Cassidy Point Drive.

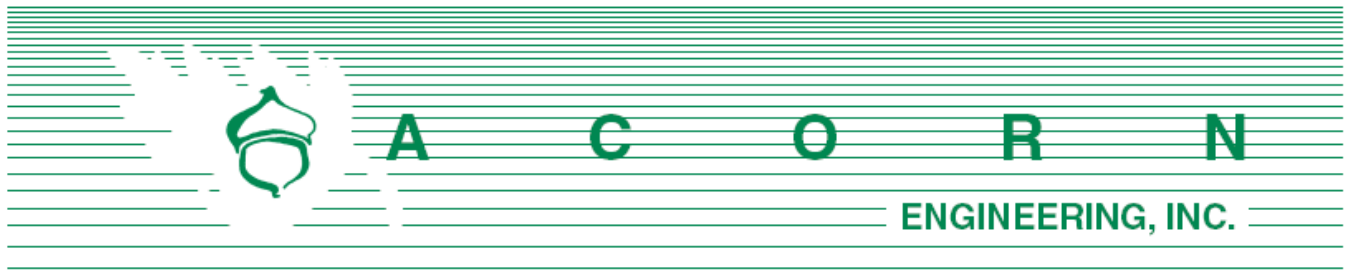
Comment – *The Applicant has identified that space will be reserved for dumpsters within the existing CMP Easement. Please confirm that this location will be acceptable for dumpsters with CMP and also clarify if the enclosure will be installed with a concrete pad.*

Response – Per the easement recorded at the Cumberland County Registry of Deeds Book 3602, Page 117, CMP as the Grantee encased its transmission facilities in a concrete encasement “so as not to interfere with the construction of a building by the Grantor, his heirs or assigns, of up to four stories above the existing grade levels.” If CMP maintenance on the transmission line is required, the dumpsters can be readily relocated.

Comment – *The Applicant has shown a concrete block wall to the south of the existing building. Please confirm that this is an existing structure and that no changes are proposed.*

Response – The concrete block wall to the south of the existing building is an existing structure that is to remain unchanged.





Matthew Grooms – City Planner
Planning Division, City of Portland
389 Congress Street
Portland, ME 04101

April 1, 2019

Subject: Planning Board – Final Hearing Submission
Redevelopment of 121 Cassidy Point Drive – Portland, Maine

On behalf of Project Management, Inc we are pleased to respond to the comments that we've received thus far.

The unique property line geometry, existing grades combined with the oversized delivery trucks that are ancillary to the approved zone uses provide for a challenging site circulation should the number of curb cuts be limited. With that said the proposed driveways and curb cuts have been reduced from five existing curb cuts to four. They have also been reconfigured to significantly reduce the driveway width, provide additional space for sidewalks, landscaping and parking space screening. The driveway widths are now equal to or less than those in proximity of the site. See Site Plan, Sheet C-10, Landscape Plan, L-1, Exhibit 7: Site Plan Overview and the request for waivers for additional information.

The owner of 121 Cassidy Point Drive, 534 Danforth LLC, has compiled a team of leading professionals from the development, green building and construction industries to complete the design. If you have any questions regarding these materials or the completeness of the application materials, please contact us within the next five (5) days.

Sincerely,

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

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

Documents:

- Section A: Cover Letter
- Section B: Level II Final Site Plan Application & Checklist
- Section C: Right, Title, Interest
- Section D: Zoning Assessment
- Section E: Summary of Written Easements

- Section F: Request for 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: Transportation Analysis
- Section S: Solid Waste Disposal
- Section T: Solar Power Letter

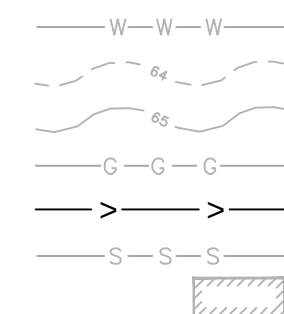
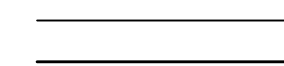
Drawings:

- Civil Site Plan Set
- Architectural Plan Set



PROJECT MANAGEMENT, INC.
PORTLAND, MAINE

REFER TO THE
EXISTING
CONDITIONS PLAN
FOR ADDITIONAL
INFORMATION



C-01	COVER SHEET & LEGEND
C-02	GENERAL NOTES
EX	EXISTING CONDITIONS PLAN BY OWEN HASKELL, INC.
C-03	CONSTRUCTION MANAGEMENT PLAN
C-10	SITE PLAN
L-1	LANDSCAPE PLAN
C-20	UTILITY PLAN
C-30	GRADING PLAN
C-40	SITE DETAILS
C-41	UTILITY DETAILS - 1
C-42	UTILITY DETAILS - 2
C-43	DRAINAGE & LANDSCAPE DETAILS
C-44	EROSION AND SEDIMENTATION CONTROL DETAILS

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

DEPARTMENT OF PUBLIC WORKS (DPW)
55 PORTLAND STREET
PORTLAND, MAINE 04101
CONTACT: KEITH GRAY, P.E.
(207) 874-8834

PORTLAND WATER DISTRICT
225 DOUGLASS STREET
PO BOX 3553
PORTLAND, MAINE 04104
ATTN: MEANS DIVISION
(207) 774-5961

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

CONSOLIDATED COMMUNICATIONS (FORMERLY FAIRPOINT)
45 FOREST AVENUE
PORTLAND, MAINE 04101
CONTACT: PAT MORRISON
(207) 745-9363

CHARTER COMMUNICATIONS/SPECTRUM
118 JOHNSON ROAD
PORTLAND, MAINE, 04102
CONTACT: MARK PELLETIER
(877) 546-0962

UNITIL SERVICE CORP
1075 FOREST AVENUE
PORTLAND, ME 04103
CONTACT: SCOTT CARPENTER
(207) 541-2543

PROJECT MANAGEMENT, INC.
PORTLAND, MAINE
CONTACT: CYRUS HAGGE
(207) 274-1547

DEXTROUS CREATIVE
PORTLAND, MAINE
CONTACT: TRACIE REED, R.A.
(207) 409-0459

OWEN HASKELL, INC.
FALMOUTH, MAINE
CONTACT: SAMUEL GLIDDEN, P.L.S.
(207) 774-0424

S.W. COLE ENGINEERING, INC.
GRAY, MAINE
CONTACT: EVAN WALKER, P.E.
(207) 657-2866

STRUCTURAL INTEGRITY CONSULTING ENGINEERS, INC.
PORTLAND, MAINE
CONTACT: AARON JONES, P.E.
(207) 774-4614

WRIGHT RYAN CONSTRUCTION, INC.
10 DANFORTH STREET
PORTLAND, ME 04101
CONTACT: MARC BOURGEOIS
(207) 773-3625

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
CY	CUBIC YARD
DIP	DUCTILE IRON PIPE
DIA.	DIAMETER
DIM.	DIMENSION
EA.	EACH
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FG	FINISH GRADE
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
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

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

COVER SHEET & LEGEND

CASSIDY POINT REDEVELOPMENT

PROJECT MANAGEMENT, INC.
2225 COMMERCIAL STREET, SUITE 502 PORTLAND, ME 04101

R N
ENGINEERING, INC.

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, REVISIONS, OR ADDITIONS TO THIS PLAN SHALL BE THE SOLE RESPONSIBILITY OF ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
 65 HANOVER ST., PORTLAND, MAINE 04101
 (207) 775-2855

A C O R N
 ENGINEERING, INC.

FILE: 1113_DETAILS

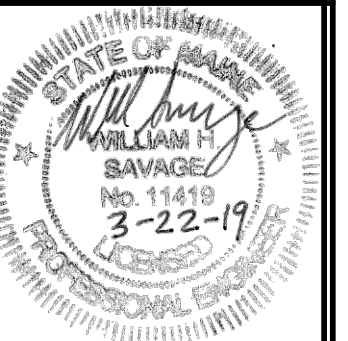
N:	1113
----	------

CALE:	NTS
-------	-----

DESIGNED BY: FRT

RAWN BY: FRT

HECKED BY: WHS



DRAWING NO.

C-01

1. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN. IF DEEMED NECESSARY BY THE OWNER OR OWNER'S REPRESENTATIVE, 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 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 EXISTING CONDITIONS SURVEY BY OWEN HASKELL, INC AT #121 CASSIDY POINT ROAD, DATED OCTOBER 29, 2018.
8. SUBSURFACE DATA HAS BEEN OBTAINED BY S.W. COLE ENGINEERING, INC. AND SHALL BE INCLUDED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL ALSO REVIEW THE REPORT PRIOR TO BID SUBMISSION.
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 BY ACORN ENGINEERING 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. 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 ACORN, IF ANY.

1. THE CONTRACTOR WILL SUBMIT IN WRITING ANY REQUESTS TO MODIFY THE CONTRACT DOCUMENTS.
2. ALL SHOP AND CONSTRUCTION DRAWINGS WILL BE CHECKED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMISSION FOR ENGINEER'S REVIEW. ANY UNCHECKED OR NON-STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
3. CONTRACTOR WILL THOROUGHLY INSPECT AND SURVEY EXISTING STRUCTURES AND SITE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS. CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
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 WILL 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, WILL 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, IF PRESENT, UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE BRACING IS PROVIDED.
11. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE.
12. ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
13. THE ENGINEER BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS AND OBSERVATION VISITS TO THE SITE DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.

1. ALL SITE SOILS-RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS, AS WELL AS SITE DRAINAGE, SHALL BE REVIEWED BY THE PROJECT GEOTECHNICAL ENGINEER.
2. NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT.
3. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.
4. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.
5. SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
6. 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.
7. 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. INTERIM 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.
8. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN TEN DAYS OF THE FINAL INSPECTION STATING WHETHER

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 REGISTERED LAND SURVEYOR.
2. ALL DIMENSIONS ON THE FOLLOWING SHEETS TAKE PRECEDENT OVER SCALED DIMENSIONS. EACH DRAWING WITH A BAR SCALE MEANS THAT THE DRAWING/DETAIL HAS BEEN SCALED AS ACCURATELY AS POSSIBLE, AND THE BAR SCALE IS FOR GENERAL REFERENCE ONLY. IF NO BAR SCALE IS PRESENT, THEN THERE IS NO SCALE TO THAT DRAWING/DETAIL. AT NO TIME SHOULD DRAWINGS BE SCALED FROM. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS AND THE FIELD CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE CIVIL ENGINEER 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 II SITE PLAN APPLICATION 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 SHALL BE STOCKPILED WITHIN THE PROPOSED LIMITS OF WORK AREA. THE CONTRACTOR SHALL NOT ASSUME THAT ANY LOAM 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. 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 OWNER. PRIOR TO THE CONTRACTOR PRICING THE WORK THE CONTRACTOR SHALL REQUEST 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 S.W. COLE ENGINEERING, INC.
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 YIELDING OR DIFFICULT TO WORK, DISTURBED AREAS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO ADDITIONAL EXPENSE TO THE OWNER. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER.

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, SEEDDED 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 FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE D.E.P.'S PERMIT CONDITIONS, FINDINGS OF FACT AND ORDER (IF ANY), AND THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.
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 THE CIVIL ENGINEER 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' OF COVER FROM TOP OF PIPE TO FINISH GRADE FOR WATER MAINS.

15. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL AT NO EXTRA EXPENSE TO THE OWNER.

3. THE CLIENT HAS NOT REQUESTED NOR HAS ACORN COMPLETED A PHASE I - ENVIRONMENTAL SITE ASSESSMENT FOR THE PROPERTY.

DRAWING NAME:	GENERAL NOTES
PROJECT NAME:	CASSIDY POINT REDEVELOPMENT
CLIENT:	PROJECT MANAGEMENT, INC. 225 COMMERCIAL STREET, SUITE 502 PORTLAND, ME 04101

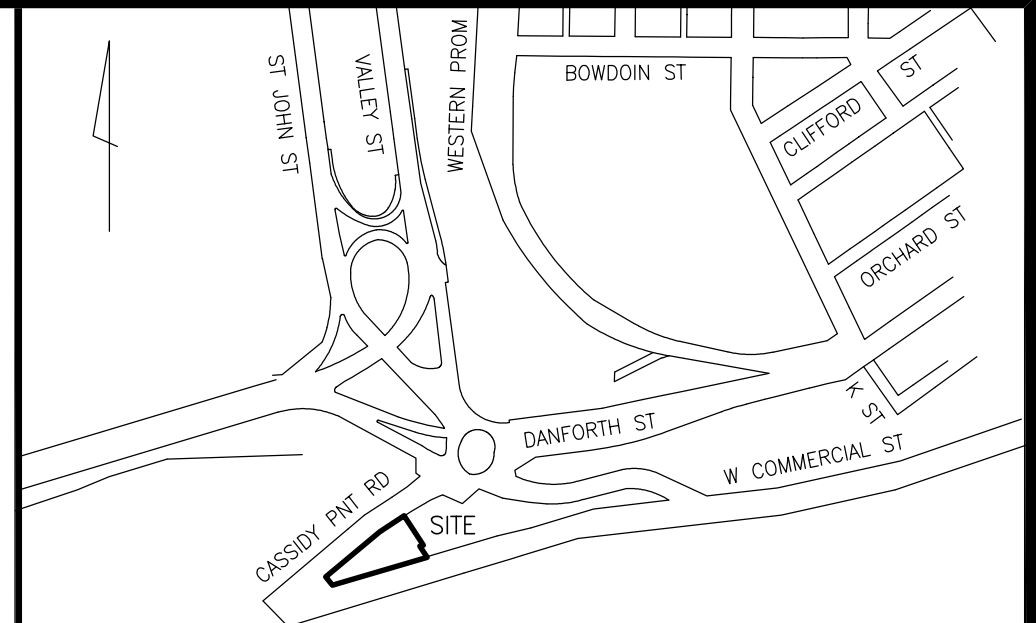
A circular professional engineer seal for the State of Maine. The outer ring contains the text "STATE OF MAINE" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. Inside the ring, the name "William H. Savage" is written in cursive. Below the name, the text "WILLIAM H. SAVAGE" is printed in all caps. Underneath that, the number "No. 11419" is printed. At the bottom of the seal, the date "3-22-19" is printed. The seal is surrounded by a decorative border of small dots.

DRAWING NO.
C-02



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.



LOCATION MAP

N.T.S.

LEGEND

●	IRON PIPE OR ROD FOUND	—X—X—	FENCE
○	UTILITY POLE	—□—□—	STONEWALL
○	MANHOLE	—	CURB
—	SIGN	—OHW—	OVERHEAD WIRES
—	CATCH BASIN	—UG—	UNDERGROUND POWER
—	HYDRANT	—W—	WATER LINE
—	WATER VALVE OR SHUTOFF	—G—	GAS LINE
—	LIGHT POLE	—SS—	SANITARY SEWER
—	GAS VALVE	—20—	1' CONTOUR
		—IPF/IRF—	IRON PIPE OR ROD FD
		—N/F—	NOW OR FORMERLY
		—000/000—	DEED BOOK / PAGE
		—CONC.—	CONCRETE

PLAN REFERENCES

- "STANDARD BOUNDARY SURVEY ON WEST COMMERCIAL & DANFORTH STREETS, PORTLAND, MAINE FOR COACHWORKS, INC." BY WAYNE T. WOOD & CO., DATED APRIL 1997.
- "STANDARD BOUNDARY SURVEY FOR PROPOSED ELECTRICAL SUBSTATION, WEST COMMERCIAL STREET, PORTLAND, MAINE, MADE FOR CENTRAL MAINE POWER, CMP# 956-3-1," BY TITCOMB ASSOCIATES, DATED JAN 2004 AND REVISED THROUGH 8/17/2004. RECORDED IN PLAN BOOK 204 PAGE 571.

GENERAL NOTES

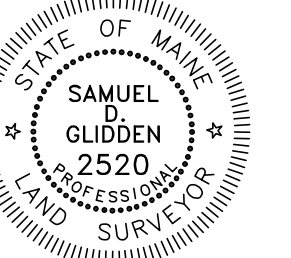
- OWNER OF RECORD: P & D REAL CORP
TAX MAP 72 BLOCK B LOT 1
C.C.R.D. BOOK 34772 PAGE 91
- BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD 83.
- ELEVATIONS ARE BASED ON CITY DATUM (NGVD 1929) BASED UPON MAINE DEPARTMENT OF TRANSPORTATION DISK L 5 (NGS) RESET 1997 FOUND SET IN CONCRETE BRIDGE ABUTMENT THAT SUPPORTS THE BEACH STREET ON RAMP WHERE IT CONNECTS TO THE CASCO BAY BRIDGE.
- PROPERTY LINES AND DIMENSIONS ARE TAKEN FROM PLAN REFERENCE 1.

CERTIFICATE

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

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

10/29/2018
DATE



TOPOGRAPHIC SURVEY
AT
#121 CASSIDY POINT ROAD
PORTLAND, MAINE
MADE FOR
CYRUS HAGGE
225 COMMERCIAL STREET, PORTLAND, MAINE

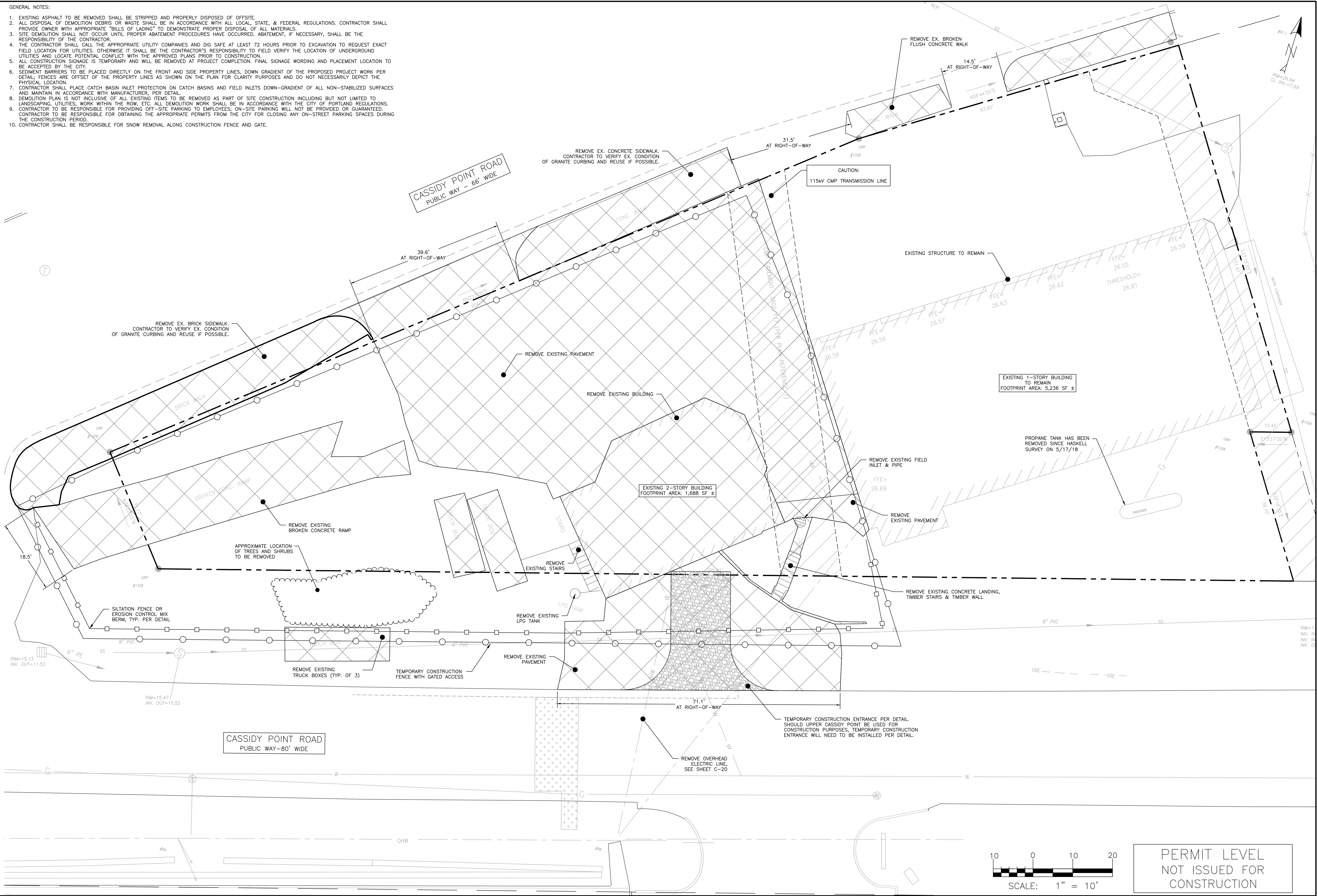
OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 U.S. ROUTE ONE, UNIT 10, FALMOUTH, MAINE 04105

DRAWN BY: TMK DATE: MAY 17, 2018 JOB NO. 2018-070P
CHECKED BY: SDG SCALE: 1"=20' DRWS. NO. 1

SCALE: 1" = 20'
0' 10' 20' 40'

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. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE POTENTIAL CONFLICT WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
5. ALL CONSTRUCTION SIGNAGE IS TEMPORARY AND WILL BE REMOVED AT PROJECT COMPLETION. FINAL SIGNAGE WORDING AND PLACEMENT LOCATION TO BE ACCEPTED BY THE CITY.
6. SEDIMENT BARRIERS TO BE PLACED DIRECTLY ON THE FRONT AND SIDE PROPERTY LINES, DOWN GRADIENT OF THE PROPOSED PROJECT WORK PER DETAIL; FENCES ARE OFFSET OF THE PROPERTY LINES AS SHOWN ON THE PLAN FOR CLARITY PURPOSES AND DO NOT NECESSARILY DEPICT THE PHYSICAL LOCATION.
7. CONTRACTOR SHALL PLACE CATCH BASIN INLET PROTECTION ON CATCH BASINS AND FIELD INLETS DOWN-GRADIENT OF ALL NON-STABILIZED SURFACES AND MAINTAIN IN ACCORDANCE WITH MANUFACTURER, PER DETAIL.
8. DEMOLITION PLAN IS NOT INCLUSIVE OF ALL EXISTING ITEMS TO BE REMOVED AS PART OF SITE CONSTRUCTION INCLUDING BUT NOT LIMITED TO LANDSCAPING, UTILITIES, WORK WITHIN THE ROW, ETC. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF PORTLAND REGULATIONS.
9. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING OFF-SITE PARKING TO EMPLOYEES; ON-SITE PARKING WILL NOT BE PROVIDED OR GUARANTEED. CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING THE APPROPRIATE PERMITS FROM THE CITY FOR CLOSING ANY ON-STREET PARKING SPACES DURING THE CONSTRUCTION PERIOD.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR SNOW REMOVAL ALONG CONSTRUCTION FENCE AND GATE.



ISSUED FOR	BY
LEVEL II SITE PLAN	WHS
LEVEL II SITE PLAN	WHS
COMMENT RESPONSE	WHS
PB WORKSHOP	WHS

DRAWING NAME:	PROJECT NAME:	CLIENT:
CONSTRUCTION MANAGEMENT PLAN	CASSIDY POINT REDEVELOPMENT	PROJECT MANAGEMENT, INC.
		225 COMMERCIAL STREET, SUITE 502 PORTLAND, ME 04101

FILE:	JN:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
1113_CIVIL	1113	AS NOTED	FRT	FRT	WHS

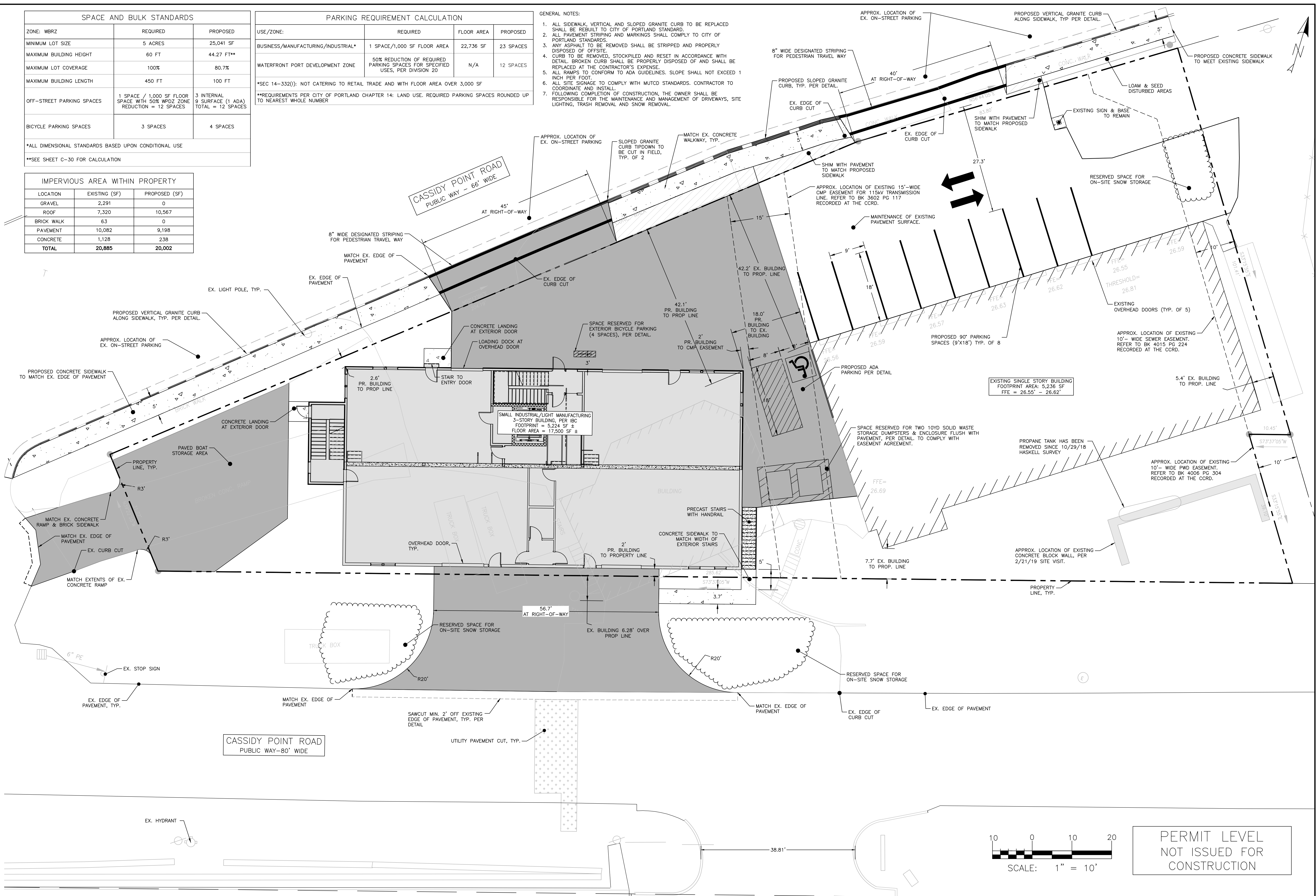
DRAWING NO.
C-03

SPACE AND BULK STANDARDS		
ZONE: WBRZ	REQUIRED	PROPOSED
MINIMUM LOT SIZE	5 ACRES	25,041 SF
MAXIMUM BUILDING HEIGHT	60 FT	44.27 FT**
MAXIMUM LOT COVERAGE	100%	80.7%
MAXIMUM BUILDING LENGTH	450 FT	100 FT
OFF-STREET PARKING SPACES	1 SPACE / 1,000 SF FLOOR SPACE WITH 50% WPDZ ZONE REDUCTION = 12 SPACES	3 INTERNAL 9 SURFACE (1 ADA) TOTAL = 12 SPACES
BICYCLE PARKING SPACES	3 SPACES	4 SPACES
*ALL DIMENSIONAL STANDARDS BASED UPON CONDITIONAL USE		
**SEE SHEET C-30 FOR CALCULATION		

IMPERVIOUS AREA WITHIN PROPERTY		
LOCATION	EXISTING (SF)	PROPOSED (SF)
GRAVEL	2,291	0
ROOF	7,320	10,567
BRICK WALK	63	0
PAVEMENT	10,082	9,198
CONCRETE	1,128	238
TOTAL	20,885	20,002

PARKING REQUIREMENT CALCULATION			
USE/ZONE:	REQUIRED	FLOOR AREA	PROPOSED
BUSINESS/MANUFACTURING/INDUSTRIAL*	1 SPACE/1,000 SF FLOOR AREA	22,736 SF	23 SPACES
WATERFRONT PORT DEVELOPMENT ZONE	50% REDUCTION OF REQUIRED PARKING SPACES FOR SPECIFIED USES, PER DIVISION 20	N/A	12 SPACES
*SEC 14-332(i): NOT CATERING TO RETAIL TRADE AND WITH FLOOR AREA OVER 3,000 SF			
**REQUIREMENTS PER CITY OF PORTLAND CHAPTER 14: LAND USE, REQUIRED PARKING SPACES ROUNDED UP TO NEAREST WHOLE NUMBER			

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



ISSUED FOR	BY
PRELIMINARY PLAN	FRT
LEVEL II SITE PLAN	WHS
LEVEL II SITE PLAN	WHS
COMMENT RESPONSE	WHS
PB WORKSHOP	WHS

SITE PLAN

CASSIDY POINT REDVELOPMENT

PROJECT NAME: PROJECT MANAGEMENT, INC.

CLIENT: 225 COMMERCIAL STREET, SUITE 502 PORTLAND, ME 04101

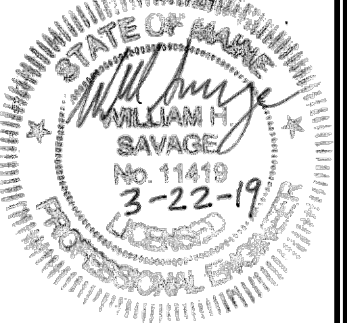
ACORN ENGINEERING, INC.

ENGINEERING, INC.

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

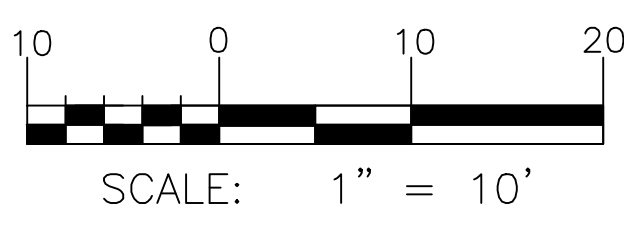
ACORN ENGINEERING, INC.
65 HANOVER ST., PORTLAND, MAINE 04101
(207) 775-2655

FILE:	1113_CIVIL
JN:	1113
SCALE:	AS NOTED
DESIGNED BY:	FRT
DRAWN BY:	FRT
CHECKED BY:	WHS



DRAWING NO.

C-10



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

PROPOSED BUILDING

EXISTING BUILDING

CASSIDY POINT ROAD
PUBLIC WAY—80' WIDE

PS (2)

RB (1)

HB (4)

JC (2)

JP (3)

PS (4)

JC (1)

PS (2)

JC (1)

JP (4)

AF (1)

SCALE: 1" = 10'

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

1. CONTRACTOR TO MAINTAIN A ONE YEAR WARRANTY ON ALL PLANTINGS FOLLOWING INSTALLATION.
2. ALL PROPOSED GREEN SPACES AND ASSOCIATED PLANT SPECIES ARE TO COMPLY WITH THE CITY OF PORTLAND TECHNICAL STANDARDS. ANY SUBSTITUTIONS SHALL BE REVIEWED FOR APPROVAL BY THE CITY.
3. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
4. CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTING.
5. CONTRACTOR TO MAINTAIN A STOCKPILE OF PLANTING MATERIAL IN CONTAINMENT FOR A MINIMUM OF 6 MONTHS.
6. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMAN.
7. CONTRACTOR SHALL REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.
8. THE PROPERTY OWNER IS RESPONSIBLE FOR THE CONTINUED CARE AND MAINTENANCE OF THE LANDSCAPED AREA. NEW PLANTINGS THAT SHOW SIGNS OF CONSTRUCTION DAMAGE WITHIN A ONE YEAR PERIOD FOLLOWING CONSTRUCTION SHALL BE REJECTED AND REPLACED PRIOR TO ANY RE-PLANTING.
9. THE ENGINEER MAY TAG ALL PLANTS AT THE NURSERY AND INSPECT THEM AFTER DELIVERY TO THE SITE; ALL PLANT MATERIALS SHALL BE INSPECTED BY THE ENGINEER ON SITE PRIOR TO INSTALLATION.
10. PROVIDE PLANTING TABLE ON SHEET C-45 FOR PLANT AND SEED AREAS.
11. AERIAL IMAGERY, DATED 2017, PLANT ACCESSED FROM MEGIS ORTHOMAGERY TOOL, MAY NOT HOLD TRUE TO CURRENT, ON-SITE CONDITIONS. CONTRACTOR TO FIELD VERIFY LOCATIONS OF PLANTINGS.



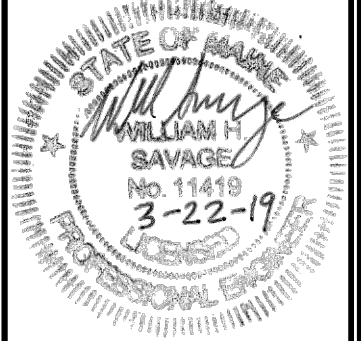
DRAWING NAME: **LANDSCAPE PLAN**

PROJECT NAME: **CASSIDY POINT REDEVELOPMENT**

CLIENT: **PROJECT MANAGEMENT, INC.**
225 COMMERCIAL STREET, SUITE 502 PORTLAND, ME 04101

	ACORN ENGINEERING, INC. 158 DANFORTH ST., PORTLAND MAINE 04102 (207) 775-2685
A C O R N	THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR UNAUTHORIZED, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE:	1113_CIVIL
JN:	1113
SCALE:	AS NOTED
DESIGNED BY:	FRT
DRAWN BY:	FRT
CHECKED BY:	WHS

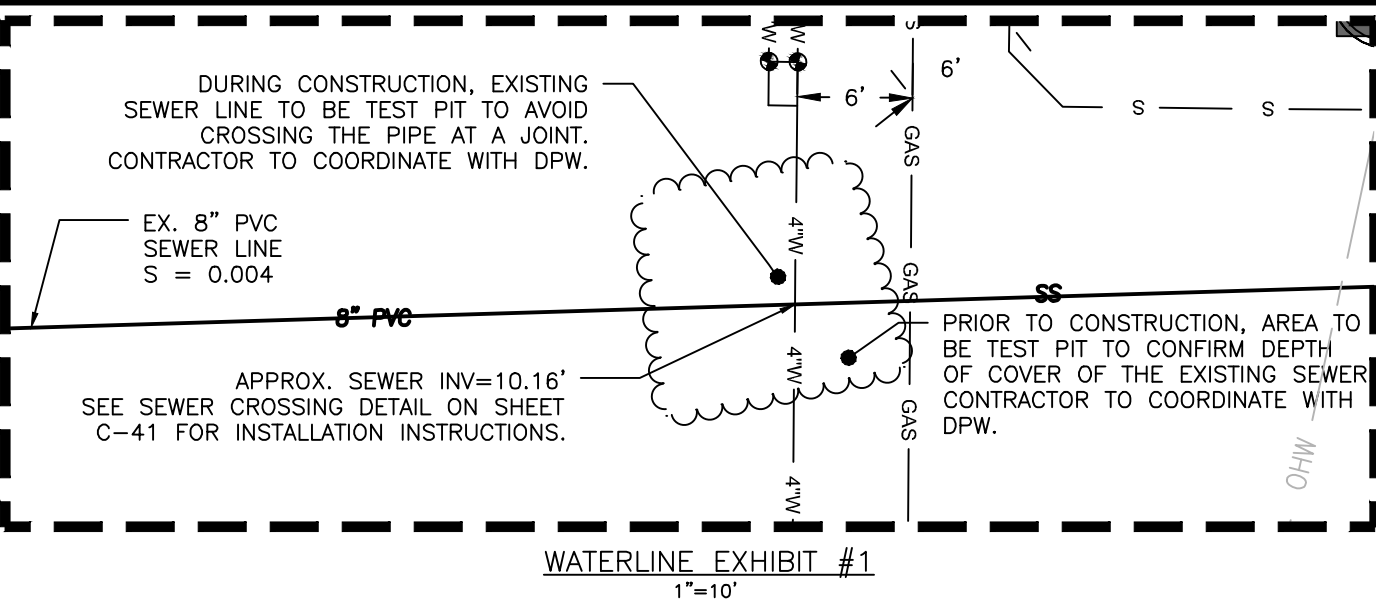


DRAWING NO.
L-1

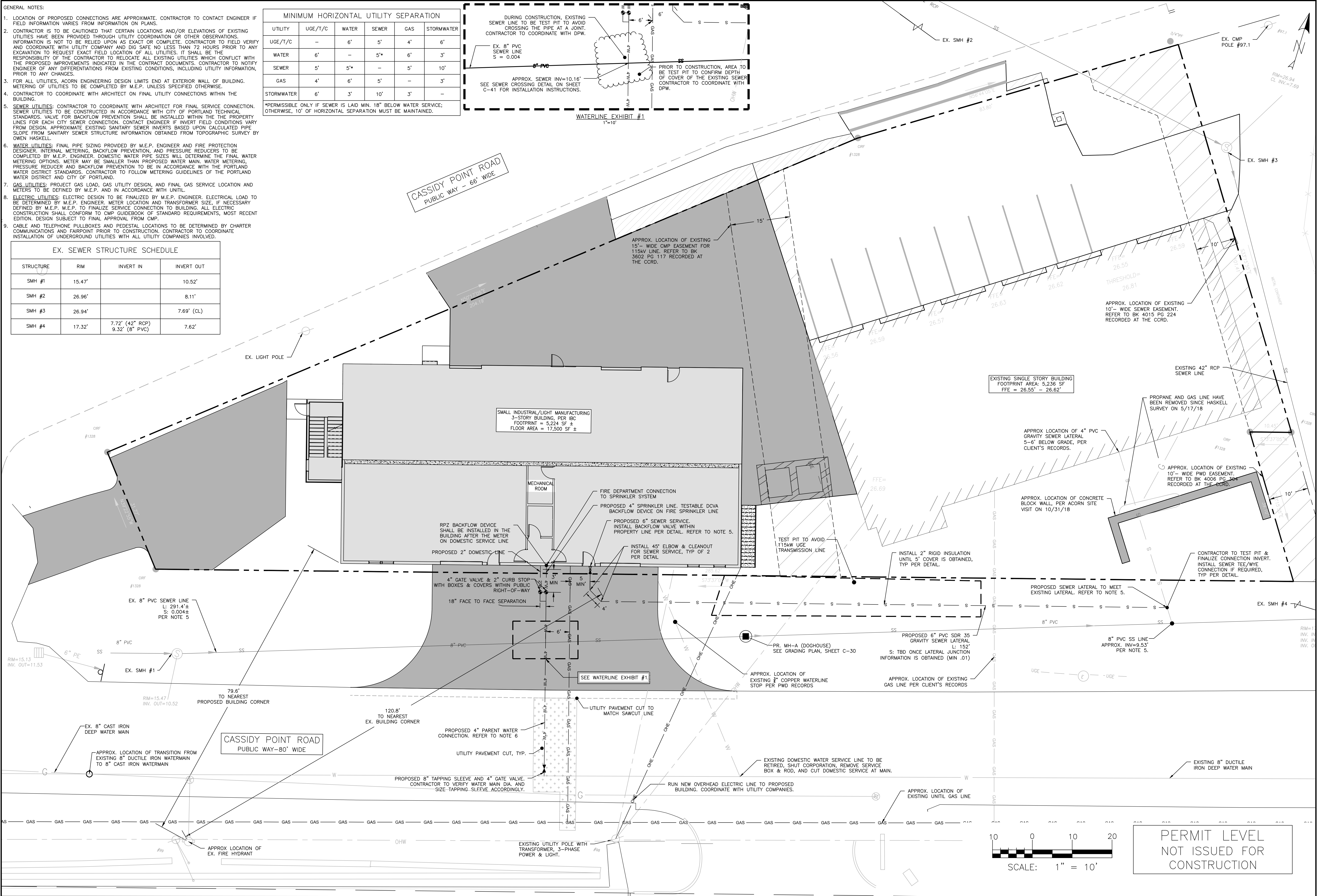
1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN DETERMINED BY INVESTIGATION OR OTHER OBSERVATIONS. CONTRACTOR'S INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL NECESSARY PERMITS AND TO COORDINATE WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY EXCAVATION.
3. FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
4. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
5. SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN. APPROXIMATE EXISTING SANITARY SEWER INVERTS BASED UPON CALCULATED PIPE INVERT FROM FINANCIAL SEWER STRUCTURE INFORMATION OBTAINED FROM TOPOGRAPHIC SURVEY BY OWEN HASKELL.
6. WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. WATER METERING SHALL BE IN ACCORDANCE WITH WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH THE PORTLAND PLUMBING DISTRICT DESIGN GUIDE. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE PORTLAND WATER DISTRICT AND CITY OF PORTLAND.
7. GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E.P. AND IN ACCORDANCE WITH UNTIL.
8. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. ELECTRICAL SERVICE TO BE DETERMINED BY M.E.P. ENGINEER. ELECTRICAL DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ALL ELECTRICAL CONSTRUCTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
9. CABLE AND TELEPHONE, FIBER OPTICS, AND PEDESTAL CONNECTIONS TO BE DETERMINED BY CHARTER COMMUNICATIONS PRIOR TO AIRPORT PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.

MINIMUM HORIZONTAL UTILITY SEPARATION					
UTILITY	UGE/T/C	WATER	SEWER	GAS	STORMWATER
UGE/T/C	—	6'	5'	4'	6'
WATER	6'	—	5*	6'	3'
SEWER	5'	5*	—	5'	10'
GAS	4'	6'	5'	—	3'
STORMWATER	6'	3'	10'	3'	—

*PERMISSIBLE ONLY IF SEWER IS LAID MIN. 18" BELOW WATER SERVICE; OTHERWISE, 10" OF HORIZONTAL SEPARATION MUST BE MAINTAINED.



EX. SEWER STRUCTURE SCHEDULE			
STRUCTURE	RIM	INVERT IN	INVERT OUT
SMH #1	15.47'		10.52'
SMH #2	26.96'		8.11'
SMH #3	26.94'		7.69' (CL)
SMH #4	17.32'	7.72' (42" RCP) 9.32' (8" PVC)	7.62'

[illegible]

DRAWING NAME:	UTILITY PLAN
PROJECT NAME:	CASSIDY POINT REDEVELOPMENT
CLIENT:	PROJECT MANAGEMENT, INC. 225 COMMERCIAL STREET, SUITE 502 PORTLAND, ME 04101



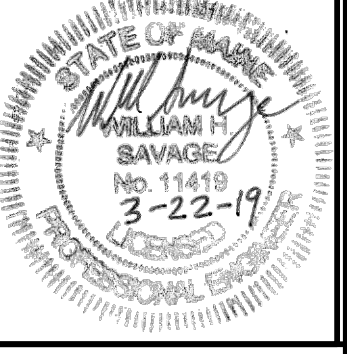
A C O R N

ENGINEERING, INC.

ACORN ENGINEERING, INC.
 158 DANFORTH STREET, PORTLAND, MAINE 04102
 (207) 775-2655

FOR ANY PROJECT, WE OBTAIN THE BEST QUALITY MATERIALS FROM ACORN ENGINEERING, INC. ANY ALTERNATIVE MATERIALS WILL BE APPROVED BY US BEFORE BEING USED. WE ASSURE YOU THE SAFETY AND RELIABILITY OF ACORN ENGINEERING, INC. WITHOUT THE RISK AND COST OF A DISCOVERY OF DEFECTS AFTER THE PROJECT IS COMPLETED.

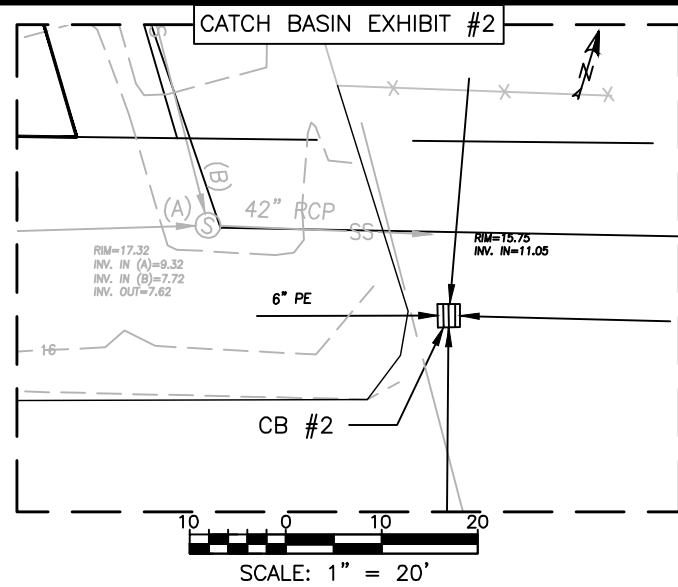
FILE:	1113_CIVIL
JN:	1113
SCALE:	AS NOTED
DESIGNED BY:	FRT
DRAWN BY:	FRT
CHECKED BY:	WHS



DRAWING NO.
C-20

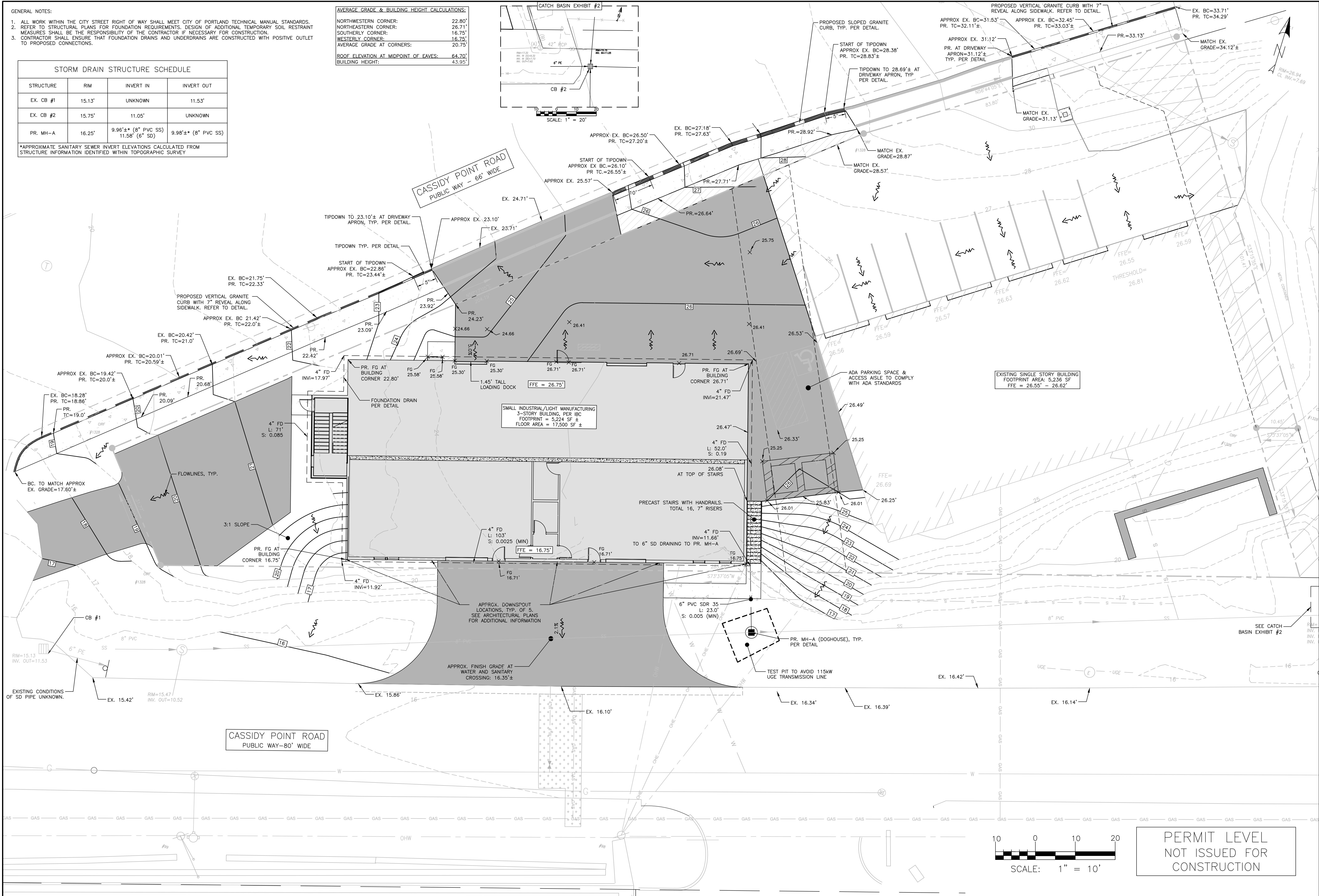
1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
2. REFER TO STRUCTURAL PLANS FOR FOUNDATION REQUIREMENTS. DESIGN OF ADDITIONAL TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
3. CONTRACTOR SHALL ENSURE THAT FOUNDATION DRAINS AND UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.

<u>AVERAGE GRADE & BUILDING HEIGHT CALCULATIONS:</u>	
NORTHWESTERN CORNER:	22.80'
NORTHEASTERN CORNER:	26.71'
SOUTHERLY CORNER:	16.75'
<u>WESTERLY CORNER:</u>	<u>16.75'</u>
AVERAGE GRADE AT CORNERS:	20.75'
<u>ROOF ELEVATION AT MIDPOINT OF FAVES:</u> 64.70'	
BUILDING HEIGHT:	43.95'



STORM DRAIN STRUCTURE SCHEDULE			
STRUCTURE	RIM	INVERT IN	INVERT OUT
EX. CB #1	15.13'	UNKNOWN	11.53'
EX. CB #2	15.75'	11.05'	UNKNOWN
PR. MH-A	16.25'	9.96'± (8" PVC SS) 11.58' (6" SD)	9.98'± (8" PVC SS)

*APPROXIMATE SANITARY SEWER INVERT ELEVATIONS CALCULATED FROM STRUCTURE INFORMATION IDENTIFIED WITHIN TOPOGRAPHIC SURVEY

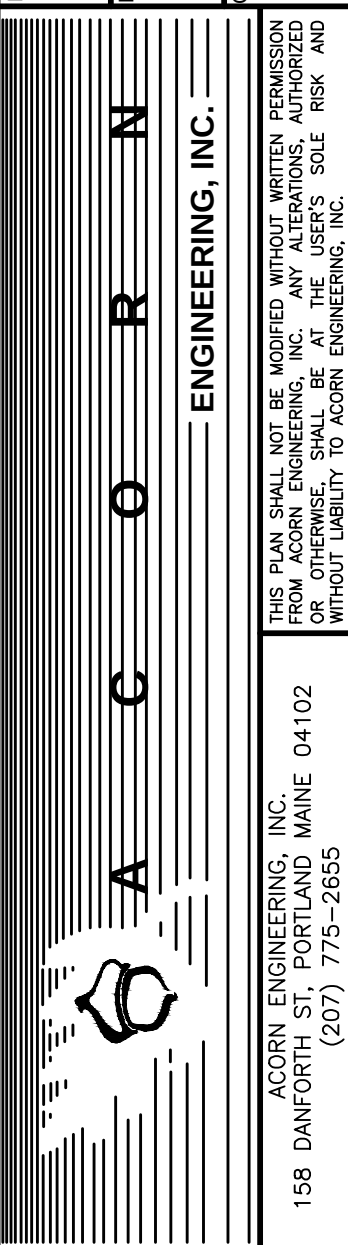


ISSUED FOR	BY DATE
PRELIMINARY PLAN	ERT 11/13/16
LEVEL II SITE PLAN	WHS 12/18/16
LEVEL II SITE PLAN	WHS 12/18/16
SOILS ANALYSIS	ERT 3/6/19
COMMENT RESPONSE	WHS 3/12/19
PB WORKSHOP	WHS 4/1/19

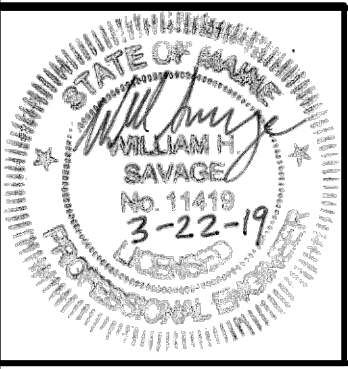
DRAWING NAME: GRADING PLAN

PROJECT NAME: CASSIDY POINT REDEVELOPMENT

CLIENT: PROJECT MANAGEMENT, INC.
225 COMMERCIAL STREET, SUITE 502 PORTLAND, ME 04101

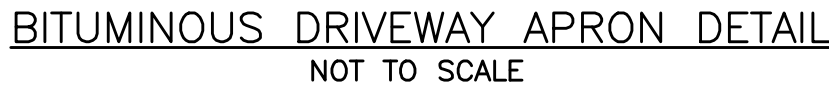
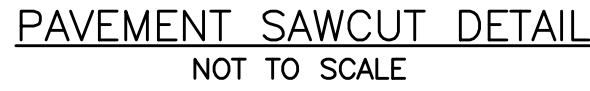


FILE:	1113_CIVIL
JN:	1113
SCALE:	AS NOTED
DESIGNED BY:	FRT
DRAWN BY:	FRT
CHECKED BY:	WHS



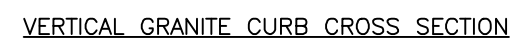
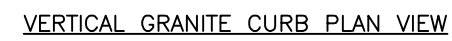
DRAWING NO.
C-30

1. SAWCUT EXISTING PAVEMENT AND REMOVE 2' STRIP OF EXISTING PAVEMENT. APPLY BITUMINOUS TACK COAT PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.
2. THE NEW PAVEMENT SECTION SHALL MEET THE CITY OF PORTLAND ARTERIAL BITUMINOUS PAVEMENT SECTION DETAIL AT A MINIMUM OR THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.



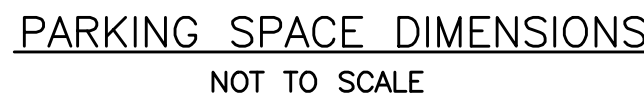
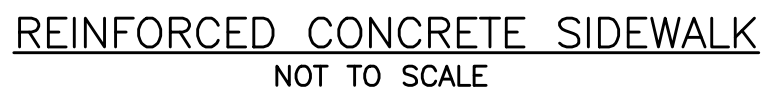
BITUMINOUS PAVEMENT PROFILE:
CASSIDY POINT DRIVE & INTERNAL PARKING LOT
NOT TO SCALE

1. REFER TO GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR SITE GRADING
2. MATERIALS/DETAILS OF DRIVEWAY APRON TO BE APPROVED BY CITY (DPW AND PLANNING) PRIOR TO IMPLEMENTATION
3. TECHNICAL MANUAL SECTION 1.7.2.4: MAXIMUM DRIVEWAY WIDTH (TWO-WAY) FOR INDUSTRIAL USE - 30 FT.



VERTICAL GRANITE CURB AND TIPDOWN INSTALLATION
NOT TO SCALE

1. NO INDIVIDUAL PIECES OF CURB ARE TO BE SHORTER THAN 4 LF WITH THE EXCEPTION OF RADIAL CURB.
2. CURB TO BE RESET IN ACCORDANCE WITH MDOT 609.08.



1. ALL ASPECTS OF RESERVED PARKING SIGN CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.

2. SIGN SHALL BE CONSTRUCTED AS SIGN R7-8 UNDER THE "PARKING AND STANDING SIGNS AND PLAQUES" (R7 SERIES) WITHIN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION. VAN ACCESSIBILITY SHALL BE CONSTRUCTED AS SIGN R7-8a OR R7-8b.

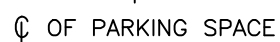
3. SIGN POST CONSTRUCTION AND MOUNTING SHALL BE IN ACCORDANCE WITH CHAPTER 2A OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.



1. BICYCLE RACK SHALL HAVE CAPACITY FOR FOUR BICYCLES.
2. BICYCLE RACK PARTS SHALL BE OF UNIFORM COLOR AND SHALL BE FINISHED IN ACCORDANCE WITH PRODUCT SPECIFICATION, PER MANUFACTURER'S INSTRUCTIONS. RACKS MUST BE FINISHED WITH RIGHT-OFF WHITE PAINT TO MATCH EXISTING FURNITURE COLOR. FOR THAT LOCATION AS DESCRIBED IN THE MUNICIPAL LIGHTING STANDARDS; IF NO DESIGNATED COLOR FOR THAT AREA EXISTS, BICYCLE RACKS SHALL BE BLACK.
3. BICYCLE RACK SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S MOST RECENT INSTALLATION RECOMMENDATIONS, AND SHALL BE INSTALLED WITH AN IN-GROUND MOUNT UNLESS OTHERWISE APPROVED BY ENGINEER.
4. BICYCLE RACK SHALL BE "DERO HI ROLLER," AS MANUFACTURED BY DERO BIKE RACKS.
5. BICYCLE RACKS SHOWN MANUFACTURED BY OTHER THAN DERO BIKE RACKS SHALL BE IDENTICAL OFFSETS SHALL BE IDENTICAL WHERE POSSIBLE.
6. ALL OFFSETS ARE FROM OUTSIDE EDGES OF ITEMS.
7. BICYCLE RACK SHALL BE SET INTO CONCRETE SLAB. DATE OF CONCRETE SHALL BE AT TOP OF GRAVEL ELEVATION.
8. GRAVEL LAYER SHALL BE INSTALLED IN ACCORDANCE WITH BITUMINOUS BASE DETAIL, AND SHALL BE MAINTAINED 703.06 TYPE B.



BICYCLE RACK DETAIL
NOT TO SCALE



INTERNATIONAL BARRIER FREE SYMBOL
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

SITE DETAILS

CASSIDY POINT REDEVELOPMENT

PROJECT MANAGEMENT, INC.

DRAWING NAME:

PROJECT NAME:

CLIENT:

A C O R N

ENGINEERING, INC.

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALLEGATIONS, AUTHORIZED REPRESENTATIVES, OR ANY OTHER PARTY'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
65 HANOVER ST., PORTLAND, MAINE 04101
(207) 775-2655

FILE: 1113_DETAILS

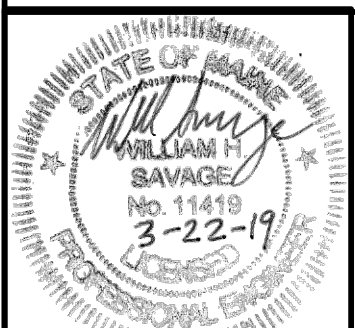
JN:	1113
-----	------

SCALE: NTS

DESIGNED BY: FRT

DRAWN BY: FRT

CHECKED BY: WHS

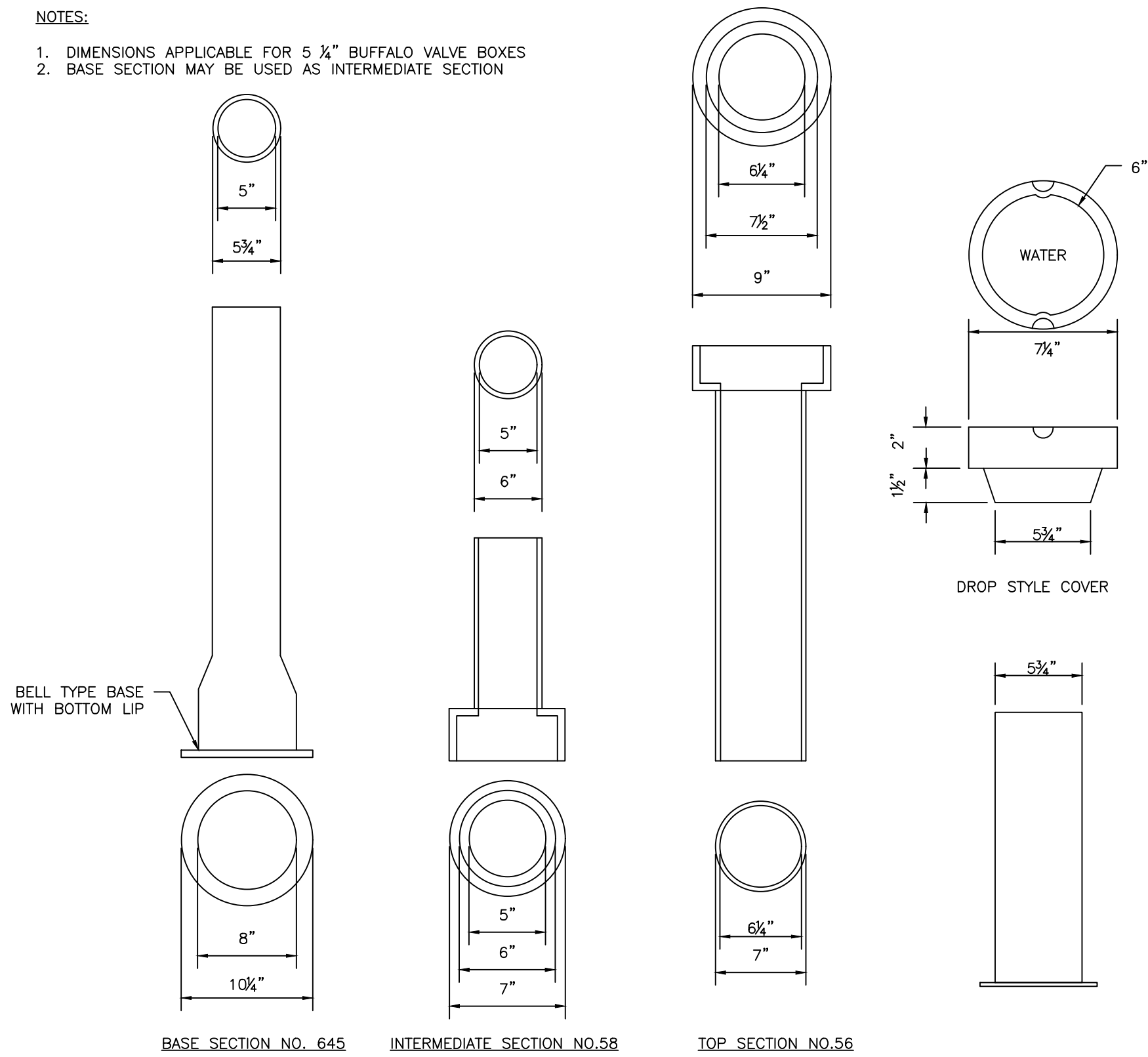


DRAWING NO.

C-40

NOTES:

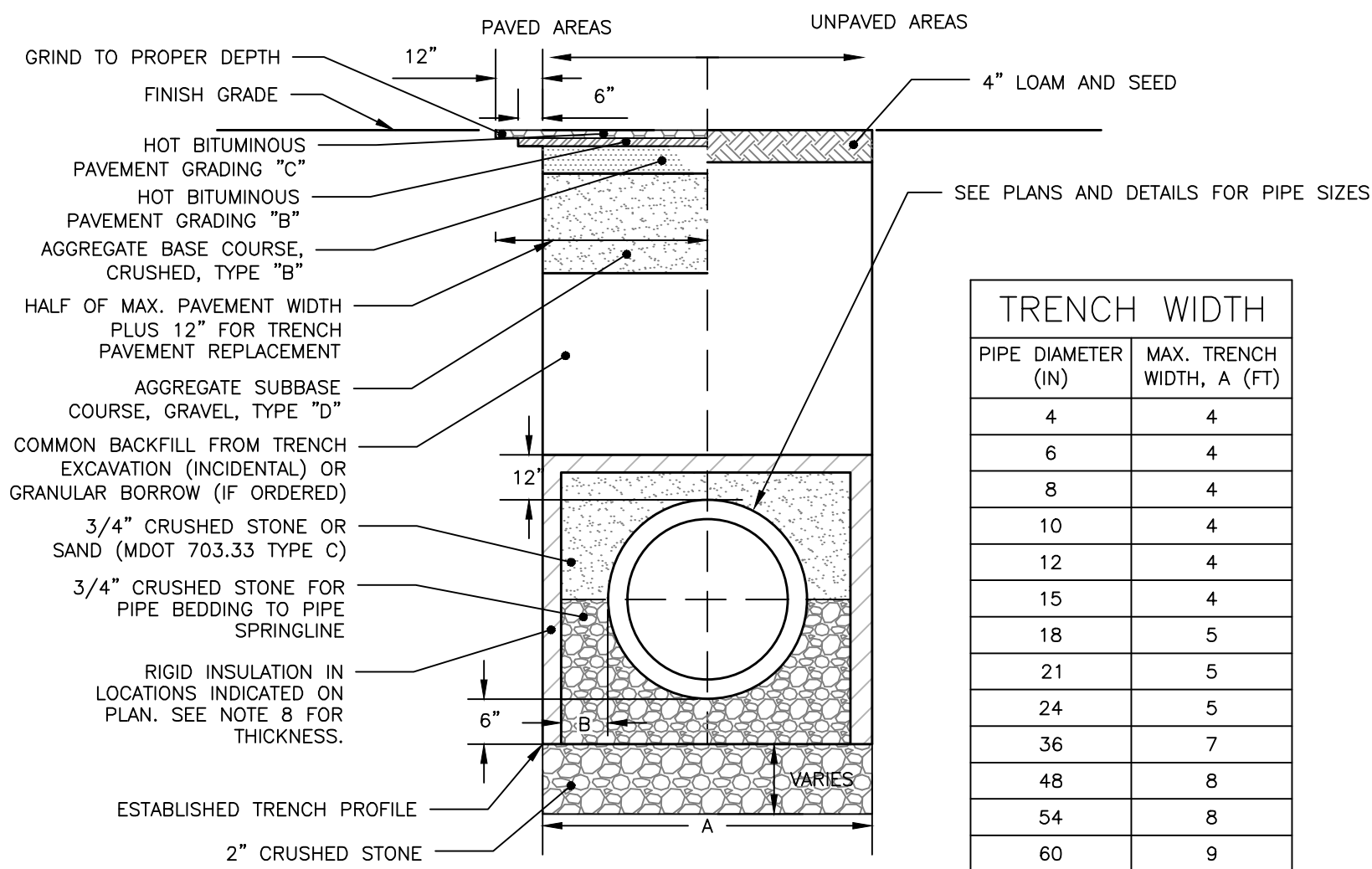
1. DIMENSIONS APPLICABLE FOR 5 1/2" BUFFALO VALVE BOXES
2. BASE SECTION MAY BE USED AS INTERMEDIATE SECTION



VALVE BOX & COVER
NOT TO SCALE

DESIGN NOTES:

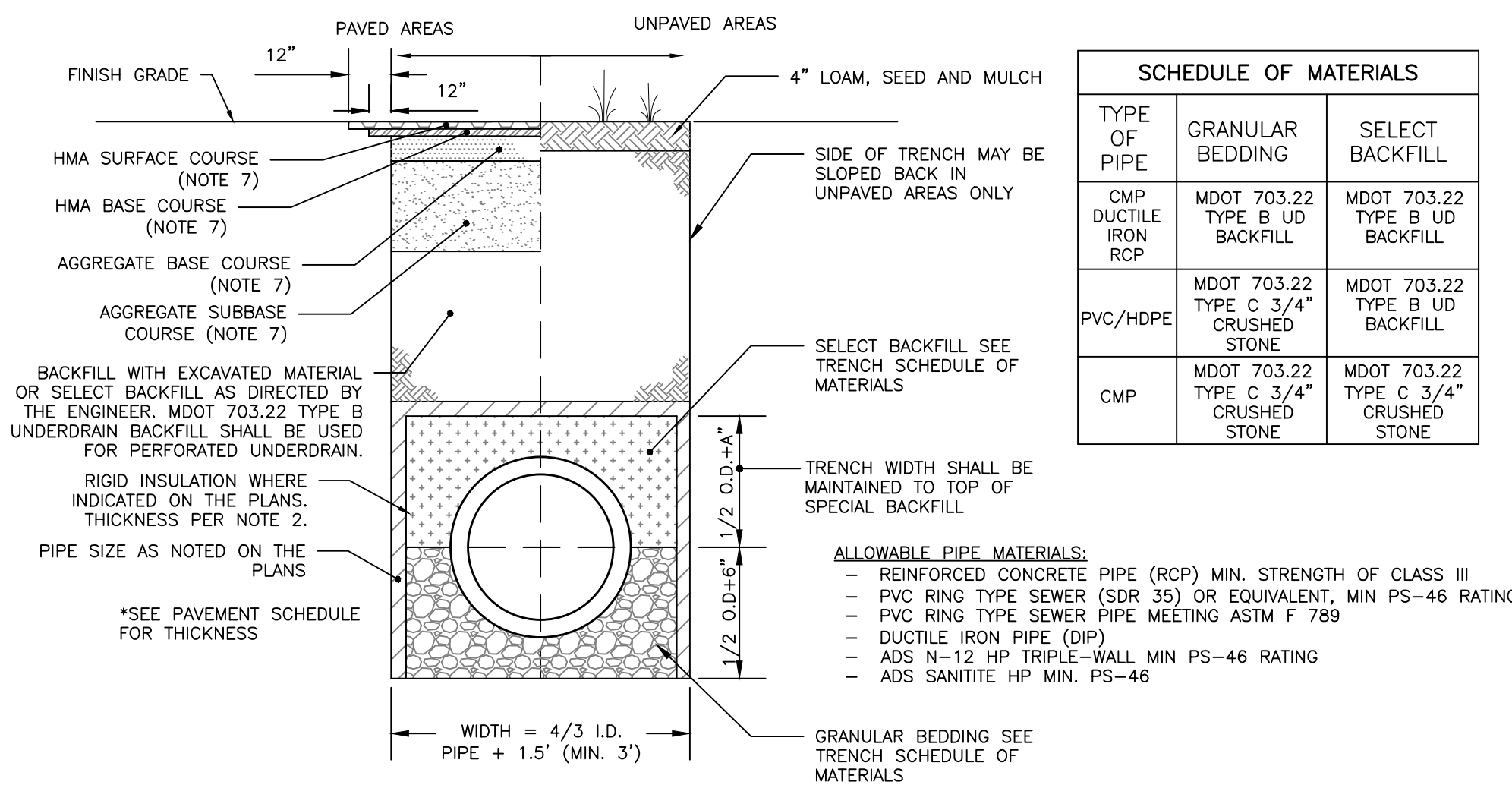
1. ANY ALTERNATE TRENCHING METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
2. ALL CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL STANDARDS FIGURE II-2.
3. BRACING & SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. WHERE APPLICABLE, PERFORATIONS IN STORM DRAIN (PERF. SD) SHALL BE ORIENTED UP.
5. ALL STORM DRAINS SHALL BE PVC SDR 35 MIN PS-46 RATING OR IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL MANUAL, SECTION 2 - SANITARY SEWER AND STORM DRAIN - PART 2.5.2
6. IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
7. THIS DETAIL SHALL BE APPLIED ONLY TO PIPE TRENCHES WITHIN OF THE CITY OF PORTLAND R.O.W.
8. STORM DRAIN COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" OF RIGID INSULATION. COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" RIGID INSULATION. OTHER UTILITIES: ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.
9. DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.
10. DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE, BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 9".
11. DIMENSION A IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE TABLE BELOW.



CITY OF PORTLAND TYPICAL PIPE TRENCH DETAIL WITHIN RIGHT-OF-WAY
NOT TO SCALE

NOTES:

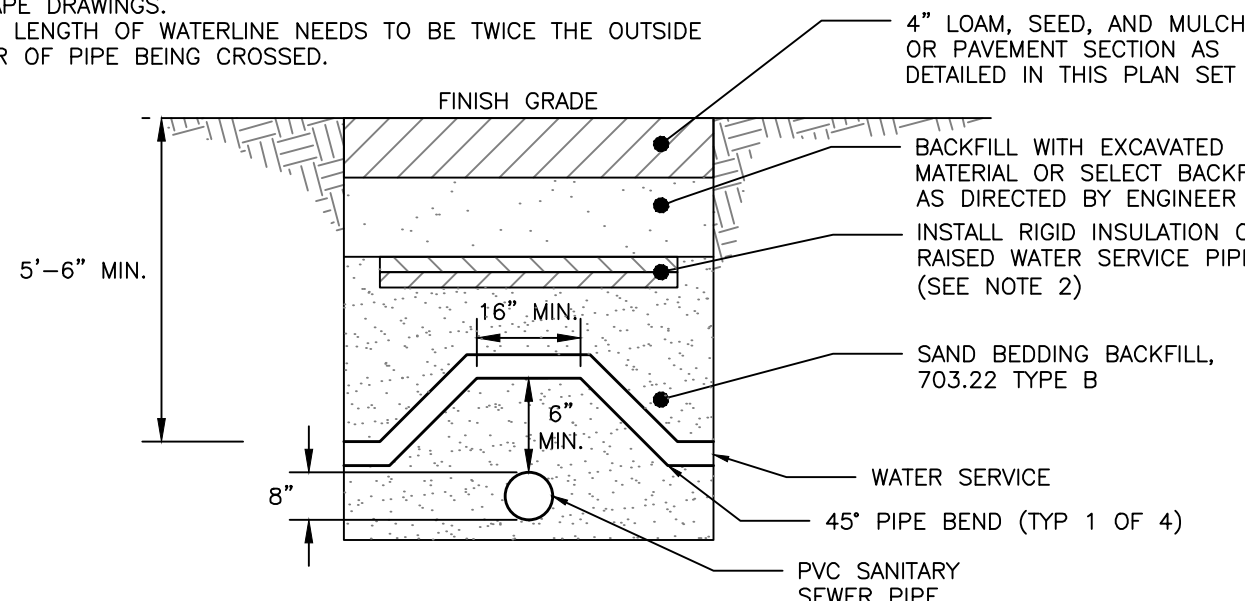
1. BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. STORM DRAIN COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" OF RIGID INSULATION. COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" RIGID INSULATION. OTHER UTILITIES: ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.
3. INSTALL WARNING TAPE DIRECTLY ABOVE UTILITIES AT THE TOP OF SUBGRADE.
4. MINIMUM COVER
- 4.1. 2'-0" - STORM DRAIN
- 4.2. 5'-0" - SEWER
5. NO TREES SHALL BE PLANTED WITHIN 5' OF A SEWER PIPE OR SERVICE
6. THIS DETAIL SHALL BE APPLIED ONLY TO DRAINAGE PIPE TRENCHES OUTSIDE OF THE CITY OF PORTLAND ROW.
7. THICKNESS AS NOTED BY SURFACE DETAILS
8. ALL PROPOSED TREES PLANTED WITHIN 10' OF A STORM OR SEWER PIPE SHALL BE PLANTED AT A DEPTH NO GREATER THAN 3' DEEP. PERMEABLE LANDSCAPE FABRIC SHALL CREATE A ROOT BARRIER AROUND THE PIPES. CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE DRAWINGS.



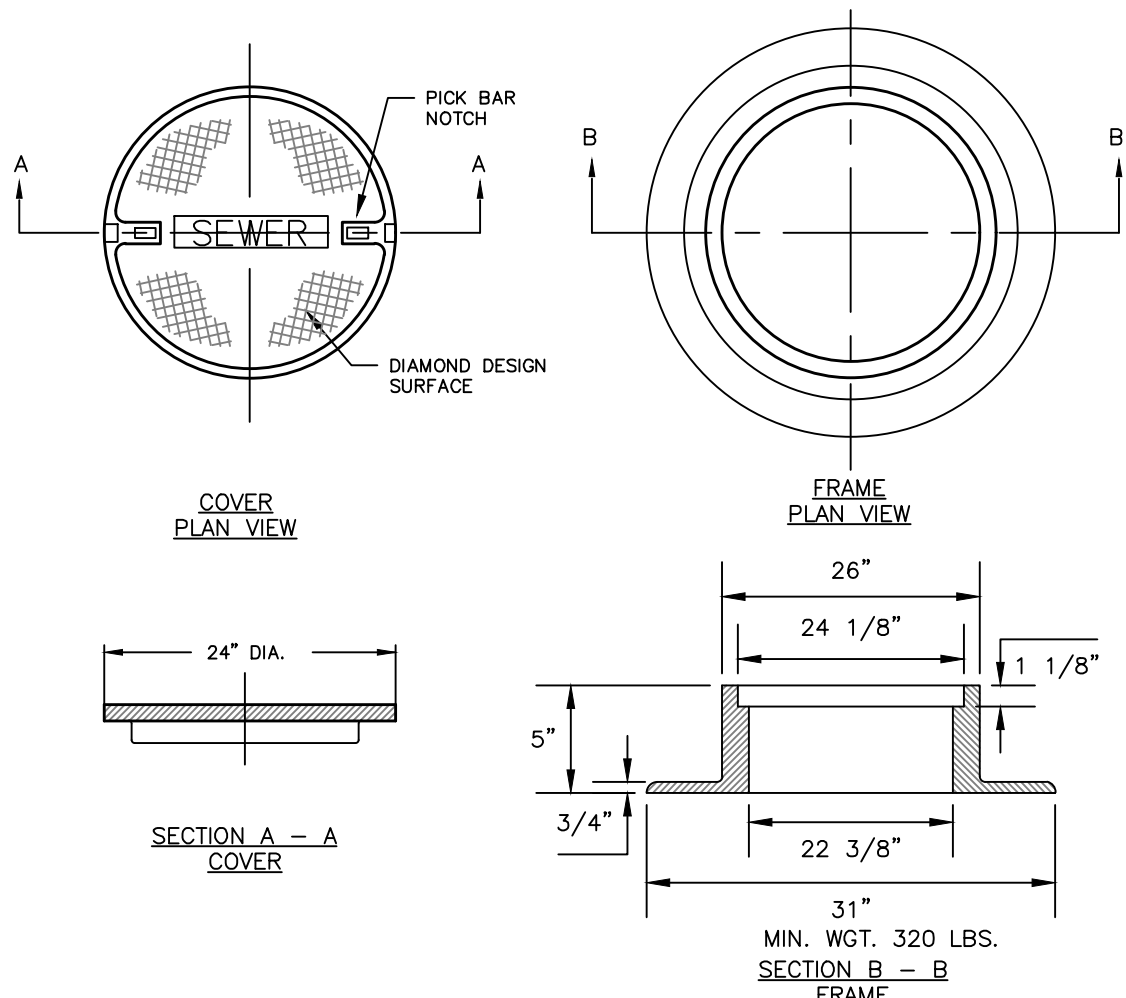
STORM DRAIN AND SEWER TYPICAL TRENCH SECTION WITHIN PROPERTY
NOT TO SCALE

NOTES:

1. THE WATER TRENCH SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARD DETAILS & SPECIFICATIONS.
2. IF LESS THAN 5'-6" OF COVER IS POSSIBLE, ADD TWO, 2-INCH LAYERS OF "BLUE DOW" RIGID INSULATION.
3. ALL PROPOSED TREES PLANTED LESS THAN 10 FEET FROM THE WATER PIPE SHALL BE PLANTED AT A DEPTH NO GREATER THAN 3' DEEP. PERMEABLE LANDSCAPE FABRIC SHALL CREATE A ROOT BARRIER AROUND THE WATER PIPES. CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE DRAWINGS.
4. MINIMUM LENGTH OF WATERLINE NEEDS TO BE TWICE THE OUTSIDE DIAMETER OF PIPE BEING CROSSED.



SEWER & WATER CROSSING DETAIL
NOT TO SCALE



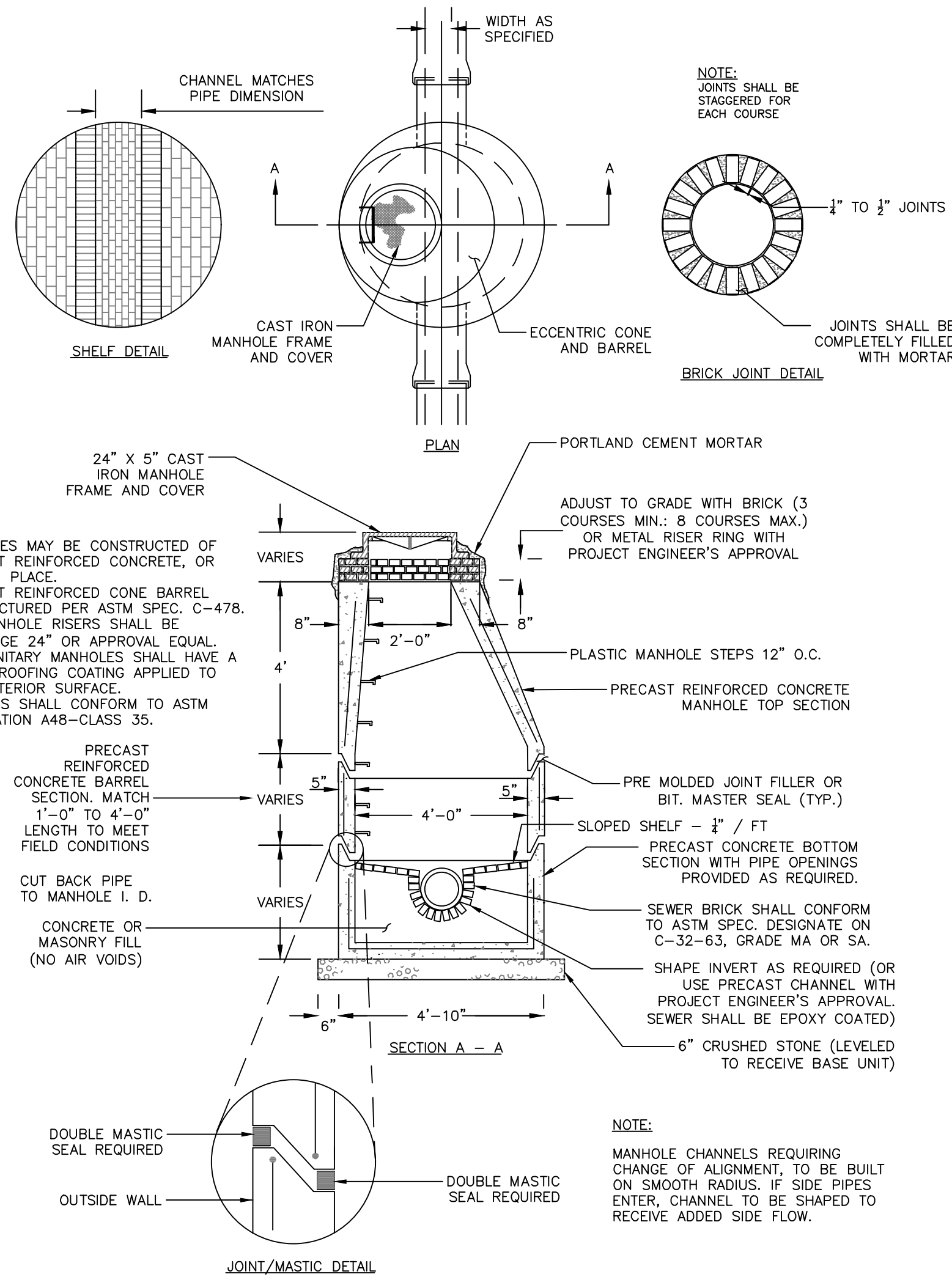
CAST IRON MANHOLE COVER AND FRAME
NOT TO SCALE

NOTES:

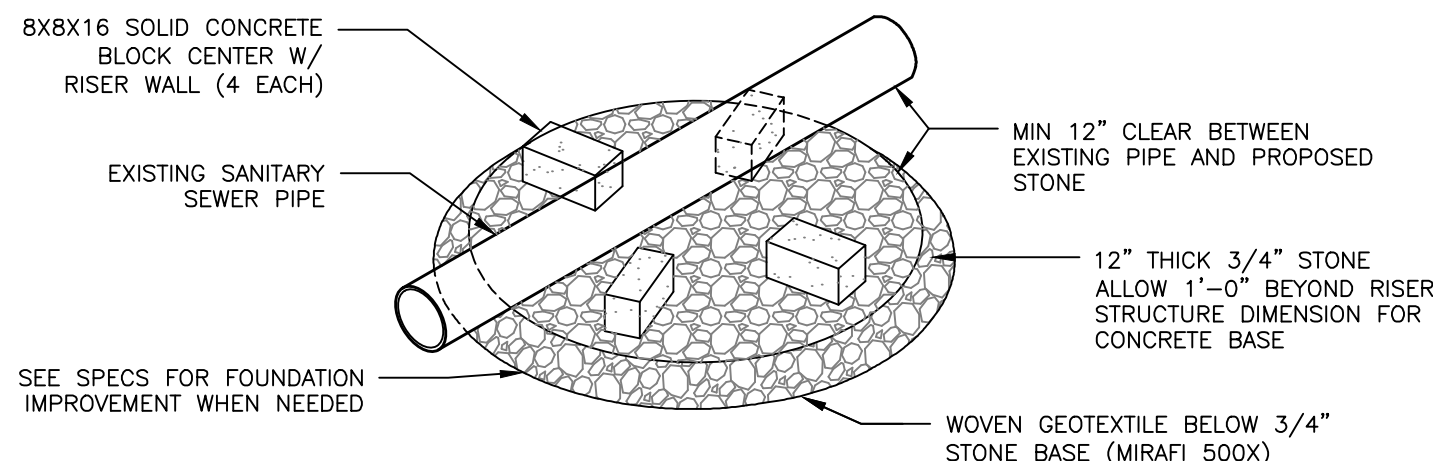
1. ALL SANITARY AND STORMWATER/RAIN MANHOLE COVERS SHALL BE 24" x 5".
2. ALL SANITARY MANHOLE COVERS AND SHALL HAVE "SEWER" CAST INTO THE COVER.
3. ALL STORM AND SEWER MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE A 7/8" DIAMETER DRILLED PICK HOLE LOCATED 8" FROM THE CENTER OF THE COVER.
4. ALL STORMWATER/RAIN MANHOLE COVERS SHALL HAVE "RAIN" CAST INTO THE COVER.
5. APPROVED MANHOLE FRAMES: EAST JORDAN = 1690Z OR APPROVED EQUAL.
6. APPROVED MANHOLE COVER: EAST JORDAN = 2160A OR APPROVED EQUAL.
7. FRAME AND COVER CONSTRUCTION SHALL BE COMPATIBLE WITH STANDARD PRECAST SEWER MANHOLE DETAIL.
8. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OR PORTLAND.

NOTES:

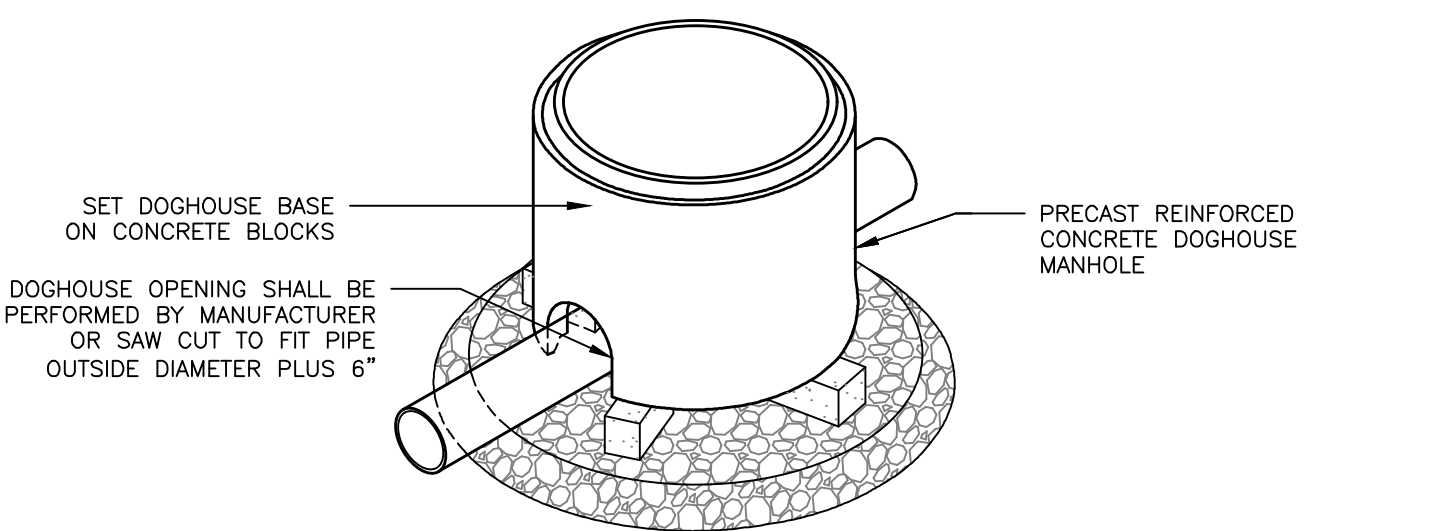
1. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
2. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
3. ALL MANHOLE RISERS SHALL BE ETHERIDGE 24" OR APPROVAL EQUAL. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE.
4. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.



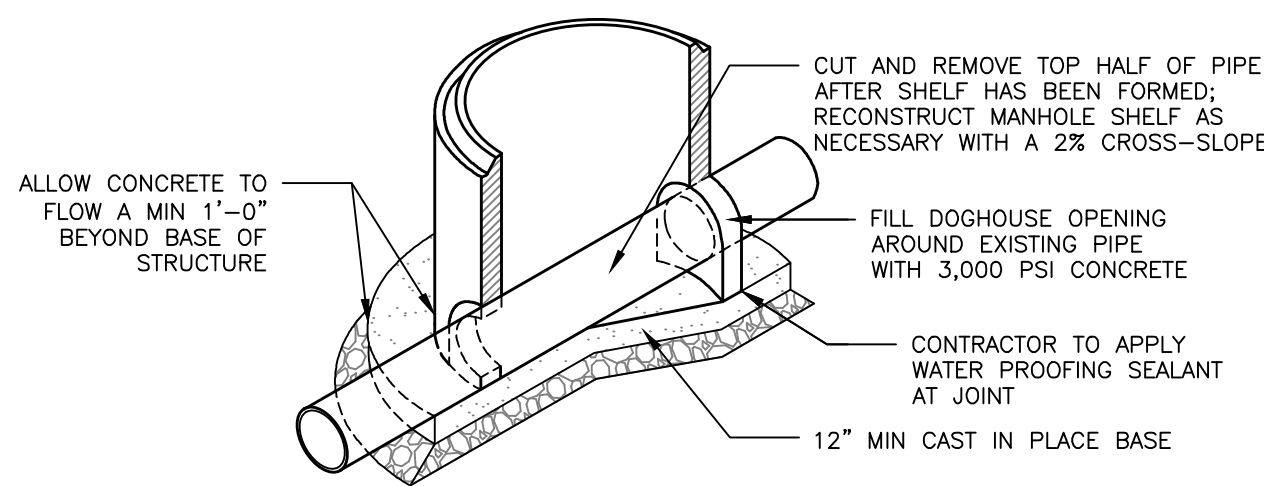
PRECAST CONCRETE MANHOLE
NOT TO SCALE



BASE ISOMETRIC VIEW



RISER ISOMETRIC VIEW



FOUNDATION SECTION VIEW

NOTES:

1. UNLESS OTHERWISE SPECIFIED, CONCRETE SHALL BE 4000 PSI @28 DAYS.
2. RECONSTRUCT INTERIOR MANHOLE INVERT AS NECESSARY TO ACCOMMODATE NEW PIPE.
3. THIS DETAIL IS INTENDED TO PROVIDE ADDITIONAL INFORMATION TO THE CONTRACTOR IN REGARDS TO THE CONNECTION OF THE DOGHOUSE MANHOLE BASE TO THE EXISTING SANITARY SEWER SYSTEM. MANHOLE INSTALLATION INFORMATION NOT EXPLICITLY REFERRED TO IN THIS DETAIL SHALL BE PER THE "STANDARD PRECAST SEWER MANHOLE" DETAIL.

DOGHOUSE MANHOLE DETAIL
NOT TO SCALE

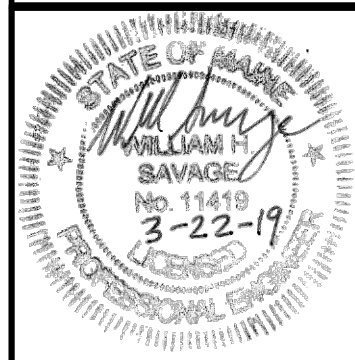
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
PWD ABILITY TO SERVE	FRT
PWD ABILITY TO SERVE	FRT
SEWER CROSSING DETAIL	WHS
LEVEL II SITE PLAN	WHS
LEVEL II SITE PLAN	WHS
COMMENT RESPONSE	WHS
PB WORKSHOP	WHS

UTILITY DETAILS -1	CASSIDY POINT REDEVELOPMENT	PROJECT MANAGEMENT, INC.
DRAWING NAME	PROJECT NAME	CLIENT
		225 COMMERCIAL STREET, SUITE 502 PORTLAND, ME 04101

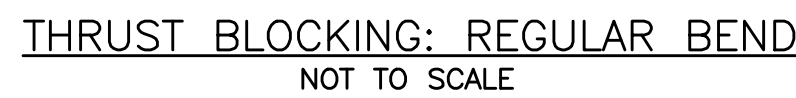
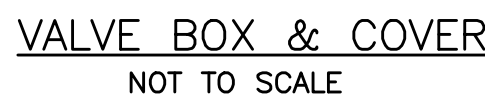
ACORN ENGINEERING, INC.	ACORN ENGINEERING, INC.
65 MANOVER ST. PORTLAND MAINE 04101	65 MANOVER ST. PORTLAND MAINE 04101
(207) 775-2655	(207) 775-2655

FILE: 1113_DETAILS	JN: 1113
SCALE: NTS	DESIGNED BY: FRT
DRAWN BY: FRT	CHECKED BY: WHS

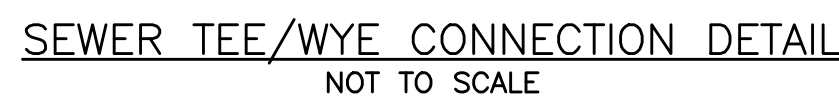


DRAWING NO.
C-41

1. DIMENSIONS APPLICABLE FOR 5 1/4" BUFFALO VALVE BOXES
2. BASE SECTION MAY BE USED AS INTERMEDIATE SECTION



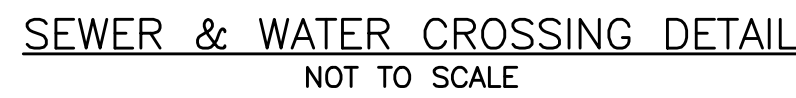
1. LOCATION WITH WARNING TAPE SHALL BE INSTALLED OVER CENTERLINE OF PIPE AT A MAXIMUM OF 24 INCHES BELOW FINISH GRADE.
2. SITE CONTRACTOR TO COORDINATE CONNECTION OF SEWER LATERAL TO STRUCTURE PLUMBING WITH ARCHITECTURAL CONTRACTOR.
3. CONNECTION OF PROPOSED SEWER LATERAL TO STRUCTURE PLUMBING SHOULD INCORPORATE USE OF SIMILAR PIPE MATERIALS. IN THE CASE OF DISSIMILAR PIPES BEING USED, A FERNCO FLEXIBLE COUPLING SHALL BE USED.



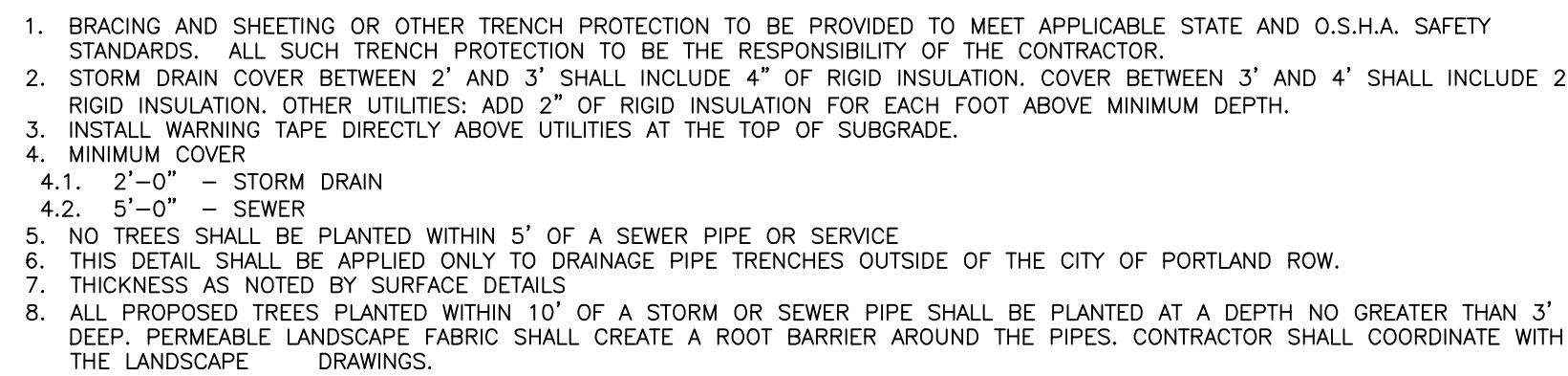
1. ANY ALTERNATE TRENCHING METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
2. ALL CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL STANDARDS FIGURE II-2.
3. BRACING & SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND OSHA SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. WHERE APPLICABLE, PERFORATIONS IN STORM DRAIN (PERF. SD) SHALL BE ORIENTED UP.
5. ALL STORM DRAINS SHALL BE PVC SD 36 IN PS-46 (RING OR IN OR IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL MANUAL, SECTION 2 - SANITARY SEWER AND STORM DRAIN, PART 2.5.2
6. IN PAVED AREAS, THE MIXTURE OF HOT MIX ASPHALT SHALL BE THE GREATER OF THE EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
7. THIS DETAIL SHALL BE APPLIED ONLY TO PIPE TRENCHES WITHIN OF THE CITY OF PORTLAND R.O.W.
8. STORM DRAIN COVER BETWEEN 2" AND 3" SHALL INCLUDE 4" OF RIGID INSULATION. COVER BETWEEN 3" AND 4" SHALL INCLUDE 2" RIGID INSULATION. OTHER UTILITIES: ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.
9. DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.
10. DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 9".
11. DIMENSION C SHALL BE THE DEPTH OF THE CUT OR CUT AND FILL TO THE QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE TABLE BELOW.



1. THE WATER TRICH SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARD DETAILS & SPECIFICATIONS.
2. IF LESS THAN 5'-6" OF COVER IS POSSIBLE, ADD TWO, 2-INCH LAYERS OF "BLUE DOW" GROUT INSULATION.
3. ALL PROPOSED TREES PLANTED LESS THAN 10 FEET FROM THE WATER PIPE SHALL BE PLANTED AT A DEPTH NO GREATER THAN 3' DEEP. PERMEABLE LANDSCAPE FABRIC SHALL CREATE A ROOT BARRIER AROUND THE WATER PIPES. CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE DRAWINGS.
4. MINIMUM LENGTH OF WATERLINE NEEDS TO BE TWICE THE OUTSIDE DIAMETER OF PIPE BEING CROSSED.



1. CONTRACTOR RESPONSIBLE FOR THE INSTALLATION OF THE ROOF DRAIN, ADAPTER AND COVER. OWNER TO INSTALL GUTTERS AND DOWNSPOUTS, UNLESS OTHERWISE DIRECTED.
2. ALL PIPES SHALL BE OF UNIFORM SIZE.



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 BE SLOTTED TO ALLOW 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.



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

DRAWING NAME: UTILITY & DRAINAGE DETAILS

PROJECT NAME: CASSIDY POINT REDEVELOPMENT

CLIENT: PROJECT MANAGEMENT, INC.
225 COMMERCIAL STREET, SUITE 502 PORTLAND, ME 04101



A C O R ENGINEERING, INC.

FILE: 1113_DETAILS

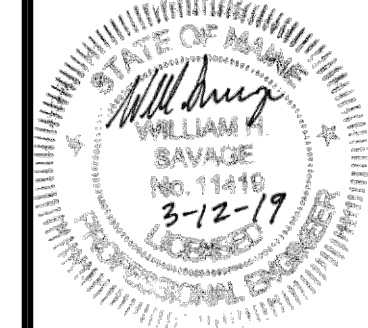
JN:	1113
-----	------

SCALE: NTS

DESIGNED BY: FRT

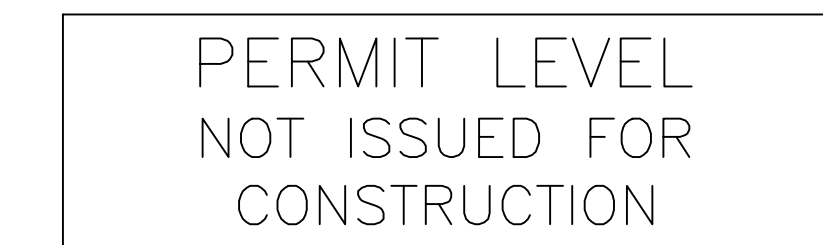
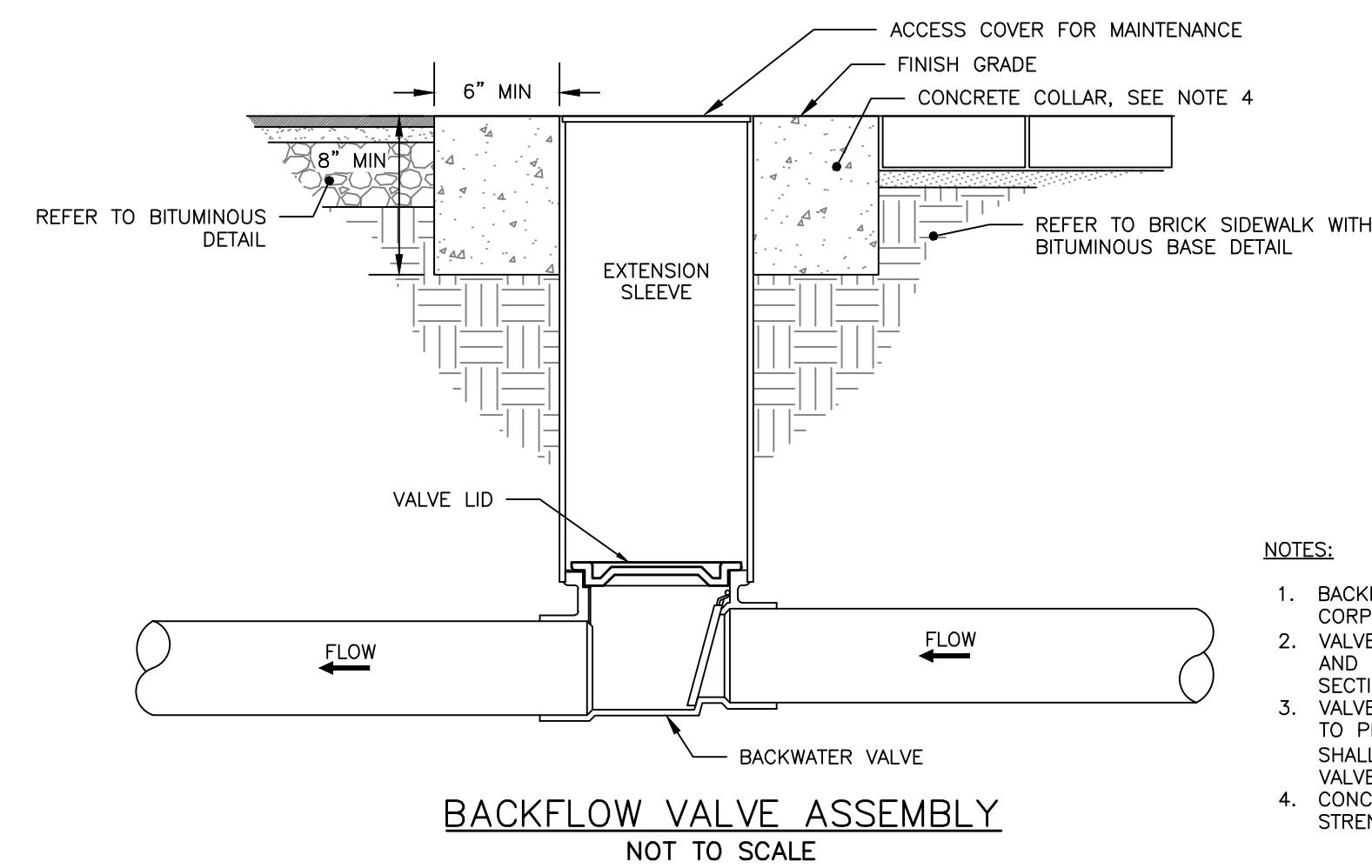
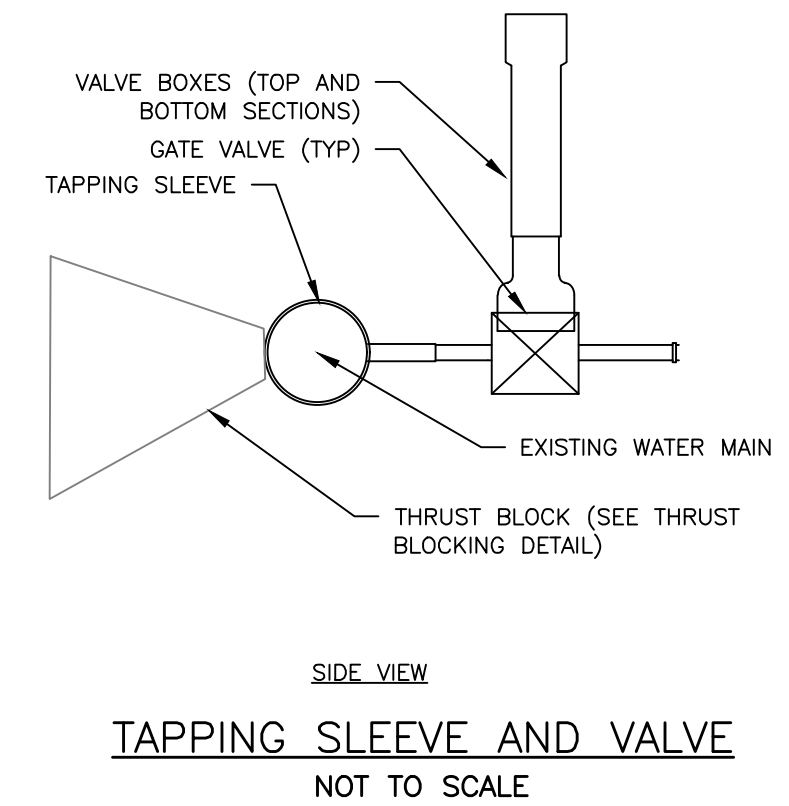
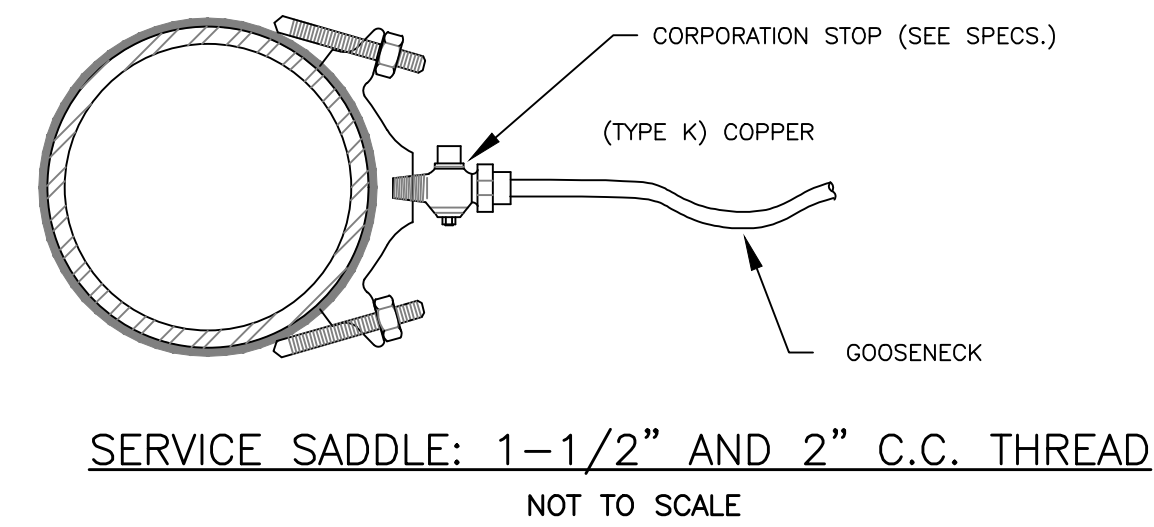
DRAWN BY: FRT

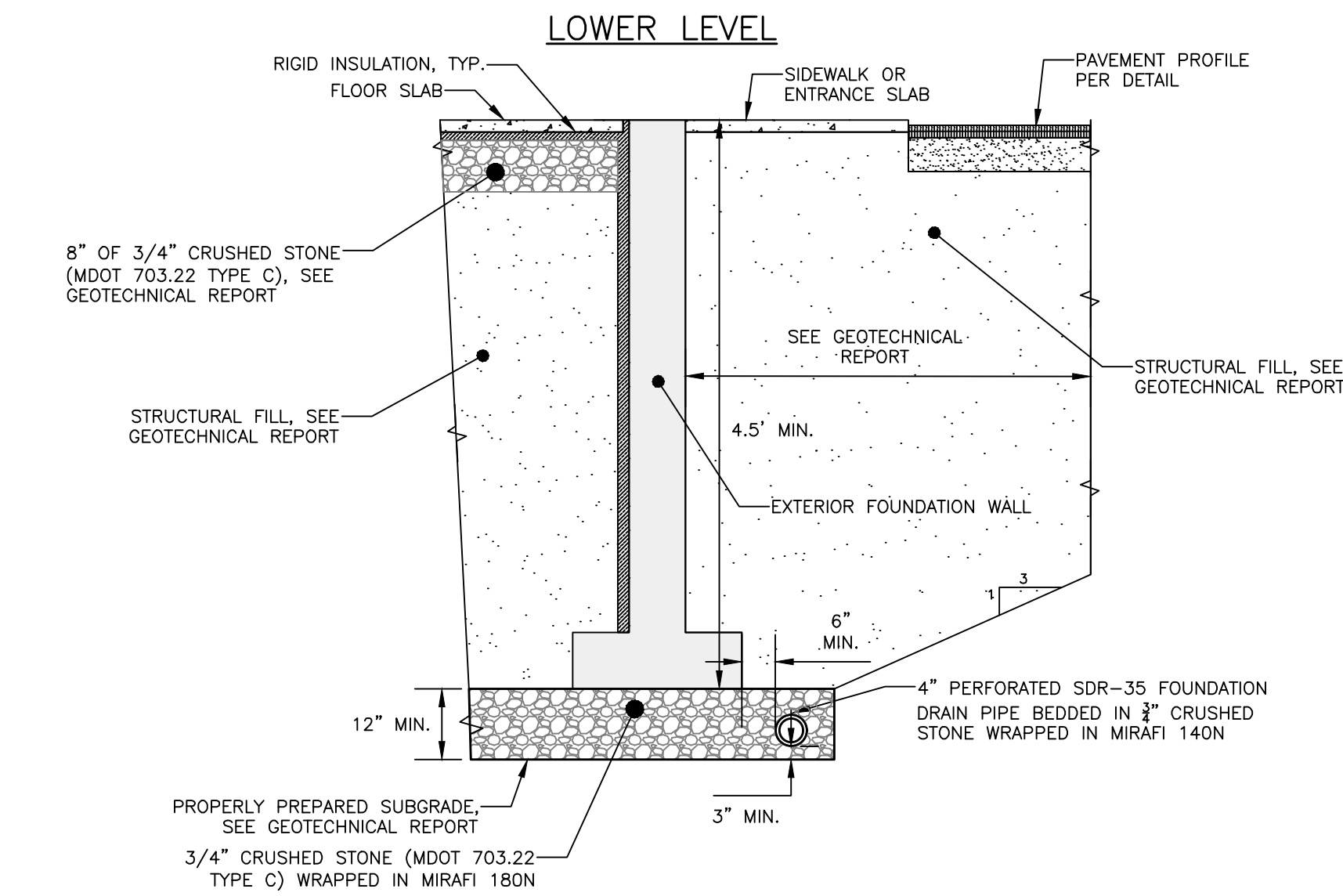
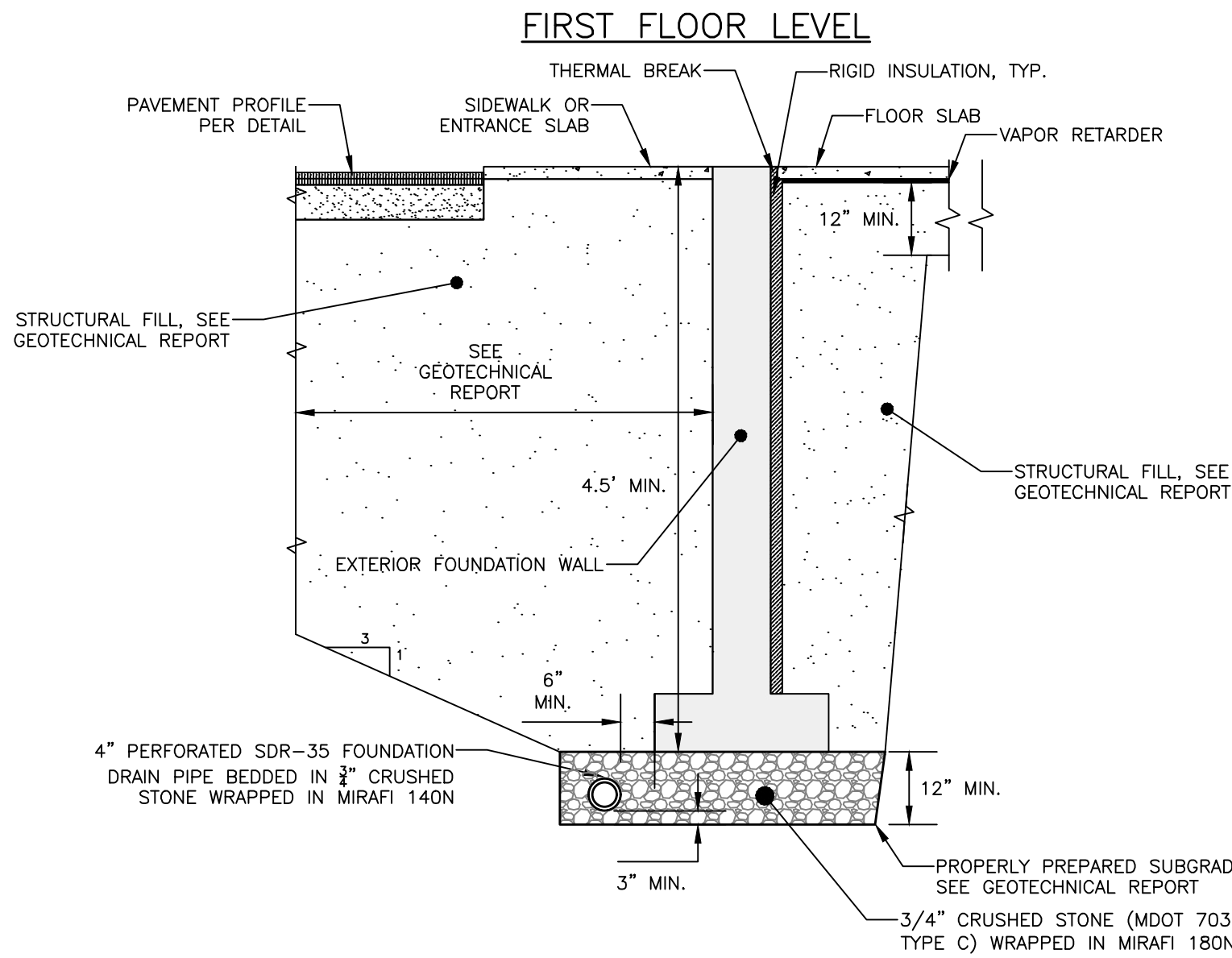
CHECKED BY: WHS



DRAWING NO.

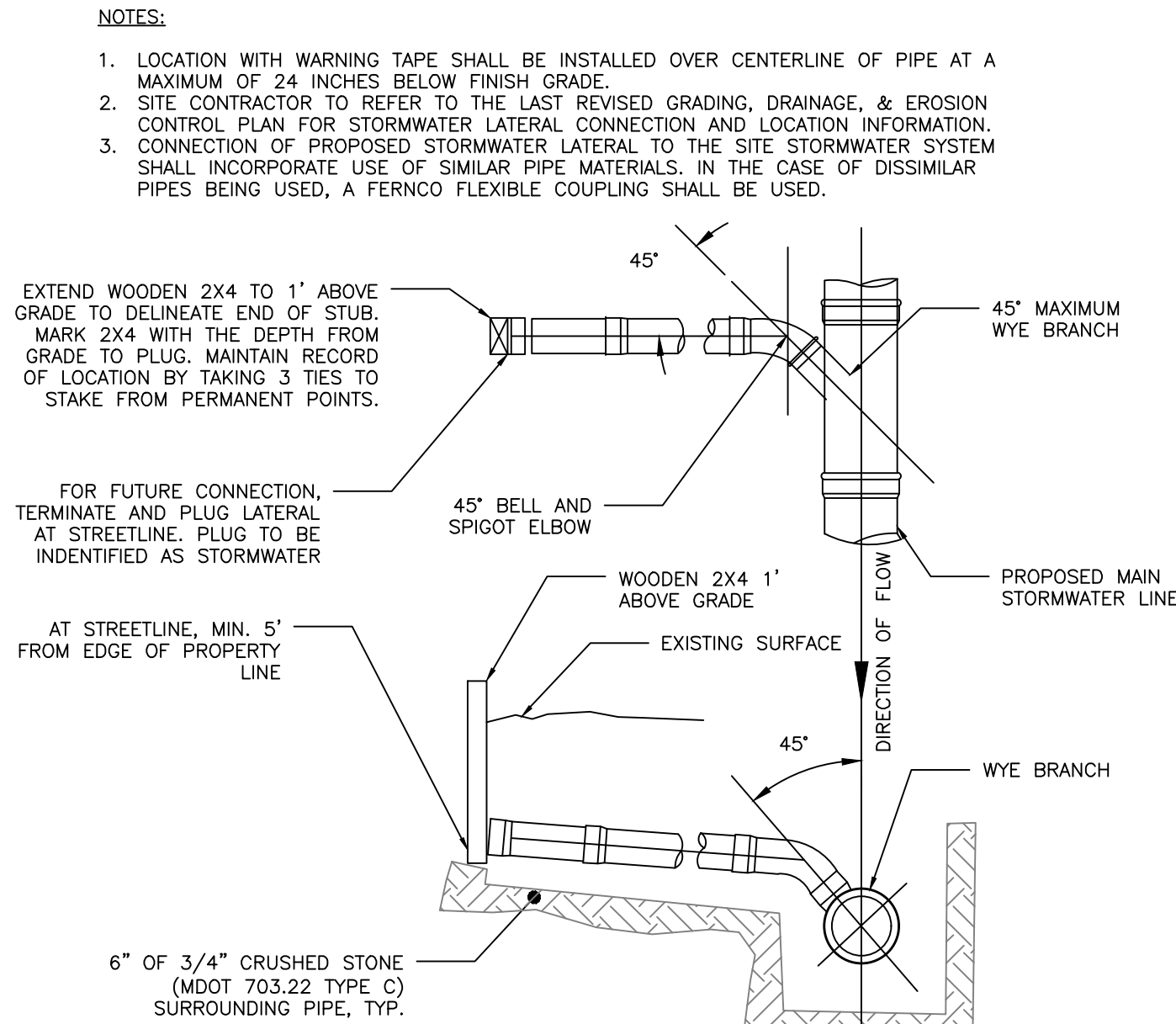
C-41



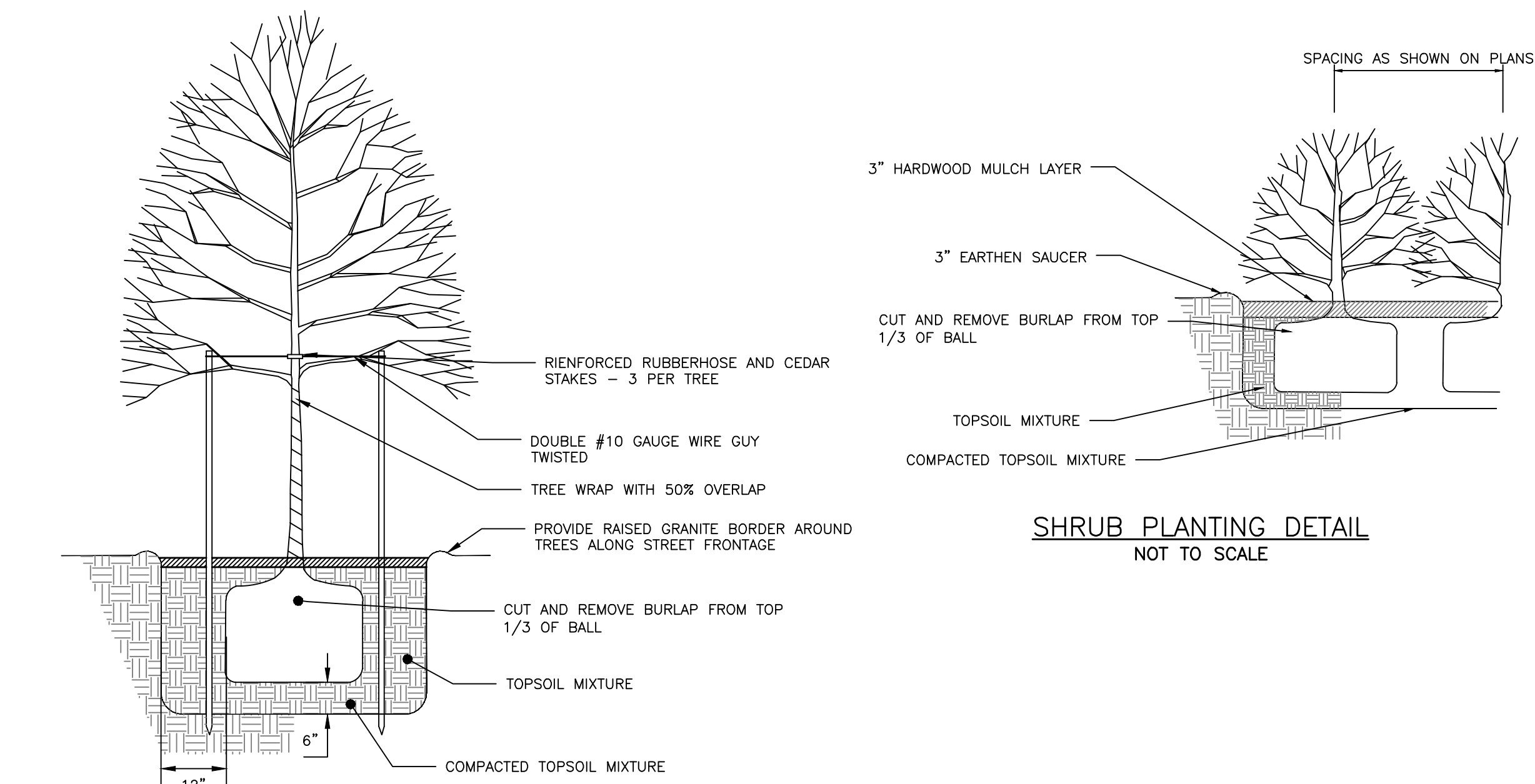


- NOTES:
1. REFER TO THE BUILDING ARCHITECTS PLANS FOR THE BUILDING FOUNDATION, BACKFILL, ROOF DRAIN, SIDEWALK AND OTHER DETAILS.
 2. PERFORATIONS IN UNDERDRAIN PIPE SHALL BE ORIENTED DOWN.
 3. INSTALL STONE DRIP EDGE IN A LOCATIONS SUBJECT TO ROOF RUNOFF. WIDTH SHALL BE A MIN. 12" BEYOND THE PROJECT OF THE ROOF EVE.
 4. FOUNDATION WALL FOOTINGS SHALL BE CONSTRUCTED TO A MIN. DEPTH OF 4.5 FT BELOW ADJACENT FINISH GRADE. REFER TO STRUCTURAL ENGINEER'S PLANS AND GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION AND MIN. REQUIREMENTS.
 5. FOUNDATION DRAIN DETAIL FROM GEOTECHNICAL REPORT. SEE REPORT FOR ADDITIONAL INFORMATION. GEOTECHNICAL REPORT DETAIL TO SUPERSEDE IF ANY VARIES FOUND.

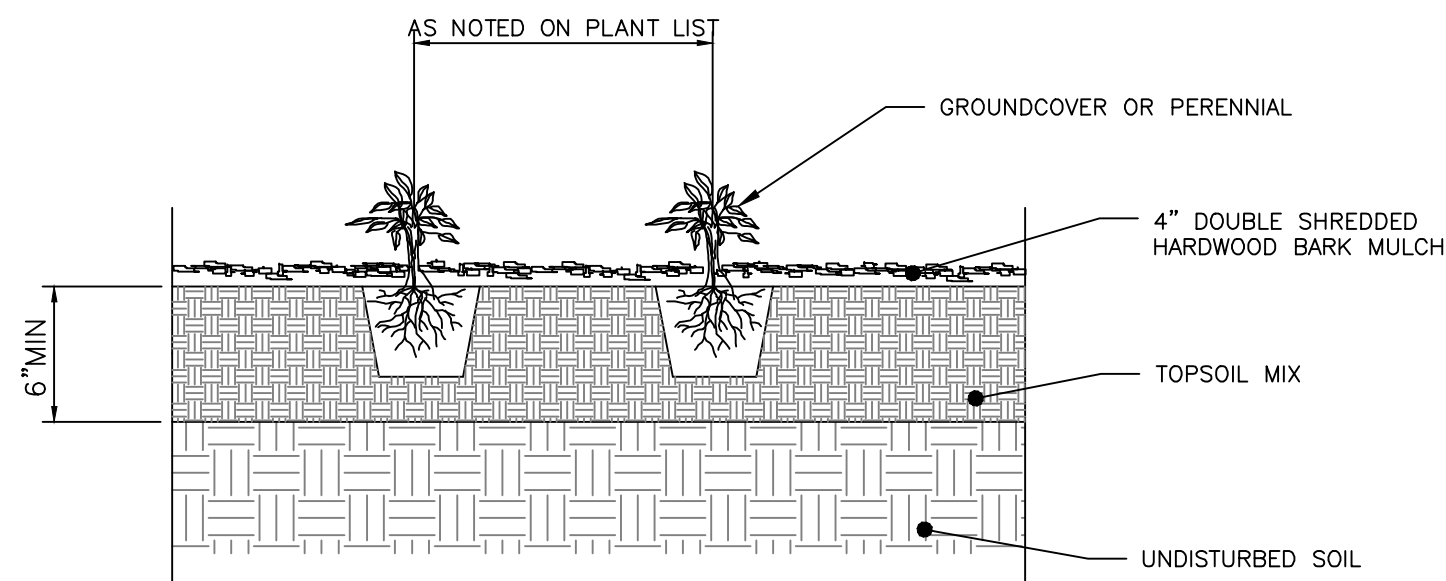
FOUNDATION DRAIN DETAIL
NOT TO SCALE



STORMWATER TEE/WYE CONNECTION DETAIL
NOT TO SCALE

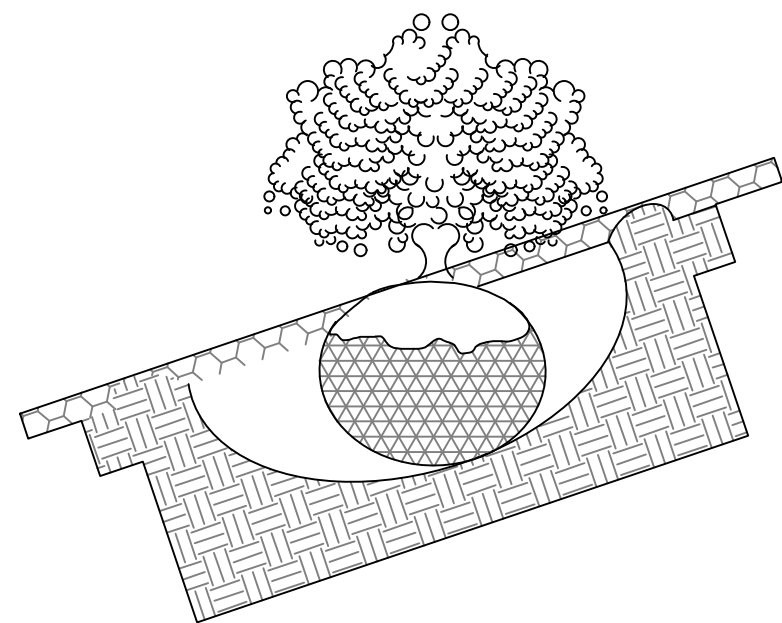


TREE PLANTING DETAIL
NOT TO SCALE



PERENNIAL PLANTING DETAIL
NOT TO SCALE

- NOTES:
1. DIG HOLE AT LEAST 2 TIMES THE DIAMETER OF THE ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH THE TOP AT DOWNHILL EDGE OF THE HOLE.
 2. TOPSOIL BACKFILL SHALL BE NATURAL FRIABLE, FERTILE, FINE LOAMY SOIL POSSESSING THE CHARACTERISTICS OF TOPSOIL IN THE VICINITY WHICH PRODUCE A HEAVY GROWTH. TOPSOIL SHALL CONTAIN NOT LESS THAN 6% NOR MORE THAN 20% ORGANIC MATTER. TOP SOIL SHALL HAVE A PH VALUE OF NOT LESS THAN 5.5 NOR MORE THAN 7.0.
 3. CONTAINER GROWN STOCK - REMOVE CONTAINER PROTECTING THE ROOT BALL GENTLY COMB OUT THE ROOTS. PRUNE DAMAGED ROOTS.
 4. BACKFILL THE HOLE WITH TOPSOIL TO A DEPTH NOT TO EXCEED 8" THEN WATER SUFFICIENTLY TO SETTLE TOPSOIL. REPEAT SOIL BACKFILL, WATER, DRAIN, TOPSOIL SHALL BE TAMPED UNDER EDGES OF THE BAILED PLANTS. BACKFILL TO FINISH GRADE AND CREATE AN EARTHEN SAUCER. SOAK PLANTS TWICE WITHIN THE FIRST TWENTY-FOUR HOURS OF PLANTING.



TYPICAL PLANTING
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
PB WORKSHOP	WHS
	DATE
	4/2/19

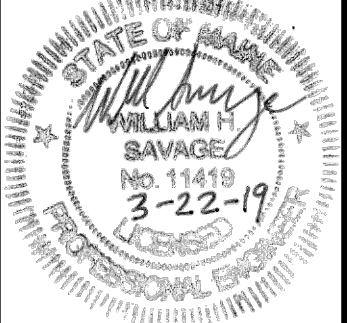
DRAINAGE & LANDSCAPE DETAILS	CASSIDY POINT REDEVELOPMENT
DRAWING NAME	PROJECT NAME
	CLIENT
	225 COMMERCIAL STREET, SUITE 502 PORTLAND, ME 04101

A C O R N
ENGINEERING, INC.

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

ACORN ENGINEERING, INC.
65 HANOVER ST. PORTLAND MAINE 04101
(207) 775-2555

FILE:	1113_DETAILS
JN:	1113
SCALE:	NTS
DESIGNED BY:	FRT
DRAWN BY:	FRT
CHECKED BY:	WHS



DRAWING NO.
C-43

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:

- CRUSHED STONE STABILIZED CONSTRUCTION ENTRANCES SHALL BE PLACED AT ALL ACCESS POINTS TO THE PROJECT SITE WHERE THERE ARE DISTURBED AREAS. THE FOLLOWING SPECIFICATIONS SHALL BE FOLLOWED AT A MINIMUM:
 - STONE SIZE SHALL BE 2-3 INCHES, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 - THE THICKNESS OF THE ENTRANCE STONE LAYER SHALL BE NO LESS THAN 6 INCHES.
 - THE ENTRANCE SHALL NOT BE LESS THAN 20 FEET WIDE, HOWEVER NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS. THE LENGTH SHALL NOT BE LESS THAN 50 FEET IN LENGTH.
 - GEOTEXTILE FABRIC (WOVEN OR NON-WOVEN) SHALL BE PLACED OVER THE ENTIRE ENTRANCE AREA.
- THE ENTRANCE/EXIT SHALL BE MAINTAINED TO THE EXTENT THAT IT WILL PREVENT THE TRACKING OF SEDIMENT ONTO PUBLIC ROADWAYS.
- SILTATION FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED DOWN GRADIENT OF ANY DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL PERMANENT STABILIZATION IS ACHIEVED. THE SILT FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED PER THE DETAILS PROVIDED IN THE PLAN SET AND INSPECTED BEFORE AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE LINE OR BERM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE OR BERM, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM.
- 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.
- 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.
- OAK STREET AND SPRING STREET SHALL BE SWEEPED 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.
- 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.
- 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.
- STORMDRAIN INLET PROTECTION SHALL BE PROVIDED TO STORMDRAINS THROUGH THE USE OF ANY OF THE FOLLOWING: HAY BALE DROP INLET STRUCTURES, SILT FENCE DROP INLET SEDIMENT FILTER, GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER, OR CURB INLET SEDIMENT FILTER. BARRIERS SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT AND REPAIRED AS NECESSARY. SEDIMENTS SHALL BE REMOVED WHEN ACCUMULATION HAS REACHED 1/2 THE DESIGN HEIGHT.
- DUST CONTROL SHALL BE ACCOMPLISHED BY THE USE OF ANY OF THE FOLLOWING: WATER, CALCIUM CHLORIDE, STONE, OR AN APPROVED MDEP PRODUCT. DUST CONTROL SHALL BE APPLIED AS NEEDED TO ACCOMPLISH DUST CONTROL.
- 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.
- 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.
- 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.
- IT IS OF THE UTMOST IMPORTANCE THAT STORMWATER RUNOFF AND POTENTIAL SEDIMENT FROM THE CONSTRUCTION SITE BE DIVERTED AROUND THE PROPOSED UNDERDRAINS UNTIL THE TRENCH IS BACKFILLED.

1.2 PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES ARE INTENDED FOR POST DISTURBANCE AREAS OF THE PROJECT.

- 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.
- ALL STORMWATER DEVICES SHALL BE INSTALLED AND TRIBUTARY AREAS STABILIZED PRIOR RECEIVING STORMWATER.
- REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

2.0 EROSION AND SEDIMENTATION CONTROL PLAN

- THE EROSION AND SEDIMENTATION CONTROL PLAN IS INCLUDED WITHIN THE PLAN SET.

3.0 DETAILS AND SPECIFICATIONS

- EROSION CONTROL DETAILS AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET.

4.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

WINTER CONSTRUCTION CONSISTS OF EARTHWORK DISTURBANCE BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15. IF A CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15, THEN THE SITE SHALL BE PROTECTED WITH OVER-WINTER STABILIZATION. ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MIX, EROSION CONTROL MATS, RIPRAP, OR GRAVEL BASE ON A ROAD SHALL BE CONSIDERED OPEN.

THE CONTRACTOR SHALL LIMIT THE WORK AREA TO AREAS THAT WORK WILL OCCUR IN DURING THE SUBSEQUENT 15 DAYS AND SO THAT IT CAN BE MULCHED ONE DAY PRIOR TO A SNOW EVENT. THE CONTRACTOR SHALL STABILIZE WORK AREAS PRIOR TO OPENING ADDITIONAL WORK AREAS TO MINIMIZE AREAS WITHOUT EROSION CONTROL MEASURES.

THE FOLLOWING MEASURES SHALL BE IMPLEMENTED DURING WINTER CONSTRUCTION PERIODS:

4.1 SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

4.2 MULCHING

ALL AREAS SHALL BE CONSIDERED TO BE DENUDDED 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. TWO (2) TONS/ACRE 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 SUNDER 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 AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS NOT BEEN LOAMED, FINAL GRADING WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED, AND THEN MULCHED.

DORMANT SEEDING MAY BE PLACED PRIOR TO THE PLACEMENT OF MULCH OR EROSION CONTROL BLANKETS. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1,000 S.F. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

4.5 OVER WINTER STABILIZATION OF DISTURBED SOILS

BY SEPTEMBER 15TH, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% SHALL BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS SHALL BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION - BY OCTOBER 1ST, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3LBS PER 1,000 S.F., LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 LBS PER 1,000 S.F., AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1ST, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION.
- STABILIZE THE SOIL WITH SOD - STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
- STABILIZE THE SOIL WITH MULCH - BY NOVEMBER 15TH, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 LBS PER 1,000 S.F. ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

4.6 OVER WINTER STABILIZATION OF DISTURBED SLOPES

ALL STONE-COVERED SLOPES SHALL BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15TH. ALL SLOPES TO BE VEGETATED SHALL BE SEEDED AND MULCHED BY SEPTEMBER 1ST. A SLOPE IS CONSIDERED A GRADE GREATER THAN 15%. A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1ST, THEN ONE OF THE FOLLOWING ACTION SHALL BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS - BY OCTOBER 1ST THE DISTURBED SLOPE SHALL BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1,000 S.F. AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% 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 CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT PERIODIC VISUAL INSPECTIONS OF INSTALLED EROSION CONTROL MEASURES. THE FREQUENCY OF INSPECTION SHALL OCCUR AT LEAST ONCE EVERY TWO WEEKS, AS WELL AS AFTER A "STORM EVENT". A "STORM EVENT" SHALL CONSIST OF 0.5 INCHES OF RAIN WITHIN A 24 HOUR PERIOD. THE FOLLOWING EROSION AND SEDIMENT CONTROL - BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE INSPECTED IN THE MANNER AS DESCRIBED.

5.1 SEDIMENT BARRIERS

HAY BALE BARRIERS, SILT FENCES AND FILTER BERMS SHALL BE INSPECTED AND REPAIRED FOR THE FOLLOWING IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. FILTER BERMS SHOULD BE RESHAPED AS NEEDED. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

5.2 STABILIZED STONE CONSTRUCTION ENTRANCES

THE SITE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL AND REDISTRIBUTED ON SITE IN A STABLE MANNER. THE ENTRANCE SHOULD THEN BE RECONSTRUCTED. THE CONTRACTOR SHALL SWEEP OR WASH PAVEMENT AT EXITS, WHICH HAVE EXPERIENCED MUD-TRACKING ON TO THE PAVEMENT OR TRAVELED WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

5.3 MULCHED AREAS

ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, RE-INSTALL THE NETS AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE. WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE. REPAIR AS NEEDED.

5.4 DUST CONTROL

WHEN TEMPORARY DUST CONTROL MEASURES ARE USED, REPETITIVE TREATMENT SHALL BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

5.5 STORMWATER APPURTENANCES

ALL UNDERDRAINS, STORM DRAINS, AND CATCH BASINS NEED TO BE OPERATING EFFECTIVELY AND FREE OF DEBRIS.

5.6 EROSION AND SEDIMENTATION CONTROL INSPECTIONS:

ACORN ENGINEERING HAS PERSONNEL QUALIFIED TO CONDUCT EROSION AND SEDIMENTATION CONTROL INSPECTIONS. FOR FURTHER INFORMATION CONTACT:

CONTACT: WILL SAVAGE, PE
TELEPHONE: (207) 775-2655

QUALIFICATIONS:

- 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.
- PRIORITIZE THE DOWNHILL SIDE TO CONTAIN RUNOFF WITHIN THE SITE WHILE PROVIDING AN ENGINEERED OUTLET WITH SILTATION BARRIER TO THE MUNICIPAL STORMWATER SYSTEM WITHIN OAK STREET.
- 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 SEEDING PLAN

7.1 SITE PREPARATION

THE SEEDED AREAS SHALL BE FEASIBLY GRADED OUT TO PROVIDE THE USE OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. IF NECESSARY, THE SITE MAY REQUIRE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL REPORT.

7.2 SEEDBED PREPARATION

FERTILIZER SHALL BE APPLIED TO THE SITE AT A RATE OF 13.8 POUNDS PER 1,000 SQUARE FEET. THE COMPOSITION OF THE FERTILIZER SHALL BE 10-10-10 (N-P205-K20) OR EQUIVALENT.

LIMESTONE SHALL BE APPLIED TO THE SITE AT A RATE OF 138 POUNDS PER 1,000 SQUARE FEET.

7.3 SEEDING

THE COMPOSITION AND AMOUNT OF TEMPORARY SEED APPLIED TO A SITE SHALL BE DETERMINED BY THE FOLLOWING TABLE:

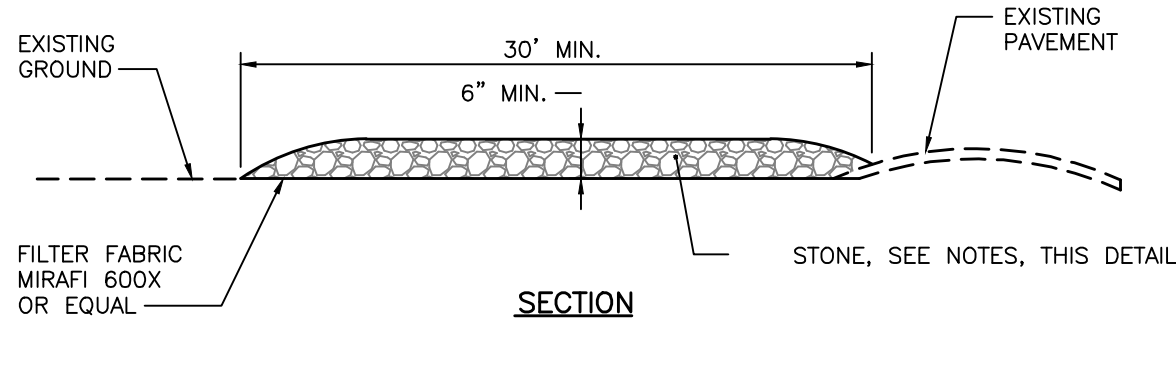
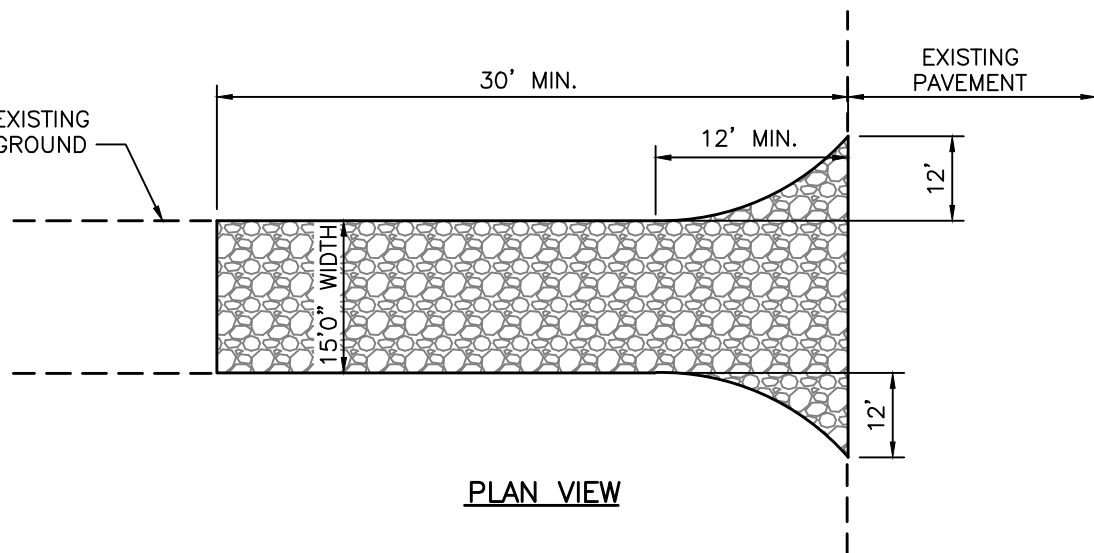
TEMPORARY SEED APPLICATION RATES			PERMANENT SEED APPLICATION RATES	
SEED	LBS / ACRE	RECOMMENDED SEEDING DATES	SEED	LBS / ACRE
WINTER RYE	2.57	8/15 TO 10/1	KENTUCKY BLUEGRASS	20.00
OATS	1.84	4/1 TO 7/1 8/15 TO 9/15	CREeping RED FESCUE	20.00
ANNUAL RYGRASS	0.92	4/1 TO 7/1	PERENNIAL RYEGRASS	4.80
SUDANGRASS	0.92	5/15 TO 8/15	TOTAL	44.8 LBS/ACRE
PERENNIAL	0.92	8/15 TO 9/15		
TOTAL	7.17 LBS/ACRE			

7.4 MULCHING

MULCH SHALL BE HARDWOOD AND APPLIED AT A RATE OF 70 LBS - 90 LBS PER 1,000 SQUARE FEET. THE MULCH SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4 INCHES. THE SEEDED AREA SHALL BE MULCHED IMMEDIATELY AFTER SEED IS APPLIED. MULCHING DURING THE WINTER SEASON SHALL BE DOUBLE THE NORMAL AMOUNT. REFER TO DETAIL FOR MORE INFORMATION.

8.0 CONCLUSION

THE ABOVE EROSION CONTROL NARRATIVE IS INTENDED TO MINIMIZE THE DEVELOPMENT IMPACT BY IMPLEMENTING TEMPORARY AND PERMANENT EROSION CONTROL MEASURES. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

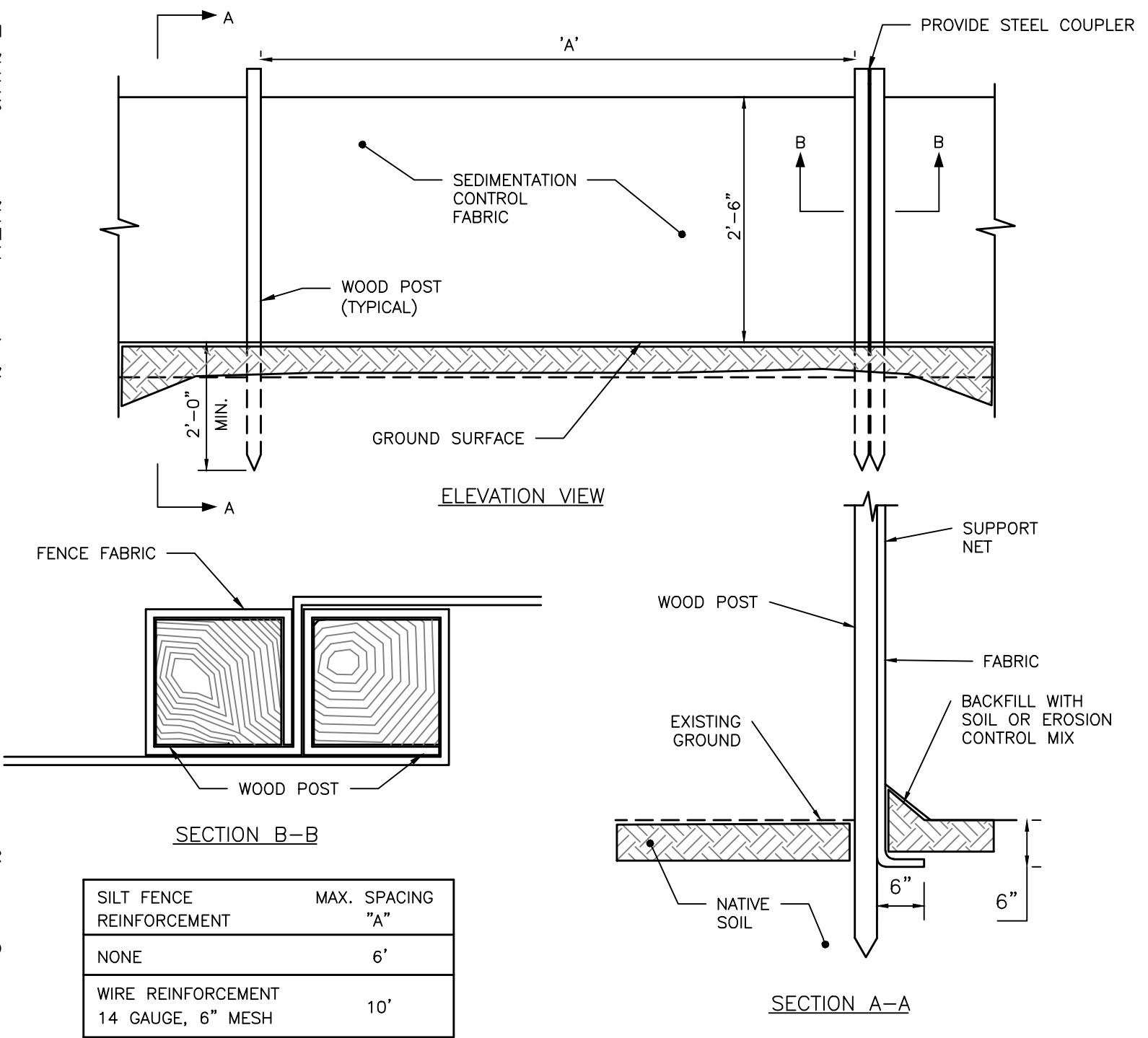


NOTES:

- CONTRACTOR SHALL ADD STONE TO ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES
- STONE SHALL BE 2"-3" COARSE AGGREGATE
- CONSTRUCTION ENTRANCE SHALL BE GRADED TO NOT ALLOW ANY STORMWATER TO BE CONVEYED OFF SITE. IN SITUATIONS WHERE THIS IS NOT POSSIBLE, ANY STORMWATER CONVEYED OFFSITE SHALL BE TREATED OR RETAINED IN A MANNER APPROVED BY ENGINEER.
- WHEN NECESSARY, ON-SITE VEHICLES SHALL HAVE THEIR WHEELS CLEANED PRIOR TO LEAVING SITE.
- CONSTRUCTION ENTRANCE SHALL BE GRADED IN A MANNER THAT PREVENTS TRACKING OF SEDIMENTS ONTO PUBLIC RIGHT-OF-WAY

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



SILTATION FENCE DETAIL

NOT TO SCALE

NOTES:

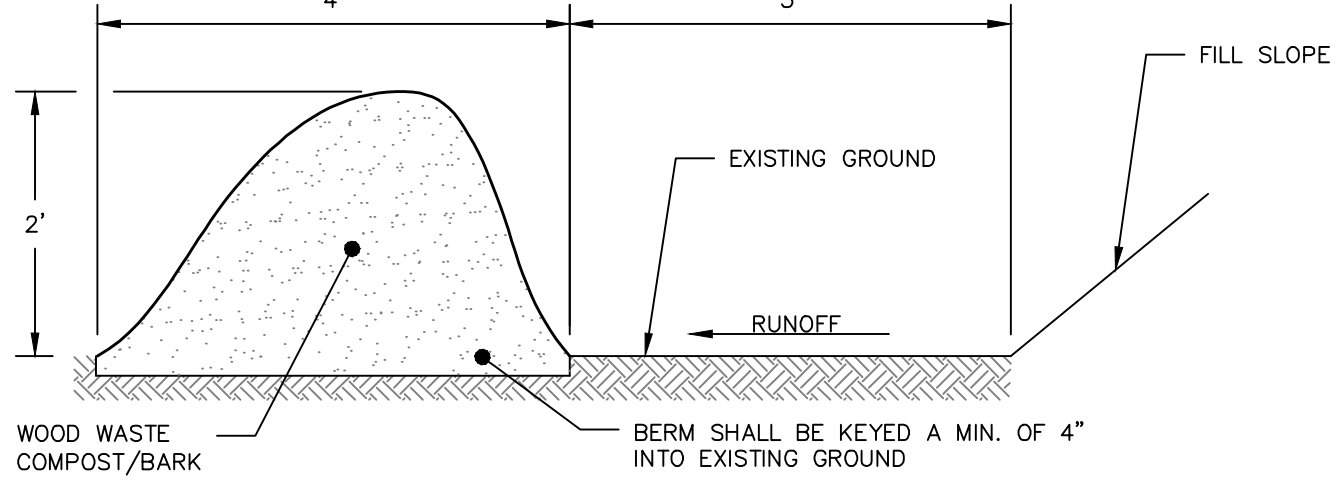
- THE EROSION CONTROL MIX SHALL CONFORM TO THE FOLLOWING STANDARDS AND IN ACCORDANCE WITH THE MAINE DOT CHAPTER 700, SECTION 717.04(D):

- 1.1. pH BETWEEN 5.0 - 8.0
- 1.2. PARTICLE SIZE (BY WEIGHT):
 - 1.2.1. 100% PASSING A 150 MM (6 IN) SCREEN
 - 1.2.2. 75 TO 85% PASSING A 19 MM (3/4 IN) SCREEN
- 1.3. SOLUBLE SALTS CONTENT < 4.0 MMHOS/CM
- 1.4. ORGANIC MATTER 20 TO 100% , DRY WEIGHT BASIS

- THE BERM SHOULD BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR, WHEN NECESSARY THE BERM MAY BE PLACED PERPENDICULAR TO THE SLOPE ALONG THE PROPERTY LINE TO CONTAIN THE SEDIMENT PROVIDED A BERM IS LOCATED AT THE BASE OF THE SLOPE.

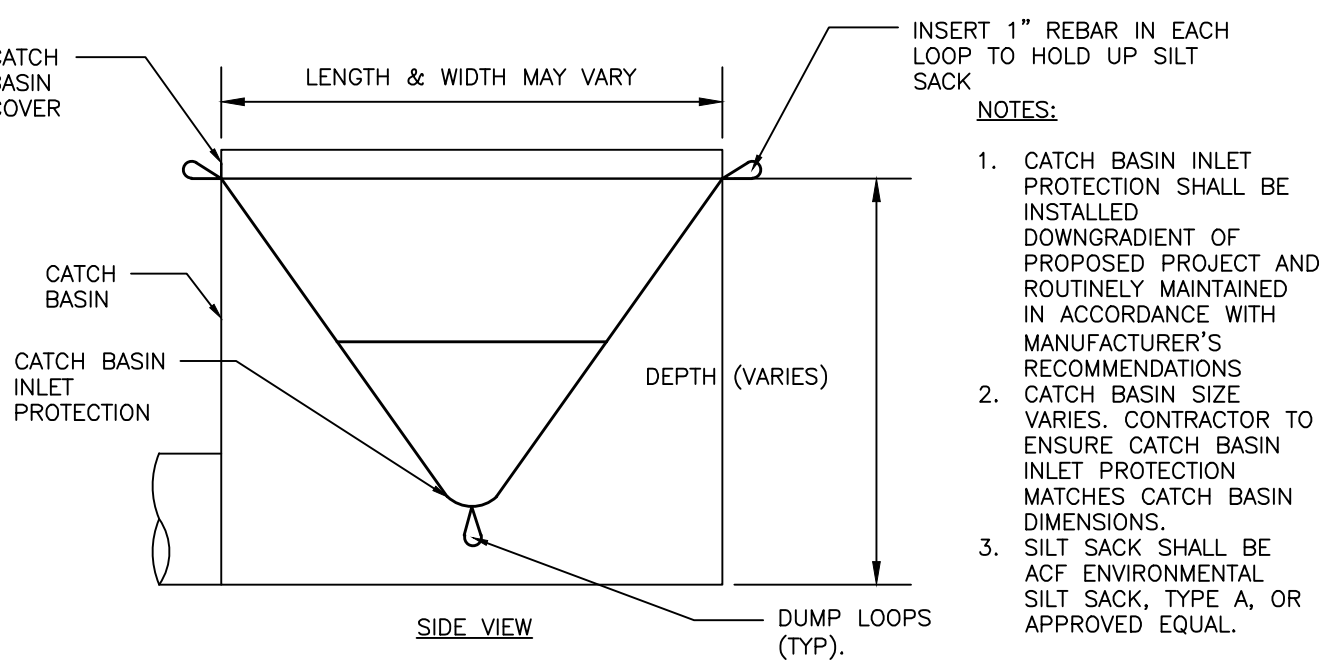
- THE BERM MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS.

- BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS STABILIZED OR 90% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED OFFSITE OR BY SPREADING SUCH THAT NATIVE EARTH CAN BE SEEN BELOW.



EROSION CONTROL MIX BERM DETAIL

NOT TO SCALE



CATCH BASIN INLET PROTECTION

NOT TO SCALE

NOTES:

- CATCH BASIN INLET PROTECTION SHALL BE INSTALLED DOWNGRADIENT OF PROPOSED PROJECT AND ROUTINELY MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
- CATCH BASIN SIZE VARIES. CONTRACTOR TO ENSURE CATCH BASIN INLET PROTECTION MATCHES CATCH BASIN DIMENSIONS.
- SILT SACK SHALL BE ACF ENVIRONMENTAL SILT SACK, TYPE A, OR APPROVED EQUAL.

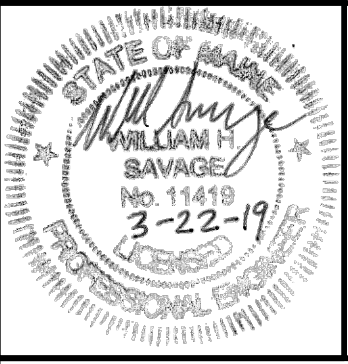
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
PRELIMINARY PLAN	FRT
LEVEL II SITE PLAN	WHS
LEVEL II SITE PLAN	WHS
COMMITMENT RESPONSE	WHS
PB WORKSHOP	WHS

EROSION & SEDIMENTATION CONTROL DETAILS	PROJECT NAME:
CASSIDY POINT REDEVELOPMENT	PROJECT MANAGEMENT, INC.
	225 COMMERCIAL STREET, SUITE 502 PORTLAND, ME 04101

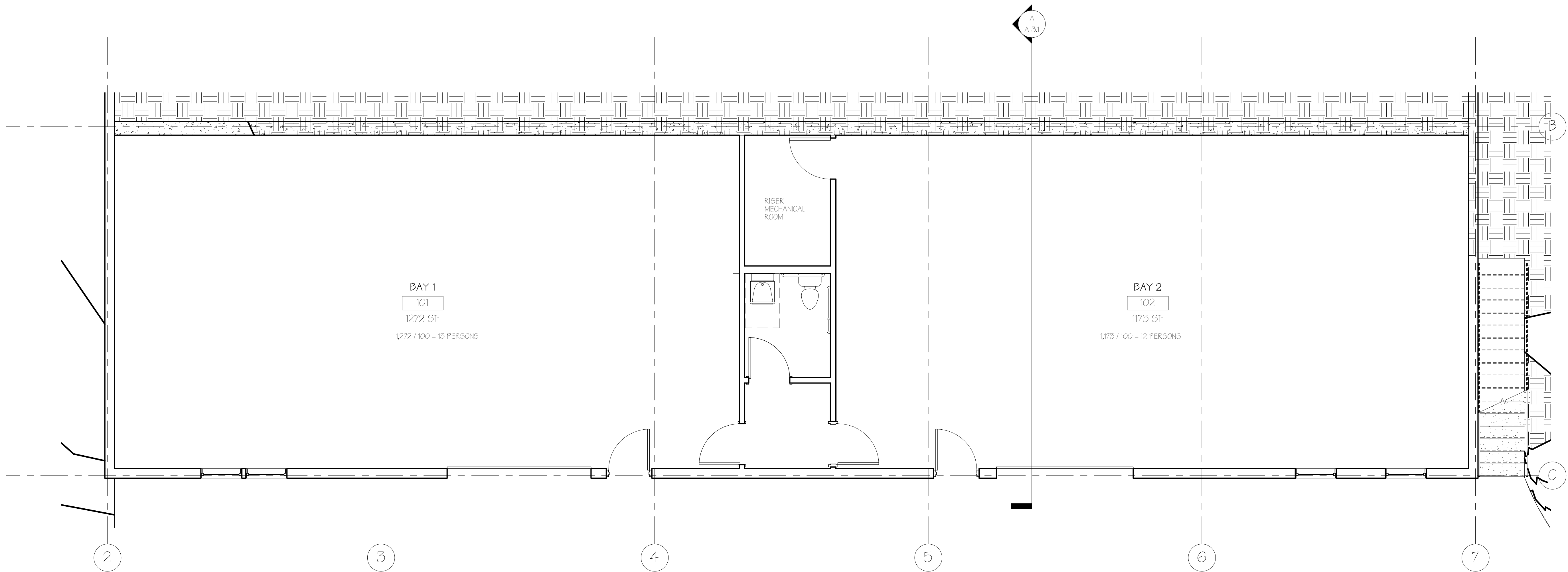
ACORN ENGINEERING, INC.	ENGINEERING, INC.
65 HANOVER ST. PORTLAND, MAINE 04101	(207) 775-2655

FILE: 1113_DETAILS
JN: 1113
SCALE: NTS
DESIGNED BY: FRT
DRAWN BY: FRT
CHECKED BY: WHS



DRAWING NO.

C-44



Ⓐ Lower Cassidy
1/4" = 1'-0"

Cassidy Point
Road
New Construction

OWNER
534 DANFORTH LLC
225 COMMERCIAL ST STE 502
PORTLAND ME 04101



DEXTROUS
CREATIVE

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0459 (cell)

PROJECT TEAM

SURVEYOR

OWEN & HASKELL
390 US-1 Suite 10
Falmouth, ME 04105

GEOLOGIST

Evan M. Walker, P.E.
S. W. COLE ENGINEERING, INC.
226 Portland Road
Gray, Maine 04039-9586

CIVIL ENGINEER

Will Savage
ACORN ENGINEERING
Acorn Engineering, Inc
P.O. Box 3372
Portland, Maine 04104

STRUCTURAL ENGINEER

Aaron G. Jones, P.E.
STRUCTURAL INTEGRITY CONSULTING
ENGINEERS, INC.
46 Forest Ave
Portland, ME 04101

GENERAL CONTRACTOR

WEIGHT RYAN CONSTRUCTION
10 Danforth St.
Portland, ME 04101

No.	Description	Date

FIRST FLOOR
PLAN

Project number 18-08_Cassidy
Point

Date 12.23.18

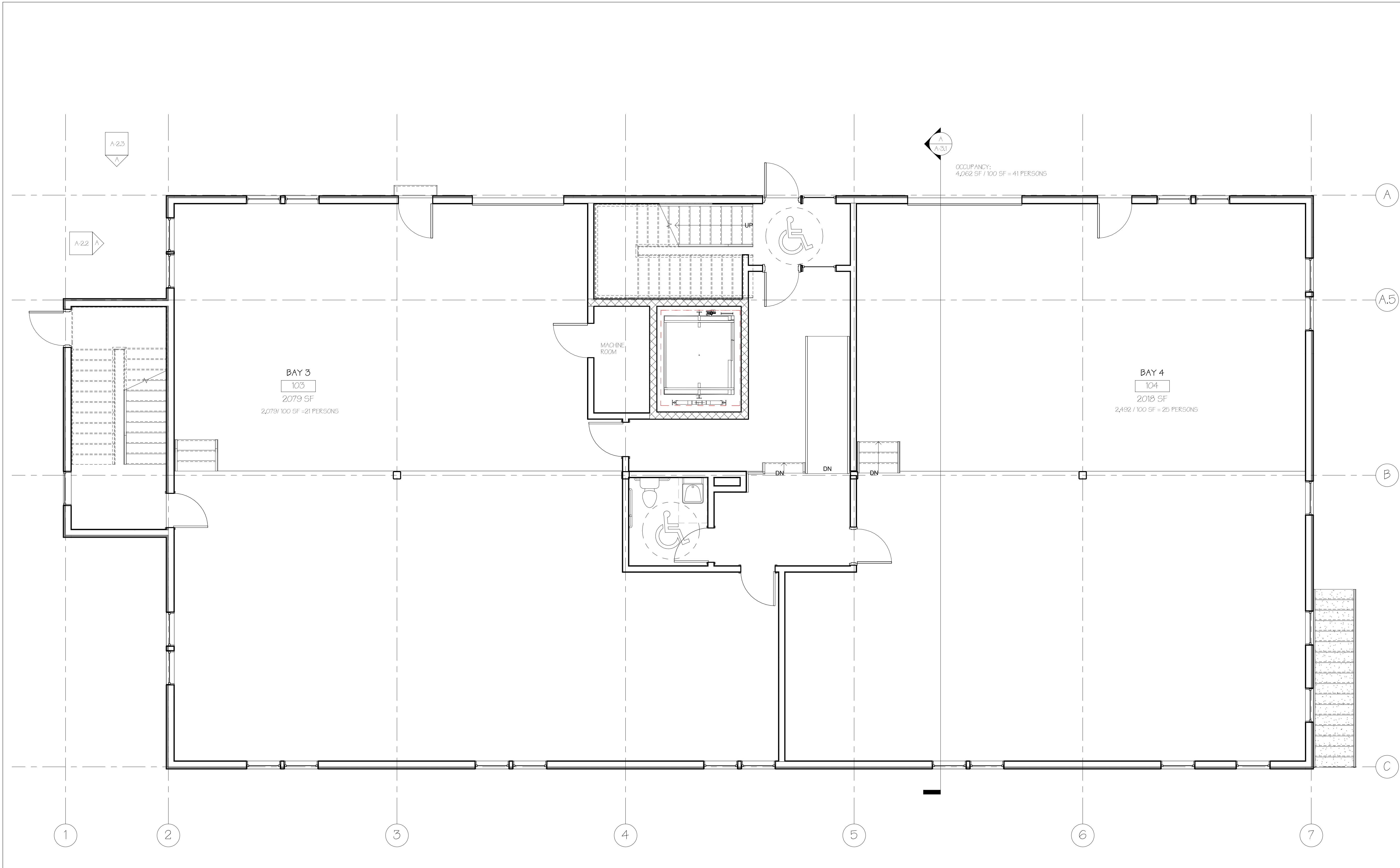
Drawn by TJR

Checked by TJR

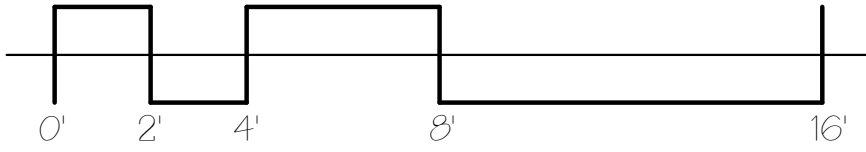
A-1.1

Scale 1/4" = 1'-0"

12/23/2018 7:55:22 PM



(A) Second Floor
1/4" = 1'-0"



Cassidy Point Road

New Construction

OWNER
534 DANFORTH LLC
225 COMMERCIAL ST STE 502
PORTLAND ME 04101



**DEXTROUS
CREATIVE**

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0459 (cell)

PROJECT TEAM

SURVEYOR
OWEN & HASKELL
390 US-1 Suite 10
Falmouth, ME 04105

GEOLOGIST
Evan M. Walker, P.E.
S. W. COLE ENGINEERING, INC.
296 Portland Road
Gray, Maine 04039-9586

CIVIL ENGINEER
Will Savage
ACORN ENGINEERING
Acorn Engineering, Inc
P.O. Box 3372
Portland, Maine 04104

STRUCTURAL ENGINEER
Aaron G. Jones, P.E.
STRUCTURAL INTEGRITY CONSULTING
ENGINEERS, INC.
46 Forest Ave
Portland, ME 04101

GENERAL CONTRACTOR
WEIGHT RYAN CONSTRUCTION
10 Danforth St.
Portland, ME 04101

No.	Description	Date

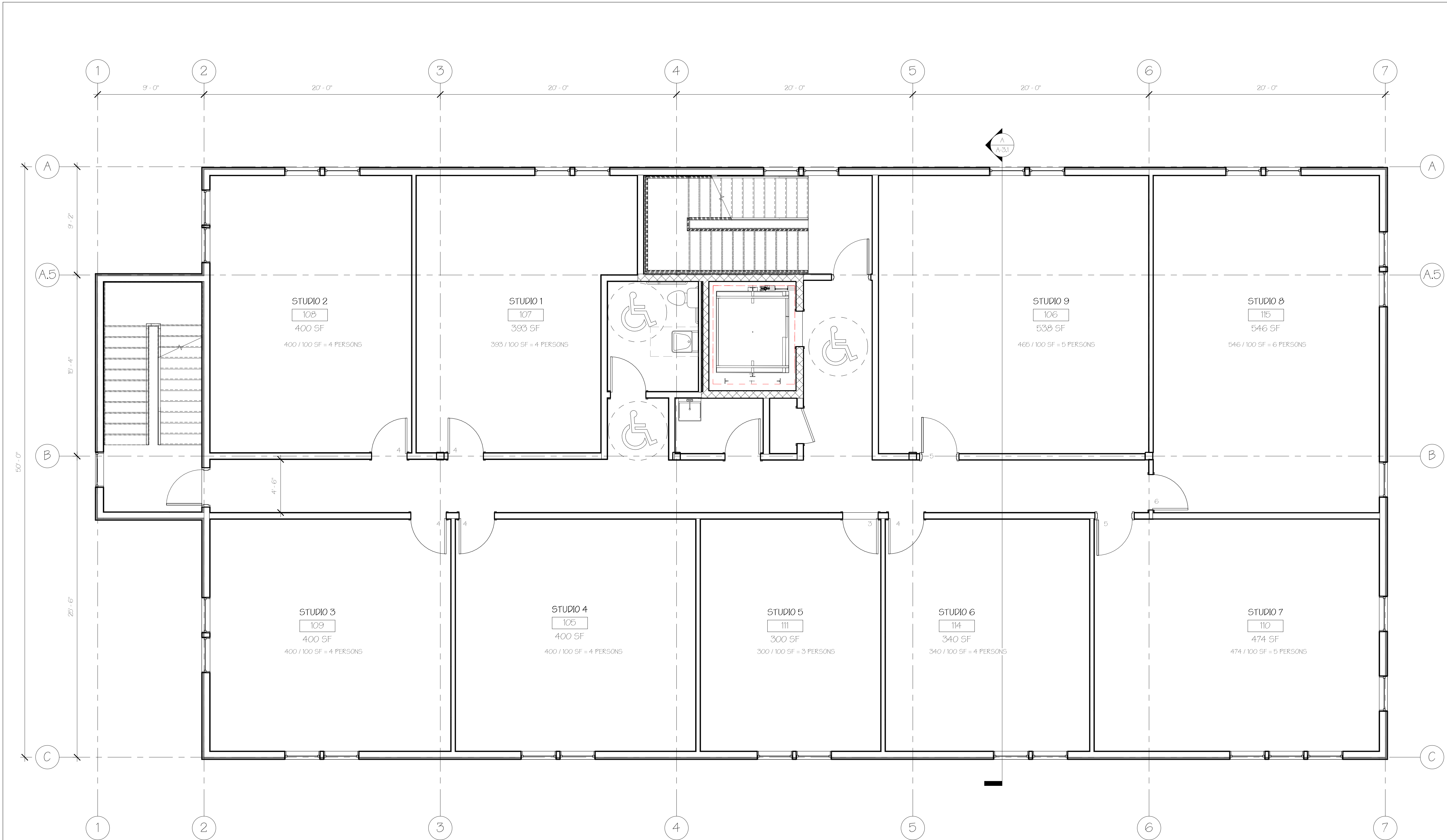
SECOND FLOOR PLAN

Project number	18-08_Cassidy Point
Date	12.23.18
Drawn by	TJR
Checked by	TJR

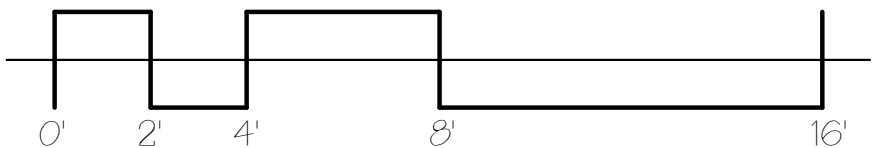
A-1.2

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

12/23/2018 7:55:23 PM



A Third Floor
1/4" = 1'-0"



Cassidy Point Road

New Construction

OWNER
534 DANFORTH LLC
225 COMMERCIAL ST STE 502
PORTLAND ME 04101



PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0459 (cell)

PROJECT TEAM

SURVEYOR
OWEN & HASKELL
390 US-1 Suite 10
Falmouth, ME 04105

GEOLOGIST
Evan M. Walker, P.E.
S. W. COLE ENGINEERING, INC.
226 Portland Road
Gray, Maine 04039-9586

CIVIL ENGINEER
Will Savage
ACORN ENGINEERING
Acorn Engineering, Inc
P.O. Box 3372
Portland, Maine 04104

STRUCTURAL ENGINEER
Aaron G. Jones, P.E.
STRUCTURAL INTEGRITY CONSULTING
ENGINEERS, INC.
46 Forest Ave
Portland, ME 04101

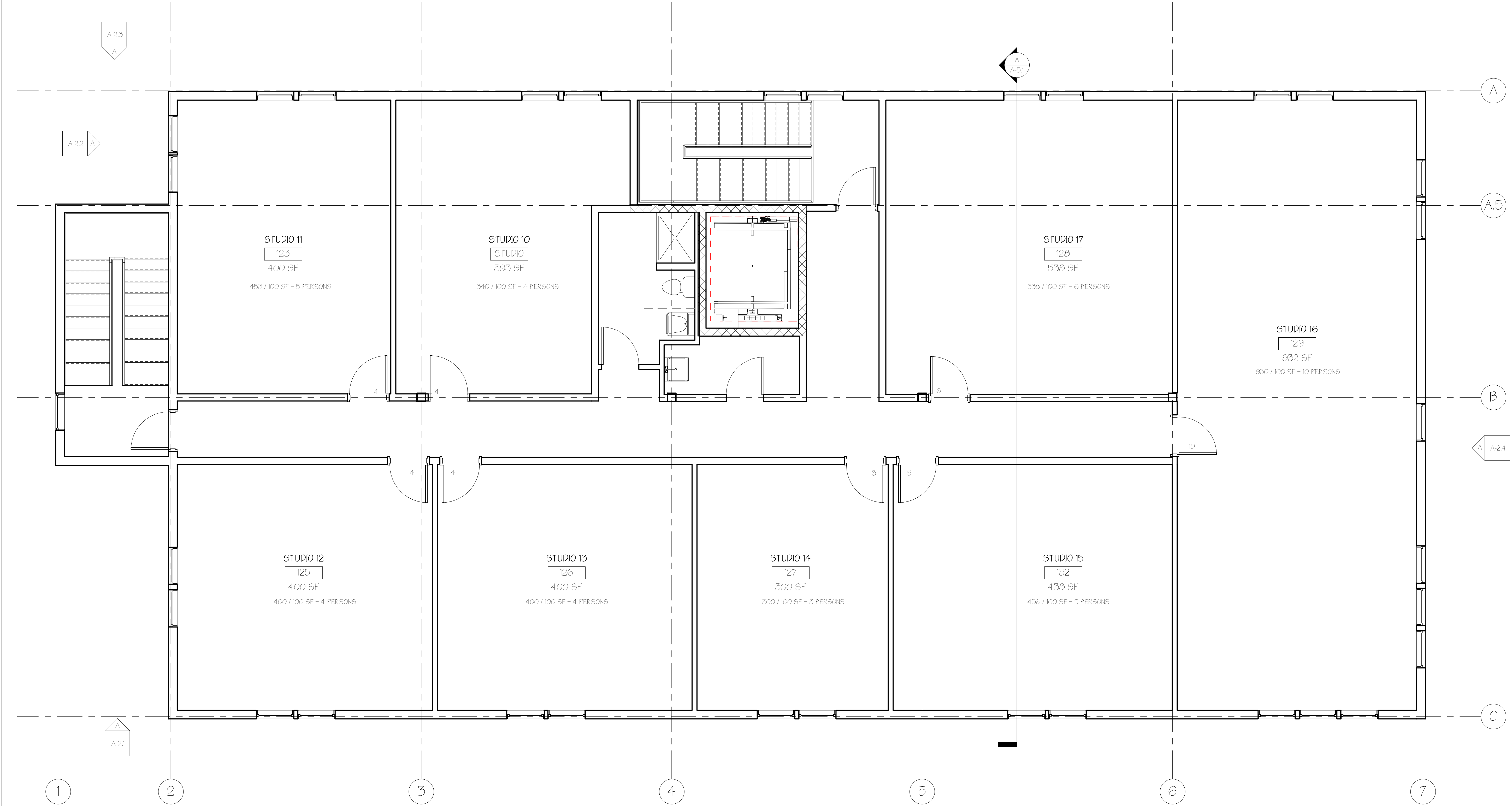
GENERAL CONTRACTOR
WEIGHT RYAN CONSTRUCTION
10 Danforth St.
Portland, ME 04101

No.	Description	Date

THIRD FLOOR PLAN

Project number	18-08_Cassidy Point
Date	12.23.18
Drawn by	TJR
Checked by	TJR

A-1.3
Scale: 1/4" = 1'-0"



Fourth Floor
1/4" = 1'-0"

Cassidy Point
Road
New Construction

OWNER
534 DANFORTH LLC
225 COMMERCIAL ST STE 502
PORTLAND ME 04101



PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0453 (cell)

PROJECT TEAM

SURVEYOR
OWEN & HASKELL
390 US-1 Suite 10
Falmouth, ME 04105

GEOLOGIST
Evan M. Walker, P.E.
S. W. COLE ENGINEERING, INC.
226 Portland Road
Gray, Maine 04039-9586

CIVIL ENGINEER
Will Savage
ACORN ENGINEERING
Acorn Engineering, Inc
P.O. Box 3372
Portland, Maine 04104

STRUCTURAL ENGINEER
Aaron G. Jones, P.E.
STRUCTURAL INTEGRITY CONSULTING
ENGINEERS, INC.
46 Forest Ave
Portland, ME 04101

GENERAL CONTRACTOR
WEIGHT RYAN CONSTRUCTION
10 Danforth St.
Portland, ME 04101

No.	Description	Date

FOURTH FLOOR

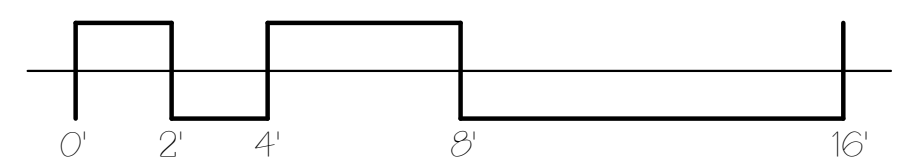
Project number	18-08_Cassidy Point
Date	12.23.18
Drawn by	Author
Checked by	Checker

A-1.4
Scale: 1/4" = 1'-0"

12/23/2018 7:55:25 PM



South
1/4" = 1'-0"



Cassidy Point Road
New Construction

OWNER
534 DANFORTH LLC
225 COMMERCIAL ST STE 502
PORTLAND ME 04101


DEXTROUS CREATIVE
PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.409.0469 (cell)

PROJECT TEAM

SURVEYOR
OWEN & HASKELL
390 US-1 Suite 10
Falmouth, ME 04105

GEOLOGIST
Evan M. Walker, P.E.
S. W. COLE ENGINEERING, INC.
226 Portland Road
Gray, Maine 04039-9586

CIVIL ENGINEER
Will Savage
ACORN ENGINEERING
Acorn Engineering, Inc
P.O. Box 3372
Portland, Maine 04104

STRUCTURAL ENGINEER
Aaron G. Jones, P.E.
STRUCTURAL INTEGRITY CONSULTING
ENGINEERS, INC.
46 Forest Ave
Portland, ME 04101

GENERAL CONTRACTOR
WEIGHT RYAN CONSTRUCTION
10 Danforth St.
Portland, ME 04101

No.	Description	Date

SOUTH ELEVATION

Project number 18-08_Cassidy Point

Date 12.23.18

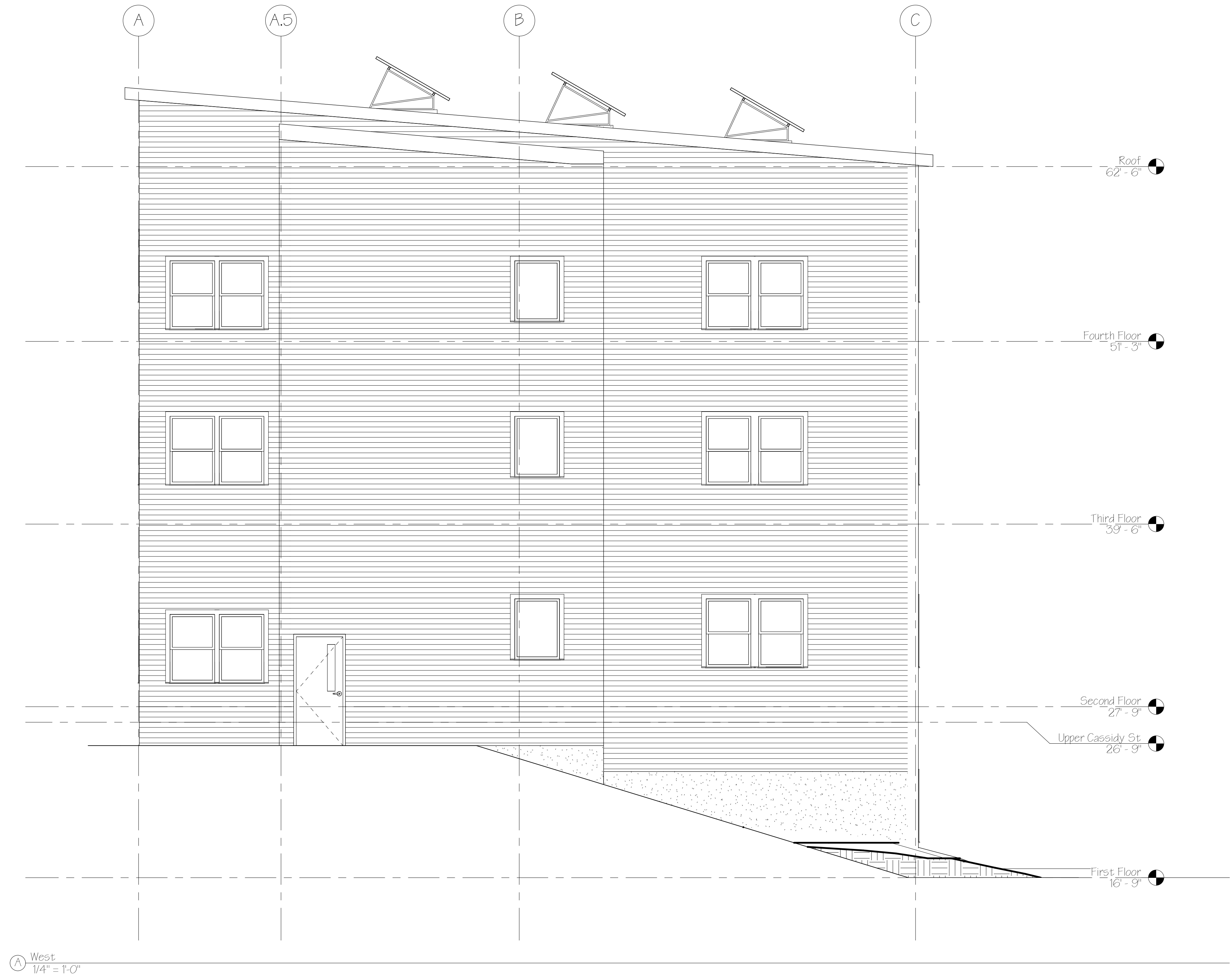
Drawn by Author

Checked by Checker

A-2.1

Scale 1/4" = 1'-0"

12/23/2018 7:55:27 PM



Cassidy Point
Road
New Construction

OWNER
534 DANFORTH LLC
225 COMMERCIAL ST STE 502
PORTLAND ME 04101



DEXTROUS
CREATIVE
PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0459 (cell)

PROJECT TEAM

SURVEYOR
OWEN & HASKELL
390 US-1 Suite 10
Falmouth, ME 04105

GEOLOGIST
Evan M. Walker, P.E.
S. W. COLE ENGINEERING, INC.
226 Portland Road
Gray, Maine 04039-9586

CIVIL ENGINEER
Will Savage
ACORN ENGINEERING
Acorn Engineering, Inc
P.O. Box 3372
Portland, Maine 04104

STRUCTURAL ENGINEER
Aaron G. Jones, P.E.
STRUCTURAL INTEGRITY CONSULTING
ENGINEERS, INC.
46 Forest Ave
Portland, ME 04101

GENERAL CONTRACTOR
WEIGHT RYAN CONSTRUCTION
10 Danforth St.
Portland, ME 04101

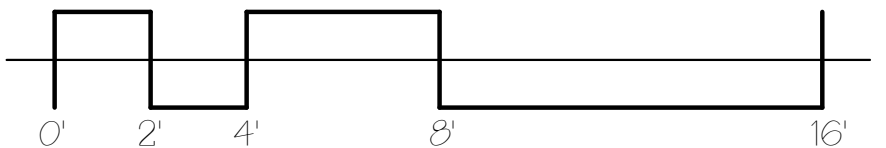
No.	Description	Date

WEST
ELEVATION

Project number	18-08_Cassidy Point
Date	12.23.18
Drawn by	TJR
Checked by	TJR

A-2.2

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





North
1/4" = 1'-0"

Cassidy Point Road

New Construction

OWNER
534 DANFORTH LLC
225 COMMERCIAL ST STE 502
PORTLAND ME 04101



**DEXTRIOUS
CREATIVE**

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.409.0469 (cell)

PROJECT TEAM

SURVEYOR
OWEN & HASKELL
390 US-1 Suite 10
Falmouth, ME 04105

GEOLOGIST
Evan M. Walker, P.E.
S. W. COLE ENGINEERING, INC.
226 Portland Road
Gray, Maine 04039-9586

CIVIL ENGINEER
Will Savage
ACORN ENGINEERING
Acorn Engineering, Inc
P.O. Box 3372
Portland, Maine 04104

STRUCTURAL ENGINEER
Aaron G. Jones, P.E.
STRUCTURAL INTEGRITY CONSULTING
ENGINEERS, INC.
46 Forest Ave
Portland, ME 04101

GENERAL CONTRACTOR
WEIGHT RYAN CONSTRUCTION
10 Danforth St.
Portland, ME 04101

No.	Description	Date

NORTH ELEVATION

Project number 18-08_Cassidy Point

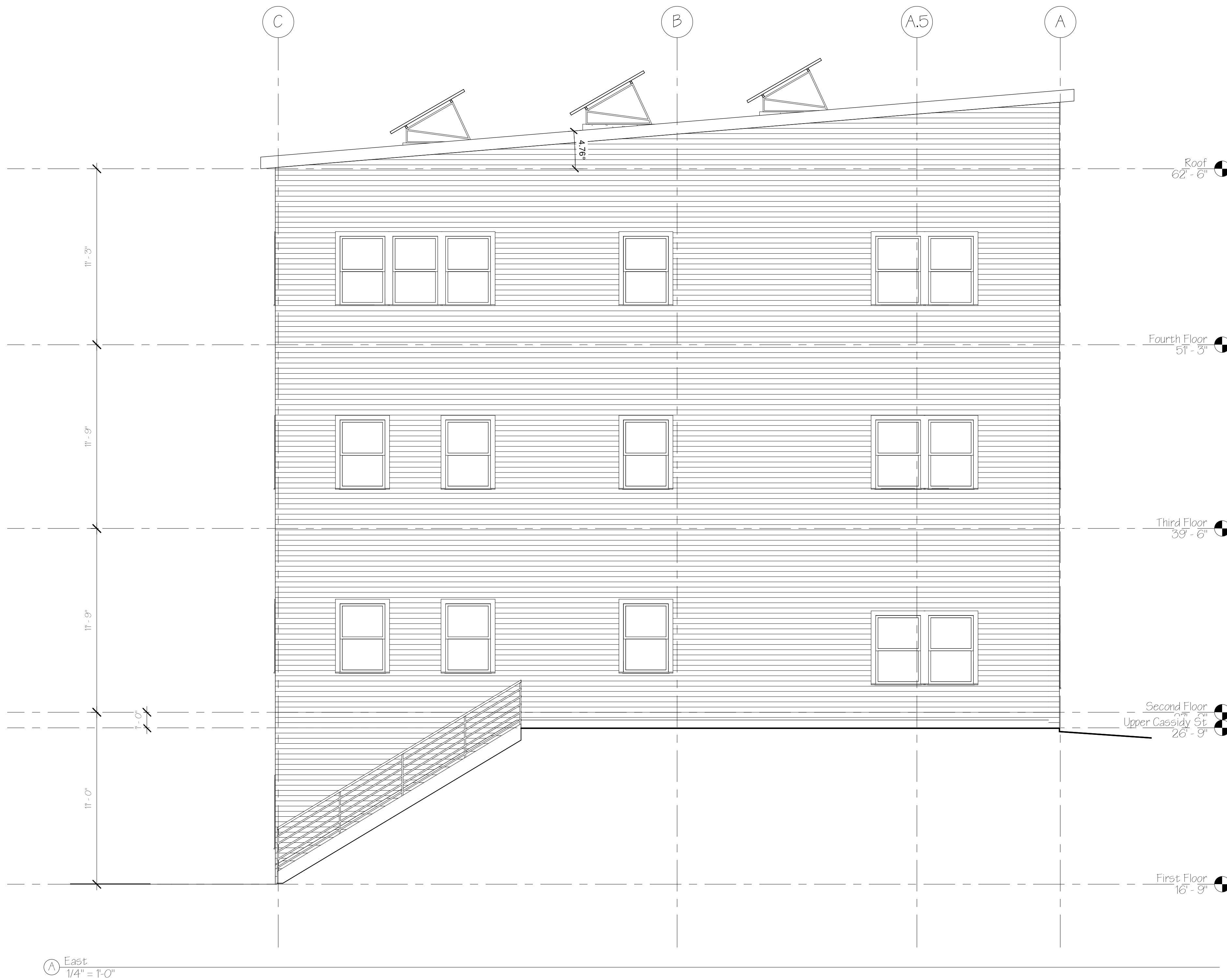
Date 12.23.18

Drawn by Author

Checked by Checker

A-2.3

Scale 1/4" = 1'-0"



Cassidy Point
Road
New Construction

OWNER
534 DANFORTH LLC
225 COMMERCIAL ST STE 502
PORTLAND ME 04101



DEXTROUS
CREATIVE

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0459 (cell)

PROJECT TEAM

SURVEYOR

OWEN & HASKELL
390 US-1 Suite 10
Falmouth, ME 04105

GEOLOGIST

Evan M. Walker, P.E.
S. W. COLE ENGINEERING, INC.
226 Portland Road
Gray, Maine 04039-9586

CIVIL ENGINEER

Will Savage
ACORN ENGINEERING
Acorn Engineering, Inc
P.O. Box 3372
Portland, Maine 04104

STRUCTURAL ENGINEER

Aaron G. Jones, P.E.
STRUCTURAL INTEGRITY CONSULTING
ENGINEERS, INC.
46 Forest Ave
Portland, ME 04101

GENERAL CONTRACTOR

WEIGHT RYAN CONSTRUCTION
10 Danforth St.
Portland, ME 04101

No.	Description	Date

EAST
ELEVATION

Project number 18-08_Cassidy
Point

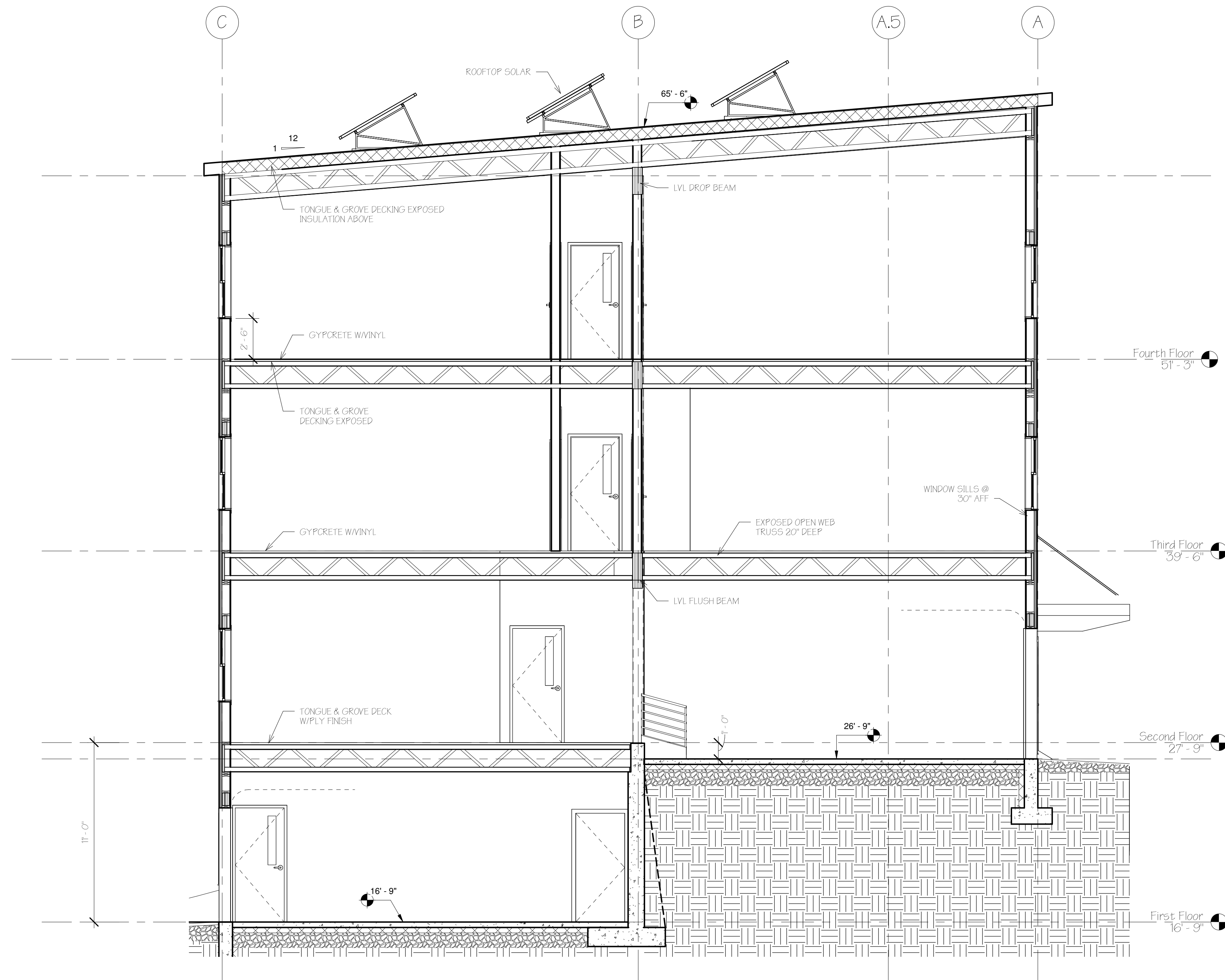
Date 12.23.18

Drawn by Author

Checked by Checker

A-2.4

Scale 1/4" = 1'-0"



Ⓐ BUILDING SECTION
1/4" = 1'-0"

Cassidy Point
Road
New Construction

OWNER
534 DANFORTH LLC
225 COMMERCIAL ST STE 502
PORTLAND ME 04101



PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0459 (cell)

PROJECT TEAM

SURVEYOR
OWEN & HASKELL
390 US-1 Suite 10
Falmouth, ME 04105

GEOLOGIST
Evan M. Walker, P.E.
S. W. COLE ENGINEERING, INC.
226 Portland Road
Gray, Maine 04039-9586

CIVIL ENGINEER
Will Savage
ACORN ENGINEERING
Acorn Engineering, Inc
P.O. Box 3372
Portland, Maine 04104

STRUCTURAL ENGINEER
Aaron G. Jones, P.E.
STRUCTURAL INTEGRITY CONSULTING
ENGINEERS, INC.
46 Forest Ave
Portland, ME 04101

GENERAL CONTRACTOR
WEIGHT RYAN CONSTRUCTION
10 Danforth St.
Portland, ME 04101

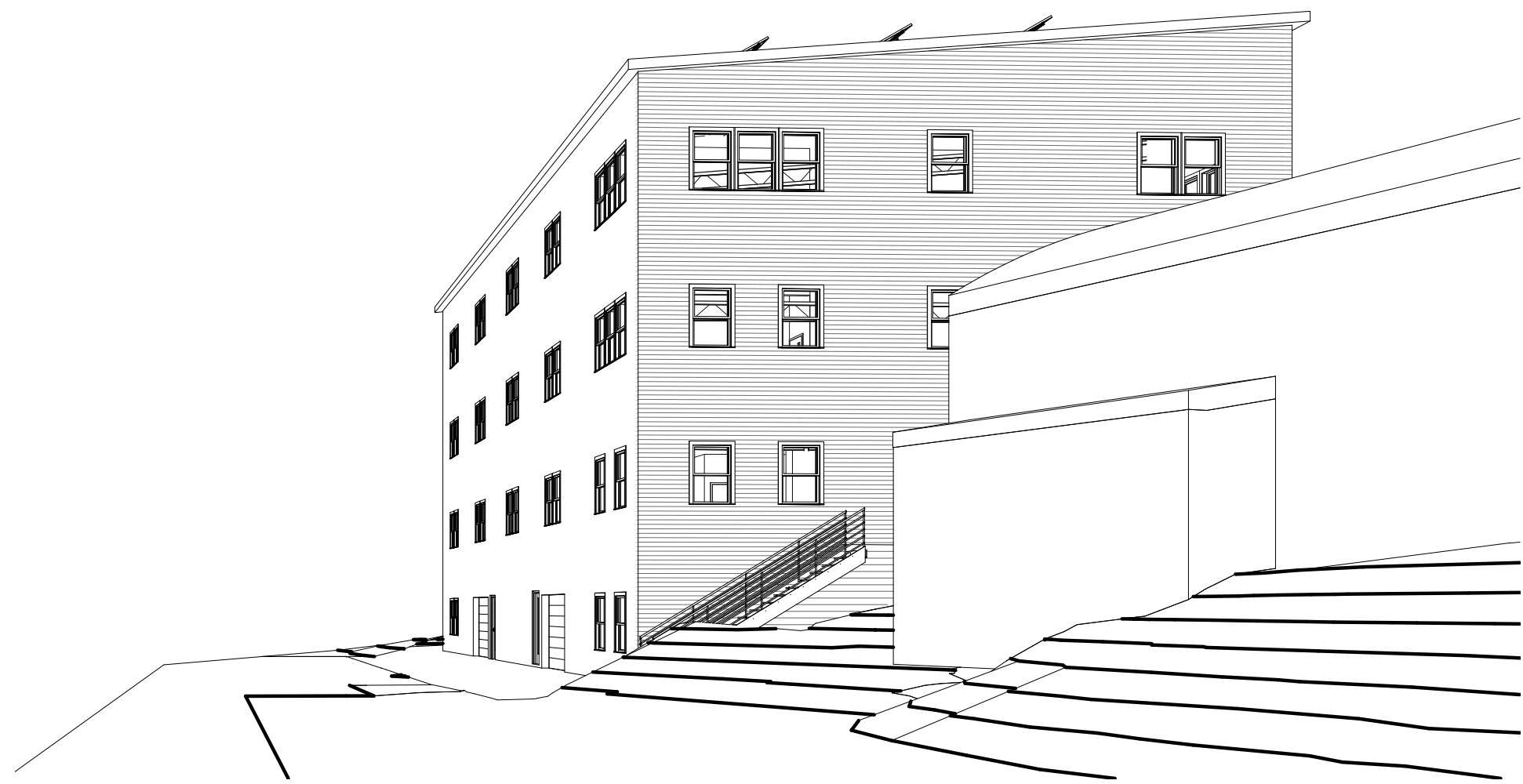
No.	Description	Date

SECTION & DETAILS	
Project number	18-08_Cassidy Point
Date	12.23.18
Drawn by	Author
Checked by	Checker
A-3.1	
Scale	1/4" = 1'-0"

12/23/2018 7:55:30 PM



A UPPER CASSIDY PERSPECTIVE



B LOWER CASSIDY



C UPPER CASSIDY

Cassidy Point Road New Construction

OWNER
534 DANFORTH LLC
225 COMMERCIAL ST STE 502
PORTLAND ME 04101



**DEXTRIOUS
CREATIVE**

PORTLAND, ME 04102
TRACIE REED, ARCHITECT
NCARB, AIA, LEED AP BD+C
traciereed@dextrouscreative.com
207.403.0459 (cell)

PROJECT TEAM

SURVEYOR
OWEN & HASKELL
390 US-1 Suite 10
Falmouth, ME 04105

GEOLOGIST
Evan M. Walker, P.E.
S. W. COLE ENGINEERING, INC.
256 Portland Road
Gray, Maine 04039-0586

CIVIL ENGINEER
Will Savage
ACORN ENGINEERING
Acorn Engineering, Inc
P.O. Box 3572
Portland, Maine 04104

STRUCTURAL ENGINEER
Aaron C. Jones, P.E.
STRUCTURAL INTEGRITY CONSULTING
ENGINEERS, INC.
46 Forest Ave
Portland, ME 04101

GENERAL CONTRACTOR
WRIGHT RYAN CONSTRUCTION
10 Danforth St.
Portland, ME 04101

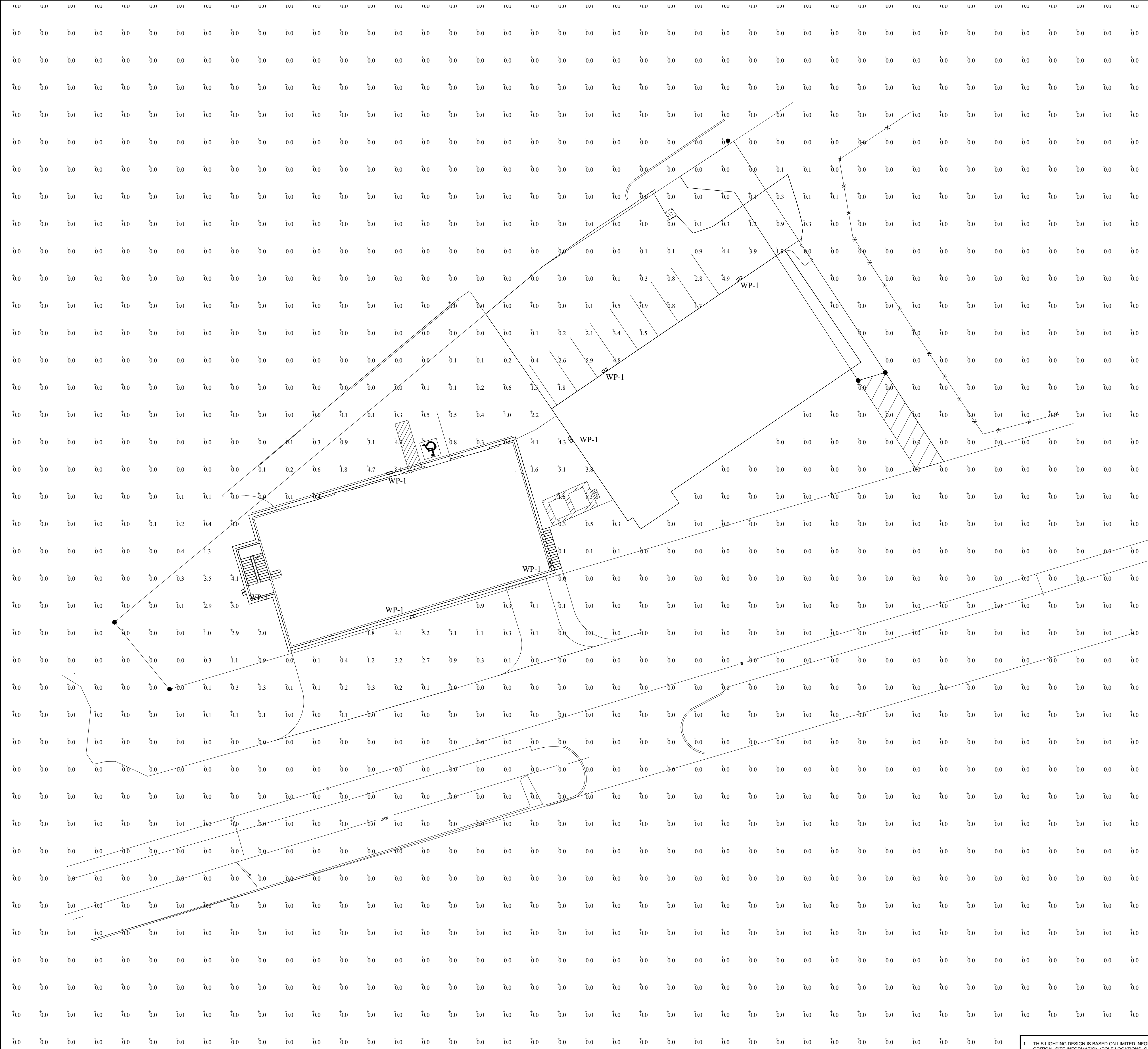
No.	Description	Date

PERSPECTIVES

Project number	18-08_Cassidy Point
Date	12.23.18
Drawn by	Author
Checked by	Checker

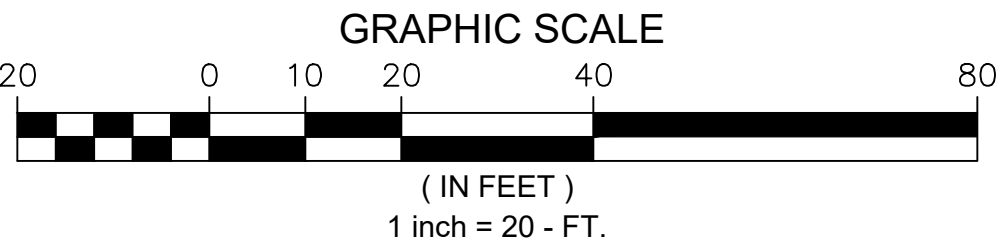
A-5.1

Scale:

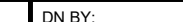


Luminaire Schedule							
Symbol	Qty	Label	Mounting Height	LLF	Lum. Lumens	Lum. Watts	Description
☐	7	WP-1	9' - 0" AFG	0.900	3806	45	LNC2-18LU-4K-3

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Overall Area	Illuminance	Fc	0.08	5.9	0.0	N.A.	N.A.



- 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.
- 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.
- CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.

TITLE: CASSIDY POINT DEVELOPMENT PORTLAND, ME SITE PHOTOMETRIC PLAN	REVISED FROM DRAWING NUMBER(S):		 Hubbell Lighting, Inc. 701 MILLENNIUM BLVD. GREENVILLE, SC 29607	DN BY: DHK	DATE: 12/06/18	CHK BY: N/A
				REV BY:	DATE:	SCALE: AS NOTED
				QUOTE: N/A	DRAWING / DESIGN NO.: 1823212	

PLANNING BOARD REPORT PORTLAND, MAINE



Hammond House Condominiums
10 Hammond Street
Level III Site Plan, Subdivision, IZ Conditional Use
PL-000418-2018
Hammond House, LLC, Applicant

Submitted to: Portland Planning Board
Public Hearing Date: April 9, 2019

Prepared by: Matthew Grooms
Date: April 5, 2019

I. INTRODUCTION

Hammond House, LLC has submitted a Level III Site Plan, Subdivision and Conditional Use application for a new sixteen-unit residential condominium on a 15,433 square foot parcel located at 10 Hammond Street in the East Bayside Neighborhood. This street consists largely of one- and two-family homes, with fewer multi-family properties in the neighborhood and is located within the R-6 Residential Zone, outside of the Munjoy Hill Neighborhood Conservation Overlay zone. The proposed development involves demolition of two single-family structures and construction of a new three-story building with subsurface structured parking.

Two Planning Board Workshops have been held to discuss this project, the first on February 26, 2019 to discuss the project generally and the second, on March 26, 2019 to focus on building design. Please see the discussion below under Section VII. Planning Board Workshops for more information.

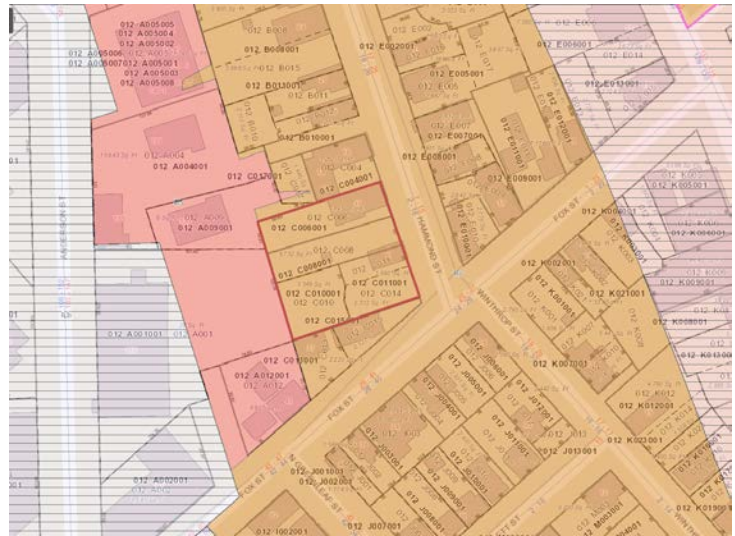


Figure 1: Subject parcel and zoning information

A total of 157 notices were sent to property owners within 500 feet of the site and a legal ad ran in the March 29th and 30th 2019 editions of the Portland Press Herald.

Applicant: Kevin O'Rourke, Hammond House, LLC

Consultants: Will Savage, P.E., Acorn Engineering; Sam Level, Acorn Engineering; Ryan Senatore, Ryan Senatore Architecture; Richard Eaton, R.W. Eaton Associates.

II. REQUIRED REVIEWS

<i>Waiver Requests</i>	<i>Applicable Standards</i>
Driveway Aisle width – 18' feet Staff Comments: The City's Traffic Engineer supports a waiver from the City's Technical Standards for driveway width given low traffic volumes and traffic characteristics of Hammond Street.	Technical Manual, Section 1.7.2.3, requiring a minimum driveway aisle width of 20 feet for two-way ingress and egress
Driveway Separation – Reduce to less than 100' feet Staff Comments: The City's Traffic Engineer supports a waiver from the City's Technical Standards for Driveway Separation, based upon the need to provide maximum	Technical Manual, Section 1.7.2.7, requiring 100' feet of separation between driveways for a 25 mph road.

separation between the driveway and Fox Street, and low traffic volumes along Hammond Street and from the proposed development.	
Review	Applicable Standards
Site Plan	Section 14-526
Subdivision	Section 14-497
Inclusionary Zoning (IZ)	Section 14-474, Section 14-487

III. PROJECT DATA

Existing Zoning	R-6 Residential
Existing Use	Single-Family (2 units)
Proposed Use	16 Residential Units
- Bedroom Mix	3 three-bedroom units, 7 two-bedroom units, 6 one-bedroom units
Parcel Size	15,433 SF

	Existing	Proposed	Net Change
Building Footprint	2,260 SF	8,276 SF	6,016 SF
Building Floor Area	4,000 SF	32,242 SF	28,242 SF
Impervious Surface Area	4,009 SF	11,565 SF	7,556 SF
Parking Spaces	4	16	12
Bicycle Parking Spaces	0	6	6
Estimated Cost of Project	Unknown		

IV. EXISTING CONDITIONS

The proposed development site occupies two single-family properties, totaling just over one-third of an acre, located at the northwest corner of the Hammond Street and Fox Street intersection. The existing one and a half story single-family structures date to the latter half of the 19th Century (1850 and 1880 respectively) and are not protected under local or state historic preservation designations.

At present, approximately one-quarter of the site is impervious surface, with significant vegetation being located along the property boundaries and towards the rear of the site away from Hammond Street.

The property generally slopes down from east to west with an average grade of 12%. The project area presently drains the entirety of its runoff on to the abutting property to the west (117 Anderson Street – the Portland Housing Authority's Maintenance Facility).



Figure 2: Existing conditions of site at Hammond Street frontage.

In looking at the broader context, Hammond Street and surrounding areas of East Bayside feature a higher proportion of single-family structures as compared with other areas of Portland's peninsula, with a generally smaller scale of development. Existing structures are typically between one and two stories, though there are several three-story buildings within a block radius of the development site. Hammond street features regularly spaced street trees, a nine (9) foot concrete sidewalk, and overhead utility poles with cobra head light fixtures along the east side of Hammond Street.

V. PROPOSED DEVELOPMENT

The development is proposed as a new three-story, sixteen-unit residential condominium, composed of a mixture of one-, two- and three-bedroom units with subsurface structured parking for thirteen (13) vehicles, including one handicap space, and two (2) exterior parking spaces. The building is just under forty (40) feet tall and eighty (80) feet wide with a depth of approximately one-hundred (100) feet. The development emphasizes pedestrian access and activity at street level, with front entrance and unit patios fronting Hammond Street. Vehicular access is

deemphasized by shifting the garage entrance towards the rear of the site, that is accessible via an eighteen (18) foot driveway located along the northerly property boundary. The use of a driveway is consistent with other developments along Hammond Street. The project also features closure of two (2) existing curb cuts, for a net reduction of one (1).

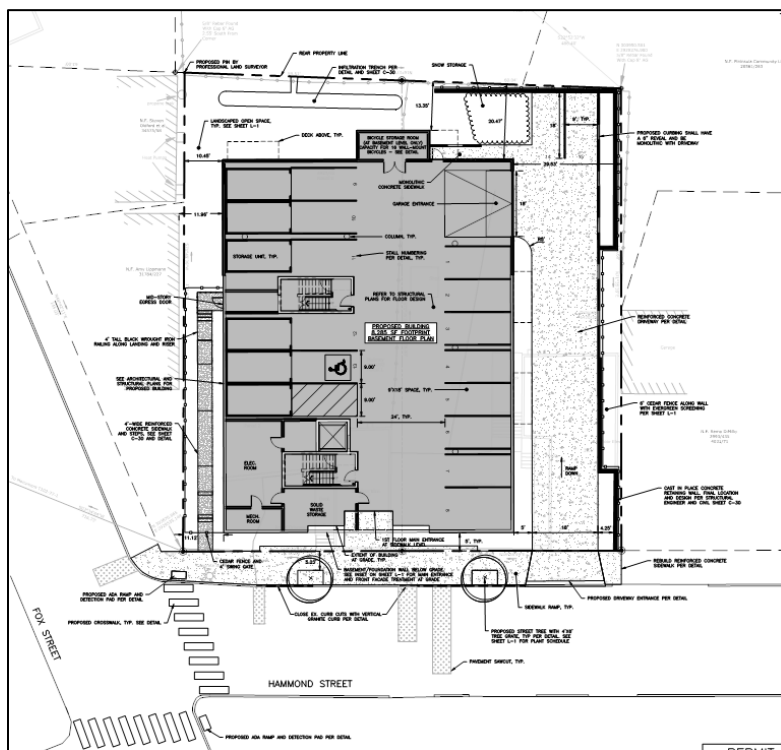


Figure 3: Proposed site plan

service and six (6) inch sanitary sewer connection. Electrical service is provided underground from an existing CMP pole located at the northwest corner of Fox and Hammond Street. Site lighting is provided by six (6) full cutoff wall pack fixtures, with a maximum light trespass of 0.1 foot-candles onto adjacent properties. Lighting is provided at the main entrance, along the pedestrian accessway to the garage and along the driveway.

In regards to stormwater management, the proposed development significantly increases the amount of on-site impervious surface and is therefore required to meet Maine DEP Chapter 500 stormwater standards for stormwater quality and quantity control. The development proposes water quality treatment for no less than 95% of the new impervious area and 80% of the developed area, which shall be met through the use of an underdrained subsurface sand filter (USSF) and StormTech Isolator Row. According to the applicant, the proposed system will exceed both city and state requirements for stormwater quality treatment. The system is also designed to contain runoff for up to a 25-year storm event and promote infiltration, which satisfies the flooding standard. The post development condition would significantly reduce the amount of runoff impacting down gradient property owners.

VI. PUBLIC COMMENT AND NEIGHBORHOOD MEETING

As of the writing of this report, fourteen (14) written comments have been received by the Planning Division. The concerns raised by abutters were primarily focused on building design, particularly the height and massing of the proposed building as it compares with the largely one- and two- story buildings found elsewhere along Hammond Street and in the vicinity. Other concerns raised included the affordability of new units, the limited consideration of the impacts of climate change, the appropriate balance between off-street and on-street parking and a closer look at city allowances for rooftop appurtenances.

City staff also met with Cynthia Cochran, Vice President of the East Bayside Neighborhood Organization, to discuss the project in more detail and answer questions compiled by neighbors. At this meeting, Ms. Cochran raised concerns that the scale and form of the building were incompatible with nearby properties and that the project did not meet design standards as listed under alternative design review for projects in the R-6 zone. She also raised concerns regarding impacts to the on-street parking supply, vehicle speeding along Fox Street, the lack of a crosswalk across Fox Street in the vicinity of this project, and impacts to vehicle and pedestrian sight lines resulting from illegally

As mentioned in the existing conditions section, the development site is approximately 25% developed, with significant open space and vegetation. While much of that existing area is to be developed, and vegetation is to be removed, existing vegetation located within the building setback areas will be preserved where possible, and will be significantly augmented through additional plantings. A mixture of native ornamental grasses, perennials, shrubs and trees are proposed along the building's exterior, at the rear of the site and along the driveway edge for additional buffering, and along the property frontage. Based upon the width of the property's frontage, two street trees are being provided to partially satisfy the city's street tree requirement. A retaining wall and six (6) foot cedar fence is proposed along the northerly property boundary to provide additional noise and visual buffering between the neighboring property.

Utilities to the site are provided via existing infrastructure located beneath Hammond Street, with new connections consisting of a four (4) inch water service, six (6) inch fire

parked vehicles along Fox Street. One additional point raised was the lack of integration of projects of this scale into the surrounding neighborhood, as projects with four (4) or more units tend to be more inwardly focused.

In response to these concerns, the staff would note that design review comments for both the first and second iteration of the building's design have focused on the massing and scale of the building, particularly as it related to the façade visible from Fox Street, proposed rooftop features, and pedestrian scale features along Hammond Street and at the building entrance. The design review process requires that development relate in terms of scale and massing to nearby development, but does not require that a new development replicate existing development. Given that this scale of development is permitted by right in the R-6 zone, the staff are instead suggesting that the design of the building continue to be revised so as to be more complementary of and integrated within its context. Please see the design review memo for more information (Attachment 1).

The applicant held a neighborhood meeting on January 15, 2019 attended by twenty-five (25) members of the public. At this meeting, members of the public asked questions regarding process, project parameters, the likelihood of blasting, status of the condominium documents, construction management. Those in attendance also raised concerns regarding the scale of the proposed building and felt that it would overwhelm nearby properties. Responses to these questions and concerns can be found in the attached neighborhood meeting minutes (Attachment Y).

At both Planning Board workshops, considerable testimony was provided by members of the public, who generally have been concerned that the project is out of context within its neighborhood, and that the design standards for the R-6 zone are not being met for this project. Numerous suggestions for scaling down the design or better integrating the building have been raised, and further questions have been raised regarding staff's finding that the project meets applicable design standards.

VII. PLANNING BOARD WORKSHOPS

A. FIRST WORKSHOP - FEBRUARY 26, 2019

The Planning Board held a workshop to discuss the proposed development at 10 Hammond Street on February 26, 2019. At that meeting, the Board strongly encouraged the applicant to revisit site design as well as building scale and massing and stressed that the development felt too large in relation to surrounding properties. Board members identified roof-top appurtenances as needing to be evaluated for visual impact and offered suggestions for the overall project design to respond to the concerns raised about massing and context, including:

- Break the building into two separate buildings
- Reduce the amount of on-site parking to cut down on size and site impacts
- Use vegetation to more significantly screen the development
- Revise the design of bays along Hammond Street to further break up the building



Figure 4: Front facade elevation (iteration 1) showing roof decks and stair towers.

The Board also observed that the building felt institutional, due in part to the sculpture, concept signage and entrance design. Aside from design related comments, the Board also asked that the applicant evaluate the viability of their stormwater system given the steep slope at the rear of the property, with the concern being that the infiltration unit may destabilize the slope. Additional erosion control may be warranted to counter that concern. Other requests included the provision of condominium documents and a reconsideration of landscape choices.

B. RESPONSE TO FIRST WORKSHOP

In response to feedback from the Planning Board and staff, the applicant's design team significantly redesigned the building to enhance compatibility with smaller scale development in the vicinity. Caitlin Cameron, Urban Designer and

Matthew Grooms, Planner, met with the architect and developer on March 11th to discuss proposed changes, and found them to be significantly responsive to Board and public feedback, while maintaining the scope of the project. Below is a list of changes that were incorporated in order to relate the building to its neighborhood.

- Roof top decks and stairwells, which added significantly to the massing of the proposed structure, were removed, reducing effective height of the building by approximately ten (10) feet.
- Main entrance was recessed in order to scale the front façade.
- The main stair and elevator were moved deeper into the building and away from the front façade, which eliminated the elevator override that previously was a prominent feature of the front façade, and added additional living space along the street.
- Sculpture was removed and replaced with ground-level planters to better identify separation of private and public space.
- A quasi front porch, added through canopy and columns, was proposed, further contextualizing the building with other multi-family properties in the vicinity.
- Façade materials were simplified and made more uniform. Material colors were lightened and strategically chosen to downplay the scale of the building.
- Bays were added to the front façade to scale the building's width and pay tribute to triple decker typology.
- A more traditional cornice detail was provided that is more contextual.
- Recessed decks were provided at the mid-point of side facades, which break up the scale of the building.
- Cornice was brought down one story and material color changed at 3rd floor on Fox Street façade to scale building.

C. SECOND WORKSHOP – MARCH 26, 2019

The Planning Board held a second workshop on March 26, 2019 where they focused specifically on building design changes and generally found the revisions to be responsive to feedback provided at the first workshop. While noting that the project was considerably larger than other development in the immediate vicinity, they noted that the project was permitted under zoning as currently written and asked the City's Urban Designer, Caitlin Cameron, to explain how the project met design standards for the R-6 zone, which require compliance with standards A-1 through A-3 of Appendix 7 of the design manual. Those standards are as follows:

- **STANDARD A-1 - Scale and Form** - Relate the scale and form of the new building to those found in residential buildings within a two-block radius of the site, that contribute to and are compatible with the predominant character-defining architectural features of the neighborhood. Special attention shall be given to the existing building forms on both sides of the street within the block of the proposed site.
- **STANDARD A-2 - Composition of Principal Facades** - Relate the composition of the new building façade, including rhythm, size, orientation and proportion of window and door openings, to the facades of residential buildings within a two-block radius of the site that contribute to and are compatible with the predominant character-defining architectural features of the neighborhood. Special attention shall be given to the existing facades on both side of the street within the block of the proposed site.
- **STANDARD A-3 - Relationship to the Street** - Respect the rhythm, spacing, and orientation of residential structures along a street within a two-block radius of the site that contribute to and are compatible with the predominant character-defining architectural features of the neighborhood. Special attention shall be given to the existing streetscape on both side of the street within the block of the proposed site.

Ms. Cameron explained that the design standards do not require a project to mimic or repeat existing form and scale, but instead relate a development through design choices to the existing context within a two-block radius. For example, with this project, bays, canopies and articulation elements such as recesses were introduced that break up the massing of the building. Material choices were simplified in line with other nearby multi-family development, and both color choices and roof forms were used to deemphasize the third floor of the building, particularly along the Fox Street façade, to mitigate the building's scale and massing.

Members of the Board asked that long views of the building be provided through renderings from up towards Washington Avenue, to better understand the visual impact of roof-mounted mechanical equipment. The applicant was also asked to consider minor revisions to the roof form to further differentiate the front half of the building from the rear half (where the third-floor material palette changes). At this workshop, it was agreed that the project was ready to go to a public hearing.

D. RESPONSE TO SECOND WORKSHOP

Following the second workshop, the applicant made a few minor revisions to their plan and building design and provided some additional information and renderings as requested by the Board and staff. These changes include:

- Renderings showing long views of building from uphill on Fox Street and downhill on Fox Street. While helpful, these views are not sufficiently distant. Based on these views, staff have drafted a condition of approval that roof-mounted mechanical equipment be screened from all sides, or conversely, be located at the rear of the site and not be roof-mounted.
- Provided additional information on front yard planters, which are now seat wall planters. These better integrate the site into the neighborhood, while not providing physical benches, which are not supported due to their institutional nature.
- Varied roof study provided. Board members requested that more be done to the building to mitigate the flatness and scale of the building, especially related to Fox Street. The submission includes a study of roof form variation where the height is differentiated between the grey and white portions of the building. While the study has been provided, the applicant does not want to pursue this direction for cost and construction complexity reasons.
- Screening of rooftop mechanicals. Partial screening has been provided to shield views of roof-mounted mechanical equipment from uphill vantage points. Based on renderings provided, staff have drafted a condition of approval that would require screening from all sides.



Figure 5: Roof Study showing roof form variations and screening of mechanicals

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

a. The owner of the property is Kevin O'Rourke, Hammond House, LLC. The applicant has provided a copy of the warranty deed, recorded at the Cumberland County Registry of Deeds (Book 6420, Page 257), which demonstrates their right, title and interest in the property. (Attachment C)

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

IX. ZONING ANALYSIS

A. DIMENSIONAL AND USE REQUIREMENTS

The proposed project is a three-story residential condominium with sixteen (16) units and fifteen (15) off-street parking spaces. The property is located within the R-6 Residential zone, outside of the Munjoy Hill Neighborhood Conservation Overlay District.

The proposed use, a multi-family residential development, is a permitted use within the R-6 and the project as proposed is fully compliant with all dimensional requirements as shown in the table below.

	Required	Proposed
Lot Size	2,000 SF	15,433 SF
Area Per Dwelling Unit	725 SF	965 SF
Minimum Street Frontage	20' FT	120' FT
Front Yard Minimum	0 (Abutter Average)	5.12' FT
Front Yard Maximum	N/A	5.12' FT
Rear Yard	10' FT	13.35' FT
Side Yard	5' FT	29.5' FT (Right), 10.5' FT (Left)
Maximum Lot Coverage	60%	56%
Maximum Height	45' FT	39.8' FT
Open Space	20%	25%
Maximum Impervious Surface	80%	75%
Off-Street Parking	13 (1 space/unit, first 3 not required)	15

The proposed height of the building is compliant with the standards of the R-6 zone. At the first workshop, staff highlighted the quantity and dimension of rooftop appurtenances, which extended the height of the building to approximately fifty (50) feet above average grade. These have since been removed per staff and Board feedback. Following the second workshop, the roof form was revised further to mitigate the massing of the building and deemphasize its height along Fox Street.

Based upon the elevation change within the vicinity of this site, it is anticipated that there will be long views of the building from multiple vantage points. To compensate for this, a screening element has been incorporated into the roof to screen roof-mounted mechanical equipment.

B. CONDITIONAL USE – INCLUSIONARY ZONING

As required by the City's Inclusionary Zoning Ordinance, residential developments with ten (10) or more units are required to provide a minimum of ten percent (10%) of the dwelling units as Workforce Housing units, and the units themselves must contain in total, ten percent (10%) of the total bedroom count for the entire development. The City's Housing Program Manager, Victoria Volent, has reviewed the application and offers the following comments (Attachment 6):

- The project located at 10 Hammond Street proposes the creation of 16 condominium 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 \$169,744 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 \$169,744 be paid into the City's Housing Trust Fund prior to issuance of the Certificate of Occupancy for 10 Hammond Street. Should at a later date any change in total unit count be considered, a revised proportional fee-in-lieu payment will also be required.

X. DEVELOPMENT REVIEW

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

The applicant has submitted a recording plat. The final plat will need to be revised to reflect any waivers and

conditions of approval that relate to the subdivision plan. Any waivers granted must be recorded at the Registry of Deeds within two years of a Planning Board decision.

B. SUBDIVISION (Section 14-496)

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

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

Lauren Swett, P.E. with Woodard and Curran Engineering, has reviewed the erosion and sediment control plans and details, and inspection and maintenance requirements for the project. In preliminary review comments, it was noted that additional erosion control measures may be necessary at the rear of the property due to the significant slope.

Regarding the infiltration trench proposed at the rear of the property, Ms. Swett had commented that a geotechnical investigation would be required to determine that the soils were sufficiently capable of accommodating the trench at capacity. A geotechnical report has since been provided, and Ms. Swett offers the following comment (Attachment 5):

- I've reviewed the geotechnical memo that was provided on the infiltration trench. I agree with their approach and their analysis that the infiltration system would have minimal impact on a representative slope.

They note that they will be doing an exploration in the actual infiltration area in the future to verify their assumptions and analysis. It would be good to clarify when that investigation work is proposed (i.e. before/during construction construction), and a condition based on that timing added to provide the results to the City.

I also understand that there was discussion about changing the emergency overflow from a narrow channel to a wider outlet, more like a level spreader to spread the water out over the slope. I agree with that. As designed, there is less flow going to this area, and this overflow would only be used in the case that there's an extreme condition, like a really intense storm or if the infiltration system somehow failed (i.e. plugged with sediment) and that was the only place for water to exit the system. Eliminating the narrow channel, and allowing for a wider flow from the system in that extreme condition should work to reduce the risk to the slope during an overflow.

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

The project will be served by a new 4-inch domestic service and 6-inch fire service drawn from the existing water main in Stevens Avenue. An 'Ability to Serve' letter was provided by the Portland Water District.

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

The proposed project closes two curb cuts and shifts the driveway to the north. The proposed driveway would measure eighteen (18) feet in width and would provide both ingress and egress to the site. The proposed relocation of the driveway provides greater separation between the driveway and intersection. Tom Errico, P.E. with T.Y. Lin reviewed the proposal's details including access, parking, construction management plan and vehicle circulation, and has provided the following comments (Attachment 2):

- The Applicant has noted that acceptable sight distance will be provided. A condition of approval should include details that requires the property line fence to be designed to maximize sight distance to both vehicles and pedestrians.
- The driveway location is based on maximizing the distance from Fox Street and building design. Given these factors and low traffic volumes on Hammond Street and from the development, I support a waiver from City Standards.

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

The applicant is proposing a new six (6) inch sanitary sewer service connection into the existing sewer main beneath Hammond Street. The Department of Public Works has reviewed the proposal and found it to be acceptable.

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

The development has been designed to be consistent with the City's Master Plan, adopted in June of 2017.

B. SITE PLAN STANDARDS (Section 14-526)

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

1. Transportation Standards

a. Impact on Surrounding Street Systems and Access and Circulation- see Subdivision discussion regarding traffic congestion and site circulation above.

b. Sidewalks

The applicant is proposing to close two existing curb cuts, and repair the concrete sidewalk along the property's frontage to match the existing condition. A crosswalk is proposed across Hammond Street at the intersection of Hammond and Fox Street. A detectable warning panel is proposed on the west side of the street, though no improvements are proposed at the opposite corner. Staff have drafted a condition of approval that requires the applicant to redesign the landing on the opposite side of Hammond Street to be ADA compliant.

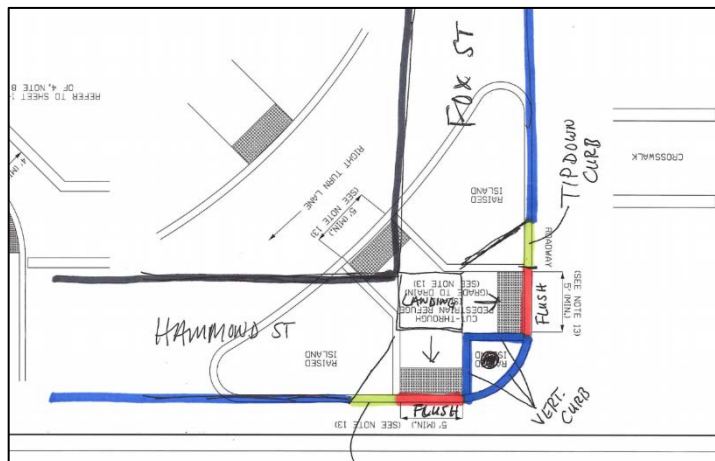


Figure 6: Concept ramp design recommended by staff.

Based upon public input and Section 14-526(a)(1) of the City's site plan standards, the staff have requested that a crosswalk be provided across Fox Street in the vicinity of the project due to projected impacts. The standard specifically states, in regards to impacts on surrounding street systems, that a site makes provisions for, "*vehicular loading and unloading and parking and for vehicular and pedestrian circulation on the site and onto adjacent public streets and ways*". Given the scale and scope of the project, the anticipated impacts are significant enough to warrant this off-site improvement.

In response, the applicant has agreed to construct a crosswalk across Fox Street from the east side of Hammond Street to the corner of Fox and Winthrop Street. This design, while feasible, requires a particular design due to the location of an existing utility pole on the Hammond Street side. A sketch of that design is shown below. A condition of approval has been drafted that ADA compliant ramps be provided at all landings.

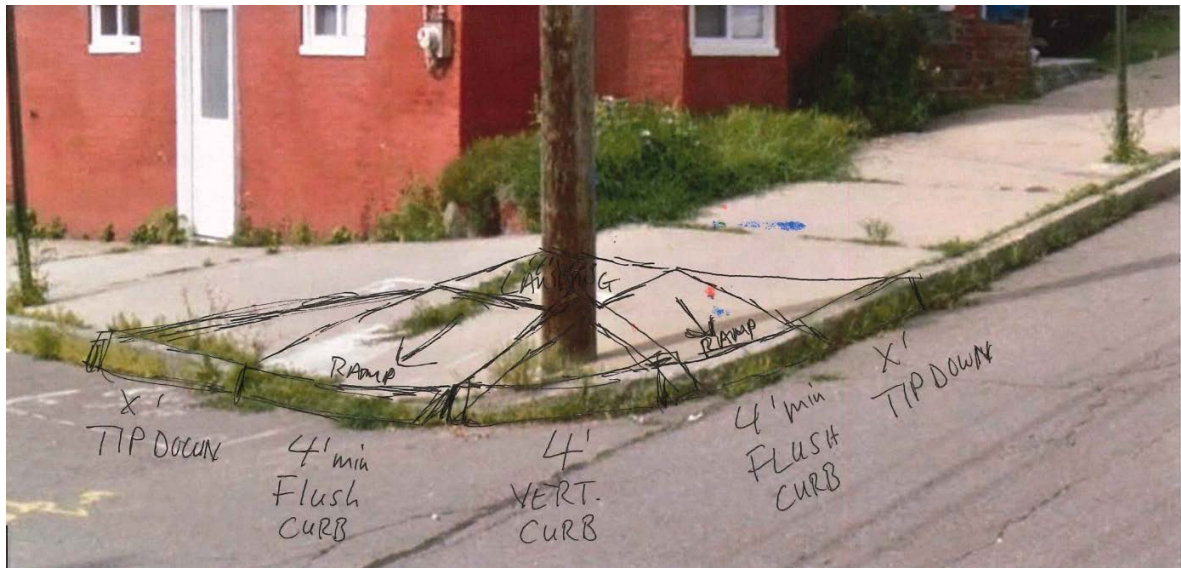


Figure 7: Design of ramp in context.

c. Public Transit Access

The public transit requirements do not apply to this project.

d. Parking

Fifteen (16) parking spaces are being proposed, including two (2) spaces located outside of the subsurface structured parking, at the end of the driveway. The proposed parking meets city zoning requirements for off-street parking.

e. Bicycle Parking

The proposal includes a bicycle storage room with space for more than five (5) bicycles which meets the site plan standard requiring a minimum of two bicycle parking spaces for every five dwelling units.

2. Environmental Quality Standards

a. Preservation of Significant Natural Features

There are no known significant natural features on the site.

b. Landscaping and Landscape Preservation

A landscaping plan was submitted as part of the application. The plan shows two street trees, a variety of shrubs and trees as buffer plantings along the northerly and westerly property boundaries, and shrubs, perennials and ornamental grasses along the building's exterior and adjacent to on-site walkways and driveways. Along the northerly property boundary, a retaining wall and cedar fence is proposed for both site stabilization and additional site buffering.

Jeff Tarling, the City Arborist, in preliminary comments, stated that the plantings had ornamental value but limited buffering value, and provided some recommendations for tree species and planting locations. Those suggestions were incorporated into the updated landscape plan, which has been found to be acceptable.

Based upon the city's street tree requirements, a total of sixteen (16) trees are required, spaced thirty (30) to forty-five (45) feet apart. A condition of approval has been drafted requiring either a fee in lieu for that contribution, or an alternative proposal in line with the city's site plan ordinance.

c. Water Quality, Storm Water Management and Erosion Control

Once developed, on-site impervious surface will increase from 4,009 square feet, to 11,565 square feet, a net increase of greater than 1,000 square feet, which necessitates compliance with the city's requirements for stormwater quality and quantity management.

Lauren Swett has reviewed the applicants plans and project details, and offers the following comments (Attachment 5):

- In accordance with Maine DEP Chapter 500 Regulations and Section 5 of the City's Technical Manual, the Applicant is required to meet the Basic, General and Flooding Standards for Stormwater Management. The applicant has proposed erosion and sedimentation control features to meet the Basic Standard, and an underdrained subsurface sand filter and infiltration trench to meet the General and Flooding Standards. The applicant has addressed all comments related to stormwater management requirements for the project.

3. Public Infrastructure and Community Safety Standards

a. Public Safety and Fire Prevention

Mike Thompson, Division Chief of the Fire Prevention and Community Outreach Division, has reviewed the submitted plans and found them to be acceptable, noting the following points which are being drafted as a condition of approval (Attachment 2):

- The main entrance of the building must be the address for the property. This should be consistent with 911, tax assessor, Inspections Division and future mailing address.
- The new building shall not affect the egress, escape or required fire department access for the neighboring building(s)
- The street address shall be marked on the structure and shall be approved by the City E-911 Addressing Officer.

b. Availability and Adequate Capacity of Public Utilities

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

4. Site Design Standards

a. Snow and Ice Loading

Based upon the roof design, it is not anticipated that snow or ice loading will be a concern to pedestrians within the public right-of-way or on the applicant's property.

b. View Corridors

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

c. Historic Resources

The site is not located within a historic district or within 100 feet of a historic district, landmark or landscape and as a result, this project is not required to be reviewed by Historic Preservation.

d. Exterior Lighting

The applicant has submitted a lighting and photometric plan. The plan shows exterior, building mounted wall packs near the entrance, pedestrian walkway and driveway. All exterior site lighting including lighting of building entrances will be full cutoff with no light emitted above the horizontal plane and light trespass falls within the allowable limits as stipulated under Section 12 of the Technical Manual.

e. Noise and Vibration

Exterior mechanical equipment is to be roof-mounted, and centrally located on top of the building to minimize visibility from adjacent properties and public spaces. It is not anticipated that this equipment will result in adverse conditions related to noise and vibration.

f. Signage and Wayfinding

This standard does not apply to the proposal.

g. Zoning Related Design Standards

A design review (Attachment 1) according to the City of Portland Design Manual Standards was performed for the revised proposal for new construction of a multi-family dwelling at 10 Hammond

Street. The review was performed by Caitlin Cameron, Urban Designer, Shukria Wiar, Planner, and Matthew Grooms, Planner. The project was reviewed against the R-6 Small Infill Development Design Principles & Standards (Appendix 7 of the Design Manual) as well as the Two-Family, Special Needs Independent Living Units, Multiple-Family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters (Section I of the Design Manual).



Figure 8: Front Elevation with varied roof form

Given that the design of the building has not been altered significantly since the second workshop, the conclusions of the design review remain unchanged.

Design Review Criteria:

The project was reviewed with the Alternative Design Review which has the following criteria:

- Proposed design is consistent with all of the Principle Statements.
- The majority of the Standards within each Principle are met.
- The guiding principle for new construction under the alternative design review is to be compatible with the surrounding buildings in a two-block radius in terms of size, scale, materials, and siting, as well as the general character of the neighborhood, thus Standards A-1 through A-3 shall be met.
- The design plan is prepared by an architect registered in the State of Maine.

Findings of the Design Review:

The proposed design passes all of the criteria of the R6 Alternate Design Review – please refer to comments below:

- Staff find that the applicant has adequately responded to the comments and concerns from the Planning Board and public comment.
- The revisions include:
 - Simplification of the roof form to a compatible, simple flat roof with overhanging eaves (removal of stair towers and roof decks)
 - Massing and material variation and articulation elements introduced on street-facing facades to create scale and mass more similar to the traditional built patterns.
 - Massing, material, and articulation variation introduced on the Fox Street-facing elevation to mitigate the scale impacts and relate to the composition patterns found in the context.

XI. STAFF RECOMMENDATION

Subject to the proposed motions and conditional of approval listed below, Planning Division staff recommends that the Planning Board approve the proposed sixteen (16) unit condominium project and associated site improvements and parking. The applicant has modified the proposals significantly to address the site plan, subdivision and conditional use standards for inclusionary zoning.

XII. PROPOSED MOTIONS FOR THE 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 April 9, 2019 for application # PL-000418-2018 (10 Hammond Street) relevant to the Site Plan Standards of the Land Use Code and Portland's Technical and Design Standards, and other regulations, and the testimony presented at the Planning Board hearing:

1. Driveway Aisle Width

The Planning Board [**finds / does not find**] based upon the Traffic Engineer's Review, that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual standard (Section 1.7) which requires that, for multi-family residential development with ten (10) or more parking spaces, two-way driveway width be between twenty (20) and twenty-four (24) feet in width, that substantial justice and the public interest are secured with the proposed variation in this standard, and that variation is consistent with the intent of the ordinance. The Planning Board [**waives/ does not waive**] the Technical Manual standard Section 1.7 to allow a driveway width of eighteen (18) feet.

2. Driveway Separation

The Planning Board [**finds/does not find**], based upon the Traffic Engineer's review, that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual standard (Section 1.7.2.7) which requires a minimum driveway spacing of 100 feet where the speed limit is 25 mph or less, that substantial justice and the public interest are secured with the proposed variation in this standard, and that the variation is consistent with the intent of the ordinance. The Planning Board [**waives/does not waive**] the Technical Manual standard (Section 1.7.2.7) to reduce driveway separation to below 100 feet.

B. 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 April 9, 2019 for application #PL-000418-2018 (10 Hammond Street) 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 Section 14-484 with the following condition, to be met prior to issuance of a Certificate of Occupancy:

1. A financial contribution of \$169,744 shall be paid into the City's Housing Trust Fund as a fee-in-lieu to satisfy the inclusionary zoning requirements for a sixteen (16) unit residential building. If the number of units. 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.

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 April 9, 2019 for application # PL-000418-2018 (10 Hammond Street) 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.

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 April 9, 2019 for application # PL-000418-2019 (10 Hammond Street) relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board **[finds/does not find]** that the plan is in conformance with the site plan standards of the land use code, subject to the following conditions of approval:

PRIOR TO APPLYING FOR A BUILDING PERMIT

2. Roof plan and building elevations shall be updated to extend screening around all sides of proposed roof-mounted mechanical equipment so as to screen from all vantage points, or relocate mechanical equipment off of the roof towards the rear or side of the property and screen in accordance with site plan and technical manual standards.
3. Applicant shall coordinate with the Planning Authority and Department of Public Works to install the proposed storm drain connection to Fox Street prior to scheduled repaving of Fox Street, to occur between July and September of 2019.
4. Site Plan and associated details shall be revised as necessary to show that all proposed crosswalks and landings feature ADA compliant ramps with detectable warning panels. The site plan shall show structures in the right-of-way that may affect crosswalk placement including manholes and utility poles.
5. The retaining wall and cedar fence in the vicinity of where the driveway meets the sidewalk, should be stepped down to maximize sight distances for pedestrians and vehicles.
6. A geotechnical exploration in the proposed infiltration area at the rear of the site shall be completed and shared with the Planning Authority, demonstrating that the slope can accommodate the proposed system.
7. The applicant has submitted a sample roof design based upon Planning Board feedback at the March 26, 2019 workshop. In the event that this design is agreed to during the public hearing, the applicant shall submit updated building elevations that are consistent with the recommendation made by the Planning Board.

PRIOR TO ISSUANCE OF A BUILDING PERMIT

8. The applicant shall submit for review and approval by the Planning Authority, Department of Public Works and Corporation Counsel, a stormwater maintenance agreement for the proposed development.
9. A financial contribution totaling \$5,600, to be paid into the city's street tree fund, shall be provided for the required fourteen (14) 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.

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

10. The applicant shall comply with Fire Department comments requiring:
 - a. The main entrance of the building must be the address for the property. This should be consistent with 911, tax assessor, Inspections Division and future mailing address.
 - b. The new building shall not affect the egress, escape or required fire department access for the neighboring building(s)
 - c. The street address shall be marked on the structure and shall be approved by the City E-911 Addressing Officer.

XIII. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. Design Review
2. Planning, Fire and Civil Engineering Comments
3. Crosswalk Comments and Sketch
4. Final DPW Comments
5. Final Stormwater Comments
6. Inclusionary Zoning Review Comments
7. Public Comment
 - a. Jason Wentworth (1.3.19)
 - b. Jonathan Garland (1.4.19)
 - c. Jessica Lockhart (1.5.19)
 - d. Catharine Clay (2.26.19)
 - e. Carolyn Treat (2.26.19)
 - f. Donna Gartland (2.26.19)

- g. Joanna Shaw (2.27.19)
- h. Jonathan Gartland (2.28.19)
- i. Jonathan Gartland (3.25.19)
- j. Carolyn Treat (3.25.19)
- k. Seth Brayton (3.26.19)
- l. Cynthia Cochran (3.26.19)
- m. Karen Snyder (3.27.19)
- n. Christian MilNiel (3.28.19)

APPLICANT'S SUBMITTALS

- A. Cover Letter
- B. Application Form
- C. Right, Title & Interest
- D. Zoning Assessment
- E. Easements
- F. Waivers
- G. Financial Capacity
- H. Technical Capacity
- I. Conformity with Land Use Ordinance
- J. Stormwater Management Report
- K. Erosion and Sedimentation Control Report
- L. Fire Department Letter
- M. Wastewater Capacity
- N. Lighting
- O. Architectural Design Narrative
- P. Utility Cover
- Q. Construction Management Report
- R. Solid Waste Disposal
- S. Stormwater Maintenance Agreement
- T. Certification Letter
- U. Comment Response Letter
- V. Design Review Response Letter
- W. Sign in Sheet
- X. Neighborhood Meeting Notice
- Y. Neighborhood Meeting Minutes
- Z. Architectural Design Narrative
- AA. Declaration of Condominium
- BB. Design Narrative V.3
- CC. Geotechnical Letter

PLANS

- Plan 1. Cover Sheet
- Plan 2. General Notes
- Plan 3. Existing Conditions Plan
- Plan 4. Demolition, Construction Management
- Plan 5. Site Plan
- Plan 6. Landscape Plan
- Plan 7. Utility Plan
- Plan 8. Grading & Drainage Plan
- Plan 9. Site Details I
- Plan 10. Site Details II
- Plan 11. Landscape Details
- Plan 12. Utility Details I
- Plan 13. Utility Details II
- Plan 14. Drainage Details
- Plan 15. USSF Details
- Plan 16. Erosion & Sedimentation Control Notes
- Plan 17. Garage Floor Plan
- Plan 18. First Floor Plan

- Plan 19. Second Floor Plan
- Plan 20. Third Floor Plan
- Plan 21. Roof Plan
- Plan 22. Front Elevation
- Plan 23. Rear Elevations
- Plan 24. South Elevation
- Plan 25. North Elevation
- Plan 26. Contextual Rendering from Hammond
- Plan 27. Contextual Rendering from Winthrop
- Plan 28. Building Renderings
- Plan 29. Subdivision Plat
- Plan 30. Contextual Rendering from 30 Fox Street
- Plan 31. Contextual Rendering from Downhill Fox Street
- Plan 32. Contextual Rendering from Uphill Fox Street
- Plan 33. Seat Wall Detail
- Plan 34. Varied Roof Study – Fox Street
- Plan 35. Varied Roof Study – Front
- Plan 36. Varied Roof Study - Rear

10 Hammond St - My Take on the Crosswalks/Ramps

Bruce Hyman <bhyman@portlandmaine.gov>

Wed, Apr 3, 2019 at 4:20 PM

To: Matthew Grooms <mgrooms@portlandmaine.gov>, Michael Tremblay <mtremblay@portlandmaine.gov>, Tom Errico <thomas.errico@tylin.com>, Jeremiah Bartlett <jbartlett@portlandmaine.gov>

Cc: Keith Gray <kgray@portlandmaine.gov>, Barbara Barhydt <bab@portlandmaine.gov>

Just so we have something possibly in our back pocket (or front), I sketched what I think a workable layout is for the crosswalks and curb ramps, focusing on the crosswalk and ramps across Fox itself.

I do believe that due to the skew of a crosswalk across Fox there, that it would be very difficult to get away from a diagonal/apex ramp at the corner of Fox/Winthrop. I believe a 2nd ramp further down the hill on Fox would exacerbate the crosswalk cross-slope and distance issues. The sidewalk on Winthrop appears fairly narrow (5'-6') to achieve a 2nd ramp on that corner without relocating a catch basin on Winthrop.

I think the way around the utility pole at the Fox/Hammond corner is to box in the utility pole with vertical curb to reduce the need for the inside tipdowns which would otherwise push the ramps unacceptably.

My thoughts.

Bruce

--

Bruce Hyman
Transportation Program Manager

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

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

Yes! Transportation's Good Here



10Hammond_Ramps-Crosswalks_Apr03-19.pdf

1190K

HAMMOND

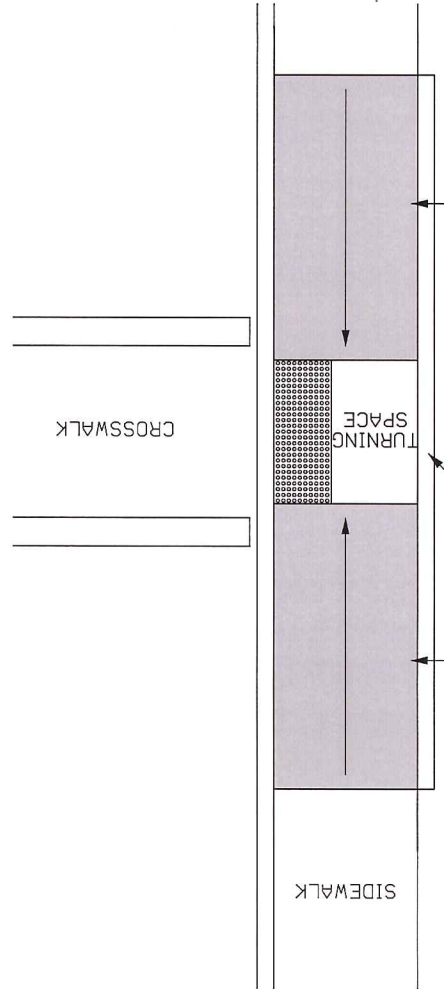
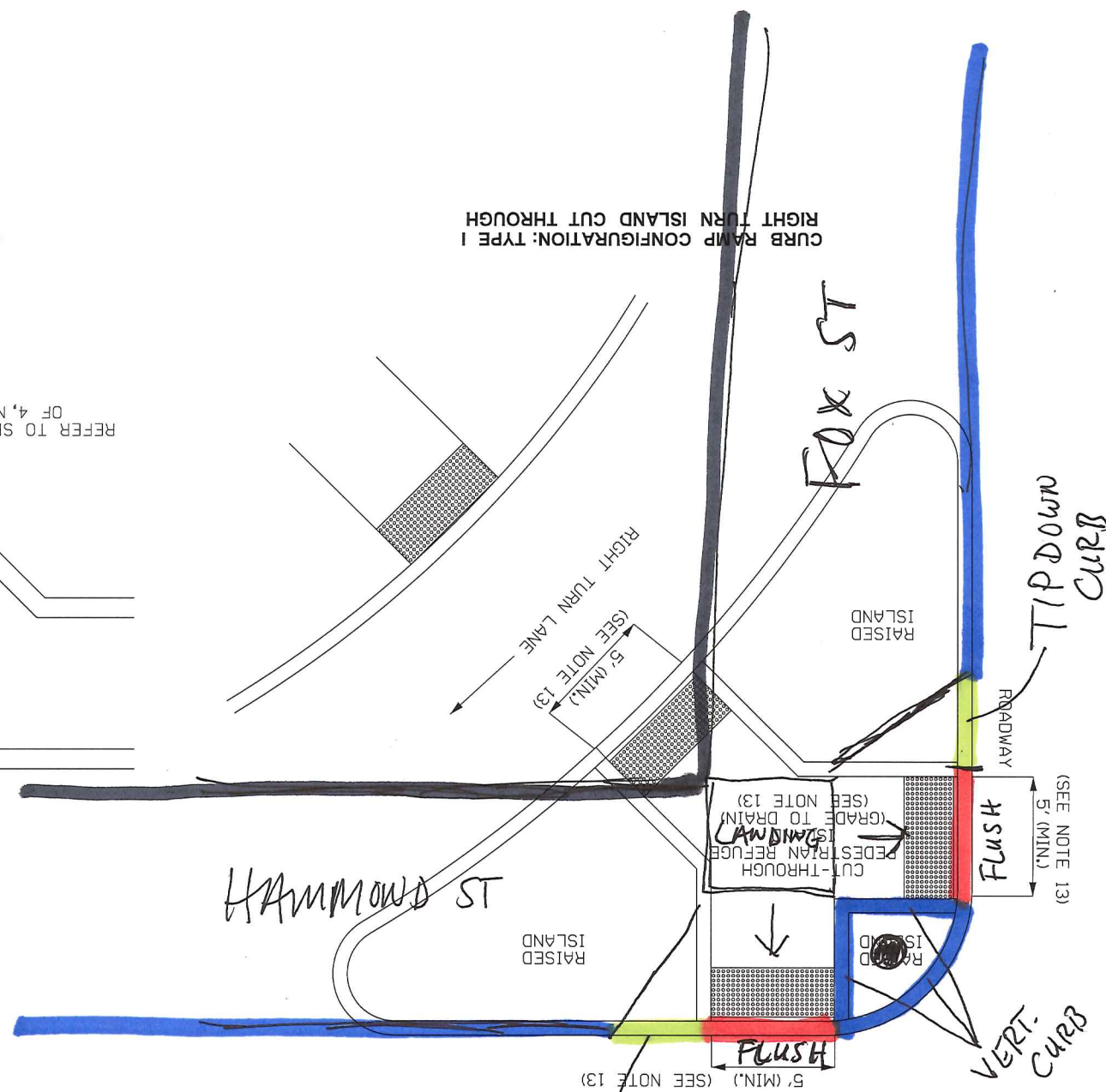
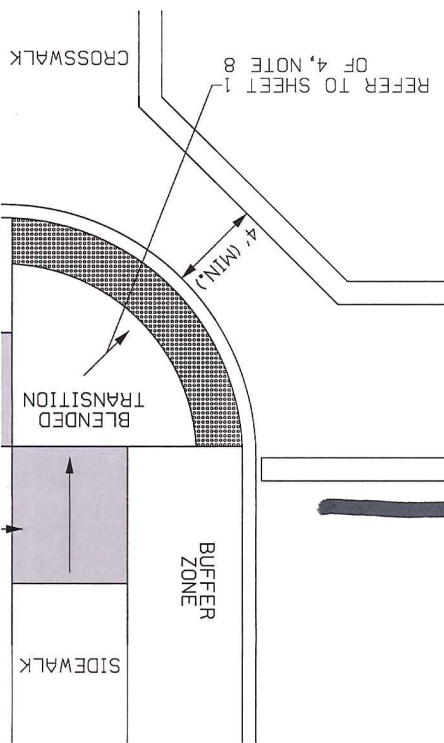
Fox St

Prud'homme Dr

WINTKROP ST

PRUD/BART
4/3/19

CURB RAMP CONFIGURAT
NOT RECOMMEND



TIPDOWN CURB

PSUD/BAH
4/3/19



PTUD/BAH
4/3/19



Matthew Grooms <mgrooms@portlandmaine.gov>

10 Hammond Street

Mike Tremblay <mtremblay@portlandmaine.gov>
To: Matthew Grooms <mgrooms@portlandmaine.gov>

Mon, Apr 1, 2019 at 1:21 PM

Matt,

Some comments on 10 Hammond -

- Fox Street will be repaved sometime between July and September 2019. The proposed storm drain connection to Fox Street shall be installed prior to paving in order to avoid opening Fox Street during the moratorium period.

- Curb ramps shall be provided at each landing point to both crosswalks shown in the site plan. Currently, ramps are not shown; only detectable warning panels are shown on the drawings and in the details. Panels are only shown on the western landing of the crosswalk across Hammond Street and on the northern landing of the crosswalk across Fox Street. Ramps should be shown on the site plan, with details provided as necessary. Structures in the right-of-way that may affect crosswalk placement, including manholes, utility poles, etc., shall be shown on the plan to ensure ramps are not obstructed by these structures.

- The Applicant should clarify why the proposed crosswalk location across Fox Street east of Hammond Street was selected as opposed to the suggested location on the west side of Hammond Street.

- The emergency overflow shown on the back of the project site should not direct channelized stormwater onto public property. Stormwater not retained on-site should run off as sheet flow. I'll yield to Lauren's comments on this issue.

Thanks,
Mike

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



**Matthew Grooms** <mgrooms@portlandmaine.gov>

10 Hammond St. Infiltration Trench

Lauren Swett <lszett@woodardcurran.com>
To: Matthew Grooms <mgrooms@portlandmaine.gov>

Wed, Apr 3, 2019 at 11:52 AM

Thanks Matt,

I've reviewed the geotechnical memo that was provided on the infiltration trench. I agree with their approach and their analysis that the infiltration system would have minimal impact on a representative slope.

They note that they will be doing an exploration in the actual infiltration area in the future to verify their assumptions and analysis. It would be good to clarify when that investigation work is proposed (i.e. before/during construction construction), and a condition based on that timing added to provide the results to the City.

I also understand that there was discussion about changing the emergency overflow from a narrow channel to a wider outlet, more like a level spreader to spread the water out over the slope. I agree with that. As designed, there is less flow going to this area, and this overflow would only be used in the case that there's an extreme condition, like a really intense storm or if the infiltration system somehow failed (i.e. plugged with sediment) and that was the only place for water to exit the system. Eliminating the narrow channel, and allowing for a wider flow from the system in that extreme condition should work to reduce the risk to the slope during an overflow.

I don't have any other comments.

Any other questions, let me know.

Thanks,

Lauren

[Quoted text hidden]

Planning and Urban Development Department

Planning Division



Subject: R-6 Small Infill/Multi-family Design Review – 10 Hammond Street

Written by: Caitlin Cameron, Urban Designer

Date of Review: Tuesday, April 2, 2019

A final design review according to the *City of Portland Design Manual* Standards was performed for the revised proposal for new construction of a multi-family dwelling at 10 Hammond Street. The review was performed by Caitlin Cameron, Urban Designer, Shukria Wiar, Planner, and Matt Grooms, Planner. The project was reviewed against the *R-6 Small Infill Development Design Principles & Standards* (Appendix 7 of the Design Manual) as well as the *Two-family, Special Needs Independent Living Units, Multiple-family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters* (Section I of the Design Manual).

Applicant Response to Workshop 2:

The applicant has not revised the design since the March 26th workshop. In response to Planning Board feedback at the March 26th workshop, the applicant provided:

- Additional long view renderings:
 - Uphill on Fox Street
 - Downhill on Fox Street

Staff: The views are not sufficiently distant to provide the views requested. The request was to better understand the roof forms and appurtenances as well as the scale of the building from the public realm long views to access impacts on the public right-of-way. The views provided to staff show that the rooftop mechanicals are visible from a distance and warrant screening from all directions.

- Details: Additional information for front yard planters for clarification
Staff: The front yard design provides privacy and transition as well as a means for more viable landscape. The proposal of trees in this space may not be realistic given the space constraints and proximity to the building. In some locations, the planter edge may provide seating wall – staff do not recommend additional seating such as benches as this would push the building/sidewalk interface to be more institutional in character.
- Varied Roof Study: Planning Board members requested that even more be done to the building to mitigate the flatness and scale of the building, especially related to Fox Street. The submission includes a study of roof form variation where the height is differentiated between the grey portions of the building and the white portions. The applicant does not want to pursue this direction for cost and construction complexity reasons.
Staff: The variation does further break down the massing scale on Fox Street and Hammond Street.
- Rooftop Screening: Screening of rooftop mechanicals added (partial screening) – see Sheet A1-4 Roof Plan

Staff: Given the renderings shown to staff, these rooftop systems, though consolidated to the center of the roof, are still large and many in number and will be visible from long distances. They should either be screened from all directions or placed on the rear elevation away from neighboring residential properties.

Staff Recommendation:

Staff find the proposed design passes all of the criteria of the R6 Alternate Design Review – please refer to comments in the memorandum from March 26, 2019. The comments from that March 26 memo remain applicable to the design as presented.

Planning Board should discuss whether the design and application materials adequately responded to the comments and concerns from the Planning Board and public comment – especially around scale, form, and mass.

Staff further recommend a **condition of approval that the rooftop mechanicals be screened from all directions or than these mechanicals be placed on the rear wall of the building.**

Planning and Urban Development Department

Planning Division



Subject: R-6 Small Infill/Multi-family Design Review – 10 Hammond Street

Written by: Caitlin Cameron, Urban Designer

Date of Review: Tuesday, March 19, 2019

A design review according to the *City of Portland Design Manual* Standards was performed for the revised proposal for new construction of a multi-family dwelling at 10 Hammond Street. The review was performed by Caitlin Cameron, Urban Designer, Shukria Wiar, Planner, and Matt Grooms, Planner. The project was reviewed against the *R-6 Small Infill Development Design Principles & Standards* (Appendix 7 of the Design Manual) as well as the *Two-family, Special Needs Independent Living Units, Multiple-family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters* (Section I of the Design Manual).

Design Review Criteria:

The project was reviewed with the Alternative Design Review which has the following criteria:

- A. Proposed design is consistent with all of the Principle Statements
- B. The majority of the Standards within each Principle are met
- C. The guiding principle for new construction under the alternative design review is to be compatible with the surrounding buildings in a two-block radius in terms of size, scale, materials, and siting, as well as the general character of the established neighborhood, thus Standards A-1 through A-3 shall be met.
- D. The design plan is prepared by an architect registered in the State of Maine.

Findings of the Design Review:

The proposed design passes all of the criteria of the R6 Alternate Design Review – please refer to comments below:

- Staff find the applicant has adequately responded to the comments and concerns from the Planning Board and public comment.
- The revisions include
 - Simplification of the roof form to a compatible, simple flat roof with overhanging eaves (removal of stair towers and roof decks)
 - Massing and material variation and articulation elements introduced on street-facing facades to create scale and mass more similar to the traditional built patterns
 - Massing, material, and articulation variation introduced on the Fox Street-facing elevation to mitigate the scale impacts and relate to the composition patterns found in the context
 - Revise the entrance and building interface with the street to evoke the porches and front yard planters typically found in the R-6 residential context.

Design Review Comments (*red text denotes principles or standards that are not met; bold text denotes updated comment*):

Appendix 7: R-6 Infill Development

Principle A Overall Context – Met – see below.

- *A-1 Scale and Form:* The context is predominantly single and two-family buildings with simple forms, one and a half to two and half stories in height, vertical proportions, and masonry bases with clapboard siding. Larger multi-family buildings typically are 3 stories, use balconies or bay windows, flat roofs, and vertical proportions. In those rare instances where a larger scale, wider building has been built, the scale is mitigated by keeping setbacks as a buffer and through massing variation with elements such as bay windows and porches, and scaling elements such as canopies, material variation, and balconies. Some scale mitigation has been achieved by varying the massing at the front, maintaining a three-story flat roof, and varying materials – **in the revised proposal, significant and effective massing variation was introduced to better relate this larger building with the context.** The design creates façade compositions reminiscent of triple-deckers at the corners of the building to create a relatable scale and form. **Staff now find the design relates enough to the scale and form of the surrounding residential buildings. Staff suggested mass and scaling elements be incorporated and that the roof form be simplified in order to meet the standard – these were adopted.**
- *A-2 Composition of Principal Facades:* The façade composition takes the approach of using material placement, **massing variation, and articulation elements** to relate to a triple-decker composition. The strategies emphasize vertical proportions and provides local symmetry and windows. The façade composition is largely impacted by placement of circulation at the front façade and the overall width of the building, which at 80', is much wider than the surround buildings with which it shares the streetscape. Predominantly, traditional façade compositions include vertical proportions and narrower buildings. **The Fox and Hammond Street facades include relationships and elements that relate to the patterns found in the context.**
- *A-3 Relationship to the Street:* The street wall is maintained and building placement in relationship to the street is consistent with the neighboring properties. The building sits close to the street with a slight front yard setback buffer consistent with residential architecture in this neighborhood. The established pattern on this street varies – some buildings are directly at the sidewalk while others allow a small front yard setback to accommodate stoops, bays, and landscaping for privacy. Given the scale of this proposed building, a setback creates a respectful relationship and is in keeping with the patterns in the context. The building pattern also varies – there is not a clear, established rhythm of building/drive. This project incorporates a side driveway which does respect the building placement patterns of the streetscape/neighborhood. **At a detailed level, the building interface with the street is now compatible with the predominant character-defining architectural features of the neighborhood – raised planters, entrance porch with canopy, recessed entry. The project differs from historic homes in that the entrance is at the sidewalk grade – this is the result of Fair Housing and ADA requirements. The ground level residential units, though not as raised as most traditional homes, maintains a privacy through setbacks, planted buffers.**

Principle B Massing – Met – The building is larger in scale than what is found in the context in both height and width of the building. **The project revisions increased the amount of massing variation to elicit references to the proportions, forms, and massing found in traditional multi-**

family buildings and to mitigate the scale impact of this larger building adjacent to small, single family buildings. Staff find, though the project is larger in scale than the adjacent buildings, that the massing now creates a building that reflects and reinforces the traditional building character of the neighborhood.

- *B-1 Massing:* The proposed mass is wider on the street and longer in length on Fox Street than the typical building context. **Given the scale and massing of this new project is taller and wider than the residential context, the proposed massing variation breaks down the perceived scale.** In this case, the balconies, three-story flat roof, and material placement/articulation define portions of the building into smaller, vertical proportions that are harmonious with the massing of the existing buildings. **Where previously the building relied on surface-level elements to integrate the larger scaled building, now there are physical pushes and pulls to the massing – the effect is masses and forms that relate to the scale and proportions of the context.**
- *B-2 Roof Forms:* The proposed flat roof form is in keeping with the traditional multi-family building types found in the context. Simple forms define the context – **the roof was simplified to meet this standard and is referential of the simple, flat roofs found on the multi-family buildings nearby. This form is emphasized with a strong, overhanging cornice line.**
- *B-3 Main Roofs and Subsidiary Roofs:* There is a clear main roof form.
- *B-4 Roof Pitch:* The roof is flat.
- *B-5 Façade Articulation:* The project employs a covered entry, bay window.
- *B-6 Garages:* The garage is attached and buried with a side entry and living space above.

Principle C Orientation to the Street – Met – There are some living spaces at the ground level separated from the sidewalk with a front setback and balconies – these provide a positive and contextual level of activity towards the street while appropriately raised above and setback from the sidewalk for privacy. **The project entrance was revised to provide a transition appropriate to the small-scale residential street (recessed entry, porch canopy, front setback.**

- *C-1 Entrances:* The main entry directly faces the street and is emphasized by **a recessed entry, special materials, canopy, and side lights.**
- *C-2 Visual Privacy:* Visual privacy is adequately addressed; all living spaces are elevated **or set back from the street with a planter/balcony buffer.**
- *C-3 Transition Spaces:* The transition from the sidewalk to the building entrance **was revised to provide a more residential-style transition from sidewalk to entry with a recessed entry, “porch” with canopy.** The front setback with ground level plantings and artwork and the direct vestibule provide a transition – **the more commercial aspects of the sidewalk interface and entrance were removed to provide a more residential character. The ground floor living spaces have a buffer from the street with plantings, balconies.**

Principle D Proportion and Scale – Met – The proportion and massing of the front façade was revised to be referential of the vertical proportions of triple-deckers – this is addressed by creating a façade composition through materials and articulation that relates to the proportions found in the context. Some individual building elements are human-scaled. **Staff previously expressed that more could be done to introduce substantial scaling elements beyond applied material and trim elements – this was accomplished with changes to the front façade massing and planes, the relationship of the roof line and balconies, and the recess of the central circulation space.**

- *D-1 Windows:* The majority of windows are rectangular and have a vertical proportion, though different size and proportion from what is found in the context. The entrance and balconies have additional window types appropriate for the uses behind.
- *D-2 Fenestration:* The project appears to meet the 12% fenestration requirement and appropriately scaled to the massing of the building. Window variation follows programmatic needs inside. The side elevations include an appropriate level of fenestration given the scale and proportions of the facades.
- *D-3 Porches:* The balconies meet the size and integration requirement.

Principle E Balance – Met – The building façade composition creates a sense of balance with good use of overall and local symmetry and articulation of façade materials.

- *E-1 Window and Door Height:* The majority of window and door head heights align along a common horizontal datum.
- *E-2 Window and Door Alignment:* The majority of windows shall stack so that centerlines of windows are in vertical alignment.
- *E-3 Symmetricality:* Primary window compositions are arranged symmetrically around discernable vertical axes.

Principle F Articulation – Met – Articulation is provided through material texture, strong, overhanging cornice lines, changes in façade planes, and emphasized entry.

- *F-1 Articulation:* The design uses balconies, bays, a strong roof line, and the texture of the material to provide surface articulation and visual interest.
- *F-2 Window Types:* **More than two window types are used** – there is design justification for some of the variation (circulation, inactive uses). Windows are rectangular with vertical proportion but **type differs from the double-hung windows found in the surrounding residential context.**
- *F-3 Visual Cohesion:* The visual cohesion of the Hammond Street façade is good. The massing variation and material placement are harmonious with the intent to relate the building to the smaller scale residential context.
- *F-4 Delineation between Floors:* The balconies provide the most apparent floor delineation. The entry canopy also makes this distinction.
- *F-5 Porches, etc.:* **The entrance was revised to be similar to a porch – the recessed entry and extended canopy are incorporated into the design.** The balconies meet this standard – integrated into the overall massing and façade composition.
- *F-6 Main Entries:* **The character of the entrance was revised to reference residential characteristics – recessed entry, extended canopy/porch roof, special materials, side lights.** The main entry is emphasized with prominent placement facing the street.
- *F-7 Articulation Elements:* The rake of the roof meets the 6" requirement; no trim; offsets in the principal façade are at least 12", cornice line is pronounced.

Principle G Materials – Met – The material choices of clapboard and panel with brick foundation are contextual and fine-grained. Material placement is used to mitigate the scale of the building. **The material variation on the side facades was revised; material variation now used to accentuate massing variation and help mitigate scale impacts of the building.**

- *G-1 Materials:* The residential context is predominantly clapboards with occasional shingle or brick. The clapboard is a fine-grain materials in keeping with the context. Brick at the ground floor is logical and grounds the building.

- *G-2 Material and Façade Design:* The materials are appropriately placed according to their nature. The use of clapboard relates the building to the context. The natural wood material emphasizes the entrance. The material placement on Hammond Street helps break down the façade composition and delineate the circulation and entrance from the living spaces. **Material placement follows the rationale of the massing and façade composition.**
- *G-3 Chimneys:* Not applicable.
- *G-4 Window Types:* **More than two window types are used on the front façade** – the variation in most cases follows program (balcony doors, entrance windows). Detailing is consistent throughout.
- *G-5 Patios and Plazas:* n/a

(i) Two-family, Special Needs Independent Living Units, Multiple-Family, Lodging Houses, Bed and Breakfasts, and Emergency Shelters (red text denotes standards that are not met; bold text denotes updated comments):

Standard 1 – Met – The project design includes certain strategies of material placement, massing variation, and articulation to create proportions and scale that relate to the context of single and two-family homes. Simple roof forms are predominant throughout the East End context – a flat roof is appropriate here for a multi-family building made up of mostly one and a half and two and half story buildings with simple roof forms. Given the scale and massing of this new project is taller and wider than the residential context, **revisions include additional design elements to meet the standards around compatibility especially around scale, simplicity of materials, form, and articulation.**

Standard 2 – Met – The building sits close to the street with a slight front yard setback buffer consistent with residential architecture in this neighborhood. The established pattern on this street varies – some buildings are directly at the sidewalk while others allow a small front yard setback to accommodate stoops, bays, and landscaping for privacy. Given the scale of this proposed building, a setback creates a respectful relationship and is in keeping with the patterns in the context. The building pattern also varies – there is not a clear, established rhythm of building/drive. This project incorporates a side driveway which does respect the building placement patterns of the streetscape/neighborhood. **The entrance and building interface with the street was revised to become more residential in character. The artwork, branding were removed in favor of more subtle, residential characteristics such as an extended canopy similar to a porch structure, recessed entry, side lights.** This building does differ from the established context in the width of the building itself – this building is much wider than the residential buildings in the context. **The revisions incorporate scaling and articulation elements to relate to its residential context and the predominant character surrounding.**

Standard 3 – Met – The project provides balcony space for each dwelling unit.

Standard 4 – Met – The project has a high level of fenestration and the provision of balconies also contributes to residents' access to light and air. Storage is provided within each unit.

Standard 5 – Met – The parking is structured and screened from view. The garage door is side-facing accessed from a side yard driveway.

Standard 6 – Not Applicable



Matthew Grooms <mgrooms@portlandmaine.gov>

10 Hammond Street - Final Traffic Comments

Tom Errico <thomas.errico@tylin.com>

Fri, Feb 22, 2019 at 9:44 AM

To: Matthew Grooms <mgrooms@portlandmaine.gov>

Cc: Bruce Hyman <bhyman@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Keith Gray <kgray@portlandmaine.gov>, Michael Tremblay <mtremblay@portlandmaine.gov>, "Jeff Tarling (JST@portlandmaine.gov)" <JST@portlandmaine.gov>

Hi Matt – I have reviewed updated application materials and offer the following Final Traffic Comments.

- Sight distance measurements shall be provided at the driveway.

Status: The Applicant has noted that acceptable sight distance will be provided. A condition of approval should include details that requires the property line fence to be designed to maximize sight distance to both vehicles and pedestrians.

- I support a waiver from the City's Technical Standards for driveway width given low traffic volumes and traffic characteristics on Hammond Street.

Status: I have no further comment.

- The Applicant shall provide additional information in support of the waiver from the City's standard for driveway separation. This shall include the proposed driveway separation and factors that prevent maximizing separation.

Status: The driveway location is based on maximizing the distance from Fox Street and building design. Given these factors and low traffic volumes on Hammond Street and from the development, I support a waiver from City Standards.

- The Applicant should identify strategies for avoiding backing maneuvers for the two outside parking spaces.

Status: The Applicant has noted that vehicles in the noted spaces can utilize the garage entry for maneuvering. I find this to be acceptable.

- Dimensions for the two outside parking spaces shall be provided.

Status: Dimensions have been provided and I have no further comment.

- Contractor parking in the neighborhood is not permitted and should be specifically noted. Additionally, sidewalk impacts and closure details shall be provided.

Status: The Applicant has noted that contractor parking restrictions have been incorporated. No details on sidewalk closures have been provided and I suggest a condition that this be resolved prior to issuance of any City Permit.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director

TYLIN INTERNATIONAL

[12 Northbrook Drive](#)

Falmouth, ME 04105

+1.207.781.4721 main

+1.207.347.4354 direct

+1.207.400.0719 mobile

+1.207.781.4753 fax

thomas.errico@tylin.com

Visit us online at www.tylin.com

[Twitter](#) | [Facebook](#) | [LinkedIn](#) | [Google+](#)

"One Vision, One Company"

To: Matthew Grooms, Planner, Planning & Urban Development Department

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

Date: April 5, 2019

Subject: 10 Hammond Street – Inclusionary Zoning Conditional Use

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.

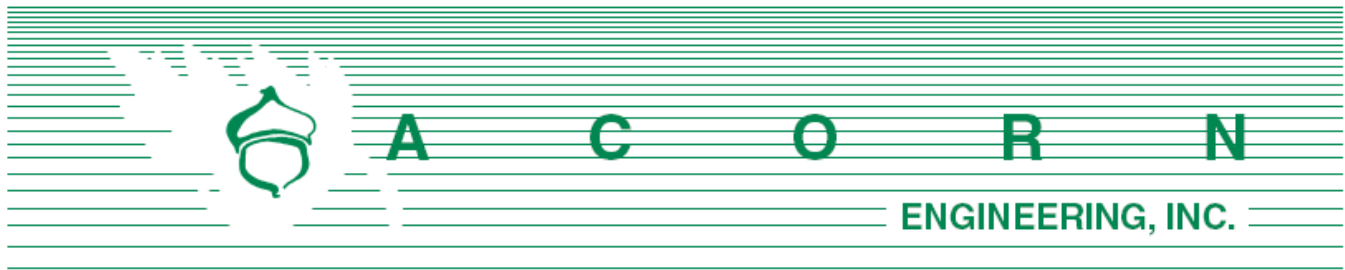
As an alternative to providing workforce housing units, developers shall pay a fee-in-lieu of some or all of the units. The fee for affordable units not provided shall be \$100,000 per unit, adjusted annually in the same way as the fee under Division 29 for Housing Replacement. The calculation of dwelling 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 10 Hammond Street proposes the creation of 16 condominium 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 \$169,744 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 \$169,744 be paid into the City's Housing Trust Fund prior to issuance of the certificate of occupancy for 10 Hammond Street. Should at a later date any change in total unit count be considered, a revised proportional fee-in-lieu payment will also be required.

Sincerely,

Victoria Volent
Housing Program Manager



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

November 26, 2018

Subject: Level III Final Site Plan/Subdivision Application
Redevelopment of 4-12 Hammond Street

To Whom It May Concern:

On behalf of The Preserve at South Ridge, LLC, we are pleased to submit the accompanying package of submission materials related to the proposed redevelopment along 4-12 Hammond Street. The project proposes to construct a 3-story, 16-unit residential building with subsurface parking. The design has incorporated a side driveway which takes advantage of the existing slope to the rear, effectively "hiding" the parking and allowing the garage door to be absent from the front façade. The project site is located within the City's R-6 Zoning District in the East Bayside Neighborhood and complies with the permitted uses within the zone. This submission package is intended to meet the City's Submission Requirements as outlined in the Level III Site Plan Application procedures.

Based upon the 10% workforce unit requirement, the project currently anticipates either building one unit on site and paying the fee-in-lieu for the remaining 0.6 requirement or building two units on site.

We are pleased to submit this application which will increase the housing stock, implement stormwater best management practices to the site, and improve the streetscape by rebuilding the sidewalk, incorporating sculptures created by local artists, planting street trees, and closing a curb cut adjacent to the intersection at Fox Street.

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,

A handwritten signature in black ink, appearing to read "Will Savage", is placed above the printed name.

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

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

Documents:

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

Drawings:

- Civil Site Plan Set, Dated 11/26/18
- Architectural Plan Set, Dated 11/21/18





April 3, 2019
SGS #19099

Kevin O'Rourke
The Preserve at South Ridge, LLC
94 South Street
Yarmouth, ME 04096

RE: Preliminary Evaluation of Proposed Infiltration Trench
10 Hammond Street, Portland, Maine

Dear Kevin;

We have reviewed the information developed to date on the proposed development at the site. Our review was focused on the proposed infiltration trench at the southwest corner of the property and its potential impacts on the stability of the existing rip rap slope on the abutting property.

The infiltration trench consists of a 50 foot long by 6 foot wide by 2 foot deep depression. The bottom of the trench is at elevation 21 feet and the emergency outflow is at elevation 22.6 feet. The maximum water head in the trench will be 1.6 feet. The existing ground surface is at or near elevation 23 feet. Thus the base of the trench will be 2 feet below the existing ground surface.

The top of the infiltration trench is located 3 feet from the existing property line. The ground surface at the abutting property slopes down from the property line at elevation 23 feet to a parking lot with a surface elevation of 14 feet. The slope is approximately 2.5H:1V.

SGS has completed geotechnical investigations on several adjacent properties. Based on this work, we believe that the soil in the area of the proposed infiltration trench consists of fill over a marine regressive sand deposit over silty clay or glacial till. The Maine Geological Survey surficial map indicates that the site is on the border of glacial till and the glacial marine deposit of the Presumpscot formation.

Based on a review of the above information, it is our opinion that the proposed infiltration trench will not compromise the stability of the adjacent slope. With the soil conditions we believe are present, primary flow from the trench will be vertical with minimal lateral flow or mounding. In the event that some lateral flow occurs, we do not believe it will break out of the slope. The 1.6 feet of head is not significant enough to cause instability of the slope.

The above opinion is based on available information not specific to this site. SGS will be completing explorations in the proposed infiltration trench area to verify that the opinion above

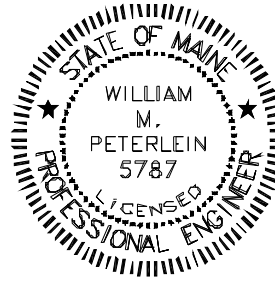


is valid. In the event that subsurface conditions are discovered that are different than those assumed and that could potentially create a slope stability issue, SGS will work with Acorn Engineering to provide solutions to mitigate the potential instability of the slope caused by the infiltration trench.

Respectfully Submitted,
Summit Geoengineering Services, Inc.

A handwritten signature in blue ink, appearing to read "William M. Peterlein".

William M. Peterlein, P.E.
President & Principal Engineer



Portland, Maine



Yes. Life's good here.

Planning & Urban Development Department

LEVEL II and LEVEL III APPLICATION SUBMISSION CHECKLIST

Submit each Tab as one PDF file and bookmark the items as noted below

Please confirm by electronically checking the boxes to the left

Tab 1 – General Application Documents

Checklist	Items to be Provided
Yes ☒ NA ☐ Plan ☐	PROJECT DESCRIPTION Cover Letter with detailed project description
Yes ☒ NA ☐ Plan ☐	COMPLETED CHECKLIST – LEVEL II APPLICATION
Yes ☒ NA ☐ Plan ☐	RIGHT, TITLE AND INTEREST Deeds, leases, or purchase and sales agreements
Yes ☐ NA ☒ Plan ☐	EVIDENCE OF STATE OR FEDERAL APPROVALS , if applicable Permits or letters of non-jurisdiction, if applicable
Yes ☒ NA ☐ Plan ☐	ZONING ASSESSMENT Table listing required and proposed uses and dimensional standards <u>Zoning Assessment Table</u>
Yes ☐ NA ☒ Plan ☐	EXISTING &/OR PROPOSED EASEMENTS OR COVENANTS , if applicable Evidence of existing easements and any proposed easements
Yes ☒ NA ☐ Plan ☐	WAIVER REQUESTS Written request for waiver describing request and reason. <u>Waiver Table</u>
Yes ☒ NA ☐ Plan ☐	FINANCIAL CAPABILITY Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
Yes ☒ NA ☐ Plan ☐	TECHNICAL CAPABILITY Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

LEVEL II AND LEVEL III SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.

Submit each Tab as one PDF file and bookmark the items as noted below

Tab 2 - TRANSPORTATION

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

Tab 3 - ENVIRONMENTAL AND LANDSCAPE FEATURES			
Check list			Assess/Provide/Document:
Yes	NA	Plan	Preservation of Significant Natural Features (14-526 (b) 1), if applicable - Trees, plants, habitats listed on State or Federal list of endangered or threatened - High and moderate value waterfowl and wading habitat - Aquifers on Casco Bay Islands - Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) - Proposed preservation areas and protection measures - Documentation from environmental consultants, determinations from applicable state agencies
☐	☒	☐	
Yes	NA	Plan	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	Plan	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	Plan	Parking Lot Landscaping (14-526 (b) 2 b ii), if applicable Landscaped islands within parking areas (Technical Manual, Section 4)
☐	☒	☐	
Yes	NA	Plan	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
☒	☐	☐	
Tab 4 - ENVIRONMENTAL AND STORMWATER			
Check list			Assess/Provide/Document:
Yes	NA	Plan	Water Quality, Stormwater Management and Erosion Control (14-526 (b) 3 a) - Stormwater report in compliance with Section 5 of Technical Manual and DEP Chapter 500 stormwater for basic, general and flooding standards, as applicable - Erosion control plan and measures - Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater, as applicable - Subsurface sanitary sewage disposal and groundwater protection
☒	☐	☐	

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

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

Level II and Level III Site Plan Checklist Please upload the following drawings with the listed details into e-Plan	
☐	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 & RENDERINGS including:
• Exterior building elevations, color renderings, illustrations of all sides • Location and dimensions of all existing & proposed HVAC & mechanical equipment, all proposed screening • Provide context drawings, if applicable (Design Manual, page 1) • Floor plans

Section C

Right, Title, Interest



Warranty Deed
(Maine Statutory Short Form)

DLN: 1001840038397

KNOW ALL PERSONS BY THESE PRESENTS THAT, WE, Robert A. DiDonato and Mary A. DiDonato, with a mailing address of 10 Hammond Street, Portland, Maine 04101, for valuable consideration paid by **Kevin P. O'Rourke**, with a mailing address of 94 South Street, Yarmouth, Maine 04096, the receipt and sufficiency whereof is hereby acknowledged, does hereby **GIVE, GRANT, BARGAIN, SELL AND CONVEY**, unto the said **Kevin P. O'Rourke**, his heirs and assigns, with **WARRANTY COVENANTS**, a certain lot or parcel of real property, with the buildings thereon, situated in the City of Portland, County of Cumberland, State of Maine, bounded and described as follows:

**PROPERTY DESCRIBED IN "EXHIBIT A" ATTACHED HERETO AND
MADE A PART HEREOF**

Meaning and intending to convey the premises conveyed to Robert A. DiDonato and Mary A. DiDonato, as joint tenants, by virtue of a deed dated April 4, 1984 and recorded in the Cumberland County Registry of Deeds at Book 6420, Page 257.

The premises are conveyed together with and subject to any and all easements or appurtenances of record, insofar as the same are in force and applicable.

Witness our hands and seals this 14 day of September, 2018.

WITNESS

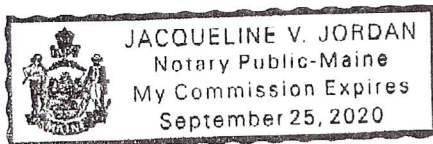
Robert A. DiDonato
Robert A. DiDonato

WITNESS

Mary A. DiDonato
Mary A. DiDonato

STATE OF MAINE
COUNTY OF CUMBERLAND

Personally appeared before me on this 14 day of September, 2018 the above-named Robert A. DiDonato and Mary A. DiDonato and acknowledged the foregoing instrument to be their free act and deed.



[Signature]
Notary Public/Attorney At Law

Exhibit A

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

Beginning at the northerly corner of the lot of land which James Dinsmore, Jr. conveyed to John R. Morse by deed dated February 23, 1853 and recorded in the Cumberland County Registry of Deeds in Book 244, Page 273, and from said point of beginning running southerly by said Hammond Street about thirty (30) feet to land which said John S. Morse conveyed to Josiah Murch by deed dated June 24, 1854 and recorded in said Registry of Deeds in Book 255, Page 411, and from these two points extending westerly, holding the width of about thirty (30) feet as aforesaid, one hundred twenty (120) feet, more or less, to the rear line of said lot conveyed to said Morse by said Dinsmore.

Warranty Deed
(Maine Statutory Short Form)

DLN: 1001840038396

KNOW ALL PERSONS BY THESE PRESENTS THAT, WE, Robert A. DiDonato and Mary A. DiDonato, with a mailing address of 10 Hammond Street, Portland, Maine 04101, for valuable consideration paid by **Kevin P. O'Rourke**, with a mailing address of 94 South Street, Yarmouth, Maine 04096, the receipt and sufficiency whereof is hereby acknowledged, does hereby **GIVE, GRANT, BARGAIN, SELL AND CONVEY**, unto the said **Kevin P. O'Rourke**, his heirs and assigns, with **WARRANTY COVENANTS**, a certain lot or parcel of real property, with the buildings thereon, situated in the City of Portland, County of Cumberland, State of Maine, bounded and described as follows:

**PROPERTY DESCRIBED IN "EXHIBIT A" ATTACHED HERETO AND
MADE A PART HEREOF**

Meaning and intending to convey the premises conveyed to Robert A. DiDonato and Mary A. DiDonato, as joint tenants, by virtue of a deed dated February 5, 2015 and recorded in the Cumberland County Registry at Book 32075, Page 4.

The premises are conveyed together with and subject to any and all easements or appurtenances of record, insofar as the same are in force and applicable.

Witness our hands and seals this 14 day of September, 2018.

WITNESS

WITNESS

Robert A. DiDonato

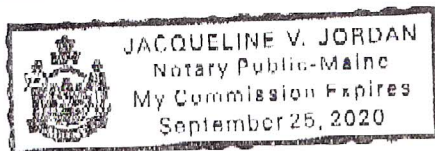
Robert A. DiDonato

Mary A. DiDonato

Mary A. DiDonato

STATE OF MAINE
COUNTY OF CUMBERLAND

Personally appeared before me on this 14 day of September, 2018 the above-named Robert A. DiDonato and Mary A. DiDonato and acknowledged the foregoing instrument to be their free act and deed.



[Signature]

Notary Public/Attorney At Law

Exhibit A

A certain lot or parcel of land together with any buildings thereon, situated on the westerly side of Hammond Street, in said the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning on said westerly side of Hammond Street at the easterly corner of Lot 27 on plan recorded in Cumberland County Registry of Deeds in Book 19, Page 182; thence northwesterly by Hammond Street thirty (30) feet and from these two points extending southwesterly at right angles and holding the width of thirty (30) feet, one hundred twenty (120) feet, more or less, said premises are otherwise described as follows: Land with house and garage on the west side of Hammond Street, Number 8, Portland, Maine, one the City Assessors' Plan 12, Bock C, Lot 8, Area thirty-seven hundred and thirty-two (3732) square feet.

**Warranty Deed
(Maine Statutory Short Form)**

DLN: 1001840041592

KNOW ALL PERSONS BY THESE PRESENTS THAT, I, Maryann Maloney, with a mailing address of 6 Hammond Street, Portland, Maine 04101, for valuable consideration paid by **Kevin P. O'Rourke**, with a mailing address of 94 South Street, Yarmouth, Maine 04096, the receipt and sufficiency whereof is hereby acknowledged, does hereby GIVE, GRANT, BARGAIN, SELL AND CONVEY, unto the said **Kevin P. O'Rourke**, his heirs and assigns, with **WARRANTY COVENANTS**, a certain lot or parcel of real property, with the buildings thereon, situated in the City of Portland, County of Cumberland, State of Maine, bounded and described as follows:

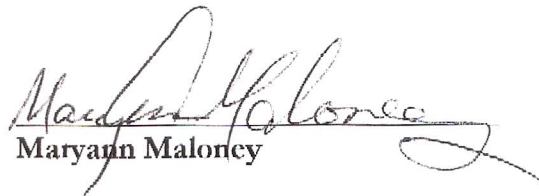
**PROPERTY DESCRIBED IN "EXHIBIT A" ATTACHED HERETO AND
MADE A PART HEREOF**

Meaning and intending to convey the premises conveyed to Maryann Maloney by virtue of a deed dated February 25, 1982 and recorded in the Cumberland County Registry of Deeds at Book 4927, Page 92.

The premises are conveyed together with and subject to any and all easements or appurtenances of record, insofar as the same are in force and applicable.

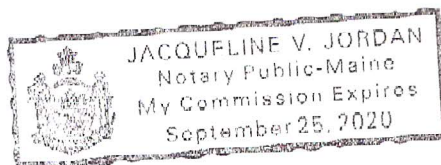
Witness my hand and seal this 19 day of October, 2018.

WITNESS


Maryann Maloney

**STATE OF MAINE
COUNTY OF CUMBERLAND**

Personally appeared before me on this 19 day of October, 2018 the above-named **Maryann Maloney** and acknowledged the foregoing instrument to be her free act and deed.



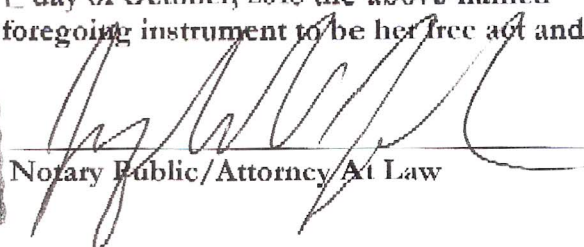

Notary Public/Attorney At Law

Exhibit A

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

Beginning on said westerly side of said Hammond Street at the northeasterly corner of land formerly occupied by M. Purcelle; thence westerly by said Purcelle land about sixty-three (63) feet to land formerly of one Powers; thence northerly by said Powers land about twenty-five (25) feet to land formerly of Bridget Clougherty; thence easterly by said Clougherty land about sixty-three (63) feet to said Hammond Street; thence southerly by said Hammond Street about twenty-five (25) feet to the place of beginning; being premises numbered six (6) on said Hammond Street as delineated on a plan recorded in Cumberland County Registry of Deeds in Plan Book 5, Page 12, to which plan reference is hereby made.

Also, all our interest in a parcel of land on the westerly side of Hammond Street, on the southerly side of the above-described premises, which a frontage of thirty-five (35) feet, more or less, on Hammond Street and a depth of sixty-five (65) feet, bounded southerly by lot numbered 25 on the plan of division recorded in said Registry of Deeds in Book 36, Page 247, and northerly by the first parcel herein, which parcel has been occupied and used in connection with the house numbered 6 Hammond Street, for many years.

Also, a certain lot or parcel of land located in the rear of 11-13 Cove Street in said City of Portland, more particularly described as follows:

Beginning at the northeasterly corner of land of Gertrude L. Curran, said corner being seventy-five (75) feet distant, more or less, southwesterly from the easterly sideline of Cove Street and said bound also marking the northwesterly corner of land of Bessie McCarthy; thence southeasterly by the northeasterly sideline of land of said McCarthy and land of Ralph Tucci, et al. fifty-eight (58) feet, more or less, to a point and land of Lincoln R. Guimond et al; thence in a general northerly direction by the westerly sideline of land of said Guimond on three different courses a distance of sixty (60) feet, more or less, to the northwesterly corner of land of the said Guimond and land of Rocco DiDonato et al., thence in a general westerly direction by the southerly sideline of land of the said DiDonato sixty (60) feet, more or less, to the southwesterly corner of land of the DiDonato and land of the Portland Renewal Authority; thence southeasterly by other land of said Authority sixty (60) feet, more or less, to the northeasterly corner of land of said Curran and the point of beginning.

This conveyance is subject to all of the restrictions, covenants and agreements contained in the Indenture by which said premises were conveyed to Lincoln R. Guimond and Patricia A. Guimond by Portland Renewal Authority.

The foregoing, as all the other covenants contained in the aforesaid Indenture to Lincoln R. Guimond and Patricia A. Guimond from Portland Renewal Authority, shall be a covenant running with the land and shall be enforceable in the same manner as prescribed in said Indenture for the enforcement of the covenants therein contained.

Section D

Zoning Assessment



**ZONING ANALYSIS**

Relevant Zone: R-6

All Projects:

	Required	Proposed
Lot Size	2,000 sf	15,433 sf
Area Per Dwelling Unit	725 sf	965 sf
Minimum Street Frontage	20'	120'
Front Yard Minimum	0 (abutter avg)	5.12'
Front Yard Maximum	NA	5.12'
Rear Yard	10'	13.4'
Yard Right	5'	29.5'
Yard Left	5'	10.5'
Side Street Setback	N/A	N/A
Step Back	10' @ 35'	> 10'
Maximum Lot Coverage	60%	56%
Minimum Lot Coverage	N/A	N/A
Maximum Height	45'	39.8'
Open Space	20%	25%
Maximum Impervious Area	80%	75%
Pavement Setback	N/A	N/A
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces	13	16
Loading Bays		
Other 1		
Other 2		
Other 3		

Planned Residential Unit Developments (PRUD) Requirements

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

Affordable Housing Density Bonuses (if applicable)

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

Section E - Easements

There were no existing easement identified by the Surveyor within the Existing Conditions Plan.

There are no proposed easements at this time.



Section F

Request For Waivers



Standard to be Waived: Cite Ordinance or Technical Manual Standard	Cite Standard Language: Cite specific language of applicable Ordinance or Technical Manual Standard	Waiver Being Sought: Describe waiver being sought. Ex. – We are requesting a two-way parking lot drive aisle width of 20' feet.	Justification for Waiver: Address specific waiver criteria, if applicable, and document reasons for the waiver request.
Technical Manual 1.7.2.3 Driveway Width	Any site with driveway access to a street shall have a minimum width of 20 feet for two-way ingress and egress	We are requesting to reduce the driveway width to 18'	The waiver is being sought to reduce the impervious area, the impact of the development, and the width of the curb cut. The circulation has been verified to be functional. Additionally, due to the low turnover, the driveway will rarely see two opposing vehicles
Technical Manual 1.7.2.7 Location and spacing of driveways	100' separation between driveways for a 25 mph road.	To reduce the 100' requirement	Given the density of the neighborhood, it is not feasible to provide 100' of separation. As discussed at
		at the pre-app meeting, the intent is locate the driveway as far away from the intersection as possible from a safety perspective. Furthermore, the design of the building and site is in line with the City's design standards for "hiding" the parking and allowing for livable space along the front facade. Overall, the existing condition will be improved upon by closing one of the two existing curb cuts which is relatively close to the intersection of Hammond and Fox.	



November 19, 2018

City of Portland, Planning Division

389 Congress Street, 4th Floor

Portland, ME 04101

RE: 16 unit Condominium Project

To whom it may concern:

Kevin O'Rourke and his related companies are well known to Camden National Bank. I have worked with Kevin for more than 5 years and have been directly involved in the financing of successful projects. With the expected financial contribution from Kevin and Bank financing that we will be entertaining, there is expected to be sufficient financial capacity to successfully complete the proposed project. We are looking forward to more substantive conversations as the project materializes.

Please feel free to contact me should you need any additional information, I can be reached at (207) 930-3909.

Sincerely,

Paul Doody

Vice President

Camden National Bank

Section H - Technical Capacity

Acorn Engineering, Inc. and Ryan Senatore Architecture have successfully permitted and engineered over 20 level II/III projects in Portland in the past 5 years, many of which have been constructed. Some examples include:

- Eldredge Lumber Expansion
- 127 York Street – Harborview Townhomes
- Munjoy Heights
- 89 Anderson St. – East Bayside Lofts
- 667 Congress St – The Hiawatha



I. Conformity with Land Use Ordinance

The following outline is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use, Article V Section 14-526 as well as the City of Portland Technical Manual, Chapter 14 Standards for Local Site Location of Development Review.

OVERVIEW

The proposed 3-story, 16-unit residential multi-family building space 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 Hammond and Fox Streets, which are both classified as local streets and currently support a low traffic volume. A minimal traffic increase along Hammond Street is expected for this project due to the low turnover of the proposed principal land use.

2. Access and Circulation:

a. Site Access and Circulation:

This project conforms with the majority of design standards of Section 14-526 as demonstrated in the following narrative, with one minor dimensional variance of the driveway to reduce the site's impervious area.

- (i) The development will provide safe access and internal circulation for both pedestrians and vehicles as seen on the Site Plan.
- (ii) The proposed driveway has been located as far away from the Fox/Hammond intersection as possible. Additionally, the site will reduce the curb cuts from two to one.
- (iii) The site does not feature drive up services as mentioned in this requirement.

b. Loading and Servicing:

- (i) There are no anticipated loading and servicing needs.

c. Sidewalks:

- (i) A reinforced concrete sidewalk exists along Hammond Street which will be rebuilt as part of the project.
- (ii) The existing sidewalk will be rebuilt from the new driveway to Hammond Street.
- (iii) The main entrance to the building will be 5' off the Hammond Street sidewalk with a continuation of the concrete walk. Pedestrian access to the rear of the site will be provided by a sidewalk to a mid-level doorway between the garage and the first floor. Please refer to



the Site Plan, Sheet C-10, for more information.

3. Public Transit Access:

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

4. Parking:

a. Location and Required Number of Vehicle Parking Spaces:

- (i) The proposed project will provide 16 parking spaces which meets the requirement.
- (ii) A parking study is not required.
- (iii) The amount of parking exceeds the minimum requirement by more than 10%. The proposed 16 spaces exceed the requirement by 3 spaces. This is due to provide one space per unit, therefore decreasing the demand for on-street parking within East Bayside which is seeing a development boom and an overall higher demand for on-street parking. It is our professional opinion that 1 space per unit is a modest proposal that will benefit the end users as well as the entire neighborhood.
- (iv) The parking space and aisle dimensions are in conformance with the Technical Standards.
- (v) The driveway and parking areas will be constructed with reinforced concrete which will drain water without eroding.

b. Location and Required Number of Bicycle Parking Spaces:

- (i) The site plan includes an interior bicycle storage room. This will allow for the minimum storage of 6 bicycles to be parked in a secure location, with the potential for additional storage in this room.

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) The snow storage area can be seen on the site plan near the rear of the parcel. In addition, the Owner may have snow removed from the site when necessary.
- (ii) The snow storage has not been located where it will adversely impact the functionality of any part of the site.

5. Transportation Demand Management (TDM):

- a. A TDM plan is not required for this project.
- b. A TDM plan is not required for this project.



- c. A TDM plan is not required for this project.

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

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

2. Landscaping and Landscaping Preservation:

a. Landscape Preservation.

- (i) The disturbance of trees and vegetation that are not proposed to be removed as part of the project will be limited as much as possible.
- (ii) There are no trees 10 inches DBH or greater identified by the Surveyor within the setbacks.
- (iii) It is not anticipated that the project will necessitate any tree protection.
- (iv) A waiver is not requested.
- (v) Not applicable.

b. Site Landscaping.

(i) Landscaped Buffers:

- a. All loading and dumpster locations will be screened from view.
- b. The project has 120 linear feet of frontage along Hammond Street; per requirement, it is required that a minimum of six shrubs or shrub alternatives per 45 feet of frontage are planted. The requirement is met through a combination of landscaping within the setbacks and internally within the site. Please refer to the Site Plan for more information.
- c. Not applicable.
- d. Not applicable.

(ii) Parking Lot Landscaping:

- a. Per Section 4.6 of the Portland Maine Technical Manual, 16 street trees are required (one per unit). Based on the property's frontage and the utilities – public and private, two shade trees are proposed to be planted within the sidewalk. The applicant will contribute to the City's Street Tree Fund in place of the 14 trees that will not be planted.
- b. There is no proposed area with greater than 40 parking spaces without interrupted pavement.
- c. Not applicable.
- d. Not applicable.



e. Not applicable.

f. Not applicable.

(iii) Street Trees:

a. Street trees are to be provided every 30 to 45 feet along the street frontage. This ratio equates to a minimum of two trees. Two shade trees are proposed to be planted within the sidewalk, thus fulfilling the requirement.

b. Not applicable.

3. Water Quality, Stormwater Management and Erosion Control:

a. Stormwater:

(i) The site drainage will not be directed to flow or pond onto adjacent lots. The drainage patterns will be altered to intercept the roof runoff as well as the driveway runoff, with the addition of stormwater management practices to attenuate the flows.

(ii) Any stormwater that flows onto adjacent lots will not exceed the pre-development flows.

(iii) The runoff from the site into the City property will not increase from the pre-development condition.

(iv) Not applicable.

b. A site-specific Stormwater Management Plan has been developed for the project to show compliance with Section 5 of the Technical Manual, including the basic standards of MEDEP Chapter 500. Please refer to sections J and K, the Stormwater Management and Erosion & Sedimentation Control Plans, respectively, for more information.

c. The project is not located in a watershed of an urban impaired stream as listed by the MEDEP.

d. Not applicable.

e. The development is not anticipated to pose a contamination risk to groundwater during or after construction. The project will be serviced by a public wastewater system.

f. The development will provide for adequate and sanitary disposal of sewage in accordance with Section 2 of the Technical Manual.

(c) Public Infrastructure and Community Safety Standards

1. Consistency with City Master Plans:

a. The project has been designed to be consistent with the City's Zoning Ordinance and off-site infrastructure.

b. Not applicable.



2. Public Safety and Fire Prevention:

- a. The site has been designed to promote safe and inviting public access.
- b. Adequate emergency access has been provided. Access is available from Hammond Street as well as the 18' wide driveway.
- c. A fire hydrant is located on the same side of the street as the site on the corner of Hammond Street and Fox Street

3. Availability and Adequate Capacity of Public Utilities:

- a. Public utilities in the vicinity of the site have capacity to serve the project. Ability to Serve letters have been sent to the respective companies. Responses have been included in the submission and any remaining responses will be submitted upon receipt.
- b. The electrical service will be wired underground.
- c. The new sewer and stormwater infrastructure will meet the provisions of the Technical Manual.
- d. The project will be served by connection to the public sewer system within Hammond Street.
- e. The sanitary sewer collection system meets all applicable sections of the Technical Manual. The stormwater management system is designed to meet the standards of Chapter 500.
- f. Although not required, the project anticipates to provide internal solid waste storage with private hauling of the waste.

(d) Site Design Standards

1. Massing, Ventilation and Wind Impact:

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

2. Shadows:

- a. The shadows created by the building will not influence public open spaces.

3. Snow and Ice Loading:

- a. The structures will not distribute snow and ice onto adjacent properties.

4. View Corridors:

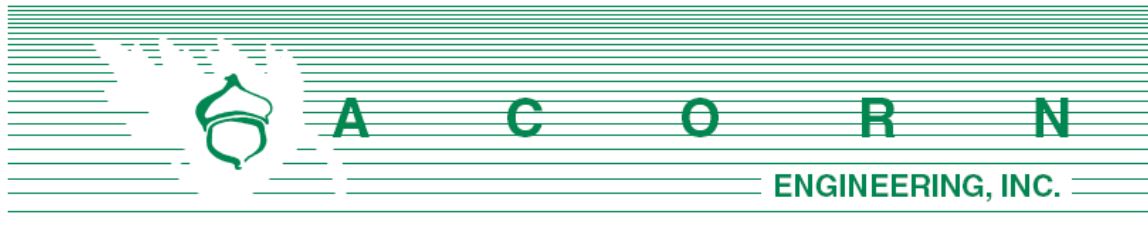
- a. The project site is located outside the Downtown Vision View Corridor Protection Plan.

5. Historic Resources:



- a. The development is not located in a historic district, historic landscape district or City designated landmark.
 - b. The development is not located adjacent to designated landmarks, historic district, or historic landscape district.
 - c. There are no known archaeological resources on the site.
6. Exterior Lighting:
- a. Site Lighting.
 - (i) Exterior lighting will be designed to meet the requirements of Section 12 of the Technical Manual. A photometric plan has been included with this submission.
 - (ii) Any lighting that may adversely impact the abutting residential properties will feature house-side shielding.
 - b. Architectural and Specialty Lighting.
 - (i) No architectural or specialty lighting is proposed.
 - (ii) No up-lighting is proposed.
 - c. Street Lighting.
 - (i) No new street lights are proposed.
7. Noise and Vibration:
- a. The HVAC system will meet the applicable state and federal emissions requirements and will also be screened and directed away from abutters.
8. Signage and Wayfinding:
- a. All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.
 - (i) The project is not located in a historic district or subject to Article IX.
 - (ii) Not applicable.
 - (iii) All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.
9. Zoning Related Design Standards:
- a. The project has been designed to meet the standards set forth in the R-6 zone. Please refer to the Site Plan for more information on the Space & Bulk Standards.





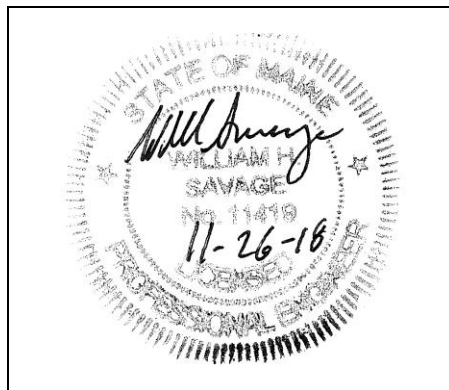
STORMWATER MANAGEMENT **REPORT**

Prepared For:

**The Preserve at South Ridge, LLC
94 South Street
Yarmouth, Maine 04096**

Prepared By:

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



November 2018

INTRODUCTION

Acorn Engineering, Inc. has been retained by The Preserve at South Ridge, LLC to provide civil engineering services for the proposed development of the Hammond House located along 4-12 Hammond Street in Portland, Maine. The project is a 16-unit urban infill redevelopment in East Bayside set into the steep slopes that run east to west. The majority of the on-site parking is within a subsurface garage. Three living levels will sit atop the garage.

A stormwater analysis will be prepared to demonstrate that the project will meet the following requirements of the City of Portland (the City):

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

The proposed project will include the redevelopment of existing impervious area including rooftops, asphalt and gravel driveways, and parking. The current course of action is to provide water quality treatment to the stormwater through filtration utilizing a Maine Department of Environmental Protection - Underdrained Subsurface Sand Filter approved stormwater Best Management Practice (BMP). This development shall incorporate green infrastructure to provide water quality treatment for no less than 95% of the new impervious area and 80% of the new developed area.

The stormwater analysis is documented with supporting calculations and reports attached to this narrative.

EXISTING CONDITIONS

The proposed project is located at the intersection of Fox and Hammond Street. The proposed lot is a combination of multiple properties which presently include Portland Tax Map 12-C-6,8,10,11, and 14 comprising 15,433 square feet. Portland has zoned this area as an R-6 Residential Zone. An existing conditions plan has been prepared by R.W. Eaton Associates dated 9/4/2018. All abutting uses are residential (R-6 zone) except to the west (B-5 zone).

The entire site is currently developed with 26% of it being impervious area which includes the existing buildings, the paved driveways, patio stones, an old skate ramp, and a covered firewood storage area. The grassed areas are in fair condition with some patches of exposed soils. From south to east the grades are gradual up to the structures where they then fall off at an average of 12%.

The project area presently drains the entirety of its runoff the abutting property to the west (117 Anderson Street – the Portland Housing Authority’s Maintenance Facility). It is likely that the runoff is contributing to the icing of the Facility’s parking lot that was observed in November of 2018 after a series of rain events and freezing temperatures.

The project team is not aware of the presence of any existing significant natural features located on the site. Given the urban setting, existing free-draining soils and steep slopes a



field inventory of significant natural feature was not undertaken. The project is not located within a watershed classified as an Urban Impaired Stream.

PROPOSED DEVELOPMENT

The Hammond House redevelopment proposes 16 units on 3 levels of living with a subsurface parking garage. The building will be set into the slope, taking advantage of the grade change to accommodate one parking space per unit while “hiding” the parking from the streetscape. A driveway will dive down at an average grade of 11% to the rear of the building.

The landscaping plan includes aggressive planting of trees and shrubs. The re-vegetation strategy proposes native plants in which will complement the new structure while offering environmental benefits such as reducing the heat island effect, stormwater uptake and treatment, reduction of erosion, provide wildlife habitat, and screening in between properties.

The development will be served by the Portland Water District, underground power/cable/communications, natural gas and the municipal sewer system. Solid waste and recycling will be contracted through a private waste disposal and recycling provider. The project anticipates incorporating Maine DEP approved stormwater Best Management Practices (BMP) to meet the General and Flooding Standards.

GENERAL STANDARDS - WATER QUALITY

The development shall provide water quality treatment for no less than 95% of the new impervious area and 80% of the developed area. The project includes the redevelopment of existing impervious area including rooftops and asphalt driveways and parking. Water quality treatment shall be provided through the use of an Underdrained Subsurface Sand Filter (USSF)

The USSF BMP was sized to meet or exceed the requirements set forth within the MDEP Volume III: BMPs Technical Design Manual Section 7.3. Filtration BMPs have been shown to be very effective at removing a wide range of pollutants from stormwater runoff. The stormwater runoff shall first flow into the StormTech Isolator Row which shall provide initial treatment, although sediment levels are anticipated to be low given the relative cleanliness of roof runoff with respect to solids. The stormwater will be detained within the chambers and surrounding aggregate before flowing vertically through the sand filter layer. The treated stormwater shall then be collected within perforated pipes and released slowly by the outlet control structure at an attenuated rate. The outlet will be routed to the separated storm system within Fox Street.

The treatment of the impervious surface is as follows:

Table 1 – Impervious Treatment Area Table

	Existing Impervious Area (SF)	Proposed Total Impervious Area (SF)	Proposed Impervious Area with No Treatment (SF)	Proposed Impervious Area with Treatment (SF)	Net change in Impervious Area (SF)	% Overall New Imp. Area Treated
USSF	4,009	11,565	3,427	8,138	7,556	108%



Furthermore, the minimum 80% treatment of new developed area is met and exceeded since the entirety of the existing site is already developed.

As shown above, the project anticipates meeting and exceeding the required treatment for new impervious surfaces and developed area through the use of the underdrained subsurface sand filter. Additionally, the plethora of native plants, the infiltration trench, and the catch basin will provide additional water quality benefits in addition to the treatment of the USSF.

A calculation for sand filter area is necessary to meet the requirements below the surface of the USSF. As defined in the Volume III: BMPs Technical Design Manual, Chapter 7, the surface area of the filter shall be no less than the sum of 5% of the tributary impervious area and 2% of the tributary vegetated area. The filter area is calculated by the following formula:

$$[(\text{Imp. SF} \times 0.05) + (\text{Veg. SF} \times 0.02)] = \text{Filter Area (SF)}$$

Please refer to Table 2 below.

Table 2 – Total Filter Surface Area, displays the proposed USSF sizing requirements, actual size and the percentage of required area.

Table 2 – Total Filter Surface Area			
	Required Filter Area (SF)	Actual Filter Area (SF)	Percentage of Required Area (%)
USSF BMP	407	410	101%

As shown, the size of the soil filter area will meet and exceed the surface area requirements.

In accordance with the Volume III: BMPs Technical Design Manual, a water quality volume of 1.0 inches times the tributary impervious area plus 0.4 inches times the tributary vegetated area is required to be treated by the USSF. The water quality volume is calculated by the following formula:

$$\left(\frac{\text{Imp. SF} \times 1.0''}{12''/1'} \right) + \left(\frac{\text{Veg. SF} \times 0.4''}{12''/1'} \right) = \text{Treatment Volume (CF)}$$

The proposed water quality volume is as follows:

Table 3 – Water Quality Volume Table				
	Vegetated Area (SF)	Impervious Area (SF)	Treatment Volume Required (CF)	Treatment Volume Provided (CF)
USSF BMP	0	8,138 SF	678	863*

*Derived from the HydroCAD model and the rainfall that produces 18" of ponding within the chambers. The storage volume within the crushed stone and chambers – the two layers above the filter sand – is then added together to calculate the water quality volume.



As shown, the size of the combined water quality volume will meet and exceed the treatment volume requirements.

Once the water quality volume is known an artificial rainfall event is created within HydroCAD, to mimic a storm event which equals the required water quality volume. Based upon the artificial rainfall event the depth of the water quality volume within the chamber system will not exceed 18", as required.

Provided the infiltration rates of the water quality volume through the sand filter are variable, a water quality outlet is modeled to provide the required minimum 24-hour release time. This is completed by adjusting the rainfall amount in HydroCAD until the inflow volume is equal to or greater than the calculated treatment volume. The storm events are modeled as type III, 24-hour storm events in HydroCAD.

A vertical orifice is modeled in HydroCAD at the outlet control structure. The orifice diameter is sized to detain the stormwater for an approximate period of 24 hours. The orifice shall be placed at the end of the larger outfall pipe on the outlet control structure baffle to be inspected or replaced if necessary. The orifice is intended to be a PVC cap placed on the outfall pipe (no glue) with the orifice drilled into the cap eccentrically. The PVC cap can be easily inspected, removed or replaced if necessary. The orifice for the water quantity volume is then set above the peak elevation determined for the water quality volume.

Isolator Row

Typically, an isolator row would have an access structure from both sides to inspect the accumulation of sediment/debris and remove when necessary. Given that many systems have a tributary area comprised of pavement and other ground-level developed areas, this requirement makes sense for these instances where the system would receive sand, debris, and organic matter eventually clogging up the filter fabric within the isolator row. However, within this project, the StormTech system will receive only roof runoff which will contain significantly less solids that would contribute to clogging of the fabric.

After consulting with a representative from Advanced Drainage Systems, the manufacturer of StormTech, they have communicated that an isolator row is not necessary when the watershed is comprised of 100% roof runoff because there are essentially no solids to remove from the inflow. This exception is routinely accepted in other states and was recently implemented in a site development project within Cumberland County. Within this project, an isolator row is proposed as a precautionary measure. There are no structures directly abutting the isolator row; however, two inspection ports and two cleanouts within the system will provide opportunity for maintenance in the unlikely event that sediment/debris builds up. Given the low sediment loading from roof runoff as well as the small footprint of the system itself, it our professional opinion that the access structure requirement for both ends of an isolator row within section 7.3 of the MDEP's Best Management Practice manual be waived.

The isolator row length was sized to meet the DEP's regulations where the number of chambers within the isolator row is equal to the peak inflow flowrate during a 1-year storm into the system divided by 0.2 cfs. The project proposes 3 chambers within the isolator row compared the yielded value of 2.45 from the above equation.



FLOODING STANDARD – WATER QUANTITY

The proposed project was modeled using HydroCAD to verify that the post-development conditions do not exceed the pre-development conditions. A 24-hour SCS Type III storm distribution for the 2, 10, and 25-year storm events were used. The corresponding rainfall amounts for these storms are 3.10", 4.60", and 5.80" respectively.

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

Time of Concentration (T_c)

Within the pre-development, calculating a T_c using site specific flow paths yielded less than 5 minutes when the sheet flow regime was capped at 100 feet (due to the steep sustained slopes). A consistent time of concentration (T_c) of 5 minutes was applied to each subcatchment for both the pre and post-development conditions given the urban setting and steep slopes.

Curve Number

Within the pre-development model, the vegetated areas were considered fair grass cover within the hydrologic soil group A. The fair rating is due to some of the patches and exposed soils throughout the site. In the post-development plan, the landscaped areas were considered good grass cover within the hydrologic soil group A. This is a conservative approach given the aggressive landscape plan which may be more accurately depicted as grass/woodlands combo due to the extensive root systems and canopy cover that will exist once the landscaping has matured.

Pre-development Calculations

The entirety of the existing site was modeled as one subcatchment given the existing contours. The site's runoff flows to the abutting property on Anderson Street which ultimately drains to the public drainage system in Anderson Street.

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

Peak flow rates for the storm events are as follows:

Table 4 – Pre-Development Peak Stormwater Flows			
Drainage Area	2 – Year Storm Event (cfs)	10 – Year Storm Event (cfs)	25 – Year Storm Event (cfs)
POI #1	0.1	0.5	0.8



Post-development Calculations:

The one predevelopment subcatchment was broken into three separate subcatchments for the post-development condition.

- Subcatchment 1 – This is comprised of the roof which will be routed to the USSF.
- Subcatchment 2 – This subcatchment is characterized as the driveway, the walkways, the retaining wall, the decks above, and the swale along the property line which will drain to the infiltration trench.
- Subcatchment 3 - This is comprised of the edges of property lines which may not drain to the infiltration trench as well as the first five feet of the property in front of the proposed building.

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

Table 5 – Comparison of Peak Flows						
Drainage Area	2 – Year Storm Event (cfs)		10 – Year Storm Event (cfs)		25 – Year Storm Event (cfs)	
	Pre	Post	Pre	Post	Pre	Post
POI #1	0.1	0.1	0.5	0.4	0.8	0.7

As shown in Table 5 the net impact of the post development peak flows will remain at or below the predevelopment levels. A post-development watershed map developed for this project can be viewed in Attachment B, and a copy of the HydroCAD calculations is included within Attachment C of this report.

Down Gradient Property Owners:

The post development (proposed) peak stormwater surface flows tributary to the down gradient property owners will significantly decrease. The proposed infiltration trench dimensions have been sized to contain the runoff from up to a 25-year storm event and promote infiltration into the surrounding glacial till layer. Currently, all stormwater runoff generated by the site drains the Portland Housing Authority Maintenance Facility. In the proposed condition, the flows will be redirected to the separated storm system in Fox Street, therefore improving upon the existing conditions to the downgradient property owner.

SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County

Given the soils information, listed above, no onsite wastewater is proposed, deep fills/cuts the applicant does not intend to perform a more intense hydric soil boundary delineation because

of the waiver requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, Rev. 6/17/12 are met.

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

Table 6 - “K” Value		
Soils Type	Subsurface	Substratum
Hinckley	.17	.17

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

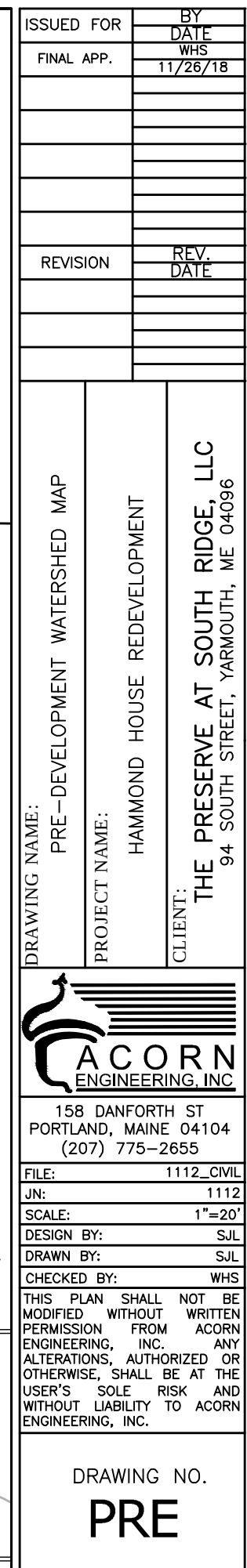
Conclusion

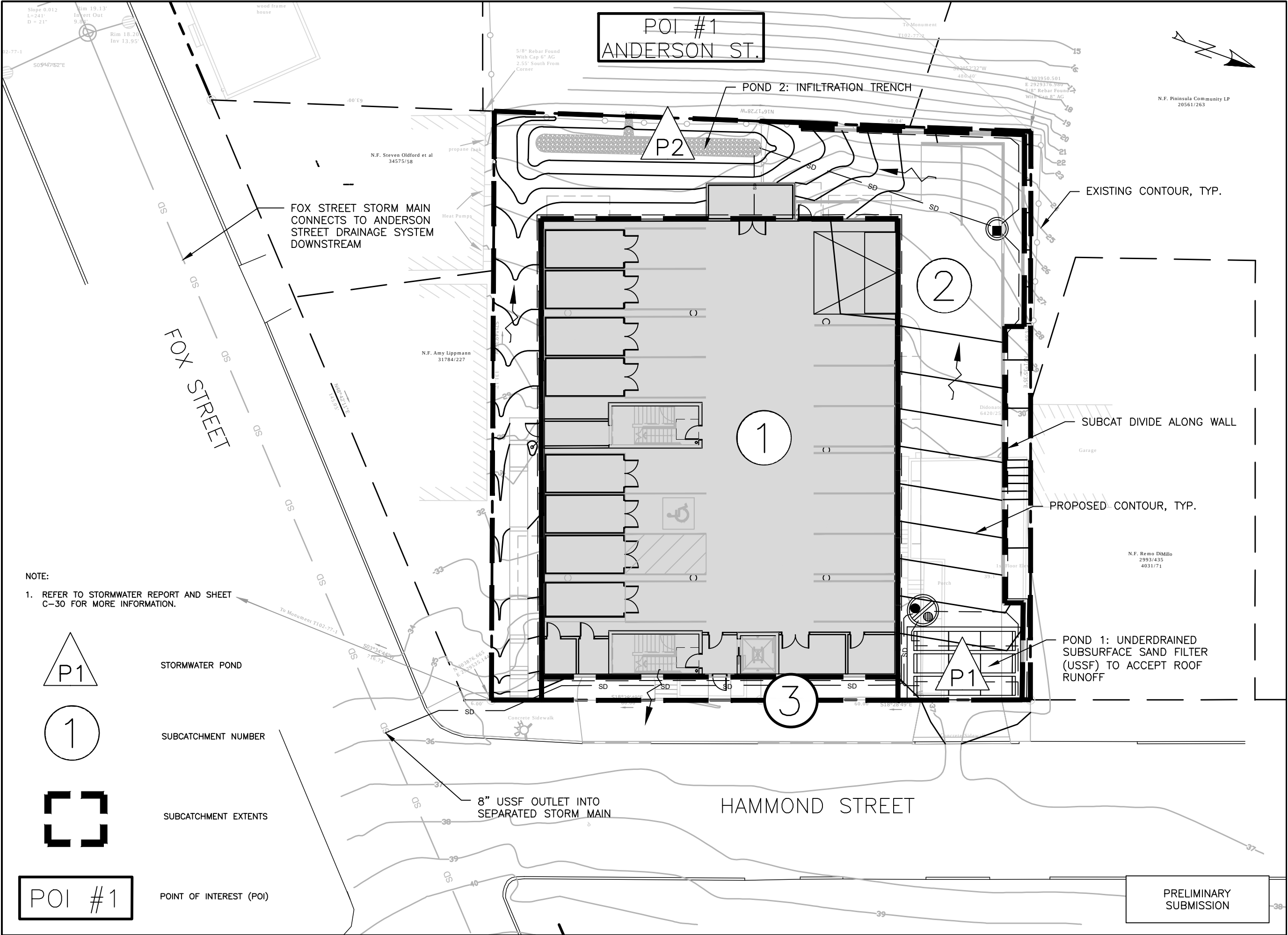
The proposed development was designed to meet the requirements implemented by the MDEP under the Stormwater Management Statute (38 M.R.S.A. § 420-D) as well as the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards. As a result the design of the proposed development and stormwater system, the project does not anticipate to create erosion, drainage or runoff problems either in the development or with respect to adjoining properties. The existing flows will be maintained, but redirected to the stormwater system through LID techniques rather than the abutting property.

Attachments

Attachment A: Pre Development Watershed Map
 Attachment B: Post Development Watershed Map
 Attachment C: HydroCAD Calculations
 Attachment D: Soil Survey







POI #1
ANDERSON ST.

POND 2: INFILTRATION TRENCH

P2

EXISTING CONTOUR, TYP.

FOX STREET STORM MAIN
CONNECTS TO ANDERSON
STREET DRAINAGE SYSTEM
DOWNSTREAM

FOX STREET

SUBCAT DIVIDE ALONG WALL

PROPOSED CONTOUR, TYP.

POND 1: UNDERDRAINED
SUBSURFACE SAND FILTER
(USSF) TO ACCEPT ROOF
RUNOFF

3

HAMMOND STREET

8" USSF OUTLET INTO
SEPARATED STORM MAIN

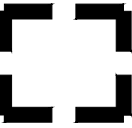
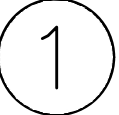
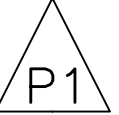
STORMWATER POND

SUBCATCHMENT NUMBER

SUBCATCHMENT EXTENTS

POINT OF INTEREST (POI)

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



POI #1

PRELIMINARY
SUBMISSION

ISSUED FOR	BY DATE
FINAL APP	WHS 11/27/18
REVISION	REV. DATE

DRAWING NAME:	POST-DEVELOPMENT WATERSHED MAP
PROJECT NAME:	HAMMOND HOUSE REDEVELOPMENT
CLIENT:	THE PRESERVE AT SOUTH RIDGE, LLC 94 SOUTH STREET, YARMOUTH, ME 04096

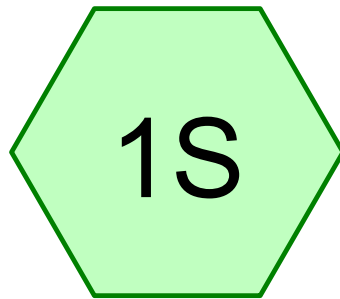


158 DANFORTH ST
PORTLAND, MAINE 04104
(207) 775-2655

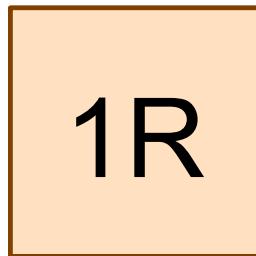
FILE:	1112_CIVIL
JN:	1112
SCALE:	1"=20'
DESIGN BY:	SJL
DRAWN BY:	SJL

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

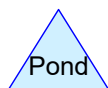
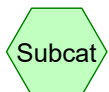
DRAWING NO.
POST



Existing Site



POI #1 - Anderson St.



Routing Diagram for Pre Development

Prepared by Acorn Engineering, Inc., Printed 11/27/2018
HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Pre Development

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.262	49	50-75% Grass cover, Fair, HSG A (1S)
0.092	98	Pavement, roof, concrete (1S)
0.354	62	TOTAL AREA

Pre Development

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 3

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.262	HSG A	1S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.092	Other	1S
0.354		TOTAL AREA

Pre Development

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 4

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.262	0.000	0.000	0.000	0.000	0.262	50-75% Grass cover, Fair	1S
0.000	0.000	0.000	0.000	0.092	0.092	Pavement, roof, concrete	1S
0.262	0.000	0.000	0.000	0.092	0.354	TOTAL AREA	

Pre Development

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

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 5

Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Existing Site

Runoff Area=15,433 sf 25.98% Impervious Runoff Depth=0.44"

Tc=5.0 min CN=62 Runoff=0.12 cfs 0.013 af

Reach 1R: POI #1 - Anderson St.

Inflow=0.12 cfs 0.013 af

Outflow=0.12 cfs 0.013 af

Total Runoff Area = 0.354 ac Runoff Volume = 0.013 af Average Runoff Depth = 0.44"
74.02% Pervious = 0.262 ac 25.98% Impervious = 0.092 ac

Pre Development

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

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

Printed 11/27/2018

Page 6

Summary for Subcatchment 1S: Existing Site

Runoff = 0.12 cfs @ 12.11 hrs, Volume= 0.013 af, Depth= 0.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

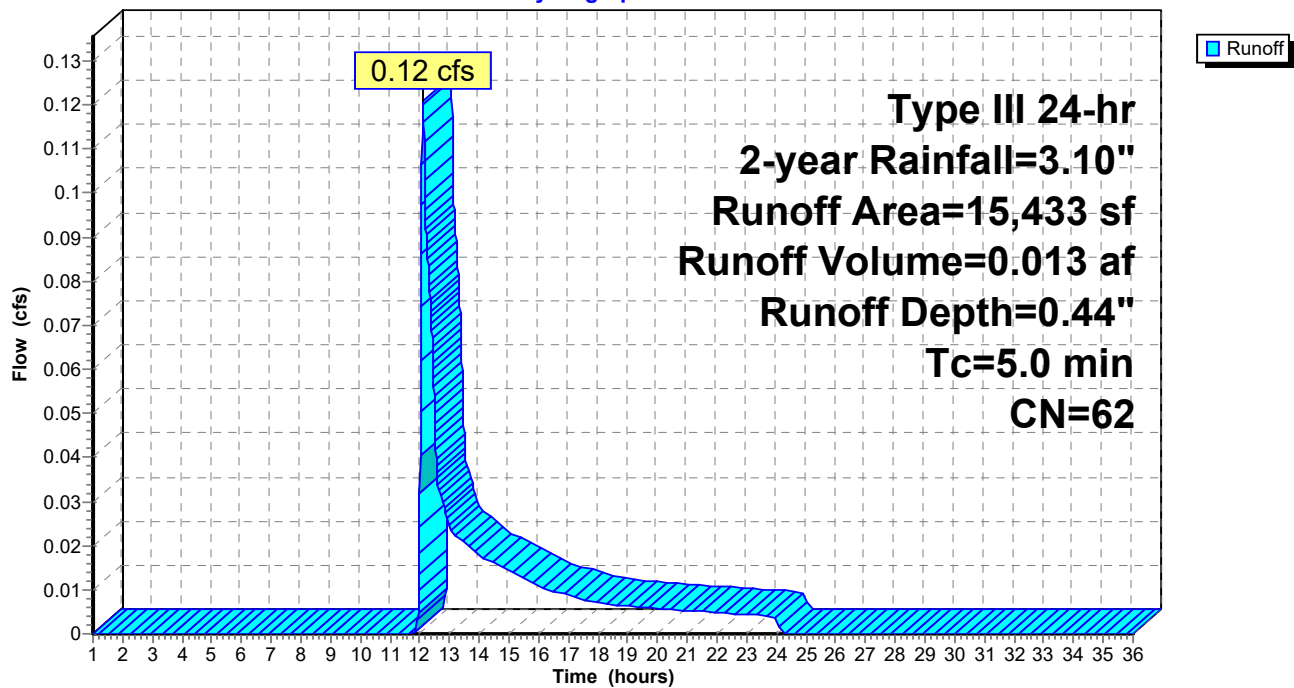
Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
11,424	49	50-75% Grass cover, Fair, HSG A
* 4,009	98	Pavement, roof, concrete
15,433	62	Weighted Average
11,424		74.02% Pervious Area
4,009		25.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Paved Drive to Steep Banks

Subcatchment 1S: Existing Site

Hydrograph



Pre Development

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

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

Printed 11/27/2018

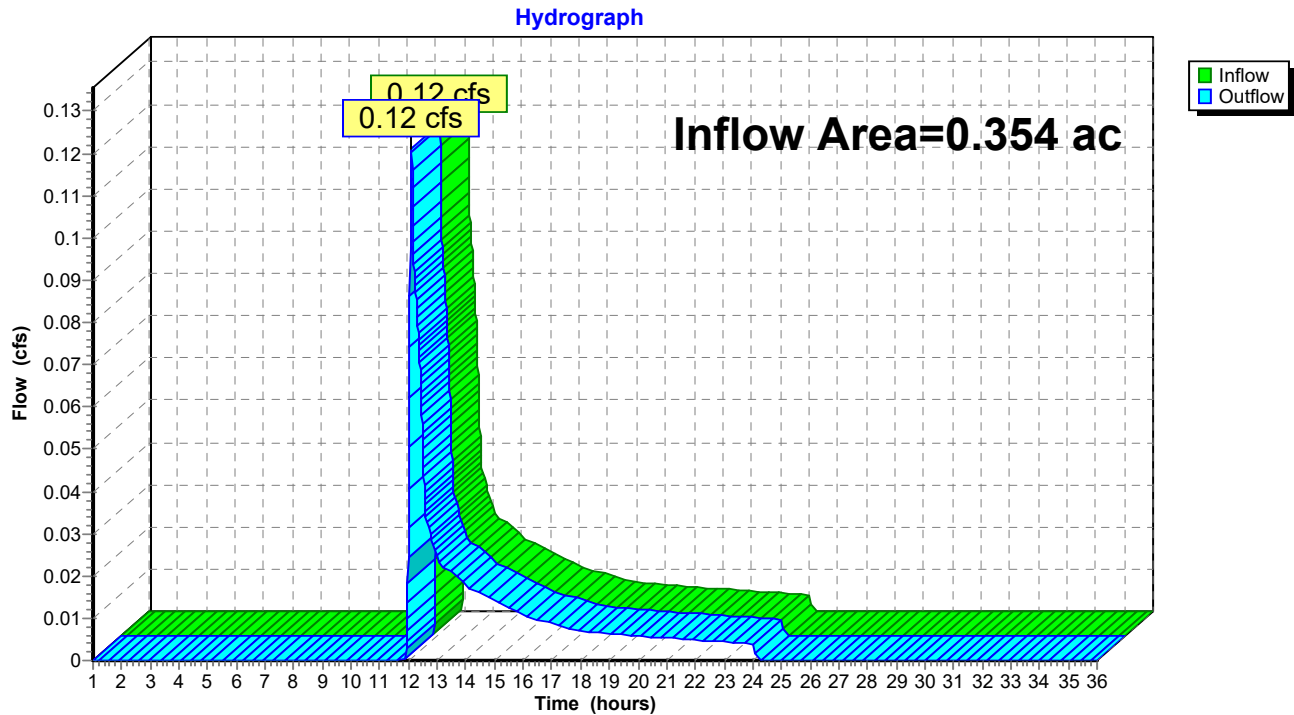
Page 7

Summary for Reach 1R: POI #1 - Anderson St.

Inflow Area = 0.354 ac, 25.98% Impervious, Inflow Depth = 0.44" for 2-year event
Inflow = 0.12 cfs @ 12.11 hrs, Volume= 0.013 af
Outflow = 0.12 cfs @ 12.11 hrs, Volume= 0.013 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 1R: POI #1 - Anderson St.



Pre Development

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

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 8

Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Existing Site

Runoff Area=15,433 sf 25.98% Impervious Runoff Depth=1.20"

Tc=5.0 min CN=62 Runoff=0.46 cfs 0.035 af

Reach 1R: POI #1 - Anderson St.

Inflow=0.46 cfs 0.035 af

Outflow=0.46 cfs 0.035 af

Total Runoff Area = 0.354 ac Runoff Volume = 0.035 af Average Runoff Depth = 1.20"
74.02% Pervious = 0.262 ac 25.98% Impervious = 0.092 ac

Pre Development

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

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

Printed 11/27/2018

Page 9

Summary for Subcatchment 1S: Existing Site

Runoff = 0.46 cfs @ 12.09 hrs, Volume= 0.035 af, Depth= 1.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

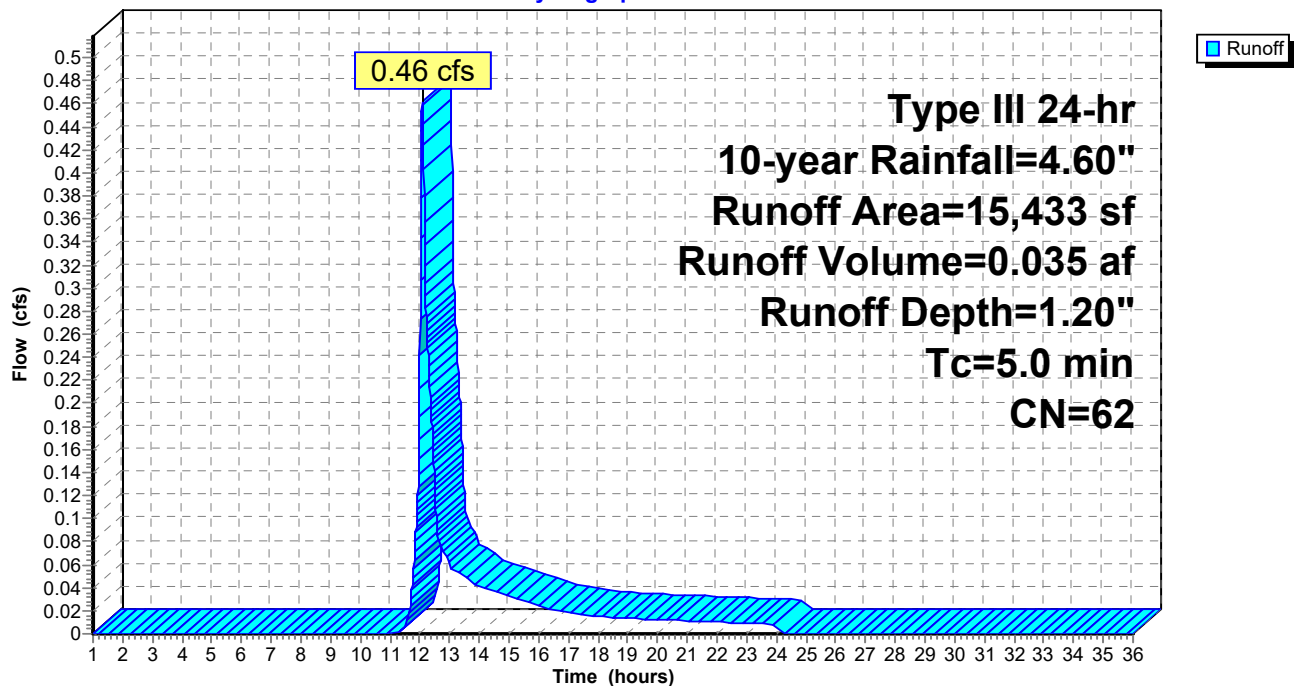
Type III 24-hr 10-year Rainfall=4.60"

Area (sf)	CN	Description
11,424	49	50-75% Grass cover, Fair, HSG A
* 4,009	98	Pavement, roof, concrete
15,433	62	Weighted Average
11,424		74.02% Pervious Area
4,009		25.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Paved Drive to Steep Banks

Subcatchment 1S: Existing Site

Hydrograph



Pre Development

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

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

Printed 11/27/2018

Page 10

Summary for Reach 1R: POI #1 - Anderson St.

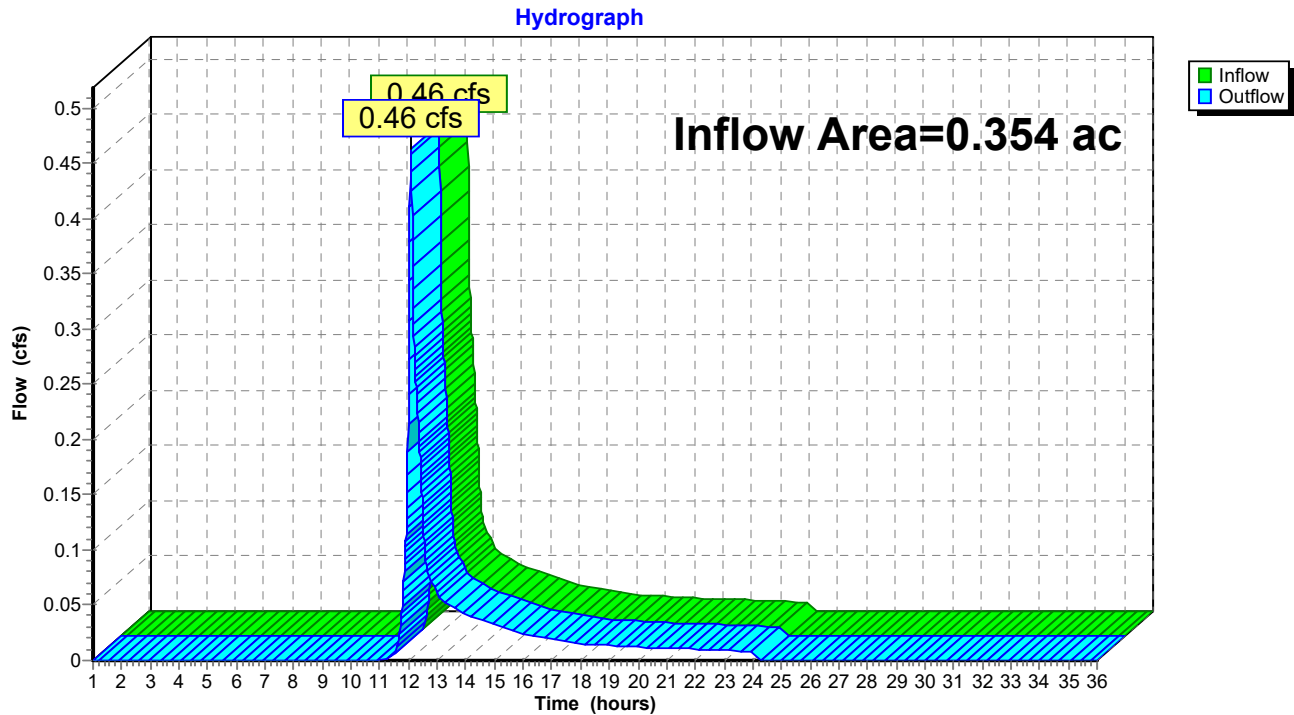
Inflow Area = 0.354 ac, 25.98% Impervious, Inflow Depth = 1.20" for 10-year event

Inflow = 0.46 cfs @ 12.09 hrs, Volume= 0.035 af

Outflow = 0.46 cfs @ 12.09 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 1R: POI #1 - Anderson St.



Pre Development

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

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 11

Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points

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

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Existing Site

Runoff Area=15,433 sf 25.98% Impervious Runoff Depth=1.95"

Tc=5.0 min CN=62 Runoff=0.80 cfs 0.058 af

Reach 1R: POI #1 - Anderson St.

Inflow=0.80 cfs 0.058 af

Outflow=0.80 cfs 0.058 af

Total Runoff Area = 0.354 ac Runoff Volume = 0.058 af Average Runoff Depth = 1.95"
74.02% Pervious = 0.262 ac 25.98% Impervious = 0.092 ac

Pre Development

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

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

Printed 11/27/2018

Page 12

Summary for Subcatchment 1S: Existing Site

Runoff = 0.80 cfs @ 12.08 hrs, Volume= 0.058 af, Depth= 1.95"

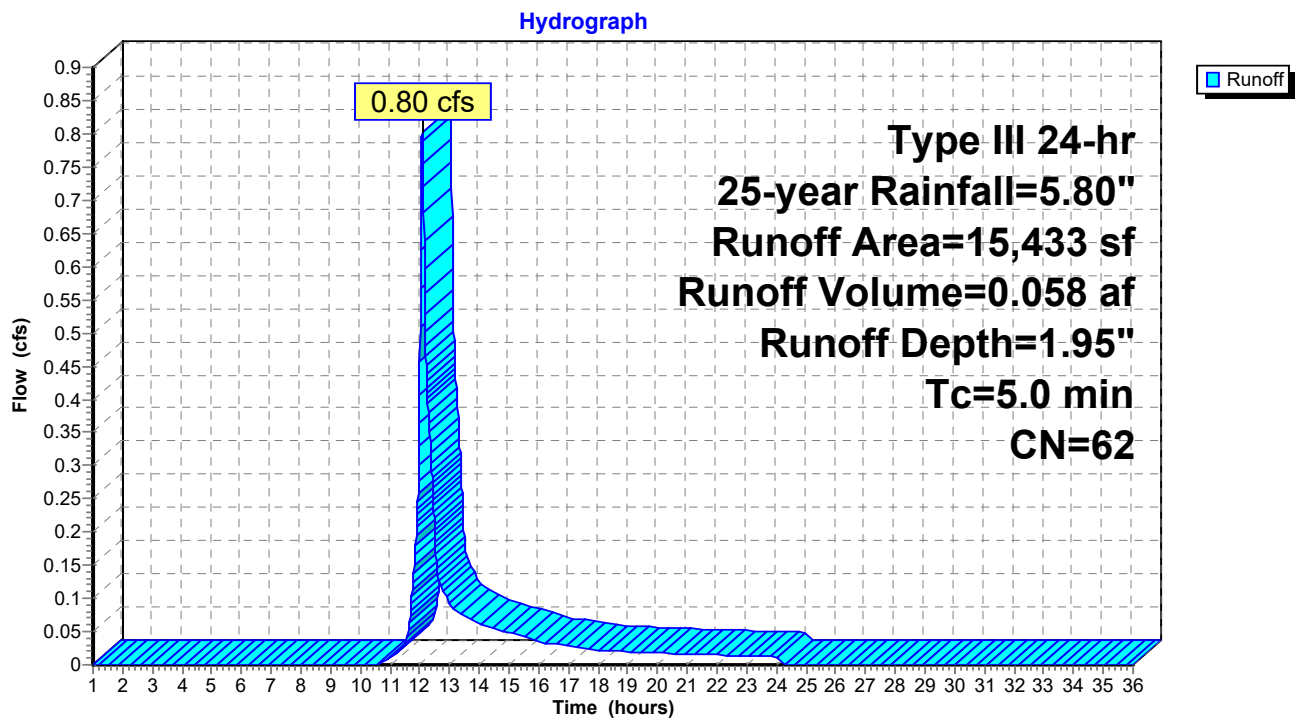
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

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

Area (sf)	CN	Description
11,424	49	50-75% Grass cover, Fair, HSG A
* 4,009	98	Pavement, roof, concrete
15,433	62	Weighted Average
11,424		74.02% Pervious Area
4,009		25.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Paved Drive to Steep Banks

Subcatchment 1S: Existing Site



Pre Development

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

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

Printed 11/27/2018

Page 13

Summary for Reach 1R: POI #1 - Anderson St.

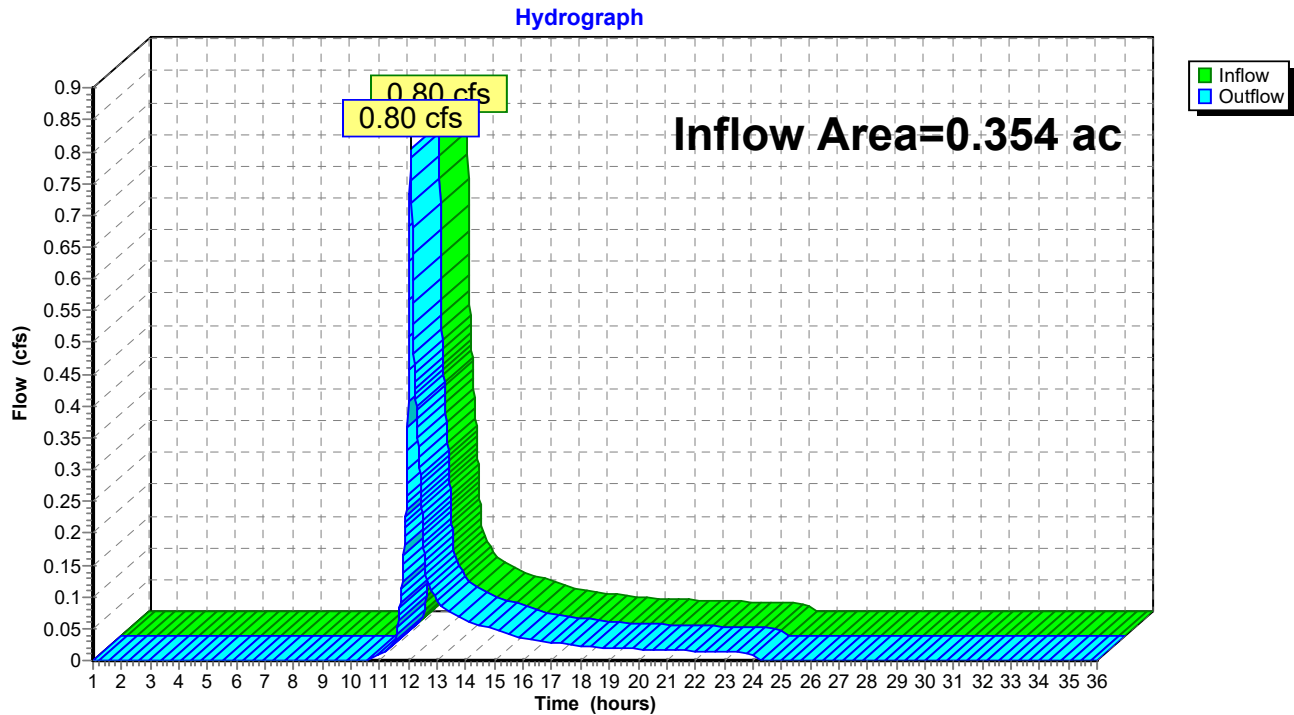
Inflow Area = 0.354 ac, 25.98% Impervious, Inflow Depth = 1.95" for 25-year event

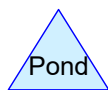
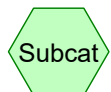
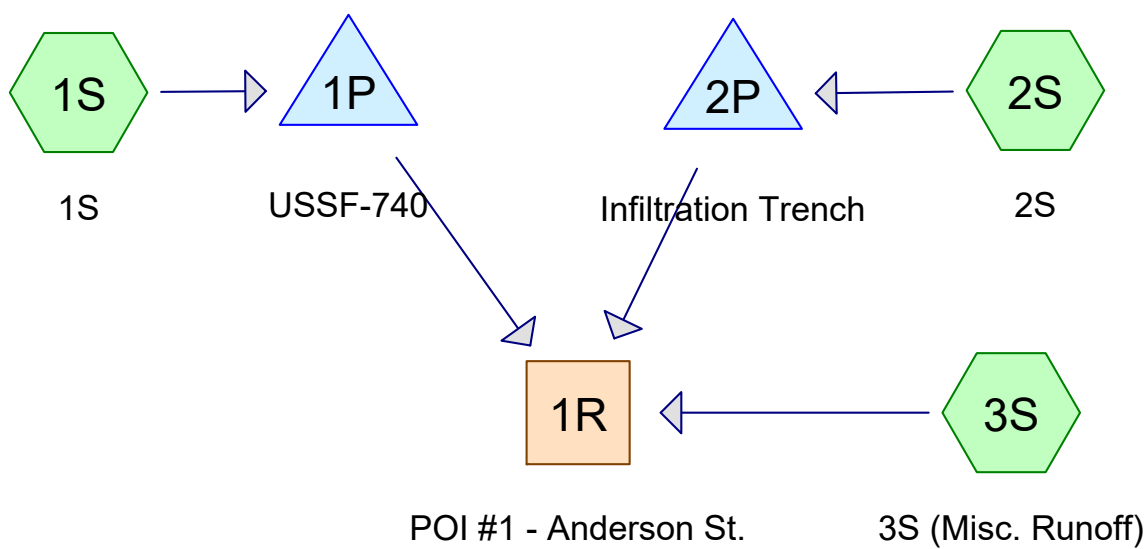
Inflow = 0.80 cfs @ 12.08 hrs, Volume= 0.058 af

Outflow = 0.80 cfs @ 12.08 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach 1R: POI #1 - Anderson St.





Post Development 11-26-18

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.089	39	>75% Grass cover, Good, HSG A (2S, 3S)
0.078	98	Drive, wall, walks, decks above, misc. roof (2S)
0.001	98	Front entrance walk/sculptures (3S)
0.187	98	Roof (1S)
0.354	83	TOTAL AREA

Post Development 11-26-18

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 3

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.089	HSG A	2S, 3S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.265	Other	1S, 2S, 3S
0.354		TOTAL AREA

Post Development 11-26-18

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 4

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchmen Numbers
0.089	0.000	0.000	0.000	0.000	0.089	>75% Grass cover, Good	
0.000	0.000	0.000	0.000	0.078	0.078	Drive, wall, walks, decks above, misc. roof	
0.000	0.000	0.000	0.000	0.001	0.001	Front entrance walk/sculptures	
0.000	0.000	0.000	0.000	0.187	0.187	Roof	
0.089	0.000	0.000	0.000	0.265	0.354	TOTAL AREA	

Post Development 11-26-18

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 5

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	27.65	27.00	130.0	0.0050	0.013	8.0	0.0	0.0

Post Development 11-26-18*Type III 24-hr 2-year Rainfall=3.10"*

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 6

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

Subcatchment 1S: 1S

Runoff Area=8,138 sf 100.00% Impervious Runoff Depth=2.87"
Tc=5.0 min CN=98 Runoff=0.58 cfs 0.045 af

Subcatchment 2S: 2S

Runoff Area=6,291 sf 53.79% Impervious Runoff Depth=0.82"
Tc=5.0 min CN=71 Runoff=0.13 cfs 0.010 af

Subcatchment 3S: 3S (Misc. Runoff)

Runoff Area=1,004 sf 4.28% Impervious Runoff Depth=0.01"
Tc=5.0 min CN=42 Runoff=0.00 cfs 0.000 af

Reach 1R: POI #1 - Anderson St.

Inflow=0.13 cfs 0.045 af
Outflow=0.13 cfs 0.045 af

Pond 1P: USSF-740

Peak Elev=31.80' Storage=554 cf Inflow=0.58 cfs 0.045 af
Outflow=0.13 cfs 0.045 af

Pond 2P: Infiltration Trench

Peak Elev=21.46' Storage=161 cf Inflow=0.13 cfs 0.010 af
Discarded=0.01 cfs 0.010 af Primary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.010 af

Total Runoff Area = 0.354 ac Runoff Volume = 0.055 af Average Runoff Depth = 1.85"
25.06% Pervious = 0.089 ac 74.94% Impervious = 0.265 ac

Post Development 11-26-18

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

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

Printed 11/27/2018

Page 7

Summary for Subcatchment 1S: 1S

Runoff = 0.58 cfs @ 12.07 hrs, Volume= 0.045 af, Depth= 2.87"

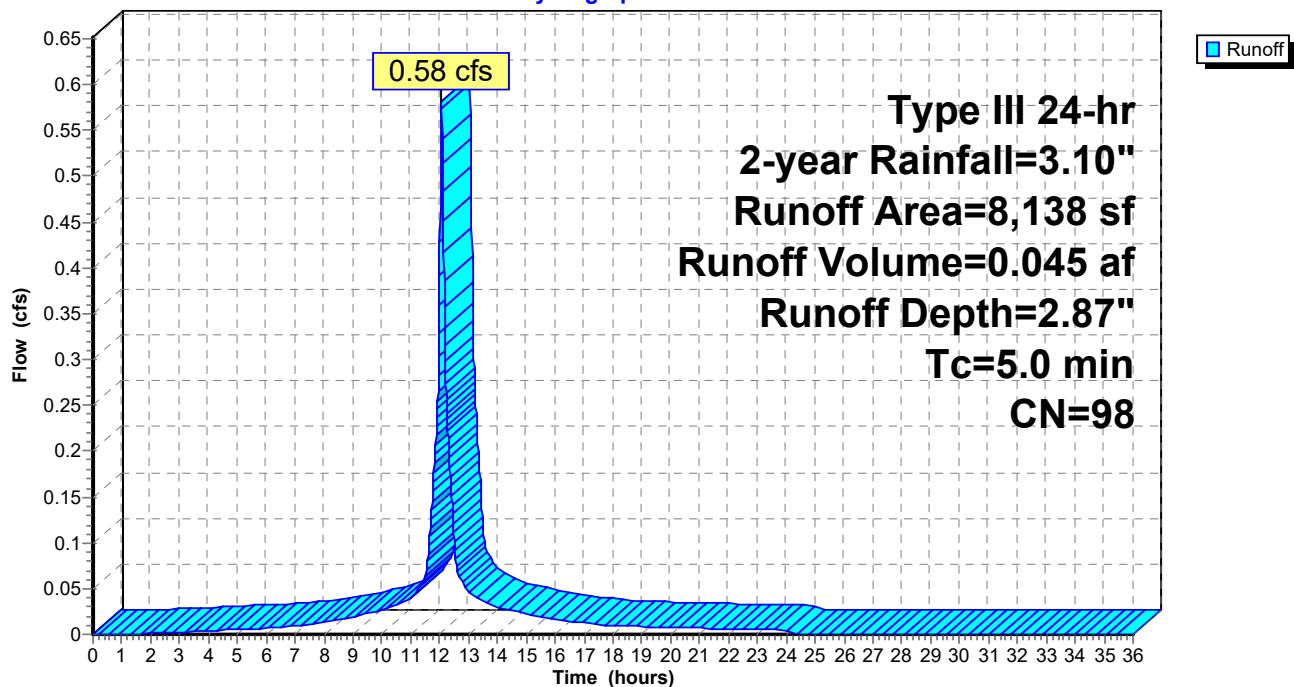
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	8,138	98	Roof
	8,138		100.00% Impervious Area

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

Subcatchment 1S: 1S

Hydrograph



Post Development 11-26-18

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

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

Printed 11/27/2018

Page 8

Summary for Subcatchment 2S: 2S

Runoff = 0.13 cfs @ 12.09 hrs, Volume= 0.010 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

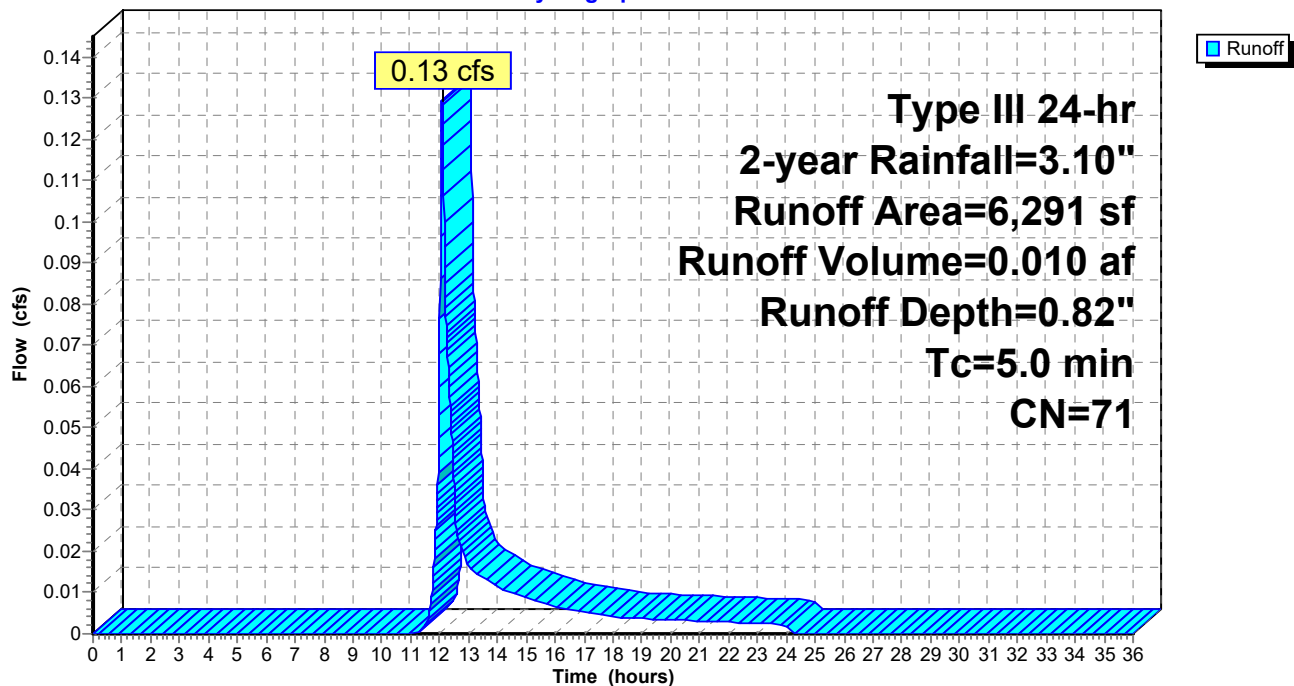
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	3,384	98	Drive, wall, walks, decks above, misc. roof
	2,907	39	>75% Grass cover, Good, HSG A
	6,291	71	Weighted Average
	2,907		46.21% Pervious Area
	3,384		53.79% Impervious Area

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

Subcatchment 2S: 2S

Hydrograph



Post Development 11-26-18

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

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

Printed 11/27/2018

Page 9

Summary for Subcatchment 3S: 3S (Misc. Runoff)

Runoff = 0.00 cfs @ 22.35 hrs, Volume= 0.000 af, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

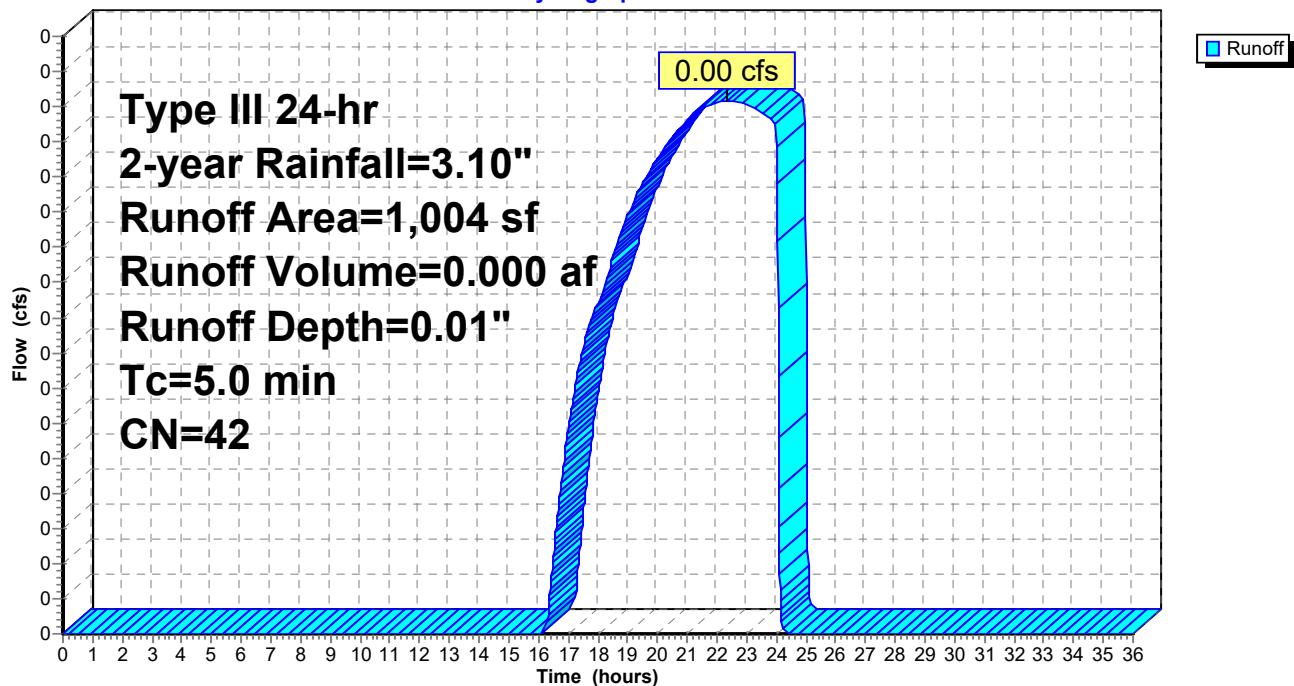
Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
961	39	>75% Grass cover, Good, HSG A
* 43	98	Front entrance walk/sculptures
1,004	42	Weighted Average
961		95.72% Pervious Area
43		4.28% Impervious Area

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

Subcatchment 3S: 3S (Misc. Runoff)

Hydrograph

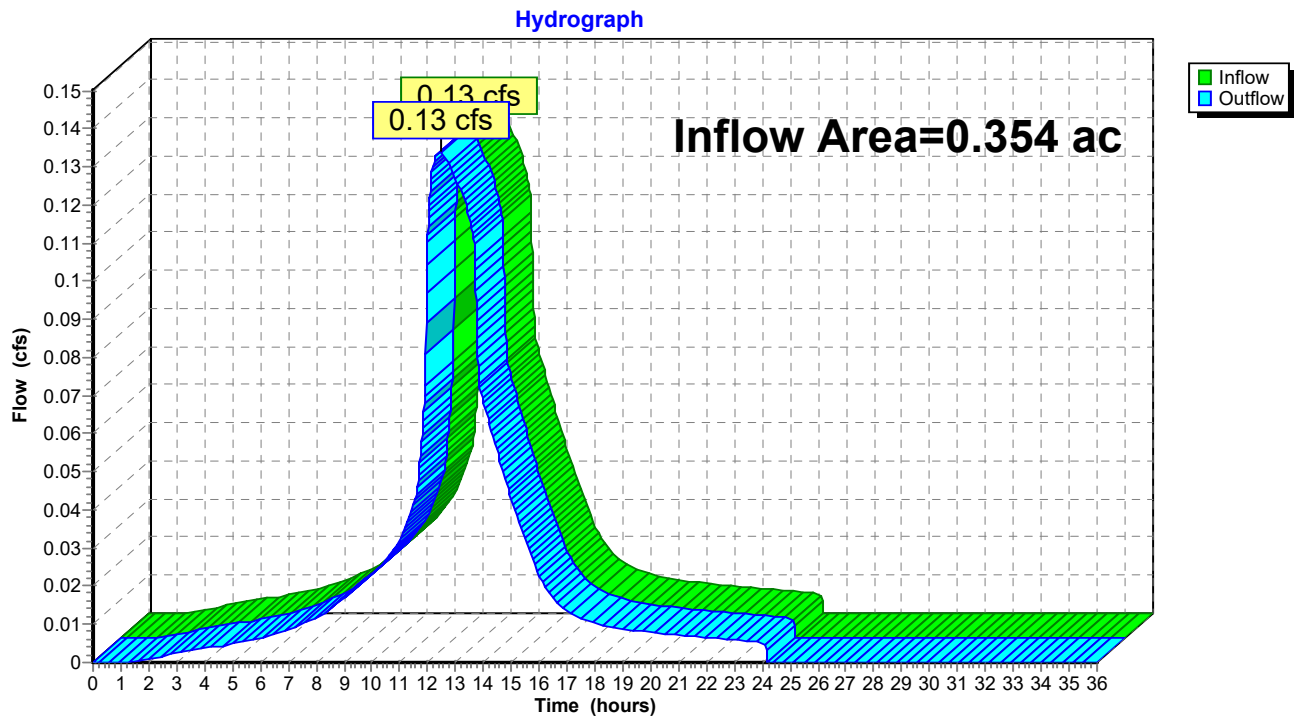


Summary for Reach 1R: POI #1 - Anderson St.

Inflow Area = 0.354 ac, 74.94% Impervious, Inflow Depth = 1.51" for 2-year event
 Inflow = 0.13 cfs @ 12.45 hrs, Volume= 0.045 af
 Outflow = 0.13 cfs @ 12.45 hrs, Volume= 0.045 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Reach 1R: POI #1 - Anderson St.



Post Development 11-26-18

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

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 11

Summary for Pond 1P: USSF-740

Inflow Area = 0.187 ac, 100.00% Impervious, Inflow Depth = 2.87" for 2-year event
 Inflow = 0.58 cfs @ 12.07 hrs, Volume = 0.045 af
 Outflow = 0.13 cfs @ 12.45 hrs, Volume = 0.045 af, Atten = 77%, Lag = 22.7 min
 Primary = 0.13 cfs @ 12.45 hrs, Volume = 0.045 af

Routing by Dyn-Stor-Ind method, Time Span = 0.00-36.00 hrs, dt = 0.01 hrs
 Peak Elev = 31.80' @ 12.45 hrs Surf.Area = 1,231 sf Storage = 554 cf

Plug-Flow detention time = (not calculated: outflow precedes inflow)
 Center-of-Mass det. time = 35.1 min (791.2 - 756.1)

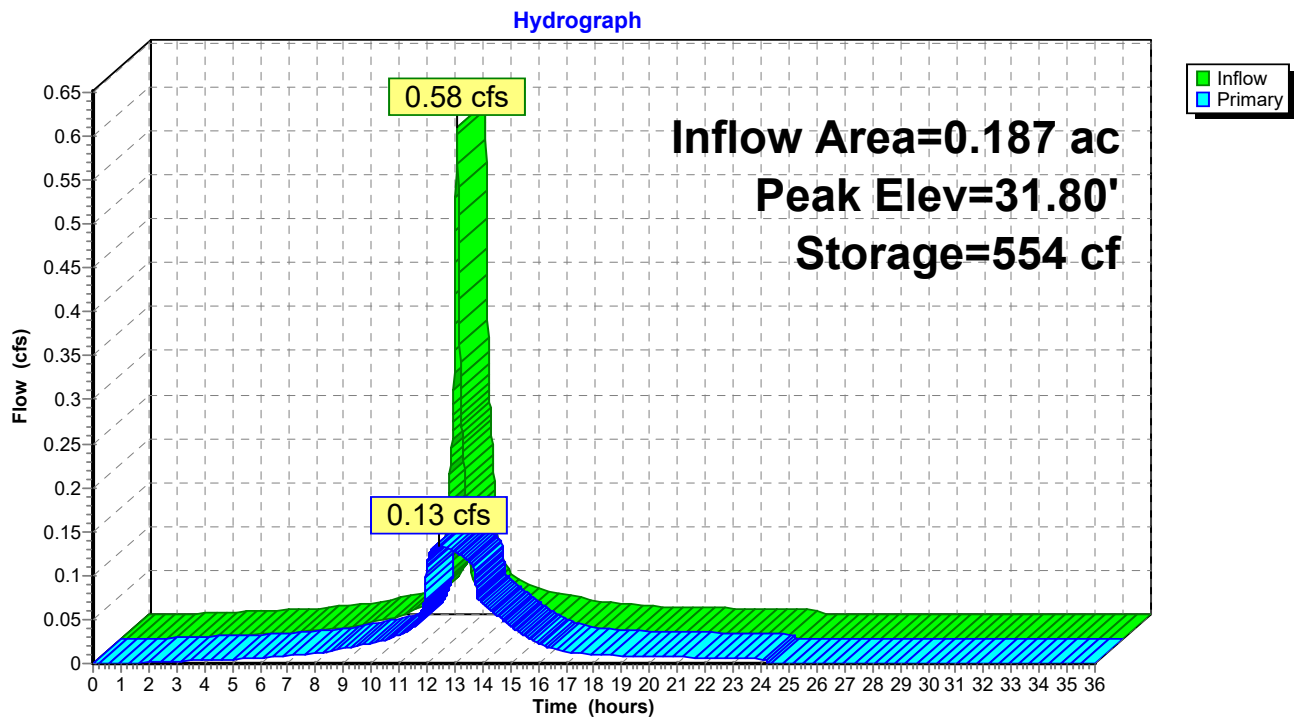
Volume	Invert	Avail.Storage	Storage Description
#1	30.50'	450 cf	25.25'W x 16.25'L x 3.75'H Crushed Stone 1,539 cf Overall - 413 cf Embedded = 1,125 cf x 40.0% Voids
#2	31.00'	413 cf	ADS_StormTech SC-740 x 9 Inside #1 Effective Size = 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size = 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap
#3	29.00'	31 cf	16.25'W x 25.25'L x 1.50'H Sand 615 cf Overall x 5.0% Voids
#4	27.80'	195 cf	16.25'W x 25.25'L x 1.20'H Crushed Stone Underdrain 492 cf Overall - 5 cf Embedded = 487 cf x 40.0% Voids
#5	28.33'	5 cf	4.0" Round Underdrains Inside #4 L = 61.0' S = 0.0050 '/
			1,094 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	27.65'	8.0" Round 8" Outlet L = 130.0' CMP, projecting, no headwall, Ke = 0.900 Inlet / Outlet Invert = 27.65' / 27.00' S = 0.0050 '/ Cc = 0.900 n = 0.013 Corrugated PE, smooth interior, Flow Area = 0.35 sf
#2	Device 1	27.75'	1.6" Vert. Quality Outlet C = 0.600
#3	Device 1	32.10'	5.7" Vert. Quantity Outlet C = 0.600
#4	Device 1	32.90'	6.0' long x 0.7' breadth Overflow Wier Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

Primary OutFlow Max = 0.13 cfs @ 12.45 hrs HW = 31.80' TW = 0.00' (Dynamic Tailwater)

- 1 = 8" Outlet (Passes 0.13 cfs of 1.91 cfs potential flow)
- 2 = Quality Outlet (Orifice Controls 0.13 cfs @ 9.61 fps)
- 3 = Quantity Outlet (Controls 0.00 cfs)
- 4 = Overflow Wier (Controls 0.00 cfs)

Pond 1P: USSF-740



Post Development 11-26-18*Type III 24-hr 2-year Rainfall=3.10"*

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 13

Summary for Pond 2P: Infiltration Trench

Inflow Area = 0.144 ac, 53.79% Impervious, Inflow Depth = 0.82" for 2-year event
 Inflow = 0.13 cfs @ 12.09 hrs, Volume= 0.010 af
 Outflow = 0.01 cfs @ 11.85 hrs, Volume= 0.010 af, Atten= 91%, Lag= 0.0 min
 Discarded = 0.01 cfs @ 11.85 hrs, Volume= 0.010 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Peak Elev= 21.46' @ 14.00 hrs Surf.Area= 205 sf Storage= 161 cf

Plug-Flow detention time= 140.4 min calculated for 0.010 af (100% of inflow)

Center-of-Mass det. time= 140.4 min (1,013.9 - 873.6)

Volume	Invert	Avail.Storage	Storage Description
#1	19.50'	164 cf	3/4" Stone Detention (Prismatic) Listed below (Recalc) 410 cf Overall x 40.0% Voids
#2	21.50'	558 cf	Detention above Stone (Prismatic) Listed below (Recalc)
		722 cf	Total Available Storage

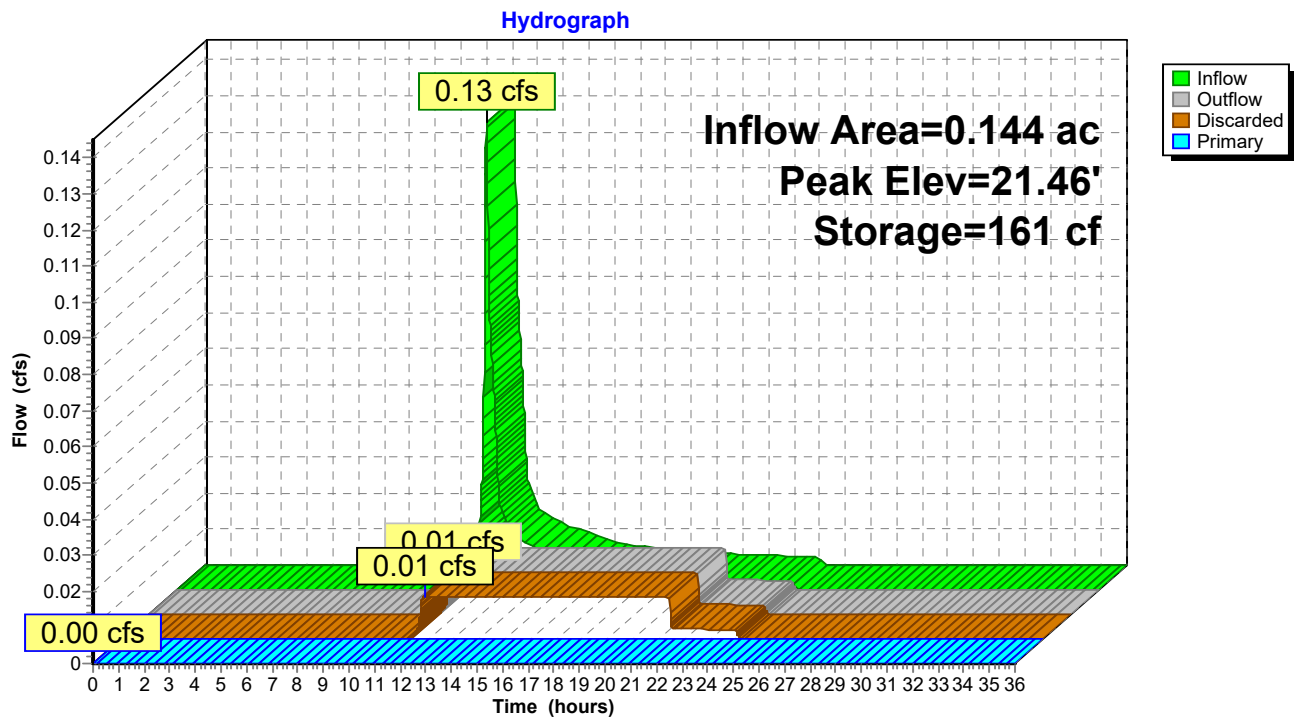
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.50	205	0	0
21.50	205	410	410

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
21.50	217	0	0
22.75	675	558	558

Device	Routing	Invert	Outlet Devices
#1	Discarded	19.50'	2.410 in/hr Infiltration over Surface area Phase-In= 0.01'
#2	Primary	22.60'	1.0' long x 1.0' breadth Emergency Outlet
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Discarded OutFlow Max=0.01 cfs @ 11.85 hrs HW=19.53' (Free Discharge)↑ **1=Infiltration** (Exfiltration Controls 0.01 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=19.50' TW=0.00' (Dynamic Tailwater)↑ **2=Emergency Outlet** (Controls 0.00 cfs)

Pond 2P: Infiltration Trench



Post Development 11-26-18*Type III 24-hr 10-year Rainfall=4.60"*

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 15

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

Subcatchment 1S: 1S

Runoff Area=8,138 sf 100.00% Impervious Runoff Depth=4.36"
Tc=5.0 min CN=98 Runoff=0.87 cfs 0.068 af

Subcatchment 2S: 2S

Runoff Area=6,291 sf 53.79% Impervious Runoff Depth=1.82"
Tc=5.0 min CN=71 Runoff=0.31 cfs 0.022 af

Subcatchment 3S: 3S (Misc. Runoff)

Runoff Area=1,004 sf 4.28% Impervious Runoff Depth=0.22"
Tc=5.0 min CN=42 Runoff=0.00 cfs 0.000 af

Reach 1R: POI #1 - Anderson St.

Inflow=0.43 cfs 0.068 af
Outflow=0.43 cfs 0.068 af

Pond 1P: USSF-740

Peak Elev=32.45' Storage=737 cf Inflow=0.87 cfs 0.068 af
Outflow=0.43 cfs 0.068 af

Pond 2P: Infiltration Trench

Peak Elev=22.12' Storage=368 cf Inflow=0.31 cfs 0.022 af
Discarded=0.04 cfs 0.022 af Primary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.022 af

Total Runoff Area = 0.354 ac Runoff Volume = 0.090 af Average Runoff Depth = 3.06"
25.06% Pervious = 0.089 ac 74.94% Impervious = 0.265 ac

Post Development 11-26-18

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

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

Printed 11/27/2018

Page 16

Summary for Subcatchment 1S: 1S

Runoff = 0.87 cfs @ 12.07 hrs, Volume= 0.068 af, Depth= 4.36"

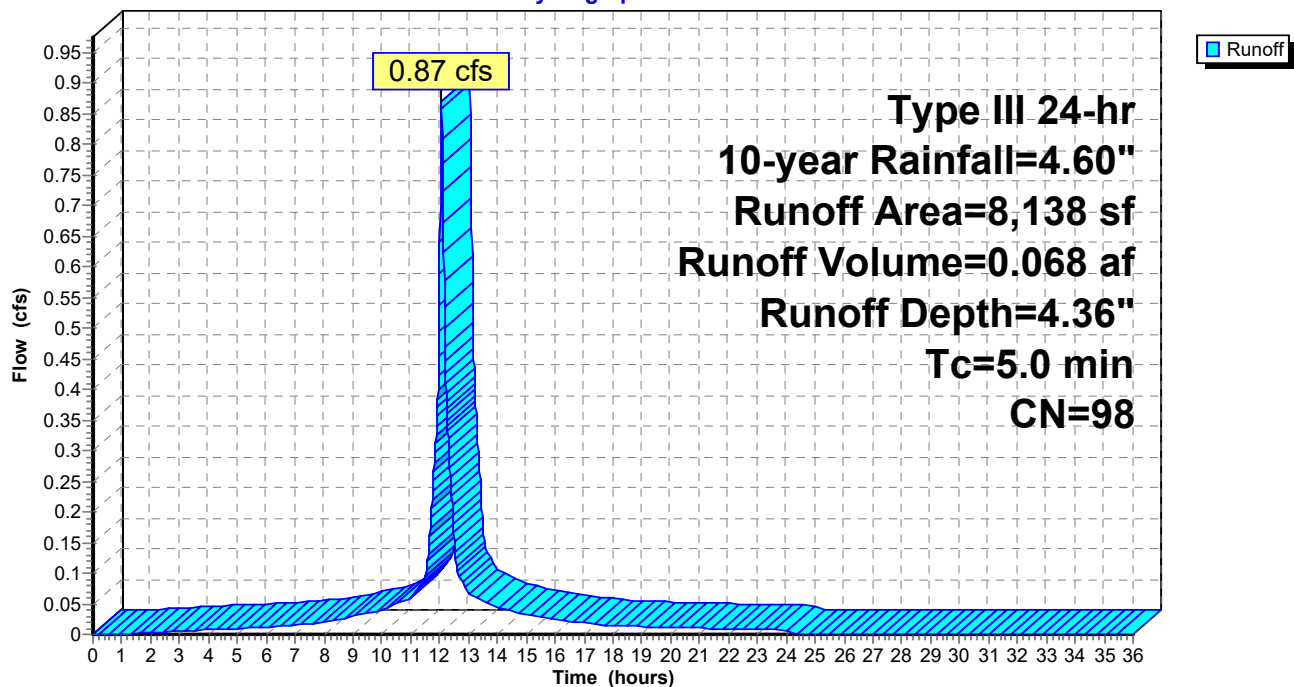
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	8,138	98	Roof
	8,138		100.00% Impervious Area

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

Subcatchment 1S: 1S

Hydrograph



Post Development 11-26-18

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

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

Printed 11/27/2018

Page 17

Summary for Subcatchment 2S: 2S

Runoff = 0.31 cfs @ 12.08 hrs, Volume= 0.022 af, Depth= 1.82"

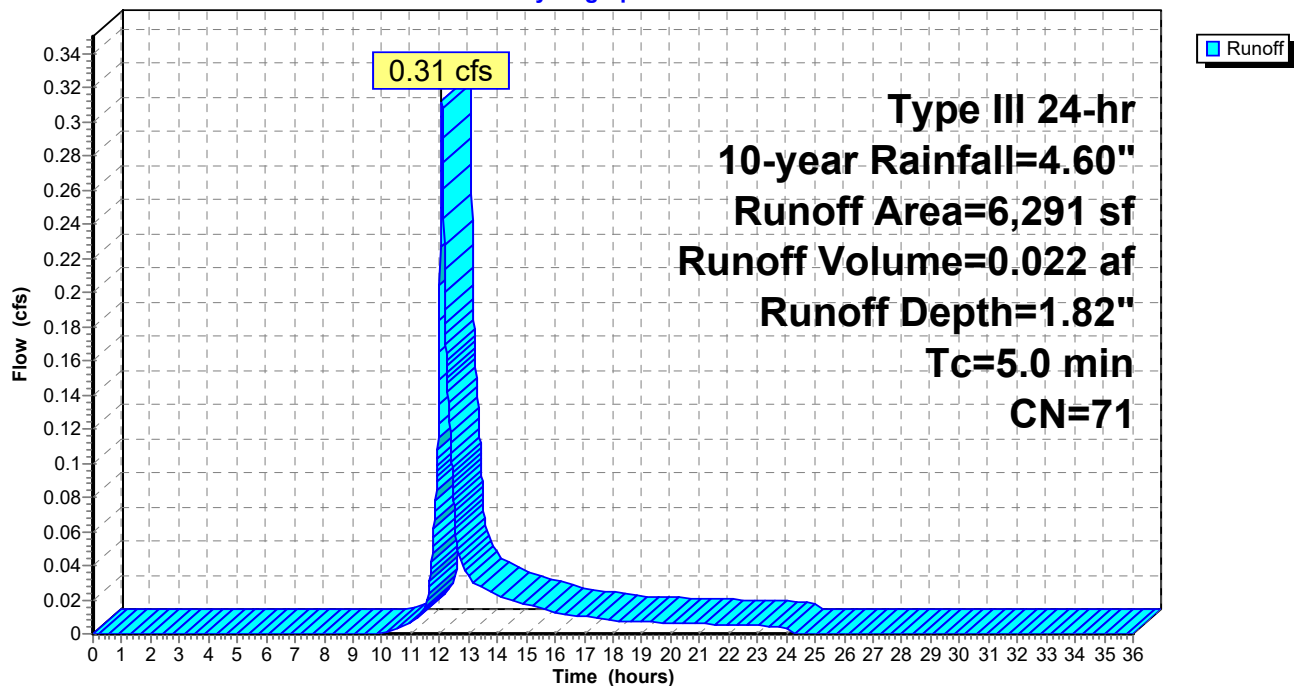
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	3,384	98	Drive, wall, walks, decks above, misc. roof
	2,907	39	>75% Grass cover, Good, HSG A
	6,291	71	Weighted Average
	2,907		46.21% Pervious Area
	3,384		53.79% Impervious Area

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

Subcatchment 2S: 2S

Hydrograph



Summary for Subcatchment 3S: 3S (Misc. Runoff)

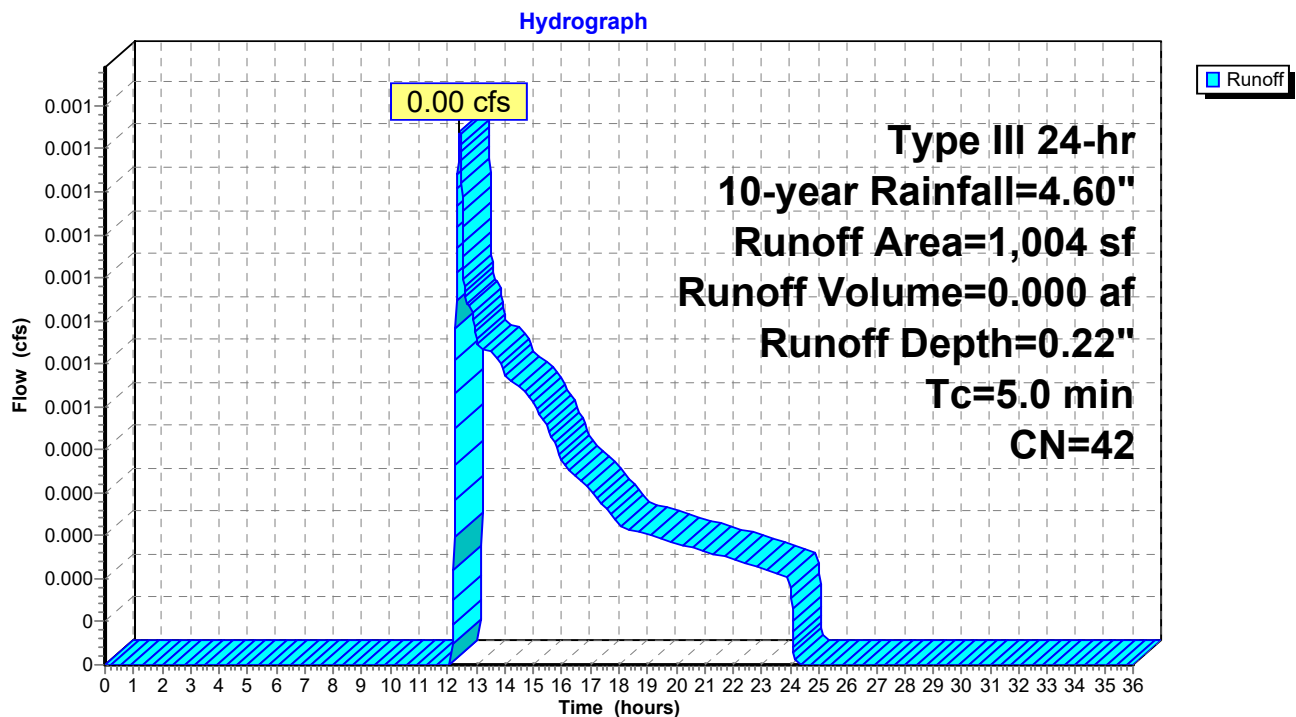
Runoff = 0.00 cfs @ 12.42 hrs, Volume= 0.000 af, Depth= 0.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	961	39	>75% Grass cover, Good, HSG A
	43	98	Front entrance walk/sculptures
	1,004	42	Weighted Average
	961		95.72% Pervious Area
	43		4.28% Impervious Area

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

Subcatchment 3S: 3S (Misc. Runoff)

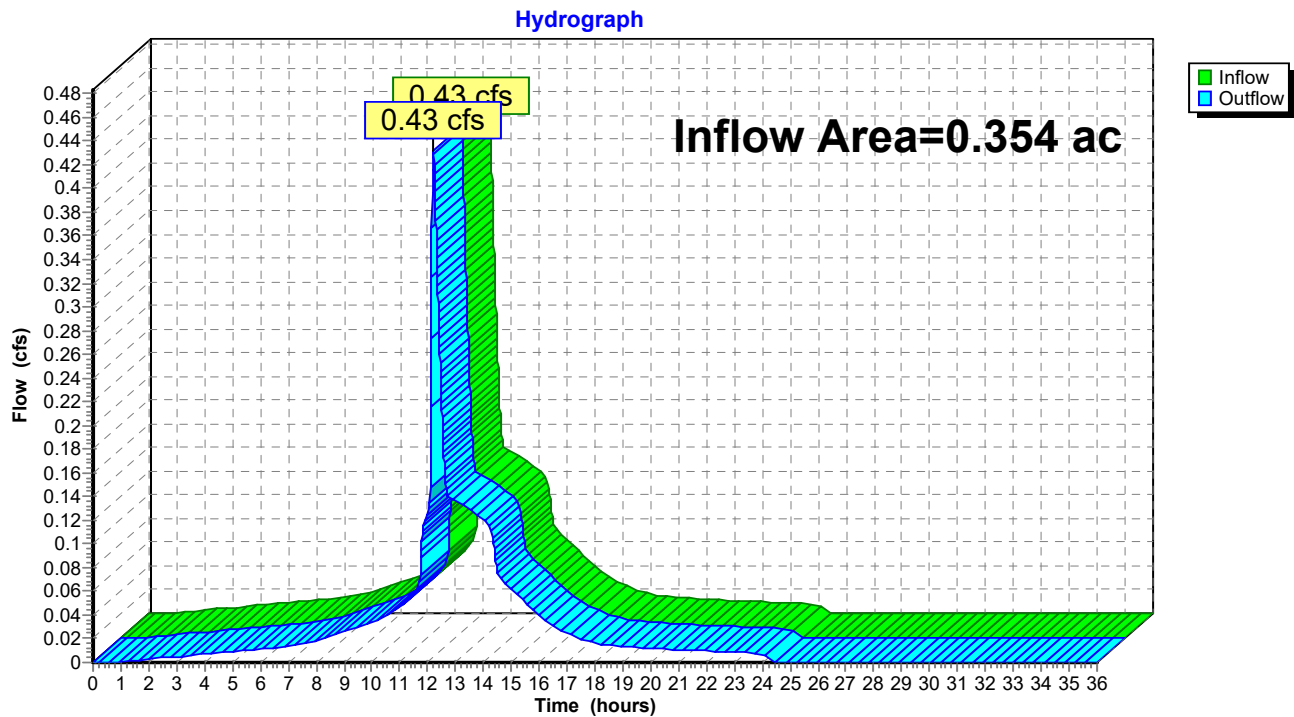


Summary for Reach 1R: POI #1 - Anderson St.

Inflow Area = 0.354 ac, 74.94% Impervious, Inflow Depth = 2.32" for 10-year event
 Inflow = 0.43 cfs @ 12.20 hrs, Volume= 0.068 af
 Outflow = 0.43 cfs @ 12.20 hrs, Volume= 0.068 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Reach 1R: POI #1 - Anderson St.



Post Development 11-26-18

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

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 20

Summary for Pond 1P: USSF-740

Inflow Area = 0.187 ac, 100.00% Impervious, Inflow Depth = 4.36" for 10-year event
 Inflow = 0.87 cfs @ 12.07 hrs, Volume = 0.068 af
 Outflow = 0.43 cfs @ 12.20 hrs, Volume = 0.068 af, Atten = 50%, Lag = 7.6 min
 Primary = 0.43 cfs @ 12.20 hrs, Volume = 0.068 af

Routing by Dyn-Stor-Ind method, Time Span = 0.00-36.00 hrs, dt = 0.01 hrs
 Peak Elev = 32.45' @ 12.20 hrs Surf.Area = 1,231 sf Storage = 737 cf

Plug-Flow detention time = 37.1 min calculated for 0.068 af (100% of inflow)
 Center-of-Mass det. time = 37.1 min (785.6 - 748.5)

Volume	Invert	Avail.Storage	Storage Description
#1	30.50'	450 cf	25.25'W x 16.25'L x 3.75'H Crushed Stone 1,539 cf Overall - 413 cf Embedded = 1,125 cf x 40.0% Voids
#2	31.00'	413 cf	ADS_StormTech SC-740 x 9 Inside #1 Effective Size = 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size = 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap
#3	29.00'	31 cf	16.25'W x 25.25'L x 1.50'H Sand 615 cf Overall x 5.0% Voids
#4	27.80'	195 cf	16.25'W x 25.25'L x 1.20'H Crushed Stone Underdrain 492 cf Overall - 5 cf Embedded = 487 cf x 40.0% Voids
#5	28.33'	5 cf	4.0" Round Underdrains Inside #4 L = 61.0' S = 0.0050 '/
			1,094 cf Total Available Storage

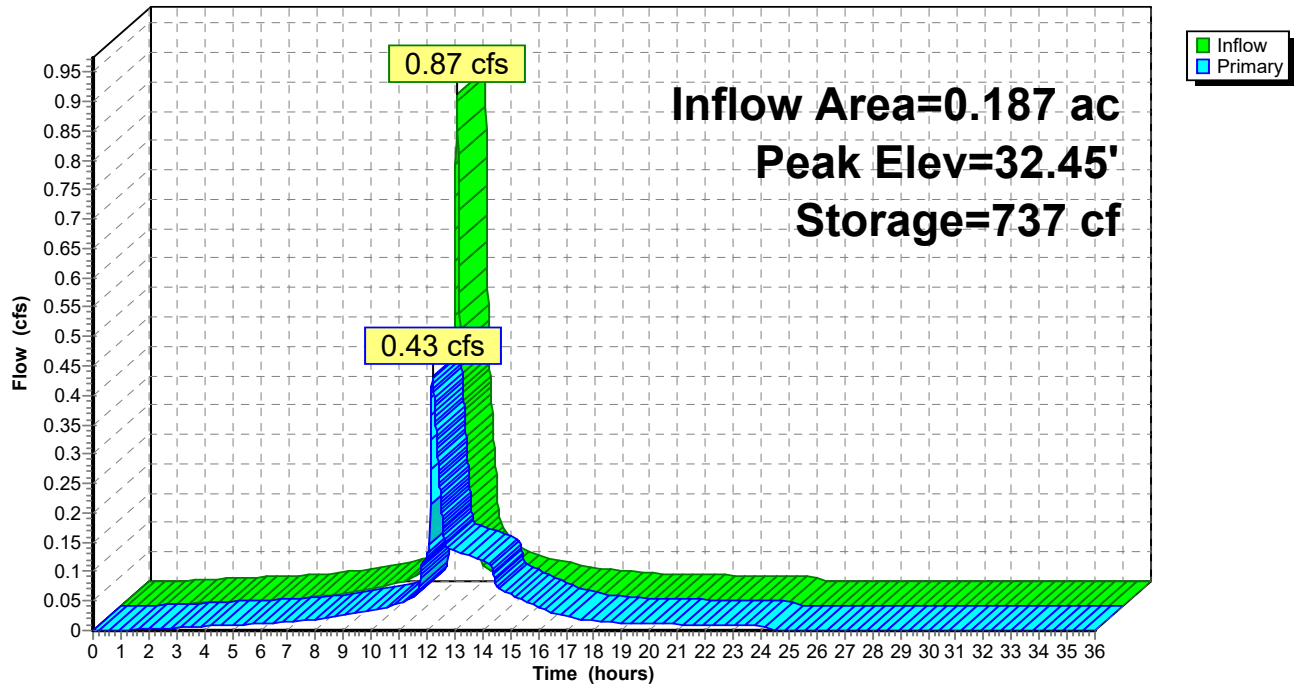
Device	Routing	Invert	Outlet Devices
#1	Primary	27.65'	8.0" Round 8" Outlet L = 130.0' CMP, projecting, no headwall, Ke = 0.900 Inlet / Outlet Invert = 27.65' / 27.00' S = 0.0050 '/ Cc = 0.900 n = 0.013 Corrugated PE, smooth interior, Flow Area = 0.35 sf
#2	Device 1	27.75'	1.6" Vert. Quality Outlet C = 0.600
#3	Device 1	32.10'	5.7" Vert. Quantity Outlet C = 0.600
#4	Device 1	32.90'	6.0' long x 0.7' breadth Overflow Wier Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

Primary OutFlow Max = 0.43 cfs @ 12.20 hrs HW = 32.45' TW = 0.00' (Dynamic Tailwater)

- 1 = 8" Outlet (Passes 0.43 cfs of 2.05 cfs potential flow)
- 2 = Quality Outlet (Orifice Controls 0.14 cfs @ 10.37 fps)
- 3 = Quantity Outlet (Orifice Controls 0.29 cfs @ 2.02 fps)
- 4 = Overflow Wier (Controls 0.00 cfs)

Pond 1P: USSF-740

Hydrograph



Post Development 11-26-18*Type III 24-hr 10-year Rainfall=4.60"*

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 22

Summary for Pond 2P: Infiltration Trench

Inflow Area = 0.144 ac, 53.79% Impervious, Inflow Depth = 1.82" for 10-year event
 Inflow = 0.31 cfs @ 12.08 hrs, Volume= 0.022 af
 Outflow = 0.04 cfs @ 12.93 hrs, Volume= 0.022 af, Atten= 88%, Lag= 51.1 min
 Discarded = 0.04 cfs @ 12.93 hrs, Volume= 0.022 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Peak Elev= 22.12' @ 12.93 hrs Surf.Area= 648 sf Storage= 368 cf

Plug-Flow detention time= 141.3 min calculated for 0.022 af (100% of inflow)

Center-of-Mass det. time= 141.2 min (989.9 - 848.7)

Volume	Invert	Avail.Storage	Storage Description
#1	19.50'	164 cf	3/4" Stone Detention (Prismatic) Listed below (Recalc) 410 cf Overall x 40.0% Voids
#2	21.50'	558 cf	Detention above Stone (Prismatic) Listed below (Recalc)
		722 cf	Total Available Storage

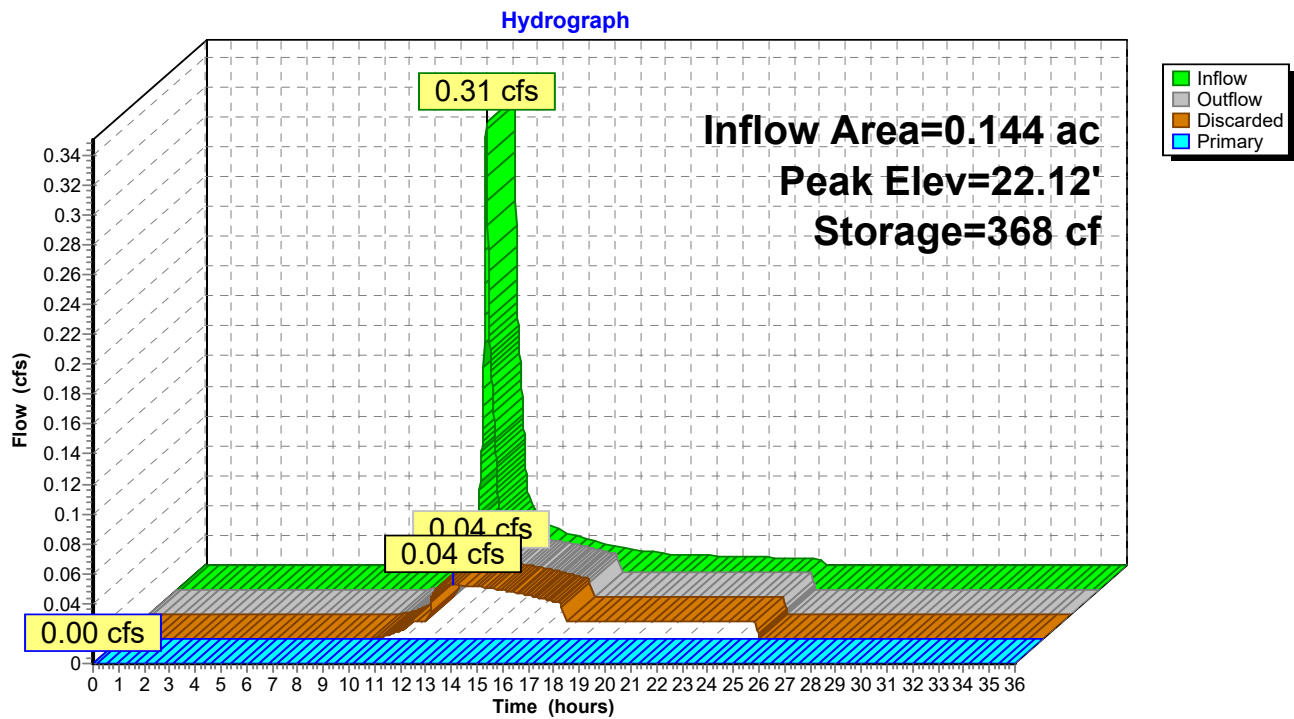
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.50	205	0	0
21.50	205	410	410

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
21.50	217	0	0
22.75	675	558	558

Device	Routing	Invert	Outlet Devices
#1	Discarded	19.50'	2.410 in/hr Infiltration over Surface area Phase-In= 0.01'
#2	Primary	22.60'	1.0' long x 1.0' breadth Emergency Outlet Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Discarded OutFlow Max=0.04 cfs @ 12.93 hrs HW=22.12' (Free Discharge)↑ **1=Infiltration** (Exfiltration Controls 0.04 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=19.50' TW=0.00' (Dynamic Tailwater)↑ **2=Emergency Outlet** (Controls 0.00 cfs)

Pond 2P: Infiltration Trench



Post Development 11-26-18*Type III 24-hr 25-year Rainfall=5.80"*

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 24

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

Subcatchment 1S: 1S

Runoff Area=8,138 sf 100.00% Impervious Runoff Depth=5.56"
Tc=5.0 min CN=98 Runoff=1.10 cfs 0.087 af

Subcatchment 2S: 2S

Runoff Area=6,291 sf 53.79% Impervious Runoff Depth=2.74"
Tc=5.0 min CN=71 Runoff=0.48 cfs 0.033 af

Subcatchment 3S: 3S (Misc. Runoff)

Runoff Area=1,004 sf 4.28% Impervious Runoff Depth=0.55"
Tc=5.0 min CN=42 Runoff=0.01 cfs 0.001 af

Reach 1R: POI #1 - Anderson St.

Inflow=0.74 cfs 0.088 af
Outflow=0.74 cfs 0.088 af

Pond 1P: USSF-740

Peak Elev=32.80' Storage=826 cf Inflow=1.10 cfs 0.087 af
Outflow=0.73 cfs 0.087 af

Pond 2P: Infiltration Trench

Peak Elev=22.58' Storage=615 cf Inflow=0.48 cfs 0.033 af
Discarded=0.05 cfs 0.033 af Primary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.033 af

Total Runoff Area = 0.354 ac Runoff Volume = 0.121 af Average Runoff Depth = 4.08"
25.06% Pervious = 0.089 ac 74.94% Impervious = 0.265 ac

Post Development 11-26-18

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

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

Printed 11/27/2018

Page 25

Summary for Subcatchment 1S: 1S

Runoff = 1.10 cfs @ 12.07 hrs, Volume= 0.087 af, Depth= 5.56"

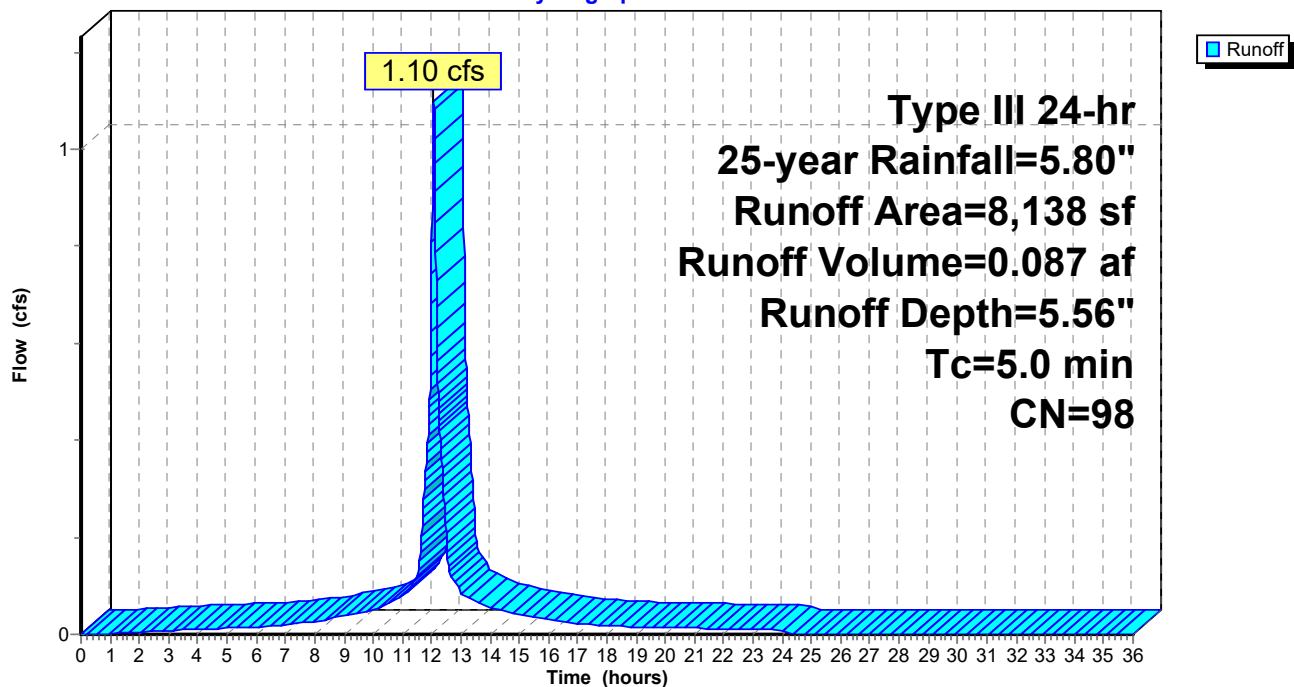
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	8,138	98	Roof
	8,138		100.00% Impervious Area

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

Subcatchment 1S: 1S

Hydrograph



Post Development 11-26-18

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

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

Printed 11/27/2018

Page 26

Summary for Subcatchment 2S: 2S

Runoff = 0.48 cfs @ 12.08 hrs, Volume= 0.033 af, Depth= 2.74"

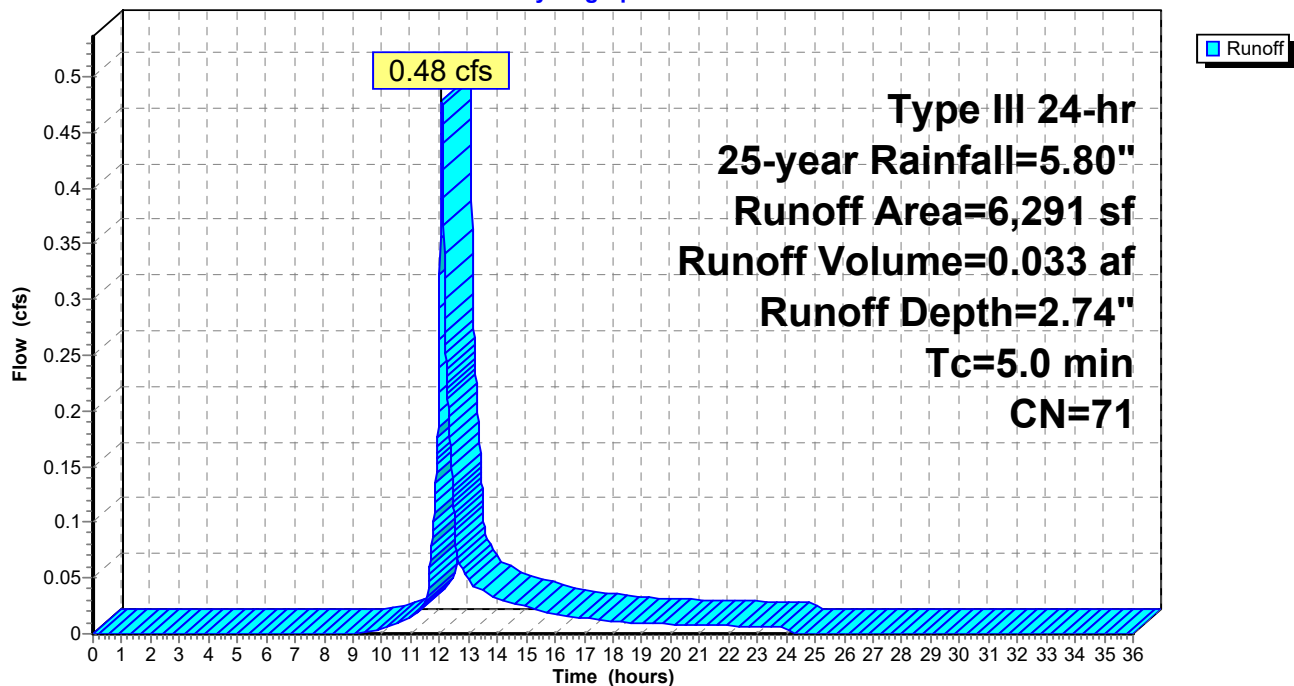
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	3,384	98	Drive, wall, walks, decks above, misc. roof
	2,907	39	>75% Grass cover, Good, HSG A
	6,291	71	Weighted Average
	2,907		46.21% Pervious Area
	3,384		53.79% Impervious Area

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

Subcatchment 2S: 2S

Hydrograph



Post Development 11-26-18

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

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

Printed 11/27/2018

Page 27

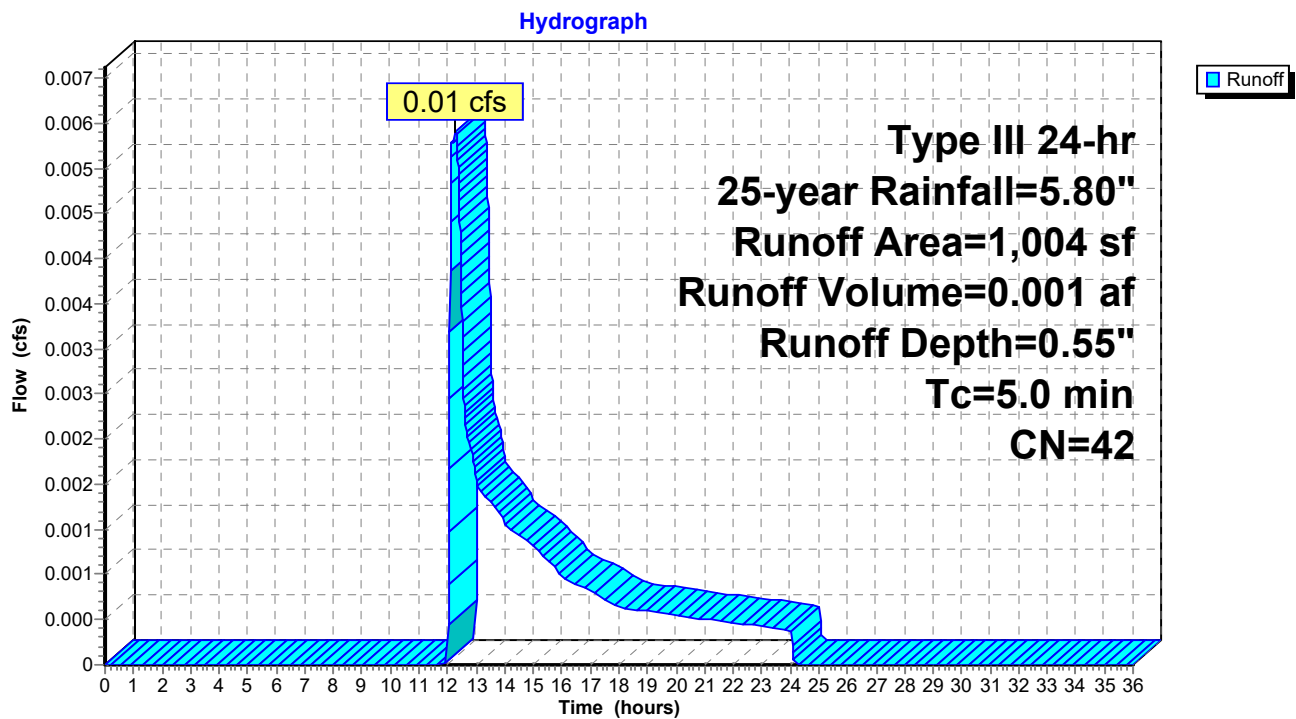
Summary for Subcatchment 3S: 3S (Misc. Runoff)

Runoff = 0.01 cfs @ 12.27 hrs, Volume= 0.001 af, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
961	39	>75% Grass cover, Good, HSG A
* 43	98	Front entrance walk/sculptures
1,004	42	Weighted Average
961		95.72% Pervious Area
43		4.28% Impervious Area

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

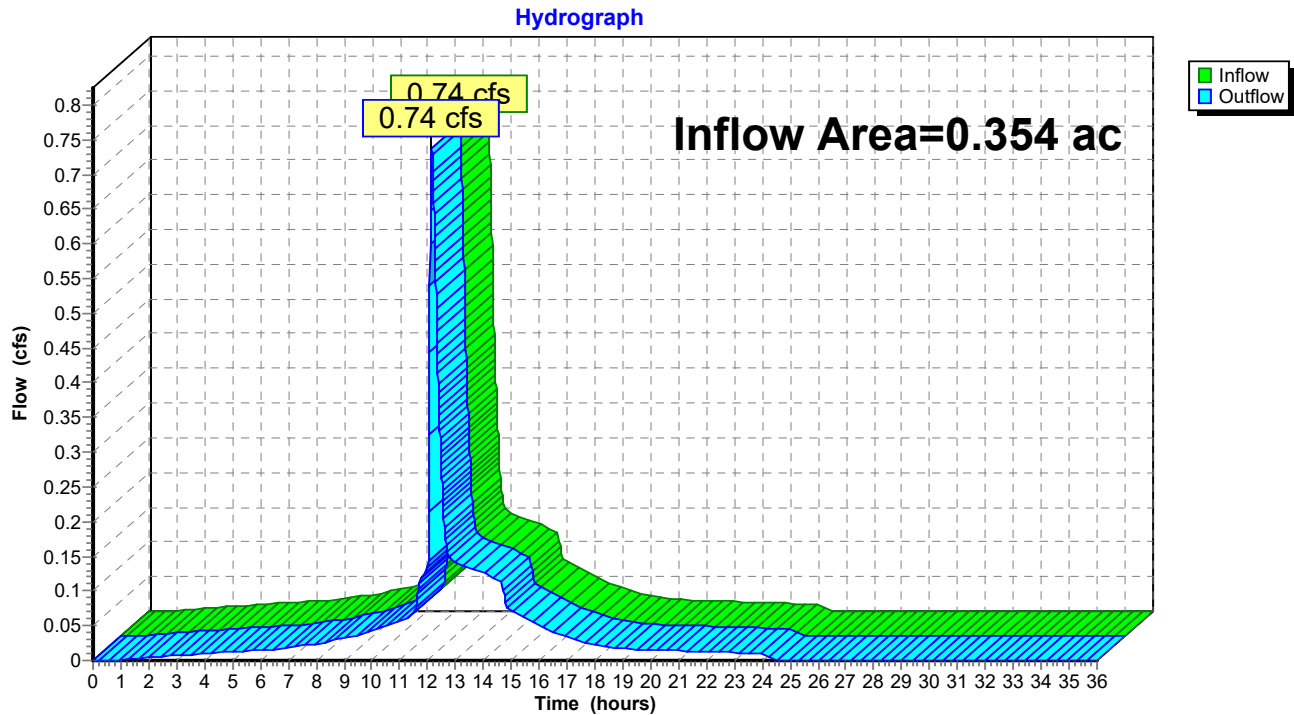
Subcatchment 3S: 3S (Misc. Runoff)

Summary for Reach 1R: POI #1 - Anderson St.

Inflow Area = 0.354 ac, 74.94% Impervious, Inflow Depth = 2.97" for 25-year event
Inflow = 0.74 cfs @ 12.15 hrs, Volume= 0.088 af
Outflow = 0.74 cfs @ 12.15 hrs, Volume= 0.088 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Reach 1R: POI #1 - Anderson St.



Post Development 11-26-18

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

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 29

Summary for Pond 1P: USSF-740

Inflow Area = 0.187 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-year event
 Inflow = 1.10 cfs @ 12.07 hrs, Volume = 0.087 af
 Outflow = 0.73 cfs @ 12.15 hrs, Volume = 0.087 af, Atten = 34%, Lag = 4.8 min
 Primary = 0.73 cfs @ 12.15 hrs, Volume = 0.087 af

Routing by Dyn-Stor-Ind method, Time Span = 0.00-36.00 hrs, dt = 0.01 hrs
 Peak Elev = 32.80' @ 12.15 hrs Surf.Area = 1,231 sf Storage = 826 cf

Plug-Flow detention time = 35.4 min calculated for 0.087 af (100% of inflow)
 Center-of-Mass det. time = 35.4 min (780.1 - 744.7)

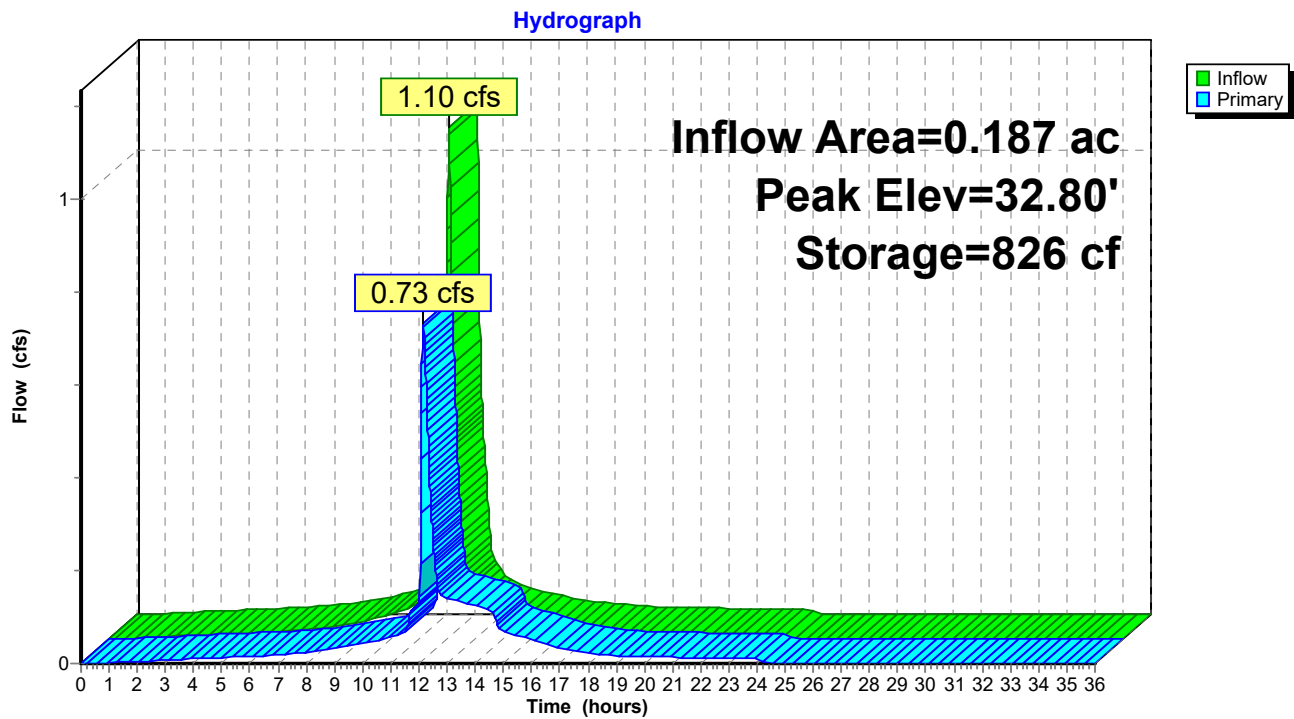
Volume	Invert	Avail.Storage	Storage Description
#1	30.50'	450 cf	25.25'W x 16.25'L x 3.75'H Crushed Stone 1,539 cf Overall - 413 cf Embedded = 1,125 cf x 40.0% Voids
#2	31.00'	413 cf	ADS_StormTech SC-740 x 9 Inside #1 Effective Size = 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size = 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap
#3	29.00'	31 cf	16.25'W x 25.25'L x 1.50'H Sand 615 cf Overall x 5.0% Voids
#4	27.80'	195 cf	16.25'W x 25.25'L x 1.20'H Crushed Stone Underdrain 492 cf Overall - 5 cf Embedded = 487 cf x 40.0% Voids
#5	28.33'	5 cf	4.0" Round Underdrains Inside #4 L = 61.0' S = 0.0050 '/'
			1,094 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	27.65'	8.0" Round 8" Outlet L = 130.0' CMP, projecting, no headwall, Ke = 0.900 Inlet / Outlet Invert = 27.65' / 27.00' S = 0.0050 '/ Cc = 0.900 n = 0.013 Corrugated PE, smooth interior, Flow Area = 0.35 sf
#2	Device 1	27.75'	1.6" Vert. Quality Outlet C = 0.600
#3	Device 1	32.10'	5.7" Vert. Quantity Outlet C = 0.600
#4	Device 1	32.90'	6.0' long x 0.7' breadth Overflow Wier Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

Primary OutFlow Max = 0.73 cfs @ 12.15 hrs HW = 32.80' TW = 0.00' (Dynamic Tailwater)

- 1 = 8" Outlet (Passes 0.73 cfs of 2.13 cfs potential flow)
- 2 = Quality Outlet (Orifice Controls 0.15 cfs @ 10.75 fps)
- 3 = Quantity Outlet (Orifice Controls 0.58 cfs @ 3.28 fps)
- 4 = Overflow Wier (Controls 0.00 cfs)

Pond 1P: USSF-740



Post Development 11-26-18*Type III 24-hr 25-year Rainfall=5.80"*

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 31

Summary for Pond 2P: Infiltration Trench

Inflow Area = 0.144 ac, 53.79% Impervious, Inflow Depth = 2.74" for 25-year event
 Inflow = 0.48 cfs @ 12.08 hrs, Volume= 0.033 af
 Outflow = 0.05 cfs @ 13.05 hrs, Volume= 0.033 af, Atten= 90%, Lag= 58.1 min
 Discarded = 0.05 cfs @ 13.05 hrs, Volume= 0.033 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Peak Elev= 22.58' @ 13.05 hrs Surf.Area= 819 sf Storage= 615 cf

Plug-Flow detention time= 171.7 min calculated for 0.033 af (100% of inflow)

Center-of-Mass det. time= 171.7 min (1,008.3 - 836.6)

Volume	Invert	Avail.Storage	Storage Description
#1	19.50'	164 cf	3/4" Stone Detention (Prismatic) Listed below (Recalc) 410 cf Overall x 40.0% Voids
#2	21.50'	558 cf	Detention above Stone (Prismatic) Listed below (Recalc)
		722 cf	Total Available Storage

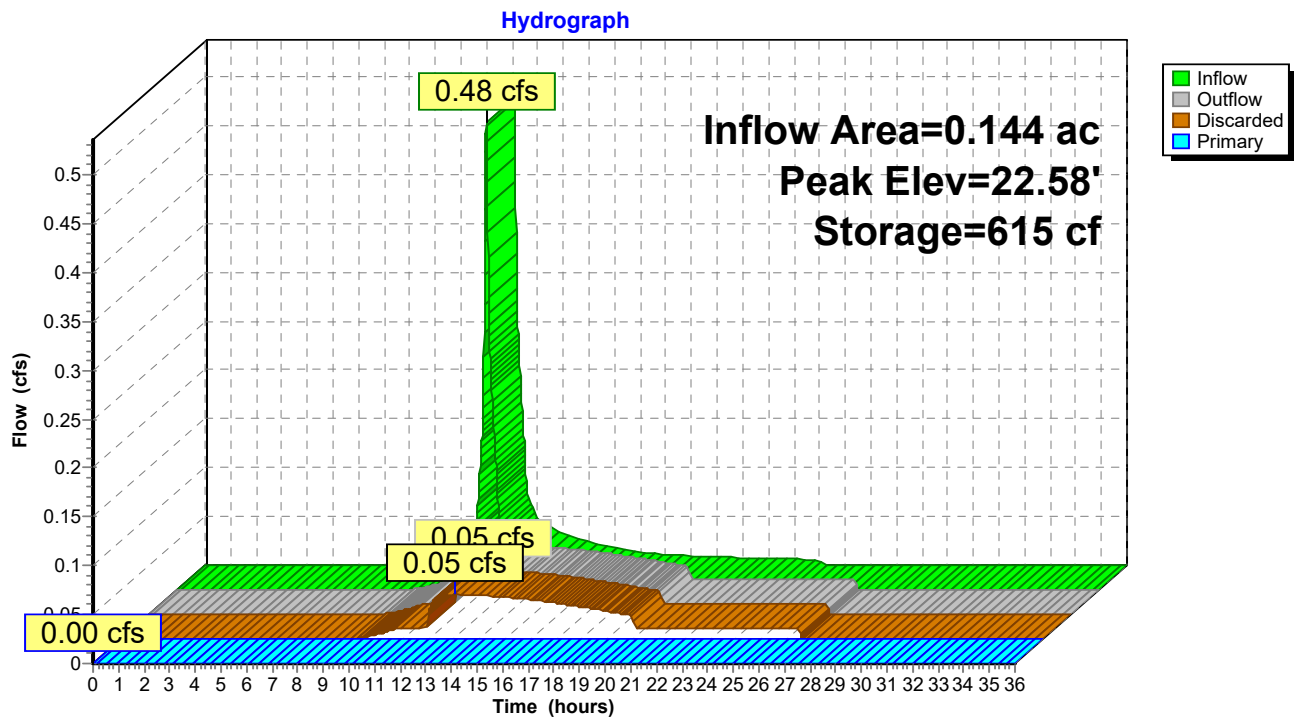
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.50	205	0	0
21.50	205	410	410

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
21.50	217	0	0
22.75	675	558	558

Device	Routing	Invert	Outlet Devices
#1	Discarded	19.50'	2.410 in/hr Infiltration over Surface area Phase-In= 0.01'
#2	Primary	22.60'	1.0' long x 1.0' breadth Emergency Outlet Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Discarded OutFlow Max=0.05 cfs @ 13.05 hrs HW=22.58' (Free Discharge)↑ **1=Infiltration** (Exfiltration Controls 0.05 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=19.50' TW=0.00' (Dynamic Tailwater)↑ **2=Emergency Outlet** (Controls 0.00 cfs)

Pond 2P: Infiltration Trench



Post Development 11-26-18*Type III 24-hr WQ Rainfall=1.27"*

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 33

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 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

Subcatchment 1S: 1S

Runoff Area=8,138 sf 100.00% Impervious Runoff Depth=1.05"
Tc=5.0 min CN=98 Runoff=0.23 cfs 0.016 af

Subcatchment 2S: 2S

Runoff Area=6,291 sf 53.79% Impervious Runoff Depth=0.05"
Tc=5.0 min CN=71 Runoff=0.00 cfs 0.001 af

Subcatchment 3S: 3S (Misc. Runoff)

Runoff Area=1,004 sf 4.28% Impervious Runoff Depth=0.00"
Tc=5.0 min CN=42 Runoff=0.00 cfs 0.000 af

Reach 1R: POI #1 - Anderson St.

Inflow=0.07 cfs 0.016 af
Outflow=0.07 cfs 0.016 af

Pond 1P: USSF-740

Peak Elev=28.84' Storage=175 cf Inflow=0.23 cfs 0.016 af
Outflow=0.07 cfs 0.016 af

Pond 2P: Infiltration Trench

Peak Elev=19.50' Storage=0 cf Inflow=0.00 cfs 0.001 af
Discarded=0.00 cfs 0.001 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.001 af

Total Runoff Area = 0.354 ac Runoff Volume = 0.017 af Average Runoff Depth = 0.57"
25.06% Pervious = 0.089 ac 74.94% Impervious = 0.265 ac

Post Development 11-26-18

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Type III 24-hr WQ Rainfall=1.27"

Printed 11/27/2018

Page 34

Summary for Subcatchment 1S: 1S

Runoff = 0.23 cfs @ 12.07 hrs, Volume= 0.016 af, Depth= 1.05"

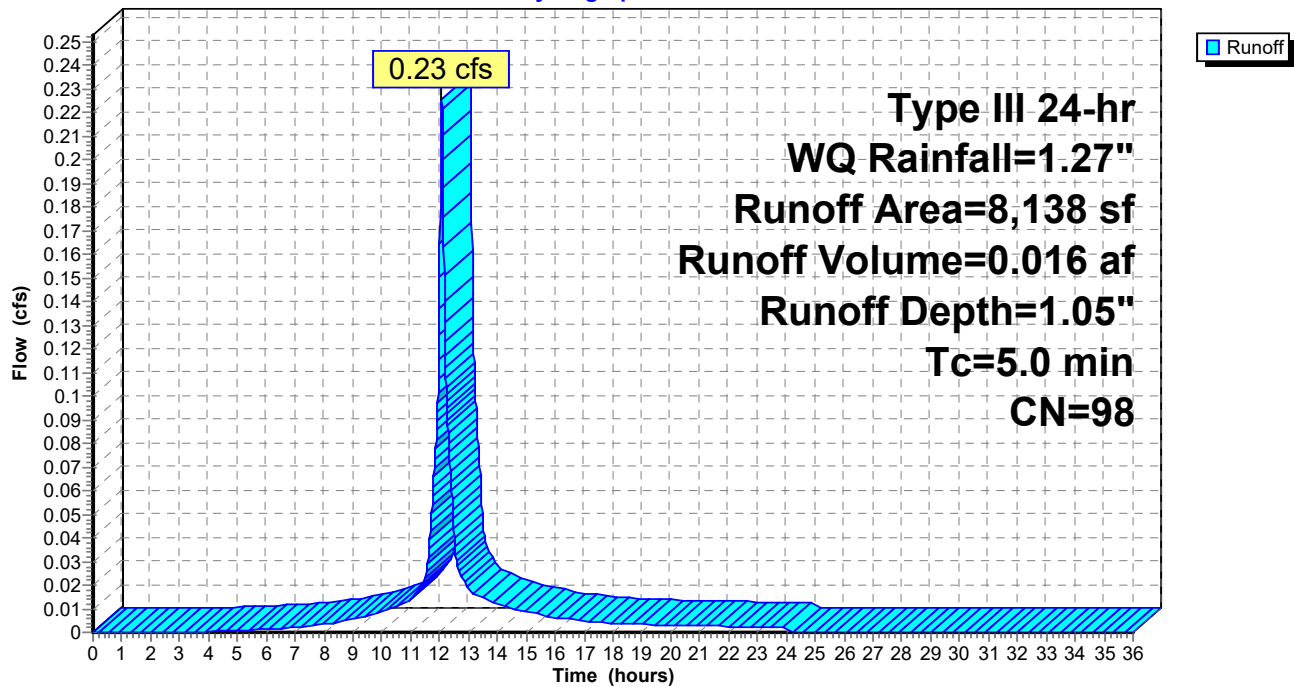
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr WQ Rainfall=1.27"

	Area (sf)	CN	Description
*	8,138	98	Roof
	8,138		100.00% Impervious Area

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

Subcatchment 1S: 1S

Hydrograph



Summary for Subcatchment 2S: 2S

Runoff = 0.00 cfs @ 12.49 hrs, Volume= 0.001 af, Depth= 0.05"

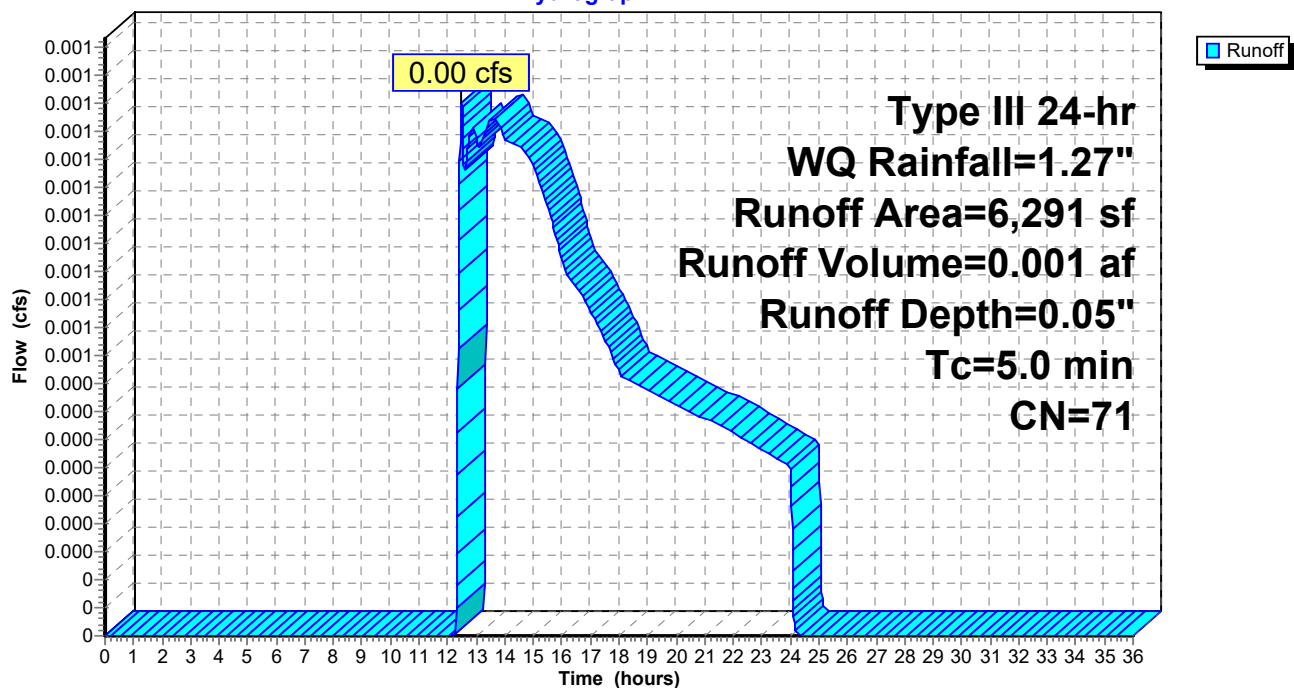
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr WQ Rainfall=1.27"

	Area (sf)	CN	Description
*	3,384	98	Drive, wall, walks, decks above, misc. roof
	2,907	39	>75% Grass cover, Good, HSG A
	6,291	71	Weighted Average
	2,907		46.21% Pervious Area
	3,384		53.79% Impervious Area

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

Subcatchment 2S: 2S

Hydrograph



Post Development 11-26-18

Prepared by Acorn Engineering, Inc.

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Type III 24-hr WQ Rainfall=1.27"

Printed 11/27/2018

Page 36

Summary for Subcatchment 3S: 3S (Misc. Runoff)

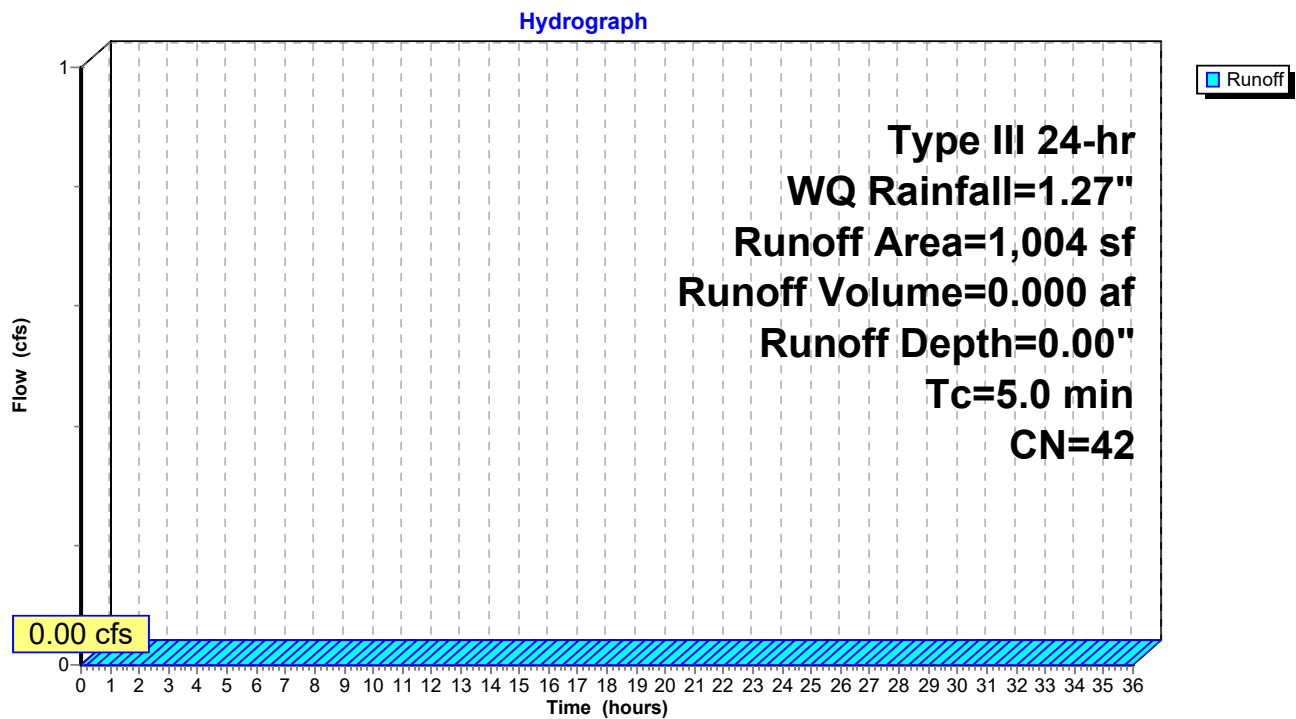
Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Type III 24-hr WQ Rainfall=1.27"

Area (sf)	CN	Description
961	39	>75% Grass cover, Good, HSG A
* 43	98	Front entrance walk/sculptures
1,004	42	Weighted Average
961		95.72% Pervious Area
43		4.28% Impervious Area

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

Subcatchment 3S: 3S (Misc. Runoff)

Summary for Reach 1R: POI #1 - Anderson St.

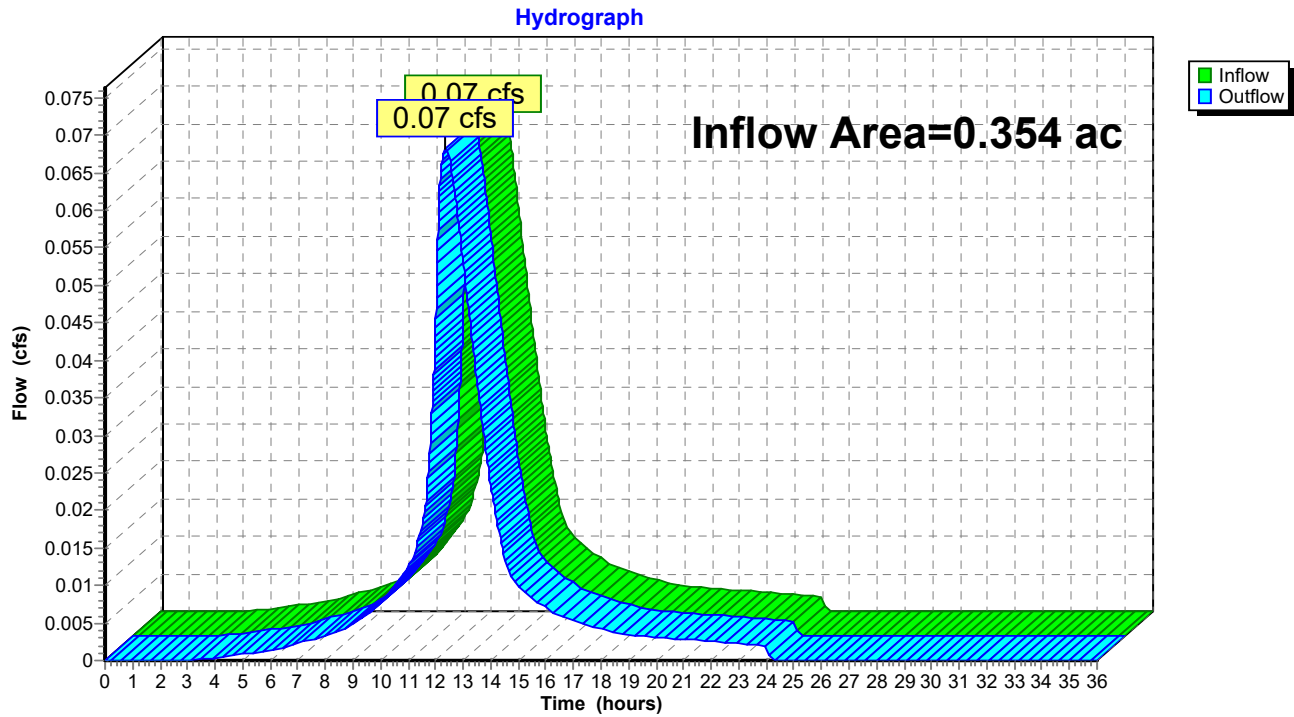
Inflow Area = 0.354 ac, 74.94% Impervious, Inflow Depth = 0.56" for WQ event

Inflow = 0.07 cfs @ 12.37 hrs, Volume= 0.016 af

Outflow = 0.07 cfs @ 12.37 hrs, Volume= 0.016 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Reach 1R: POI #1 - Anderson St.



Post Development 11-26-18

Type III 24-hr WQ Rainfall=1.27"

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 38

Summary for Pond 1P: USSF-740

Inflow Area = 0.187 ac, 100.00% Impervious, Inflow Depth = 1.05" for WQ event
 Inflow = 0.23 cfs @ 12.07 hrs, Volume = 0.016 af
 Outflow = 0.07 cfs @ 12.37 hrs, Volume = 0.016 af, Atten = 70%, Lag = 18.2 min
 Primary = 0.07 cfs @ 12.37 hrs, Volume = 0.016 af

Routing by Dyn-Stor-Ind method, Time Span = 0.00-36.00 hrs, dt = 0.01 hrs
 Peak Elev = 28.84' @ 12.37 hrs Surf.Area = 410 sf Storage = 175 cf

Plug-Flow detention time = (not calculated: outflow precedes inflow)
 Center-of-Mass det. time = 21.3 min (800.6 - 779.3)

Volume	Invert	Avail.Storage	Storage Description
#1	30.50'	450 cf	25.25'W x 16.25'L x 3.75'H Crushed Stone 1,539 cf Overall - 413 cf Embedded = 1,125 cf x 40.0% Voids
#2	31.00'	413 cf	ADS_StormTech SC-740 x 9 Inside #1 Effective Size = 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size = 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap
#3	29.00'	31 cf	16.25'W x 25.25'L x 1.50'H Sand 615 cf Overall x 5.0% Voids
#4	27.80'	195 cf	16.25'W x 25.25'L x 1.20'H Crushed Stone Underdrain 492 cf Overall - 5 cf Embedded = 487 cf x 40.0% Voids
#5	28.33'	5 cf	4.0" Round Underdrains Inside #4 L = 61.0' S = 0.0050 '/
		1,094 cf	Total Available Storage

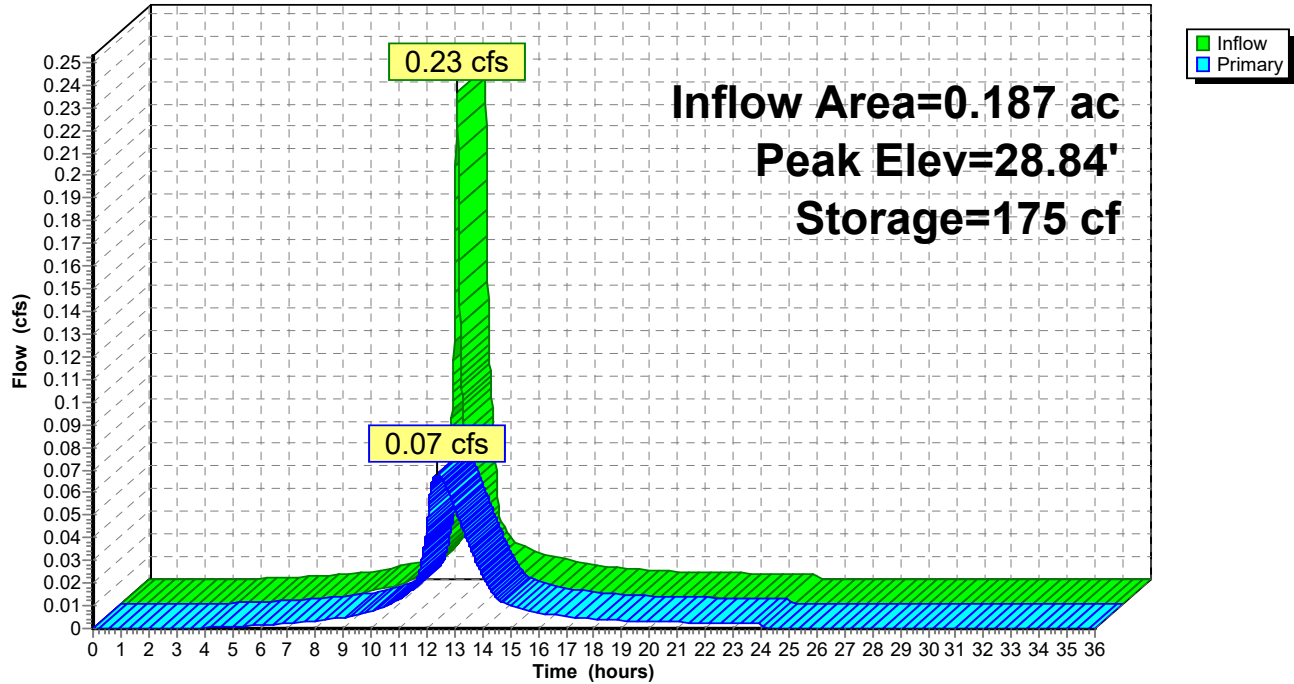
Device	Routing	Invert	Outlet Devices
#1	Primary	27.65'	8.0" Round 8" Outlet L = 130.0' CMP, projecting, no headwall, Ke = 0.900 Inlet / Outlet Invert = 27.65' / 27.00' S = 0.0050 '/ Cc = 0.900 n = 0.013 Corrugated PE, smooth interior, Flow Area = 0.35 sf
#2	Device 1	27.75'	1.6" Vert. Quality Outlet C = 0.600
#3	Device 1	32.10'	5.7" Vert. Quantity Outlet C = 0.600
#4	Device 1	32.90'	6.0' long x 0.7' breadth Overflow Wier Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

Primary OutFlow Max = 0.07 cfs @ 12.37 hrs HW = 28.84' TW = 0.00' (Dynamic Tailwater)

- 1 = 8" Outlet (Passes 0.07 cfs of 1.02 cfs potential flow)
- 2 = Quality Outlet (Orifice Controls 0.07 cfs @ 4.88 fps)
- 3 = Quantity Outlet (Controls 0.00 cfs)
- 4 = Overflow Wier (Controls 0.00 cfs)

Pond 1P: USSF-740

Hydrograph



Post Development 11-26-18*Type III 24-hr WQ Rainfall=1.27"*

Prepared by Acorn Engineering, Inc.

Printed 11/27/2018

HydroCAD® 10.00-22 s/n 00620 © 2018 HydroCAD Software Solutions LLC

Page 40

Summary for Pond 2P: Infiltration Trench

Inflow Area = 0.144 ac, 53.79% Impervious, Inflow Depth = 0.05" for WQ event
 Inflow = 0.00 cfs @ 12.49 hrs, Volume= 0.001 af
 Outflow = 0.00 cfs @ 12.51 hrs, Volume= 0.001 af, Atten= 1%, Lag= 1.2 min
 Discarded = 0.00 cfs @ 12.51 hrs, Volume= 0.001 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Peak Elev= 19.50' @ 12.51 hrs Surf.Area= 205 sf Storage= 0 cf

Plug-Flow detention time= 1.2 min calculated for 0.001 af (100% of inflow)

Center-of-Mass det. time= 1.2 min (1,020.7 - 1,019.6)

Volume	Invert	Avail.Storage	Storage Description
#1	19.50'	164 cf	3/4" Stone Detention (Prismatic) Listed below (Recalc) 410 cf Overall x 40.0% Voids
#2	21.50'	558 cf	Detention above Stone (Prismatic) Listed below (Recalc)
		722 cf	Total Available Storage

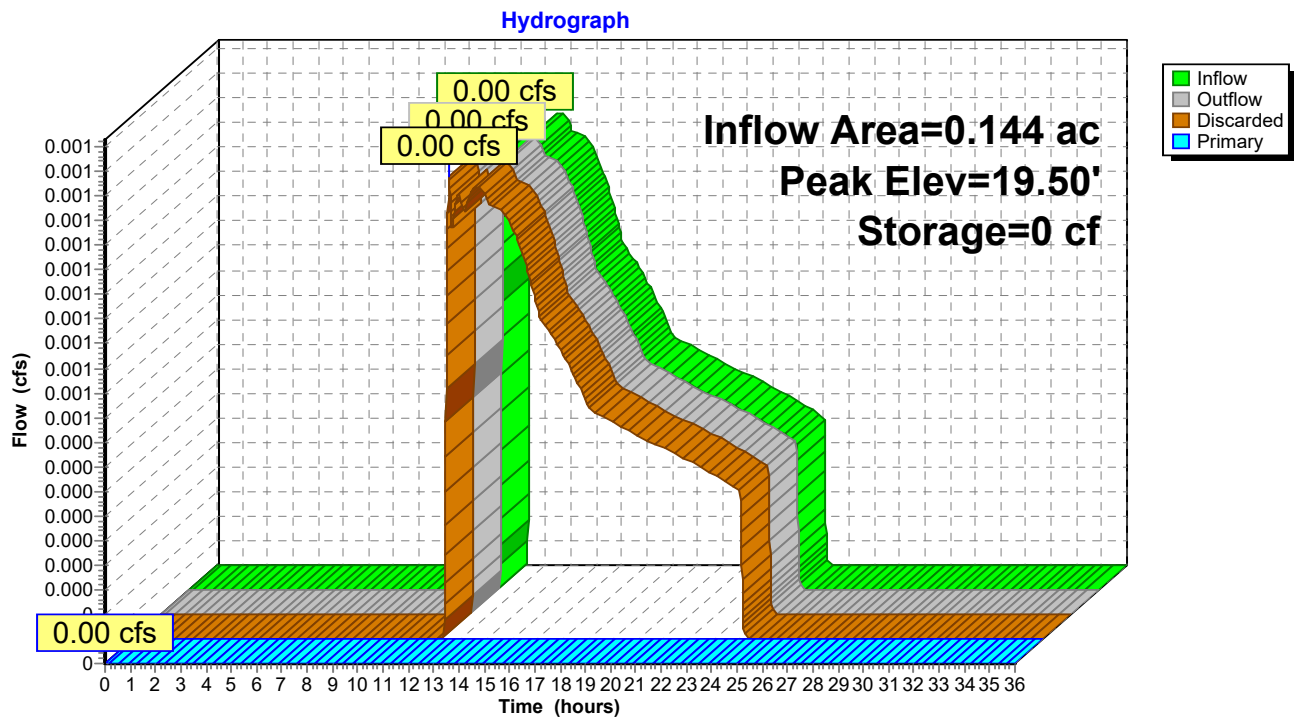
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.50	205	0	0
21.50	205	410	410

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
21.50	217	0	0
22.75	675	558	558

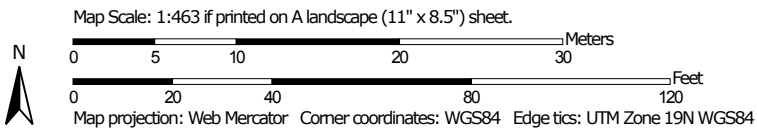
Device	Routing	Invert	Outlet Devices
#1	Discarded	19.50'	2.410 in/hr Infiltration over Surface area Phase-In= 0.01'
#2	Primary	22.60'	1.0' long x 1.0' breadth Emergency Outlet
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Discarded OutFlow Max=0.00 cfs @ 12.51 hrs HW=19.50' (Free Discharge)↑ **1=Infiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=19.50' TW=0.00' (Dynamic Tailwater)↑ **2=Emergency Outlet** (Controls 0.00 cfs)

Pond 2P: Infiltration Trench



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 15, Sep 6, 2018

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

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

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HID	Hinckley loamy sand, 15 to 25 percent slopes	0.9	100.0%
Totals for Area of Interest		0.9	100.0%

Cumberland County and Part of Oxford County, Maine

HID—Hinckley loamy sand, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 2svmc

Elevation: 0 to 1,460 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Hinckley and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash plains, eskers, moraines, outwash terraces, outwash deltas, kame terraces, kames

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope, crest, head slope, nose slope, riser

Down-slope shape: Convex, linear, concave

Across-slope shape: Linear, convex, concave

Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 8 inches: loamy sand

Bw1 - 8 to 11 inches: gravelly loamy sand

Bw2 - 11 to 16 inches: gravelly loamy sand

BC - 16 to 19 inches: very gravelly loamy sand

C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 15 to 25 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Excessively drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat):

Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water storage in profile: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

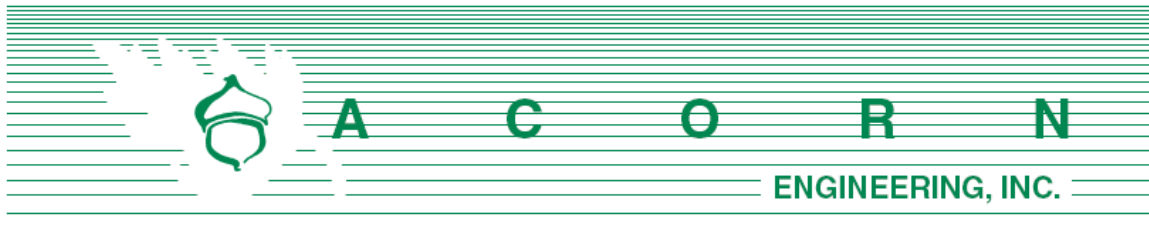
Hydrologic Soil Group: A

Hydric soil rating: No

Data Source Information

Soil Survey Area: Cumberland County and Part of Oxford County, Maine

Survey Area Data: Version 15, Sep 6, 2018



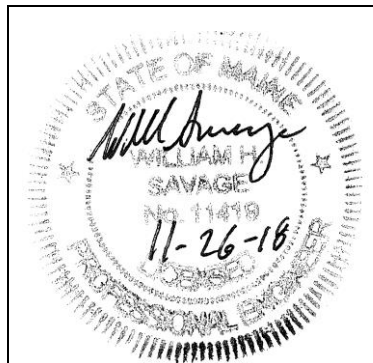
K. EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**The Preserve at South Ridge, LLC
94 South Street
Yarmouth, ME 04096**

Prepared By:

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



November 2018

INTRODUCTION

Acorn Engineering, Inc. has been retained by The Preserve at South Ridge, LLC to provide civil engineering services for the proposed redevelopment of 6 Hammond Street. The proposed project includes a three-story, 16-unit residential multi-family building with subsurface parking.

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

1.0 EXISTING CONDITIONS

The proposed project site is located at the corner of Hammond Street and Fox Street. A boundary plan has been prepared by R.W. Eaton Associates of Westbrook, Maine dated March 28, 2017.

Abutting Uses:

- | | |
|------------------|---------------------------|
| ➤ North R-6 Zone | Multi Family Residential |
| ➤ East R-6 Zone | Single Family Residential |
| ➤ South R-6 Zone | Single Family Residential |
| ➤ West B-5 Zone | Governmental - PHA |

A large portion of the site is occupied by the existing structures. The site is also comprised of a paved driveway and landscaping. The grades are relatively flat. Approximately 26% of the site is impervious.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County
- United States Department of Agriculture Web Soil Survey

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

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



Table 1 - "K" Value		
Soils Type	Subsurface	Substratum
Hinckley	0.17	0.17

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

1.2 Existing Erosion Problems

There are no signs of erosion.

1.3 Critical Areas

Critical areas that would require special attention during construction include, but are not limited to, the existing structures, the drainage system within Hammond Street and slope stabilization located within the vicinity during earthwork and foundation construction.

1.4 Protected Natural Resource

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

1.5 Previous Construction Activity (5 years)

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

1.6 Timber Harvesting

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

2.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

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



2.1 Temporary Erosion Control Measures

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

- 2.1.1 Crushed stone stabilized construction entrances shall be placed at all access points to the project site where there are disturbed areas. The following specifications shall be followed at a minimum:
- Stone size shall be 2-3 inches, or reclaimed or recycled concrete equivalent.
 - The thickness of the entrance stone layer shall be no less than 6 inches.
 - The entrance shall not be less than 20 feet wide, however not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.
 - Geotextile fabric (woven or non-woven) shall be placed over the entire entrance area.
 - The entrance/exit shall be maintained to the extent that it will prevent the tracking of sediment onto public road ways.
- 2.1.2 Siltation fence or erosion control berm shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The silt fence or erosion control berm shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam.
- 2.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.
- 2.1.4 At any time of the year, all slopes greater than 3:1 shall be stabilized with Double Net Erosion Control Blanket Bionet SC150BN by North American Green or Approved Equal, or Erosion Control Mix Slope Protection as detailed within the plans.
- 2.1.5 Hammond Street and Fox Street shall be swept to control mud and dust from the construction site as necessary. Add additional stone to the stabilized construction entrance to minimize the tracking of material off the site and onto the surrounding roadways.



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

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



- 2.2.1 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4" of loam, limed, and mulched. Erosion control blankets or mats shall be placed over the mulch in areas noted in paragraph 4.1 of this report.
- 2.2.2 All stormwater devices shall be installed and tributary areas stabilized prior receiving stormwater.
- 2.2.3 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.

3.0 EROSION AND SEDIMENTATION CONTROL PLAN

- 3.1 The Erosion and Sedimentation Control Plan is included within the plan set.

4.0 DETAILS AND SPECIFICATIONS

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

5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

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

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

The following measures shall be implemented during winter construction periods:

5.1 Sediment Barriers

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

5.2 Mulching

All areas shall be considered to be denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed



down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

5.3 Soil Stockpiling

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

5.4 Seeding

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

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

5.5 Over winter stabilization of disturbed soils

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

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.



- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.
- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. on the area so that no soil is visible through the mulch. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

5.6 Over winter stabilization of disturbed slopes

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

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

6.0 INSPECTION AND MAINTENANCE

A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct periodic visual inspections of installed erosion



control measures. The frequency of inspection shall occur at least once every two weeks, as well as after a “storm event”. A “storm event” shall consist 0.5 inches of rain within a 24-hour period. The following Erosion and Sediment Control - Best Management Practices (BMP's) shall inspected in the manner as described.

6.1 Sediment Barriers

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

6.2 Stabilized Stone Construction Entrances

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

6.3 Mulched Areas

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

6.4 Dust Control

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

6.5 Stormwater Appurtenances



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

6.6 Erosion and Sedimentation Control Inspections:

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

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

Qualifications:

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

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



7.0 IMPLEMENTATION SCHEDULE

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

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

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

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

8.0 CONCLUSION

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

9.0 ATTACHMENTS



- Temporary Seeding Plan
- Permanent Seeding Plan



TEMPORARY SEEDING PLAN

Site Preparation

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

Seedbed Preparation

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

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

Seeding

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

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

Mulching

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

Conclusion

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

PERMANENT SEEDING PLAN

Site Preparation

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

Seedbed Preparation

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

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

Seeding

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

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

Mulching

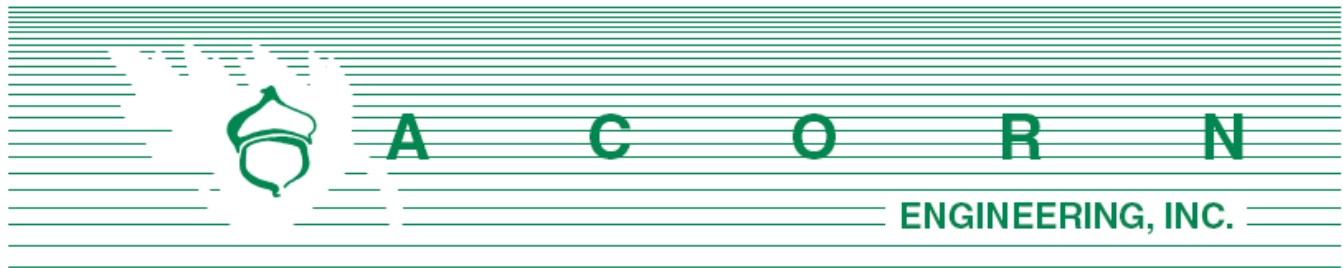
Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Recommendations

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

Conclusion

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



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

November 26, 2018

Subject: 10 Hammond Street – Fire Department Checklist
 Section L of Application

On behalf of The Preserve at South Ridge, LLC, the design team is pleased to respond to the Portland Fire Department Site Review Checklist.

1. Name, address, telephone number of applicant

The Preserve at South Ridge, LLC
 94 South Street
 Yarmouth, ME 04096
 (207) 773-2345

2. Name address, telephone number of architect

Ryan Senatore Architecture
 500 Congress Street Floor 2
 Portland, Maine 04101
 207-650-6414

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

NFPA: Apartments / IBC: R-2

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

Existing Building		
Total	Approx. 4,000	sf

Proposed Building		
Garage	8,115	sf
1 st Floor	8,023	sf
2 nd Floor	8,052	sf
3 rd Floor	8,052	sf
Total	32,242	sf

5. Elevation of all structures

Based upon the average grade plane defined by the IBC, the proposed building height is just under 40'. This height is below the allowable 45 feet within the R-6 zone. Please refer to the building elevations provided by the Architect for additional information.

6. Proposed fire protection of all structures

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

7. Hydrant locations

An existing hydrant is located on the same side of the street as the site on the south-easterly corner of the property. Hydrant flow data from the Portland Water District once received may be made available to the Fire Department upon request.

8. Water main size and location

The redevelopment will be serviced by a new 6" sprinkler line and domestic water main within Hammond Street. A 4" or 6" fire service line will extend from the domestic water main to the building fire suppression system. The building is expected to have internal sprinkler risers and a Fire Department pump connection on the street side of the building.

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

Access to the structure is provided directly on Hammond Street. Additionally, the site is accessible by a fire truck through Fox Street and the 18-foot driveway.

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

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

The project site is located in a heavily developed area and is fronted by a public street. The following pavement street width is currently available:

- Hammond Street: 32 feet

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



City of Portland Technical Manual – Section 3 Public Safety

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

Response: Not applicable

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

Response: As depicted on the site plan, the proposed building layout provides a minimum of two paved access points to the structure: from Hammond Street directly and one from Fox Street.

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

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

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

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

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

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

Response: The proposed site maintains the required clearance height of nine feet in all cases except for the subsurface parking area.

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

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

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

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



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

Sincerely,

A handwritten signature in black ink, appearing to read "Will Savage".

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



Code Review

Nov 21, 2018

Hammond House Residences

IBC 2015

NFPA 101 2009

3 floors above grade pln.

504.1

Story above grade pln.

Ch 2

First floor is (5'-9-3/4") less than 6'-0" above grade plane (avg. grade)

Thus the basement is NOT a story and this is a 3 Story building

Sprinklers

NFPA 13

NFPA 13

Fire Alarm

Monitored Fire Alarm Required

Monitored Fire Alarm Required

Smoke and CO Detectors

Smoke and CO detectors required

Smoke and CO detectors required

Occupant Load

T 1004.1.1

7.3.1.2

Floor 1 = 7,381 sf Parking (200 gsf/oc) = 37

Floor 1 = 7,381 sf Parking (200 gsf/oc) = 37

Floor 1 = 900 sf Residential (200 gsf/oc) = 5

Floor 1 = 900 sf Residential (200 gsf/oc) = 5

Floor 2 = 8,019 sf Residential (200 gsf/oc) = 41

Floor 2 = 8,019 sf Residential (200 gsf/oc) = 41

Floor 3 = 8,019 sf Residential (200 gsf/oc) = 41

Floor 3 = 8,019 sf Residential (200 gsf/oc) = 41

Floor 4 = 8,019 sf Residential (200 gsf/oc) = 41

Floor 4 = 8,019 sf Residential (200 gsf/oc) = 41

Roof decks 1,468 sf (divided into 4 separate decks (200) = 8 occ.

Roof decks 1,468 sf (200) = 8 occ.

Total Building Occupant Load = 173**Total Building Occupant Load = 173**

Use Group(s)

311.3

Floor 1 - Parking (S2)

6.1.13.1

Storage (Vehicles)

310.1

Floors 2, 3,4 - Apartments (R2)

6.1.8.1.5

Apartment Building

Const. Type

T 503

5B - combustible Unprotected

V (000) combustible unprotected

Building Height

T 504.3

60' with NFPA 13 sprinkler

T504.4

3 stories with NFPA 13 sprinkler

Building Area

T 506.2

21,000 sf floor plate with NFPA 13 sprinkler

Building Elements		T 601	0 hr Structural Frame	30.1.6	No Minimum Construction requirements
		T 602	0 hr Bearing Walls Exterior		
		T 602	1 hr Bearing Walls Exterior (sep. dist <10')		
		T 601	0 hr Bearing Walls Interior		
		T 601	0 hr Non-Bearing Walls Interior		
		T 602	0 hr Non-Bearing Walls Exterior		
		T 602	1 hr Non-Bearing Walls Exterior (sep. dist <10')		
		705.5	Exterior Wall with >10' sep. needs rating only from inside		
		T 601	1 hr Floor Construction (1hr between units)		
		T 601	0 hr Roof Construction		
Separations					
		508.4	S2 and R2 = 1 hr	6.1.14.4.1	Storage (ord.) and Apartment = 1hr with sprink.
		708.4	2 hr Elevator Shaft >= 4 stories	8.6.5	1 hr < 4 stories
		708	1 hr Mechanical Shaft < 4 stories		2hr >= 4 stories
		1022.1	1 hr Stair Shaft < 4 stories		
			2hr >= 4 stories		
		709.1	1 hr Between Dwelling Units		
		1018.1	1/2 hr Corridor	30.3.6.1.2	1/2 hr corridor
		508.2.5	1 hr Boiler Room	30.3.2.1.1	1 hr Boiler Room
		508.2.5	1 hr Trash Room	30.3.2.1.1	1 hr Trash Room
		508.2.5	1 hr Storage Room	30.3.2.1.1	1 hr Storage Room
		508.2.5	1 hr Laundry Room	30.3.2.1.1	1 hr Laundry Room
		3006.4	1 hr Elevator Machine Room		
		715.4	90 minute Stairwell Doors (2hr shaft)		
		715.4	20 minute Apartment Entry Doors (1/2 hr corridor wall)	30.3.6.2.1	20 minute Apartment Entry Doors
Distances and Exits		1021.1	2 Exits required	7.4.1.1	2 Means of Egress required
		1017.2	250' Travel Distance to exits with Sprinklers	30.2.6.3.2	200' Travel distance from apt. door to exit
		1006.2.1	125' Common Path of Travel	30.2.5.3.2	50' Common Path of Travel
		1020.4	50' Dead End	30.2.5.4.2	50' Dead End
				30.2.6.2	125' Travel Distance within Dwelling to Corridor

Unprotected Openings	T 705.8	15% when exterior wall sep. dist. is 3'>5'			
	T 705.8	25% when exterior wall sep. dist. is 5'>10'			
	T 705.8	45% when exterior wall sep. dist. is 10'>15'			
	T 705.8	75% when exterior wall sep. dist. is 15'>20'			
	T 705.8	Unlimited when exterior wall sep. dist. is 25'>30'			
	T 705.8	Unlimited when exterior wall sep. dist. is >30'			
Elevator Lobby	3006.2 ex.1	Not required as building is sprinkled			
Elevator as MoE	1009.2.1	Not req. as bldg. is not 4 stories above the level of exit discharge			
Egress Windows	1029.1.1	Not Required as Sprinkled with NFPA13			
Egress Stairs	1009.1	Occ. Load >50 = 44" min width	24.2.5.4	36" min. stair width	
	1009.1	Occ. Load <=50 = 36" min width	7.2.2.2.1.2(B)	44" min. over 50 occ.	
	1003.3	Handrails can protrude into stair 4.5" max	7.2.2.2.1.2	Handrails can protrude into stair 4.5" max	
	1005.2	Door Swings may not reduce egress width by > 1/2			
	1009.2	80" min headroom	7.2.2.2.1.1(a)	6'-8" min. headroom	
	1009.3	7" max. riser	7.2.2.2.1.1(a)	7" max. riser	
	1009.3	11" min Tread depth	7.2.2.2.1.1(a)	11" min. tread	
	1009.6	12' max. total rise between floors or landings	7.2.2.2.1.1(a)	12' max. height between landings	
Ramps	1010.2	1:12 (8%) Max slope	7.2.5.2(a)	1:12 max. slope	
	1010.6	60" long landings at top and bottom			
	1010.6	2% max slope of landings	7.2.5.2(a)	1:48 max. cross slope	
	1010.8	>6" rise must have handrails on both sides of ramp			
Egress Corridors	1018.2	44" min. when Occ. > 50			
	1018.2	36" min. when Occ. <= 50			
	1018.2	24" min. at service corridors to mechanical equipment			
Sound	1207.2	STC > 50 at walls and floors/ceilings			
	1207.3	IIC > 50 at walls and floors/ceilings			

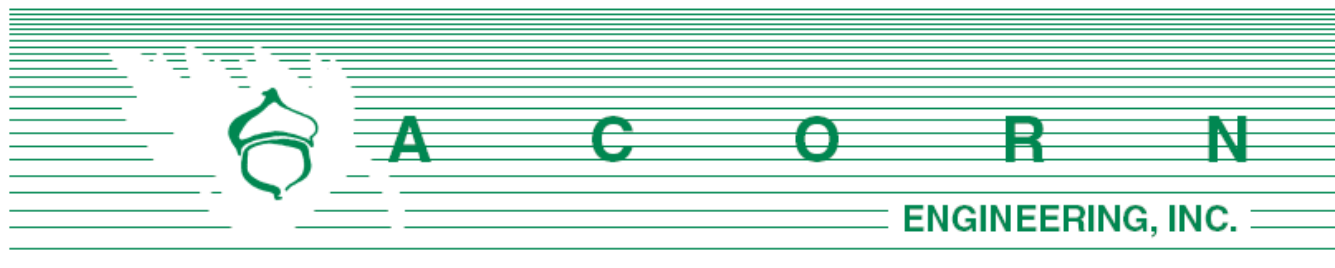
Energy IECC 2009		T 402.1.1	0.35 Fenestration U-Factor		
Zone 6			R-49 Ceiling		
Residential			R-20 or 13+5c Framed wall		
			R-30 Floor		
			R-19 or 15c Basement wall		
			R-10 to 4ft Slab		
Accessibility		Fair Housing Act Applies			
		Maine Human Rights Act Applies			

M. Calculation of Wastewater Flowrate for 10 Hammond Street Redevelopment

The proposed project will include the development of three stories with 16 residential units and on-site parking. Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules, the project anticipates the following daily flows:

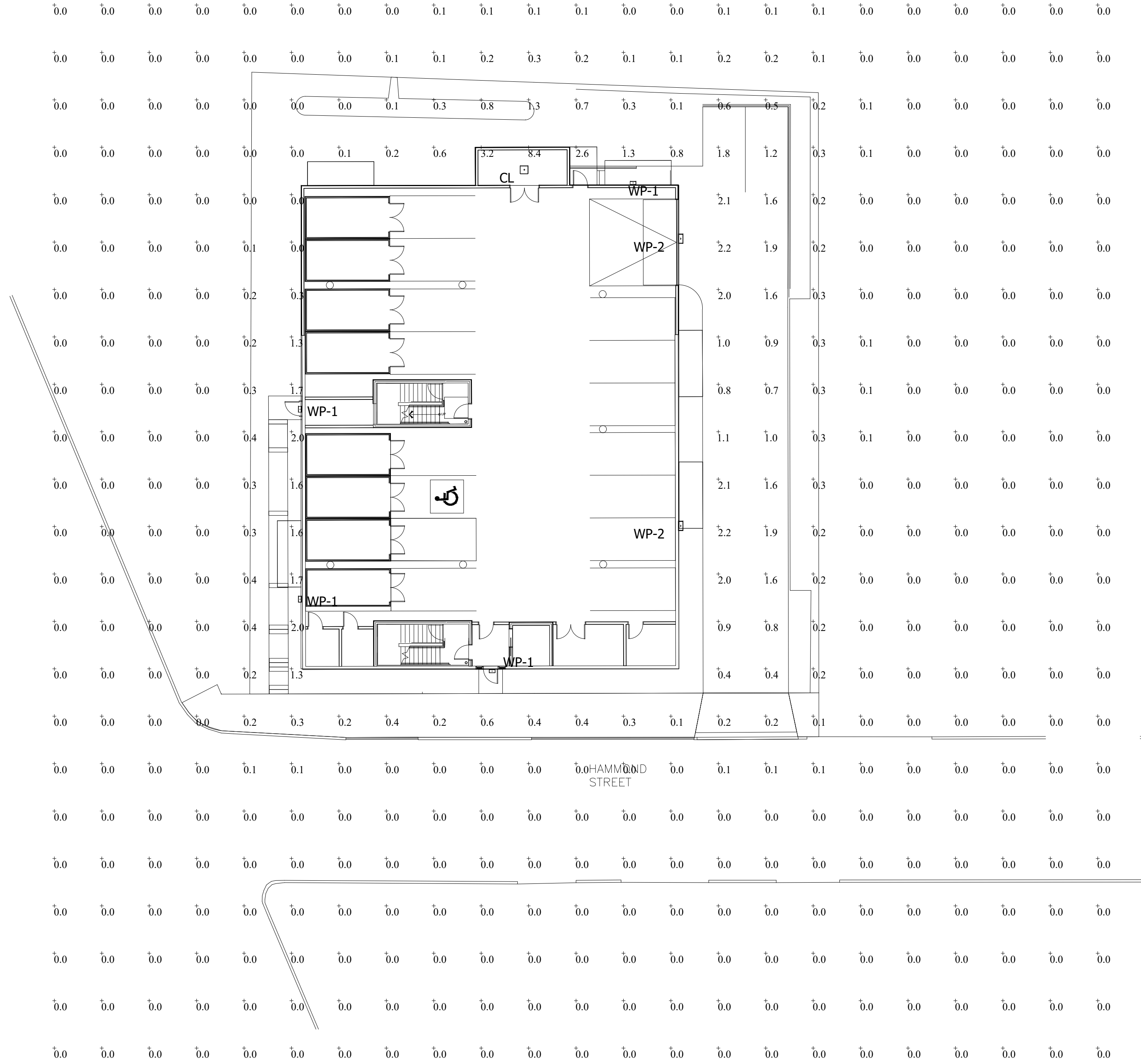
Estimate of Anticipated Daily Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
Single Family Dwelling	3-Bedroom	2	270	540
Total Gallons per Day (Existing)				540
Proposed Flow				
Residential Units	1-Bedroom	6	180	1,080
Residential Units	2-Bedroom	7	180	1,260
Residential Units	3-Bedroom	3	270	810
Total Gallons per Day (Proposed)				3,150
Net Change				+2,610 GPD
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				





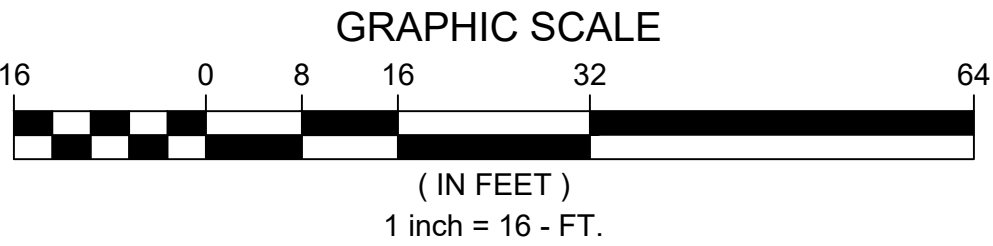
N. Lighting

Please find attached the photometric plan and cut sheets. Lighting finishes will be grey.



Luminaire Schedule							
Symbol	Qty	Label	Mounting Height	LLF	Lum. Lumens	Lum. Watts	Description
CL	1	CL	11' - 0" AFG	0.900	4610	38	LSQ1-40-4K7-UNV-X
WP-1	4	WP-1	8' - 0" AFG	0.900	1052	13	LNC-SLU-4K-2
WP-2	2	WP-2	12' - 0" AFG	0.900	3094	28	LNC3-24L4K-035-3

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Overall Area	Illuminance	Fc	0.19	8.4	0.0	N.A.	N.A.
Parking Area	Illuminance	Fc	1.41	2.2	0.4	3.53	5.50



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:

HAMMOND HOUSE DEVELOPMENT
YARMOUTH, ME
SITE LIGHTING PLAN

REVISED FROM DRAWING NUMBER(S):

R1: 11/29/18
R2: 12/03/18
R3: 12/06/18



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

ON BY:
DHK

REV BY:
DHK

QUOTE:
N/A

DATE:
11/28/18

DATE:
12/06/18

DRAWING / DESIGN NO.:
1823155R3

CHK BY:
N/A

SCALE:
AS NOTED



LSQ SERIES Lumasquare

Cat.#

Job

Type


HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

Intended Use:

The sleek Lumasquare luminaire represents the culmination of function and form with low profile housing design and lens featuring low luminance soft glow lens. This unique lens features high efficiency and ultimate visual comfort. Available in two housing sizes and four lumen outputs for a variety of applications including building perimeter/ security lighting, entrances, stairways, loading docks or canopies for schools, apartments or commercial buildings.

Construction:

Rugged die-cast aluminum housing with corrosion resistant powder coat finish both protects and provides architectural appearance. Heat dissipating fins provide superior thermal performance extending the life of the electronic components.

Electrical:

- 120-277V, 50/60Hz electronic drivers
- 347V and 480V available in larger LSQ2 housing
- 10KA surge protection included

LED(s) Optics, CCT:

- 3000K, 4000K and 5000K CCT nominal with 70 CRI
- Impact resistant acrylic diffuser
- low luminance soft glow lens provides blended non pixilated light for unprecedented visual comfort

Options/Controls

- Button photocontrol for dusk to dawn energy savings. Stock versions include 120V-277V PC with a cover which provides a choice to engage photocontrol or not. PC is installed in top hub.
- Occupancy sensor available for on/off and dimming control in larger LSQ1 and LSQ2 housing
- SiteSync™ wireless lighting control delivers flexible control strategies for reducing power consumption and minimizing maintenance costs while delivering the right light levels with a simple and affordable wireless solution. See ordering information or visit www.hubbellighting.com/sitesync for more details.
- Battery backup options available in larger LSQ2 housing rated for either 0° C or -30° C. Performance exceeds NEC requirement providing 1 fc minimum over 10'x10' at 11' mounting height
- 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

Installation:

- Mounts to 4" junction box and includes a gasket to seal electrical connections
- Mounting plate and hook on fixture allow easy 4 step installation and wiring
- Four ½" threaded conduit hubs for surface conduit provided

Listings

- Listed to UL1598 for use in wet location, listed for -40C to 40C applications
- IDA approved with zero uplight for 3000K and warmer CCTs
- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- IP65

Warranty:

Five year limited warranty (for more information visit: <http://www.hubbellighting.com/resources/warranty/>)

PRODUCT IMAGE(S)

LSQ1

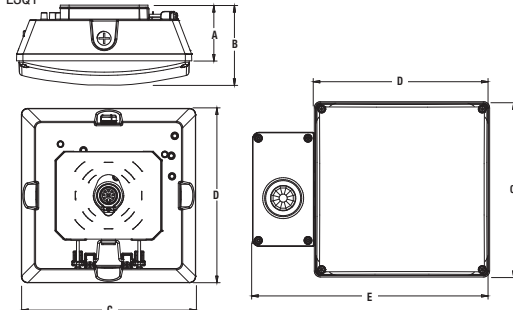


LSQ2



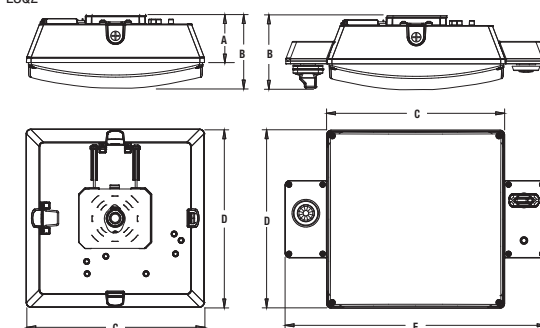
DIMENSIONS

LSQ1



A	B	C	D	E	Weight
3.0"	4.0"	10.0"	10.0"	13.5"	10 lbs.
76.2 mm	101.6 mm	254 mm	254 mm	343 mm	4.5 kg

LSQ2



A	B	C	D	E	Weight
4.0"	6.0"	14.8"	14.8"	21.9"	15.5 lbs.
101.6 mm	152.4 mm	375 mm	375 mm	556 mm	7.0 kg

CERTIFICATIONS/LISTINGS



*3000K and warmer CCTs only


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.

 © 2018 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA LSQ-SPEC AUGUST 7, 2018 10:13 AM

SHIPPING INFORMATION

Catalog Number	G.W.(kg)/CTN	Carton Dimensions			Carton Qty. per Master Pack
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)	
LSQ1	10lbs (4.5 kg)	9.5 (24)	8.25 (21)	5.25 (13.32)	6
LSQ2	15.5lbs (7 kg)	14 (35.5)	11.5 (29.2)	8 (20.3)	2



ORDERING INFORMATION - Stock Versions

Catalog Number	Description
LSQ1-40-4K-PCU	40 watt, 4600 Lumen, 4000K, 70 CRI, 120-277V, Dark Bronze Textured, Photocell
LSQ1-40-4K-GYS-PCU	40 watt, 4600 Lumen, 4000K, 70 CRI, 120-277V, Gray Smooth, Photocell
LSQ2-70-4K-PCU	75 watt, 9300 Lumen, 4000K, 70 CRI, 120-277V, Dark Bronze Textured, Photocell
LSQ2-70-4K-GYS-PCU	75 watt, 9300 Lumen, 4000K, 70 CRI, 120-277V, Gray Smooth, Photocell

ORDERING INFORMATION – ORDERING EXAMPLE: LSQ1-25-4K7-UNV-DB-PCU

FAMILY		CCT/CRI	VOLTAGE	COLOR/FINISH	CONTROL OPTIONS	OPTIONS
LSQ1-25	Size 1, 25w / 3,000lm	3K7 3000K, 70CRI	UNV 120V-277V	DB Dark Bronze Textured	PCU Button Photocontrol (120-277V)	E ¹ Battery Backup Unit (0°C)
LSQ1-40	Size 1, 40w / 4,500lm	4K7 4000K, 70CRI	120 120V	BL Black Textured	SCO ² Sensor Control (On/Off)	EH ¹ Battery Backup Unit (-30°C)
LSQ2-55	Size 2, 55w / 7,000lm	5K7 5000K, 70CRI	208 208V	WH White Textured	SCP ^{2,3} Sensor Control, Programmable (Dim)	F [*] Fusing (voltage specific)
LSQ2-70	Size 2, 75w / 9,000lm		240 240V	GYS Gray Smooth	SWP ^{1,2} SiteSync, Pre-Commission	2DR ¹ Dual Drivers
			277 277V	PS Plat. Silver Smooth	SWPM ^{1,2} SiteSync, Pre-Commission w/Motion Sensor	2PF ^{1,4} Dual Power Feed
			UHV 347/480	GT Graphite Textured	SWF ^{1,2} SiteSync, Field Commission	SPC Polycarbonate Vandal Shield
				CC Custom Color	SWFM ^{1,2} SiteSync, Field Commission w/Motion Sensor	
				* Specify Finish	Specify MTG HT for SCO/SCP & SWPM	
					8F Up to 8ft mounting height	
					20F Up to 20ft mounting height	

¹ Available in LSQ2-55 and LSQ2-70 only

² Available in 120V-277V only

³ Must order minimum of one remote control (SCP-REMOTE) to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings (120-277V only)

⁴ Comes with Dual Driver (2DR) option

ACCESSORIES

SCP-REMOTE Remote control for SCP option. Order a minimum of one per project to program and control fixtures

SCP-PC Polybarbonate Vandal Shield

PERFORMANCE DATA

PERFORMANCE DATA					5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 80 CRI)				
Catalog number	# of LEDs	Drive Current	System Watts	Distribution	Lumens	LPW'	B	U	G	Lumens	LPW'	B	U	G	Lumens	LPW'	B	U	G
LSQ1	176	43mA	24.3	V	3181	131	2	3	2	3170	131	2	3	2	3055	126	2	3	2
		65mA	38.1	V	4626	121	2	3	2	4610	121	2	3	2	4443	117	2	3	2
LSQ2	352	43mA	54.6	V	7246	133	2	3	2	7221	132	2	3	2	6959	127	2	3	2
		65mA	73.5	V	9431	128	2	3	2	9398	128	2	3	2	9057	123	2	3	2

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.

ELECTRICAL DATA

Catalog number	# of Drivers	Input Voltage	Current (Amps)	System Power
LSQ1-25	1	120	0.21	25.7
		277	0.09	
LSQ1-40		120	0.31	37.0
		277	0.13	
LSQ2-55	1	120	0.43	51.3
		277	0.19	
LSQ2-70		120	0.60	71.8
		277	0.26	

PROJECTED LUMEN MAINTENANCE

	OPERATING HOURS					
Ambient Temp.	0	25,000	TM-21-11 ¹	50,000	100,000	L70 (hours)
25°C / 77°F	1.00	0.95	0.93	0.91	0.83	>185,000
40°C / 104°F	0.97	0.92	0.90	0.88	0.80	>170,000

1. Projected per IESNA TM-21-11 * (Nichia 219B, 700mA, 85°C Ts, 10,000hrs) Data references the extrapolated performance projections for the LNC-12U1-5K base model in a 40°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

AMBIENT TEMPERATURE		LUMEN MULTIPLIER
0° C	32° F	1.03
10° C	50° F	1.02
20° C	68° F	1.01
25° C	77° F	1.00
30° C	86° F	0.99
40° C	104° F	0.97
50° C	122° F	0.96

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

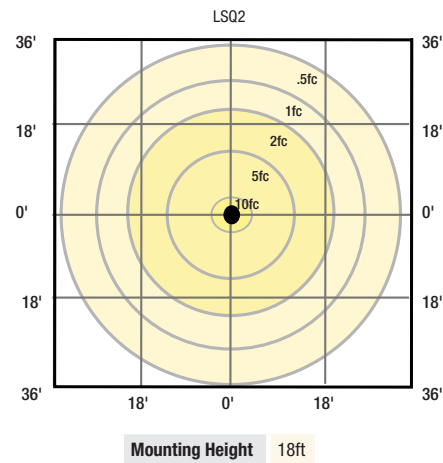
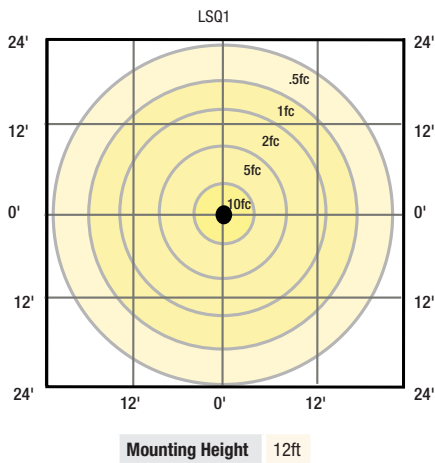


HUBBELL
Outdoor Lighting

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.

© 2018 HUBBELL OUTDOOR LIGHTING. All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA LSO-SPEC AUGUST 7, 2018 10:13 AM

**PERFORMANCE****INSTALLATION**

1 Mount plate to junction box.



2 Hang fixture on mounting plate with provided integral hook.



3 Complete wiring connections.



4 Two mounting screws close and secure fixture to the mounting bracket.


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.

© 2018 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA LSQ-SPEC AUGUST 7, 2018 10:13 AM

Submitted by Swaney Lighting 	Job Name: HAMMOND ST. DEVELOPMENT - SITE	Catalog Number: LSQ-1-40-4K7-UNV-** Notes: SPECIFY FINISH	Type: CL SLA18-40388
Empty content area for the main body of the page			

LNC SERIES	Cat.#	
	Job	
	Type	Approvals

SPECIFICATIONS

Intended Use:

The compact LED LNC is designed for entry/perimeter illumination for safety, security and identity. Typical mounting height is up to 12 feet with 40ft fixture spacing (without acrylic diffuser) and 30ft spacing with acrylic diffuser installed. Photocontrol option is available to provide dusk-to-dawn control for additional energy savings.

Construction:

Decorative die-cast aluminum housing and door. Rugged design protects internal components and provides excellent thermal management for long life – 60,000 hours minimum LED life at L96 rating per IESNA TM-21-11. Powder paint finishes provide lasting appearance in outdoor environments.

Optics/Electrical

LED:

Drivers are 120-277V, 50/60Hz Type II, III and Type IV lenses provide wide lateral spread.

- LNC5L – 5 LEDs, Types II, III or IV available, see page 2 for electrical details
- LNC7L – 7 LEDs, Type II, III or IV available, see page 2 for electrical details
- LNC9L – 9 LEDs, Types II, III or IV available, see page 2 for electrical details
- 3000K - 80 CRI, 4000K - 70 CRI, and 5000K - 70 CRI, CCT nominal
- Minimum operating temperature is -40°C/-40°F
- Drivers have greater than .90 power factor and less than 20% Total Harmonic Distortion

Lenses:

Full cut-off distribution; Ambient diffuser included, use for applications near entrances or locations where reduced brightness is desired.

Installation:

Quick mount adapter provides quick installation, designed for recessed box 4" square junction box.

Listings:

Listed and labeled to UL 1598 for wet locations, 25° C ambient environments. DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at: <http://www.designlights.org/>

- IES Progress Award Winner - 2012

Warranty:

Five year limited warranty. For more information visit: <http://www.hubbelloutdoor.com/resources/warranty/>

PRODUCT IMAGE(S)



LNC-5L



LNC-7L



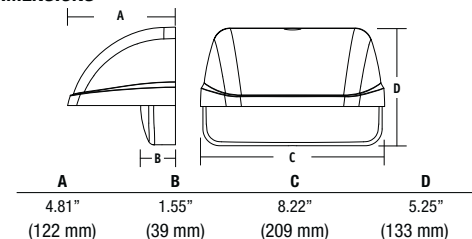
LNC-9L



With diffuser



DIMENSIONS



SHIPPING INFORMATION

Catalog Number	G.W(kg)/ CTN	Carton Dimensions			Carton Qty. per Master Pack
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)	
LNC-5LU	9.6 (4.36)	14.5 (37)	9.6 (24.5)	6.8 (17.5)	2
LNC-7LU	9.6 (4.36)	14.5 (37)	9.6 (24.5)	6.8 (17.5)	2
LNC-9LU	9.6 (4.36)	14.5 (37)	9.6 (24.5)	6.8 (17.5)	2

CERTIFICATIONS/LISTINGS



ORDERING INFORMATION

ORDERING EXAMPLE: LNC-9LU-5K-3-1-PCU

LNC	-		-		-		-		-	
SERIES	NUMBER OF LEDS	VOLTAGE	CCT	IES DISTRIBUTION	FINISH	OPTIONS				
LNC LNC zero upright	5L 5 LEDs 7L 7 LEDs 9L 9 LEDs	U 120V-277V 1 120V 2 208V 3 240V 4 277V	3K 3000K nominal, 70 CRI 4K 4000K nominal, 70 CRI 5K 5000K nominal AM ¹ Amber (590 nm) available for "Turtle Friendly" / observatory applications, 350 mA (consult factory)	2 Type II 3 Type III 4 Type IV	1 Bronze 2 Black 3 Gray 4 White 5 Platinum * Specify Finish	PCU Universal Button Photocell				

¹ Amber LEDs only available on 7LU and 9LU configurations, 350 mA only



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.

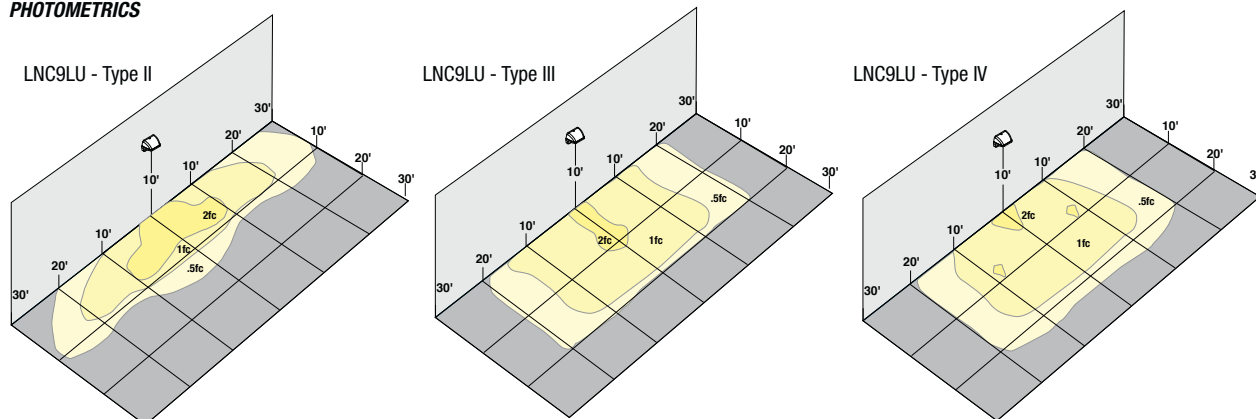
© 2016 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA

LAREDO LNC-SPEC

AUGUST 30, 2017 4:47 PM

**REPLACEMENT PART**

CATALOG NUMBER	DESCRIPTION
93039574	Frosted comfort shield, improved uniformity with only 5% reduction

PHOTOMETRICS**PERFORMANCE DATA**

# OF LEDS	DRIVE CURRENT	SYSTEM WATTS	DIST. TYPE	5K (5000K nominal, 70 CRI)		4K (4000K nominal, 70 CRI)		3K (3000K nominal, 80 CRI)		AM (<580 nm wave-length)		
				LUMENS	LPW'	LUMENS	LPW'	LUMENS	LPW'	LUMENS	SYSTEM WATTS	LPW'
5	STD. (700mA)	13W	2	1,150	88.5	1,052	81	883	68			
			3	1,132	87	1,077	83	833	64			
			4	1,146	88	1,053	81	849	65			
7	AM (350mA)	17W	2	1,515	89	1,369	80.5	1,272	75			
			3	1,500	88	1,539	90.5	1,392	82	268	6.6	59
			4	1,557	91.5	1,535	90	1,425	84			
9		22W	2	2,069	94	2,033	92	1,588	72			
			3	2,024	92	1,989	90	1,623	74			
			4	2,095	95	2,059	93.5	1,680	76	382	8.3	46

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. Please consult IES files for BUG ratings.

PROJECTED LUMEN MAINTENANCE

Ambient Temp.	OPERATING HOURS					
	0	25,000	50,000	TM-21-11 ¹ L96 60,000	100,000	L70 (hours)
25°C / 77°F	1.00	0.98	0.97	0.96	0.95	>791,000
40°C / 104°F	0.99	0.98	0.96	0.96	0.94	>635,000

1. Projected per IESNA TM-21-11 * (Nichia 219B, 700mA, 85°C Ts, 10,000hrs)
Data references the extrapolated performance projections for the LNC-12LU-5K base model in a 40°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

AMBIENT TEMPERATURE	LUMEN MULTIPLIER
0° C	1.02
10° C	1.01
20° C	1.00
25° C	1.00
30° C	1.00
40° C	0.99
50° C	0.98

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

ELECTRICAL DATA

# OF LEDS	DRIVE CURRENT (mA)	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	CURRENT (Amps)	SYSTEM POWER (w)
5	1	STD. (700mA)	120	0.11	13
			277	0.05	13
7	1	STD. (700mA)	120	0.14	17
			277	0.07	17
9	1	STD. (700mA)	120	0.17	22
			277	0.09	22


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.

 © 2016 HUBBELL OUTDOOR LIGHTING. All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA

LAREDO LNC-SPEC

AUGUST 30, 2017 4:47 PM



Job Name:
HAMMOND ST. DEVELOPMENT - SITE

Catalog Number:
LNC3-24L4K-035-3-U-**-

Notes: SPECIFY FINISH

Type:

WP-2

SLA18-40388

LITEPAK SERIES LNC3

Cat.#

Job

Type



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

Intended Use:

The midsize LNC3 is designed for perimeter illumination for safety, security and identity. No uplight and lower glare lens option offer neighbor friendly lighting at typical mounting heights of 8-20'. Units have protective polyester finish for long lasting appearance. Ideal for schools, factories, hospitals, warehouses and retail applications. Energy efficient LEDs provide 70%+ energy savings with little to no maintenance when compared to traditional light sources.

Construction:

Die-cast aluminum housing protects components and provides an architectural appearance. Casting thermally conducts LED heat to optimize performance and long life. Powder paint finish provides durability in outdoor environments. Four 1/2" conduit entries (top, bottom, and sides) provided for surface conduit.

Electrical:

- 120-277, 347 and 480 voltage, 50/60Hz, 0-10V dimming drivers
- Electronic driver
- 10kA surge protection

LED(s) CCT:

- Ambient operating temperature -40°C to 40°C
- 3000K, 4000K and 5000K CCT nominal with 70 CRI
- Available in 2 or 24 LED configuration, see page 2 for electrical and photometric data

Lenses:

- Zero uplight distributions using individual acrylic LED optics provide IES type II, III and IV distributions
- CS - Frosted acrylic diffuser option for reduced glare
- CSU - Frosted acrylic diffuser for inverted "up" mounting applications (lens required)

Lumen Maintenance:

L89 at 60,000 hrs (Projected per IESNA TM-21-11), see table on page 2 for all values

Installation:

Quick-mount adapter with gasket seal provides easy installation to wall or to recessed junction box (4" square junction box). Fixture attaches by two Allen-head hidden fasteners for tamper resistance.

Designed for direct j-box mount or conduit feed on all four sides in single SKU.

Options/Controls:

- Button photocontrol for dusk to dawn energy savings
- 7-pin photo-receptacle available for twist lock photocell and controls by others
- Occupancy sensor options available for complete on/off and dimming control
- SiteSync pre-commissioned wireless controls (with or without sensor)
- In addition, LITEPAK can be specified with SiteSync™ wireless control system for reduction in energy and maintenance cost while optimizing light quality 24/7. See ordering information or visit www.hubbellighting.com/sitesync for more details.

Listings:

- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Listed to UL1598 and CSAC22.2#250.0-24 for wet locations
- IP65 Assembly • IDA Approved (3000K configurations)

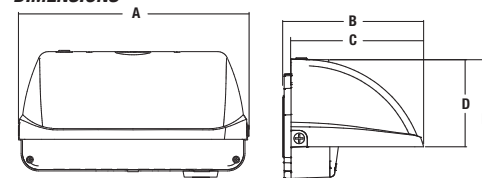
Warranty:

Five year limited warranty (for more information visit: <http://www.hubbelloutdoor.com/resources/warranty/>)

PRODUCT IMAGE(S)



DIMENSIONS



A	B	C	D	E	Weight / BBU
13"	10.5"	9.9"	5.8"	8.3"	18 lbs.
330.2 mm	266.7 mm	251 mm	147.3 mm	210.8 mm	8.2 kg

SHIPPING INFORMATION

Catalog Number	G.W.(kg)/CTN	Carton Dimensions			Carton Qty. per Master Pack
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)	
LNC3-24L	18.0 (8.2)	15.8 (40)	11.0 (28)	13 (33)	1

CERTIFICATIONS/LISTINGS



C

US

*3000K and warmer CCTs only

ORDERING INFORMATION – ORDERING EXAMPLE: LNC3-24L-3K-105-2-1-DB-7PR-SCP

LNC3		-	-	-	-	-	-	-	-	-	-
FAMILY	NUMBER OF LEDS	CCT	DRIVE CURRENT	IES DISTRIBUTION	VOLTAGE	FINISH	CONTROL OPTIONS	OPTIONS			
LNC3 Medium Litepak Wallpack	24L 24LEDs	3K 3000K	035 350mA	2 Type II	1 120v ¹	DB Bronze	PCU Universal Button PC	F ¹ Fusing (must specify voltage per footnote)			
		4K 4000K	050 500mA	3 Type III	2 208v ¹	BL Black	7PR ⁶ 7pin PCR	CS Frosted acrylic diffuser			
		5K 5000K	075 750mA	4 Type IV	3 240v ¹	WH White	SCP ^{3,4} Programmable occupancy sensor	CSU ² Inverted/Up mounting frosted acrylic diffuser (required for up/inverted fixture installations, factory install only see page 3)			
		105 1050mA		4 277v ¹	GR Gray	PS Platinum	SWP ^{7,10} SiteSync pre-commissioned	E ^{1,5} Integral battery backup rated for 0°			
					5 480v ¹	CC Custom Color		EH ^{1,5} Integral battery backup with heater rated for -30°C			
					F 347v ¹	* Specify Finish					

¹ Must specify voltage (120 or 277V only for E/EH options)

² Facy Install Only. Not available with SCP or SWPM sensor/control options

³ 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.

⁴ PCU option not applicable, included in sensor (8F = up to 8ft, 20F = up to 20ft)

⁵ 350mA, 500mA & 750mA versions only. Not available with F, SWP or SWPM options.

⁶ Accepts standard 3, 5, and 7-Pin ANSI controls (by others). Not available with PCU, SWP or SWPM control options

⁷ Must specify group and zone information at time or order. See [www.HubbellLighting.com/products/sitesync](#) for future details

⁸ Specify time delay, dimming level and mounting height

⁹ 750mA and 1050mA versions only, not available with 347/480V

¹⁰ 1050mA only, not available with 347V or 480V

¹ Must specify voltage (120 or 277V only for E/EH options)

² Factory Install Only. Not available with SCP or SWPM sensor/control options

³ 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.

⁴ PCU option not applicable, included in sensor (0F = up to 0Ft, 20F = up to 20ft)

⁵ 350mA, 500mA & 750mA versions only. Not available with F SWP or SWPM options.

⁶ Accepts standard 3, 5, and 7-Pin ANSI controls (by others). Not available with PCU, SWP or SWPM control options

⁷ Must specify group and zone information at time or order. See www.hubbellighting.com/products/sitesync for future details

⁸ Specify time delay; dimming level and mounting height

⁹ 750mA and 1050mA versions only, not available with 347/480V

¹⁰ 1050mA only, not available with 347V or 480V

STOCK ORDERING INFORMATION – 2L COB MODELS

CATALOG NUMBER	DESCRIPTION	DISTRIBUTION	WATTAGE	LUMENS	LPW	VOLTAGE	# OF DRIVERS @ DRIVE CURRENT	WEIGHTS LBS. (KGS)
LNC3-2L4K-075	2 LED - 60W Configuration, 4000K, Dark Bronze	Type IV	62.0	5,857	94.8	120-277	1 @ 750mA	16(7.3)
LNC3-2L4K-105	2 LED - 90W Configuration, 4000K, Dark Bronze		87.4	7,721	86.1		1 @ 1050mA	
LNC3-2L5K-105	2 LED - 90W Configuration, 5000K, Dark Bronze		87.4	7,288	82.0		1 @ 1050mA	
LNC3-2L4K-105-7PR	2 LED - 90W Configuration, 4000K, Dark Bronze, 7-Pin		87.4	7,721	86.1		1 @ 1050mA	
LNC3-2L4K-105-SCP	2 LED - 90W Configuration, 4000K, Dark Bronze, SCP		87.4	7,721	86.1		1 @ 1050mA	



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.

© 2017 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA LNC3-SPEC AUGUST 7, 2018 8:29 AM

Submitted by Swaney Lighting	Job Name: HAMMOND ST. DEVELOPMENT - SITE	Catalog Number: LNC3-24L4K-035-3-U-** Notes: SPECIFY FINISH	Type: WP-2 SLA18-40388
------------------------------	--	---	--

Accessories and Services (Ordered Separately)

Catalog Number	Description
LNC3-CS	Frosted acrylic diffuser reduces surface brightness and glare with a roughly 20% lumen reduction
SCP-REMOTE	Remote Control for SCP/_F option. Order at least one per project to program and control the occupancy sensor
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.
SW7PR*	SiteSync 7 Pin on fixture module On/Off/Dim, Daylight Sensor 120-480VAC

* When ordering SiteSync at least one of these two interface options must be ordered per project.
+ Available as a SiteSync retrofit solution for fixtures with an existing 7pin receptacle.

Hubbell Control Solutions - Accessories (sold separately)

Catalog Number	Description	HCS System
NXOFM-1R1D-UNV	On-fixture Module (7-pin), On / Off / Dim, Daylight Sensor with HubbNET Radio and Bluetooth® Radio, 120-480VAC	NX Distributed Intelligence™
WIR-RME-L	On-fixture Module (7-pin or 5-pin), On / Off / Dim, Daylight Sensor with wiSCAPE Radio, 110-480VAC	wiSCAPE® Lighting Control

For additional information related to these accessories please visit www.hubbellcontrolsolutions.com. Options provided for use with integrated sensor, please view specification sheet ordering information table for details.

SiteSync 7-Pin Module



SW7PR

- SiteSync Features in a new form
- Available as an accessory for new construction or retrofit applications (with existing 7-Pin receptacle)
- Available on all products that have a 7-Pin receptacle
- Does not interface with occupancy sensors



PERFORMANCE DATA

# OF LEDS	DRIVE CURRENT	SYSTEM WATTS	DIST. TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
				LUMENS	LPW¹	B	U	G	LUMENS	LPW¹	B	U	G	LUMENS	LPW¹	B	U	G
24	350mA	28	E	671	-	-	-	-	657	-	-	-	-	591	-	-	-	-
			2	3,212	115	1	0	1	3,145	113	1	0	1	2,991	107	1	0	1
			3	3,160	113	1	0	1	3,094	111	1	0	1	2,944	106	1	0	1
			4	3,182	114	1	0	1	3,116	112	1	0	1	2,964	106	1	0	1
	500mA	41	2	4,143	101	1	0	2	4,057	99	1	0	2	3,858	94	1	0	2
			3	4,076	99	1	0	1	3,991	97	1	0	1	3,797	93	1	0	1
			4	4,104	100	1	0	1	4,019	98	1	0	1	3,823	93	1	0	1
			2	5,918	99	1	0	2	5,795	97	1	0	2	5,512	92	1	0	2
	750mA	60	3	5,823	97	1	0	2	5,702	95	1	0	2	5,424	90	1	0	2
			4	5,863	98	1	0	2	5,741	96	1	0	2	5,461	91	1	0	2
			2	7,630	92	2	0	2	7,472	90	2	0	2	7,107	86	2	0	2
			3	7,508	90	1	0	2	7,352	89	1	0	2	6,993	84	1	0	2
	1050mA	83	4	7,559	91	1	0	2	7,402	89	1	0	2	7,041	85	1	0	2

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.

ELECTRICAL DATA

# OF LEDS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	CURRENT (Amps)	SYSTEM POWER (w)
24	350mA	120	0.23	28
		277	0.10	28
		347	0.08	28
		480	0.06	28
	500mA	120	0.34	41
		277	0.15	41
		347	0.12	41
		480	0.09	41
	750mA	120	0.50	60
		277	0.22	60
		347	0.17	60
		480	0.13	60
	1050mA	120	0.69	83
		277	0.30	83
		347	0.24	83
		480	0.17	83

PROJECTED LUMEN MAINTENANCE

Ambient Temp.	OPERATING HOURS					
	0	25,000	50,000	TM-21-11¹ L96 60,000	100,000	L70 (hours)
25°C / 77°F	1.00	0.97	0.94	0.93	0.89	>296,000
40°C / 104°F	1.00	0.95	0.91	0.89	0.83	>191,000

1. Projected per IESNA TM-21-11 * (Nichia 219C, 1050mA, 85°C, 10,000 hrs)
Data references the extrapolated performance projections for the LNC3-24L-105 base model in a 40°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

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

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



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.

© 2017 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA LNC3-SPEC AUGUST 7, 2018 8:29 AM

**Job Name:**

HAMMOND ST. DEVELOPMENT - SITE

Catalog Number:

LNC3-24L4K-035-3-U-**-**

Notes: SPECIFY FINISH

Type:**WP-2**

SLA18-40388

CSU – INVERTED MOUNTING OPTION
(Requires Factory Installed lens option)

Inverted mounting capabilities for uplighting applications. Specially designed frosted acrylic diffuser option softens output, improves uniformity and protects LED lenses.

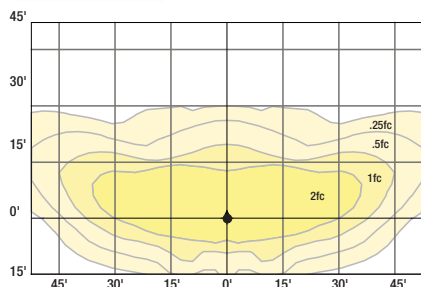
7PR-7-PIN RECEPTACLE
(Photocontrol and Wireless Controls by Others)

Standard NEMA 7-Pin receptacle for twist lock photocell or wireless controls (by others).

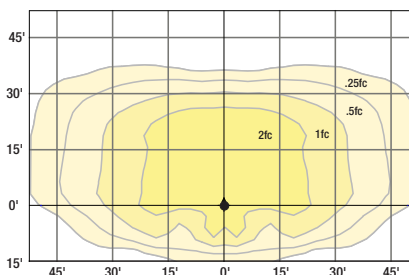
SCP - Programmable Occupancy Sensor

Sensor offers greater control and energy savings with SCP programmable sensor with adjustable delay and dimming levels (Factory default is 10%)

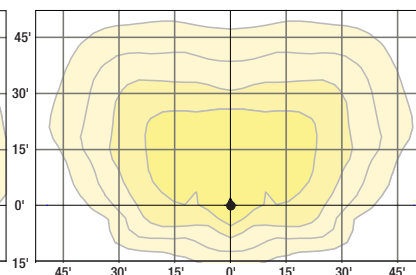
Visit: <http://www.hubbelllighting.com/solutions/controls/> for control application information

PHOTOMETRICS**Mounting Height** 15ft

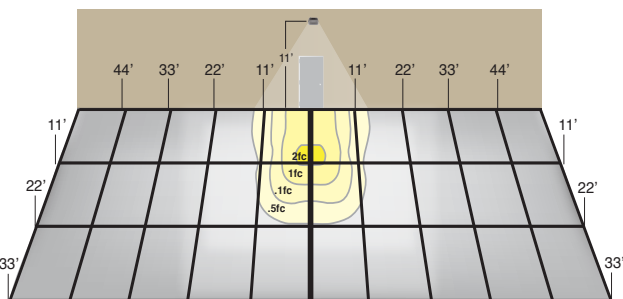
TYPE II
LNC3-24L-5K-105-2



TYPE III
LNC3-24L-5K-105-3



TYPE IV (Forward throw)
LNC3-24L-5K-105-4

PHOTOMETRICS - BATTERY BACK UP

11' Mounting Height

Provides Life Safety Code average illuminance of 1.0 fc. Assumes open space with no obstructions and mounting height of 11'.

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

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

E & EH EMERGENCY BATTERY BACKUP

24 High Power LEDs generate up to 6,000 lumens in Normal Mode, and use 4 LEDs for up to 700 lumens in emergency.

SWP & SWPM - SiteSync™

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

Precommissioned SiteSync Ordering Information:

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

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

Examples: LNC3-24L-4K-075-3-U-BL-SWP
LNC3-24L-4K-075-3-U-BL-SWPM-20F

SiteSync only
SiteSync with Motion Control

**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.

© 2017 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA LNC3-SPEC AUGUST 7, 2018 8:29 AM

November 21, 2018

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

Re: Hammond House - Design Narrative

The proposed building to be located near the corner of Hammond and Fox Streets in Portland's East Bayside Neighborhood consists of 16 residential condominium units. The building is a 3 story structure along Hammond Street with a daylight basement to the rear of the property

Prior to developing the building concept we spent much time walking the streets of East Bayside, 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 but reflects our contemporary time.

The neighborhood is comprised of a diverse palate of Architectural forms, scales and density. Hammond Street and the surrounding neighborhood has a variety of Architectural forms and massing from gable roof 1-1/2 and 3 story structures to 3 story flat roof structures.

We designed Hammond House using color massing and texture to scale the building as reflected a the Hammond Street elevation, to create a facade rhythm similar in proportion to the local triple decker building type. The building entry on Hammond Street is defined by the facade rhythm, a projecting mass above the door and a warm wood tone material, to create a welcoming place to enter the building. The green space in between the sidewalk and building facade will also serve as a sculpture garden, the owner will work with local artists to provide the Art for the space to create an interesting and engaging landscape along the sidewalk.

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101



Building Scale is a very important in this neighborhood, we have utilized color (as described above) as well as texture and massing to scale the building to fit in with its surroundings. We have used differing siding types on the facades to help scale the facades. The use of recessed and attached porches provide massing relief(s) and create shadow lines that also help give scale to the building.

The siding materials proposed are factory finished composite lap siding, panel siding and brick, chosen for their traditional crisp appearance and long term durability. The windows proposed are dark in color to compliment the siding colors and also further reinforce the crisp simplicity of the design. The roofing proposed is an EPDM roof membrane.

The design of Hammond House is derived from the Vernacular Architecture that exists in the neighborhood, we have used color, texture, massing and rhythm as tools to scale the project and integrate it into the existing neighborhood fabric.

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

P. Utilities

The proposed project will include installation of multiple utility services to the new building.

Water:

The two existing domestic service lines to each house will be retired in accordance with Portland Water District standards. A new 6" parent connection will tie into the main and will branch off to provide a sprinkler line and domestic line to the development.

Sewer:

The two existing sewer laterals to each house will be retired in accordance with the Department of Public Works. A new 6" pvc lateral will be installed to accept the wastewater from each unit, the elevator sump, and the garage sewer after draining from the oil-water separator. The garage and elevator sump will be pumped internally to meet with the wastewater lines from the living levels before being fed via gravity to the sewer main within Hammond Street.

Stormwater:

There is currently no drainage infrastructure on site. It is proposed to intercept the entirety of the roof runoff and store/treat it within an underdrained subsurface sand filter. Runoff from the driveway will be stored within an infiltration trench. These two BMP's will help maintain or lower the amount of stormwater leaving the site. Please see the Stormwater Management Report for more information.

UGE/T/C:

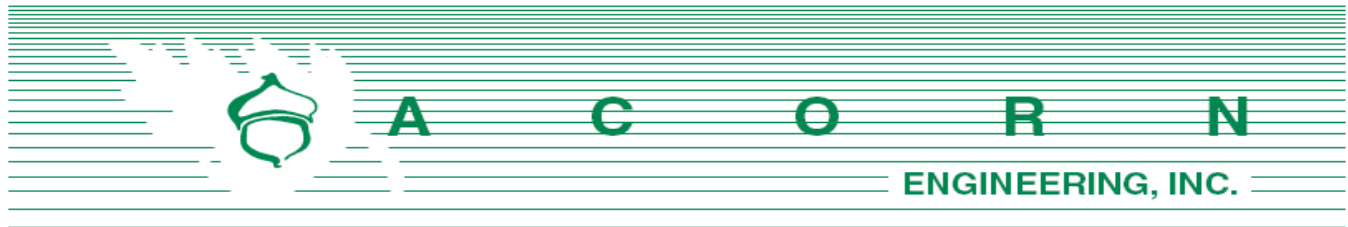
The existing building has aerial services off of the utility pole on the corner of Hammond and Fox Streets. These services are proposed to be rerouted underground from the new utility pole at the intersection.

Gas:

There is currently no natural gas servicing the property. It is proposed to install a gas service off of the gas main within Hammond Street as seen on the Utility Plan, Sheet C-20.

Ability to serve letters have been sent out to the respective utility companies on November 8th, 2018 in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use, Section 14-527(g)(7). Responses from the utility companies can be found attached to this section.





Portland Water District
Attn: MEANS Department
225 Douglass Street
Portland, Maine 04104

November 8, 2018

Subject: 10 Hammond Street Redevelopment
Re: Ability to Serve

To Whom It May Concern:

On behalf of The Preserve at South Ridge, LLC, we are pleased to submit the following request for Portland Water District's (PWD) ability to serve the proposed development. The proposed project is located along 4-12 Hammond Street (Chart, Book, Lots 12-C-6,8,10,11,14), within the R-6 Residential Zoning District in Portland, Maine. The lot will be redeveloped into a three-story, 16-unit residential building with a subsurface parking garage. The two existing single-family structures will be demolished to facilitate the redevelopment.

According to the existing conditions survey, there are two water services within the project limits - one to each home. It is proposed that the existing services be retired in accordance with PWD standards. A 6" sprinkler line and 4" domestic line are proposed to service the redevelopment with a parent-child connection. Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules, and assuming that the units will be comprised of 6 one-bedroom units, 7 two-bedroom units, and 3 three-bedroom units, the project anticipates the following design flows:

Estimate of Anticipated Daily Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
Single Family Dwelling	3-Bedroom	2	270	540
Total Gallons per Day (Existing)				540
Proposed Flow				
Residential Units	1-Bedroom	6	180	1,080
Residential Units	2-Bedroom	7	180	1,260
Residential Units	3-Bedroom	3	270	810



Total Gallons per Day (Proposed)	3,150
Net Change	+2,610 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 2,610 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 Hammond 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 Hammond Street.
2. Alternative connection locations from the property to the existing system.
3. PWD's proposed infrastructure improvements within the project vicinity.
4. Flow data for adjacent hydrant.
5. PWD's ability to serve the project.

I have attached a fixture count, an existing conditions plan created by RW Eaton Associates, and the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,



Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

November 26, 2018

Sam Lebel
Acorn Engineering
PO Box 3372
Portland, ME 04104

Re: 10 Hammond Street, PO
Ability to Serve with PWD Water

Dear Mr. Lebel:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on November 8, 2018. Based on the information provided, we can confirm that the District will be able to serve the proposed project as further described in this letter. **Please note that this letter constitutes approval of the water system as currently designed. Any changes affecting the approved water system will require further review and approval by PWD.**

Conditions of Service

The following conditions of service apply:

- A new 6-inch fire service and 4-inch domestic water service may be installed from the water main in Hammond Street. The service(s) should enter through the properties frontage on Hammond Street at least 10-feet from any side property lines.
- An approved backflow prevention device must be installed on the domestic service line directly after the meter prior to service activation. Please refer to the PWD website for more information on cross-connection control policies.
- The existing services on site must be terminated by shutting the corporation valves and cutting the pipes from the water main.
- The Portland Water District does not have record of any other existing infrastructure in public roads and recommends a survey and test pitting be performed by the development team prior to construction. Any conflicts that arise during construction are at the risk of the developer and may result in job shutdown until new plans are submitted by the developer and reviewed and approved by PWD.

Prior to construction, the owner or contractor will need to make an appointment to complete a service application form and pay all necessary fees. The appointment shall be requested through MEANS@pwd.org or by calling 207-774-5961 ext. 3199. Please allow (3) business days to process the service application paperwork. PWD will guide the applicant through the new development process during the appointment.



Existing Site Service

According to District records, the project site currently has existing two water services. A 3/4-inch diameter copper domestic service line provides water service to 6 Hammond Street, and a 3/4-inch diameter copper domestic service line provides water service to 10 Hammond Street. Please refer to the “Conditions of Service” section of this letter for requirements related to the use of this service.

Water System Characteristics

According to District records, there is a 6-inch diameter cast iron water main in Hammond Street and a public fire hydrant located approximately 50 feet from the site. The most recent static pressure reading was 92 psi on June 28, 2018.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the City of Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project. Based on the high water pressure in this area, we recommend that you consider the installation of pressure reducing devices that comply with state plumbing codes.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

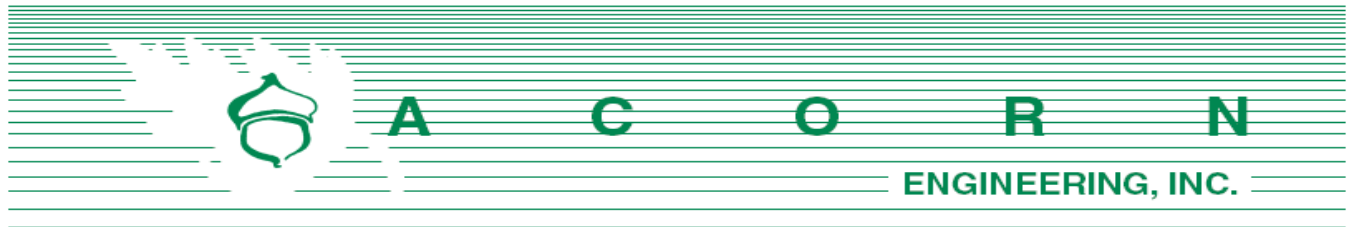
Should you disagree with this determination, you may request a review by the District’s Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District



Robert A. Bartels, P.E.
Senior Project Engineer



Central Maine Power Company
Attn: Mr. Paul DuPerre
162 Canco Road
Portland, Maine 04103

November 8, 2018

Subject: 10 Hammond Street Redevelopment
Re: Ability to Serve

Dear Mr. DuPerre:

On behalf of The Preserve at South Ridge, LLC, we are pleased to submit the following request for Central Maine Power's (CMP) ability to serve the proposed development. The proposed project is located along 4-12 Hammond Street (Chart, Book, Lots 12-C-6,8,10,11,14), within the R-6 Residential Zoning District in Portland, Maine. The lot will be redeveloped into a three-story, 16-unit residential building with a subsurface parking garage. The two existing single-family structures will be demolished to facilitate the redevelopment.

It is proposed that the two existing aerial lines be removed and a new underground conduit be dropped from the existing 3-phase utility pole at the corner of Hammond and Fox Streets. The conduit will cross Hammond Street to the proposed building. Given the existing and proposed loads, please let us know if you anticipate the need for a new pole-mounted transformer. As a note, there is one proposed elevator.

On behalf of the client, we are requesting the following information:

1. Any easements for overhead services currently crossing the proposed development.
2. Alternative connection locations from the development to the existing system.
3. CMP's proposed infrastructure improvements within the project vicinity.
4. CMP's ability to serve the project.
5. Access requirements to the CMP meters.

I have attached an existing conditions plan created by RW Eaton Associates as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer



ACORN Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104



November 20, 2018

Acorn Engineering, Inc.
C/O Mr. Sam Lebel, E.I.
PO Box 3372
Portland, Maine 04104

RE: 10 Hammond Street, Portland, Maine

Dear Mr. Lebel,

This letter is to advise you Central Maine Power has sufficient three phase electrical capacity in the area to serve the subject project.

Once the project is accepted by the City of Portland, the owner will need to call our Customer Service Center at 1-800-565-3181 to sign up for a New Account and a SAP Work Request Order so we may provide an actual cost. Transmission and Primary feeders may need to be relocated if this project moves forward.

If you have any questions please feel free to call me at 629-1487.

Sincerely,

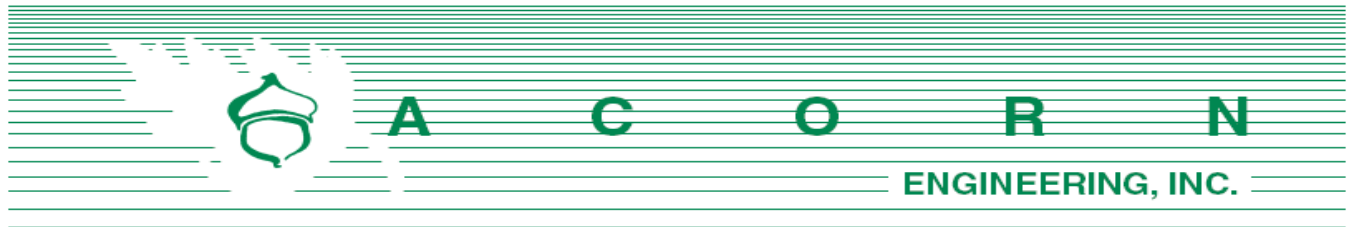
Paul DuPerre
Energy Service Specialist

162 Canco Road, Portland, ME 04103
Telephone 800.750.4000, Fax 207.791.1026
cmpco.com



An equal opportunity employer





Unitil Service Corp.
Attn: Bridget Harmon
376 Riverside Industrial Parkway
Portland, Maine 04103

November 8, 2018

Subject: 10 Hammond Street Redevelopment
Re: Ability to Serve

Dear Ms. Harmon:

On behalf of The Preserve at South Ridge, LLC, we are pleased to submit the following request for Unitil's ability to serve the proposed development. The proposed project is located along 4-12 Hammond Street (Chart, Book, Lots 12-C-6,8,10,11,14), within the R-6 Residential Zoning District in Portland, Maine. The lot will be redeveloped into a three-story, 16-unit residential building with a subsurface parking garage. The two existing single-family structures will be demolished to facilitate the redevelopment.

We are not aware of any existing gas services to the property. It is proposed to route a service from the existing gas main on the far side of Hammond Street to the proposed building.

On behalf of the client, we are requesting the following information:

1. Any additional utility mapping such as gas lines within Hammond Street.
2. A confirmation of an existing gas main within Hammond Street, as well as the size of any gas lines and services in the vicinity.
3. Unitil's proposed infrastructure improvements within the project vicinity.
4. Unitil's ability to serve the project.

I have attached an existing conditions plan created by RW Eaton Associates as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



ACORN Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104



November 13, 2018

Sam Lebel
Acorn Engineering
PO Box 3372
Portland, ME 04104

Re: 10 Hammond Street, Portland

Dear Mr. Lebel:

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 either the 4" or 6" intermediate main on Hammond Street or Fox Street, depending on the final chosen location for the natural gas service to 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, meter requirements, requested pressures and timelines for the evaluation to be completed.

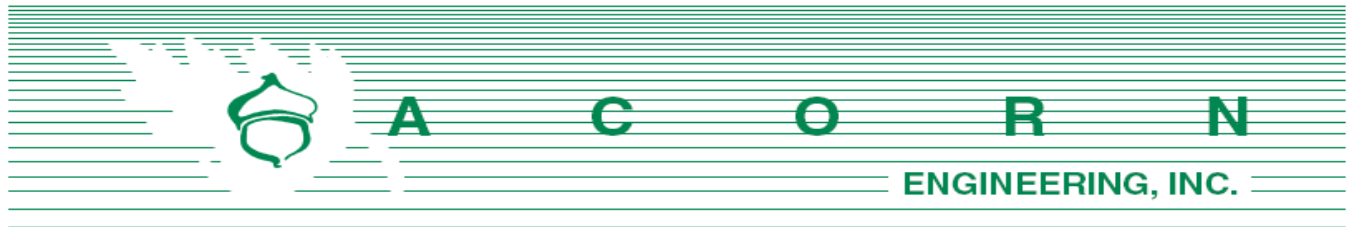
If you have any further questions or require additional information, please do not hesitate to contact me directly.

Sincerely,

Bridget Lauren Harmon
Business Development Representative
Unitil Corporation
harmon@unitil.com
(O) 207-541-2505 (F) 207-541-2565

ME GAS CUSTOMER ENERGY SOLUTIONS
376 Riverside Industrial Parkway
Portland, ME 04103

T 207-541-2508 www.unitil.com



Consolidated Communications
Attn: Mr. Patrick Morrison
5 Davis Farm Road
Portland, Maine 04103

November 8, 2018

Subject: 10 Hammond Street Redevelopment
Re: Ability to Serve

Mr. Morrison:

On behalf of The Preserve at South Ridge, LLC, we are pleased to submit the following request for Consolidated's ability to serve the proposed development. The proposed project is located along 4-12 Hammond Street (Chart, Book, Lots 12-C-6,8,10,11,14), within the R-6 Residential Zoning District in Portland, Maine. The lot will be redeveloped into a three-story, 16-unit residential building with a subsurface parking garage. The two existing single-family structures will be demolished to facilitate the redevelopment.

It is proposed that the aerial lines currently serving the existing homes be removed and new underground conduits be dropped from the existing utility pole at the intersection of Fox and Hammond to the proposed building.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Hammond Street.
2. Any easements for overhead services currently crossing the proposed development.
3. Alternative connection locations from the property to the existing communication system.
4. Consolidated's proposed infrastructure improvements within the project vicinity.
5. Consolidated's ability to serve the project.

I have attached an existing conditions plan created by RW Eaton Associates as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104

Sam Lebel

From: Morrison, Patrick <Patrick.Morrison@consolidated.com>
Sent: Thursday, November 8, 2018 3:02 PM
To: Sam Lebel
Cc: William Savage
Subject: RE: 10 Hammond Street Redevelopment

Hi Sam,

I have reviewed your letter and site layout. CCI has copper abilities on Hammond St to serve the new apartment development on Hammond St in Portland.

If you have any questions, comments, or concerns feel free to contact me at any time.

Thanks,

Patrick Morrison | Outside Plant Engineer
D: 207.535.4271 | C: 207.745.9363
Patrick.Morrison@consolidated.com
consolidated.com | NASDAQ: CNSL



Notice: This electronic mail transmission may contain confidential information and is intended only for the person(s) named. Any use, copying or disclosure by any other person is strictly prohibited. If you have received this transmission in error, please notify the sender by email.

From: Sam Lebel [mailto:slebel@acorn-engineering.com]
Sent: Thursday, November 08, 2018 12:40 PM
To: Morrison, Patrick
Cc: William Savage
Subject: 10 Hammond Street Redevelopment

Hi Pat,

We have a proposed 16-unit residential redevelopment project along 4-12 Hammond Street in Portland. Attached is an ability to serve letter as well as an existing conditions plan and preliminary Utility Plan for your review.

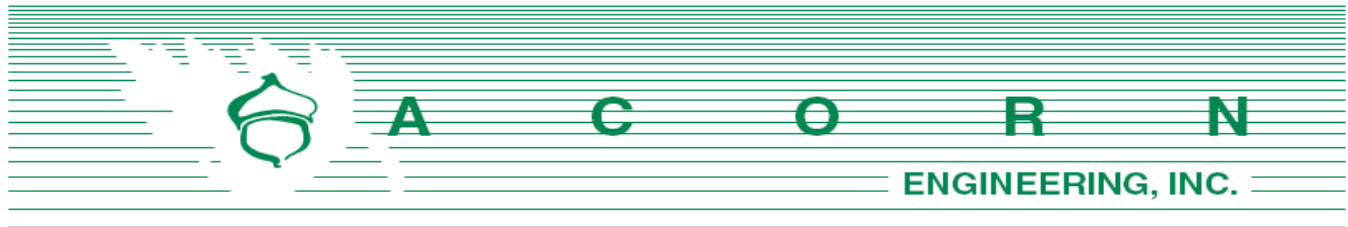
Please let me know if you have any questions or comments.

Thanks,

Sam Lebel, E.I.
Project Engineer

Licensed in Maine

Acorn Engineering, Inc.



Charter Communications
Attn: Mr. Mark Pelletier
118 Johnson Road
Portland, Maine 04102

November 8, 2018

Subject: 10 Hammond Street Redevelopment
Re: Ability to Serve

Dear Mr. Pelletier:

On behalf of The Preserve at South Ridge, LLC, we are pleased to submit the following request for Charter's ability to serve the proposed development. The proposed project is located along 4-12 Hammond Street (Chart, Book, Lots 12-C-6,8,10,11,14), within the R-6 Residential Zoning District in Portland, Maine. The lot will be redeveloped into a three-story, 16-unit residential building with a subsurface parking garage. The two existing single-family structures will be demolished to facilitate the redevelopment.

It is proposed that the aerial lines currently serving the existing homes be removed and new underground conduits be dropped from the existing utility pole at the intersection of Fox and Hammond to the proposed building.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Hammond Street.
2. Any easements for overhead services currently crossing the proposed development.
3. Alternative connection locations from the property to the existing communication system.
4. Charter's proposed infrastructure improvements within the project vicinity.
5. Charter's ability to serve the project.

I have attached an existing conditions plan created by RW Eaton Associates as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104

Q. Construction Management Plan

Project Address: 4-12 Hammond Street

Project Description:

The proposed project includes the development of a 3-story building with 16 units of residential housing and on-site subsurface parking.

Project Team Summary:

Owner:	Hammond House, LLC
General Contractor:	TBD
Civil Engineer:	Acorn Engineering, Inc.
Architect:	Ryan Senatore Architecture
Structural Engineer:	Structural Integrity Consulting Engineers, Inc.

The Owner/GC and all subcontractors will work with the City of Portland and adjacent landowners to minimize any project impacts.

The GC will remain responsible for enforcement of all compliance with 1) all contract plans and specifications in their scope of work and 2) all site working conditions and safety requirements, day and night, for both persons and property, in each case for the duration of their work. These include OSHA, NIOSH, U.S. EPA, local ordinance and any other applicable governmental regulations. Both the Owner/GC and any subcontractors will remain responsible for safeguarding the general public.

The GC shall review all permits and conditions associated with the project. Refer to the Civil/Site Plan Set, Sheet C-03 Construction Management Plan for visual representation of the measures to be taken during construction.

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

A. Construction Management Principles

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

B. Development Review of Construction Management Plan

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



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

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

1. Street Opening and Street Occupancy Permits:

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

2. Blasting:

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

3. Building Code:

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

D. Construction Administration and Communication

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

Kevin O'Rourke, Owner
The Preserve at South Ridge, LLC
(207) 838-3410

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

E. Construction Schedule

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



be subject to approval by the Public Works Authority.

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

The estimated timeframe of the proposed project is outlined below:

<u>Project Start Date:</u>	Summer 2019
<u>Project End Date:</u>	Spring 2020

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City.

F. Security

1. The Construction Management Plan, Sheet C-03, depicts all proposed fencing and other barriers, with the intent of separating pedestrian and vehicle circulation from the construction site. Construction entrances per detail shall be installed.
2. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16. *Safeguarding Construction, Alteration, and Demolition Operations*.
3. Fire Safety Program: Prior to construction, an overall construction and demolition fire safety program shall be developed. Essential items to be emphasized include the following:
 - Good Housekeeping
 - On-site security
 - Installation of new fire protection systems as construction progresses
 - Preservation of existing systems during demolition
 - Organization and training of an on-site fire brigade
 - Development of a pre-fire plan with the local fire department
 - Rapid communication
 - Consideration of special hazards resulting from previous occupancies
 - Protection of existing structures and equipment from exposure fires resulting from construction, alteration, and demolition operations.
4. Blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation of Explosives in Portland's Technical Manual.
5. Temporary security lighting shall be shown on the Construction Management Plan, and all fixtures shall be full cutoffs.

G. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets

Construction activity in the public right-of-way shall be compliant with Chapter 25



Article VII of the City Code. At no time will it be permissible for construction activity including delivery vehicle to close or block streets or affect public safety access without prior notice and approval of the Department of Public Works.

2. Sewer and Stormwater

Sewer and stormwater system connections are controlled by Chapters 24 and 32 of the City code of Ordinance. Required permits for new connections and/or abandonment of existing connections are available through the Street Opening Clerk at the Department of Public Works. Rules and Regulations for these utility systems are available through the City Engineer's office of the Department of Public Works and in Section II of the Technical Manual. This will apply to the new connections within Hammond 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 Hammond 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 Hammond 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 Hammond 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 Hammond 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 – 5,000 CF. Earthwork subcontractor(s) pit to project site.
 - Hot Mix Asphalt – 10 tons. Paving subcontractor(s) pit to project site.

L. Special Measures as Necessary

No special measures are necessary for the proposed reconstruction.



R. Solid Waste Disposal

The property management company or Owner shall be responsible for locating the solid waste and recyclable material to the space allocated for solid waste storage as noted on the Site Plan (C-10) and within the architectural plans.

The solid waste containers will be fully enclosed and screened from the public view.



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 Hammond House Redevelopment project shown on the Subdivision Plat recorded in the Cumberland County Registry of Deeds in Plan Book ___, Page ___ (the “Plan”) and associated Grading & Drainage Plan (Sheet C-30), dated 11/26/2018 prepared by Acorn Engineering, Inc. of P.O. Box 3372, Portland, ME 04104 dated and pursuant to a condition thereof, The Preserve at South Ridge, LLC, a Maine limited liability company with a principal place of business in Yarmouth, Maine, and having a mailing address of 94 South Street, Yarmouth, Maine 04096, the owner of the subject premises, does hereby agree, for itself, its successors and assigns (the “Owner”), as follows:

Maintenance Agreement

That it, 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 underdrained subsurface sand filter (USSF), infiltration trench, catch basin, and storm drain pipes (hereinafter collectively referred to as the “stormwater system”) as shown on Grading & Drainage Plan (Sheet C-30) attached hereto as **Exhibit B** and in strict compliance with the approved Stormwater Inspection & Maintenance Plan and Stormwater Maintenance and Inspection Log, dated November 2018, copies attached as **Exhibit A and C** respectively and Chapter 32 of the Portland City Code.

Owner of the subject premises 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.

Said agreement is for the benefit of the said City of Portland and all persons in lawful possession of the property and abutters thereto; further, that the said City of Portland or 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 USSF, infiltration

trench, catch basins, storm drain 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, and the Owner shall bear no financial responsibility by virtue of this Agreement for enlarging the capacity of said system for any reason whatsoever.

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 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 lienied 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 lien-ing it or create a cause of action against the City.

Dated at Portland, Maine this _____ day of _____, 2017.

The Preserve at South Ridge, LLC
A Maine limited liability company

Kevin O'Rourke, Manager

STATE OF MAINE
CUMBERLAND, ss.

Date: _____

Personally appeared the above-named Kevin O'Rourke, Manager of The Preserve at South Ridge, LLC, and acknowledged the foregoing instrument to be his free act and deed in his said capacity.

Before me,

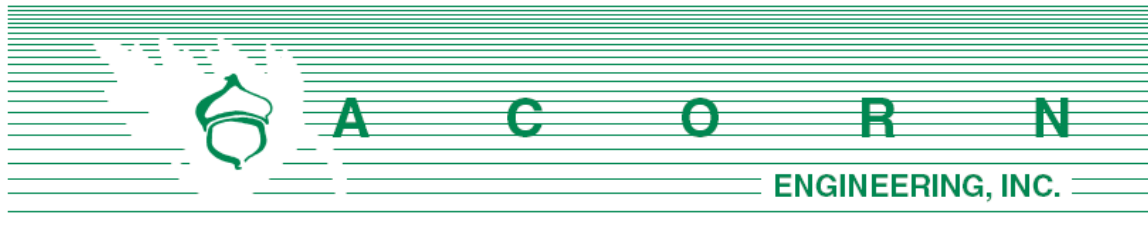
Notary Public/Attorney at Law

Print name: _____

Exhibit A: Stormwater Inspection & Maintenance Plan

Exhibit B: Grading & Drainage Plan

Exhibit C: Stormwater Maintenance and Inspection Log



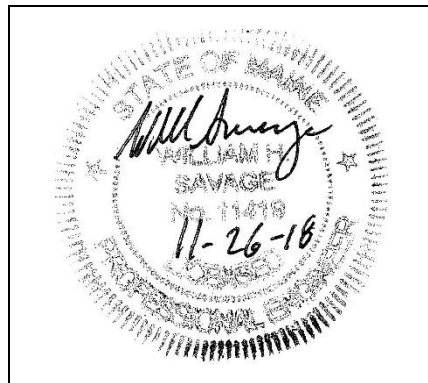
POST CONSTRUCTION - STORMWATER INSPECTION & MAINTENANCE PLAN

Prepared For:

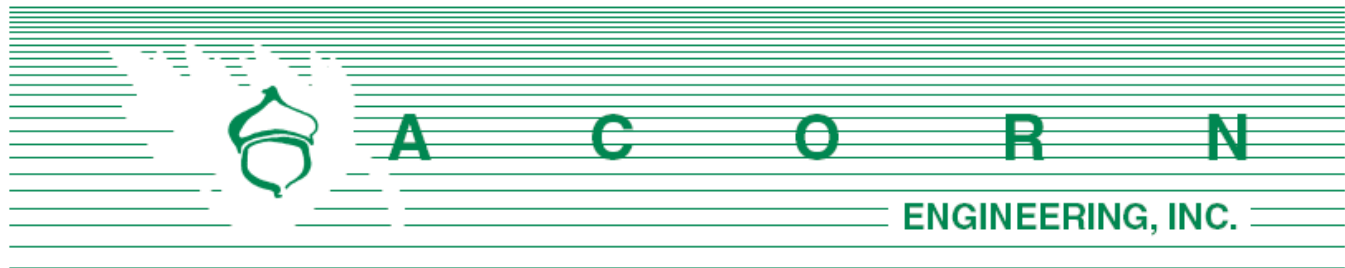
**The Preserve at South Ridge, LLC
94 South Street
Yarmouth, Maine 04096**

Prepared By:

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



November 2018



RESPONSIBLE PARTY

The owner, The Preserve at South Ridge, LLC, 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 homeowners association may contract through.

Organization: Will Savage, PE
Acorn Engineering, Inc
Portland, Maine

Phone: (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 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, Inspection and Maintenance Manuals, and all Municipal, State, and Federal rules.

OPERATION AND MAINTENANCE ACTIVITY

Underdrained Subsurface Sand Filter (USSF):

The maintenance of the underdrained subsurface sand filter 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 7.3 Underdrained Subsurface Sand Filter.

- The system should be inspected after every major storm in the first few months to ensure proper function. Thereafter, the filter should be inspected at least once every six months to ensure that it is draining within 24 hours to 36 hours.
- Inspect Outlet Control Structures (OCS) to ensure they are in good working order and that the orifices are unobstructed from trash and debris.
- Inspect and maintain the StormTech Isolator Row in accordance with the attached proprietary Operation and Maintenance Plan.

Underdrained Infiltration Trench:

The maintenance of the underdrained infiltration trench shall be in accordance with the following activities identified below:

- The stone reservoir layer shall be inspected after every major storm within the first year to ensure the trench is free draining.
- Any debris, sediments, or organic matter must be removed from the reservoir course at any time. Weeding of any growth shall be completed as necessary to keep the stone layer clear.

Sweeping:

Annual sweeping of the driveway and parking areas following the snow melt for accumulated winter sand, if necessary. Appropriately dispose of all collected material. This activity will largely function as preventative maintenance for the infiltration trench. Collecting debris on the driveway surface before it reached the grassed swale and infiltration trench and will be significantly more time and cost effective than removing sediment and debris downstream within the crushed stone.

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, Vegetated and Areas Adjacent to Retaining Walls:

Inspect all landscaped and or vegetated slopes and embankments 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.

If signs of rill erosion or scour are present within areas tributary to the retaining walls, or stormwater flow is observed flowing over the wall, Acorn Engineering should be immediately contacted to perform an inspection and/or to contact the appropriate professional. Should concerns arise from the downhill abutters related to groundwater flow from the retaining wall, Acorn Engineering should be contacted to perform a site inspection and to meet with the concerned abutter.

INSPECTION AND MAINTENANCE TABLE

Inspection and Maintenance Frequency	Spring or Yearly	Summer	Fall	As Necessary
Underdrained Subsurface Sand Filter	X		X	X
Sweeping	X			X
Storm Drains		X		X
Catch Basins		X		X
Infiltration Trench	X	X		X
Landscaped / Wall Areas	X			X



STORMWATER MAINTENANCE AND INSPECTION AGREEMENT: INSPECTION LOG

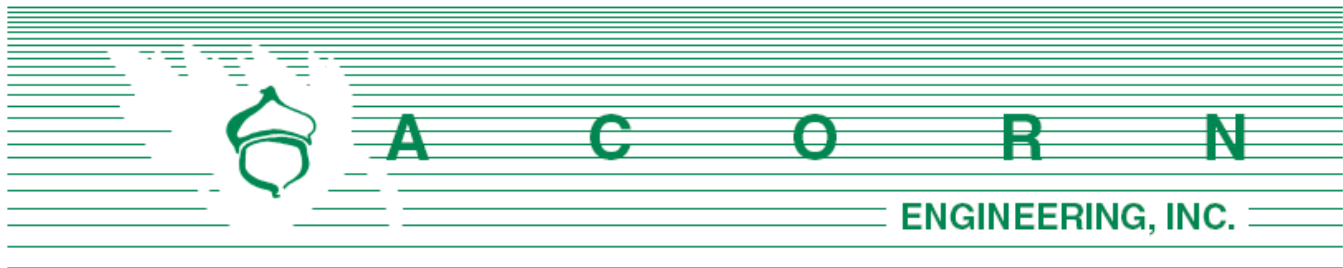
UNDERDRAINED SUBSURFACE SAND FILTER BMP:							
Location: 4 - 12 Hammond St, Portland, Maine 04101					Latitude: 43.66715° N		
					Longitude: -70.25471° W		
Description of Located Point: Adjacent to north corner of building within driveway					Inspector:		
					Date of Inspection:		
					Weather Conditions:		
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Underdrained Ditch, Vegetated Underdrain Soil Filter, Bio-retention Cell, etc.							
Sand filter retains the design volume for a drain down time greater than 24-hours and less than 36-hours	☒	☒	☐	☐ Yes ☐ No ☐ N/A			
The outlet control structure is in good working condition.	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
Inlet and pre-treatment measures are free of sediment and floatables accumulation.	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
Maintain in accordance with manufacturer's recommendations	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
Treatment device is working properly and is free of debris and sediment	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
Sediment is less than 3 inches within the isolator row	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
Catch basin is working properly and is 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			
Inter-basin storm drain is functioning properly and free of sediment and debris.	☒	☒	☐	☐ Yes ☐ No ☐ N/A			

STORMWATER MAINTENANCE AND INSPECTION AGREEMENT: 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 MAINTENANCE AND INSPECTION AGREEMENT: INSPECTION LOG

INFILTRATION TRENCH:							
Location: 4 - 12 Hammond St, Portland, Maine 04101					Latitude: 43.66715° N		
					Longitude: -70.25471° W		
Description of Located Point: Towards the rear of the site.					Inspector:		
					Date of Inspection:		
					Weather Conditions:		
Days since last precipitation:					MEDEP Permit #: N/A		
Quantity of last precipitation (in):					Design Drawings:		
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Infiltration Trench:							
Reservoir stone is free draining and clean of sand, sediment, organic matter, or any other debris	☒	☒	☐	☐ Yes ☐ No ☐ N/A			
Permeability is between 2.4 and 4 in/hr	☐	☒	☐	☐ Yes ☐ No ☐ N/A			
Reservoir layer is free from growth	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
Plunge pool and inslopes are free of erosion	☐	☒	☐	☐ 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:							



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

January 16, 2019

Subject: Hammond House Neighborhood Meeting

I, Will Savage, hereby certify that a neighborhood meeting was held on January 15, 2019 at the Root Cellar at 5:30 pm.

I also certify that on January 4, 2019, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development.
2. Residents on the "interested parties" list.

Sincerely,

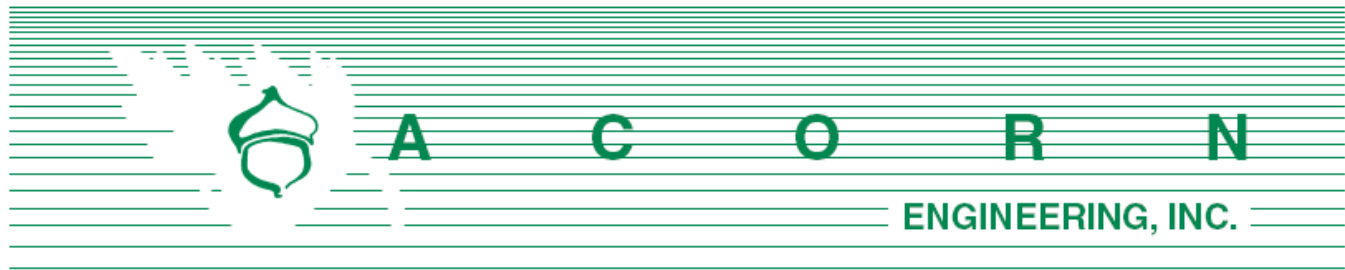
A handwritten signature in black ink, appearing to read "Will Savage", is written over a light blue horizontal line.

Date: 1/16/19

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

Included with this certification are:

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



Matthew Grooms – City Planner
Planning Division, City of Portland
389 Congress Street
Portland, ME 04101

February 12, 2019

Subject: Comment Response Letter
10 Hammond Street Redevelopment – Portland, Maine

On behalf of Hammond House, LLC we are pleased to respond to the comments that we've received thus far.

Matthew Grooms, Planning

Comment – *It is understood that required bicycle parking will be located interior to the building. Would the applicant consider providing publicly accessible bicycle racks as well?*

Response – Given the residential use of Hammond Street, space dedicated to the art installations between the building and sidewalk and the abundance internal bicycle storage on site, no exterior bicycle rack is proposed.

Comment – *The application includes lighting details, though no photometric plan. This plan should be made available as part of the final plan submittal. Also, what lighting is being provided for lighting along pedestrian pathways and how are CPTED standards being met?*

Response – The lighting package was submitted under Document N. Lighting, which includes a photometric plan and cut sheets. Lighting will be provided along all pedestrian and vehicles ways. Additionally, a swing gate will further help delineate the public way from private as well as add another layer of security.

Comment – *The proposed development appears to encroach upon the property line. Does the applicant anticipate needing temporary construction easements from adjacent property owners?*

Response – The project does not encroach on adjacent properties is not anticipated to require a temporary construction easement. All walls, fencing, structures, and landscaping will be within the subject property.

Comment – *The site plan shows storage units in the garage with doors that open outward. Would it be feasible to change out these doors for roll-up garage doors?*

Response – The Architect and Applicant would prefer to leave the garage design as is.

Tom Errico, Traffic

Comment – *Contractor parking in the neighborhood is not permitted and should be specifically noted. Additionally, sidewalk impacts and closure details shall be provided.*

Response – This note has been clarified within the Construction Management Report. Sidewalk closures will be managed by the General Contractor and will be outlined in their Maintenance of Traffic (MOT) Plan prior to the pre-construction meeting.

Comment – *Dimensions for the two outside parking spaces shall be provided.*

Response – Please refer to the revised Site Plan for this information. The spaces meet the Technical Standard.

Comment – *I support a waiver from the City's Technical Standards for driveway width given low traffic volumes and traffic characteristics on Hammond Street.*

Response – We agree with your assessment.

Comment – *Sight distance measurements shall be provided at the driveway.*

Response – Looking south toward Fox Street, the sight distance is approximately 120 feet which is the distance to the intersection. Looking north, the sight distance is approximately 250 feet. It is anticipated that the dominant move out of the driveway will be a right turn towards Fox Street which is the safest maneuver both from a total travel length and a sight distance perspective.

Comment – *The Applicant shall provide additional information in support of the waiver from the City's standard for driveway separation. This shall include the proposed driveway separation and factors that prevent maximizing separation.*

Response – The primary design intent was to locate the driveway as far away from the intersection as possible. This allows for a greater reaction time and stopping sight distance should a vehicle turn onto Hammond Street from Fox while a resident of 10 Hammond Street is maneuvering and vice versa. Secondly, the City's design standards for the R-6 zoning district strongly encourage driveways to be oriented within the side yard rather than designing a garage door on the front façade. This allows for the parking to be more concealed from the public way while also allowing for the majority of the front façade to contain living space with "eyes on the street".

Comment – *The Applicant should identify strategies for avoiding backing maneuvers for the two outside parking spaces.*

Response – The two exterior spaces will likely have access to the garage door which will allow them open the door, enter the garage, and turn their vehicle around before leaving the site.

Woodard & Curran, Civil Engineering

Comment – *The erosion and sedimentation control detail sheet includes a detail for silt fence. The plan calls for erosion control berm. Please provide an erosion control berm detail to be consistent with the plan*



Response – A detail of the erosion control berm has been added to Sheet C-47.

Comment – *It is suggested that additional permanent erosion control be provided on the adjacent slope beyond the spillway outlet. This would require a temporary construction easement.*

Response – The slope on the down-gradient abutter's property directly next to the proposed infiltration trench is currently riprapped. Furthermore, the post-development flowrates for the 2, 10, and 25-year storms will be reduced when compared to the existing condition.

Comment – *The stormwater management report and the details note that inspection ports will be provided within the Stormtech Chambers within the underdrained subsurface sand filter. The plan should show locations of these features.*

Response – Sheet C-30 outlines these locations within the USSF inset.

Comment – *The proposed infiltration trench is located immediately adjacent to a steep slope on the neighboring property. The Applicant should address the potential of the infiltration trench compromising the slope, i.e. flow exiting the side of the trench instead of draining vertically into the ground. Additional soil condition information should be obtained to ensure that the system will drain as intended.*

Response – We will consult with a geotechnical engineer on the existing soils, the stability of the bank, and the likelihood of seepage from the infiltration trench horizontally towards the slope. If their findings point to a likelihood of horizontal flow and bank instability, the design of the trench will be adjusted accordingly. A potential adjustment would be to line the sides of the trench with an impermeable liner.

Comment – *The Applicant has received confirmation of ability to serve from the Portland Water District. The letter from PWD notes that a new 6-inch fire service and 4-inch domestic water service may be installed from the water main in Hammond Street. The plans show a single combined connection to the main. Please confirm that the layout as shown is acceptable to the Portland Water District.*

Response – The Utility Plan as submitted has been approved by PWD. Any changes to the water system proposal will be resubmitted to the District for approval.

Robert Thompson, Fire Department

Comment – *The new building shall not affect the egress, escape, or required fire department access for the neighboring building(s)*

Response – The new building is not proposed to worsen any condition. Along the northerly side of the building, the separation between buildings will be significantly increased, providing greater firefighting access.

Comment – *The street address shall be marked on the structure and shall be as approved by the City E-911 Addressing Officer.*



Response – The Owner will work with the Addressing Officer for this approval.

Jeff Tarling, Landscaping

Comment – *The proposed Hammond Street project is quite large in scale compared to the surrounding residential properties. The proposed landscape is somewhat weak in providing scale and buffering a project of this scope would ideally provide. While the available planting space is minimal, a more robust tree and landscape plant is recommended. On the south side, for example, we note Rhododendron, Clethra, Lily Turf, and Tiger Lily, none of these plants provide much in the way of buffering or landscape screening value.*

Response – The Landscape Plan has been revised to provide additional buffering in the rear of the site. It should be noted that at the rear property line the topography drops off in elevation significantly with a rip rapped slope that leads to the adjacent parking lot.

Comment – *Street-trees - the two proposed 'Accolade' Cherry street trees is acceptable for the space out front, contribution to the Planning Tree Fund to meet the per unit standard is recommended to plant trees in the vicinity of the project.*

Response – The Applicant will make a financial contribution to the street tree fund for the remaining required street trees.

Comment – *We would be available to suggest planting options with the project team.*

Response – We have reached out to you via e-mail and will consider alternative planting options.

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

Sincerely,



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



Samuel J. Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.



January 28, 2019

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

Re: Hammond House - R-6 Design Review Responses

Dear Caitlin,

Please see the attached revised design for Hammond House with revisions based on your R-6 Design Review letter dated 1/16/19.

- 1.) See additional rendering from Fox Street
- 2.) A-1 and A-2, we have simplified the roof form at the entry and flanking elevator and stair to a more clean simple form
- 3.) We have kept the roof deck access doghouses set back from the street facade 20 plus feet to minimize visual impact from the neighborhood, please see the attached renderings as to how they relate will be seen from the neighborhood
- 4.) B-1, we have simplified the roof forms to address this item
- 5.) F-5 and F-6, we revised the entry and bay to scale it down and give it a residential feel by reducing its height, removing the spandrel glass and removing the vertical signage.
- 6.) G-1, we minimized the panel material at the balconies and used more lap siding
- 7.) G-2, we reduced the amount of brick to one story adjacent to the entry and have utilized a fibercement panel with an 18" reveal pattern to scale the facade to a residential scale.

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101

8.) (i) 1, we have simplified the roof form at the entry and flanking elevator and stair to a more clean simple form

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

Sign In Sheet

1/15/2019

The Root Cellar - 94 Washington Ave
Hammond House Redevelopment

Members of the Public in Attendance:

NAME

1. Cardyn Treat Hammond St.
2. Chip FLANAGAN
3. Mary OBRION
4. BRIAN RAPP
5. Penny D. Mello
6. ~~Michele Ryzek~~
7. Seth Brayton
8. Jason Wentworth
9. STEVEN OLDFORD
10. Catharine Clay
11. NICHOLAS SICKERMAN
12. Wendy Harman
13. Donna Gartland
14. Kelly Hrenko
15. Elise Loschiavo
16. Ellen Bailey
17. Chris Brown
18. Martie Voland
19. Cynthia Cochran
20. Lindsay Matranga
21. MARIKA CLARK
22. Kim CHESTERFIELD
23. Kate Pinkerton
24. TOBY RZEPKA
25. Evan Carroll

E-MAIL

ctreat5@yahoo.com
aljones0812@gmail.com
Penny.D.Mello@yahoo.com
mperejca@legacysir.com
sethbrayton@gmail.com
jwent@gwi.net
STEVEN.OLDFORD1@gmail.com
kate.clay88@gmail.com
Nicholas.Sickerman@gmail.com
wendyharman@kw.com
dona Gartland@gmail.com
kelly.hrenk@maine.edu
elise@vitalivs.com
efbailey66@gmail.com
cbrown@engine.vr.com
martievoland@hotmail.com
ccochran@eastbayside.org
lmatranga@eastbayside.org
marikae1@comcast.net
Kchesterfield40@gmail.com
pinkaloe@hotmail.com
toby rzepka@gmail.com
ecarroll963@gmail.com

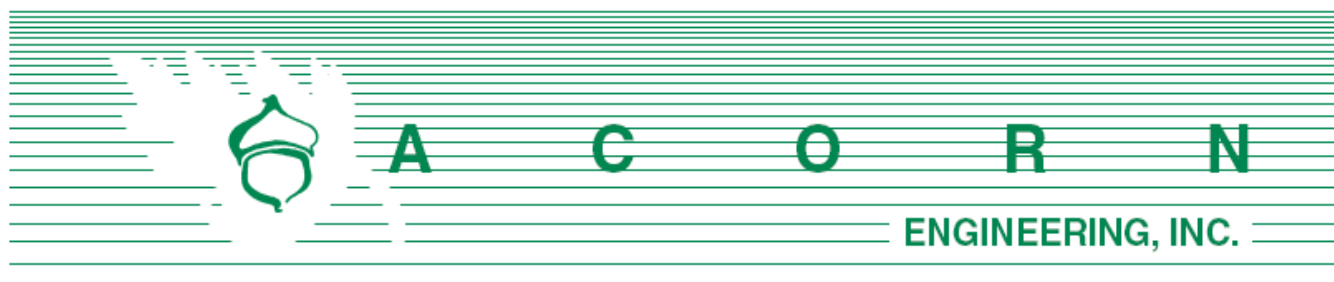
Developer and Consultant Team in Attendance:

NAME

1. SAM LEBEL
2. Rick Santora
3. Will Savage - Acorn
4. Reid Tozier - PSA
5. Kevin D'Rourke
- 6.

E-MAIL

SLEBEL@ACORN-ENGINEERING.COM



January 4, 2019

Dear Neighbor:

On behalf of The Preserve at South Ridge, LLC, we are pleased to invite you to a neighborhood meeting to discuss our plans for the proposed project at 10 Hammond Street within the R-6 zoning district. The project includes the redevelopment of the site into a 3-story residential building. Although the zoning ordinance allows for up to 20 units, the Developer has elected to include only 16. A side vehicle entrance into a subsurface parking garage will be implemented allowing for one parking space per unit with additional storage space for bicycle parking. Overall, the site's street frontage along Hammond will be improved by closing one of the two existing curb cuts, rebuilding the sidewalk to City standards, and planting two street trees.

Meeting Location: The Root Cellar – 94 Washington Ave., Portland, ME 04101

Meeting Date: Tuesday, January 15, 2019

Meeting Time: 5:30 p.m.

The City code requires that property owners within 500 feet of the proposed development and residents on an “interested parties list” be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board.

If you have any questions regarding the neighborhood meeting, please don't hesitate to call me at 775-2655. We look forward to seeing you at the meeting.

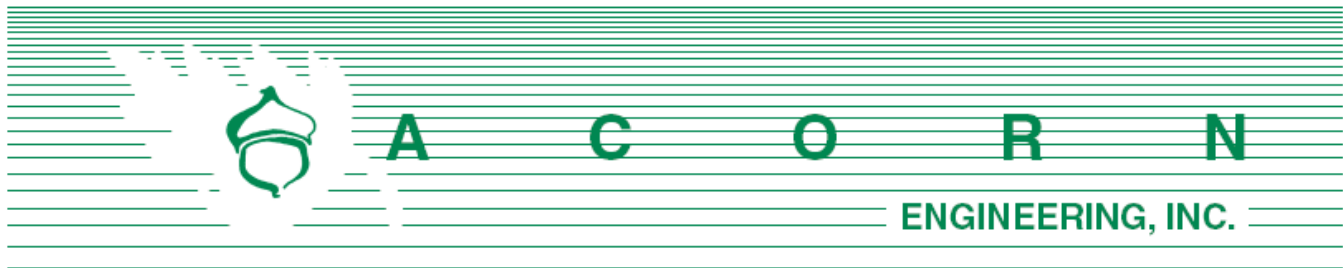
Sincerely,

A handwritten signature in black ink, appearing to read 'Will Savage'.

William H. Savage, P.E.

Acorn Engineering, Inc.





10 Hammond St. Redevelopment Level III Site Plan/Subdivision Application

Neighborhood Meeting Minutes

January 15, 2019 / 5:30 pm

The Root Cellar

Project Team Attendees:

Kevin O'Rourke (KO): Developer/Presenter – (The Preserve at South Ridge, LLC)

Will Savage (WS): Civil Engineer/Presenter (Acorn Engineering)

Sam Lebel (SL): Civil Engineer/Note Taker (Acorn Engineering)

Ryan Senatore (RS): Architect/Presenter (Ryan Senatore Architecture)

Reid Tozier (RT): Architect/Presenter (Ryan Senatore Architecture)

Meeting started at approximately 5:35 pm.

Presentation:

Kevin O'Rourke:

- Developer and Applicant
- Based out of Yarmouth
 - o Focus has been on single-family and historic restoration
 - o Yarmouth Planning Board chair for 5 years
 - o Accustomed to listening to the public and weighing their concerns with the legal rights of the property owner
 - o Was approached by property owner for this project site
 - o Proposing 16 units vs the allowed 20 based on lot size
 - o Goal is to fit in the neighborhood
 - o Artistic feel with sculptures and landscaping to help link Washington Ave with Fox and Anderson St.

Will Savage:

- Neighborhood Meeting is a City requirement for a Level III Application.
- Held a pre-app meeting with the City on Nov. 7, 2018

- Sign In sheet is available for everyone which will become public record along with the meeting minutes
- Acorn and RSA are familiar with the area and have completed projects in the vicinity such as 89 Anderson, 70 Anderson, Munjoy Heights, 93 Washington Ave, 123 Washington Ave, as well as assisted the East Bayside Neighborhood Organization (EBNO) with the Kennedy Park lighting upgrades.
- Two single family homes would be demolished as part of this project
- The site is zoned as R-6. Surrounding zones include the B5, B-2b, and I-L
- The site slopes steadily from Hammond toward Anderson Street
- The building is proposed to feature 3 stories with 16 units vs. the allowed 20.
- Vehicular access will be provided on the right-hand side from Hammond. A sloped driveway to a garage door provides access to the subsurface garage which keeps the garage door off the front façade and promotes living space to the front with “eyes on the street”
- Two existing curb cuts will be reduced to one, allowing for an additional on-street parking spot
- The on-site parking will have one space per unit with interior bicycle and solid waste storage
- Sidewalk will be rebuilt to City standards with two street trees and sculptures by a local artist
- Proposed workforce equates to 1.6 units. Current plan is to build at least one. From there, the Developer will either pay into the Housing Fund for the remaining 0.6 or build an additional workforce unit on site.
- All utilities will meet standards and service the project underground
- A 6” water line will provide a sprinkler service and a 4” line will provide potable water
- Sewer lateral will be routed to the municipal sewer in the street.
- There is 15 feet of grade change from the front to the rear of the site
- There will be increase in impervious area so a subsurface detention system will store all of the roof runoff and be slowly released to the separated storm system in Fox Street. This system will provide quality and quantity benefits.

Ryan Senatore:

- Overview of basement with storage at head of parking
 - o Grey hatch on plans represent backfill (or soil that’s above the elevation of the basement)
 - o 2 egress stairs and elevator
 - o Bike room with rear exit
- Overview of first floor
 - o Center corridor for circulation
 - o Outdoor deck or patio so the building can interact with the street
- Similar floor plan as you move up the building
- Attached balconies for the non-street side units
- 3 bedroom units on the third floor with roof decks

Reid Tozier:

- Overview of materials and exterior architecture
- Front façade
 - o Wood veneer for the center of the building



- Brick veneer along the bottom and center to help with the scale of the building
 - Blue fibercement panels and lap siding for the dwelling units.
 - Black trim to break up the massing
- The rear and sides of the building feature a transition from the brick veneer to fiber cement with paneling to create a rhythm.
 - The bandline serves to delineate the basement from the living area
 - Rooftop appurtenances will be hidden toward the middle
 - Contextual renderings shown – one viewed on Hammond St. looking south towards the site and one viewed on Winthrop St. looking north towards the site.

Comments, Questions & Answers:

Please note that the following questions and answers were not recorded verbatim and aim to represent and summarize the actual questions, answers, and discussion that took place at the meeting. Q or C denotes Question or Comment from the Public.

Q: What is the distance from the back of the building to the property line?

WS: 20.5 feet

Q: What is the plan for snow removal?

WS: We've shown snow storage next to the exterior parking, but snow may need to be removed occasionally during the winter.

Q: How tall are the stories?

RS: 11' from floor to floor.

Q: Who's responsible for winter maintenance and sidewalk plowing?

KO: There will be a Homeowner's Association with monthly dues. The intent is not for these units to be rental.

C: That is good to hear.

Q: What does the code require for parking? If there are up to 35 more people, will there be 35 cars?

WS: The requirement is 13 per code. We usually see the neighbors wanting more parking and the City wanting less.

Q: If a unit has 2 cars, will the additional car have to park on the street?

WS: Yes.

Q: Is there any way for the Condo Association to restrict cars?



KO: A lot of times a family will downsize from two vehicles to one when moving from the suburbs to the City.

Q: Could the storage space at the head of the parking be another parking space?

KO: That's a possibility, but at this point the design is a secure storage unit like a POD.

C: It's a nice feature to provide storage on site.

Q: What's the height in the garage?

RS: 8.5' of clearance

Q: Where are the other entrances?

RS: There is a sidewalk on the south side of the building that will lead to a mid-story door. There is also a door in the rear that enters the basement.

C: I appreciate the parking you provided. Anything you could add in the Condo docs to help with this would be nice.

Q: What is the plan for HVAC?

RS: Mostly on the roof.

C: I don't remember a rendering for 89 Anderson HVAC, but they are not attractive as built.

KO: There is the potential to cluster the equipment in the center and screen it.

Q: So not on top of the deck stairwells?

KO: Correct.

Q: Do you need another fire hydrant?

WS: There is one existing hydrant at the corner of Fox and Hammond and the Fire Dpt will not require another as part of this project. The building will be sprinkled.

Q: What is your best guess on the timeframe?

WS/KO: The goal is 10-12 months of construction based on the Contractors' estimates. So there's the potential to start late summer of 2019 and complete late summer of 2020.

Q: Will there be any blasting?

WS: We have not taken borings, but based on our knowledge of the soils in the area and previous projects in the area, it is not anticipated to have to blast any ledge.



C: I respect the rights of the property owner and understand weighting what's allowed with the neighborhood perspective. The two existing single family homes are the same size and scale as most of the other houses on the street. The attempt to break up the massing and scale of the proposed building is sincere, but it's still a large building. Trees and art are a nice feature. I understand the economics are tough on expensive lots, but the building feels big. Two affordable units currently replaced with either 1 and a fee to the City or 2 replacements.

C: Hammond isn't like Anderson Street so the sculptures and landscaping aren't like the rest of the street.

C: I own two properties on Washington Avenue. Avesta has 18 units which are small units. There are issues with renters who aren't vested in the community. It's nice to see this project will have homeowners who will be interested in the neighborhood and community.

Q: What's the price range?

KO: The market is in some flux right now. They will probably be lower than Munjoy Hill prices, but it's hard to say. I've been discussing with my real estate advisors, but haven't put a number on it.

Q: Do you create the condo docs?

KO: I will work with my attorney on the docs.

WS: These will be submitted to the City for review.

Q: Could these be Air BnB's?

KO: We'll have to take a look at that.

C: The project looks out of place when comparing the existing to the proposed.

Q: Is anyone from the City here?

WS: No, it's not custom for City staff to attend.

C: Site Plan looks big for this area.

KO: Other buildings in the area are of similar height.

C: You might be able to recess the top floor.

Q: What is the bedroom mix?

RS: Six 1-bedrooms, seven 2-bedrooms, three 3-bedrooms. Some of the 3-bedrooms will be flexible on whether the third bedroom is actually a bedroom or more a study given the lack of windows.

Q: What is the address?



A: 10 Hammond Street.

Q: How will we get to know the neighbors?

KO: We looked at having seating in front of the building, but there isn't much room due to matching the abutting setbacks. The porches on the front façade will help create a presence on the street. We might also have double doors for a vestibule where there would be mail and bulletin board.

C: The bulletin board is a good idea.

Q: You mentioned the sidewalk? Will it be functional or in bad shape as it is now?

WS: The sidewalk will be rebuilt to City standards and will be concrete to match the existing sidewalk network on Hammond Street. A lot people prefer concrete since it's less slippery than brick in the winter

Q: Will the only crosswalk be the one shown across Hammond? Did you pick it?

WS: Right now that is the only one proposed as requested by the City. The City does not prefer mid-block crosswalks.

Q: Could we get a crosswalk from Winthrop to Hammond? How do we advocate for the new impact fees to influence the neighborhood of the actual project that creates the revenue?

WS: I would recommend sending your comments to the City Planner.

C: I would like to advocate for a potential raised or jarred crosswalk across Fox Street for pedestrian safety.

Q: Will there be a traffic study?

WS: A traffic study is not required for a project of this size.

Q: Will there be a landscape design?

WS: Yes, there is one submitted with buffers for the neighbors.

C: I would like to echo the pedestrian safety and be on the record. Hammond is a cut-thru and there will be more cars with more units. I'm concerned with those who currently park illegally on Fox making it hard to pull out of Hammond.

WS: We can delineate the on-street parking on Hammond within the Site Plan.

C: I'm concerned for pedestrians all along the neighborhood like Washington Ave and Fox St. such as school children. This might be better taken up directly with the city, but cars fly by.

Q: What will the construction be like? Will workers park on the street or on the site?



KO: The Contractor will put together a construction management plan. I will encourage them to park remotely at an off-site lot and carpool to the site. I don't anticipate full closure of the street – some interruptions during utility construction.

C: 89 Anderson had large equipment in the street at times during construction.

KO: We have an advantage by potentially starting in the summer. Once the garage is built, workers can potentially park within the structure as they build up.

Q: Could there be access from Anderson Street?

WS: No, there is a steep slope there with riprap.

Q: Will there be other meetings?

KO: We'll have a planning board workshop and then a public hearing, both of which the public can attend. There are no dates yet.

Q: What is the design of the driveway like?

WS: We are proposing a retaining wall within the site to keep the abutting property as is. The driveway will slope down into the garage while the retaining wall, fence, and plantings provide a buffer. A formal design of the wall and fence will be submitted further down the line.

Q: What's the distance between driveway and side property line as well as the building and side property line?

WS: Approximately 5-6' and 29'.

Q: Where can I see these plans?

WS: The Planning Dpt has them at City Hall and online. Acorn will provide the plans to EBNO.

Meeting concluded at approximately 7:00 pm.

The abovementioned material was as interpreted and recorded from handwritten notes. Please note and relay any discrepancies or disputed information in the recorded minutes to the below address so that they can be reviewed, revised, and resubmitted as necessary.

Recorded by,



Sam Lebel, E.I.
Project Engineer
Acorn Engineering, Inc.
slebel@acorn-engineering.com



March 14, 2019

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

Re: Hammond House - R-6 Design Review Responses

Dear Caitlin,

Please see the attached revised design for Hammond House with revisions based on our Workshop and meeting with you and Matt Grooms after the workshop. We think the design has come a long way to address the design review and planning board comments. Below is a list of items we have revised to address those comments:

- 1.) Removed roof top decks and stairwells
- 2.) Recessed Main Entry to scale facade
- 3.) Moved stair and elevator deeper into building and away from front facade, eliminating elevator over ride on facade and adds living space on street
- 4.) Removed hallway space on front facade and replaced with residential space
- 5.) Added planters to the entry facade
- 6.) Added front porch and columns to further scale entry to street
- 7.) Simplified materials palate more consistent with context, lighter color scheme to fit better with context
- 8.) Added bays to front facade to scale building width and recall triple decker typology
- 9.) Added porch columns at street facade corner porches to a more contextual triple decker context

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101

10.) Added more traditional cornice detail in keeping with context

11.) Added recessed decks on mid point of side facades to break scale of building

12.) Added notched corner deck to West end of Fox Street Facing facade to scale elevation length down

13.) Brought down cornice 1 story and added material color change at 3rd floor on Fox street facade to scale building.

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

HAMMOND HOUSE CONDOMINIUM, LLC

DECLARATION OF CONDOMINIUM

Hammond House Condominium, LLC, a Maine limited liability company with a principal place of business located on South Street in Yarmouth, Maine (hereinafter with its successors and assigns, referred to as the "Declarant"), being the owner of that certain real property located in Portland, Cumberland County, Maine, as more fully described hereinafter, by duly executing and recording this Declaration, does hereby submit said land, together with the buildings and improvements now or to be hereafter erected thereon, and all easements, rights and appurtenances belonging thereto, except such rights and interests reserved by and to the Declarant hereunder (hereinafter collectively called the "Property"), to the provisions of Title 33 Maine Revised Statutes, Chapter 31, §§ 1601-101, *et seq.*, as now and as may be hereinafter amended (hereinafter referred to as the "Condominium Act"), and does hereby declare and create, with respect to the Property, a condominium governed by and subject to the provisions of the Condominium Act. To that end, the Declarant does hereby declare and provide as follows:

1. **Name of the Condominium: Defined Terms.** The name of the condominium created shall be Hammond House Condominium (hereinafter sometimes referred to as the "Condominium" or "Hammond House Condominium"). Capitalized terms used herein, if not defined herein, shall have the meanings defined in the Condominium Act or in the Association's By-Laws.

2. **Description of the Condominium: Common Elements Allocated as Limited Common Elements: Plats and Plans: and Buildings.** The Land portion of the Property comprising the Condominium (the "Land") is that certain parcel of land situated in Portland, Cumberland County, Maine, being described on **Schedule A** attached hereto. The Land is subject to such rights, easements, restrictions and encumbrances recited in **Schedule A**; and the rights and easements established or referenced herein. The Land is additionally subject to such rights, interests and easements as may be herein reserved to the Declarant, which rights, interests and easements shall, in all instances, be exercisable by the Declarant and its successors or assigns.

The Condominium is comprised of the Land and includes:

- A. sixteen (16) to-be-built residential units located in a single building with the units numbered 101, 102, 103, 104, 105, 106, 201, 202, 203, 204, 205, 206, 301, 302, 303, 304 (the "Units"); and

All sixteen (16) Units herein described are hereby created. The Units are listed on **Schedule B** attached hereto along with each Unit's appurtenant undivided percentage interest (the "Undivided Interest") in the common elements of the Condominium (the "Common Elements").

The sixteen (16) Units shall be located in a single to-be-built building consisting of three residential stories serviced by an elevator, all above a steel and concrete garage and foundation (the "Hammond House Building"). Below the Hammond House Units is a single

level steel and concrete indoor parking garage with 15 parking spaces, 8 storage units, a bike room, a trash room, utility rooms, stairs, an elevator and vestibule, all as shown on the Floor Plans.

Recorded in this same registry at Plan Book _____, Page _____, is a certain plat (the "Subdivision Plat"), depicting the Land and the location and dimension of the improvements thereon and certain plans (the "Condominium Plans") depicting the Units, their designated Unit numbers, horizontal Unit boundaries with reference to established datum, the location and dimensions of vertical Unit boundaries, the Parking Garage, Common Elements and Limited Common Elements, including without limitation decks, parking spaces, storage rooms, rooftop decks, hallways, stairwells, elevator, lobbies, mail room and vestibules.

3. **Descriptions of the Units and Their Boundaries.** Units in the Condominium are defined as those physical portions of the Condominium designated for separate ownership hereunder, or in any amendment hereto. The Units, their respective boundaries and the appurtenances thereof are as hereinafter delineated:

A. **Boundaries of the Units.** The boundaries of each of the Units with respect to the floors, ceilings, and the walls, doors and windows thereof are as follows:

- (i) **Floors:** The upper surface of the slab or structural joists below the sub-flooring of the Unit or the Unit's floor.
- (ii) **Ceiling:** The lower plane of the slab or structural joists supporting the next level above the Unit.
- (iii) **Exterior and Demising Walls:** Vertical (perimetric) Boundaries of each Unit shall be the internal surface of the walls (i.e., the inner surface of the sheetrock or other finished wall surface) bounding the Unit extended to intersections with each other and with the horizontal or inclined boundaries. All paneling, tiles, wallpaper, paint, sheetrock, flooring finish and any other materials constituting any part of the finished surfaces of the ceilings, walls or floors are a part of the Unit, and all other portions of the walls, floors or ceilings are a part of the Common Elements.
- (iv) **Doors and Windows:** As to doors leading to the interior of a Unit, the exterior surface of the door and of the door frame; as to windows, the exterior surface of the glass (and screens if any) and of the window frame.
- (v) **Pipes, Wires, Conduits, etc.** If any chute, flue, duct, wire, pipe, conduit, bearing wall, bearing column or any other fixture lies partially within and partially outside the designated boundaries of a Unit, any portion thereof serving only that Unit is a Limited Common Element allocated solely to that Unit, and any portion thereof serving more than one Unit or any portion of the Common Elements is a part of the Common Elements.

B. Alteration of Unit Boundaries. Unit owners, including Declarant, may alter, combine and/or subdivide Units, and/or relocate the boundaries between adjoining Units, provided, however, that: (1) the terms and provisions of Sections 1602-111, 1602-112 and/or 1602- 113 of the Condominium Act (as applicable) are complied with, (2) the advance written consent of the Executive Board is obtained, which consent shall not be unreasonably withheld, (3) any reasonable conditions imposed by the Executive Board are complied with in all respects, and (4) any such alterations do not conflict with any municipal ordinances or approvals granted for the Condominium.

**4. Description of Common Elements and Limited Common Elements.
Maintenance of Common Elements and Units.**

A. Description of the Common Elements. The common elements of the Condominium (the "Common Elements") consist of the entire Property described in Schedule A exclusive of the Units, all as hereinbefore described and defined (and exclusive of any and all rights, interests and/or easements reserved by the Declarant).

The Common Elements shall be subject to the provisions hereof and of the By-Laws and the Rules and Regulations as may be promulgated thereunder with respect to the use and maintenance thereof.

Notwithstanding the foregoing, the Common Elements shall exclude the exclusive rights, interests and easements reserved to the Declarant by law or by the Declarant in this Declaration.

B. Description of Limited Common Elements.

- a. If any chute, flue, duct, wire, pipe, conduit, bearing wall, bearing column or any other fixture lies partially within and partially outside the designated boundaries of a Unit, any portion thereof serving only that Unit is a Limited Common Element allocated solely to that Unit, and any portion of the Building serving more than one Unit or any portion of the Limited Common Elements is a part of the Common Elements; and
- b. All windows or other fixtures designed to serve a single Unit, but located outside the Unit's boundaries, are Limited Common Elements allocated exclusively to that Unit.
- c. The Condominium Plans depict various private balconies with access thereto from adjacent Units. Such private balconies are Limited Common Elements for the exclusive use by the occupants of such adjacent Units subject to the terms of this Declaration and the Condominium Bylaws and Rules and Regulations.

- d. The Condominium Plans depict parking spaces and storage rooms as Limited Common Elements. These Limited Common Elements will be allocated by Declarant to Units, or reserved by Declarant for future allocation to Units, all as set forth below.

5. Allocation of Parking Spaces, Storage Rooms, and Mailboxes; Use of Parking Spaces. The Declarant hereby reserves the development right to allocate the exclusive right to use certain Limited Common Elements not already allocated herein to the owner(s) of certain Units, which Limited Common Elements shall be appurtenant to the Unit(s) to which they are allocated. Such Limited Common Elements include, or may include, without limitation, the following:

- (i) The parking spaces in the Condominium's garage (the "Garage") and the exterior parking spaces (collectively the "Parking Spaces");
- (ii) The storage rooms located in the Garage and individual storage units located in storage rooms on each floor of the Condominium;
- (iii) Mailboxes in the mail room.

Such allocations by the Declarant of Limited Common Elements may be carried out in any Unit deed or other recorded instrument from the Declarant. The Declarant may, in the future, allocate additional Limited Common Elements (for additional Parking Spaces and/or storage areas, for example) by Special Amendment to this Declaration, and the Declarant hereby retains and reserves the exclusive right to so establish future Limited Common Elements.

Parking spaces not allocated as Limited Common Elements to any specific Unit may be leased by the Declarant to Unit owners at the Declarant's sole discretion, and may be subsequently allocated by Declarant to a specific Unit owner.

The Declarant, as one of its Development Rights, hereby retains and reserves the right to establish and thereafter use, allocate, convey and assign an exclusive right to use each of the Parking Spaces as they are shown on the Floor Plans recorded herewith, as well as those shown on any new or amended Floor Plan(s) which may be hereafter recorded.

Subject to the terms and provisions of the Condominium Act, the Parking Spaces (i) may only be used by the Declarant, or its licensees or lessees, and by occupants of the Condominium and their guests, and (ii) may thereafter be transferred to other Unit Owners pursuant to Section 1602-108(b) of the Condominium Act.

The following additional restrictions and regulations shall apply to the use and occupancy of the Parking Spaces:

- (i) The Parking Spaces shall be used only for the parking of registered and operational private automobiles, motorcycles, and noncommercial vans and

trucks and recreational vehicles. No trucks, (except non-commercial pickup trucks), boats, trailers (whether capable of independent operation or attached to an automobile or other vehicle), commercial vehicles, and the like, may be parked in the Parking Spaces except with the written consent of the Executive Board. Any storage of personal property in or on the Parking Spaces shall only be in storage facilities built by the Declarant or approved in writing, in advance, by the Executive Board.

- (ii) All vehicles shall be parked wholly within their respective Parking Spaces.
- (iii) A Parking Space holder may permit any tenant or guest the right to use a Parking Space which said holder is entitled to use, but all parties using said Parking Space shall comply with the provisions relating to such use and occupancy contained in this Declaration, the Condominium By-Laws, Rules and Regulations.
- (iv) A Parking Space holder who permits any tenant or guest to use a Parking Space to which said holder is entitled to use shall be responsible for the compliance by such other user with provisions of this Declaration, the Condominium By-Laws, Rules and Regulations, to the extent the same may be applicable. A Parking Space holder may not lease or rent or otherwise grant rights of use of a Parking Space to any non-Unit owner other than the Parking Space Holder's tenant or guest.
- (v) In instances where vehicles using the Parking Spaces and other facilities of the Condominium do not comply with this Declaration, the Executive Board is authorized to allow the towing of the offending vehicles at the expense of the owners of such vehicles and the Parking Space holder.
- (vi) Since the Parking Garage is a relatively confined area, any user thereof may do so only in a cautious manner, and any Owner(s) or other party holding the right to use a Parking Space, by acceptance of their Deed or other right to use, thereby agrees to both release and indemnify the Declarant, the Condominium Association, its Executive Board from and against any and all claims, losses, costs, expenses or damages said parties may incur (including, without limitation, reasonable attorneys' fees and costs) or be hereafter subjected to and arising from the acts or omissions of the Owner or other party holding the right to use such Parking Spaces, unless arising from the indemnified party's gross negligence, willful misconduct or violation of the terms and provisions of this Declaration, the Condominium's By-Laws, Rules or Regulations.

6. Maintenance and Repair of Units and Common Elements. Except as otherwise provided in the Condominium Act or this Declaration, the Association is responsible for carrying out maintenance, repair and replacement of the Common Elements. Each Unit Owner is responsible for the maintenance, repair and replacement of his or her Unit. Notwithstanding the foregoing, the following shall apply:

- a. The Association shall be responsible for complying with the stormwater maintenance agreement and stormwater inspection and maintenance plan approved by the City of Portland including the responsibility to hire a qualified

stormwater inspector to inspect the stormwater system annually and to take whatever corrective action is required. On or before the 30th day of June of every year the qualified inspector shall file a report with the City of Portland's Department of Public Service noting the system's condition and any maintenance or corrective action that has taken place.

- b. The Association shall be responsible for landscape maintenance in accordance with its landscape plan approved by the City of Portland including the maintenance and care of approved street trees and their granite planting beds and any other plantings in the city's right of way.
- c. The Association shall be responsible for ensuring the safe condition and maintenance of the entrances on Hammond Street.
- d. The Association shall be responsible for ensuring that pedestrians and other users of the sidewalks along Hammond Street, if any, are safe from snow, ice or other debris that could fall from decks and ensuring that unit owners store objects on balconies or on rooftop decks in a manner so as to provide for the safety of persons below.
- e. Unit Owners shall keep their appurtenant balconies and allocated Parking Spaces in a safe, clean and neat condition.
- f. The Association shall maintain, repair and replace any portion of a Unit in the Building that consists of exterior window and doors, structural wall, exterior siding or cladding, exterior trellises or "green walls" or other structural element, or exterior wall. As such, Unit Owners shall not maintain, repair, replace or alter such elements in any manner.
- g. The cost of any maintenance, repair or replacement of any area or component of the Common Elements necessitated or arising from the act or omission of a Unit Owner (or his or her tenant, guest, invitee or licensee) may be assessed exclusively to such Unit Owner.
- h. If the Executive Board shall at any time, in its reasonable judgment, determine that any Unit may be in such need of maintenance or repair that the Common Elements may be adversely affected, or that the market value or reasonable enjoyment of one or more other Units may be adversely affected, or that the condition of a Unit or fixtures, furnishings, facility or equipment therein may be or may become hazardous to any Unit or the occupants, the Executive Board may request in writing that the Unit Owner perform the needed maintenance, repair or replacement or to correct the hazardous condition, and in case such work shall not have been commenced within fifteen (15) days (or such reasonable shorter period in case of emergency as the Executive Board shall determine) of such request and thereafter diligently brought to completion, the Executive Board shall be entitled to have the work performed for the account of the Owner(s) of such Unit and to enter upon and have access to such Unit for that purpose. The cost of such work shall be reimbursed by the Unit Owner and constitute a lien upon such Unit and the Owner(s) of such Unit shall be personally liable therefore.

- i. The Association shall be responsible for causing the sidewalks in front of the Hammond House Building to be cleared of snow in accordance with the City of Portland's snow removal ordinance, the cost of which shall be borne by the Association.
- j. The Association shall be responsible for engaging a private trash hauler to pick up trash generated by the Units, the cost of which service shall be borne by the Association; no unit owner in the Building shall attempt to utilize curb-side trash pick-up services provided by the City of Portland, and the City has no intention or obligation to provide such service.
- k. The Association shall be responsible for maintenance of all exterior lighting in accordance with the City's Technical Standard 12 "Site Lighting" Section 12.4.

7. **Undivided Interests.** Each Unit shall have an Undivided Interest in the Common Elements allocated to the Hammond House Units, in the percentages set forth in Schedule B, which have been rounded to obtain a one hundred percent total for the 16 Units.

8. **Organization of Owners.** The organization through which the Unit Owners will manage and regulate the condominium is the Hammond House Condominium Association, a Maine non-profit corporation governed by Bylaws. Said By-Laws are not incorporated into this Declaration and therefore may be amended pursuant to the terms of the By-Laws and without complying with the requirements for amending this Declaration by its terms or pursuant to the Maine Condominium Act.

Said By-Laws establish an association of which all Owners of units in the Hammond House Building shall be members and in which such Owners shall have a membership interest for voting, assessment, and all other purposes in proportion to the percentage of Undivided Interest in the Common Elements to which they are entitled hereunder, all as set forth herein and in accordance with the provisions of the Condominium Act. The names of the original Declarant-appointed members of the Association's Executive Board are as follows:

- 1. Kevin O'Rourke
- 2. Page Eastburn O'Rourke
- 3. Griffin Eastburn O'Rourke

The Declarant hereby reserves the right to control the Executive Board of the Association for a period of time, as follows: during the period from the date of the first conveyance of a Unit to a third party other than the Declarant until 60 days after the conveyance to third-party purchasers by the Declarant of ten (10) Units, or if sooner, seven (7) years from the date of the first conveyance of a Unit to a third party other than the Declarant (the "Transition Date"). There shall be three (3) Board Members so appointed by the Declarant, its successors or assigns. Upon any vacancy existing in such Board, its or their successor(s) prior to the Transition Date shall be appointed solely by the Declarant, its successor or assigns. On or before the Transition Date, a special meeting of the Unit Owners shall be held for the purpose of electing five (5) Board Members, as described in the By-Laws.

9. **Other Matters Relating to Condominium Association.**

- a. Allocation of Undivided Interests. In the Hammond House Building each Unit's percentage of the Undivided Interests set forth herein have been, and will be, determined based upon each such Unit's floor area (as measured in square feet), in relation to the aggregate floor area of all Units in the Hammond House Building. Such Undivided Interests shall be used in determining each Unit's Common Expense assessments, voting weight on Association matters for which Unit Owners have a right to vote, distribution of surplus assets, and certain other Association-related matters, all as described more fully in the Association's By-Laws and the Condominium Act.
- b. Common Expense Assessments.
 - i. Assessments for Common Expenses shall be levied as per the terms and provisions of the relevant sections of the Condominium Act and the Association's By-Laws, the terms and provisions of which are incorporated into this Declaration by reference. Such assessments, as well as any late charges, interest, collection costs, attorneys' fees (whether a legal action is filed or not), service fees, charges and fines shall constitute, until paid in full, both the personal obligation of the Unit Owner and a lien against the Unit pursuant to Section 1603-116 of the Condominium Act.
 - ii. If any Common Expense is caused by the misconduct of any Unit Owner, the Association may assess that expense exclusively against him or her, and his or her Unit.
- c. Executive Board's Power to Act on Behalf of Association. Except as expressly limited by the Condominium Act, this Declaration or the Association's By-Laws, the Executive Board shall be empowered to act on behalf of the Association as described in the By-Laws and Condominium Act, including (without limitation) the power and authority to assign its right to collect future Common Expense assessments and other income as security for debt(s) of the Association, and the power to assess common expenses benefiting fewer than all the units exclusively against the units benefited.
- d. Notice of Matters Affecting the Condominium. Notice of matters relating to the Condominium shall be given to Unit Owners by the Executive Board by first class U.S. Mail, postage prepaid, at the Unit (unless the Unit owner has provided an alternate mailing address in writing to the Association), or by such other means as may be required by law. Notices relating to Condominium meetings shall be provided as set forth in the Condominium By-Laws.

10. Encroachments. If any portion of the Common Elements now encroaches upon any Unit, or if any Unit now encroaches upon any other Unit or upon any portion of the Common Elements, or if any such encroachment shall occur hereafter as a result of (a) alteration or repair to the Common Elements made by the Declarant, or by or with the consent of the Executive Board, or (b) settling of all or any portion of the Building(s), or (c) repair or restoration of the Building(s) or any Unit after damage by fire or other casualty, or (d) condemnation or eminent domain proceedings or (e) immaterial deviations from the Floor Plans, a valid easement shall exist for such encroachment and for the maintenance of the

same.

11. Intended Use and Restrictions on Use of the Buildings and Units.

The purposes for which the Building, the Units, and the Common Elements, and the Limited Common Elements are intended to be used are as follows:

The Units may be used only for residential purposes; provided, however, that such Units may be used by the Declarant for other purposes pursuant to the provisions of Section 13 below. This restriction shall not be construed to prohibit Unit Owners from leasing their Units provided that Units may not be leased more than two times per year, and provided that such leases are for an initial term of at least three (3) months and require any lessees to adhere to the provisions of this Declaration, the Association's By-Laws and the Rules and Regulations, and any lessees do so occupy and use the leased premises in accordance with the provisions of the Declaration, the Association and the Rules and Regulations. The Residential Units may also be used for home office purposes, so long as such use is secondary and incidental to the residential use, and provided further that no commercial signage is used in connection therewith and no customers, clients or business associates regularly visit the Condominium.

The Units and the Limited Common Elements shall be subject to the restrictions that:

- (i) Subject to prior written approval by the Executive Board of the plans and specifications related thereto, which approval shall not be unreasonably withheld, conditioned or delayed, the owner of a Unit may, at his sole cost and expense, if the rights of any other Unit Owner are not materially and adversely affected, and if the structural walls, supports and other structural aspects of the Building are not adversely affected, change or add to the interior partitioning thereof, by adding, modifying, removing or installing non-load bearing walls lying wholly within such Unit; provided, however, that the Executive Board may impose reasonable conditions on such work, and any and all work shall be done in a good and workmanlike manner, pursuant to a building permit validly issued therefor (if required by law).
- (ii) The maintenance, keeping, boarding and/or raising of animals, livestock, poultry or reptiles of any kind, regardless of number, shall be and is prohibited within any Unit or upon any part of the Condominium Property, except that the keeping of orderly domestic pets (e.g. dogs, cats, caged birds) and aquarium fish is permitted subject to the limitation that no Unit Owner shall keep or maintain in excess of two (2) orderly domestic pets and, subject to the Rules and Regulations adopted by the Board of Directors. Pets shall not be permitted upon the Common Elements unless accompanied by a responsible person and unless carried or leashed. Any Unit Owner who keeps or maintains any pet upon any portion of the property shall be deemed to have indemnified and agreed to hold the Association, each Unit Owner and the Declarant free and harmless from any loss, claim or liability of any kind or character whatever arising by reason of keeping or maintaining such pet within the Condominium. All pets shall be registered with the Board of Directors and shall

otherwise be registered and inoculated as required by law. Each pet owner shall be required to clean up any and all excrement caused by his pet on any portion of the Condominium Property. The Board of Directors shall have the right to order any person whose pet is a nuisance to remove such pet from the Condominium.

- (iii) No Unit Owner shall alter his Unit in such a way as to cause unreasonable levels of sound, vibration, light or odors to be transmitted to other Units, the Common Elements or neighboring buildings.
- (iv) If any governmental license or permit (other than a Certificate of Occupancy, or a license or permit applicable to the Building as a whole and required in order to render lawful the operation of the Building) shall be required for any particular improvement or construction in any particular Unit, and if failure to secure such license or permit would in any way affect any other Unit or the Owner thereof or the Association, the Owner of such particular Unit, at such Owner's expense, shall procure and maintain such license or permit, submit the same to inspection by the Executive Board, and comply with all terms and conditions thereof.
- (v) A Unit Owner shall not place or cause to be placed in or on any of the Common Elements any furniture, packages, bicycles, carriages, or personal property of any nature whatsoever; provided, however, that the Unit Owners have the right to use any bicycle storage facilities, dumpster, or trash barrels, if any, located on the Common Elements, but only for ordinary household trash.
- (vi) All use and maintenance of the Units shall be conducted in a manner consistent with the reasonable comfort and convenience of the occupants of other Units.
- (vii) The Limited Common Elements allocated to individual Units shall be used only for the purposes for which they are reasonably suited and which are incident to the use and occupancy of Units.
- (viii) No nuisances shall be allowed on or in the Condominium, nor shall any use or practice be allowed which is a source of unreasonable annoyance to Unit Owners or which interferes with the reasonable peaceful possession or proper use of the Units by their occupants.
- (ix) No unlawful use shall be made of the Condominium, or any part thereof, and all valid laws, zoning ordinances and regulations of all governmental bodies having jurisdiction thereof shall be observed by the Unit Owners and the Association. Violations of laws, orders, rules, regulations or requirements of any governmental agency having jurisdiction thereof, relating to any Unit or Limited Common Element allocated to that Unit shall be eliminated by and at the sole expense of the Unit Owner of said Unit and those relating to Common Elements shall be eliminated by the Executive Board unless caused by a Unit Owner in which case the Executive Board may either order the Unit Owner to eliminate the violation at the Owner's expense or eliminate the violation itself and bill the Unit Owner for all reasonable expenses incurred by the Association.
- (x) No pictures, advertisements, signs or posters of any kind shall be erected, posted

or attached on the exterior of Units except those approved in writing by the Executive Board, provided, however, this restriction shall not apply to the extent that such restriction shall conflict with any law, and shall not apply to pictures, advertisements, signs or posters utilized by the Declarant or its agents in selling or leasing the Units.

- (xi) No Unit Owner shall allow an air conditioning unit or other machine or equipment, pipe, wire, or other item which protrudes through the walls or the roof of the Building or is otherwise visible on the exterior of the Building.
- (xii) No activity shall be done or maintained in any Unit which will materially increase the rate of insurance on any Unit or the Common Elements or result in the cancellation of insurance thereof, provided, however, that any use or activity which will increase the rate of insurance maintained by the Executive Board for the Condominium or by any individual Unit Owner may be permitted by the Executive Board, in the sole discretion of the Executive Board, if the Unit Owner conducting such use or allowing such use to be conducted agrees to conform to any special rules or regulations promulgated by the Executive Board with respect to such use and agrees to pay any and all additional costs associated therewith, including without limitation the increase in the insurance premiums paid by the Executive Board on behalf of the Condominium as a result thereof.
- (xiii) Portions of any Unit window treatments visible from the outside of the Building shall be white in color, and shall be of a material and style approved in writing by the Executive Board, such approval not to be unreasonably withheld, conditioned or delayed.

D. Notwithstanding anything to the contrary contained herein, the Declarant may, until all of said Units have been sold by said Declarant, (a) lease Units which have not been sold on terms and conditions determined by the Declarant; or (b) use any Units owned by the Declarant as models for display, as offices and/or as storage areas or for any other uses which it deems necessary or desirable in connection with redecoration and construction in the Units or Limited Common Elements, or the sale or leasing of units.

12. INTENTIONALLY OMITTED

13. Development Rights and Other Rights Reserved to the Declarant.

13.1 The Declarant hereby expressly reserves to itself, its successors and assigns, any and all Special Declarant Rights as defined in the Condominium Act or as set forth in this Declaration, and/or in the Association's By-Laws and Declarant hereby expressly reserves Development Rights to create limited common elements (e.g., parking spaces, storage rooms, mailboxes) and allocate such portions of the common elements to particular unit(s) as limited common elements, the right to relocate the boundaries between units, and the right to combine units.

13.2 The Declarant, for itself and its successors and assigns, hereby reserves certain exclusive rights and easements to enter onto the Land made part of this Condominium now or in the future, to complete construction thereon, along with all

improvements, utility lines, driveways, wires, pipes, conduits, walkways, and drainage lines to service the Units constructed on the Condominium Land.

13.3 In addition to all other rights of Declarant hereunder, Declarant reserves unto itself and its agents, servants, employees, independent contractors, workmen, work crews, successors and assigns the right and easement to use, occupy, and alter, for construction purposes, all areas of the Property, other than Units and Limited Common Elements already conveyed, for all purposes necessary or desirable in order to develop and/or manage the Property and to market the Units. The Declarant further reserves for itself and its successors and assigns the exclusive right to grant easements across all of the Property for the installation of utilities and the right to grant easements to others to use the Property for vehicular and pedestrian traffic.

Without limiting the generality of the foregoing and in furtherance thereof, the Declarant hereby reserves unto itself and its agents, servants, employees, independent contractors, workmen, work crews, successors and assigns, the following rights over all of the Land and Building subject to this Declaration: the right of access, ingress, and egress over and upon the Land and the Limited Common Elements of the Condominium, including that deemed by the Declarant to be necessary for marketing purposes and for the work of construction, reconstruction, rehabilitation, improvement, and other work in progress or contemplated by Declarant; the right to lay, maintain, repair and replace, construct, and install and connect (or connect with and make use of) all utilities, utility lines, poles, tanks, walls, ducts, conduits, and similar facilities to serve any or all of the building and/or Units and the Limited Common Elements, and all conduits, ducts, plumbing, wiring, and other facilities for the furnishing of power, gas, light, master antenna, satellite antenna, cable television, water, air and all sewer and drainage pipes to serve any or all of the buildings and/or Units and the Limited Common Elements and facilities; to pass and repass by foot and vehicle over all driveways, roadways, accessways, parking areas and walkways, whether now existing or to be constructed in the future, for all purposes for which driveways, roadways, accessways, parking areas and walkways are commonly used, including the transportation of construction materials, equipment, and personnel for the purposes of construction; to construct buildings and improvements on the Land, and to engage in all activities necessary or appropriate to accomplish the same, including without limitation the exclusive right to grant to others including any public utility or authority, easements for the installation and maintenance of utilities; to store construction materials, equipment, and supplies in those portions of the Limited Common Elements; to restrict (for periods of not more than eight (8) hours at any time during any day) the use by owners of any Limited Common Elements to facilitate construction or for purposes of safety (provided, of course, no Owner shall be denied at least one means of access to his or her Unit during such periods of restriction); to leave debris resulting from construction in the Limited Common Elements and facilities, provided the same do not endanger safety; to reasonably interrupt for brief intervals of time, water, gas, electric, and other utilities and service provided by such utility lines, pipes, tanks, wells, wires, cables, conduits, and septic and drainage lines in order to facilitate construction or in order to facilitate the installation of appliances or fixtures in the Buildings, Units or Limited Common Elements under construction without liability for such interruption of service, provided however that the Declarant shall use reasonable efforts to minimize any such interruption of service; to park vehicles used in connection with the construction work or incident thereto in parking areas; and, in general, the right to do all things necessary or desirable in order to construct and complete all of the Buildings and/or Units and the Limited Common Elements and facilities in connection therewith.

The Declarant further reserves the exclusive right to use any parking space and storage area located in the Building and not necessary to serve the Units already sold by the Declarant, as well as any Unit owned by the Declarant, for storage or as a model, for display, as an office, for purposes of facilitating sales, as well as the right to park and use one or more vehicles or trailers, as well as the right to lease any unsold unit upon terms at Declarant's discretion, for as long as the Declarant owns any Units or holds any Development Rights or Special Declarant Rights.

13.4 The rights and easements reserved by the Declarant in this Section 13 shall be in addition to and not in limitation of, the rights and easements allowed in the Condominium Act, reserved by the Declarant in other sections of this Declaration, in the By-Laws, or in any prior-recorded instrument.

13.5 The rights and easements reserved by the Declarant for itself and its successors and assigns in this Declaration shall survive the sale of all of the Units, and are to be deemed to be fully transferable, running with the land.

13.6 Each Executive Board Member, as well as each Owner and mortgagee of an individual Unit, by the acceptance and recordation of a deed or mortgage, shall thereby have consented to the granting or exercise of any right or easement described in this Declaration without the necessity of securing any further consent or execution of any further documents by such Board Member, Owner or mortgagee.

13.7 The Declarant, by deed or by separate assignment, shall be entitled to assign, sell, grant or mortgage, any and all of its interests, rights and easements owned by it or reserved herein and in the By-Laws, at any time, and from time to time, to any mortgage holder, person, trust, firm, or entity as may be determined by Declarant. Each Board Member, as well as each Owner and mortgagee of an individual Unit, by acceptance and recordation of a deed or mortgage, shall be deemed to have thereby consented to any such assignment, sale, grant or mortgaging of the Declarant's said interests, rights and easements without the necessity of securing any further consent or execution of any further documents by such Board Member, owner or mortgagee. The Condominium Board and Owners, at Declarant's request, shall execute whatever confirmatory instruments which Declarant deems appropriate or necessary in order to perfect, carry out, or effectuate the rights and easements reserved by the Declarant in this Declaration and in the Condominium By-Laws. The foregoing shall not apply to any mortgagee of the Declarant.

14. Title to Units. Title to Units may be taken in the name of an individual, corporation, company, trust or partnership, or in the name of two (2) or more individuals, as tenants in common, joint tenants, or tenants by the entirety or in the name of a fiduciary.

15. Units Subject to Declaration and Condominium By-Laws. All present and future Owners, tenants, visitors, invitees, licensees and occupants of Units shall be subject to, and shall comply with, the provisions of this Declaration, the By-Laws, and the Rules and Regulations promulgated pursuant thereto, as they may be amended from time to time, and the instruments of record affecting title to the Property including, but not limited to, those instruments of record listed in the Schedules to this Declaration. The acceptance of a deed or

conveyance of a Unit or the entering into occupancy of any Unit shall constitute an agreement that the provisions of this Declaration, By-Laws, and the Rules and Regulations promulgated pursuant thereto, as they may be amended from time to time, and the said instruments of record affecting title to the Property, are accepted and ratified by such Owner, tenant, visitor, invitee, licensee or occupant, and all of such provisions shall be deemed and taken to be covenants running with the land and shall bind any person having at any time any interest or estate in such Unit, as though such provisions were recited and stipulated at length in each and every deed, conveyance, or lease thereof. A violation of the provisions of this Declaration, the Deed, the By-Laws, or the Rules and Regulations promulgated pursuant thereto by any such person shall be deemed a substantial violation of the duties and obligations of an Owner, which shall entitle the Executive Board and any Owner the right to recovery of damages and/or injunctive relief.

16. Amendment of Declaration.

A. Declarant's Consent. Notwithstanding any contrary or inconsistent provision in this Declaration, for so long as Declarant owns one or more Units in the Condominium or holds any Development Rights or Special Declarant Rights, any amendment to the Declaration which affects a right reserved to the Declarant hereunder or imposes an additional obligation or duty upon the Declarant must be signed by the Declarant and/or its successors and/or assigns.

B. General Amendments. Amendments to this Declaration are governed generally by Section 1602-117 of the Condominium Act, this Section 16 of the Declaration, and Section 17 below. Except as may be inconsistent with the Condominium Act, and except as otherwise provided in Section 17 below or in Subsections A or C of this Section 16, this Declaration may be amended by the vote or agreement of Unit Owners representing 67% or more of the Undivided Interests in the Condominium.

C. Special Amendments. Notwithstanding the foregoing, this Declaration may also be amended by Special Amendment as follows: The Declarant, without the consent of any Unit Owner or mortgagee, may execute and record, as long as it owns any Units or holds any Development Rights or Special Declarant Rights, Special Amendments in order to (i) correct any errors and/or omissions in this Declaration, provided no such correcting amendment shall materially and adversely affect the rights of any Unit Owner or mortgagee; or (ii) to make this Declaration comply with the provisions of the Condominium Act, any other law, code, permit or approval, or the requirements or guidelines of the Federal National Mortgage Association ("FNMA"), the Federal Home Loan Mortgage Corporation ("FHLMC") or any other insurer or guarantor of Unit mortgages.

Special Amendments may also be executed and recorded as described above in connection with the combination, subdivision, and/or alteration of Units.

D. Effective Date. Amendments to this Declaration shall be effective upon recording in the Registry of Deeds. As to General Amendments, the recorded version thereof need not include the signatures of Unit Owners agreeing thereto, but rather the recorded instrument need only be signed by an Officer of the Association, as long as such Officer certifies that the required consents described above have been obtained and will be retained with the Association's records for a period of at least two (2) years after recording.

17. Provisions Protecting Rights of Secured Lenders. Subject to the limitations set forth in Section 1602-I 19(a) of the Condominium Act, the following shall apply with respect to the protection of rights of holders of first mortgages on Units ("First Mortgagees") and "Eligible Mortgage Holders" (meaning First Mortgagees who have delivered written notice to the Association by prepaid certified U.S. Mail, return receipt requested, or by delivery in-hand securing a receipt therefore, which notice states the First Mortgagee's name and address, the Unit upon which it holds first mortgage, the Unit Owner's name and address, and that it holds a first mortgage on such Unit).

A. Notwithstanding anything in this Declaration or in the By-Laws to the contrary, the following provisions shall apply for the protection of First Mortgagees, and shall be enforceable by any First Mortgagee:

- (1) In the event that the Unit Owners shall amend this Declaration or the By-Laws to include therein any right of first refusal in connection with the sale of a Unit, such right of first refusal shall not impair the rights of a First Mortgagee to:
 - (a) Foreclose or take title to a Unit pursuant to the remedies provided in its mortgage; or
 - (b) Accept a deed (or assignment) in lieu of foreclosure in the event of default by a Unit Owner, or
 - (c) Sell or lease a Unit acquired by the First Mortgagee through the procedures described in subparagraphs (a) and (b) above.
- (2) As to any conveyance whereby a party takes title to a Unit through either a deed in lieu of foreclosure or a foreclosure sale duly conducted by a First Mortgagee, such conveyance shall be exempt from any such right of first refusal adopted by the Unit Owners and incorporated in this Declaration or the Condominium By-Laws, and the ownership of the Unit by such party shall be exempt from any leasing restrictions set forth therein but only for such party's period of ownership.

B. Any First Mortgagee who obtains title to a Unit by foreclosure shall not be liable for such Unit's unpaid common expenses or other amounts which accrued prior to the acquisition of title to such Unit by such First Mortgagee, except to the extent that such common expenses and/or other amounts are entitled to priority over such First Mortgage under the Condominium Act. Liens for any and all Common Expenses, assessments and charges that may be levied by the Association shall be subordinate to the rights of any First Mortgagee pursuant to its mortgage to the extent permitted by applicable Maine law.

C. A lien for Common Expenses assessments shall not be affected by any sale or transfer of a Unit, except that a sale or transfer pursuant to a foreclosure of a First Mortgage shall extinguish a subordinate lien for assessments which became payable prior to such sale or transfer. Any such sale or transfer pursuant to a foreclosure (1) shall not relieve the prior Unit Owner of a personal liability for any unpaid assessments or other sums owed to the Association, and (2) shall not relieve the purchaser or transferee from liability for, nor the Unit

from the lien of, any assessments made thereafter.

D. As provided in Section 1602-119 of the Condominium Act, the Association shall send reasonable prior written notice by prepaid U.S. Mail to Eligible Mortgage Holders of the consideration by the Association of any of the following proposed actions:

- (1) The termination of the Condominium pursuant to Section 1602-118 of the Condominium Act;
- (2) A change in the percentage of Undivided Interest of a Unit, a change in the boundaries of a Unit, or a subdivision of a Unit, unless carried out by the Declarant pursuant to the terms of this Declaration;
- (3) The merger or consolidation of the Condominium with another condominium;
- (4) The conveyance or subjection to a security interest of any portion of the Common Elements;
- (5) The proposed use of any proceeds of hazard insurance required to be maintained by the Association under Section 1603-113, subsection (a) of the Condominium Act for purposes other than the repair or restoration of the damaged property;
- (6) The adoption of any proposed Budget by the Executive Board and of the date of the scheduled Unit Owners' meeting to consider ratification thereof with a summary of the proposed Budget to accompany such ; and
- (7) Any default in the performance or payment by a Unit Owner of any obligation under the Condominium Declaration or By-Laws including, without limitation, default in the payment of common expense liabilities (notice shall be sent only to the Eligible Mortgage Holder for the subject Unit).

In the event of any proposed actions described in Subsection D., paragraphs (1), (2), (3), (4) or (5) immediately above, Eligible Mortgage Holders shall have the right (but not the obligation) in place of the Unit Owner to cast the votes allocated to that Unit or give or withhold any consent required of the Unit Owner for such action by delivering written notice to the Association, with a copy of the Unit Owner prior to or at the time of the taking of the proposed action, which notice shall be sent by prepaid certified United States mail, return receipt requested, or by delivery in-hand. Failure of the Eligible Mortgage Holder to so exercise such rights shall constitute a waiver thereof, and shall not preclude the Unit Owner from exercising such right. In the event of any default described in Subsection D., paragraph (7) above, the Eligible Mortgage Holder shall have the right but not the obligation to cure such default.

In addition, an Eligible Mortgage Holder, or its representative, shall have the right to attend Association and Executive Board meetings for the purposes of discussing the matters described in Subsection D., paragraphs (1) to (6) above.

E. In addition to the statutory rights of Eligible Mortgage Holders summarized in Subsection D above, and subject in all events to the provisions of the Condominium Act, unless Unit Owners representing at least two-thirds (2/3) of the Undivided Interest hereunder (or such larger percentage as may be required by law) and at least two-thirds (2/3) of the First Mortgagees holding mortgages on the individual Units of the Condominium have given their

prior written approval, neither the Owners nor the Executive Board shall be entitled to:

- (1) By act or omission, seek to abandon or terminate the Condominium except in the event of substantial destruction of the Condominium premises by fire or other casualty or in the case of taking by condemnation or eminent domain;
- (2) Change the percentage of Undivided Interest or obligation of any individual Unit for the purpose of: (a) levying assessments or charges or allocating distributions of hazard insurance proceeds or condemnation awards, or (b) determining the voting interest of each Unit;
- (3) Partition any Unit (other than in connection with the subdivision of Units as permitted herein, which shall not require First Mortgagee consent);
- (4) By act or omission, seek to abandon, partition, subdivide, encumber, sell or transfer the Common Elements; provided, however, that the granting of easements for purposes not inconsistent with the intended use of the Common Elements by the Condominium and the exercise of other actions with respect to granting of special rights of use of Limited Common Elements contemplated herein or in the Condominium By-Laws shall not be deemed an action for which any prior approval of a First Mortgagee shall be required under this Subsection;
- (5) Use hazard insurance proceeds for losses to any property of the Condominium (whether of Units or Common Elements) for other than the repair, replacement or reconstruction of such property of the Condominium, except as provided by statute; or
- (6) Terminate professional management and establish self-management of the Condominium.

F. In no case shall any provision of the Declaration or the By-Laws give an Owner or any other party priority over any rights of a First Mortgagee pursuant to its mortgage in the case of a distribution to such Owner of insurance proceeds or condemnation awards for losses to or a taking of such Unit and/or the Common Elements of the Condominium.

G. In addition to the statutory rights of Eligible Mortgage Holders summarized in Subsection D above, First Mortgagees, upon request to the Executive Board, will be entitled to:

- (1) Written notification from the Executive Board of any default by its borrower who is the Owner of a Unit with respect to any obligation of such borrower under this Declaration or the provisions of the By-Laws which is not cured within sixty (60) days;

- (2) Inspect the books and records of the Association at all reasonable times;
- (3) Receive (at its own expense) an audited annual financial statement of the Condominium Association within ninety (90) days following the end of any fiscal year of the Association;
- (4) Receive written notice of all meetings of the Association and be permitted to designate a representative to attend all such meetings;
- (5) Receive prompt written notification from the Executive Board of any damage by fire or other casualty to a material portion of the Condominium or the Unit upon which the First Mortgagee holds a mortgage or proposed taking by condemnation or eminent domain of said Unit or the Common Elements of the Condominium;
- (6) Receive written notice of any lapse, cancellation or material modification of any insurance policy maintained by the Association; and
- (7) Receive written notice of any action which requires the consent of a specified percentage of Eligible Mortgage Holders.

H. No amendment of a material nature to this Declaration will be made unless such is agreed to by Eligible Mortgage Holders who represent at least fifty-one percent (51%) in number of the First Mortgages on the Units that are subject to mortgages held by Eligible Mortgage Holders. A change to any provisions governing the following shall be considered material, unless done in connection with the exercise of the Declarant's Development Rights or Special Declarant Rights:

- (1) Voting;
- (2) Assessments, assessment liens or subordination of such liens;
- (3) Reserves for maintenance, repair and replacement of the common areas;
- (4) Insurance;
- (5) Rights to use of the Common Elements;
- (6) Responsibility for maintenance and repair of the several portions of Property;
- (7) Expansion or contraction of the Condominium or the addition, annexation or withdrawal of property to or from the Condominium;
- (8) Boundaries of any Unit;
- (9) The apportionment of Undivided Interests in the Common Elements;
- (10) Convertibility of Units into Common Elements or of Common Elements into Units;

- (11) Leasing of Units;
- (12) Imposition of any right of first refusal or similar restriction on the right of a Unit Owner to sell, transfer, or otherwise convey his/her/their Unit estate; and
- (13) Any provisions which are for the express benefit of First Mortgagees, Eligible Mortgage Holders or insurers or guarantors of first mortgages on Units.

The Declarant intends that the provisions of this Section 17 and all other provisions of this Declaration comply with the requirements of FHLMC and FNMA with respect to condominium mortgage loans and, except as otherwise required by the provisions of Condominium Act, all questions with respect thereto shall be resolved consistent with that intention. In the event of any conflict between the approval requirements of FNMA, FHLMC, other sections of the Declaration and the Condominium Act with respect to any action or non-action to be taken or omitted by the Unit Owners or Executive Board, or with respect to any other matter, the greatest percentage requirement shall control. This Section 17 may be amended only with prior written approval of First Mortgagees representing 67% in number and Undivided Interest of the mortgaged Units in the Condominium and 67% in Undivided Interest of the Unit Owners in the Condominium.

Except as otherwise provided in the Condominium Act, any consent of an Eligible Mortgage Holder or First Mortgagee herein provided for shall be deemed given if such mortgagee fails to submit a response to any written proposal for an amendment within sixty (60) days after it received proper notice of the proposal, provided the notice was delivered by certified mail, return receipt requested.

18. Common Expenses.

Until such time as the Association makes a Common Expense assessment, the Declarant shall pay all Common Expenses, as provided in Section 1603-115(a) of the Condominium Act. Once a Common Expense assessment is made, Unit Owners shall be liable for Common Expenses as provided in this Declaration, as amended. The Declarant shall be responsible for payment of Common Expenses assessments allocated to unsold Units.

Notwithstanding anything herein to the contrary, for so long as the Declarant shall have the right to appoint Members to the Board of Directors of the Unit Owners Association pursuant to Section 1603-103 of the Condominium Act, the Declarant shall have the right in lieu of assessing all Units for Common Expenses, to assume all responsibilities for the maintenance of the Common Elements for such period of time as is determined by Declarant.

19. Insurance. The Association shall obtain and maintain, to the extent reasonably available, the following insurance policies:

A. **Casualty Insurance.** The Executive Board shall obtain and maintain, to the extent reasonably obtainable at reasonable costs and permitted by applicable law, so-

called master policies of insurance providing fire-with-extended-coverage and so-called all risk coverage insurance, insuring the Condominium, including, without limitation, the Common Elements, all of the Units with all fixtures therein, all heating and cooling equipment and other service machinery, apparatus, equipment and installations comprising the Common Elements or Units, and also all such portions normally deemed to constitute part of the building and customarily covered by such insurance, but not including any personal property belonging to and owned by individual Unit Owners or tenants, in an amount equal to not less than one hundred percent (100%) of the full replacement value thereof, exclusive of foundations, land and other items normally excluded therefrom without deduction for depreciation, but subject to a reasonable deductible as the Executive Board may determine, and which shall include, if available, so-called Agreed Amount, Inflation Guard, Construction Code and Replacement Cost Endorsements. Any insurance deductible shall be deemed a Common Expense, unless such amount may lawfully be allocated or assessed to one or more individual Unit Owner(s). In determining full replacement value, the Executive Board may reasonably rely upon the advice of the insurer or insurance agent. The name of the insured under such policy shall be stated in form, substance and effect similar to the following: "Hammond House Condominium Association and its Unit Owners and mortgagees as their interests may appear." Such insurance shall name the Executive Board as Insurance Trustee(s) for the use and benefit of all Unit Owners and their mortgagees as their interests may appear, with losses payable to and adjusted by the Executive Board as Insurance Trustee(s) in accordance with the provisions of these By-Laws and the Condominium Act. The Executive Board may insure against such other hazards or risks of casualty as the Executive Board from time to time in its discretion shall determine to be appropriate, including, but not limited to, vandalism, malicious mischief, windstorm and water damage, earthquake, flood and machinery explosion or damage.

B. Liability Insurance. The Executive Board shall obtain and maintain, to the extent reasonably obtainable at reasonable costs and/or applicable, master policies of insurance with respect to the Common Elements for the benefit and protection of the Association and all Unit Owners for: (i) comprehensive general liability insurance in such limits as the Board may, from time to time, determine but in no case less than \$1,000,000/\$1,000,000 in coverage, covering the Association, the Executive Board, the Property Manager, if any, and each Unit Owner with respect to liability arising out of ownership, maintenance or repair of the Common Elements and structural and exterior wall portions of the Units, such insurance containing a "severability of interest" endorsement which shall preclude the insurer from denying the claim of a Unit Owner because of negligent acts of the Association, the Executive Board, the Unit Owner or other Unit Owners, and other provisions commonly referred to as a "Special Condominium Endorsement" or its equivalent; (ii) workmen's compensation and employee's liability insurance; (iii) boiler and machinery insurance in such limits as the Executive Board may, from time to time, determine; and (iv) such other liability insurance as the Executive Board may from time to time deem appropriate and desirable.

C. Fidelity Coverage. The Executive Board shall obtain fidelity coverage against dishonest acts on the part of the Executive Board, the Property Manager, if any, employees or volunteers responsible for handling funds belonging to Association or administered by the Executive Board.

D. Directors' and Officers' Liability Insurance. The Executive Board may obtain as a Common Expense, Directors' and Officers' Liability Insurance in such amounts and upon such terms as they deem appropriate.

E. Executive Board as Insurance Trustee(s). The Executive Board (i) shall have exclusive authority to negotiate all losses as herein provided for, (ii) shall collect and receive all loss insurance proceeds, and (iii) shall hold, use, apply and disburse the same in accordance with the applicable provisions of the Declaration, these By-Laws and the Maine Condominium Act for the benefit of the Owners and their respective mortgagees. With respect to losses which affect portions or elements covered by such insurance of more than one Unit and/or the Common Elements to different extents, the proceeds relating thereto shall be used, applied and disbursed by the Executive Board in their judgment in a fair and equitable manner, primarily based upon the relative losses.

F. Additional Requirements. Insurance policies obtained pursuant to the above shall also provide that:

- (i) Each Unit Owner is an insured person under the policy with respect to liability arising out of his ownership of an undivided interest in the Common Elements or membership in the Association;
- (ii) The insurer waives its right to subrogation under the policy against any Unit Owner or members of his household;
- (iii) No act or omission by any Unit Owner, unless acting within the scope of his authority on behalf of the Association, will void the policy or be a condition to recovery under the policy; and
- (iv) If, at the time of a loss under the policy, there is other insurance in the name of a Unit Owner covering the same risk covered by the policy, the Association's policy provides primary insurance.

In the event that any insurance coverage described above is not reasonably available, the Association shall cause notice of that fact to be sent to all Unit Owners, as required by Section 1603-113(c) of the Maine Condominium Act.

20. Rebuilding, Restoration and Condemnation.

A. Casualty Loss. Except as provided in Section 1603-I 13(h) of the Condominium Act, and subject to such statutory provisions, in the event of damage to or destruction of the Condominium as a result of fire or any other casualty, the Executive Board, acting as Insurance Trustee(s) designated herein, shall promptly adjust and collect the loss and disburse the master policy insurance proceeds in appropriate progress payments with appropriate retainage, so as to facilitate and ensure the repair and restoration of the Unit or Units or Common Elements so damaged or destroyed.

The Executive Board may perform emergency work essential to the preservation and safety of the property or the safety of persons, or required to avoid the suspension of any

essential service to the Condominium without having first adjusted the loss or obtained proceeds of insurance or otherwise having complied herewith. The cost of repair or replacement in excess of insurance proceeds and reserves shall be a Common Expense. If there shall have been a repair or restoration pursuant to the foregoing and the amount of insurance proceeds shall have exceeded the cost of such repair or restoration, then the excess of such insurance proceeds, if any, shall be added to the Association's capital expense reserve account or shall be, at the option of the Executive Board, divided among the Owners in proportion to their respective Undivided Interests; provided, however, that no provision herein shall be deemed to give an Owner or any other party priority over any rights of the holder of a first mortgage (if any) on such Owner's Unit pursuant to such mortgage in the case of a distribution to such Owner of insurance proceeds for losses to Units and/or Limited Common Elements. First Mortgagees of Units will be entitled to priority with respect to any insurance proceeds distributed to their mortgagors.

B. Eminent Domain. In the event of a total or partial taking under the powers of eminent domain, the Owners shall be represented by the Condominium acting through the Executive Board. Eminent domain proceedings and awards shall be governed by Section 1601- 107 of the Condominium Act.

21. Rules, Regulations, Restrictions and Requirements. The use and occupancy of the Condominium and each Unit shall be restricted to and shall be in accordance with the provisions of this Declaration, the By-Laws and such Rules and Regulations as the Executive Board may adopt, and all applicable laws, zoning ordinances, rules, regulations and requirements of all governmental bodies having jurisdiction over the Condominium or the use and occupancy thereof.

The Executive Board shall have the right at any time and from time to time to adopt, amend and rescind Rules and Regulations governing the operation, appearance and use of the Common Elements and the occupancy of Units.

This Declaration, the By-Laws and the Rules and Regulations, as from time to time amended, may be enforced by the Executive Board, in its discretion. The Executive Board may eliminate any violation, and the cost and expense, including but not limited to attorneys' fees (whether or not a legal action is filed), of eliminating such violation may be chargeable to the Unit Owner who himself or whose family, servants, employees, agents, visitors, lessees, tenants, licensees, or pets are responsible for such violation. Otherwise, the cost of so eliminating a violation shall be a Common Expense. The Executive Board may also levy reasonable fines against the Owner for such violations if any such violation is not cured immediately, and such fine shall constitute a portion of such Unit Owner's Common Expenses which shall be payable by the Owner upon demand and enforceable as a Common Expense. For each day a violation continues after notice it may, in the discretion of the Executive Board, be considered a separate violation.

In enforcing this Declaration, the By-Laws or the Rules and Regulations, the Executive Board may proceed against the Owner, any tenant, or both as the Executive Board, in its sole discretion, may determine.

22. Unit Owner Responsibility. Except as may be otherwise specifically provided in

this Declaration, a Unit Owner shall be fully responsible for the acts and omissions, feaseance, malfeaseance and misfeaseance, and all other conduct of his family members, servants, agents, employees, invitees, lessees, tenants, licensees, guests, pets or others upon the property at the behest of the Unit Owner.

23. Enforcement of Charges, Fines, Obligations. Any charge, fine, interest, attorneys' fees or other financial obligation to, of or on any Unit Owner shall constitute a lien upon such Unit and be enforceable to the same manner and extent as for Common Expenses.

24. Attorneys' Fees and Costs. In such case as it is necessary for the Executive Board to engage the services of an attorney, or attorneys, for the purpose of enforcing (whether a legal action is filed or not) against an Owner, tenant, occupant, or other person bound thereby, any provision of the Declaration, the By-Laws, the Rules and Regulations, or obligations thereunder, and/or for the purpose of defending any action brought by such person(s), said Unit Owner, tenant, occupant or other such person shall be liable for, in addition to any other liability, the fees and costs of such attorneys in so proceeding thereto, including the fees of all experts engaged in connection therewith. As to Unit Owners, the amount of such fines, fees, interest and costs and attorneys' fees shall constitute a lien upon the Unit enforceable to the same manner and extent as a lien for Common Expenses, and the Unit Owner shall be personally liable therefor.

25. Conflicting Provisions. If any provisions of this Declaration shall be invalid or shall conflict with the Condominium Act, as amended, or if any provision of this Declaration conflicts with any other provision thereof or with any provision of the By-Laws, then the following rules of construction shall be used:

- A. In the event of a conflict between the Declaration and said Condominium Act, as amended, the provisions of the Condominium Act shall control; and
- B. In the event of a conflict between this Declaration and the By-Laws, this Declaration shall control.

26. Invalidity. The invalidity of any provision of this Declaration shall not be deemed to impair or affect in any manner the validity, enforceability or effect of the remainder of this Declaration and, in such event, all of the other provisions of this Declaration shall continue in full force and effect as if such invalid provision had never been included herein.

27. Waiver. No provision contained in this Declaration shall be deemed to have been abrogated or waived by reason of any failure to enforce the same, irrespective of the number of violations or breaches which may occur.

28. Captions. The captions herein are inserted only as a matter of convenience and for reference, and in no way define, limit or describe the scope of this Declaration nor the intent of any provision hereof. Terms of gender shall be interchangeable, as shall be terms reflecting the singular and plural.

29. Declarant. The term declarant shall include the Declarant and its successors and assigns. Successors and assigns shall include, but not be limited to, those

succeeding to the Declarant's interest by foreclosure, deed in lieu of foreclosure, deed, grant or assignment. Successors and assigns shall not include individual Unit Owners. All rights of the Declarant contained in this Declaration, the By-Laws and Rules and Regulations shall pass to the successors and assigns of the Declarant. This Declaration, the By-Laws and Rules and Regulations may not be amended to affect the rights of the Declarant and its mortgagee(s), successors and assigns without the written consent of the Declarant and its mortgagee(s), successors and assigns.

Witness the execution hereof under seal this ____ day of _____, 2019.

HAMMOND HOUSE CONDOMINIUM,
LLC

By: _____

Kevin O'Rourke

Its: Managing Member

State of Maine

Cumberland County

_____, 2019

Personally appeared the above-named KEVIN O'ROURKE, the Managing Member of Hammond House Condominium, LLC as aforesaid, and acknowledged the foregoing to be his free act and deed and the free act and deed of said limited liability company.

Notary Public/Attorney at Law

Print name:

My Commission Expires: - - - - -

Schedule A

Property Description (4-10 Hammond Street, Portland)

A certain lot or parcel of land situated at 4-10 Hammond Street in Portland, Maine located on the west bounds of Hammond Street, north of land of Amy Lippmann described Book 31784

Page 227 in the City of Portland, Cumberland County, and State of Maine and being more particularly described as follows, to wit:

Beginning at 5/8" rebar set with cap on the west bounds of Hammond Street at the northeast corner of land of Amy Lippmann described in Book 31784 Page 227 being N18°-28'-49"W six and zero hundredths 6.00' feet along the west bounds of Hammond Street from the intersection of the north bounds of Fox Street and the west bounds of Hammond Street.

- 1) Thence S71°-49'-36"W one hundred thirty one and seventeen hundredths 131.17' feet along the north bounds of land of Lippmann and land of Steven Oldford et al described in Book 34575 Page 58 to a point at the northwest corner of land of Oldford on the east bounds of land of Portland Housing Development described in Book 12639 Page 206 and being N16°-17'-28"W two and fifty five hundredths 2.55' feet along the east bounds of land of Portland Housing Development from a 5/8" rebar found with cap at the northeast corner of land of Fox Hole LLC described in Book 30563 Page 163.
- 2) Thence N16°-17'-28"W one hundred nineteen and fifty five hundredths 119.55' feet along the east bounds of land of Portland Housing Development Corp. and Peninsula Community LP described in Book 20561 Page 263 to a 5/8" rebar found with cap.
- 3) Thence N71°-35'-35"E one hundred twenty six and sixty hundredths 126.60' feet along the south bounds of land of Peninsula Community LP and land of Remo DiMillo described in Book 2993 Page 435 and Book 4031 Page 71 to a 5/8" rebar set with cap on the west bounds of Hammond Street.
- 4) Thence S18°-28'-49"E one hundred twenty and zero hundredths 120.00' feet along the west bounds of Hammond Street to the point of beginning.

Containing 15,433 Square Feet or 0.35 Acres and being all of land of Hammond House, LLC described in a deed from Kevin O'Rourke to Hammond House, LLC recorded in the Cumberland County Registry of Deeds at Book _____; Page _____. Reference may be had to deeds into Kevin O'Rourke recorded in said registry at Book 35146; Page 119 and Book 35234; Page 16.

Schedule B

Common Element Interest
and
Vote

<u>Unit</u>	<u>Common Element Interest</u>	<u>Vote</u>
1.	1/16 th	1
2.	1/16 th	1
3.	1/16 th	1
4.	1/16 th	1
5.	1/16 th	1
6.	1/16 th	1
7.	1/16 th	1
8.	1/16 th	1
9.	1/16 th	1
10.	1/16 th	1
11.	1/16 th	1
12.	1/16 th	1
13.	1/16 th	1
14.	1/16 th	1
15.	1/16 th	1
16.	1/16 th	1
Total:	100%	16 Votes

March 29, 2019

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

Re: Hammond House - R-6 Design Review Responses

Dear Caitlin,

Please see the attached revised design for Hammond House with revisions based on our Workshop.

Below is a list of items we have revised to address those comments:

- 1.) We have added mechanical screens to the rooftop that connect to the elevator override to screen the view of the mechanical units from higher up on Fox Street.
- 2.) We have provided a section detail through the planter wall / bench per the request of the board.
- 3.) We did study the request to vary the heights of the roof edges on Fox street per the board comment, and have sent views in a previous email (to Caitlin). However we feel that this raising of the roof height creates a complex roof form that we don't believe adds to the design or scaling but detracts from it. To differentiate the 'White' building mass from the 'Gray' material we have treated the roof edges differently, we have a projecting cornice detail on the 'White' mass of building and no projecting cornice on the 'Gray' mass to help differential the roof line and massing of the overall facade.

Sincerely,



Ryan Senatore, AIA LEED AP

Principal

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101

Re plan number PL-000418-2018

jwent@gwi.net <jwent@gwi.net>

Jan 3, 2019 3:45 PM

Posted in group: **Planning Board**

Dear Planning Staff,

I am writing in regard to a proposed development at 4-12 Hammond Street. I am a resident of Hammond Street, residing at #42 with my wife and daughter. I welcome the development of additional housing in our city center as the existing shortage is impacting prices for renters and the ability of many people to live near where they work or go to school.

Clearly this is a huge departure from the scale of all the other residential structures on Hammond Street and as such feels a bit like an invasion, a continuation of the process that is gentrifying our neighborhood in dramatic ways. The two single family homes that will be demolished to make way for this very large building are old and in poor condition but they have for the past 100 plus years been places where families of very modest means were able to afford to live and grow. Trading that for 16 units of market rate rentals is not a swap that I consider progress if it means that people (families) with low incomes will gain nothing or at best a low value apartment in a building full of units out of reach financially. While I understand that the forces of our "free market" housing system make these types of buildings more profitable for developers and that is why we get them when affordable housing is what we really need, I would like the City to use every tool at it's disposal to force this developer to make rents affordable. If this neighborhood is going to be transformed from single family homes and small apartment units into large imposing buildings that fundamentally change the character of this place, at least let it be done with some benefit for the people who cannot afford \$2,500 a month for an apartment.

As for the proposed structure itself, I'm thrilled that there will be art and two street trees to compensate for the block that will replace these old, little, less than attractive homes. Though I know the city has little authority to require creative design, it would be nice to at least raise the issue about this cement siding trend getting old. The other glaring omission of the developer is the lack of response to the serious and potentially catastrophic problem of climate change. 2"x6" walls and heat pumps is not going to help solve this problem in any measurable way and for a building that will be around for the next 100 years, this is the height of irresponsibility. At the very least the unattractive rooftop decks and stairwells could be exchanged for photovoltaics, maybe even for about the same price. The developer will argue that solar costs too much but they will ignore that granite counter tops and two-vanity master baths drive up costs as well. If the developer chooses to ignore our collective responsibility for climate change they should at least consider a future boat dock in their site plan as Anderson Street could easily become part of Back Cove in the lifetime of this building.

My hope is that the review process can result in a good concept being turned into a great project that benefits all of us who live in the neighborhood.

Sincerely,

Jason Wentworth

42 Hammond Street

Portland

Hammond St House condominium project

jonathan gartland <jonathan.gartland@gmail.com>

Jan 4, 2019 4:04 PM

Posted in group: **Planning Board**

Hello,

I live diagonally across from this proposed building lots. I am concerned as it will impact our view so severely as designed that it will effectively ruin the water view from the third floor addition and deck we just invested in building last year.

Could someone point me to a link where I may object to these plans in some way or file an some sort of 'neighborhood crank' style objection (I'm new to this nimby stuff) to try to get the site plan lowered? I'm all for development and replacing the tired old housing stock in the neighborhood, but this seems really to be too much too soon.

Regards,

Jonathan Gartland
18 Fox St.

PL-000418-2018

JESSICA LOCKHART <jlockha1@maine.rr.com>

Jan 5, 2019 2:33 PM

Posted in group: **Planning Board**

Hello Planning Board-

Regarding the redevelopment of 4-12 Hammond Street, I am concerned of the scale, a 16 unit building does not match any other building on Hammond Street. I don't oppose new buildings but this is not keeping with the nature of the rest of the street which has individual homes and 3-6 unit apartment buildings. Please don't allow this too big structure to be built on our quiet street.

Come on this isn't right!

Thanks,
Jessica Lockhart
29 Hammond St.

10 Hammond St Development

Carolyn Treat <ctreat5@yahoo.com>

Feb 26, 2019 11:21 AM

Posted in group: **Planning Board**

To the Planning Board,

As a long time homeowner on Hammond St. I am writing to express my dismay and disappointment in the proposed design and scale of the new condominium planned for the double lot at 10 Hammond St. This building is completely out of scale with the rest of the neighborhood and the design as proposed makes little effort to align itself with or complement the existing single family homes or other apartment buildings on the street. The sheer mass of the structure, taking up two entire lots that are currently individual homes, and extending behind and down the hill, corrupts the tenor of our community. It blocks air, space and light for all those now presiding in the adjacent homes on Hammond and Fox Streets, introducing a building density that is completely out of place. This type of structure could be absorbed in other parts of the city, but Hammond St is still part of the original working class neighborhoods in Portland and specifically Munjoy Hill. What is now called "East Bayside" was originally considered part of "The Hill" and had it's own moniker of "Hammond Heights" for folks that grew up here. The 1880s structures that are still being maintained, along with those that have been modernized and updated, still retain the feel and intimacy of a small neighborhood. Even the newest development at the other end of Hammond St, although not especially inspiring in design, was at least divided into two structures and the height kept within a reasonable range, an effort was made not to overwhelm the block. I can find no such effort here for the 10 Hammond St. plan aside from the color choice. Groovy sculptures and street level landscaping will not do the trick.

The number of added apartments and thus increased street traffic and parking is also a major concern in an area that is already feeling the effects of an explosion of nearby businesses. There were days during this past Summer and Fall when we were not able to even find parking on our street due to people using Hammond as parking to access businesses on Washington Ave as well as Anderson and Fox St. We have already become an island of residential homes squeezed and hemmed in by the burgeoning development in East Bayside. Please do not add further stress and hardship to our street by allowing such a huge change in scale. This "highly desirable neighborhood" is fast becoming overly congested and will lose the very thing which is now attracting such attention: it's intimacy and character, it's street trees and sunlight and most importantly it's sense of community.

Please consider this when reviewing the proposed plan for 10 Hammond St. and do the right thing. Find ways to reduce the impact. Respect the existing neighbors who have put years of work, time and equity into their homes and community.

Thank you for your time-
Sincerely,
Carolyn Treat
41 Hammond St.

10 Hammond Street

Kate Clay <kateclay88@gmail.com>

Feb 26, 2019 2:54 PM

Posted in group: **Planning Board**

Dear all:

I am writing in advance of this afternoon's workshop about the Hammond Street project. What I have to say will not be new, but you are hearing it from the viewpoint of a property owner who shares a property line and view of the project from my kitchen window at 37 Fox St.

2 reactions to the architect's drawings: 1) this thing is huge. Way too big for the surrounding neighborhood. It looks ridiculous among the homes and apartment buildings on Fox and Hammond. I know we are a profit-driven society but this feels like a really in-your-face replacement of two single family homes. 2) It is ugly, an industrial looking box in the same style and colors as much of the new construction in Portland. Such a missed opportunity to be innovative, and to embrace sustainable resources such as solar panels.

We love this neighborhood and worry that this structure will set an unfortunate precedent. If you have the power to mitigate the size and style of this building, we will be grateful.

Regards,

Catharine Clay

10 Hammond Street project

Gartland, Donna <dgartland@healthdialog.com>

Feb 26, 2019 3:25 PM

Posted in group: **Planning Board**

Hello,

I am looking forward to the meeting later today regarding the 10 Hammond Street project. My family's primary residence is diagonally across the street at 18 Fox Street.

My concerns for the design of this particular project continue to be the scale/mass in relation to the neighborhood. I have reviewed the helpful information shared by Cindy and understand that what is being proposed is in alignment with current R6 and other city planning guides. However, I wanted to share my thoughts as a resident about my perception of how this project design fits/doesn't fit into the existing neighborhood.

After attending the January meeting with the design team, I left thinking that, in part, the concerns brought by myself and my neighbors have less to do with this particular project design and more to do with the gradual impacts of Portland peninsula development over the past 5 or so years. An example of this is foot and car traffic in the region. During the meeting, there was good discussion about the pros and cons of parking spaces for the 10 Hammond Street project. On one hand, having parking spaces could be perceived as encouraging driving in an already crowded area. On the other hand, not having enough parking spaces could be perceived as not realistically taking into account that individuals have cars and will need a place to park them. Again, I believe that some of this feedback has less to do with this particular project and instead reflects a need for city strategic planning to address parking on the peninsula. I had the opportunity to attend the District 1 City Meeting last December and also heard feedback and questions wanting to understand the strategic plans in place to encourage public transportation and to incent off-peninsula parking, for example, in relation to the new corporate businesses in the Fore Street/Thames Street region.

Another valid concern that was raised during the January meeting was related to airbnb and other property sharing methods. What are the expectations surrounding condo owners of the 10 Hammond Street unit? What mechanisms are in place to enforce those expectations?

I look forward to more conversation and appreciate the process put in place to allow for this on-going dialogue.

Thank you,

Donna Gartland

207 809-9745

donnagartland@gmail.com



Donna Gartland, RN MSN
Quality and Accreditation Manager

P: 207.822.3707 • C: 603.325.2150
www.healthdialog.com

This message, including any attachments, is intended solely for the use of the designated recipient(s) and may contain confidential and privileged information, including personal health information that is protected by applicable federal and state laws. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please promptly contact the sender and destroy all copies of the original message, whether in hard copy or electronic format.
[HD.2018]

10 Hammond Street

Joanna Shaw <jkshaw9@gmail.com>

Feb 27, 2019 11:10 AM

Posted in group: **Planning Board**

Hi Matt,

I am an architect in Portland and a Hammond Street resident. I attended the workshop yesterday and reviewed the City's Staff Report, which I very much agree with. I hope this will influence the design of the building.

Portland is surrounded by so much beauty and I believe the built fabric of our city should reflect this. The developer / owner talks about this neighborhood in terms of art and wanting to add sculpture to the street, but why is the architecture not regarded as art? Why is the architecture not inspiring and reflective of the place in which we live? I hope, with your help, the project can become something this neighborhood and Portland can be proud of.

A few thoughts based on the presentation:

- the precedents referenced early in the presentation were all outside of the B-6 zone and neighborhood in which the building is being built. I think it would be beneficial for the design team and the developer to look more closely to the B-6 building typology. This residential neighborhood is small and nestled amongst other building zones, but within the neighborhood and this street the character of one and two family dwellings is a great contribution to the quality of life. People stand in the street to talk to each other while shoveling snow together, share garden space along the west side of the street, and sit on the stoops to talk. I believe the adjacent zones should not be a primary precedent, but rather the characteristics of the buildings in the zone where the project is proposed.

- Massing is certainly a great part of this conversation and I believe there are many ways to achieve this, particularly in a capacity where the design is not singularly looking to changing materials to break-up the mass. Truly, a big bulky box with stripes is still a big bulky box. The architect has room within the set-backs to play more thoughtfully with the volume of the units and the overall form of the building. Some areas of the building could be wider, while others narrower benefiting the aesthetic character of the building as well as day light in the units (and ultimately the developer and the home owners). Or, the building mass could reflect a series of townhouses, each with doors and balconies in a more appropriate density and taking on the proportions of the buildings on Hammond Street.

- I am interested to better understand the interpretation and intention of the ordinance with regards to roof overruns. My interpretation is that this provision is intended to allow for un-inhabited spaces (ie elevators overruns or chimneys) or maintenance access to mechanical equipment and rooftops. The proposed roof overruns are intended as habitable space, both the stair and roof decks are part of the living space. While this may have minimal impact to the street immediately below the building, the additional height will impact people living in adjacent properties and since the impact is caused by habitable space, it feels as if it should meet the building height criteria.

While aesthetically quite different from this neighborhood... I think Michael Maltzan's ability to design for the homeless and Mass Design Group's cost sensitive and contextually sensitive designs set such great precedents meaning residential development in Portland Maine has the capacity to be beautiful and respectful.

Thank you very much,

Joanna

--

Joanna Shaw

hammond street condo workshop feedback

jonathan gartland <jonathan.gartland@gmail.com>

Feb 28, 2019 2:41 PM

Posted in group: **Planning Board**

Members of the Board,

I appreciate the need for more housing in Portland, and fully understand that something is going to be built on those lots, but two things were glaringly obvious coming away from that meeting.

Mr O'Rourke is motivated only by greed, and clearly doesn't understand city living or urban design - or if he does he doesn't care and just wants to flip expensive condo's to owners who can then act as short term rental hosts.

The discussion around the comparisons between the current Anderson St. development was interesting. The architect was saying everything except 'the Anderson St. project fits the neighborhood and this one clearly doesn't' when trying to explain the different footprints of the projects.

If Mr. O'Rourke had thought about designing an interesting building, that gave consideration to privacy for both neighbors and tenants, and fit the tone of the neighborhood, I would be excited to welcome the development. The complete lack of effort in this design speaks to everything wrong with this project. Mr. O'Rourke should stick to the suburbs or let the architect do his job of designing an appropriate building(s) for the location.

Given his lack of taste, i shudder to think of the 'public art' he would force upon us.

Thank you for humouring my ramblings, I know we can't stop development, but that doesn't mean we have to accept poor taste or design from suburban builders who think they can simply cash in on our neighborhood.

Regards,
Jonathan Gartland
18 Fox St.
Portland, ME 04101

Hammond St proposal

jonathan gartland <jonathan.gartland@gmail.com>

Mar 23, 2019 9:09 PM

Posted in group: **Planning Board**

I am writing as a concerned neighbor, again, to record my displeasure at the revised design for this project.

Regardless of the fact that the proposed building technically conforms to the neighborhood zoning, Hammond street is among a few streets in the zone that are unique to the overall neighborhood zone and that should have been included in the moratorium overlay that covers munjoy hill.

This building as redesigned is still much too big in volume for hammond st.

It will negatively impact too many of the current residents to allow this to happen as is. It is insulting to the intelligence of any interested party that this building benefits anyone except the developer. This design works on washington ave, or anderson, or even madison , but not Hammond Scale should be preserved to benefit those of us who appreciated it enough to buy houses here before the real estate boom made it convenient for speculators.

This project is simply a money grab by the developer. The tone deaf building plan alone is evidence of this. The building will be an eyesore that diminishes the value of my property and negatively impacts the neighborhood. I say this as a resident who bought here 15 years ago.

If Mr. O'Rourke were building an ugly home like the cookie cutter ones he built in Yarmouth to live in himself, i would have less to say - that is his right as a builder who lacks taste and style, but his greed and laziness is going to ruin my view and quality of life for no good reason. If Mr. O'Rourke were a talented developer who understood city living and commissioned a design that was appropriate for the street, I would support new building, but the old housing stock he's tearing down to build this ugly box are already more aesthetically pleasing than the submitted design.

Letting this plan pass just because we need housing will effectively ruin the neighborhood we moved to and simply to allow a developer who has shown no ability to comprehend or understand the neighborhood of city living to cash in on speculation. At the least this needs to be broken up into two buildings if not 3 or 4. I shudder to imagine the nightmare of this guy managing the project, for a year, in a tight neighborhood. If he had the ability he would already be building here. It should be noted that in the suburbs, bad design can be hidden by trees. This eyesore will be visible by anyone passing by or through Portland.

Thank you again for humoring my futile attempts to stave off this hack developer from ruining my neighborhood.

Regards,
Jonathan Gartland
18 Fox St.

4-12 Hammond St

Carolyn Treat <ctreat5@yahoo.com>

Mar 25, 2019 10:04 AM

Posted in group: **Planning Board**

To the Planning Board,

I am writing to you for the second time to express my absolute dismay regarding the proposal for the development of 4-12 Hammond St. The changes to the design that have been submitted since the initial review, still do not adequately address the problem of inappropriate massing of the building in relation to the neighborhood. While an attempt has been made to break up the facade on several sides of the building, these changes are not enough to mask the sheer size of the development which extends over several lots. This plan as presented is still completely out of scale with the rest of the buildings on the street. Dividing the development into two buildings is really the only way for this project to move forward in a manner that will not unduly impact the surrounding neighborhood.

I urge you to consider the impact this building will have on the culture and environment of this small, intimate and historic street and surrounding neighborhood. It will be forever changed as it loses more open space, light and trees. Once you allow such a radical departure from the existing structures, you are also opening the door to similar projects, with lots priced only for developers, thus shutting out the single family homes and smaller apartment dwellers. Once this happens there is no turning back from the loss of one of this city's historic neighborhoods.

Respectfully,
Carolyn Treat
41 Hammond St

4-12 Hammond St. Project

Seth Brayton <sethbrayton@gmail.com>

Mar 26, 2019 7:57 AM

Posted in group: **Planning Board**

Hi Planning Board,

I live at 19 Hammond St. diagonally across the street from this proposed development.

First, I want to thank you for pushing back on the original design. This second iteration is vastly improved in its aesthetics and expresses a much more cohesive design than its predecessor.

That said, I think the building is still very problematic and has a long way to go to successfully integrate with our community. I do see this project more as a missed opportunity than an inherent and necessary failure. There is nothing wrong with urban density and development itself, in fact, density is a vital solution to the problems of efficiency and shared resources. The central failure of this building is that it doesn't respond to the surrounding community or fully address the conditions of its site. Its footprint dominates the site and crowds the sidewalk leaving the majority of the lot's green space wasted at the back of the building. And its massing is absolutely out of character for the neighborhood and expresses an arrogance that many of us neighbors find offensive. I believe in the power of good architecture and I that it's absolutely possible to do something really positive within the constraints of this project. Great architecture is born from tough constraints and it is certainly possible for a new construction building of this scale in this location if well designed to actually benefit everyone involved, the developer, the architects, the inhabitants, and the community.

To that effect, architecture is expression. The design of a building communicates to its inhabitants and the surrounding community a suggestion of what is important. The expression of values is inherent in any architectural project, whether overt or subtle, intentional or accidental, expression is the result of design. For precedent, the variety of buildings on Hammond street all clearly express a modest hard-working sensibility. It's obvious when you walk down Hammond street that the architecture of our neighborhood is not arrogant or opulent, but reflects shared values of community and humility. Even the contemporary multi-units at the opposite end of Hammond express this kind of working class modesty. Their design is contemporary in its restraint but expresses a modern ethic of efficiency and compact living. We are a neighborhood that shares cohesion just by existing together and sharing a street and our cohesion together is most obviously expressed in the scale and personal details of our homes.

When I consider the proposed Hammond House development in this context it seems to suffer from a lack of cohesion within itself and within its surroundings. It's very unclear what exactly this building is trying to express and what the guiding principles and values are of its design. What do they want this building to say? As it reads now, with its massive flat vertical front stretching forty feet up from the street in one stroke it expresses mostly arrogance and intimidation towards the street through its unyielding scale. It's not a welcoming building, but instead seems to unapologetically stand as a symbol to nothing more than to real-estate development itself. It is utterly self-referential. No matter how the facade is decorated or arranged, the scale of this building does not belong within our Hammond street community. It is an imposition of values and sets an un-nerving precedent for future development in our neighborhood. There's a short sightedness to this design that seems to underestimate the long term implications of such a massive building within our modest Hammond Street community.

Imagine instead if this building was designed around a set of core principles that were essentially modern and contemporary in their substance and based on the belief that Portland can be a healthy, equitable, social, and beautiful place to live, made strong by the fabric of it's neighborhoods. Imagine if the building was based on principles of well-being, health and communal space. Imagine a building that encouraged social interaction. How might this building look different?

One small example of how a principle might be expressed architecturally would be to replace the private rooftop decks with a single shared roof deck. This would require only one route of circulation, greatly reducing the added mass of all the private stairwells, and would give everyone in the building a chance to enjoy what I'm sure will be amazing sunsets off the backside of the structure. This would be an equitable use of space. It also creates a common space in the building large enough for all the residents to congregate, perhaps even encouraging a sense of community among residents. And community is inherently

good thing, and designing around a principle like this would help tie the purpose of this new building into the fabric of our pre-existing community.

Another problematic part of this building is how it fails to respond to the slope of the hill. The underground garage buried in the hill is the most site-specific part of this building and probably its greatest success as it directly responds to the conditions of the site. The rest of the building is an utterly generic monolithic box placed on top of this garage. This results in the oversized massing that everyone recognizes as completely out of place. One way to solve this problem would be to terrace the floor plates rather than lining them all up in column. The way a building meets the street says a lot about its attitude towards the community. If the Hammond St. facade was broken up by each floor being set back 10 or so feet, it would drastically reduce the mass of the front and in doing so create usable outdoor terrace space the whole width of the building rather than the corner balconies as it is now drawn. To think of each floor as a layer, overlapping and overhanging them would make the building much more functional and less monolithic while retaining the programmatic scale. Let the architecture react to the slope of the hill rather than fight it with a single boxed mass. I realize changes of this scale are unlikely to happen this late in the process, but I think it's helpful to consider what this building could be when trying to address what it currently is not.

As a concerned neighbor, I ask the planning board to please consider the values that this building promotes. What does this building express and how does that expression of values reflect on us as citizens of Portland? We all have a stake in this project, it represents all of us. And as such, it is a design that deserves to be seriously reconsidered. I know the financial machinery of this process is already in place, but to prioritize efficiency over thoughtfulness is maddening for those of us who will have to live next door to this for decades to come.

Thanks for your time and due consideration.

Sincerely,

Seth Brayton

19 Hammond St.

--

sethbrayton@gmail.com
207-210-8570

10 Hammond Street project - Comments & Questions for tonight's PB meeting

Cochran, Cynthia <c Cochran@eastbayside.org>

Mar 26, 2019 4:54 PM

Posted in group: **Planning Board**

Hi Matt and Caitlin.

I have attached my written comments and questions regarding this project. I intend to read these at today's meeting, and recognize that doing so may require some indulgence by the board (as it will, no doubt, take longer than 3 minutes). Therefore, I hope that you might make these comments available to the board in advance, so that they could consider granting me a bit longer time frame to present these today.

It is truly my desire to leave this meeting today with a greater understanding regarding the matters I present on these two pages.

Thank you for considering my request.

- Cindy

Cynthia Cochran
Vice-President/Treasurer
East Bayside Neighborhood Organization
Web Site: <http://eastbayside.org/>
Facebook: <https://www.facebook.com/eastbayside/>

To: City of Portland Planning Board
Date: March 26, 2019
Re: 10 Hammond Street project proposal
From: Cynthia Cochran, East Bayside, Hammond Street resident

Remarks about the updated design:

- The removal of the decks and stairwells from the roof is a major improvement
- The alternating colors and the recessing of the central entrance area moves the eye vertically and creates an illusion of smaller separate structures
- The re-designed entrance is an improvement over the original design, however, I have a few questions/suggestions that I will mention later.
- The alternating colors and the recessing of the central entrance area for the front (Hammond Street) elevation moves the eye vertically to create an illusion of smaller separate structures.
- However, the different bands of color and recessing of the center balcony areas for the south (Fox Street) elevation does not move the eye vertically, and does not succeed, at all, in my opinion, to mitigate the visually overpowering dimension of this massive wall. It should be noted that the recessed central balcony area is not visible in the rendering of the view from Fox Street.

Design questions and suggestions:

Entrance area:

- Could the recessed entrance section be widened so that the windows on each side of the door are the same type as the windows to either side of the entrance? Reducing window types to two, instead of three?
- Will the seat bench included with the raised planters actually be recognizable as a bench (i.e. with a bench back) that would be inviting to seat upon? If not, could such benches be included perpendicularly on each side of the entrance, along the inner edge of the raised planters, extending to the vertical column supports?
- Will the lobby be accessible to non-condo owners and include a bulletin board for posting community and neighborhood announcements?

South Elevation:

- Can the colors alternate vertically, as they do on the front elevation, with the balconies on each end matching the recessed central area?
- Can the recessed central area, or the central area façade coloring, be expanded to include the three windows, directly to the east of these balconies?

Questions about the project's compliance with the Alternative Design Standards:

Quotations from the R-6 Infill Development Design Principles & Standards:

"Unless otherwise indicated, the R-6 Design Principles and Standards shall apply to the front façade and those portions of the building that are readily visible from the public way."

"Unless otherwise indicated, the R-6 Design Principles and Standards shall define "Neighborhood" as the buildings within a two block radius of the site. Special attention shall be given to the existing buildings on both sides of the street within the block of the proposed site. If the building is proposed on a corner lot, then buildings on the adjoining block shall also be considered."

"The guiding principle for new construction under the alternative design review is to be compatible with the surrounding buildings in a two block radius in terms of **size, scale**, materials and siting, as well as the general character of the established neighborhood, thus Standards A-1 through A-3 shall be met."

"Principle A: Standard A-1: Scale and Form: Relate the scale and form of the new building to those found in residential buildings within a two-block radius of the site that contribute to, and are compatible with, the predominant character-defining architectural features of the neighborhood. Special attention shall be given to the existing building forms on both sides of the street within the block of the proposed site."

"Principle B-1: Massing: Massing is a significant factor that contributes to the character of a building. The building's massing (as defined by its bulk, size, physical volume, scale, shape and form) should be harmonious with the massing of existing buildings in a two block radius. The massing of a building can be defined as the overall geometry (length, width, and height) of its perceived form. The overall height of the form (actual and perceived), as well as the geometry of its roof, is of particular importance in defining the massing of a building. Special attention shall be given to the existing building massing on both sides of the street within the block of the proposed site."

Question:

Planning staff has determined that this project passes all standards under the alternative design review. Given the above excerpts from those standards, I, and most of the interested parties, do not understand how it could be determined that this project, with its mass and scale, likely greater than 10 times the average mass and scale of surrounding structures within a two-block radius, has passed Principles A-1 and B-1.

Please explain, in clear, and voluminous detail, so that the planning staff's, and the planning board's interpretation for design standards compliance for this project can be fully understood by all who are confused.

Follow-up to 3/26 Planning board Meeting on 10 Hammond St

Karen Snyder <karsny@yahoo.com>

Mar 27, 2019 12:55 PM

Posted in group: **Planning Board**

Dear Planning Board Members,

It was clear last night that the Planning Department was yet again NOT enforcing the design standards and had no valid justification to approve the 2nd iteration of 10 Hammond St. proposals specifically for the following two reasons.

Reason 1: Matt Grooms, Planner, indicated in last night's meeting that scale and massing was indeed an issue but then he said the second variation of 10 Hammond St. was acceptable and passed. How could this be when last night the engineer said the building footprint of 8,276 sq ft really did not change and it is the same height? This means the scale and massing did NOT change and therefore should NOT have been passed by the Planning Department. Therefore, Design Standard Principle A and B were not followed.

Reason 2: Caitlyn Cameron, Urban Planner, indicated that a park bench in front would be too "industrial". This is quite weak and hypocritical reason when the building itself is a big cube which is basically 20 times bigger than any building surrounding in a 1 block radius. A building 20 times larger than surrounding building is in itself "industrial". See attachment.

Conclusion:

Just changing the "lipstick on the pig" (aka color of brick and façade) does NOT address the elephant in the room which is the scale and massing. ***If anything, this building needs to be at least broken into two buildings.***

The attached scale and massing analysis proves the scale and massing is almost 20 times larger in building mass and is NOT compatible with surrounding buildings paying special attention in a 1 block radius. Therefore, it does NOT pass the Design Manual principle A and B. The Planning Department continues to NOT adhere to the design manual. Planning Department provides very weak excuses to attempt to pass this proposal. As such, if this scale and massing is NOT addressed correctly by the Planning Board and Planning Department, there is pretty clear evidence for legal action.

Regards,
Karen Snyder
Waterville St.

1 attachment: 10Hammond_ScaleMassingAnalysis_20190220.pdf

Scale and Massing Analysis of 4-12 Hammond to Surrounding Buildings on Hammond Street

Street Address	Land Use	Stories	Stories Height (ft)	Building Width (ft)	Building Length (ft)	Building Mass (Volume- ft3) LengthxWidthx Height
61 Hammond	Single family	1.5	20	35	27	18,900
59 Hammond	Two family	2	20	19	50	19,000
58 Hammond	Three family	3	30	34	28	28,560
56 Hammond	Three family	3	30	34	28	28,560
53 Hammond	Single family	1.5	20	17	38	12,920
51 Hammond	Single family	1.5	25	13	44	14,300
48 Hammond	Single family	1	10	40	26	10,400
43 Hammond	Governmental	2	20	41	51	41,820
42 Hammond	Single family	1.5	20	23	20	9,200
38 Hammond	Two family	2	20	24	46	22,080
37 Hammond	Single family	1.5	20	16	47	15,040
35 Hammond	Three family	2	20	24	45	21,600
34 Hammond	Single family	2	20	23	42	19,320
30 Hammond	Single family	2	20	20	40	16,000
20 Hammond	Two family	2	20	14	58	16,240
19 Hammond	Single family	1.5	20	15	47	14,100
18 Hammond	Single family	2	20	18	43	15,480
17 Hammond	Single family	2	20	25	27	13,500
16 Hammond	Four family	2	20	22	54	23,760
14 Hammond	Vacant land					
13 Hammond	Three family	3	30	22	45	29,700
11 Hammond	Single family	1.5	20	22	32	14,080
10 Hammond	Single family	1.5	20	18	47	16,920
4 Hammond	Vacant land					

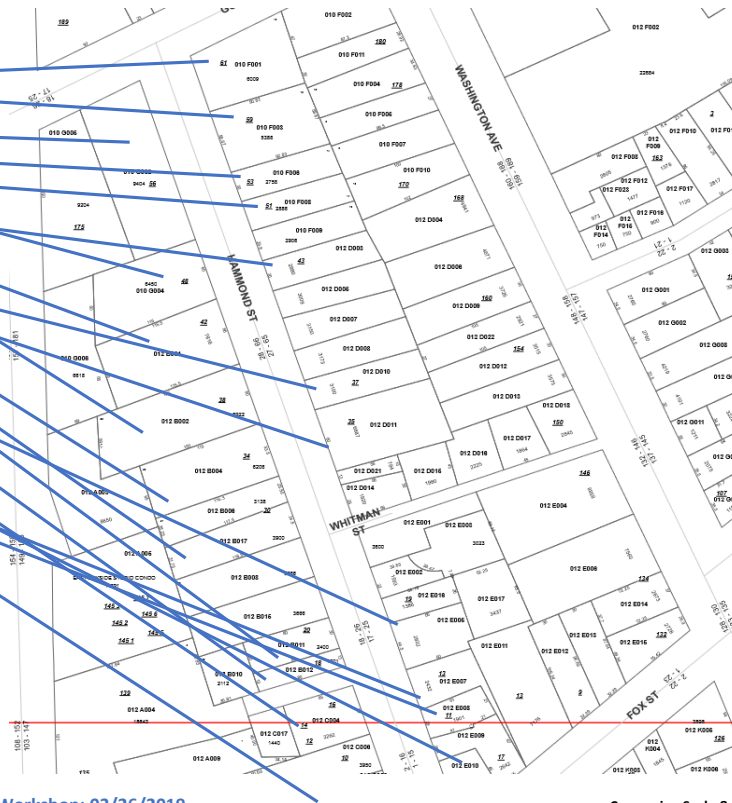
Surrounding Building **Average** **2 Stories** **19,158 cubic ft** (est)

4-12 Hammond **16 unit** **4** **45** **1** **8276** **372,420 cubic ft** (est)

(Building Scale) (Building Massing)

Assumptions: Column headings starting with "City", building length and width was gathered from Portland Appraiser site for each building.

Calculations: 1) It is assumed 10 feet per story but if it is gabled or half story, it is rounded up to next story.
2) Massing is considered volume which the formula for Volume = Length X Width x Height



4-12 Hammond Workshop Visual

Planning Board Workshop: 02/26/2019



Planning Board Workshop: 03/26/2019



Figure 4: Revised front elevation, note that mechanical equipment is roof-mounted.

Comparing Scale & Massing to Surrounding Buildings Example



Conclusion: 1) 4-12 Hammond Proposal is Greater than 10 x SCALE and MASSING of surrounding properties
2) 4-12 Hammond Proposal is twice as tall as surrounding buildings.

Recommendation: This building needs to be broken up into two buildings and have some nod to New England Colonial building characteristics.

Neighbor support for 10 Hammond Street

Christian MilNeil <c.neal.milneil@gmail.com>

Mar 28, 2019 3:47 PM

Posted in group: **Planning Board**

To the Planning Board:

As a neighboring homeowner (at 45 Smith Street in East Bayside) I'd like to express my strong support and enthusiasm for the proposed apartment building at 10 Hammond Street, and I hope that the planning board will approve the site plan.

The proposal is an ideal infill project, fulfilling the city's goals for quality urban design and reasonably-priced in-town housing within easy walking distance of 2 bus routes.

I understand that some neighbors are opposed to triple-deckers being built in our neighborhood, but I'd like to remind the board that many buildings of this type already exist on Hammond Street and throughout East Bayside, and they have not ruined anybody's property values. Quite to the contrary, we can be very confident from past experience that these new apartments will add a welcome dose of vitality and activity to our urban neighborhood.

Like most of my neighbors – notwithstanding the vocal minority who are protesting this building – I value East Bayside for being an inclusive place that welcomes newcomers to Portland. This is not the time or the place to throw up walls against the people who want to move into our neighborhood with anti-housing zoning interpretations.

To be an inclusive and welcoming neighborhood, we need to be inclusive and welcoming to building the homes that our city's middle-class families need.

Thank you for your service,

Christian MilNeil

double u double u double u dot christianmilneil dot com

1. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN. IF DEEMED NECESSARY BY THE OWNER OR OWNER'S REPRESENTATIVE, ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULE BASED ON THE PLANS AND FIELD VERIFICATION BY THE CONTRACTOR. ALL MATERIAL SCHEDULES SHOWN WITHIN THE PLAN SET ARE FOR GENERAL INFORMATION ONLY.
4. ALL CONSTRUCTION METHODS, TESTING AND MATERIALS SHALL CONFORM TO THE MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE CITY OF PORTLAND AND SERVICING UTILITY REQUIREMENTS, IF ANY. IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SPECIFICATION SHALL APPLY AT NO ADDITIONAL COST TO THE OWNER.
5. THE SITE CONTRACTOR SHALL MAINTAIN A SET OF PAPER AND CAD DRAWINGS WHICH SHALL RECORD THE ACTUAL LOCATION, DIMENSIONS, ELEVATIONS, MATERIALS OF THEIR WORK, INDICATING THEREON ALL VARIATIONS FROM THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS, IN AUTOCAD FORMAT AND PAPER, STAMPED "AS-BUILT". IF AUTOCAD 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 SURVEY & TOPOGRAPHICAL MAP WITH EXISTING CONDITIONS SURVEY BY RW EATON ASSOCIATES DATED MARCH 28, 2017.
8. 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.
9. CONSTRUCTION MANAGEMENT PLAN BY ACORN ENGINEERING SHALL BE REFERRED TO FOR ANTICIPATED PROJECT SCHEDULE AND CLOSURES. TRAFFIC CONTROL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.
11. NO HOLES, TRENCHES, OR STRUCTURES SHALL BE LEFT OPEN OR UNATTENDED OVERNIGHT IN ANY AREA ACCESSIBLE TO THE PUBLIC OR WITHIN THE PUBLIC RIGHT-OF-WAY.
12. THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION SURVEY OF INTERIOR SUBGRADE AND ABOVE GRADE ACCESSIBLE WALLS, CEILINGS, FLOORS, ROOF AND VISIBLE EXTERIOR AS VIEWED FROM THE GRADE LEVEL. THIS SHALL BE COMPLETED AT A MINIMUM FOR ADJACENT STRUCTURES. A COPY OF THE SURVEY SHOULD BE PROVIDED TO THE OWNER. DOCUMENT WITH PICTURES AT A MINIMUM.
13. THE CONTRACTOR SHALL SURVEY ROCK SURFACE PRIOR TO EXCAVATION AND DEVELOP VOLUME CALCULATIONS TO SHARE WITH ACORN ENGINEERING, IF ANY.

1. THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO MODIFY THE CONTRACT DOCUMENTS.
2. ALL SHOP AND ERECTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMISSION FOR ENGINEER'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 THE ENGINEER 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 EXCEPTIONAL 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. CONCRETE SHALL ALSO BE CURED FOR 28 DAYS PRIOR TO BACKFILLING.
11. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE.
12. ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
13. THE ENGINEER BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND OBSERVATION VISITS TO THE SITE DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.

1. ALL SITE SOILS-RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS, AS WELL AS SITE DRAINAGE, SHALL BE REVIEWED BY THE PROJECT ENGINEER.
2. NORMAL REVIEWS WILL BE CONDUCTED BY LOCAL BUILDING DEPARTMENT.
3. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.
4. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.
5. SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
6. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINED ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
7. THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT AND ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES. THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, AND CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.
8. 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 I.B.C. WORK NOT IN COMPLIANCE SHALL BE NOTED IN THE REPORT.

LAYOUT NOTES:

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 REGISTERED LAND SURVEYOR.
2. ALL DIMENSIONS ON THE FOLLOWING SHEETS TAKE PRECEDENT OVER SCALED DIMENSIONS. EACH DRAWING WITH A BAR SCALE MEANS THAT THE DRAWING/DETAIL HAS BEEN SCALED AS ACCURATELY AS POSSIBLE, AND THE BAR SCALE IS FOR GENERAL REFERENCE ONLY. IF NO BAR SCALE IS PRESENT, THEN THERE IS NO SCALE TO THAT DRAWING/DETAIL. AT NO TIME SHOULD DRAWINGS BE SCALED FROM. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS AND THE FIELD CONDITION SHALL BE IMMEDIATELY REPORTED TO THE CIVIL ENGINEER 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 SHALL 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.
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 OWNER. PRIOR TO THE CONTRACTOR PRICING THE WORK THE CONTRACTOR SHALL REQUEST 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. NO ADDITIONAL PAYMENT FOR UNSUITABLE MATERIALS SHALL BE MADE.
6. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF $N=0.012$ OR LESS.
7. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
8. NATIVE SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE DISTURBANCE TO SUBGRADE SOILS. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, DISTURBED AREAS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO ADDITIONAL EXPENSE TO THE OWNER. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER.

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, SEEDDED 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 FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE D.E.P.'S PERMIT CONDITIONS, FINDINGS OF FACT AND ORDER (IF ANY), AND THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.
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 THE CIVIL ENGINEER 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' OF COVER FROM TOP OF PIPE TO FINISH GRADE FOR WATER MAINS.
6. THRUST BLOCKS SHALL BE USED FOR THRUST RESTRAIN ON WATER MAINS. DETAIL AND LIMITS FOR THRUST BLOCKS ARE SHOWN ON SHEET C-44.
7. WATER INFRASTRUCTURE SHALL BE TESTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT DOCUMENT "WATER AND

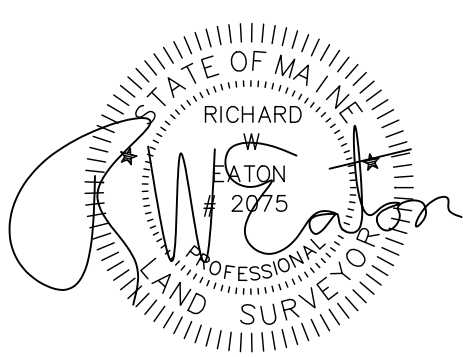
8. ALL REQUIRED FITTINGS FOR THE WATER MAIN ARE NOT SHOWN ON DRAWINGS. CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY FITTINGS REQUIRED TO CONSTRUCT THE WATER MAIN IN ACCORDANCE WITH CITY OF PORTLAND, STATE OF MAINE, AND AMERICAN WATER WORKS ASSOCIATION STANDARDS AND REGULATIONS.
9. CONTRACTOR SHALL 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 PLUMBING, ELECTRICAL, AND MECHANICAL DESIGNER FOR CONSISTENCY WITH THEIR PLANS PRIOR TO CONSTRUCTION.
13. COORDINATE EXIT POINT FOR SECONDARY SERVICE WITH THE ARCHITECT/ELECTRICAL ENGINEER. SECONDARY LINE LOCATIONS NOT PROVIDED BY ACORN ENGINEERING WITHIN THE UTILITY PLAN.
14. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL THE NECESSARY PERMITS FOR THE INSTALLATION OF THE UTILITIES AND STORMDRAINS WITHIN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE CITY IN ACCORDANCE WITH THE CITY OF PORTLAND TECHNICAL MANUAL PRIOR TO ANY WORK.
15. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL AT NO EXTRA EXPENSE TO THE OWNER.

1. THE FOLLOWING ITEMS ARE TYPICAL OF MATERIAL WHICH MAY STILL REMAIN AFTER THE SITE DEMOLITION OCCURRED. 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:
 - 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. 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.
3. THE CLIENT HAS NOT REQUESTED NOR HAS ACORN ENGINEERING COMPLETED A PHASE I - ENVIRONMENTAL SITE ASSESSMENT FOR THE PROPERTY.

[illegible]

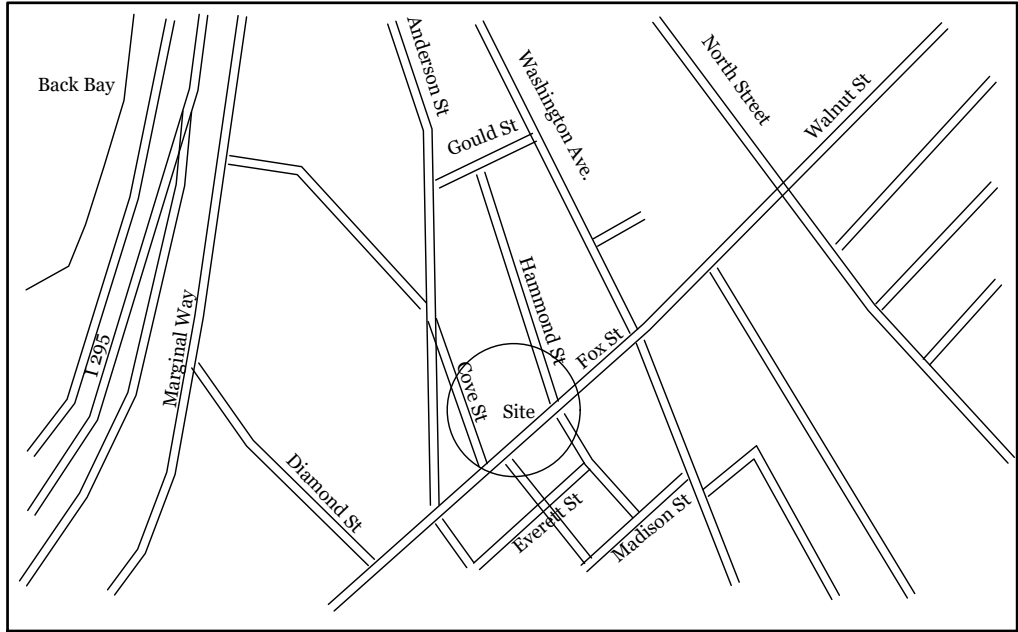
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

CERTIFICATION



RICHARD W. EATON P.L.S. # 2075

Location



N.F. Peninsula Community LP
20561/263

General Notes:

- 1) Area of Maloney Parcel 7,768 Square Feet Or 0.18 Acres
Area Of Didonato Parcel 7,665 Square Feet Or 0.18 Acres
- 2) Basis of Bearing, Maine State Plane NAD 1983 1802 West Zone Base Point, Granite Monument
With DH at Fox Street and Anderson Street T102-77-2, N303502.3570 E2929187.9000
Azimuth Point, Monument With Bolt on Anderson St. T102-77-2, N303502.3570, E2929187.9000
Azimuth S41-34-20E 455.86' Feet
- 3) Vertical Datum is NGVD 1929 City Datum Benchmark is PK Nail on CMP Pole #8 South Side Fox St Elevation = 11.04'
Provided By City of Portland Public Works Engineering
- 4) Subject Tax Map 012 Block C Lot 6,8,10,11, & 14
- 5) Flood Zone C Areas Of Mininmal Flooding Panel 230051 0013 Sheet 13 of 17 Dated July 17, 1986
- 6) Bench Mark Nail In Pole CMP 6 17.36' Feet
- 7) Waterline & Gas Lines Are from Dig Safe Marking And Street Valves

PLAN REFERENCE

- 1) Street Line Of Anderson, Fox, Gould, Plowman & Hammond St. By City of Portland Engineering Dep.
Survey By Camille Alden On File At Engineering Vault
- 2) Peninsula Community LP 510 Cumberland Ave. Anderson Street Subdivision Plan
By Pinkham & Greer Dated June 18, 2002 And Recorded In Plan Book 203 Page 313
- 3) Standard Boundary Survey On Cove Street For Portland Housing Authority
By Owen Haskell dated May 8th, 1997
- 4) Plan Of Property Made For Patrick Lee By R.P. Titcomb Associates
Dated November 3rd 1987 And Recorded In Book 167 Page 13
- 5) City of Portland Maine Parks & Public Works Dept. Fox Street Reconstruction
Dated 1990 Project No 90330-30-60-12 Sheet 2 of 20
- 6) Right Of Way Sheets Of Hammond & Fox Street
- 7) Standard Boundary Survey On Cove St For Portland Housing Authority
By Owen Haskell, Dated May 8, 1997

LEGEND

- 5/8" Rebar Set With Cap
- Rebar/Iron Pipe Found
- ⊕ Utility Pole
- N.F. Now or Formerly
- 1324/98 Book & Page
- ⊗ Water Valve
- Fence

R. W. EATON ASSOCIATES
LAND SURVEYING & REAL ESTATE

58 PLEASANT STREET, WESTBROOK, MAINE 04092

PHONE: 207-854-2402 FAX: 856-7167 E-MAIL: RWEATON@MAINE.RR.COM

September 4th 2018

N.F. Remo DiMillo
2993/435
4031/71

Space & Bulk Standards:

Zone. R-6	Required
Minimum Lot Size	2,000 S.F.
Minimum Frontage	20'
Minimum Yard Dimensions	
Front Yard	5' Or Avarage Depths of Adjacent Yards
Rear Yard	10'
Side Yard	5'
Dwelling Unit	725 Square Feet
Maximum Lot Coverage	60%
Minimum Lot Width	20'
Maximum Building Height	45'

N.F. Portland Housing
Development Corp.
12639/206

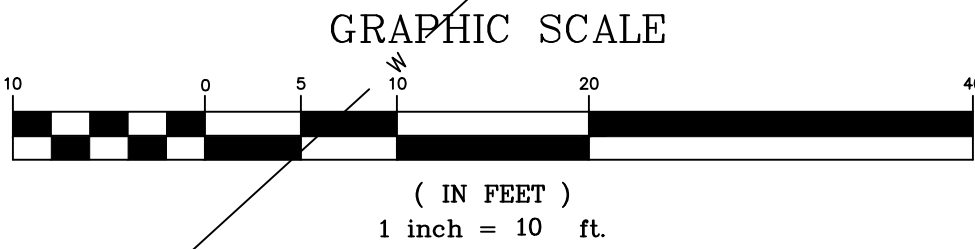
N.F. Amy Lippmann
31784/227

N.F. Fox Hole LLC
30563/163

N.F. Steven Oldford et al
34575/58

Boundary Survey & Topographical Map
With Existing Conditions

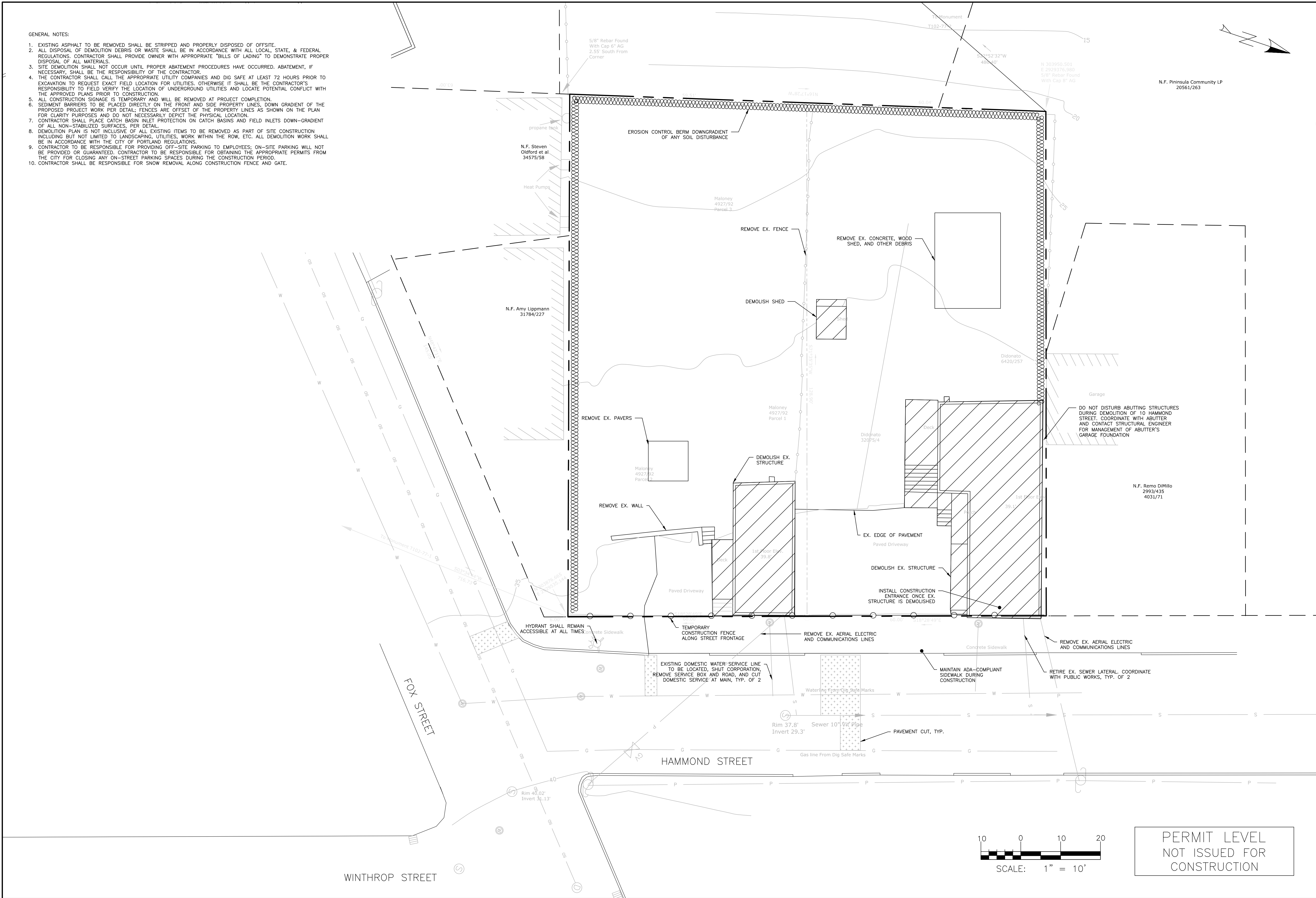
Land Located at:	4,6,8, & 10 Hammond Street Portland, Maine 04101
Land Owned By:	Kevin O'Rourke
Address:	94 South Street Yarmouth, Maine 04096
Deed Reference:	Book 35146 Page 119 & 121 Book 35234 Page 16



SCALE: 1:10
DRAWN BY: R.W.E.
CHECKED BY: R.W.E.
CAD FILE: 638 DWG
PROJ #: 638
ORIG DATE: 03-28-17
0 REV DATE: 00-00-00
1 REV DATE: 00-00-00
2 REV DATE: 00-00-00
3 REV DATE: 00-00-00

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. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE POTENTIAL CONFLICT WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
5. ALL CONSTRUCTION SIGNAGE IS TEMPORARY AND WILL BE REMOVED AT PROJECT COMPLETION.
6. SEDIMENT BARRIERS TO BE PLACED DIRECTLY ON THE FRONT AND SIDE PROPERTY LINES, DOWN GRADIENT OF THE PROPOSED PROJECT WORK PER DETAIL; FENCES ARE OFFSET OF THE PROPERTY LINES AS SHOWN ON THE PLAN FOR CLARITY PURPOSES AND DO NOT NECESSARILY DEPICT THE PHYSICAL LOCATION.
7. CONTRACTOR SHALL PLACE CATCH BASIN INLET PROTECTION ON CATCH BASINS AND FIELD INLETS DOWN-GRADIENT OF ALL NON-STABILIZED SURFACES, PER DETAIL.
8. DEMOLITION PLAN IS NOT INCLUSIVE OF ALL EXISTING ITEMS TO BE REMOVED AS PART OF SITE CONSTRUCTION INCLUDING BUT NOT LIMITED TO LANDSCAPING, UTILITIES, WORK WITHIN THE ROW, ETC. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF PORTLAND REGULATIONS.
9. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING OFF-SITE PARKING TO EMPLOYEES; ON-SITE PARKING WILL NOT BE PROVIDED OR GUARANTEED. CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING THE APPROPRIATE PERMITS FROM THE CITY FOR CLOSING ANY ON-STREET PARKING SPACES DURING THE CONSTRUCTION PERIOD.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR SNOW REMOVAL ALONG CONSTRUCTION FENCE AND GATE.



ISSUED FOR	BY
FINAL APP.	WHS
	11/26/18

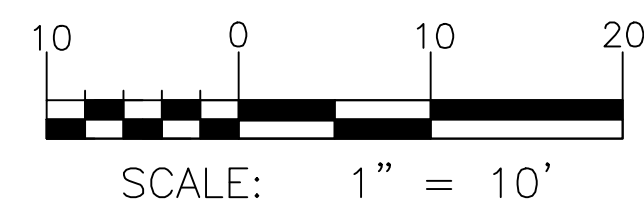
DRAWING NAME	DEMOLITION, CONSTRUCTION MANAGEMENT, AND EROSION CONTROL PLAN
PROJECT NAME	HAMMOND HOUSE REDEVELOPMENT
CLIENT	THE PRESERVE AT SOUTH RIDGE, LLC
	94 SOUTH STREET, YARMOUTH, ME 04096

FILE:	1112_CIVIL
JN:	1112
SCALE:	1"=10'
DESIGNED BY:	SJL
DRAWN BY:	SJL
CHECKED BY:	WHS

DRAWING NO.	C-03
-------------	------

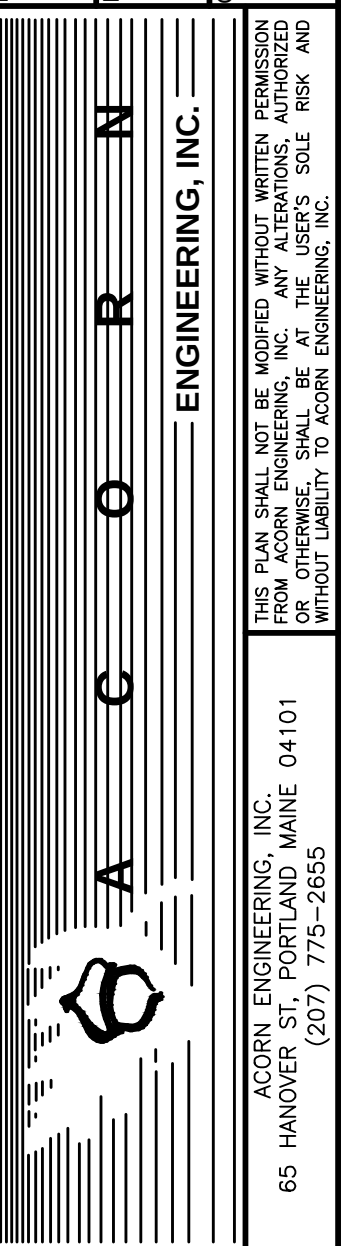
1. STRIPING AS INDICATED ON SITE PLAN SHALL BE 4" WIDE. STRIPING ON A CONCRETE MATERIAL SHALL BE YELLOW UNLESS OTHERWISE NOTED.
2. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PUBLIC CURBING SHALL BE GRANITE AND PRIVATE CURBING SHALL BE CONCRETE CURB MONOLITHIC WITH THE DRIVEWAY AND WALKWAY.

*INCLUDES DECK AREA

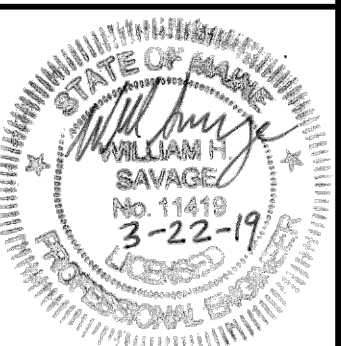


PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

OWNING PARTY	
SITE PLAN	
HAMMOND HOUSE REDEVELOPMENT	
PROJECT NAME	
CLIENT	
HAMMOND HOUSE, LLC	
94 SOUTH STREET, YARMOUTH, ME 04096	



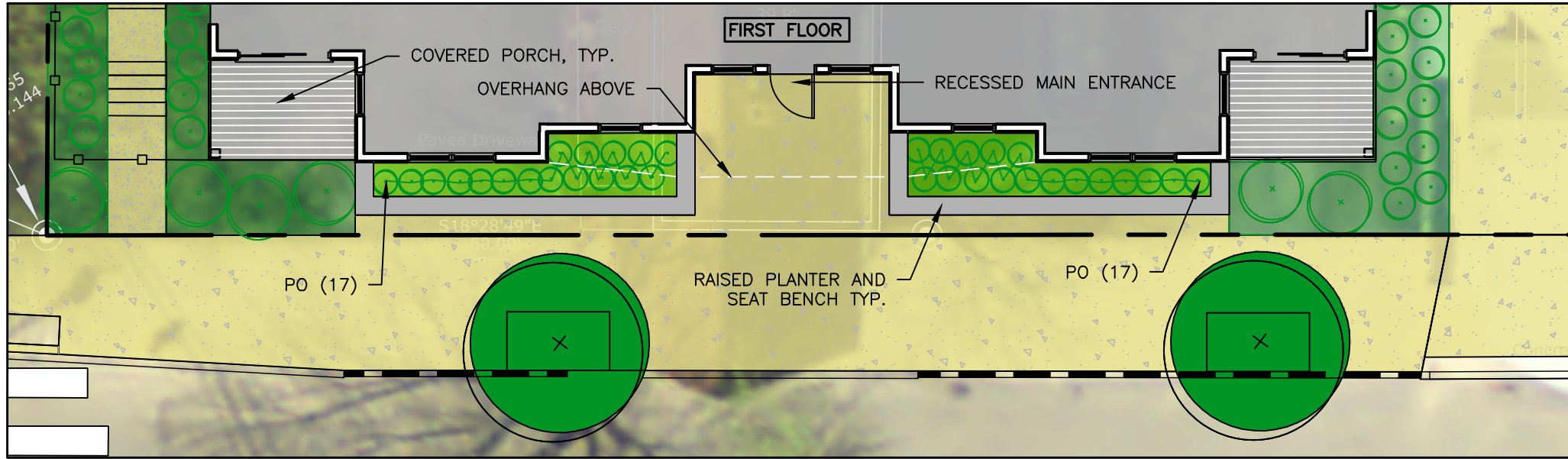
FILE:	1112_CIVIL
IN:	1112
SCALE:	1"=10'
DESIGNED BY:	SJL
DRAWN BY:	SJL
CHECKED BY:	WHS



DRAWING NO.
C-10

- GENERAL NOTES:
1. CONTRACTOR TO BE HELD RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL PLANT MATERIAL AND LANDSCAPING IMPROVEMENTS AS NECESSARY.
 2. CONTRACTOR TO MAINTAIN A ONE YEAR WARRANTY ON ALL PLANTINGS FOLLOWING INSTALLATION.
 3. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
 4. CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
 5. ALL CONTAINER MATERIAL TO BE GROWN IN CONTAINER MINIMUM OF 6 MONTHS. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMEN.
 6. CONTRACTOR SHALL REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.
 7. THE ENGINEER MAY TAG ALL PLANTS AT THE NURSERY AND INSPECT THEM AFTER DELIVERY TO THE SITE; ALL PLANT MATERIALS SHALL BE INSPECTED BY THE ENGINEER ON SITE PRIOR TO INSTALLATION.
 8. SEE PERMANENT SEEDING TABLE ON SHEET C-47 FOR LAWN AREAS.

PLANT SCHEDULE				
ID	BOTANICAL NAME	COMMON NAME	QTY	SIZE
TREES				
PA	PRUNUS 'ACCOLADE'	ACCOLADE CHERRY	2	3" CA. BB
AP	ACER PALMATUM 'FIREGLOW'	FIREGLOW JAPANESE MAPLE	1	15 GAL.
JC	JUNIPERUS COMMONIS 'PENCIL POINT'	PENCIL POINT JUNIPER	43	5'
JB	JUNIPERUS CHINENSIS 'BLUE POINT'	BLUE POINT JUNIPER	10	5'
SHRUBS				
CB	CORNUS BAILEYI SERICEA 'FARROW'	ARCTIC FIRE REDTWIG DOGWOOD	6	3 GAL.
R	RHODODENDRON	RHODODENDRON 'HENRY'S RED'	2	5 GAL.
PG	PICEA GLAUCA 'CONICA'	DWARF ALBERTA SPRUCE	2	3-4'
PERENNIALS				
RH	RUDBECKIA HIRTA	BLACK EYED SUSAN	18	1 GAL.
SS	SALVIA SYLVESTRIS	SAGE 'MAY NIGHT'	7	1 GAL.
L	LIRIOPE	LILY TURF	25	1 GAL.
PO	PENNISETUM ORIENTALE 'KARLEY ROSE'	KARLEY ROSE FOUNTAIN GRASS	34	1 GAL.
A	ASTRANTIA	GREAT MASTERWORT MAJOR 'STAR OF FIRE'	68	1 GAL.
LT	LILIUM TIGRINUM	TIGER LILY	6	1 GAL.



FRONT FACADE
LANDSCAPE TREATMENT
1"=10'



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR: FINAL APP.
COMMENT RESPONSE
BUILDING REV.

BY: WHS
DATE: 11/26/18
WHS
DATE: 12/12/18
WHS
DATE: 3/15/19

LANDSCAPE PLAN

HAMMOND HOUSE REDEVELOPMENT

HAMMOND HOUSE, LLC
94 SOUTH STREET, YARMOUTH, ME 04096

PROJECT NAME: LANDSCAPE PLAN

CLIENT: HAMMOND HOUSE, LLC

ACORN ENGINEERING, INC.

65 HANOVER ST. PORTLAND, MAINE 04101
(207) 775-2655

FOR THIS PLAN, I HAVE BEEN ADVISED THAT THE CLIENT HAS OBTAINED ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES. I AM NOT PROVIDING ANY GUARANTEE OR WARRANTY FOR THE ACCURACY OF THE INFORMATION PROVIDED BY THE CLIENT. I AM NOT PROVIDING ANY GUARANTEE OR WARRANTY FOR THE ACCURACY OF THE INFORMATION PROVIDED BY THE CLIENT.

FILE: 1112_CIVIL

JN: 1112

SCALE: 1"=10'

DESIGNED BY: SJL

DRAWN BY: SJL

CHECKED BY: WHS

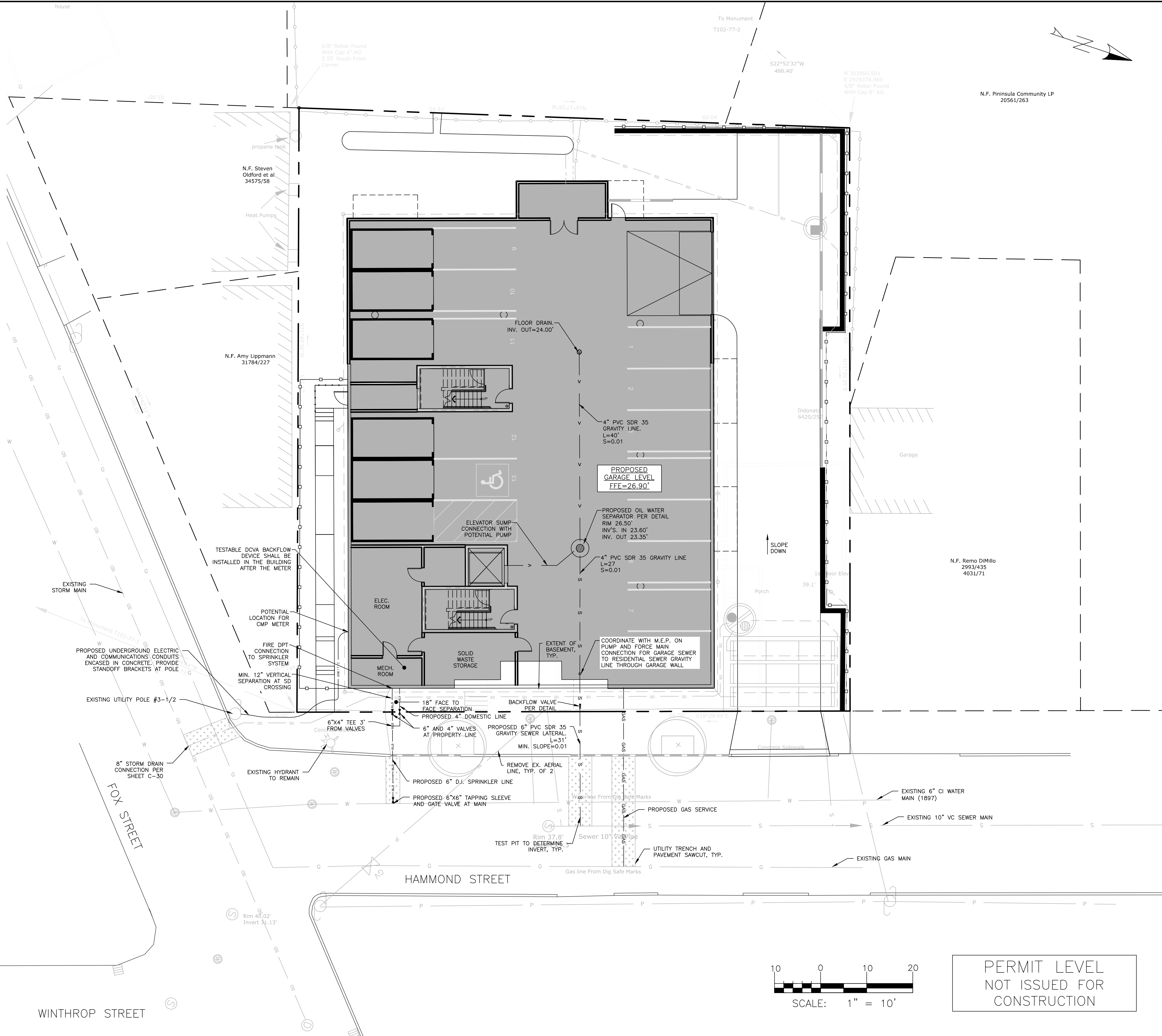
DRAWING NO.

L-1

- GENERAL NOTES:
1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
 2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE. NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY SURVEY, PRIOR TO ANY CHANGES.
 3. FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS EXTEND TO OUTSIDE WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY MECHANICAL, ELECTRICAL, PLUMBING DESIGNER (M.E.P.) UNLESS SPECIFIED OTHERWISE.
 4. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
 5. SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. PUMP AND FORCE MAIN SIZING PER M.E.P. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF FIELD CONDITIONS FROM INVERT VARY FROM DESIGN.
 6. WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. 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 MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE PORTLAND WATER DISTRICT AND CITY OF PORTLAND.
 7. GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E.P. AND IN ACCORDANCE WITH UNTIL.
 8. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO BUILDING. ALL ELECTRIC CONSTRUCTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
 9. CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY CHARTER COMMUNICATIONS AND FAIRPOINT PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.

MINIMUM HORIZONTAL UTILITY SEPARATION					
UTILITY	UGE/T/C	WATER	SEWER	GAS	STORMWATER
UGE/T/C	-	6'	5'	4'	6'
WATER	6'	-	5*	6'	3'
SEWER	5'	5*	-	5'	10'
GAS	4'	6'	5'	-	3'
STORMWATER	6'	3'	10'	3'	-

*PERMISSIBLE ONLY IF SEWER IS LAID MIN. 18" BELOW WATER SERVICE; OTHERWISE, 10' OF HORIZONTAL SEPARATION MUST BE MAINTAINED.



ISSUED FOR

BY

DATE

FINAL APP.

WHS

11/28/18

BUILDING REV.

WHS

3/25/19

UTILITY PLAN

HAMMOND HOUSE REDEVELOPMENT

HAMMOND HOUSE, LLC

94 SOUTH STREET, YARMOUTH, ME 04096

DRAWING NAME

PROJECT NAME

CLIENT

ACORN ENGINEERING, INC.

ENGINEERING, INC.

FOR ANY STATE NOT BE COVERED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY VARIATIONS, AUTHORIZED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC.

65 HANOVER ST. PORTLAND, MAINE 04101

(207) 775-2655

FILE:

1112_CIVIL

JN:

1112

SCALE:

1"=10'

DESIGNED BY:

SJL

DRAWN BY:

SJL

CHECKED BY:

WHS

STATE OF MAINE

PROFESSIONAL ENGINEER

WILLIAM J. SAVAGE

No. 11419

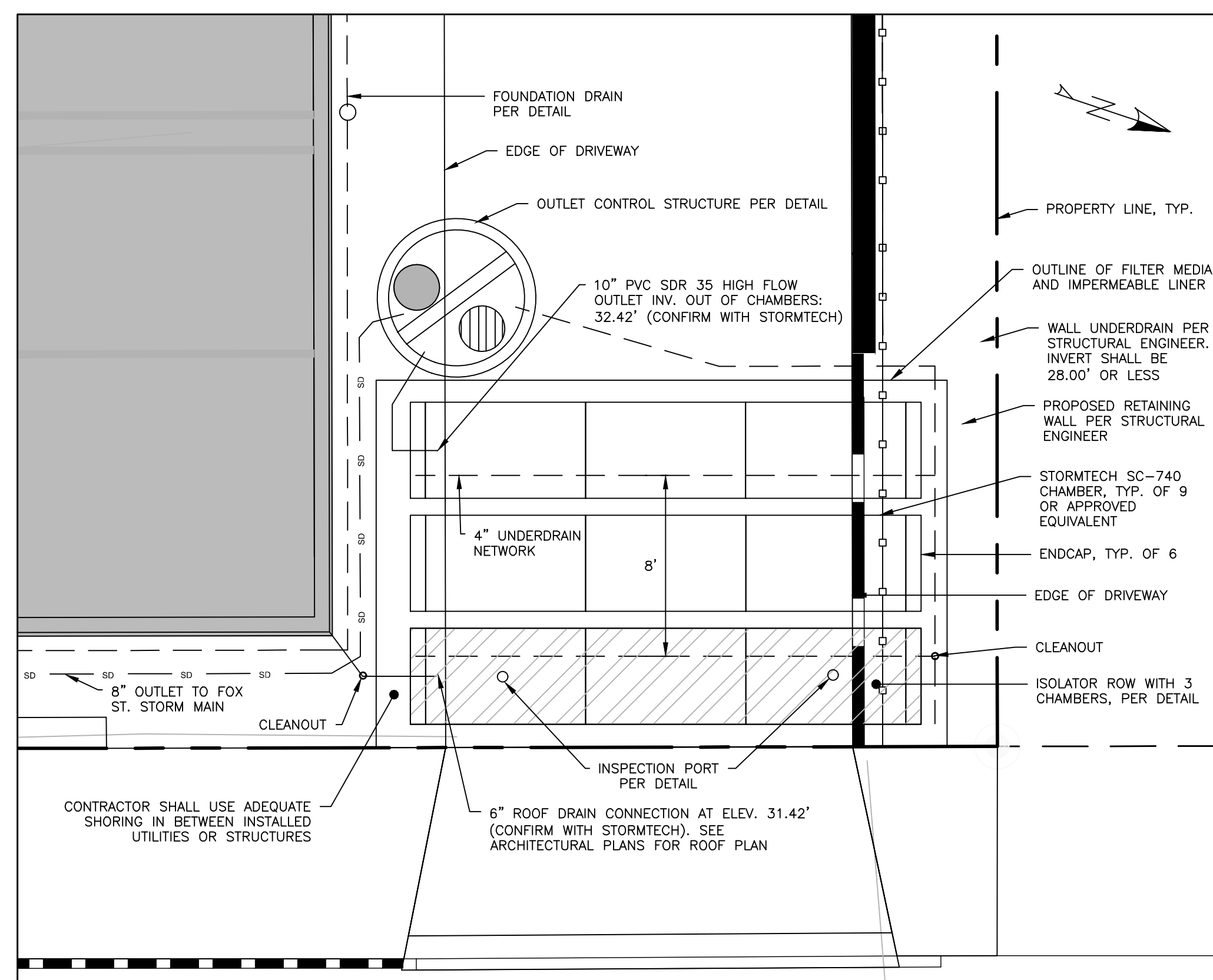
3-22-19

DRAWING NO.

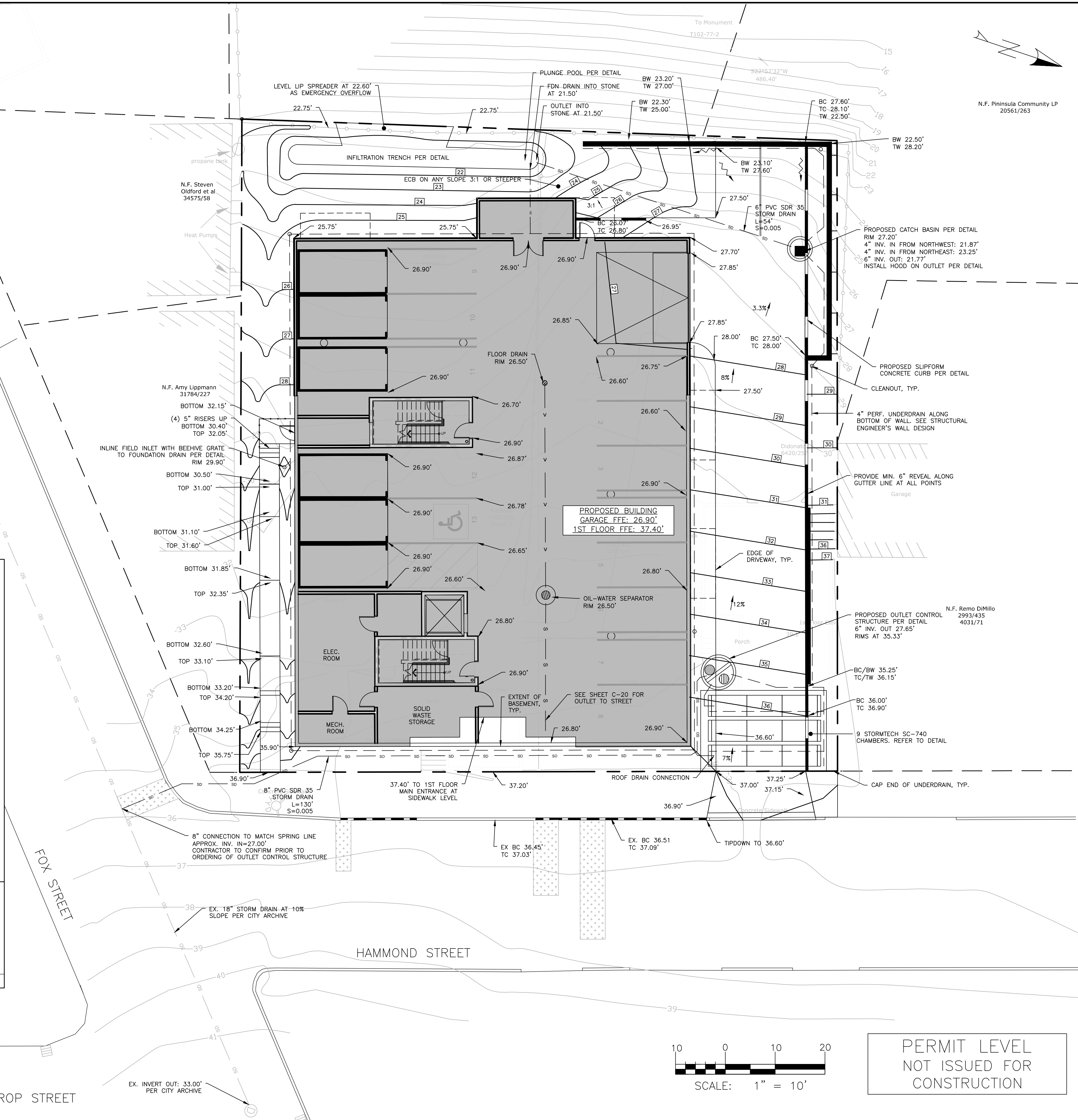
C-20

1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
2. REFER TO STRUCTURAL PLANS FOR FOUNDATION REQUIREMENTS. DESIGN OF ADDITIONAL TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
3. COMBUSTIBLE SHALL ENSURE ALL FOUNDATION EXCAVATIONS AND UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
4. COORDINATE ROOF LEADERS WITH THE ARCHITECT.
5. ALL SPOT GRADES WITH THE TEXT INSIDE THE BUILDING FOOTPRINT CORRESPOND TO THE FINISHED GRADE ELEVATION. SPOT GRADES WITH THE TEXT SHOWN OUTSIDE THE BUILDING FOOTPRINT REPRESENT THE FINISHED GRADE OUTSIDE OF THE BUILDING.

<u>AVERAGE GRADE & BUILDING HEIGHT CALCULATIONS:</u>	
NORTHERLY CORNER:	37.00'
EASTERLY CORNER:	35.90'
SOUTHERLY CORNER:	25.75'
WESTERLY CORNER:	27.70'
AVERAGE GRADE:	31.59'
ROOF ELEV:	71.40'
BUILDING HEIGHT:	39.81'



UNDERDRAINED SUBSURFACE
SAND FILTER
SCALE: 1"=5'



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

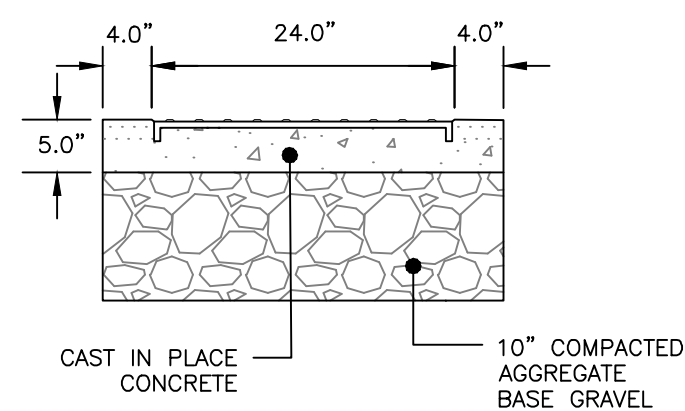
1. ALL DETECTABLE WARNING PLATES SHALL BE UNCOATED CAST IRON. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.

2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MDOT CLASS A STRUCTURAL CONCRETE, MINIMUM COMPRESSIVE STRENGTH 4,000 PSI. THE EXPOSED CONCRETE BORDER SHALL RECEIVE A UNIFORM BROOM FINISH PERPENDICULAR TO THE FLOW OF PEDESTRIAN TRAFFIC.

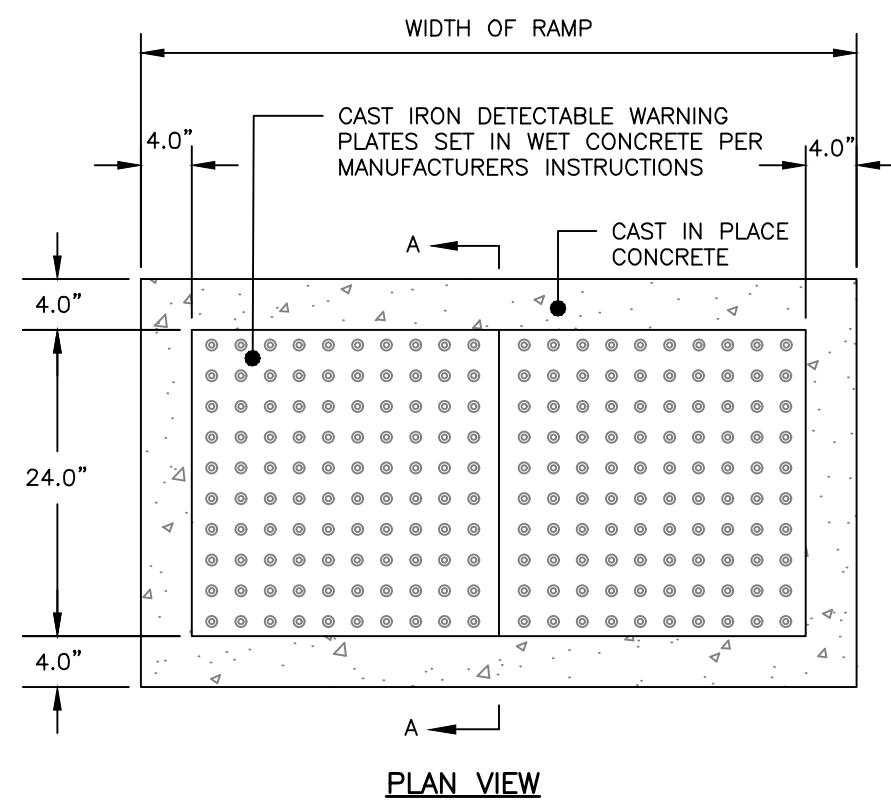
3. TRUNCATED DOMES SHALL BE ALIGNED IN ROWS, PARALLEL AND PERPENDICULAR TO THE PREDOMINANT DIRECTION OF TRAVEL. TRUNCATED DOME BRICKS AND GRANITE PAVERS ARE NOT ALLOWED.

4. SIZE: THE DETECTABLE WARNING PLATES SHALL EXTEND 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION TO THE STREET.

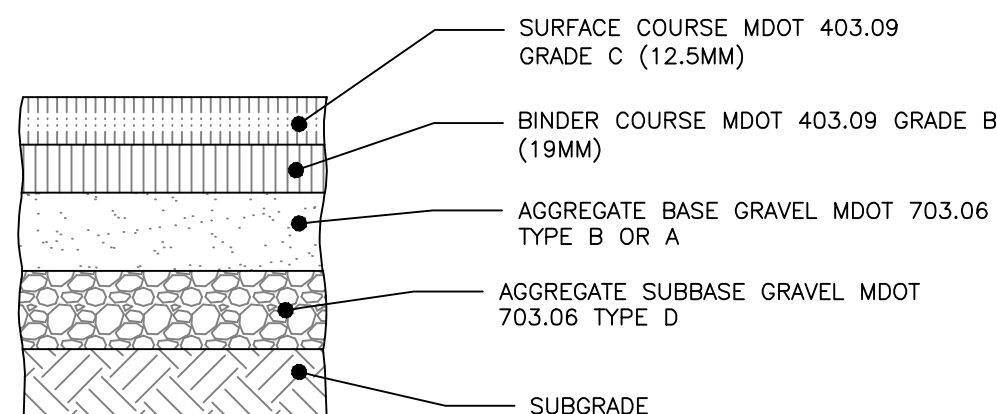
5. ORIENTATION: THE DETECTABLE WARNING PANEL SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE. THE PANEL SHALL BE ORIENTED TO THE DIRECTION OF TRAVEL AS IDENTIFIED BY THE POINT OF EGRESS.



SIDEWALK RAMP DETECTABLE WARNING PANEL
NOT TO SCALE



PLAN VIEW

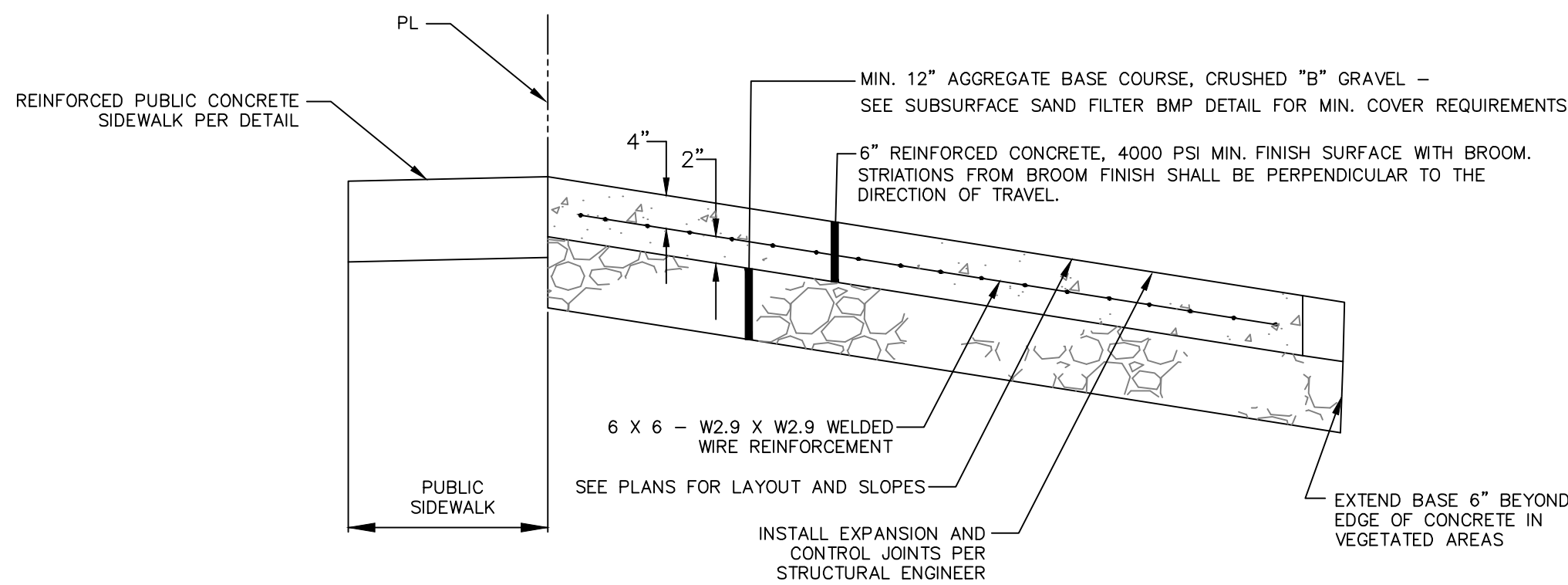


NOTE:
COMPACT SUBGRADE TO 95% MAXIMUM DRY
DENSITY IN ACCORDANCE WITH ASTM D-1557

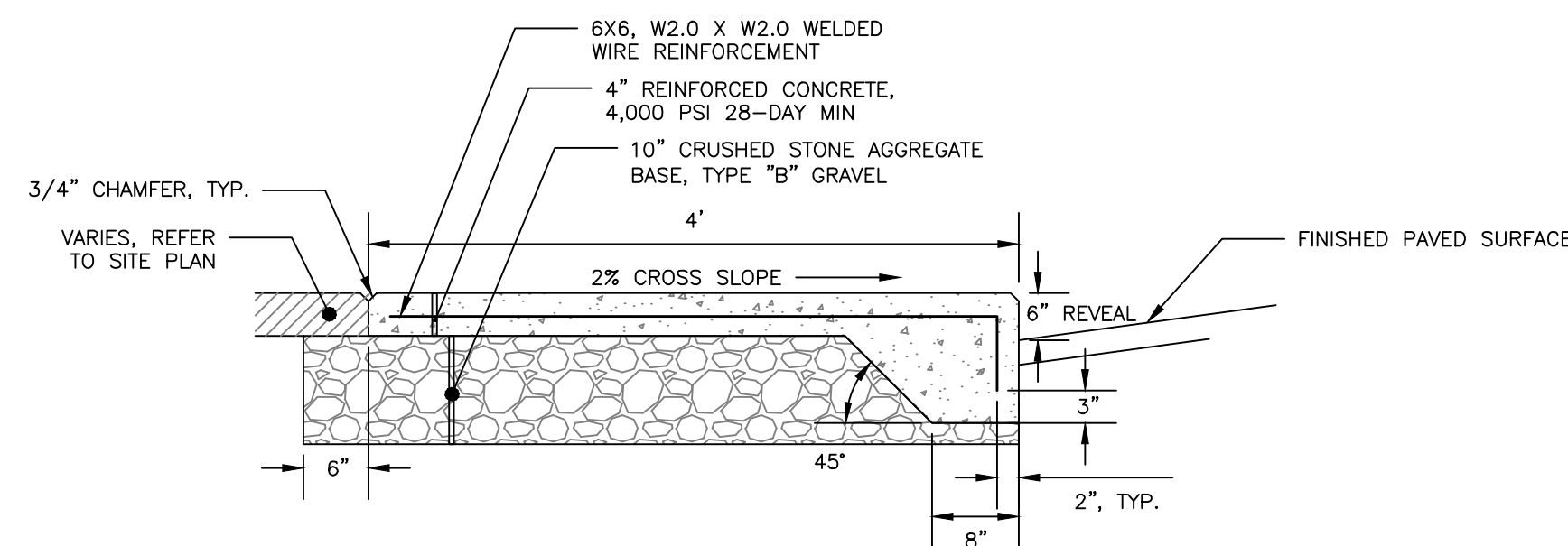
THICKNESS OF LAYERS	
STANDARD	LAYERS
1-1/2"	SURFACE COURSE MDOT 403.09 GRADE C (12.5mm)
2"	BINDER COURSE MDOT 403.09 GRADE B (19mm)
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B OR A
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

BITUMINOUS PAVEMENT PROFILE:
HAMMOND & FOX STREETS
NOT TO SCALE

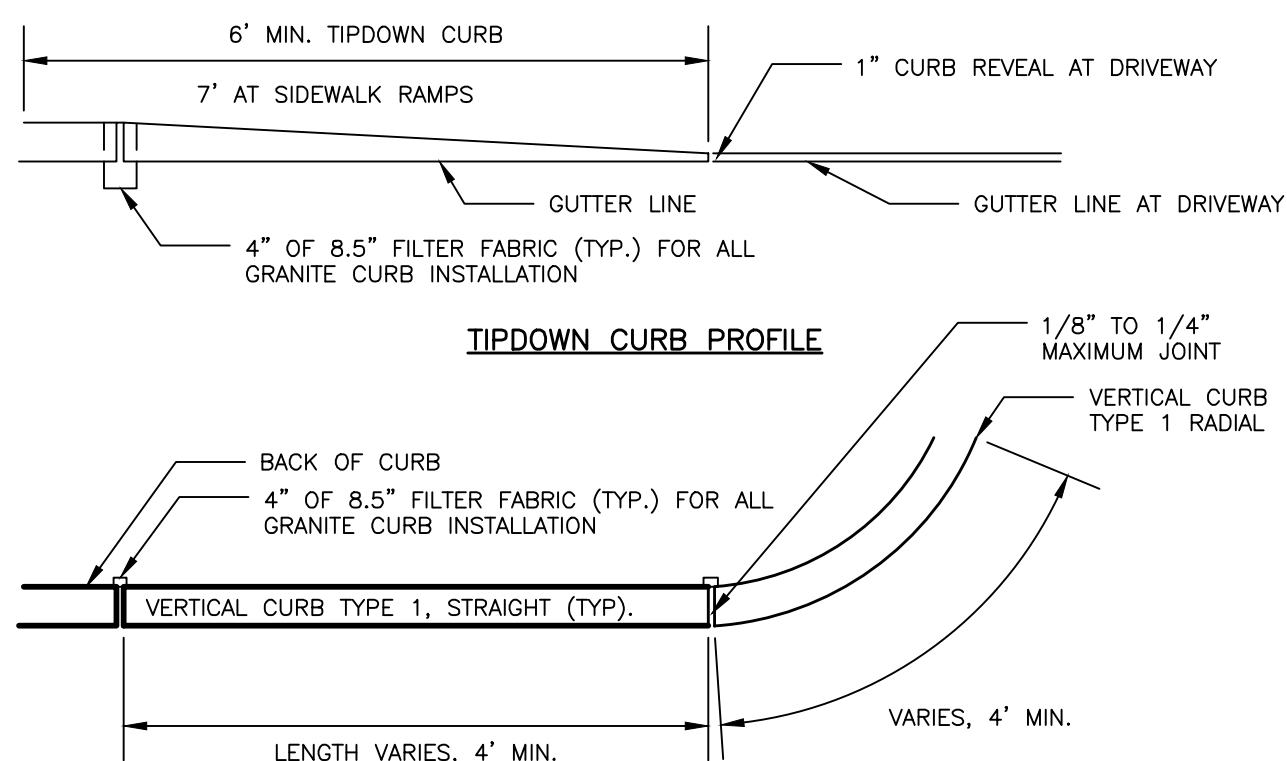
AT A MINIMUM, SLUMP TESTS SHOULD OCCUR (ASTM C 143) IN THE FIELD PRIOR TO PLACEMENT OF CONCRETE. ENGINEER RESERVES THE RIGHT TO REQUIRE ADDITIONAL TESTING.



REINFORCED CONCRETE DRIVEWAY APRON
NOT TO SCALE

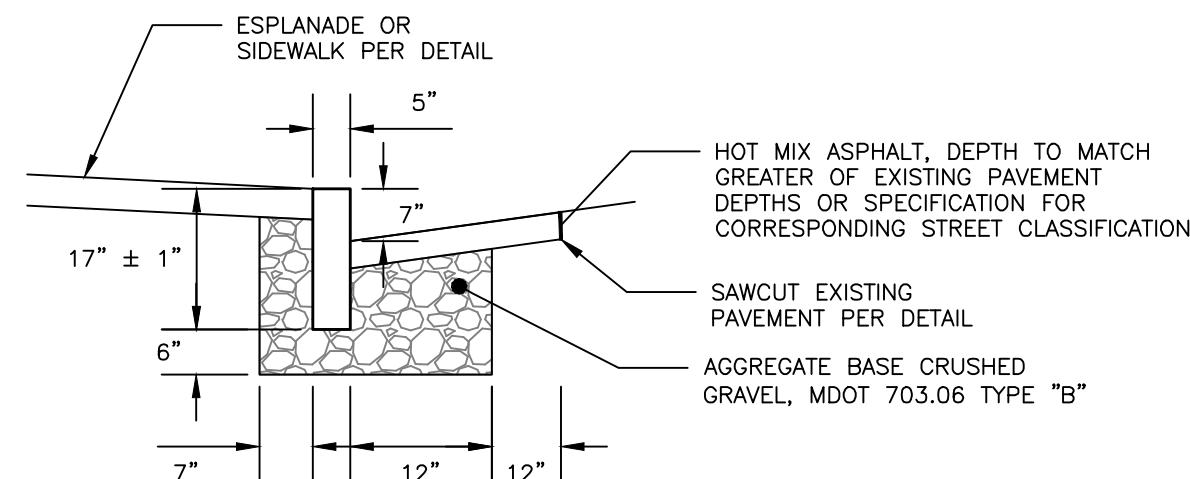


MONOLITHIC CONCRETE CURB AND SIDEWALK
NOT TO SCALE



TIPDOWN CURB PROFILE

VERTICAL GRANITE CURB PLAN VIEW

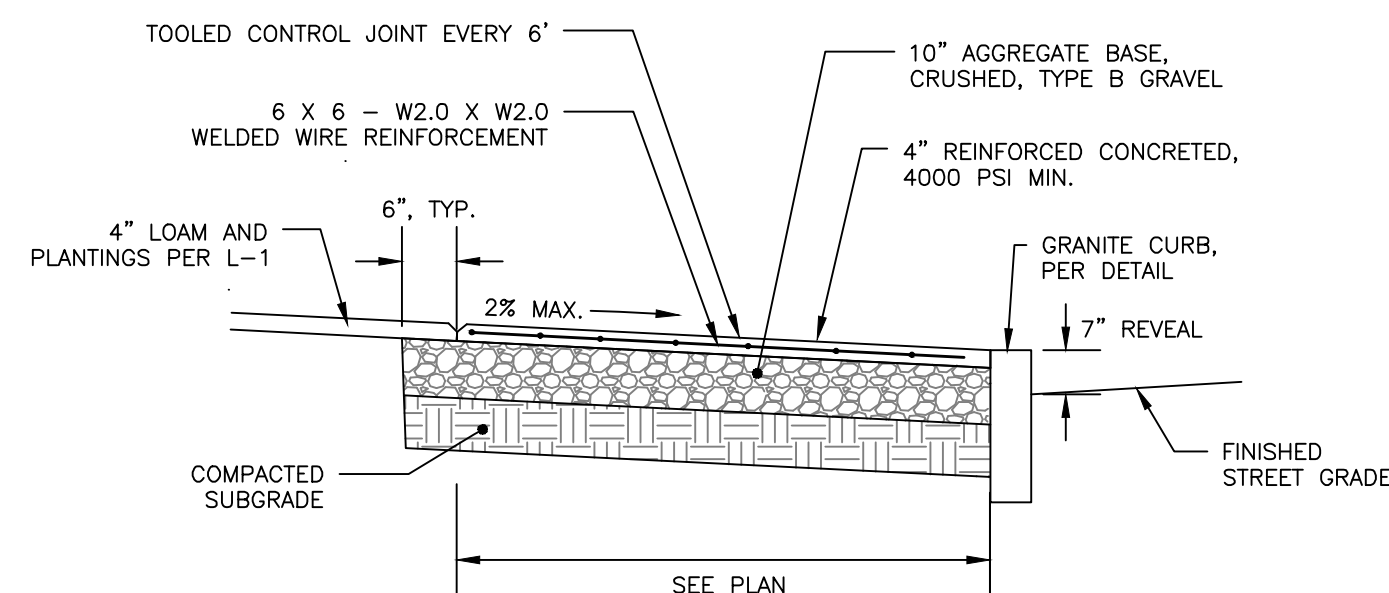


VERTICAL GRANITE CURB CROSS SECTION

1. CURB SHALL BE RESET IN ACCORDANCE WITH MDOT 609.08 WITH THE EXCEPTION OF CURB SPACING TO BE INSTALLED PER DETAIL.

VERTICAL GRANITE CURB AND TIPDOWN INSTALLATION IN EXISTING STREETS DETAIL

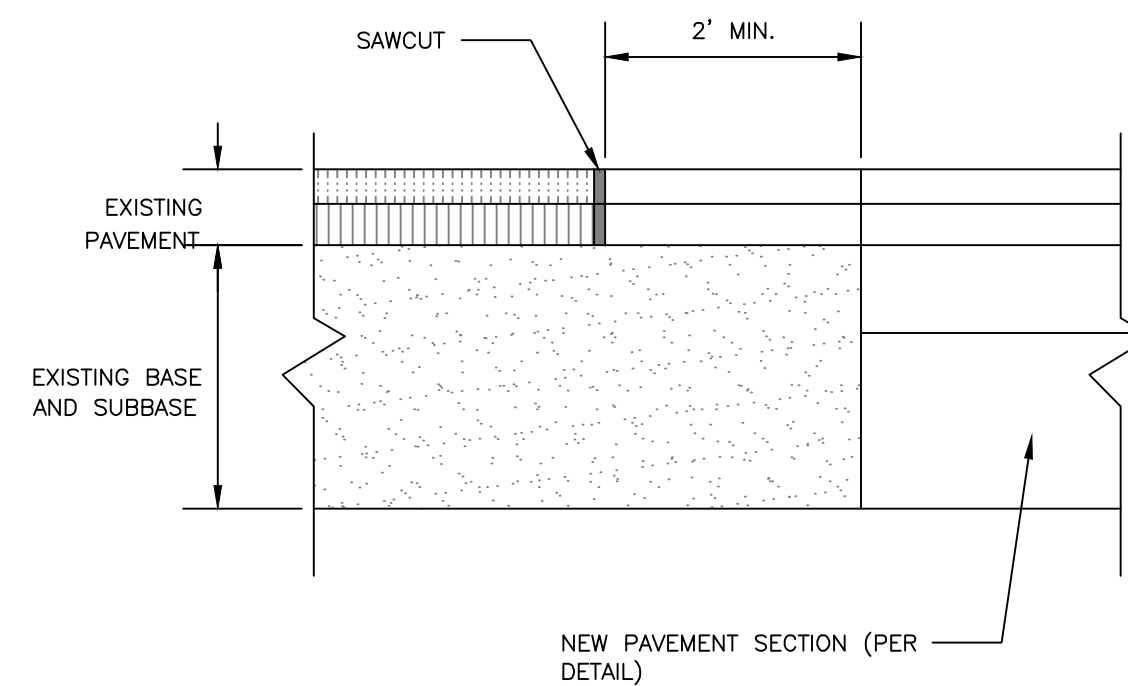
NOT TO SCALE



REINFORCED CONCRETE SIDEWALK
NOT TO SCALE

1. SAWCUT EXISTING PAVEMENT AND REMOVE 2' STRIP OF EXISTING PAVEMENT. APPLY BITUMINOUS TACK COAT PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.

2. THE NEW PAVEMENT SECTION SHALL MEET THE CITY OF PORTLAND ARTERIAL BITUMINOUS PAVEMENT SECTION DETAIL AT A MINIMUM OR THE THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.



PAVEMENT SAWCUT DETAIL

NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

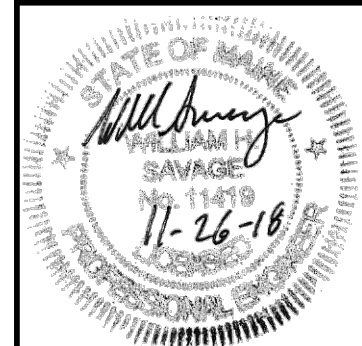
SITE DETAILS - 1

HAMMOND HOUSE

THE PRESERVE AT SOUTH RIDGE, LLC
94 SOUTH STREET, YARMOUTH, ME 04096

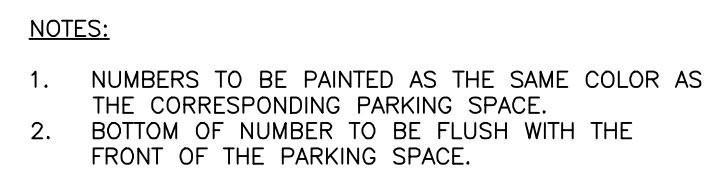
A C O R N
— PLUMMER INC. —

FILE:	1112_CIVIL
JN:	1112
SCALE:	NTS
DESIGNED BY:	WHS
DRAWN BY:	EKK
CHECKED BY:	WHS



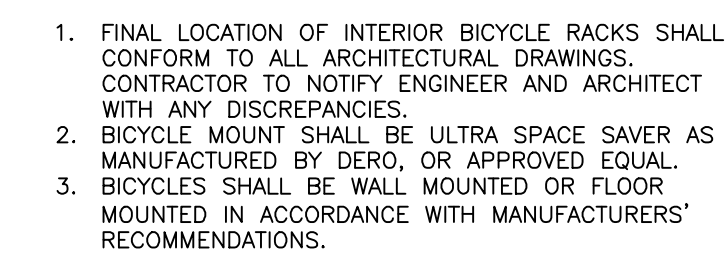
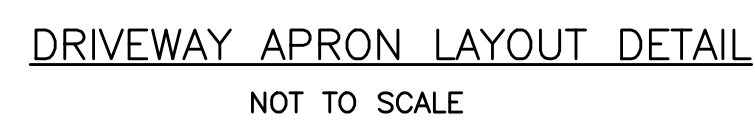
DRAWING NO.
C-40

1. CROSSWALKS TO BE BUILT IN CONFORMANCE WITH MUTCD STANDARDS, LATEST EDITION.
2. CROSSWALKS ARE TO BE PAINTED WHITE MEETING MAINE DOT SPECIFICATIONS.
3. BLOCKS TO BE PARALLEL TO THE DIRECTION OF CAR TRAFFIC.



PARKING STALL NUMBER DETAIL
NOT TO SCALE

- NOTES:**
1. REFER TO GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR SITE GRADING
 2. REFER TO REINFORCED CONCRETE DETAIL
 3. MATERIALS/DETAILS OF DRIVEWAY APRON TO BE APPROVED BY CITY (DPW AND PLANNING) PRIOR TO IMPLEMENTATION



BICYCLE RACK INTERIOR
NOT TO SCALE

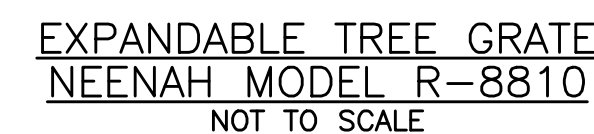


PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

1. ALL PLANT SELECTION AND INSTALLATION WILL BE IN COMPLIANCE WITH THE CITY OF PORTLAND TECHNICAL MANUAL (SECTION 4).
2. CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
3. IF THERE IS A DISCREPANCY BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLAN AND THE NUMBER OF PLANTS SHOWN IN PLANT LIST (IF ANY), THE NUMBER OF PLANTS SHOWN ON PLAN WILL TAKE PRECEDENCE.
4. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMAN.
5. ALL DISTURBED AREAS NOT TO BE PAVED OR PLANTED SHALL BE LOAMED AND SEEDED AS SHOWN. THE SEED MIX SPECIFICATIONS ARE AS FOLLOWS: LESCO FINE FESCUE LINKS BLEND OF 35% HARD FESCUE, 35% CREEPING RED FESCUE, 20% CHURCHMAN SPOON, AND 10% SHEEP FESCUE. ADD 5% LITTLE BLUESTEM AND 5% NORTHEAST WILDFLOWER SEED MIXTURE BY WEIGHT TO THE LINKS BLEND.
6. FOR PRICING PURPOSES, PROVIDE A PER TREE UNIT COST FOR STAKING AND GUYING. IF STAKING AND GUYING IS REQUIRED, REMOVE TREE WRAP, STAKES, AND GUY WIRES AT END OF FIRST GROWING SEASON.
7. FOR TREE PLANTING IN LAWN AREAS, ANY DISTURBED LAWN SHALL BE LOAMED AND SEEDED AS NECESSARY.
8. NEW TREES TO BE INSTALLED WITH A SLOW RELEASE WATERING BAG.
9. CONTRACTOR TO BE HELD RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL PLANT MATERIAL AND LANDSCAPING IMPROVEMENTS FOR AT LEAST 30 DAYS FOLLOWING INSTALLATION. FOLLOWING THIS PERIOD, THE LANDOWNER OR PROPERTY MANAGEMENT SHALL BE RESPONSIBLE FOR CONTINUED WATERING AND MAINTENANCE. CONTRACTOR TO MAINTAIN A ONE YEAR WARRANTY ON ALL PLANTINGS FOLLOWING FINAL INSTALLATION.
10. ALL PROPOSED PLANTS SHALL BE LOCATED AS SHOWN ON THE PLANS. CONTRACTOR TO NOTIFY ENGINEER WHEN PLANTINGS HAVE BEEN MOBILIZED ON SITE. ENGINEER TO INSPECT AND ACCEPT OR REJECT ANY SPECIMENS ON THE BASIS OF APPARENT HEALTH, HARDINESS, AND CONFORMANCE WITH THE PLANTING SCHEDULE. REJECTED SPECIMENS ARE TO BE REPLACED BY THE CONTRACTOR AT NO ADDED COST TO THE OWNER. ACCEPTANCE DOES NOT WAIVE THE REQUIRED ONE YEAR PLANTING WARRANTY.

1. DIG HOLE AT LEAST 2 TIMES THE DIAMETER OF THE ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH THE TOP AT DOWNHILL EDGE OF THE HOLE.
2. COVER WITH SOIL TO ORIGINAL FIRMNESS. DO NOT COMPRESS SOIL. THE CHARACTERISTICS OF TOPSOIL IN THE VICINITY WHICH PRODUCE A HEAVY GROWTH. TOPSOIL SHALL CONTAIN LESS THAN 1% ORGANIC MATTER. TOPSOIL SHALL HAVE A PH VALUE OF NOT LESS THAN 5.5 NOR MORE THAN 7.0.
3. CONTAINER GROWN STOCK - REMOVE CONTAINER PROTECTING THE ROOT BALL. GENTLY COMB OUT THE ROOT BALL.
4. BACKFILL THE HOLE WITH TOPSOIL TO A DEPTH NOT TO EXCEED 8" THEN WATER SUFFICIENTLY TO SETTLE TOPSOIL. REPEAT SOIL BACKFILL, WATER, DRAIN. TOPSOIL SHALL BE TAMPED UNDER EDGES OF PLANTER. PLANTER SHALL BE COVERED WITH TOPSOIL TO CREATE AN EARTHEN SAUCER. SOAK PLANTS TWICE WITHIN THE FIRST TWENTY-FOUR HOURS OF PLANTING.



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

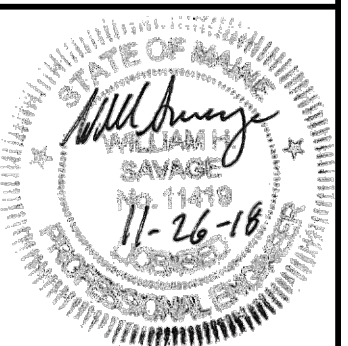
PROJECT NAME:	HAMMOND HOUSE
CLIENT:	THE PRESERVE AT SOUTH RIDGE, LLC 94 SOUTH STREET, YARMOUTH, ME 04096


A C O R N
ENGINEERING, INC.

ACORN ENGINEERING, INC.
 65 HANOVER ST., PORTLAND, MAINE 04101
 (207) 775-2655

 THIS PLAN SHALL NOT BE USED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR UNAUTHORIZED, SHALL BE THE RESPONSIBILITY OF THE USER AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

TITLE:	1112_CIVIL
IN:	1112
SCALE:	NTS
DESIGNED BY:	WHS
DRAWN BY:	EKK
CHECKED BY:	WHS



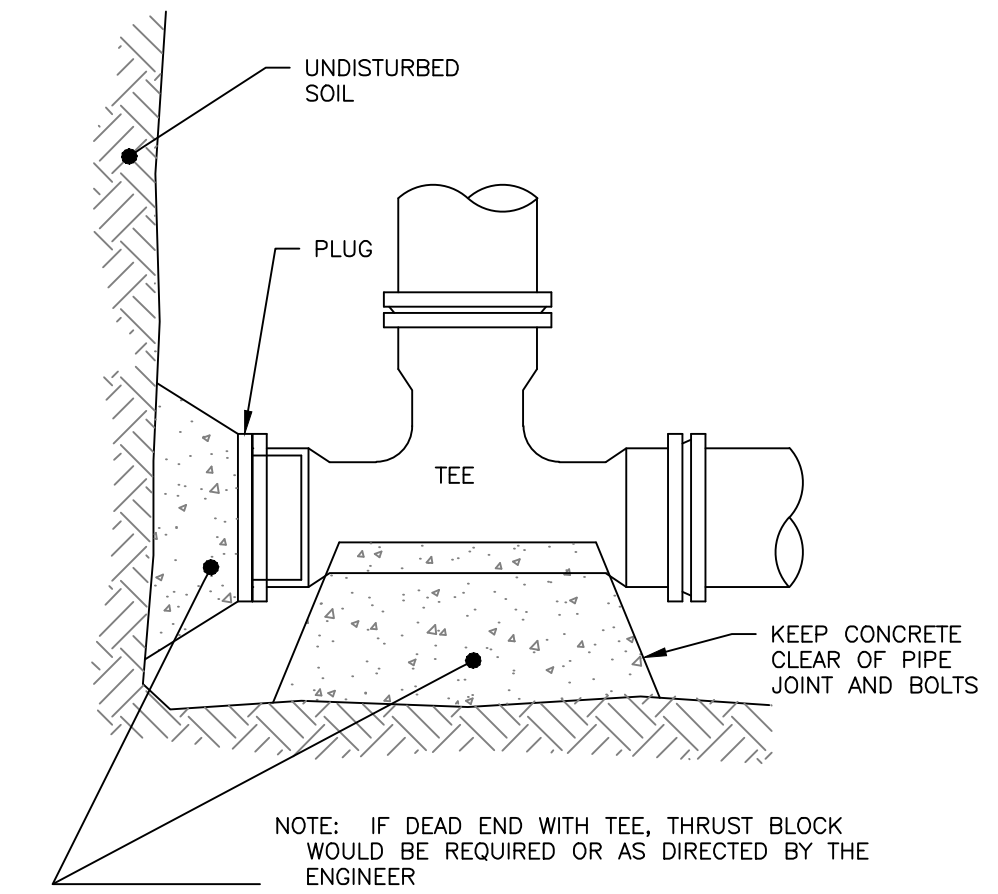
DRAWING NO.

C-42

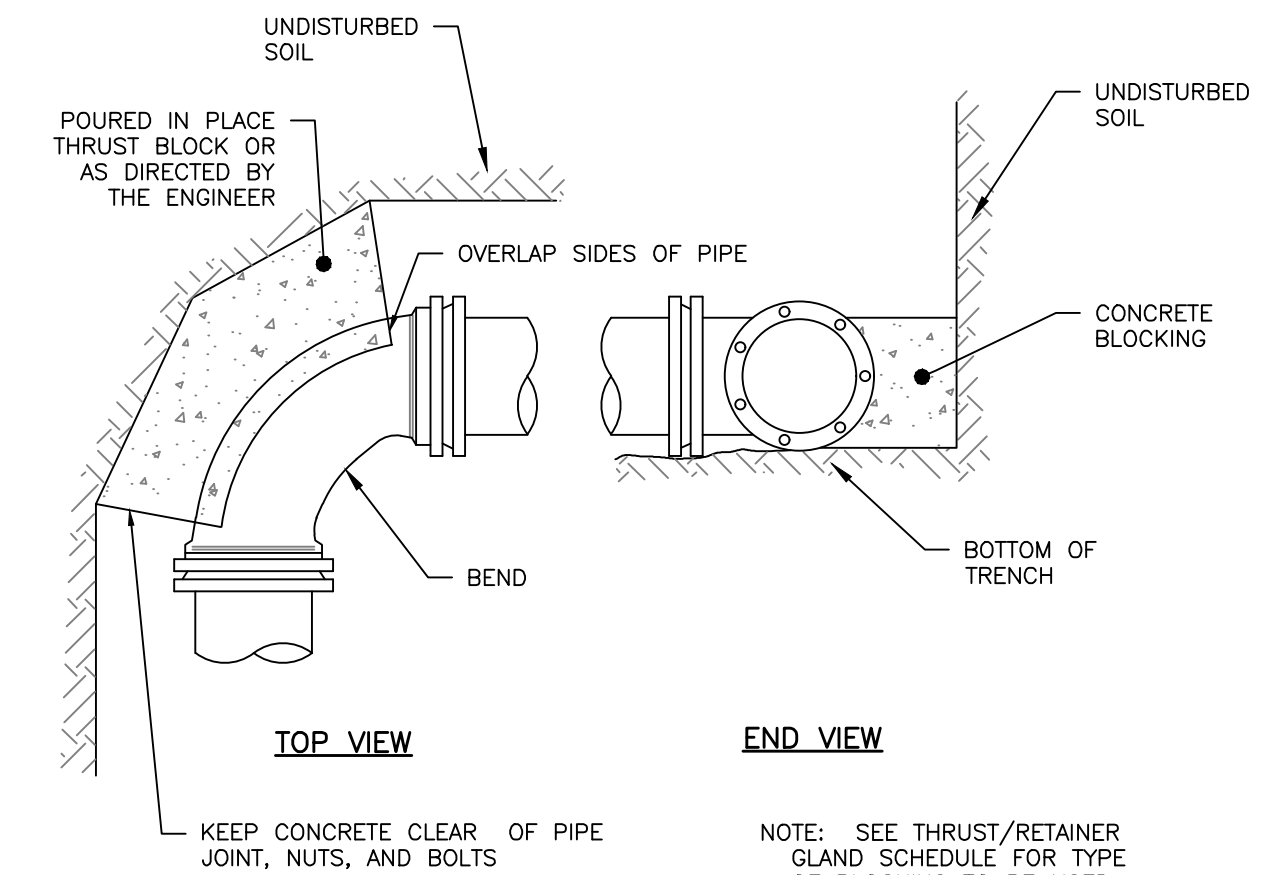
SIDE VIEW

TAPPING SLEEVE AND VALVE

NOT TO SCALE



END SECTION



TOP VIEW

END VIEW

NOTE: SEE THRUST/RETAINER
GLAND SCHEDULE FOR TYPE
OF BLOCKING TO BE USED
ON BENDS

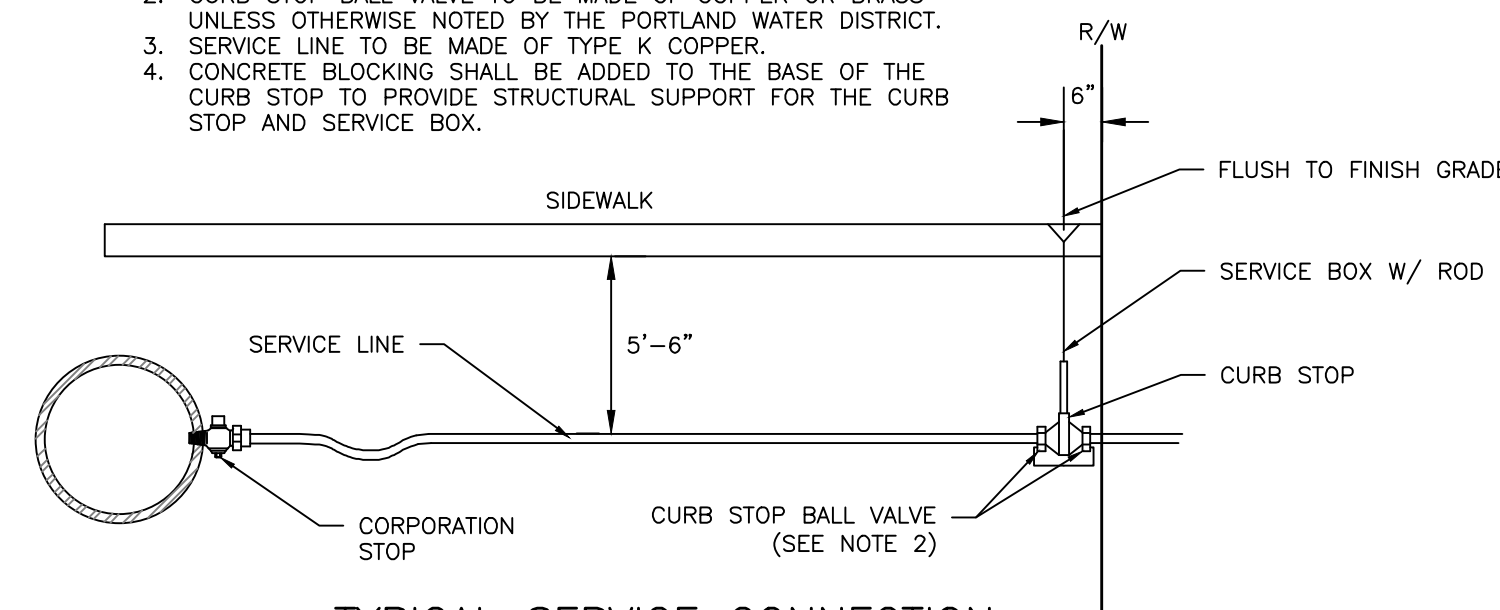
REGULAR BEND

THRUST BLOCKING

NOT TO SCALE

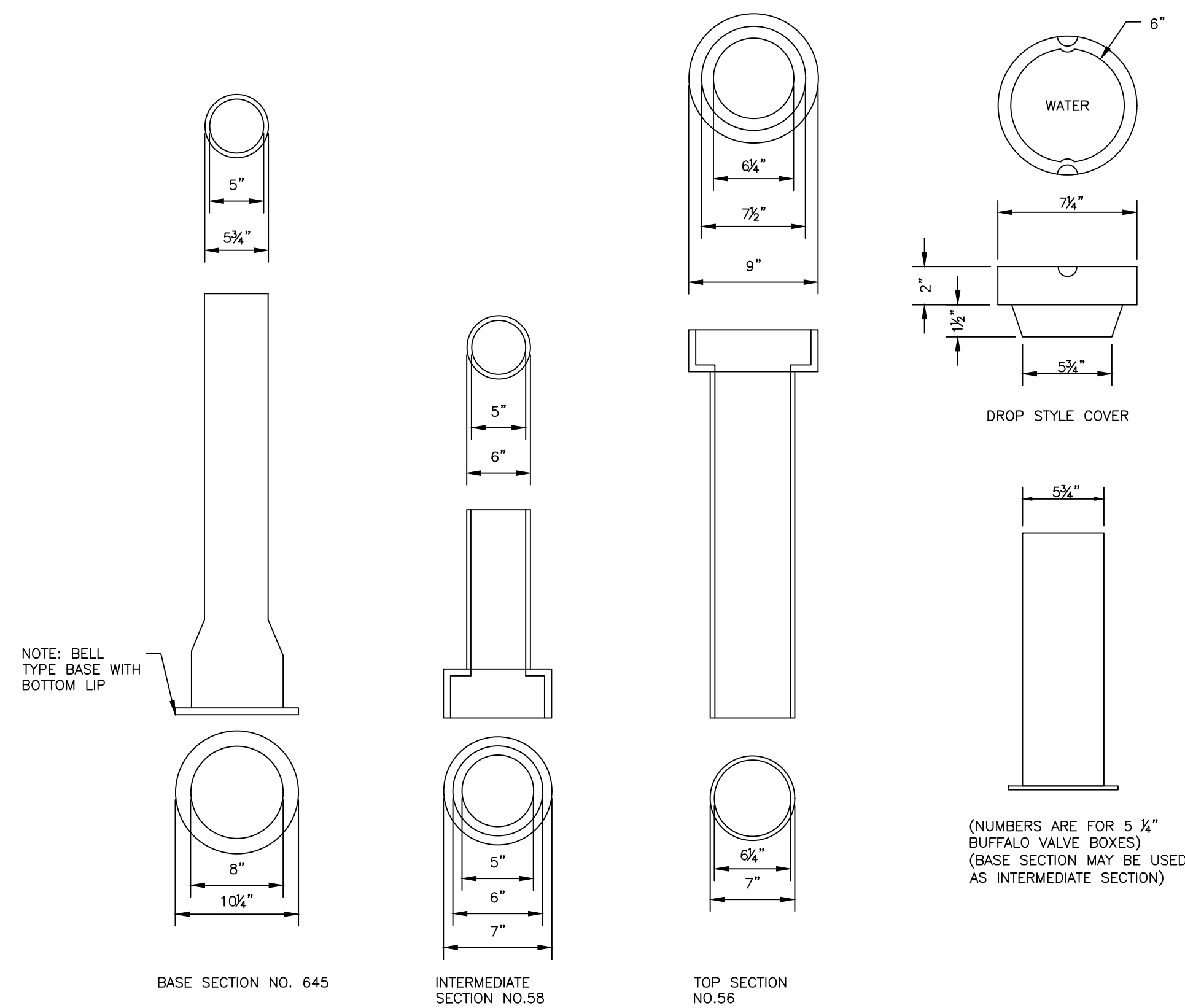
NOTES:-

1. ALL MATERIALS AND INSTALLATION PROCEDURES MUST COMPLY WITH THE CITY OF PORTLAND WATER DISTRICT (PWD) SPECIFICATIONS.
2. CURB STOP BALL VALVE TO BE MADE OF COPPER OR BRASS UNLESS OTHERWISE NOTED BY THE PORTLAND WATER DISTRICT.
3. SERVICE LINE TO BE MADE OF TYPE K COPPER.
4. CONCRETE BLOCKING SHALL BE ADDED TO THE BASE OF THE CURB STOP TO PROVIDE STRUCTURAL SUPPORT FOR THE CURB STOP AND SERVICE BOX.



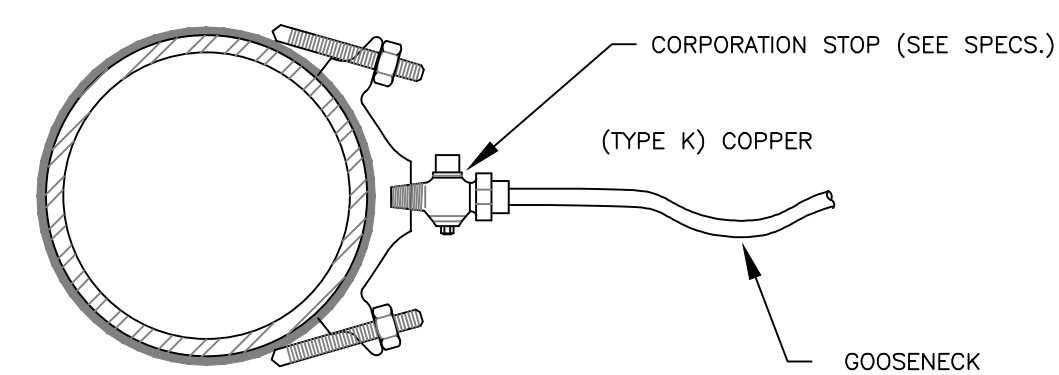
TYPICAL SERVICE CONNECTION

NOT TO SCALE



VALVE BOX & COVER

NOT TO SCALE

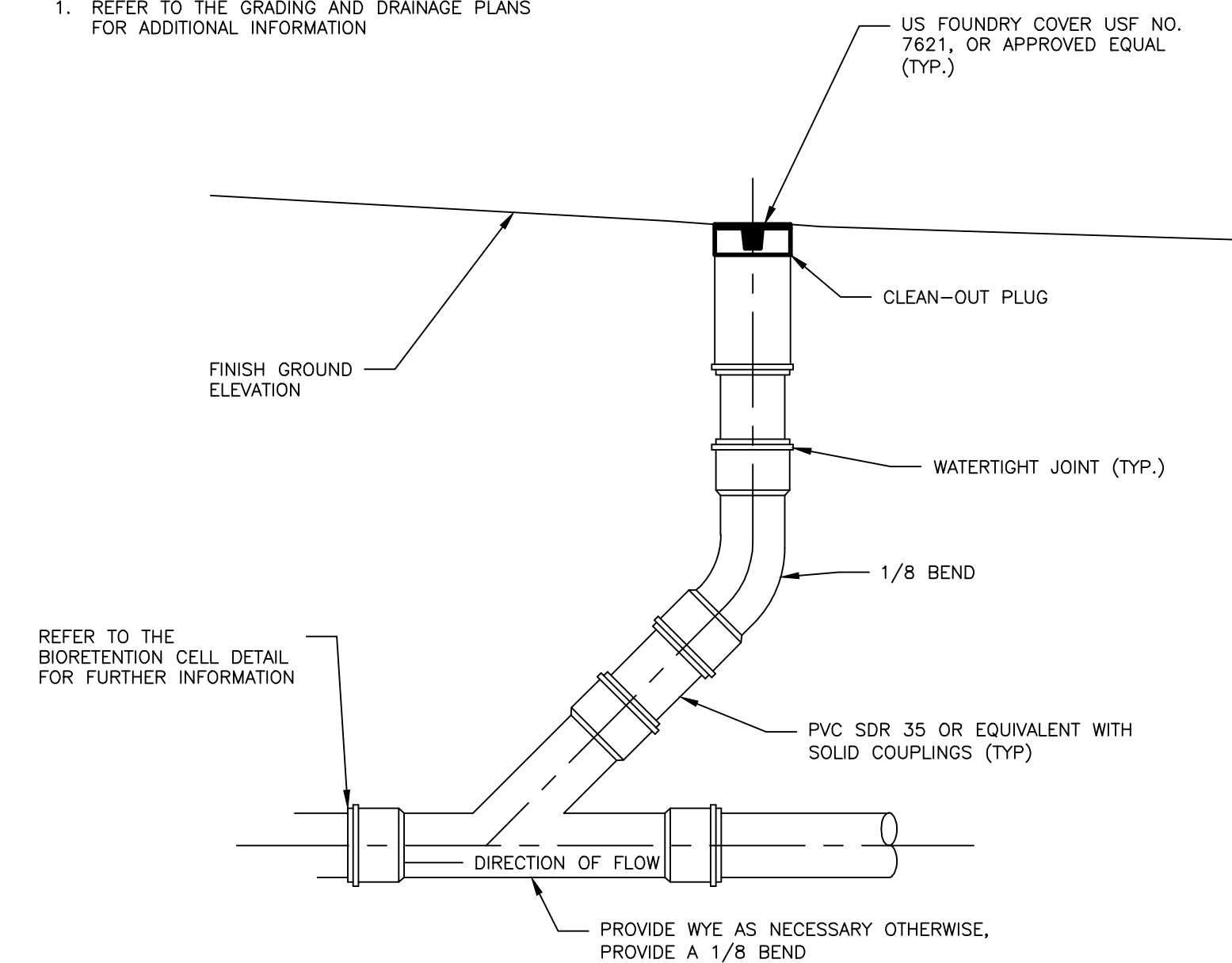


SERVICE SADDLE: 1-1/2" AND 2" C.C. THREAD

NOT TO SCALE

NOTES:

1. REFER TO THE GRADING AND DRAINAGE PLANS
FOR ADDITIONAL INFORMATION



CLEANOUT DETAIL

NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

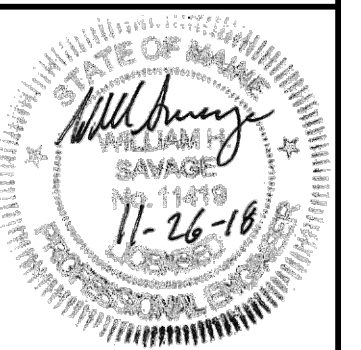
UTILITY DETAILS - 2
PROJECT NAMED
HAMMOND HOUSE
CLIENT
THE PRESERVE AT SOUTH RIDGE, LLC 94 SOUTH STREET, YARMOUTH, ME 04096

ACORN ENGINEERING, INC.
65 HANOVER STREET, SUITE 44101
(207) 779-2655

ACORN ENGINEERING, INC.
A C O R N
ENGINEERING, INC.

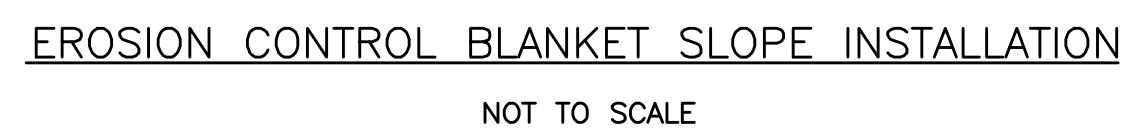
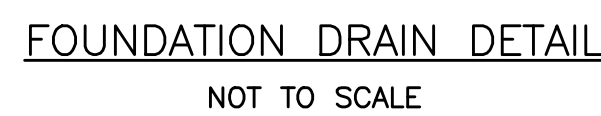
THIS FIRM SHALL NOT BE ISSUED WITHOUT A LICENSE OR CERTIFICATE OF REGISTRATION FROM ACORN ENGINEERING, INC. ANY ATTEMPT TO OBTAIN A LICENSE OR CERTIFICATE OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

TITLE:	1112_CIVIL
IN:	1112
SCALE:	NTS
DESIGNED BY:	WHS
DRAWN BY:	EKK
CHECKED BY:	WHS

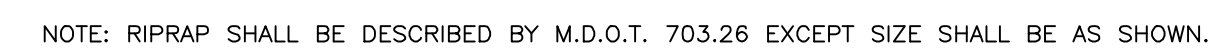


DRAWING NO.
C-44

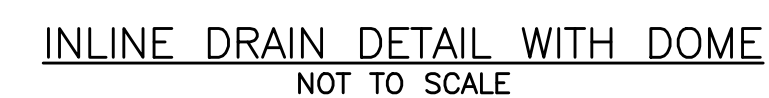
1. REFER TO THE BUILDING ARCHITECTS PLANS FOR THE BUILDING FOUNDATION, BACKFILL, ROOF DRAIN, SIDEWALK AND OTHER DETAILS.
2. PERFORATIONS IN UNDERDRAIN PIPE SHALL BE ORIENTED DOWN.
3. INSTALL STONE DRIP EDGE IN A LOCATIONS SUBJECT TO ROOF RUNOFF. WIDTH SHALL BE A MIN. 12" BEYOND THE PROJECT OF THE ROOF EVE.
4. FOUNDATION WALL FOOTINGS SHALL BE CONSTRUCTED TO A MIN. DEPTH OF 4 FT BELOW ADJACENT FINISH GRADE. REFER TO STRUCTURAL ENGINEERS PLANS FOR ADDITIONAL INFORMATION AND MIN. REQUIREMENTS.



- *NOTE:
IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR
STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY
TO PROPERLY SECURE THE ECB.



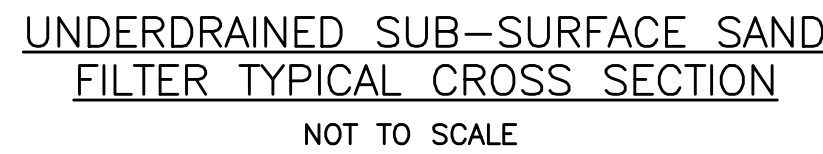
OUTLET PLUNGE POOL DETAIL
NOT TO SCALE



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

1. REFER TO THE MAINE DEP TECHNICAL DESIGN MANUAL SECTION 7.3 FOR ADDITIONAL DESIGN DETAILS.
2. SAND LAYER COMPACT IN 6" LIFTS TO 92% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557

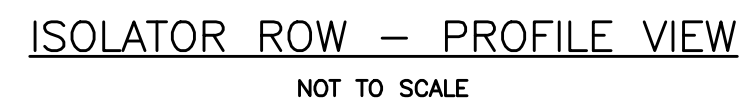


SCHEDULE		
ITEM		ELEVATION
A	FINISHED GRADE	PER C-30
B	TOP OF CRUSHED STONE	VARIES
C	TOP OF CHAMBER	33.50'
D	BOTTOM OF CHAMBER	31.00'
E	TOP OF SAND	30.50'
F	BOTTOM OF SAND	29.00'
G	BOTTOM OF SYSTEM	27.83'

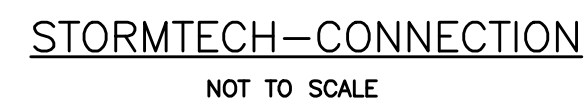


1. ALL DESIGN SPECIFICATIONS FOR STORMTECH MC-3500 CHAMBERS SHALL BE IN ACCORDANCE WITH THE STORMTECH DESIGN MANUAL.
2. THE INSTALLATION OF STORMTECH MC-3500 CHAMBERS SHALL BE IN ACCORDANCE WITH THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.
3. THE CONTRACTOR IS ADVISED TO REVIEW AND UNDERSTAND THE INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION. CALL 1-800-292-8694 OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.
4. CHAMBERS SHALL MEET THE DESIGN REQUIREMENTS AND LOAD FACTORS SPECIFIED IN SECTION 12.12 OF THE LATEST EDITION OF THE ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

1. THE LAYOUT AND DIMENSION OF THE SUBSURFACE DETENTION MAY BE MODIFIED WITH AN ENGINEER APPROVED EQUIVALENT WHICH PROVIDES EQUAL DETENTION STORAGE AND WATER QUALITY TREATMENT.
2. THE SUBSURFACE DETENTION SHALL BE INSPECTED BY THE DESIGN ENGINEER AT THE FOLLOWING INTERVALS:
 - AFTER PRELIMINARY CONSTRUCTION OF THE SUBSURFACE DETENTION GRADES
 - ONE SITE VISIT DURING THE INSTALLATION OF THE IMPERVIOUS LINER
 - ONE SITE VISIT AFTER THE UNDERDRAINS ARE INSTALLED BUT BEFORE THEY ARE BACKFILLED
 - DURING THE CONSTRUCTION OF THE SAND FILTER LAYER
 - DURING THE INSTALLATION OF THE STORMTECH ISOLATOR ROW
 - BEFORE BACKFILLING THE STORMTECH UNITS
3. THE FIRST YEAR OF MAINTENANCE SHALL BE PERFORMED BY THE MANUFACTURER TO ENSURE THAT THE SYSTEM IS OPERATING ACCORDING TO THE ESTABLISHED SPECIFICATIONS.
4. REFERENCE THE MANUFACTURER'S GUIDE FOR THE OPERATION AND MAINTENANCE PLAN.



1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./LF.
5. JOINTS SEALED WITH BUTYL RUBBER.
6. POLYPROPYLENE STEPS 12" O.C.



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

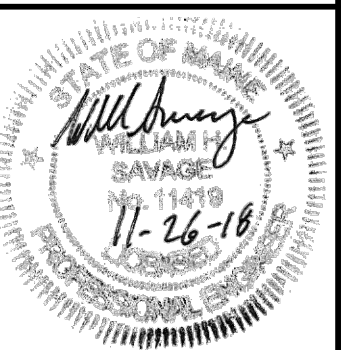
[illegible]

HAMMOND HOUSE

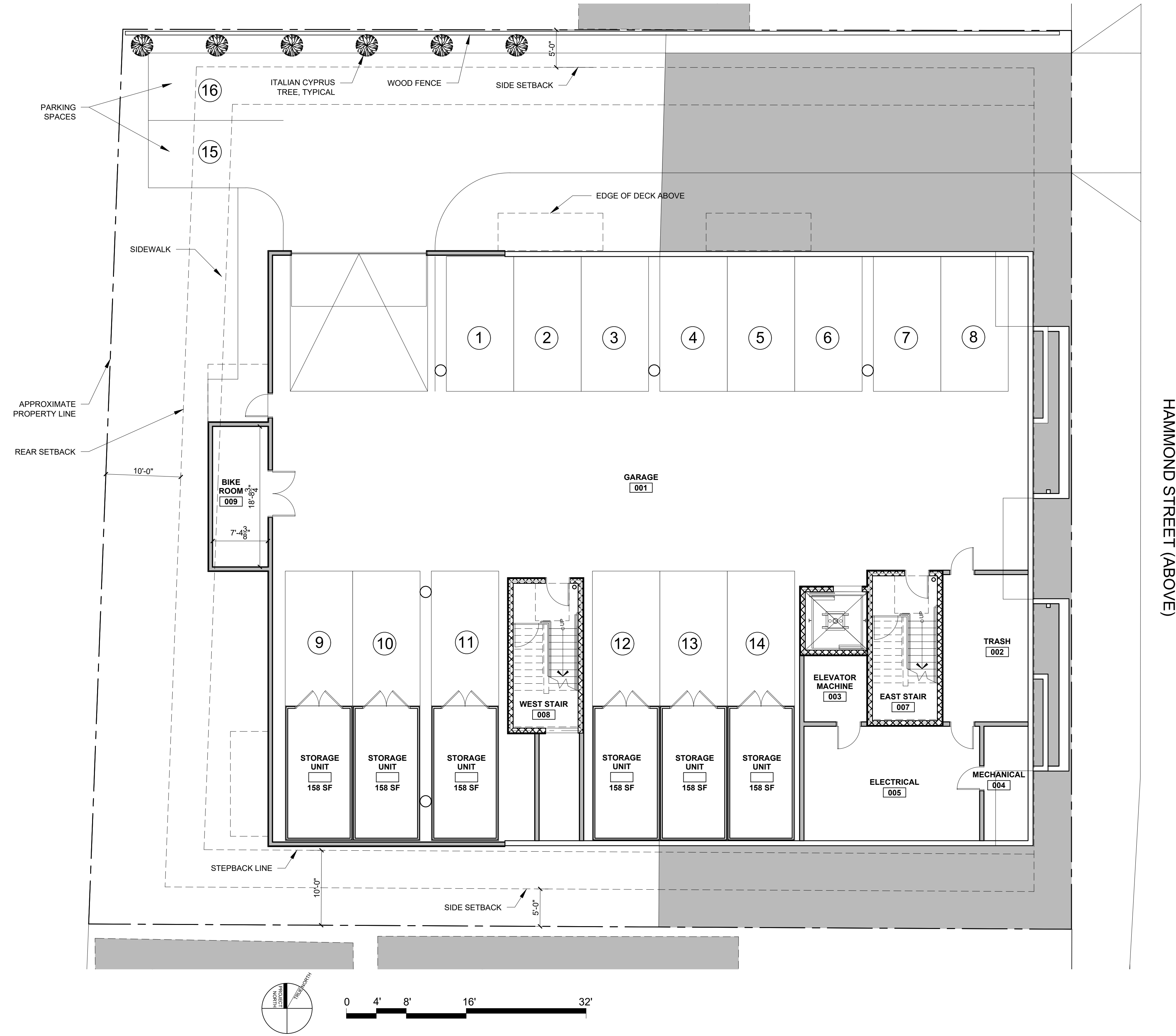
THE PRESERVE AT SOUTH RIDGE, LLC
94 SOUTH STREET, YARMOUTH, ME 04096


ACORN ENGINEERING, INC.
 65 HANOVER ST., PORTLAND, MAINE 04101
 (207) 775-2855

FILE:	1112_CIVIL
IN:	1112
SCALE:	NTS
DESIGNED BY:	WHS
DRAWN BY:	EKK
CHECKED BY:	WHS



DRAWING NO.
C-46



1 BASEMENT FLOOR PLAN
1/8" = 1'-0"

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
MARCH 29, 2019

DATE:

PROJECT No. 1848

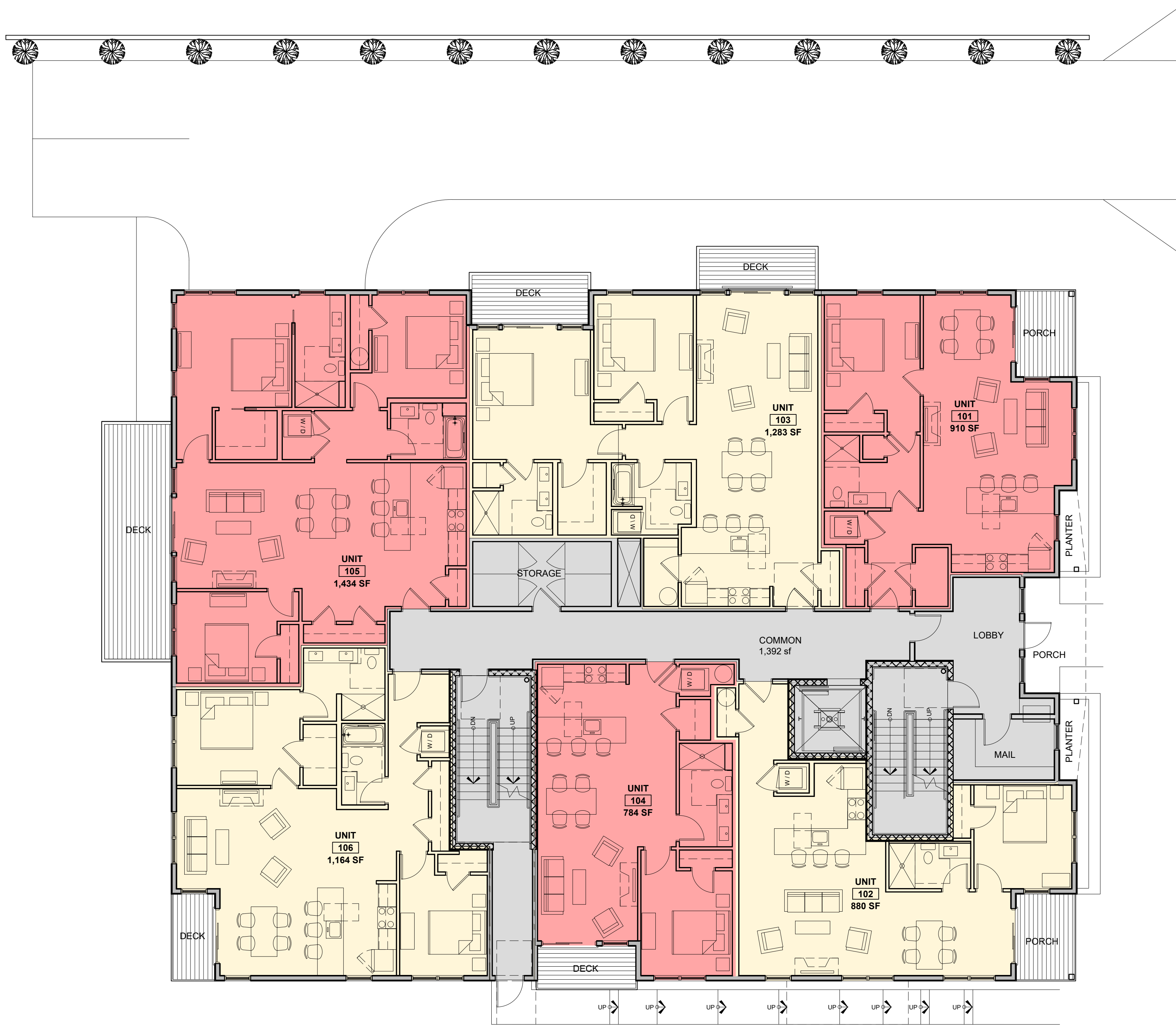
DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
BASEMENT
FLOOR PLAN

A1-0



1 FIRST FLOOR PLAN
1/8" = 1'-0"

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
MARCH 29, 2019

DATE:

PROJECT No. 1848

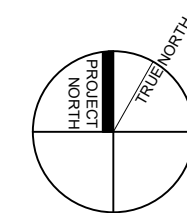
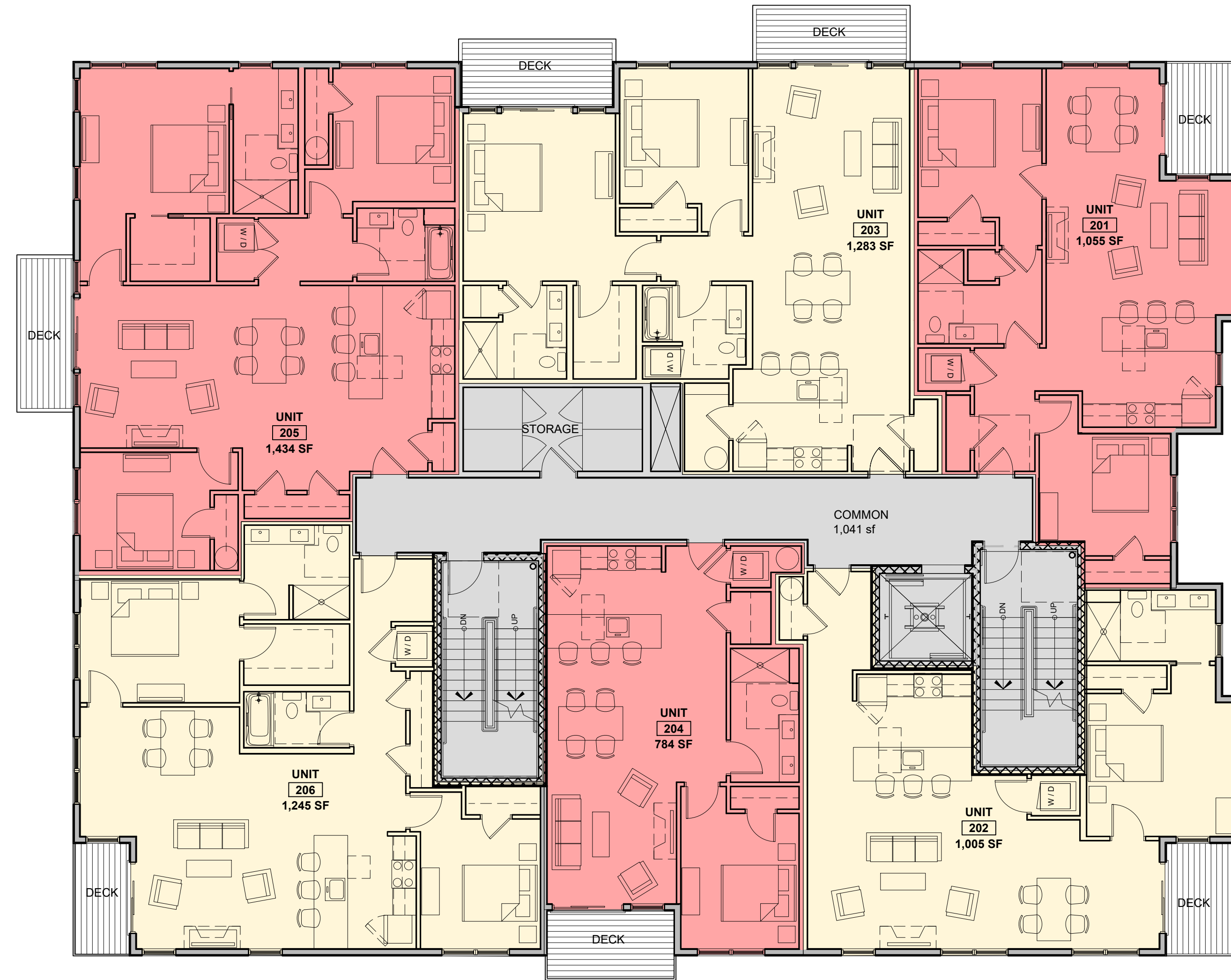
DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
FIRST FLOOR
PLAN

A1-1



1 SECOND FLOOR PLAN
1/8" = 1'-0"

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
MARCH 29, 2019

DATE:

PROJECT No. 1848

DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

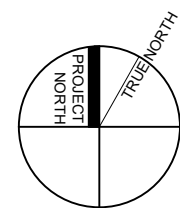
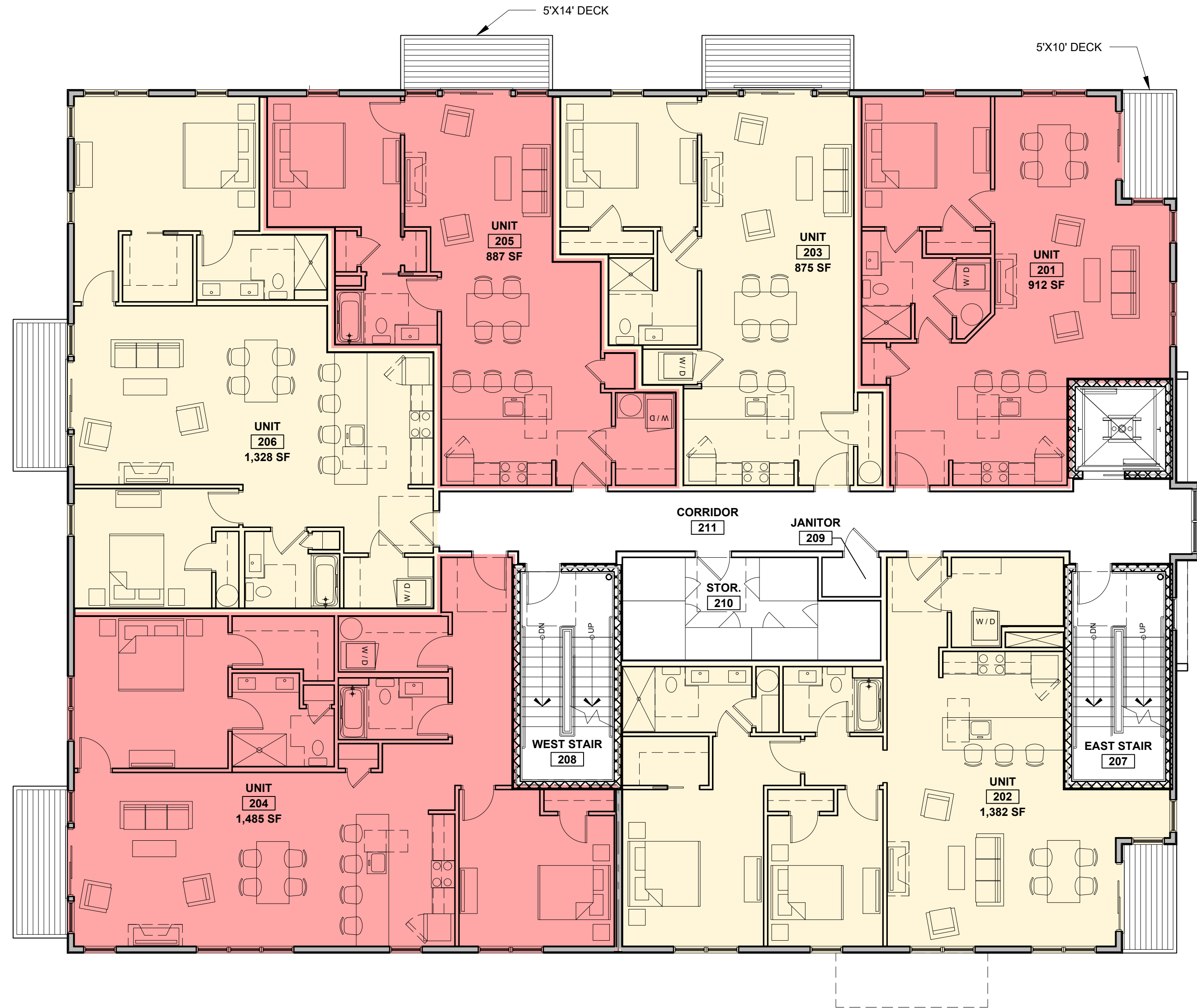
SHEET TITLE:
SECOND FLOOR
PLAN

A1-2

SQUARE FOOTAGE NOTE:

1.) ALL SQUARE FOOTAGE IS MEASURED FROM THE CENTER LINE OF SHARED WALLS AND TO THE OUTSIDE FACE OF EXTERIOR WALLS

OVERALL SQUARE FOOTAGE FOOTPRINT PER FLOOR:
BASEMENT= 8,115 SF
FIRST FLOOR = 8,023 SF
SECOND FLOOR = 8,052 SF
THIRD FLOOR = 8,052 SF



0 4' 8' 16' 32'

1 SECOND FLOOR PLAN
1/8" = 1'-0"

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:
STRUCTURAL:
Structural Integrity
45 Forest Avenue
Portland, ME 04101
207-774-4614

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
FEBRUARY 5, 2019

DATE:

PROJECT No. 1848

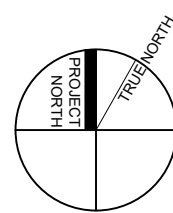
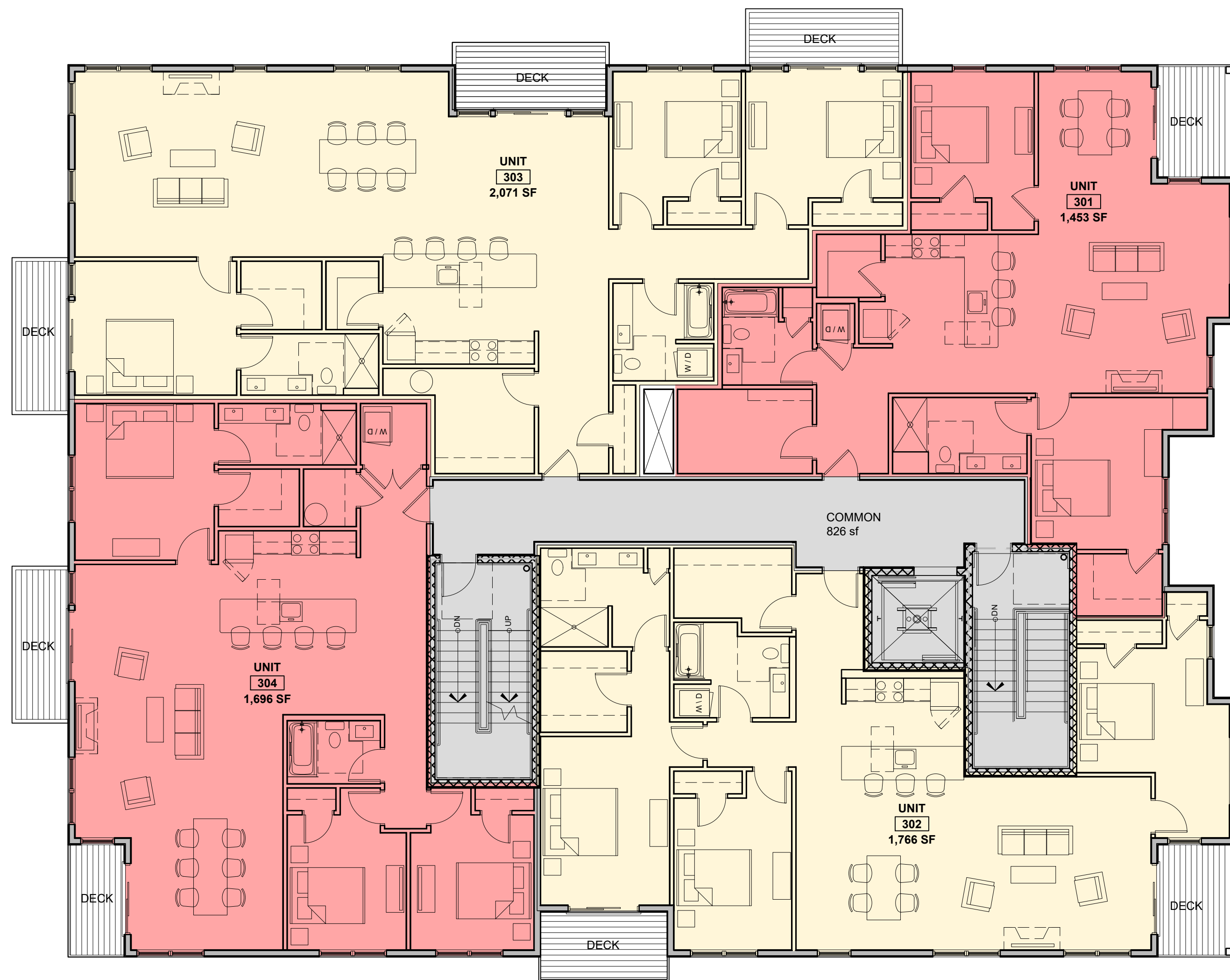
DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
SECOND FLOOR
PLAN

A1-2



1 THIRD FLOOR PLAN
1/8" = 1'-0"

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
*PROGRESS PRINT ONLY
Not for Construction
MARCH 29, 2019*

DATE:

PROJECT No. 1848

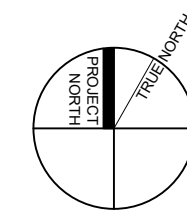
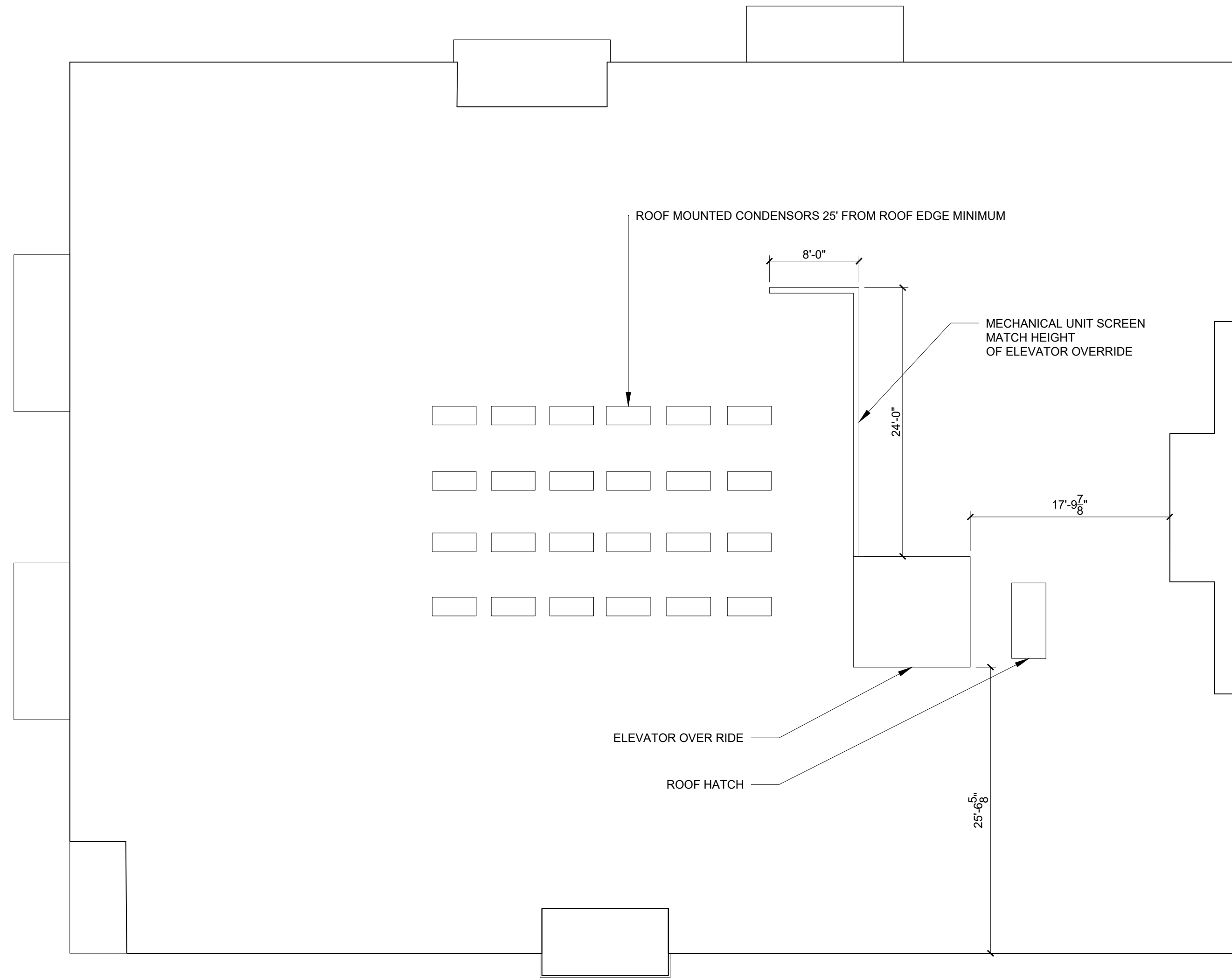
DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
THIRD FLOOR
PLAN

A1-3



1 ROOF PLAN
1/8" = 1'-0"

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
*PROGRESS PRINT ONLY
Not for Construction
MARCH 29, 2019*

DATE:

PROJECT No. 1848

DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
ROOF PLAN

A1-4



1 EAST ELEVATION
1/4" = 1'-0"

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
MARCH 29, 2019

DATE:

PROJECT No. 1848

DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
EAST
ELEVATION

A2-0



1 WEST ELEVATION
1/4" = 1'-0"

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
MARCH 29, 2019

DATE:

PROJECT No. 1848

DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
WEST
ELEVATION

A2-1



1 SOUTH ELEVATION
1/4" = 1'-0"

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:

REVISIONS
PROGRESS PRINT ONLY
Not for Construction
MARCH 29, 2019

DATE:

PROJECT No. 1848

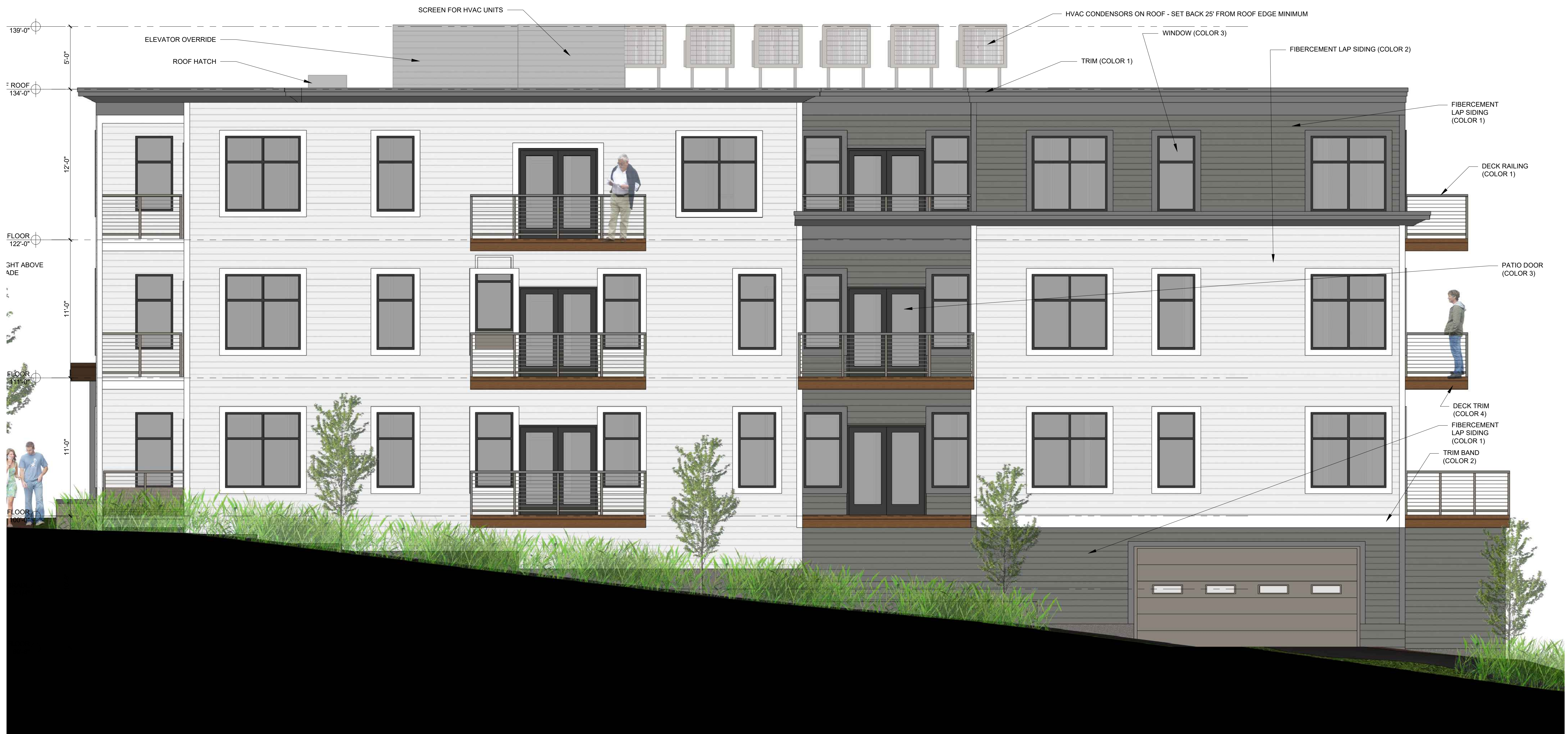
DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
SOUTH
ELEVATION

A2-3



1 NORTH ELEVATION
1/4" = 1'-0"

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
MARCH 29, 2019

DATE:

PROJECT No. 1848

DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
NORTH
ELEVATION

A2-2



1 VIEW LOOKING SOUTH FROM HAMMOND STREET
NTS

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
MARCH 29, 2019

DATE:

PROJECT No. 1848

DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
SITE CONTEXT
IMAGE 2



1 VIEW LOOKING NORTH FROM WINTHROP STREET
NTS

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
MARCH 29, 2019

DATE:

PROJECT No. 1848

DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
SITE CONTEXT
IMAGE 1

A2-4



1 CONCEPT ELEVATION
NTS

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:
STRUCTURAL:
Structural Integrity
46 Forest Avenue
Portland, ME 04101
207-774-4614

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
FEBRUARY 5, 2019

DATE:

PROJECT No. 1846

DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
CONCEPT
ELEVATION

A2-4

2. FOR INFORMATION REGARDING THE GARAGE LEVEL, REFER TO THE SITE PLAN, C-10, MOST RECENT VERSION.
3. FOR INFORMATION REGARDING PROPOSED UTILITY CHANGES, REFER TO THE UTILITY PLAN, SHEET C-20, MOST RECENT VERSION.
4. FOR INFORMATION REGARDING PROPOSED GRADING AND STORMWATER, REFER TO THE GRADING & DRAINAGE PLAN, SHEET C-30, MOST RECENT VERSION.
5. UTILITY TABULATION PROVIDED BY RYAN SENATOR'S ARCHITECTURE; REFER TO ARCHITECTURAL PLANS FOR FLOOR PLANS AND ELEVATIONS.
6. TOTAL SITE AREA INCLUDES 0.354 ACRES (15,433 S.F.). R.O.W. WIDTH FOR HAMMOND STREET IS 50 FEET PER EXISTING CONDITIONS PLAN. REFER TO EXISTING CONDITIONS PLAN COMPLETED BY R.W. EATON ASSOCIATES DATED SEPTEMBER 4TH, 2018.
7. SITE BOUNDARIES PER EXISTING CONDITIONS PLAN AND PROPERTY PINS TO BE SET BY R.W. EATON ASSOCIATES.
8. AS OF 11/26/2018, SITE IS BOUNDED BY THE R-6 ZONE ON EAST, SOUTH, AND NORTH SIDES OF THE PROPERTY AND BY THE B-5 ZONE ON THE WEST SIDE PER CITY OF PORTLAND GIS WEBSITE.
9. LOCUS PARCEL IS SHOWN ON THE CITY OF PORTLAND ASSESSOR'S MAP 12, BLOCK C, LOTS 6, 8, 10, 11, 14.
10. LUS PARCEL DOWNSIDE OF FALL LAZARD STREET, NEAR FEMA FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 23005100138, INDEX DATED 7/17/1986.
11. ALL BUILDING CORNER OFFSETS TO BOUNDARY LINES ARE FROM THE BUILDING FOUNDATION, UNLESS OTHERWISE NOTED.
12. THIS SHEET IS THE SUBDIVISION PLAT FOR THE CREATION OF UP TO SIXTEEN (16) DWELLING UNITS ON THE EXISTING SUBJECT PROPERTY. APPROVAL OF THIS PLAT DOES NOT CREATE ANY SUBDIVISION OF THE LAND ON THE SUBJECT PROPERTY.
13. THE CONDOMINIUM DOCUMENTS ARE TO OUTLINE THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SIDEWALKS, RETAINING WALLS, STORMWATER DEVICES, SITE LIGHTING, TRASH REMOVAL, AND SNOW REMOVAL AS THE RESPONSIBILITY OF THE OWNER.
14. THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SIDEWALKS, STORMWATER DEVICES, SITE LIGHTING, TRASH REMOVAL, RETAINING WALLS, AND SNOW REMOVAL.
15. THE OWNER SHALL BE RESPONSIBLE FOR COMPLYING WITH THE CONDITIONS OF CHAPTER 32 STORMWATER INCLUDING ARTICLE III, POST-CONSTRUCTION STORMWATER MANAGEMENT AGREEMENT, WHICH SPECIFIES ANNUAL INSPECTIONS AND REPAIRING REQUIREMENTS AT A MINIMUM. IN ADDITION, THE OWNER SHALL BE RESPONSIBLE FOR COMPLYING WITH THE CONDITIONS OF THE SUBMITTED STORMWATER MANAGEMENT PLAN AND THE APPROVED PLANS, AND MEET CITY STANDARDS AND STATE GUIDELINES.
16. THE CONDOMINIUM ASSOCIATION SHALL BE RESPONSIBLE FOR AN EQUAL SHARE OF MAINTENANCE ON GULFPORT COURT, INCLUDING SNOW REMOVAL.
17. THE CONDOMINIUM ASSOCIATION MUST COMPLY TO THE FOLLOWING AS APPROVED BY THE CITY:
 - 16.1. CONDOMINIUM DOCUMENTS: BOOK _____ PAGE _____
 - 16.2. POST-CONSTRUCTION STORMWATER MANAGEMENT AGREEMENT: BOOK _____ PAGE _____

TBD

THERE ARE NO EXISTING OR PROPOSED EASEMENTS.

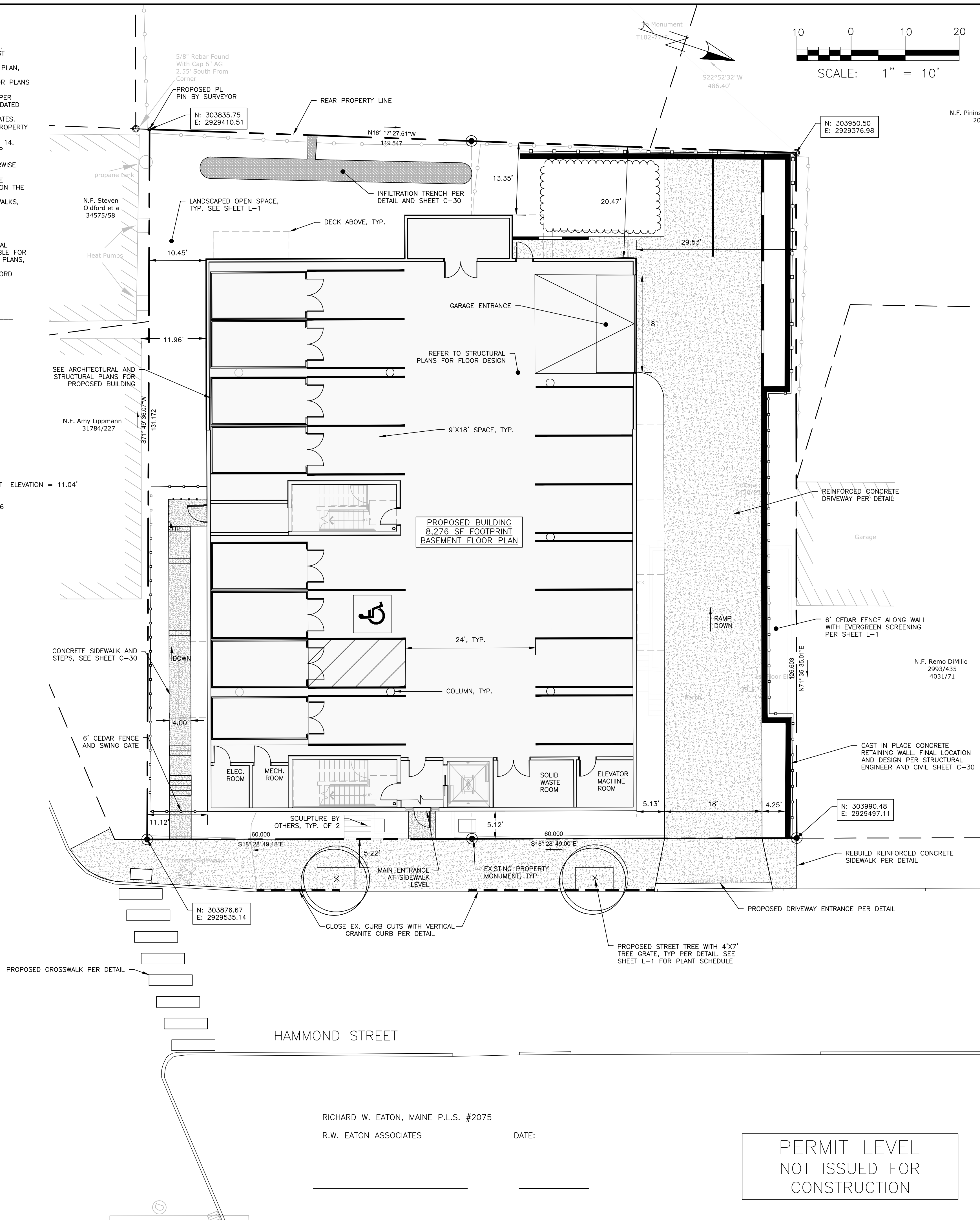
1. AREA OF MALONEY PARCEL 7,668 SQUARE FEET OR 0.18 ACRES
2. AREA OF DIDONATO PARCEL 7,666 SQUARE FEET OR 0.18 ACRES
3. BASIS OF BEARING: MAINE STATE PLAT 1883-1802 WEST ZONE BASE POINT, GRANITE MONUMENT
WITH DH AT FOX STREET AND ANDERSON STREET T102--77--2, N303502.570, E2929187.900
AZIMUTH POINT, MONUMENT WITH BOLT ON ANDERSON ST. T102--77--2, N303502.570, E2929187.900
DISTANCE 141.328, 455.55, FEET
4. VERTICAL DATUM IS NGVD 1929 CITY DATUM BENCHMARK IS PK NAIL ON CMP POLE #8 SOUTH SIDE FOX ST ELEVATION = 11.04'
PROVIDED BY CITY OF PORTLAND PUBLIC WORKS ENGINEERING
5. SUBMIT TAX MAP, 012 BLOCK C LOT 6, 8, 10, 12, 14
6. FLOOD ZONE C AREAS OF MINIMAL FLOODING MAP 230051 0013 SHEET 13 OF 17 DATED JULY 17, 1986
7. 17.47' FEET NAIL IN POLE CMP 6
8. WATERLINE & GAS LINES ARE FROM DIG SAFE MARKING AND STREET VALVES

SPACE AND BULK STANDARDS		
ZONE: R6	REQUIRED	PROPOSED
MINIMUM LOT SIZE	2,000 SF	15,433 SF
MINIMUM STREET FRONTAGE	20'	120'
MINIMUM FRONT YARD SETBACK	NONE (ABUTTER AVG.)	5.12'
MINIMUM SIDE YARD SETBACK	5'	10.45'
MINIMUM REAR YARD SETBACK	10'	13.35'
STRUCTURE STEPBACKS (SIDE YARD ABOVE 35')	10'	> 10'
STRUCTURE STEPBACKS (REAR YARD ABOVE 35')	15'	> 15'
MAXIMUM LOT COVERAGE	60%	56%*
MINIMUM LOT WIDTH	20'	120'
MAXIMUM BUILDING HEIGHT	45'	39.82' (SEE C-30)
MINIMUM LANDSCAPED OPEN AREA	20%	25%
MAXIMUM NUMBER OF DWELLING UNITS	725 SF/UNIT = 21	16
RESIDENTIAL PARKING	1 SPACE PER UNIT AFTER 3 UNITS = 13 SPACES	16
MINIMUM INTERNAL RESIDENT BICYCLE STORAGE SPACES	2 SPACES/5 D.U. = 6	> 6
MAXIMUM GARAGE OPENING	20'	18'
*INCLUDES DECK AREA		

THE PRESERVE AT SOUTH RIDGE, LLC
YARMOUTH, MAINE
CONTACT: KEVIN O'ROURKE

ACORN ENGINEERING, INC.
PORTLAND, MAINE
CONTACT: WILL SAVAGE, P.E.

R.W. EATON ASSOCIATES
WESTBROOK, MAINE
CONTACT: RICHARD EATON, P.L.S.



PARKING SUMMARY	
PARKING AREA	# PARKING SPACES
INTERNAL GARAGE LEVEL	14
EXTERNAL REAR	2
TOTAL SPACES	16

UNIT TABULATION	
UNIT NUMBER	SIZE (SF)*
101/201	912
102	1,329
103/203	875
104	1,394
105/205	887
106/206	1,328
202	1,382
204	1,485
301	1,738
302	1,634
303	1,875
304	1,772

*UNIT AREA MEASURED FROM OUTSIDE OF EXTERIOR WALL TO THE CENTER OF SHARED WALLS

LANDSCAPED AREAS

CONCRETE

SNOW STORAGE

CURB

PROPOSED BUILDING

PROPERTY LINE

STRIPING

CEDAR FENCE

[illegible]

RECORDING INFORMATION	
STATE OF MAINE, CUMBERLAND	
COUNTY REGISTRY OF DEEDS	
RECEIVED: _____	_____
RECORDED IN _____	_____
ATTEST: _____	REGISTRAR

[illegible]

DRAWING NAME	SUBDIVISION PLAT
PROJECT NAME	HAMMOND HOUSE REDEVELOPMENT
CLIENT	THE PRESERVE AT SOUTH RIDGE, LLC 94 SOUTH STREET, YARMOUTH, ME 04096

ACORN ENGINEERING, INC.
65 HANOVER ST., PORTLAND MAINE 04101
(207) 775-2855

A C O R N
ENGINEERING, INC.

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED BY ACORN ENGINEERING, INC. SHALL BE MADE BY THE OWNER, WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE:	1112_CIVIL
JN:	1112
SCALE:	1"=10'
DESIGNED BY:	SJL
DRAWN BY:	SJL
CHECKED BY:	WHS

STATE OF MAINE
 WILLIAM H. SAVAGE
 No. 11419
 11-26-18
 OFFICIAL SEAL

DRAWING NO.
PLAT



1 VIEW LOOKING NORTH FROM FOX STREET

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
MARCH 29, 2019

DATE:

PROJECT No. 1846

DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
SITE CONTEXT
IMAGE 3

A2-6



1 VIEW LOOKING NORTH FROM FOX STREET
NTS

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
MARCH 29, 2019

DATE:

PROJECT No. 1848

DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
SITE CONTEXT
IMAGE 4

A2-7



1 VIEW LOOKING WEST FROM FOX STREET
NTS

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
MARCH 29, 2019

DATE:

PROJECT No. 1848

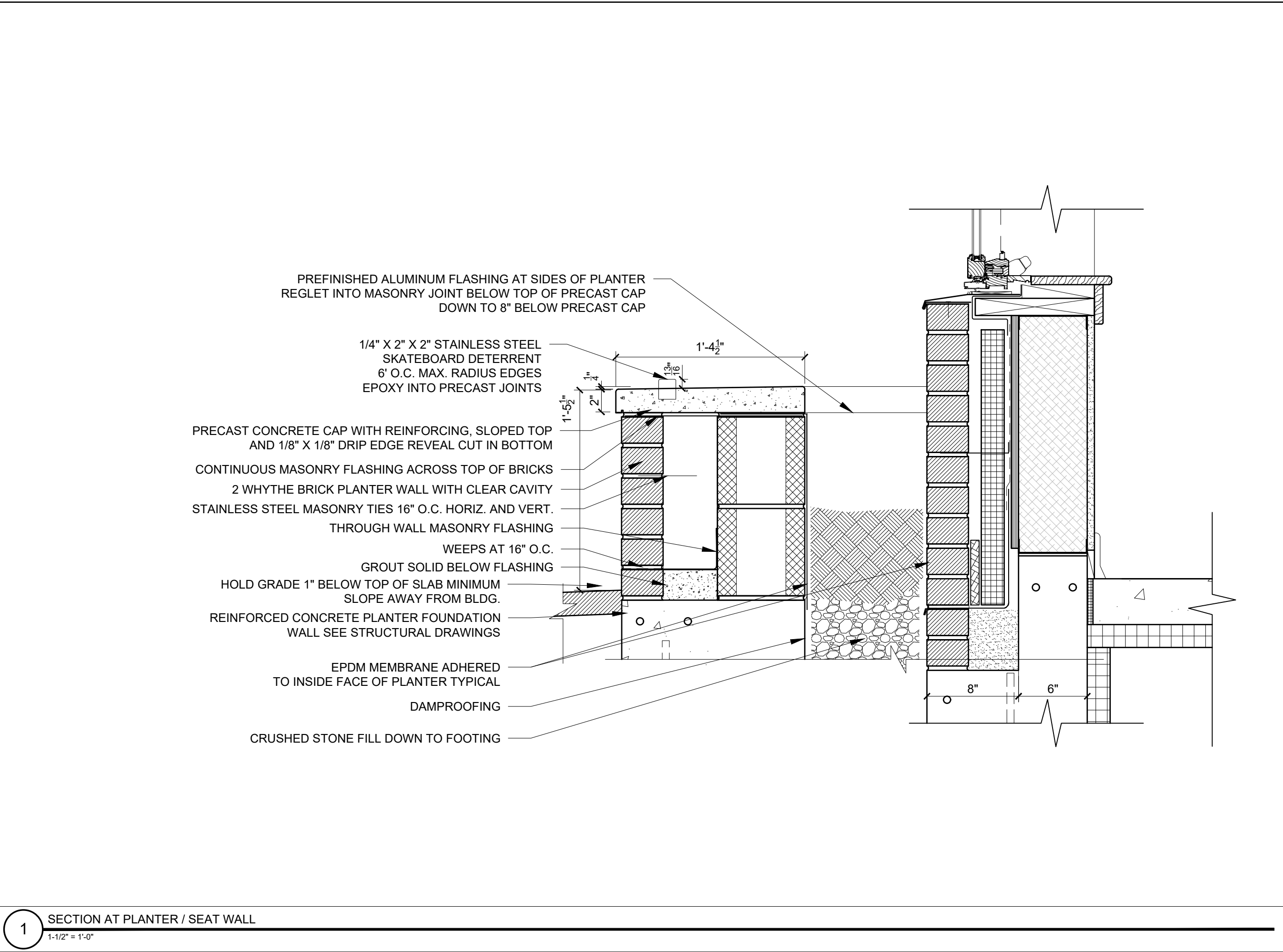
DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
SITE CONTEXT
IMAGE 5

A2-8





1 VIEW LOOKING WEST FROM FOX STREET
NTS

© 2019 RYAN SENATORE
ARCHITECTURE

HAMMOND HOUSE
10 HAMMOND STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET
PORTLAND, MAINE 04101
207-650-8414
senatorearchitecture.com

CONSULTANTS:

REVISIONS:
PROGRESS PRINT ONLY
Not for Construction
MARCH 29, 2019

DATE:

PROJECT No. 1848

DRAWN BY: RRT, RJS

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
SITE CONTEXT
IMAGE 6

A2-9

HAMMOND STREET RESIDENCES
PORTLAND, MAINE

APRIL 1, 2019



1 VIEW FROM FOX STREET - RAISED ROOF
NTS

PROGRESS PRINT ONLY
Not for Construction

HAMMOND STREET RESIDENCES
PORTLAND, MAINE

APRIL 1, 2019



1 ELEVATION
NTS

PROGRESS PRINT ONLY
Not for Construction

HAMMOND STREET RESIDENCES
PORTLAND, MAINE

APRIL 1, 2019



1 ELEVATION
NTS

PROGRESS PRINT ONLY
Not for Construction